
APPENDIX L

NOISE ANALYSIS DATA SHEETS



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Noise Measurement Survey – 48 HR

Project Number: 20241680

Test Personnel: Corey Knips

Project Name: Dana Point Harbor Hotels

Equipment: LD Spark 706RC (SN: 18571)

Site Number: LT-1 Start Date: 10/22/2024 Time: From 10:00 a.m. To 10:00 a.m.

Site Location: 34400 Old Golden Lantern, Dana Point. At the Doris Walker Overlook. On a tree approximately 270 feet north of the Dana Point Harbor Drive centerline.

Primary Noise Sources: Faint traffic noise from the east from Dana Point Harbor Drive and other roadways in the vicinity.

Comments: _____

Photo:



Long-Term (24-Hour) Noise Level Measurement Results at LT-1

Start Time	Noise Level (dBA)					
	Day 1			Day 2		
	L _{eq}	L _{max}	L _{min}	L _{eq}	L _{max}	L _{min}
10:00 AM	57.7	73.2	45.5	55.0	71.1	47.3
11:00 AM	54.5	76.1	43.5	57.4	74.1	45.6
12:00 PM	54.7	71.4	44.1	51.9	63.7	43.8
1:00 PM	57.2	71.7	46.6	53.1	67.1	46.1
2:00 PM	57.7	73.8	50.7	51.2	64.5	45.6
3:00 PM	55.4	69.2	48.8	53.9	67.4	45.7
4:00 PM	50.5	61.8	46.5	50.5	66.4	44.0
5:00 PM	50.0	64.9	45.5	50.0	63.6	44.7
6:00 PM	49.6	63.9	44.6	49.7	69.3	44.8
7:00 PM	47.9	62.7	44.0	48.4	66.3	43.2
8:00 PM	48.1	64.0	42.5	47.5	66.9	41.9
9:00 PM	47.2	62.3	43.3	45.5	58.8	41.4
10:00 PM	46.3	55.4	40.9	45.6	62.4	40.6
11:00 PM	44.2	57.5	39.9	45.6	59.3	40.3
12:00 AM	44.2	56.7	39.6	45.0	60.6	40.1
1:00 AM	44.5	56.9	39.6	44.7	56.2	39.4
2:00 AM	43.8	52.2	39.8	41.9	49.0	38.8
3:00 AM	44.7	52.6	41.3	43.3	57.0	40.6
4:00 AM	46.7	59.6	41.8	44.7	56.2	41.7
5:00 AM	45.8	53.7	41.6	46.4	58.1	42.1
6:00 AM	48.4	60.1	41.4	48.7	64.2	42.7
7:00 AM	55.0	70.0	47.6	53.1	67.7	46.3
8:00 AM	55.2	70.3	46.9	51.5	63.0	46.3
9:00 AM	57.1	75.4	47.4	54.9	71.2	47.6

Source: Compiled by LSA Associates, Inc. (2024).

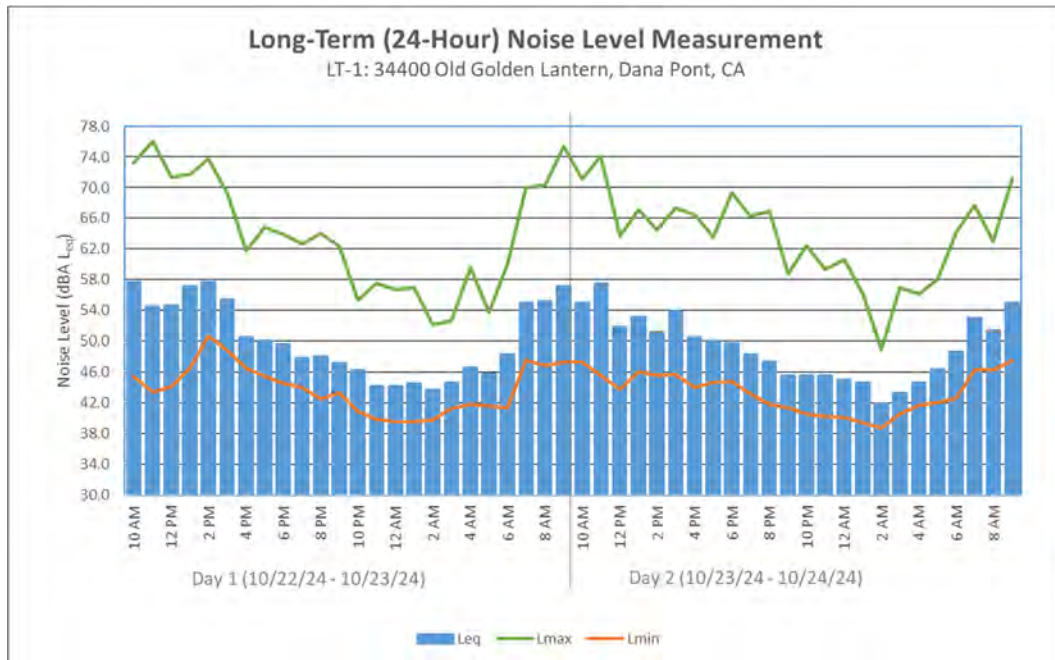
Note: Noise measurement was conducted from October 22, 2024 at 10:00 a.m. to October 24, 2024 at 10:00 a.m.

dBA = A-weighted decibel

L_{max} = maximum instantaneous noise level

L_{eq} = equivalent continuous sound level

L_{min} = minimum measured sound level



Noise Measurement Survey – 48 HR

Project Number: 20241680

Test Personnel: Corey Knips

Project Name: Dana Point Harbor Hotels

Equipment: LD Spark 706RC (SN: 17206)

Site Number: LT-2 Start Date: 10/22/2024 Time: From 10:00 a.m. To 10:00 a.m.

Site Location: 24800 Dana Point Harbor Drive, Dana Point, at the south end of the western most parking lot section. On a palm tree approximately 110 feet south of the Dana Point Harbor Drive centerline and 235 feet east of Island Way centerline.

Primary Noise Sources: Light traffic on Dana Point Harbor Drive.

Comments: This part of the parking lot that is west of the hotel is currently fenced in and used for boat parking.

Photo:



Long-Term (24-Hour) Noise Level Measurement Results at LT-2

Start Time	Noise Level (dBA)					
	Day 1			Day 2		
	L _{eq}	L _{max}	L _{min}	L _{eq}	L _{max}	L _{min}
10:00 AM	58.3	76.6	42.5	58.0	71.3	46.4
11:00 AM	56.1	72.9	40.8	56.7	71.8	42.6
12:00 PM	56.8	76.6	41.8	58.0	76.7	43.8
1:00 PM	58.0	71.9	47.3	57.9	72.3	44.4
2:00 PM	59.5	76.1	48.0	57.9	75.2	42.2
3:00 PM	59.8	73.6	48.2	57.9	76.5	42.0
4:00 PM	58.1	74.1	45.2	57.3	75.9	41.8
5:00 PM	58.2	75.4	44.9	57.1	71.0	42.0
6:00 PM	56.9	70.2	42.9	56.6	69.9	42.8
7:00 PM	54.1	71.0	39.6	54.5	74.0	43.4
8:00 PM	53.6	73.0	42.7	53.7	67.1	42.2
9:00 PM	52.3	66.7	40.0	54.2	72.5	39.1
10:00 PM	51.2	71.0	38.6	49.9	69.4	38.2
11:00 PM	49.0	63.4	38.4	50.7	65.6	38.3
12:00 AM	46.3	63.9	38.0	47.7	61.9	38.9
1:00 AM	45.0	59.5	37.6	46.7	64.7	37.7
2:00 AM	43.2	58.9	38.0	41.4	60.4	36.5
3:00 AM	41.8	60.0	38.1	43.3	60.6	38.1
4:00 AM	45.7	61.0	38.4	43.7	59.7	38.6
5:00 AM	48.9	64.1	38.9	49.9	62.2	38.4
6:00 AM	52.9	65.2	39.1	53.5	65.8	39.4
7:00 AM	56.5	72.0	45.1	56.9	77.6	43.1
8:00 AM	58.4	76.2	45.7	59.9	73.7	43.7
9:00 AM	57.0	71.0	44.5	59.5	71.0	42.8

Source: Compiled by LSA Associates, Inc. (2024).

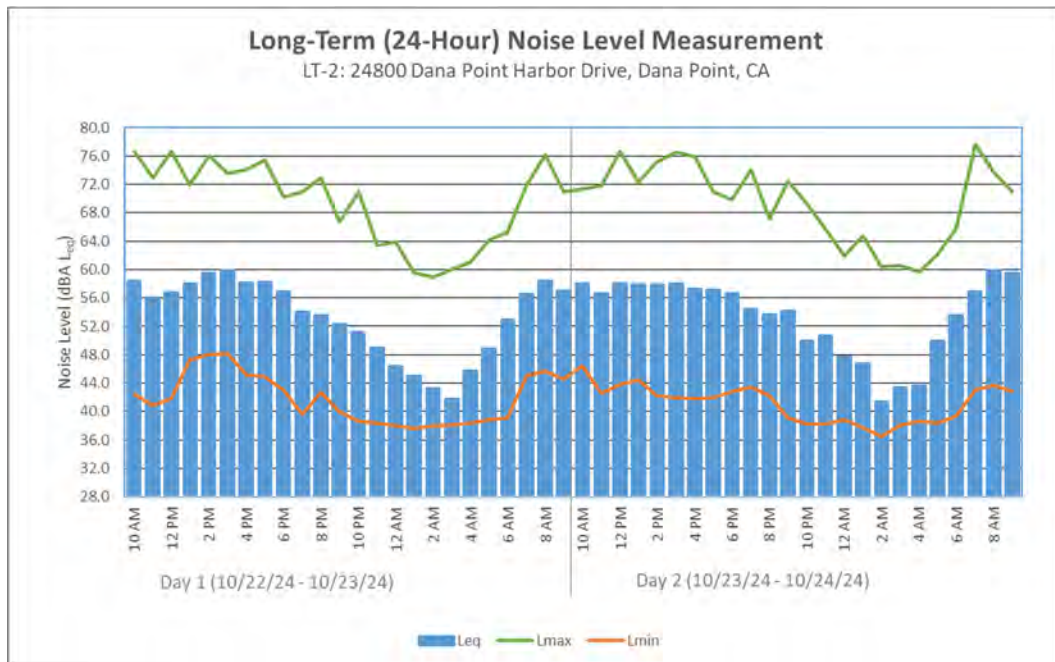
Note: Noise measurement was conducted from October 22, 2024 at 10:00 a.m. to October 24, 2024 at 10:00 a.m.

dBA = A-weighted decibel

L_{max} = maximum instantaneous noise level

L_{eq} = equivalent continuous sound level

L_{min} = minimum measured sound level



Noise Measurement Survey – 48 HR

Project Number: 20241680

Test Personnel: Corey Knips

Project Name: Dana Point Harbor Hotels

Equipment: LD Spark 706RC (SN: 17814)

Site Number: LT-3 Start Date: 10/22/2024 Time: From 10:00 a.m. To 10:00 a.m.

Site Location: 24800 Dana Point Harbor Drive, Dana Point, on a tree between the parking lot and Dana Point Harbor Drive. Approximately 55 feet south of the Dana Point Harbor Drive centerline and 90 feet west of the parking lot driveway.

Primary Noise Sources: Light traffic on Dana Point Harbor Drive and faint traffic noise from Pacific Coast Highway coming from the east.

Comments: _____

Photo:



Long-Term (24-Hour) Noise Level Measurement Results at LT-3

Start Time	Noise Level (dBA)					
	Day 1			Day 2		
	L _{eq}	L _{max}	L _{min}	L _{eq}	L _{max}	L _{min}
10:00 AM	62.2	79.2	43.9	67.3	80.4	53.9
11:00 AM	61.8	85.3	42.0	63.3	79.5	43.9
12:00 PM	62.0	85.8	42.6	68.3	81.3	44.2
1:00 PM	62.4	82.0	46.9	68.8	80.8	55.0
2:00 PM	62.4	80.8	43.2	64.8	82.5	44.2
3:00 PM	63.5	79.2	48.8	64.2	87.4	41.7
4:00 PM	63.4	79.8	45.4	63.5	85.2	43.2
5:00 PM	63.6	82.9	44.2	62.9	78.3	43.1
6:00 PM	63.3	85.0	44.1	63.7	81.6	43.8
7:00 PM	59.8	79.1	42.2	62.1	82.9	42.1
8:00 PM	58.5	74.8	43.8	59.3	76.6	41.0
9:00 PM	58.2	75.1	42.8	59.6	74.4	39.9
10:00 PM	57.0	78.4	42.0	57.5	78.8	41.2
11:00 PM	52.9	73.4	40.1	57.7	73.8	43.1
12:00 AM	51.3	73.9	41.3	53.2	74.6	42.1
1:00 AM	48.2	71.7	39.6	52.8	77.3	41.0
2:00 AM	46.3	66.1	40.3	47.1	68.7	39.6
3:00 AM	49.3	68.8	41.2	49.0	69.0	42.5
4:00 AM	49.5	69.7	41.6	48.9	71.4	42.4
5:00 AM	55.3	74.1	42.6	55.8	71.1	43.1
6:00 AM	58.3	73.5	43.2	58.7	74.8	43.5
7:00 AM	63.4	81.0	48.6	61.9	79.0	45.8
8:00 AM	66.8	81.4	52.2	62.4	84.5	45.4
9:00 AM	65.2	78.1	55.8	61.6	79.7	44.7

Source: Compiled by LSA Associates, Inc. (2024).

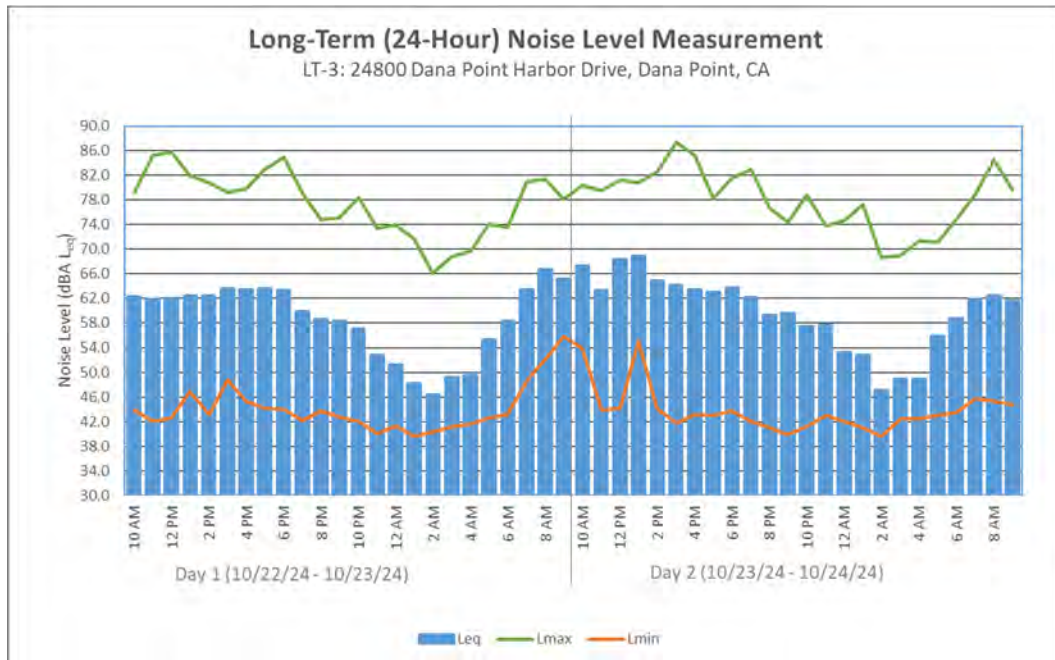
Note: Noise measurement was conducted from October 22, 2024 at 10:00 a.m. to October 24, 2024 at 10:00 a.m.

dBA = A-weighted decibel

L_{max} = maximum instantaneous noise level

L_{eq} = equivalent continuous sound level

L_{min} = minimum measured sound level



Noise Measurement Survey – 48 HR

Project Number: 20241680

Test Personnel: Corey Knips

Project Name: Dana Point Harbor Hotels

Equipment: LD Spark 706RC (SN: 17637)

Site Number: LT-4 Start Date: 10/22/2024 Time: From 10:00 a.m. To 10:00 a.m.

Site Location: 34485 Golden Lantern, Dana Point. Near the northwest corner of the building.
On a light pole approximately 300 feet south of the Dana Point Harbor Drive centerline.

Primary Noise Sources: Faint traffic from Dana Point Harbor Drive and very light traffic on
Casitas Place.

Comments: _____

Photo:



Long-Term (24-Hour) Noise Level Measurement Results at LT-4

Start Time	Noise Level (dBA)					
	Day 1			Day 2		
	L _{eq}	L _{max}	L _{min}	L _{eq}	L _{max}	L _{min}
10:00 AM	57.5	79.5	44.2	61.6	76.6	48.4
11:00 AM	58.6	75.3	44.1	58.3	80.2	43.3
12:00 PM	56.9	76.2	44.5	63.3	83.3	46.7
1:00 PM	57.9	73.3	46.5	60.4	79.5	44.4
2:00 PM	56.7	77.5	45.5	58.0	78.6	43.1
3:00 PM	56.8	75.3	46.8	55.7	75.4	43.9
4:00 PM	56.7	78.6	45.1	56.4	75.1	43.3
5:00 PM	57.3	77.5	45.0	55.3	73.2	43.4
6:00 PM	58.1	80.8	44.1	57.3	78.5	43.9
7:00 PM	53.4	75.3	43.2	52.4	72.5	43.9
8:00 PM	52.2	76.7	42.3	50.0	70.5	41.5
9:00 PM	49.5	68.5	41.1	48.9	70.0	40.3
10:00 PM	47.2	62.4	41.3	48.5	68.0	43.5
11:00 PM	46.4	64.7	41.0	50.0	69.2	43.2
12:00 AM	48.7	61.4	42.3	51.9	65.3	41.8
1:00 AM	54.0	70.4	41.3	49.7	67.1	40.8
2:00 AM	55.3	75.0	42.3	49.3	62.8	40.8
3:00 AM	55.6	68.2	40.0	55.6	74.2	42.6
4:00 AM	51.6	64.6	43.4	52.4	68.3	42.3
5:00 AM	53.1	69.3	44.5	54.9	77.4	42.2
6:00 AM	59.6	77.5	44.4	52.1	66.3	42.8
7:00 AM	59.5	76.3	47.5	58.8	74.5	46.1
8:00 AM	65.3	77.2	51.6	56.7	75.0	45.3
9:00 AM	65.0	78.3	47.0	57.0	76.7	44.0

Source: Compiled by LSA Associates, Inc. (2024).

Note: Noise measurement was conducted from October 22, 2024 at 10:00 a.m. to October 24, 2024 at 10:00 a.m.

dBA = A-weighted decibel

L_{max} = maximum instantaneous noise level

L_{eq} = equivalent continuous sound level

L_{min} = minimum measured sound level

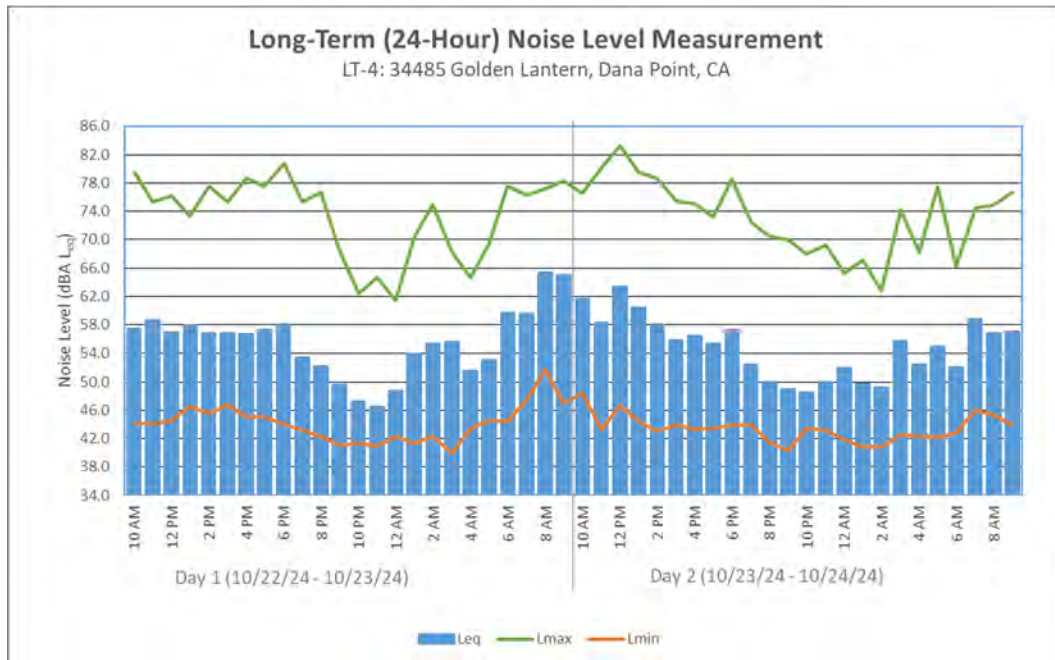


TABLE Existing Weekday-01
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 10/15/2024

ROADWAY SEGMENT: Dana Point Harbor Drive West of Island Way

NOTES: Dana Point Harbor Hotel - Existing Weekday

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 5710 SPEED (MPH): 25 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
	---	-----	-----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 22 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 56.93

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
-----	-----	-----	-----
0.0	0.0	0.0	94.7

TABLE Existing Weekday-02
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 10/15/2024

ROADWAY SEGMENT: Dana Point Harbor Drive between Island Way and Casitas Place

NOTES: Dana Point Harbor Hotel - Existing Weekday

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 8860 SPEED (MPH): 25 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
	---	-----	-----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 22 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 58.83

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
-----	-----	-----	-----
0.0	0.0	61.4	125.4

TABLE Existing Weekday-03
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 10/15/2024

ROADWAY SEGMENT: Dana Point Harbor Drive between Casitas Place and Golden Lantern

NOTES: Dana Point Harbor Hotel - Existing Weekday

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 9835 SPEED (MPH): 25 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
	---	-----	-----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 27 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 58.95

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
-----	-----	-----	-----
0.0	0.0	67.1	135.0

TABLE Existing Weekday-04
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 10/15/2024

ROADWAY SEGMENT: Dana Point Harbor Drive between Golden Lantern and
Puerto Place

NOTES: Dana Point Harbor Hotel - Existing Weekday

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 12535 SPEED (MPH): 30 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
	---	-----	-----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 30 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 61.68

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
-----	-----	-----	-----
0.0	0.0	100.6	208.9

TABLE Existing Weekday-05
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 10/15/2024

ROADWAY SEGMENT: Dana Point Harbor Drive between Puerto Place and Pacific Coast Highway

NOTES: Dana Point Harbor Hotel - Existing Weekday

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 13700 SPEED (MPH): 30 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
	---	-----	-----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 28 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 62.19

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
-----	-----	-----	-----
0.0	0.0	105.6	221.2

TABLE Existing Weekday-06
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 10/15/2024

ROADWAY SEGMENT: Del Obispo Street between Pacific Coast Highway and
Stonehill Drive

NOTES: Dana Point Harbor Hotel - Existing Weekday

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 14490 SPEED (MPH): 40 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
	---	-----	-----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 22 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 65.86

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
-----	-----	-----	-----
0.0	81.2	169.8	363.4

TABLE Existing Weekday-07
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 10/15/2024

ROADWAY SEGMENT: Del Obispo Street North of Stonehill Drive

NOTES: Dana Point Harbor Hotel - Existing Weekday

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 11560 SPEED (MPH): 40 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
	---	-----	-----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 22 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 64.88

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
-----	-----	-----	-----
0.0	70.8	146.5	312.8

TABLE Existing Weekday-08
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 10/15/2024

ROADWAY SEGMENT: Golden Lantern North of Pacific Coast Highway

NOTES: Dana Point Harbor Hotel - Existing Weekday

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 12310 SPEED (MPH): 35 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
	---	-----	-----
AUTOS			
	75.51	12.57	9.34
M-TRUCKS			
	1.56	0.09	0.19
H-TRUCKS			
	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 26 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 63.46

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
-----	-----	-----	-----
0.0	62.1	124.2	262.8

TABLE Existing Weekday-09
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 10/15/2024

ROADWAY SEGMENT: Golden Lantern between Pacific Coast Highway and Del Prado Avenue

NOTES: Dana Point Harbor Hotel - Existing Weekday

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 7310 SPEED (MPH): 35 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
	---	-----	-----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 22 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 61.47

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
-----	-----	-----	-----
0.0	0.0	88.6	186.2

TABLE Existing Weekday-10
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 10/15/2024

ROADWAY SEGMENT: Golden Lantern between Del Prado Avenue and Dana Point Harbor Drive

NOTES: Dana Point Harbor Hotel - Existing Weekday

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 7075 SPEED (MPH): 35 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
	---	-----	-----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 22 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 61.32

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
-----	-----	-----	-----
0.0	0.0	86.8	182.2

TABLE Existing Weekday-11
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 10/15/2024

ROADWAY SEGMENT: Pacific Coast Highway West of Golden Lantern Street

NOTES: Dana Point Harbor Hotel - Existing Weekday

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 19430 SPEED (MPH): 35 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
	---	-----	-----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 20 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 65.85

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
-----	-----	-----	-----
0.0	79.0	165.9	355.3

TABLE Existing Weekday-12
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 10/15/2024

ROADWAY SEGMENT: Pacific Coast Highway East of Golden Lantern Street

NOTES: Dana Point Harbor Hotel - Existing Weekday

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 21100 SPEED (MPH): 35 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
	---	-----	-----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 20 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 66.21

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
-----	-----	-----	-----
0.0	83.2	175.1	375.3

TABLE Existing Weekday-13
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 10/15/2024

ROADWAY SEGMENT: Pacific Coast Highway West of Del Obispo Street

NOTES: Dana Point Harbor Hotel - Existing Weekday

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 29060 SPEED (MPH): 35 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
	---	-----	-----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 32 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 66.83

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
-----	-----	-----	-----
0.0	104.9	217.5	464.5

TABLE Existing Weekday-14
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 10/15/2024

ROADWAY SEGMENT: Pacific Coast Highway East of Del Obispo Street

NOTES: Dana Point Harbor Hotel - Existing Weekday

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 41120 SPEED (MPH): 35 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
	---	-----	-----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 35 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 68.16

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
-----	-----	-----	-----
68.1	130.6	273.3	584.9

TABLE Existing Weekday-15
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 10/15/2024

ROADWAY SEGMENT: Stonehill Drive West of Del Obispo Street

NOTES: Dana Point Harbor Hotel - Existing Weekday

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 20540 SPEED (MPH): 40 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
	---	-----	-----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 22 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 67.37

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
-----	-----	-----	-----
0.0	101.1	213.6	458.3

TABLE Existing Weekday-16
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 10/15/2024

ROADWAY SEGMENT: Stonehill Drive between Del Obispo Street and Camino Capistrano

NOTES: Dana Point Harbor Hotel - Existing Weekday

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 25255 SPEED (MPH): 40 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
	---	-----	-----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 22 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 68.27

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
-----	-----	-----	-----
57.0	115.3	244.8	525.7

TABLE Existing Weekday-17
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 10/15/2024

ROADWAY SEGMENT: Del Prado Avenue West of Golden Lantern

NOTES: Dana Point Harbor Hotel - Existing Weekday

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 5560 SPEED (MPH): 35 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
	---	-----	-----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 12 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 61.06

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
-----	-----	-----	-----
0.0	0.0	72.6	154.7

TABLE Existing Weekday-18
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 10/15/2024

ROADWAY SEGMENT: Del Prado Avenue East of Golden Lantern

NOTES: Dana Point Harbor Hotel - Existing Weekday

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 4930 SPEED (MPH): 35 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
	---	-----	-----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 12 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 60.54

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
-----	-----	-----	-----
0.0	0.0	67.2	142.8

TABLE Existing Plus Project Weekday-01
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 10/15/2024

ROADWAY SEGMENT: Dana Point Harbor Drive West of Island Way

NOTES: Dana Point Harbor Hotel - Existing Plus Project Weekday

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 5730 SPEED (MPH): 25 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
	---	-----	-----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 22 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 56.94

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
-----	-----	-----	-----
0.0	0.0	0.0	94.9

TABLE Existing Plus Project Weekday-02
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 10/15/2024

ROADWAY SEGMENT: Dana Point Harbor Drive between Island Way and Casitas Place

NOTES: Dana Point Harbor Hotel - Existing Plus Project Weekday

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 9530 SPEED (MPH): 25 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
	---	-----	-----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 22 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 59.15

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
-----	-----	-----	-----
0.0	0.0	64.0	131.4

TABLE Existing Plus Project Weekday-03
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 10/15/2024

ROADWAY SEGMENT: Dana Point Harbor Drive between Casitas Place and Golden Lantern

NOTES: Dana Point Harbor Hotel - Existing Plus Project Weekday

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 10595 SPEED (MPH): 25 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
	---	-----	-----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 27 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 59.28

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
-----	-----	-----	-----
0.0	0.0	69.9	141.6

TABLE Existing Plus Project Weekday-04
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 10/15/2024

ROADWAY SEGMENT: Dana Point Harbor Drive between Golden Lantern and
Puerto Place

NOTES: Dana Point Harbor Hotel - Existing Plus Project Weekday

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 12990 SPEED (MPH): 30 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
	---	-----	-----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 30 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 61.84

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
-----	-----	-----	-----
0.0	0.0	102.8	213.8

TABLE Existing Plus Project Weekday-05
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 10/15/2024

ROADWAY SEGMENT: Dana Point Harbor Drive between Puerto Place and Pacific Coast Highway

NOTES: Dana Point Harbor Hotel - Existing Plus Project Weekday

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 14155 SPEED (MPH): 30 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
	---	-----	-----
AUTOS			
	75.51	12.57	9.34
M-TRUCKS			
	1.56	0.09	0.19
H-TRUCKS			
	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 28 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 62.33

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
-----	-----	-----	-----
0.0	0.0	107.8	226.0

TABLE Existing Plus Project Weekday-06
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 10/15/2024

ROADWAY SEGMENT: Del Obispo Street between Pacific Coast Highway and
Stonehill Drive

NOTES: Dana Point Harbor Hotel - Existing Plus Project Weekday

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 14530 SPEED (MPH): 40 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
	---	-----	-----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 22 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 65.87

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
-----	-----	-----	-----
0.0	81.4	170.1	364.1

TABLE Existing Plus Project Weekday-07
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 10/15/2024

ROADWAY SEGMENT: Del Obispo Street North of Stonehill Drive

NOTES: Dana Point Harbor Hotel - Existing Plus Project Weekday

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 11620 SPEED (MPH): 40 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
	---	-----	-----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 22 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 64.90

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
-----	-----	-----	-----
0.0	71.0	147.0	313.9

TABLE Existing Plus Project Weekday-08
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 10/15/2024

ROADWAY SEGMENT: Golden Lantern North of Pacific Coast Highway

NOTES: Dana Point Harbor Hotel - Existing Plus Project Weekday

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 12350 SPEED (MPH): 35 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
	---	-----	-----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 26 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 63.47

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
-----	-----	-----	-----
0.0	62.2	124.4	263.4

TABLE Existing Plus Project Weekday-09
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 10/15/2024

ROADWAY SEGMENT: Golden Lantern between Pacific Coast Highway and Del Prado Avenue

NOTES: Dana Point Harbor Hotel - Existing Plus Project Weekday

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 7490 SPEED (MPH): 35 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
	---	-----	-----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 22 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 61.57

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
-----	-----	-----	-----
0.0	0.0	90.0	189.2

TABLE Existing Plus Project Weekday-10
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 10/15/2024

ROADWAY SEGMENT: Golden Lantern between Del Prado Avenue and Dana Point Harbor Drive

NOTES: Dana Point Harbor Hotel - Existing Plus Project Weekday

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 7365 SPEED (MPH): 35 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
	---	-----	-----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 22 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 61.50

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
-----	-----	-----	-----
0.0	0.0	89.0	187.1

TABLE Existing Plus Project Weekday-11
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 10/15/2024

ROADWAY SEGMENT: Pacific Coast Highway West of Golden Lantern Street

NOTES: Dana Point Harbor Hotel - Existing Plus Project Weekday

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 19530 SPEED (MPH): 35 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
	---	-----	-----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 20 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 65.88

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
-----	-----	-----	-----
0.0	79.3	166.5	356.5

TABLE Existing Plus Project Weekday-12
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 10/15/2024

ROADWAY SEGMENT: Pacific Coast Highway East of Golden Lantern Street

NOTES: Dana Point Harbor Hotel - Existing Plus Project Weekday

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 21140 SPEED (MPH): 35 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
	---	-----	-----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 20 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 66.22

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
-----	-----	-----	-----
0.0	83.3	175.4	375.8

TABLE Existing Plus Project Weekday-13
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 10/15/2024

ROADWAY SEGMENT: Pacific Coast Highway West of Del Obispo Street

NOTES: Dana Point Harbor Hotel - Existing Plus Project Weekday

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 29100 SPEED (MPH): 35 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
	---	-----	-----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 32 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 66.83

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
-----	-----	-----	-----
0.0	105.0	217.7	465.0

TABLE Existing Plus Project Weekday-14
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 10/15/2024

ROADWAY SEGMENT: Pacific Coast Highway East of Del Obispo Street

NOTES: Dana Point Harbor Hotel - Existing Plus Project Weekday

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 41480 SPEED (MPH): 35 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
	---	-----	-----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 35 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 68.20

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
-----	-----	-----	-----
68.4	131.3	274.9	588.3

TABLE Existing Plus Project Weekday-15
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 10/15/2024

ROADWAY SEGMENT: Stonehill Drive West of Del Obispo Street

NOTES: Dana Point Harbor Hotel - Existing Plus Project Weekday

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 20540 SPEED (MPH): 40 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
	---	-----	-----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 22 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 67.37

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
-----	-----	-----	-----
0.0	101.1	213.6	458.3

TABLE Existing Plus Project Weekday-16
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 10/15/2024

ROADWAY SEGMENT: Stonehill Drive between Del Obispo Street and Camino Capistrano

NOTES: Dana Point Harbor Hotel - Existing Plus Project Weekday

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 25275 SPEED (MPH): 40 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
	---	-----	-----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 22 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 68.27

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
-----	-----	-----	-----
57.0	115.4	245.0	526.0

TABLE Existing Plus Project Weekday-17
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 10/15/2024

ROADWAY SEGMENT: Del Prado Avenue West of Golden Lantern

NOTES: Dana Point Harbor Hotel - Existing Plus Project Weekday

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 5660 SPEED (MPH): 35 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
	---	-----	-----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 12 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 61.14

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
-----	-----	-----	-----
0.0	0.0	73.4	156.5

TABLE Existing Plus Project Weekday-18
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 10/15/2024

ROADWAY SEGMENT: Del Prado Avenue East of Golden Lantern

NOTES: Dana Point Harbor Hotel - Existing Plus Project Weekday

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 4930 SPEED (MPH): 35 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
	---	-----	-----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 12 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 60.54

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
-----	-----	-----	-----
0.0	0.0	67.2	142.8

TABLE Existing Saturday-01
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 10/15/2024

ROADWAY SEGMENT: Dana Point Harbor Drive West of Island Way

NOTES: Dana Point Harbor Hotel - Existing Saturday

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 8510 SPEED (MPH): 25 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
	---	-----	-----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 22 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 58.66

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
-----	-----	-----	-----
0.0	0.0	60.0	122.1

TABLE Existing Saturday-02
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 10/15/2024

ROADWAY SEGMENT: Dana Point Harbor Drive between Island Way and Casitas Place

NOTES: Dana Point Harbor Hotel - Existing Saturday

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 11250 SPEED (MPH): 25 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
	---	-----	-----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 22 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 59.87

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
-----	-----	-----	-----
0.0	0.0	70.7	146.4

TABLE Existing Saturday-03
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 10/15/2024

ROADWAY SEGMENT: Dana Point Harbor Drive between Casitas Place and Golden Lantern

NOTES: Dana Point Harbor Hotel - Existing Saturday

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 11965 SPEED (MPH): 25 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
	---	-----	-----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 27 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 59.81

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
-----	-----	-----	-----
0.0	0.0	75.0	153.1

TABLE Existing Saturday-04
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 10/15/2024

ROADWAY SEGMENT: Dana Point Harbor Drive between Golden Lantern and
Puerto Place

NOTES: Dana Point Harbor Hotel - Existing Saturday

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 14735 SPEED (MPH): 30 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
	---	-----	-----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 30 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 62.38

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
-----	-----	-----	-----
0.0	0.0	111.0	232.2

TABLE Existing Saturday-05
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 10/15/2024

ROADWAY SEGMENT: Dana Point Harbor Drive between Puerto Place and Pacific Coast Highway

NOTES: Dana Point Harbor Hotel - Existing Saturday

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 16720 SPEED (MPH): 30 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
	---	-----	-----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 28 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 63.05

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
-----	-----	-----	-----
0.0	60.8	119.6	252.1

TABLE Existing Saturday-06
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 10/15/2024

ROADWAY SEGMENT: Del Obispo Street between Pacific Coast Highway and
Stonehill Drive

NOTES: Dana Point Harbor Hotel - Existing Saturday

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 13240 SPEED (MPH): 40 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
	---	-----	-----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 22 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 65.47

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
-----	-----	-----	-----
0.0	76.8	160.1	342.3

TABLE Existing Saturday-07
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 10/15/2024

ROADWAY SEGMENT: Del Obispo Street North of Stonehill Drive

NOTES: Dana Point Harbor Hotel - Existing Saturday

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 11520 SPEED (MPH): 40 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
	---	-----	-----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 22 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 64.86

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
-----	-----	-----	-----
0.0	70.6	146.2	312.1

TABLE Existing Saturday-08
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 10/15/2024

ROADWAY SEGMENT: Golden Lantern North of Pacific Coast Highway

NOTES: Dana Point Harbor Hotel - Existing Saturday

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 13410 SPEED (MPH): 35 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
	---	-----	-----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 26 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 63.83

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
-----	-----	-----	-----
0.0	65.1	131.2	278.1

TABLE Existing Saturday-09
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 10/15/2024

ROADWAY SEGMENT: Golden Lantern between Pacific Coast Highway and Del Prado Avenue

NOTES: Dana Point Harbor Hotel - Existing Saturday

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 8920 SPEED (MPH): 35 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
	---	-----	-----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 22 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 62.33

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
-----	-----	-----	-----
0.0	0.0	100.5	212.3

TABLE Existing Saturday-10
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 10/15/2024

ROADWAY SEGMENT: Golden Lantern between Del Prado Avenue and Dana Point Harbor Drive

NOTES: Dana Point Harbor Hotel - Existing Saturday

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 9650 SPEED (MPH): 35 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
	---	-----	-----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 22 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 62.67

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
-----	-----	-----	-----
0.0	0.0	105.6	223.6

TABLE Existing Saturday-11
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 10/15/2024

ROADWAY SEGMENT: Pacific Coast Highway West of Golden Lantern Street

NOTES: Dana Point Harbor Hotel - Existing Saturday

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 19150 SPEED (MPH): 35 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
	---	-----	-----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 20 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 65.79

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
-----	-----	-----	-----
0.0	78.3	164.3	351.9

TABLE Existing Saturday-12
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 10/15/2024

ROADWAY SEGMENT: Pacific Coast Highway East of Golden Lantern Street

NOTES: Dana Point Harbor Hotel - Existing Saturday

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 19380 SPEED (MPH): 35 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
	---	-----	-----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 20 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 65.84

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
-----	-----	-----	-----
0.0	78.9	165.6	354.7

TABLE Existing Saturday-13
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 10/15/2024

ROADWAY SEGMENT: Pacific Coast Highway West of Del Obispo Street

NOTES: Dana Point Harbor Hotel - Existing Saturday

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 26000 SPEED (MPH): 35 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
	---	-----	-----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 32 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 66.34

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
-----	-----	-----	-----
0.0	98.1	202.3	431.5

TABLE Existing Saturday-14
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 10/15/2024

ROADWAY SEGMENT: Pacific Coast Highway East of Del Obispo Street

NOTES: Dana Point Harbor Hotel - Existing Saturday

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 37030 SPEED (MPH): 35 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
	---	-----	-----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 35 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 67.71

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
-----	-----	-----	-----
64.7	122.5	255.2	545.6

TABLE Existing Saturday-15
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 10/15/2024

ROADWAY SEGMENT: Stonehill Drive West of Del Obispo Street

NOTES: Dana Point Harbor Hotel - Existing Saturday

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 21170 SPEED (MPH): 40 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
	---	-----	-----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 22 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 67.50

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
-----	-----	-----	-----
0.0	103.0	217.9	467.6

TABLE Existing Saturday-16
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 10/15/2024

ROADWAY SEGMENT: Stonehill Drive between Del Obispo Street and Camino Capistrano

NOTES: Dana Point Harbor Hotel - Existing Saturday

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 27760 SPEED (MPH): 40 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
	---	-----	-----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 22 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 68.68

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
-----	-----	-----	-----
60.1	122.6	260.6	559.8

TABLE Existing Saturday-17
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 10/15/2024

ROADWAY SEGMENT: Del Prado Avenue West of Golden Lantern

NOTES: Dana Point Harbor Hotel - Existing Saturday

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 6010 SPEED (MPH): 35 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
	---	-----	-----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 12 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 61.40

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
-----	-----	-----	-----
0.0	0.0	76.4	162.9

TABLE Existing Saturday-18
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 10/15/2024

ROADWAY SEGMENT: Del Prado Avenue East of Golden Lantern

NOTES: Dana Point Harbor Hotel - Existing Saturday

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 4770 SPEED (MPH): 35 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
	---	-----	-----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 12 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 60.40

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
-----	-----	-----	-----
0.0	0.0	65.7	139.8

TABLE Existing Plus Project Saturday-01
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 10/15/2024

ROADWAY SEGMENT: Dana Point Harbor Drive West of Island Way

NOTES: Dana Point Harbor Hotel - Existing Plus Project Saturday

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 8530 SPEED (MPH): 25 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
	---	-----	-----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 22 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 58.67

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
-----	-----	-----	-----
0.0	0.0	60.0	122.3

TABLE Existing Plus Project Saturday-02
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 10/15/2024

ROADWAY SEGMENT: Dana Point Harbor Drive between Island Way and Casitas Place

NOTES: Dana Point Harbor Hotel - Existing Plus Project Saturday

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 12110 SPEED (MPH): 25 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
	---	-----	-----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 22 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 60.19

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
-----	-----	-----	-----
0.0	0.0	73.9	153.6

TABLE Existing Plus Project Saturday-03
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 10/15/2024

ROADWAY SEGMENT: Dana Point Harbor Drive between Casitas Place and Golden Lantern

NOTES: Dana Point Harbor Hotel - Existing Plus Project Saturday

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 12915 SPEED (MPH): 25 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
	---	-----	-----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 27 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 60.14

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
-----	-----	-----	-----
0.0	0.0	78.4	160.9

TABLE Existing Plus Project Saturday-04
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 10/15/2024

ROADWAY SEGMENT: Dana Point Harbor Drive between Golden Lantern and
Puerto Place

NOTES: Dana Point Harbor Hotel - Existing Plus Project Saturday

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 15305 SPEED (MPH): 30 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
	---	-----	-----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 30 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 62.55

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
-----	-----	-----	-----
0.0	59.1	113.7	238.0

TABLE Existing Plus Project Saturday-05
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 10/15/2024

ROADWAY SEGMENT: Dana Point Harbor Drive between Puerto Place and Pacific Coast Highway

NOTES: Dana Point Harbor Hotel - Existing Plus Project Saturday

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 17285 SPEED (MPH): 30 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
	---	-----	-----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 28 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 63.20

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
-----	-----	-----	-----
0.0	61.9	122.2	257.6

TABLE Existing Plus Project Saturday-06
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 10/15/2024

ROADWAY SEGMENT: Del Obispo Street between Pacific Coast Highway and
Stonehill Drive

NOTES: Dana Point Harbor Hotel - Existing Plus Project Saturday

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 13290 SPEED (MPH): 40 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
	---	-----	-----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 22 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 65.48

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
-----	-----	-----	-----
0.0	77.0	160.5	343.1

TABLE Existing Plus Project Saturday-07
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 10/15/2024

ROADWAY SEGMENT: Del Obispo Street North of Stonehill Drive

NOTES: Dana Point Harbor Hotel - Existing Plus Project Saturday

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 11600 SPEED (MPH): 40 GRADE: .5

	TRAFFIC DAY	DISTRIBUTION EVENING	PERCENTAGES NIGHT
	---	-----	-----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 22 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 64.89

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
-----	-----	-----	-----
0.0	70.9	146.8	313.5

TABLE Existing Plus Project Saturday-08
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 10/15/2024

ROADWAY SEGMENT: Golden Lantern North of Pacific Coast Highway

NOTES: Dana Point Harbor Hotel - Existing Plus Project Saturday

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 13460 SPEED (MPH): 35 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
	---	-----	-----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 26 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 63.85

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
-----	-----	-----	-----
0.0	65.2	131.5	278.8

TABLE Existing Plus Project Saturday-09
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 10/15/2024

ROADWAY SEGMENT: Golden Lantern between Pacific Coast Highway and Del Prado Avenue

NOTES: Dana Point Harbor Hotel - Existing Plus Project Saturday

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 9160 SPEED (MPH): 35 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
	---	-----	-----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 22 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 62.45

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
-----	-----	-----	-----
0.0	0.0	102.2	216.0

TABLE Existing Plus Project Saturday-10
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 10/15/2024

ROADWAY SEGMENT: Golden Lantern between Del Prado Avenue and Dana Point Harbor Drive

NOTES: Dana Point Harbor Hotel - Existing Plus Project Saturday

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 10025 SPEED (MPH): 35 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
	---	-----	-----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 22 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 62.84

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
-----	-----	-----	-----
0.0	0.0	108.2	229.3

TABLE Existing Plus Project Saturday-11
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 10/15/2024

ROADWAY SEGMENT: Pacific Coast Highway West of Golden Lantern Street

NOTES: Dana Point Harbor Hotel - Existing Plus Project Saturday

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 19290 SPEED (MPH): 35 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
	---	-----	-----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 20 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 65.82

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
-----	-----	-----	-----
0.0	78.7	165.1	353.6

TABLE Existing Plus Project Saturday-12
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 10/15/2024

ROADWAY SEGMENT: Pacific Coast Highway East of Golden Lantern Street

NOTES: Dana Point Harbor Hotel - Existing Plus Project Saturday

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 19430 SPEED (MPH): 35 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
	---	-----	-----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 20 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 65.85

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
-----	-----	-----	-----
0.0	79.0	165.9	355.3

TABLE Existing Plus Project Saturday-13
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 10/15/2024

ROADWAY SEGMENT: Pacific Coast Highway West of Del Obispo Street

NOTES: Dana Point Harbor Hotel - Existing Plus Project Saturday

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 26050 SPEED (MPH): 35 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
	---	-----	-----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 32 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 66.35

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
-----	-----	-----	-----
0.0	98.2	202.6	432.1

TABLE Existing Plus Project Saturday-14
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 10/15/2024

ROADWAY SEGMENT: Pacific Coast Highway East of Del Obispo Street

NOTES: Dana Point Harbor Hotel - Existing Plus Project Saturday

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 37480 SPEED (MPH): 35 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
	---	-----	-----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 35 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 67.76

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
-----	-----	-----	-----
65.1	123.4	257.2	550.0

TABLE Existing Plus Project Saturday-15
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 10/15/2024

ROADWAY SEGMENT: Stonehill Drive West of Del Obispo Street

NOTES: Dana Point Harbor Hotel - Existing Plus Project Saturday

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 21170 SPEED (MPH): 40 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
	---	-----	-----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 22 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 67.50

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
-----	-----	-----	-----
0.0	103.0	217.9	467.6

TABLE Existing Plus Project Saturday-16
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 10/15/2024

ROADWAY SEGMENT: Stonehill Drive between Del Obispo Street and Camino Capistrano

NOTES: Dana Point Harbor Hotel - Existing Plus Project Saturday

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 27790 SPEED (MPH): 40 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
	---	-----	-----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 22 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 68.69

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
-----	-----	-----	-----
60.2	122.6	260.8	560.2

TABLE Existing Plus Project Saturday-17
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 10/15/2024

ROADWAY SEGMENT: Del Prado Avenue West of Golden Lantern

NOTES: Dana Point Harbor Hotel - Existing Plus Project Saturday

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 6150 SPEED (MPH): 35 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
	---	-----	-----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 12 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 61.50

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
-----	-----	-----	-----
0.0	0.0	77.5	165.4

TABLE Existing Plus Project Saturday-18
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 10/15/2024

ROADWAY SEGMENT: Del Prado Avenue East of Golden Lantern

NOTES: Dana Point Harbor Hotel - Existing Plus Project Saturday

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 4770 SPEED (MPH): 35 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
	---	-----	-----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 12 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 60.40

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
-----	-----	-----	-----
0.0	0.0	65.7	139.8

TABLE Opening Weekday-01
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 10/15/2024

ROADWAY SEGMENT: Dana Point Harbor Drive West of Island Way

NOTES: Dana Point Harbor Hotel - Opening Weekday

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 5830 SPEED (MPH): 25 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
	---	-----	-----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 22 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 57.02

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
-----	-----	-----	-----
0.0	0.0	0.0	95.9

TABLE Opening Weekday-02
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 10/15/2024

ROADWAY SEGMENT: Dana Point Harbor Drive between Island Way and Casitas Place

NOTES: Dana Point Harbor Hotel - Opening Weekday

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 9035 SPEED (MPH): 25 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
	---	-----	-----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 22 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 58.92

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
-----	-----	-----	-----
0.0	0.0	62.1	127.0

TABLE Opening Weekday-03
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 10/15/2024

ROADWAY SEGMENT: Dana Point Harbor Drive between Casitas Place and Golden Lantern

NOTES: Dana Point Harbor Hotel - Opening Weekday

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 10025 SPEED (MPH): 25 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
	---	-----	-----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 27 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 59.04

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
-----	-----	-----	-----
0.0	0.0	67.8	136.6

TABLE Opening Weekday-04
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 10/15/2024

ROADWAY SEGMENT: Dana Point Harbor Drive between Golden Lantern and
Puerto Place

NOTES: Dana Point Harbor Hotel - Opening Weekday

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 12790 SPEED (MPH): 30 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
	---	-----	-----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 30 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 61.77

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
-----	-----	-----	-----
0.0	0.0	101.8	211.7

TABLE Opening Weekday-05
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 10/15/2024

ROADWAY SEGMENT: Dana Point Harbor Drive between Puerto Place and Pacific Coast Highway

NOTES: Dana Point Harbor Hotel - Opening Weekday

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 13975 SPEED (MPH): 30 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
	---	-----	-----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 28 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 62.28

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
-----	-----	-----	-----
0.0	0.0	106.9	224.1

TABLE Opening Weekday-06
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 10/15/2024

ROADWAY SEGMENT: Del Obispo Street between Pacific Coast Highway and
Stonehill Drive

NOTES: Dana Point Harbor Hotel - Opening Weekday

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 16730 SPEED (MPH): 40 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
	---	-----	-----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 22 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 66.48

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
-----	-----	-----	-----
0.0	88.8	186.6	399.8

TABLE Opening Weekday-07
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 10/15/2024

ROADWAY SEGMENT: Del Obispo Street North of Stonehill Drive

NOTES: Dana Point Harbor Hotel - Opening Weekday

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 12810 SPEED (MPH): 40 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
	---	-----	-----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 22 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 65.32

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
-----	-----	-----	-----
0.0	75.3	156.7	334.8

TABLE Opening Weekday-08
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 10/15/2024

ROADWAY SEGMENT: Golden Lantern North of Pacific Coast Highway

NOTES: Dana Point Harbor Hotel - Opening Weekday

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 13700 SPEED (MPH): 35 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
	---	-----	-----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 26 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 63.93

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
-----	-----	-----	-----
0.0	65.9	133.0	282.1

TABLE Opening Weekday-09
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 10/15/2024

ROADWAY SEGMENT: Golden Lantern between Pacific Coast Highway and Del Prado Avenue

NOTES: Dana Point Harbor Hotel - Opening Weekday

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 7455 SPEED (MPH): 35 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
	---	-----	-----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 22 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 61.55

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
-----	-----	-----	-----
0.0	0.0	89.7	188.6

TABLE Opening Weekday-10
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 10/15/2024

ROADWAY SEGMENT: Golden Lantern between Del Prado Avenue and Dana Point Harbor Drive

NOTES: Dana Point Harbor Hotel - Opening Weekday

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 7215 SPEED (MPH): 35 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
	---	-----	-----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 22 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 61.41

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
-----	-----	-----	-----
0.0	0.0	87.9	184.6

TABLE Opening Weekday-11
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 10/15/2024

ROADWAY SEGMENT: Pacific Coast Highway West of Golden Lantern Street

NOTES: Dana Point Harbor Hotel - Opening Weekday

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 22290 SPEED (MPH): 35 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
	---	-----	-----
AUTOS			
	75.51	12.57	9.34
M-TRUCKS			
	1.56	0.09	0.19
H-TRUCKS			
	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 20 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 66.45

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
-----	-----	-----	-----
0.0	86.1	181.6	389.3

TABLE Opening Weekday-12
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 10/15/2024

ROADWAY SEGMENT: Pacific Coast Highway East of Golden Lantern Street

NOTES: Dana Point Harbor Hotel - Opening Weekday

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 23280 SPEED (MPH): 35 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
	---	-----	-----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 20 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 66.64

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
-----	-----	-----	-----
0.0	88.5	186.9	400.7

TABLE Opening Weekday-13
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 10/15/2024

ROADWAY SEGMENT: Pacific Coast Highway West of Del Obispo Street

NOTES: Dana Point Harbor Hotel - Opening Weekday

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 31410 SPEED (MPH): 35 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
	---	-----	-----
AUTOS			
	75.51	12.57	9.34
M-TRUCKS			
	1.56	0.09	0.19
H-TRUCKS			
	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 32 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 67.16

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
-----	-----	-----	-----
0.0	110.0	228.9	489.2

TABLE Opening Weekday-14
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 10/15/2024

ROADWAY SEGMENT: Pacific Coast Highway East of Del Obispo Street

NOTES: Dana Point Harbor Hotel - Opening Weekday

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 44010 SPEED (MPH): 35 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
	---	-----	-----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 35 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 68.46

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
-----	-----	-----	-----
70.4	136.2	285.8	611.9

TABLE Opening Weekday-15
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 10/15/2024

ROADWAY SEGMENT: Stonehill Drive West of Del Obispo Street

NOTES: Dana Point Harbor Hotel - Opening Weekday

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 20970 SPEED (MPH): 40 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
	---	-----	-----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 22 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 67.46

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
-----	-----	-----	-----
0.0	102.4	216.6	464.6

TABLE Opening Weekday-16
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 10/15/2024

ROADWAY SEGMENT: Stonehill Drive between Del Obispo Street and Camino Capistrano

NOTES: Dana Point Harbor Hotel - Opening Weekday

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 26780 SPEED (MPH): 40 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
	---	-----	-----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 22 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 68.52

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
-----	-----	-----	-----
58.9	119.8	254.5	546.6

TABLE Opening Weekday-17
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 10/15/2024

ROADWAY SEGMENT: Del Prado Avenue West of Golden Lantern

NOTES: Dana Point Harbor Hotel - Opening Weekday

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 5670 SPEED (MPH): 35 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
	---	-----	-----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 12 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 61.15

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
-----	-----	-----	-----
0.0	0.0	73.5	156.7

TABLE Opening Weekday-18
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 10/15/2024

ROADWAY SEGMENT: Del Prado Avenue East of Golden Lantern

NOTES: Dana Point Harbor Hotel - Opening Weekday

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 5040 SPEED (MPH): 35 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
	---	-----	-----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 12 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 60.64

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
-----	-----	-----	-----
0.0	0.0	68.1	144.9

TABLE Opening With Project Weekday-01
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 10/15/2024

ROADWAY SEGMENT: Dana Point Harbor Drive West of Island Way

NOTES: Dana Point Harbor Hotel - Opening With Project Weekday

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 5850 SPEED (MPH): 25 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
	---	-----	-----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 22 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 57.03

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
-----	-----	-----	-----
0.0	0.0	0.0	96.2

TABLE Opening With Project Weekday-02
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 10/15/2024

ROADWAY SEGMENT: Dana Point Harbor Drive between Island Way and Casitas Place

NOTES: Dana Point Harbor Hotel - Opening With Project Weekday

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 9705 SPEED (MPH): 25 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
	---	-----	-----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 22 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 59.23

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
-----	-----	-----	-----
0.0	0.0	64.7	133.0

TABLE Opening With Project Weekday-03
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 10/15/2024

ROADWAY SEGMENT: Dana Point Harbor Drive between Casitas Place and Golden Lantern

NOTES: Dana Point Harbor Hotel - Opening With Project Weekday

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 10785 SPEED (MPH): 25 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
	---	-----	-----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 27 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 59.35

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
-----	-----	-----	-----
0.0	0.0	70.7	143.2

TABLE Opening With Project Weekday-04
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 10/15/2024

ROADWAY SEGMENT: Dana Point Harbor Drive between Golden Lantern and
Puerto Place

NOTES: Dana Point Harbor Hotel - Opening With Project Weekday

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 13245 SPEED (MPH): 30 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
	---	-----	-----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 30 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 61.92

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
-----	-----	-----	-----
0.0	0.0	104.0	216.6

TABLE Opening With Project Weekday-05
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 10/15/2024

ROADWAY SEGMENT: Dana Point Harbor Drive between Puerto Place and Pacific Coast Highway

NOTES: Dana Point Harbor Hotel - Opening With Project Weekday

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 14430 SPEED (MPH): 30 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
	---	-----	-----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 28 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 62.41

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
-----	-----	-----	-----
0.0	0.0	109.1	228.8

TABLE Opening With Project Weekday-06
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 10/15/2024

ROADWAY SEGMENT: Del Obispo Street between Pacific Coast Highway and
Stonehill Drive

NOTES: Dana Point Harbor Hotel - Opening With Project Weekday

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 16770 SPEED (MPH): 40 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
	---	-----	-----
AUTOS			
	75.51	12.57	9.34
M-TRUCKS			
	1.56	0.09	0.19
H-TRUCKS			
	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 22 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 66.49

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
-----	-----	-----	-----
0.0	88.9	186.9	400.5

TABLE Opening With Project Weekday-07
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 10/15/2024

ROADWAY SEGMENT: Del Obispo Street North of Stonehill Drive

NOTES: Dana Point Harbor Hotel - Opening With Project Weekday

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 12870 SPEED (MPH): 40 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
	---	-----	-----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 22 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 65.34

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
-----	-----	-----	-----
0.0	75.5	157.1	335.9

TABLE Opening With Project Weekday-08
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 10/15/2024

ROADWAY SEGMENT: Golden Lantern North of Pacific Coast Highway

NOTES: Dana Point Harbor Hotel - Opening With Project Weekday

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 13740 SPEED (MPH): 35 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
	---	-----	-----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 26 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 63.94

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
-----	-----	-----	-----
0.0	66.0	133.2	282.6

TABLE Opening With Project Weekday-09
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 10/15/2024

ROADWAY SEGMENT: Golden Lantern between Pacific Coast Highway and Del Prado Avenue

NOTES: Dana Point Harbor Hotel - Opening With Project Weekday

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 7635 SPEED (MPH): 35 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
	---	-----	-----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 22 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 61.65

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
-----	-----	-----	-----
0.0	0.0	91.1	191.6

TABLE Opening With Project Weekday-10
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 10/15/2024

ROADWAY SEGMENT: Golden Lantern between Del Prado Avenue and Dana Point Harbor Drive

NOTES: Dana Point Harbor Hotel - Opening With Project Weekday

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 7505 SPEED (MPH): 35 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
	---	-----	-----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 22 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 61.58

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
-----	-----	-----	-----
0.0	0.0	90.1	189.4

TABLE Opening With Project Weekday-11
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 10/15/2024

ROADWAY SEGMENT: Pacific Coast Highway West of Golden Lantern Street

NOTES: Dana Point Harbor Hotel - Opening With Project Weekday

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 22390 SPEED (MPH): 35 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
	---	-----	-----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 20 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 66.47

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
-----	-----	-----	-----
0.0	86.4	182.1	390.4

TABLE Opening With Project Weekday-12
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 10/15/2024

ROADWAY SEGMENT: Pacific Coast Highway East of Golden Lantern Street

NOTES: Dana Point Harbor Hotel - Opening With Project Weekday

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 23320 SPEED (MPH): 35 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
	---	-----	-----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 20 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 66.65

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
-----	-----	-----	-----
0.0	88.6	187.1	401.2

TABLE Opening With Project Weekday-13
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 10/15/2024

ROADWAY SEGMENT: Pacific Coast Highway West of Del Obispo Street

NOTES: Dana Point Harbor Hotel - Opening With Project Weekday

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 31450 SPEED (MPH): 35 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
	---	-----	-----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 32 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 67.17

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
-----	-----	-----	-----
0.0	110.0	229.0	489.6

TABLE Opening With Project Weekday-14
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 10/15/2024

ROADWAY SEGMENT: Pacific Coast Highway East of Del Obispo Street

NOTES: Dana Point Harbor Hotel - Opening With Project Weekday

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 44380 SPEED (MPH): 35 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
	---	-----	-----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 35 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 68.50

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
-----	-----	-----	-----
70.7	136.9	287.3	615.3

TABLE Opening With Project Weekday-15
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 10/15/2024

ROADWAY SEGMENT: Stonehill Drive West of Del Obispo Street

NOTES: Dana Point Harbor Hotel - Opening With Project Weekday

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 20970 SPEED (MPH): 40 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
	---	-----	-----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 22 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 67.46

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
-----	-----	-----	-----
0.0	102.4	216.6	464.6

TABLE Opening With Project Weekday-16
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 10/15/2024

ROADWAY SEGMENT: Stonehill Drive between Del Obispo Street and Camino Capistrano

NOTES: Dana Point Harbor Hotel - Opening With Project Weekday

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 26805 SPEED (MPH): 40 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
	---	-----	-----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 22 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 68.53

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
-----	-----	-----	-----
58.9	119.8	254.7	546.9

TABLE Opening With Project Weekday-17
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 10/15/2024

ROADWAY SEGMENT: Del Prado Avenue West of Golden Lantern

NOTES: Dana Point Harbor Hotel - Opening With Project Weekday

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 5770 SPEED (MPH): 35 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
	---	-----	-----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 12 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 61.22

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
-----	-----	-----	-----
0.0	0.0	74.4	158.5

TABLE Opening With Project Weekday-18
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 10/15/2024

ROADWAY SEGMENT: Del Prado Avenue East of Golden Lantern

NOTES: Dana Point Harbor Hotel - Opening With Project Weekday

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 5040 SPEED (MPH): 35 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
	---	-----	-----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 12 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 60.64

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
-----	-----	-----	-----
0.0	0.0	68.1	144.9

TABLE Opening Saturday-01
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 10/15/2024

ROADWAY SEGMENT: Dana Point Harbor Drive West of Island Way

NOTES: Dana Point Harbor Hotel - Opening Saturday

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 8680 SPEED (MPH): 25 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
	---	-----	-----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 22 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 58.74

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
-----	-----	-----	-----
0.0	0.0	60.6	123.7

TABLE Opening Saturday-02
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 10/15/2024

ROADWAY SEGMENT: Dana Point Harbor Drive between Island Way and Casitas Place

NOTES: Dana Point Harbor Hotel - Opening Saturday

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 11480 SPEED (MPH): 25 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
	---	-----	-----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 22 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 59.96

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
-----	-----	-----	-----
0.0	0.0	71.6	148.3

TABLE Opening Saturday-03
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 10/15/2024

ROADWAY SEGMENT: Dana Point Harbor Drive between Casitas Place and Golden Lantern

NOTES: Dana Point Harbor Hotel - Opening Saturday

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 12205 SPEED (MPH): 25 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
	---	-----	-----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 27 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 59.89

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
-----	-----	-----	-----
0.0	0.0	75.9	155.1

TABLE Opening Saturday-04
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 10/15/2024

ROADWAY SEGMENT: Dana Point Harbor Drive between Golden Lantern and
Puerto Place

NOTES: Dana Point Harbor Hotel - Opening Saturday

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 15025 SPEED (MPH): 30 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
	---	-----	-----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 30 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 62.47

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
-----	-----	-----	-----
0.0	58.5	112.4	235.2

TABLE Opening Saturday-05
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 10/15/2024

ROADWAY SEGMENT: Dana Point Harbor Drive between Puerto Place and Pacific Coast Highway

NOTES: Dana Point Harbor Hotel - Opening Saturday

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 17060 SPEED (MPH): 30 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
	---	-----	-----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 28 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 63.14

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
-----	-----	-----	-----
0.0	61.5	121.1	255.4

TABLE Opening Saturday-06
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 10/15/2024

ROADWAY SEGMENT: Del Obispo Street between Pacific Coast Highway and
Stonehill Drive

NOTES: Dana Point Harbor Hotel - Opening Saturday

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 15580 SPEED (MPH): 40 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
	---	-----	-----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 22 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 66.17

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
-----	-----	-----	-----
0.0	84.9	178.1	381.3

TABLE Opening Saturday-07
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 10/15/2024

ROADWAY SEGMENT: Del Obispo Street North of Stonehill Drive

NOTES: Dana Point Harbor Hotel - Opening Saturday

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 12660 SPEED (MPH): 40 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
	---	-----	-----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 22 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 65.27

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
-----	-----	-----	-----
0.0	74.8	155.5	332.2

TABLE Opening Saturday-08
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 10/15/2024

ROADWAY SEGMENT: Golden Lantern North of Pacific Coast Highway

NOTES: Dana Point Harbor Hotel - Opening Saturday

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 14910 SPEED (MPH): 35 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
	---	-----	-----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 26 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 64.29

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
-----	-----	-----	-----
0.0	69.1	140.4	298.3

TABLE Opening Saturday-09
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 10/15/2024

ROADWAY SEGMENT: Golden Lantern between Pacific Coast Highway and Del Prado Avenue

NOTES: Dana Point Harbor Hotel - Opening Saturday

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 9100 SPEED (MPH): 35 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
	---	-----	-----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 22 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 62.42

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
-----	-----	-----	-----
0.0	0.0	101.7	215.1

TABLE Opening Saturday-10
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 10/15/2024

ROADWAY SEGMENT: Golden Lantern between Del Prado Avenue and Dana Point Harbor Drive

NOTES: Dana Point Harbor Hotel - Opening Saturday

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 9835 SPEED (MPH): 35 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
	---	-----	-----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 22 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 62.75

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
-----	-----	-----	-----
0.0	0.0	106.9	226.4

TABLE Opening Saturday-11
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 10/15/2024

ROADWAY SEGMENT: Pacific Coast Highway West of Golden Lantern Street

NOTES: Dana Point Harbor Hotel - Opening Saturday

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 22060 SPEED (MPH): 35 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
	---	-----	-----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 20 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 66.41

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
-----	-----	-----	-----
0.0	85.6	180.4	386.6

TABLE Opening Saturday-12
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 10/15/2024

ROADWAY SEGMENT: Pacific Coast Highway East of Golden Lantern Street

NOTES: Dana Point Harbor Hotel - Opening Saturday

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 21610 SPEED (MPH): 35 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
	---	-----	-----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 20 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 66.32

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
-----	-----	-----	-----
0.0	84.5	177.9	381.3

TABLE Opening Saturday-13
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 10/15/2024

ROADWAY SEGMENT: Pacific Coast Highway West of Del Obispo Street

NOTES: Dana Point Harbor Hotel - Opening Saturday

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 28370 SPEED (MPH): 35 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
	---	-----	-----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 32 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 66.72

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
-----	-----	-----	-----
0.0	103.4	214.1	457.2

TABLE Opening Saturday-14
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 10/15/2024

ROADWAY SEGMENT: Pacific Coast Highway East of Del Obispo Street

NOTES: Dana Point Harbor Hotel - Opening Saturday

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 39950 SPEED (MPH): 35 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
	---	-----	-----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 35 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 68.04

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
-----	-----	-----	-----
67.1	128.3	268.2	573.8

TABLE Opening Saturday-15
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 10/15/2024

ROADWAY SEGMENT: Stonehill Drive West of Del Obispo Street

NOTES: Dana Point Harbor Hotel - Opening Saturday

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 21620 SPEED (MPH): 40 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
	---	-----	-----
AUTOS			
	75.51	12.57	9.34
M-TRUCKS			
	1.56	0.09	0.19
H-TRUCKS			
	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 22 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 67.60

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
-----	-----	-----	-----
0.0	104.4	221.0	474.1

TABLE Opening Saturday-16
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 10/15/2024

ROADWAY SEGMENT: Stonehill Drive between Del Obispo Street and Camino Capistrano

NOTES: Dana Point Harbor Hotel - Opening Saturday

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 29530 SPEED (MPH): 40 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
	---	-----	-----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 22 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 68.95

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
-----	-----	-----	-----
62.3	127.6	271.5	583.3

TABLE Opening Saturday-17
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 10/15/2024

ROADWAY SEGMENT: Del Prado Avenue West of Golden Lantern

NOTES: Dana Point Harbor Hotel - Opening Saturday

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 6140 SPEED (MPH): 35 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
	---	-----	-----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 12 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 61.49

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
-----	-----	-----	-----
0.0	0.0	77.4	165.2

TABLE Opening Saturday-18
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 10/15/2024

ROADWAY SEGMENT: Del Prado Avenue East of Golden Lantern

NOTES: Dana Point Harbor Hotel - Opening Saturday

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 4870 SPEED (MPH): 35 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
	---	-----	-----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 12 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 60.49

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
-----	-----	-----	-----
0.0	0.0	66.6	141.7

TABLE Opening With Project Saturday-01
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 10/15/2024

ROADWAY SEGMENT: Dana Point Harbor Drive West of Island Way

NOTES: Dana Point Harbor Hotel - Opening With Project Saturday

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 8700 SPEED (MPH): 25 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
	---	-----	-----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 22 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 58.75

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
-----	-----	-----	-----
0.0	0.0	60.7	123.9

TABLE Opening With Project Saturday-02
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 10/15/2024

ROADWAY SEGMENT: Dana Point Harbor Drive between Island Way and Casitas Place

NOTES: Dana Point Harbor Hotel - Opening With Project Saturday

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 12340 SPEED (MPH): 25 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
	---	-----	-----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 22 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 60.27

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
-----	-----	-----	-----
0.0	0.0	74.8	155.5

TABLE Opening With Project Saturday-03
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 10/15/2024

ROADWAY SEGMENT: Dana Point Harbor Drive between Casitas Place and Golden Lantern

NOTES: Dana Point Harbor Hotel - Opening With Project Saturday

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 13155 SPEED (MPH): 25 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
	---	-----	-----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 27 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 60.22

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
-----	-----	-----	-----
0.0	0.0	79.3	162.8

TABLE Opening With Project Saturday-04
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 10/15/2024

ROADWAY SEGMENT: Dana Point Harbor Drive between Golden Lantern and
Puerto Place

NOTES: Dana Point Harbor Hotel - Opening With Project Saturday

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 15595 SPEED (MPH): 30 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
	---	-----	-----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 30 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 62.63

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
-----	-----	-----	-----
0.0	59.6	115.0	241.0

TABLE Opening With Project Saturday-05
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 10/15/2024

ROADWAY SEGMENT: Dana Point Harbor Drive between Puerto Place and Pacific Coast Highway

NOTES: Dana Point Harbor Hotel - Opening With Project Saturday

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 17625 SPEED (MPH): 30 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
	---	-----	-----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 28 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 63.28

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
-----	-----	-----	-----
0.0	62.5	123.7	261.0

TABLE Opening With Project Saturday-06
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 10/15/2024

ROADWAY SEGMENT: Del Obispo Street between Pacific Coast Highway and
Stonehill Drive

NOTES: Dana Point Harbor Hotel - Opening With Project Saturday

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 15630 SPEED (MPH): 40 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
	---	-----	-----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 22 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 66.19

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
-----	-----	-----	-----
0.0	85.1	178.5	382.1

TABLE Opening With Project Saturday-07
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 10/15/2024

ROADWAY SEGMENT: Del Obispo Street North of Stonehill Drive

NOTES: Dana Point Harbor Hotel - Opening With Project Saturday

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 12740 SPEED (MPH): 40 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
	---	-----	-----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 22 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 65.30

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
-----	-----	-----	-----
0.0	75.0	156.1	333.6

TABLE Opening With Project Saturday-08
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 10/15/2024

ROADWAY SEGMENT: Golden Lantern North of Pacific Coast Highway

NOTES: Dana Point Harbor Hotel - Opening With Project Saturday

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 14960 SPEED (MPH): 35 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
	---	-----	-----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 26 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 64.31

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
-----	-----	-----	-----
0.0	69.3	140.7	299.0

TABLE Opening With Project Saturday-09
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 10/15/2024

ROADWAY SEGMENT: Golden Lantern between Pacific Coast Highway and Del Prado Avenue

NOTES: Dana Point Harbor Hotel - Opening With Project Saturday

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 9340 SPEED (MPH): 35 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
	---	-----	-----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 22 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 62.53

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
-----	-----	-----	-----
0.0	0.0	103.4	218.8

TABLE Opening With Project Saturday-10
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 10/15/2024

ROADWAY SEGMENT: Golden Lantern between Del Prado Avenue and Dana Point Harbor Drive

NOTES: Dana Point Harbor Hotel - Opening With Project Saturday

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 10210 SPEED (MPH): 35 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
	---	-----	-----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 22 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 62.92

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
-----	-----	-----	-----
0.0	0.0	109.5	232.1

TABLE Opening With Project Saturday-11
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 10/15/2024

ROADWAY SEGMENT: Pacific Coast Highway West of Golden Lantern Street

NOTES: Dana Point Harbor Hotel - Opening With Project Saturday

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 22200 SPEED (MPH): 35 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
	---	-----	-----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 20 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 66.43

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
-----	-----	-----	-----
0.0	85.9	181.1	388.2

TABLE Opening With Project Saturday-12
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 10/15/2024

ROADWAY SEGMENT: Pacific Coast Highway East of Golden Lantern Street

NOTES: Dana Point Harbor Hotel - Opening With Project Saturday

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 21660 SPEED (MPH): 35 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
	---	-----	-----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 20 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 66.33

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
-----	-----	-----	-----
0.0	84.6	178.2	381.9

TABLE Opening With Project Saturday-13
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 10/15/2024

ROADWAY SEGMENT: Pacific Coast Highway West of Del Obispo Street

NOTES: Dana Point Harbor Hotel - Opening With Project Saturday

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 28430 SPEED (MPH): 35 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
	---	-----	-----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 32 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 66.73

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
-----	-----	-----	-----
0.0	103.5	214.4	457.8

TABLE Opening With Project Saturday-14
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 10/15/2024

ROADWAY SEGMENT: Pacific Coast Highway East of Del Obispo Street

NOTES: Dana Point Harbor Hotel - Opening With Project Saturday

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 40400 SPEED (MPH): 35 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
	---	-----	-----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 35 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 68.09

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
-----	-----	-----	-----
67.5	129.2	270.2	578.1

TABLE Opening With Project Saturday-15
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 10/15/2024

ROADWAY SEGMENT: Stonehill Drive West of Del Obispo Street

NOTES: Dana Point Harbor Hotel - Opening With Project Saturday

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 21620 SPEED (MPH): 40 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
	---	-----	-----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 22 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 67.60

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
-----	-----	-----	-----
0.0	104.4	221.0	474.1

TABLE Opening With Project Saturday-16
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 10/15/2024

ROADWAY SEGMENT: Stonehill Drive between Del Obispo Street and Camino Capistrano

NOTES: Dana Point Harbor Hotel - Opening With Project Saturday

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 29560 SPEED (MPH): 40 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
	---	-----	-----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 22 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 68.95

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
-----	-----	-----	-----
62.4	127.6	271.7	583.7

TABLE Opening With Project Saturday-17
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 10/15/2024

ROADWAY SEGMENT: Del Prado Avenue West of Golden Lantern

NOTES: Dana Point Harbor Hotel - Opening With Project Saturday

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 6280 SPEED (MPH): 35 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
	---	-----	-----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 12 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 61.59

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
-----	-----	-----	-----
0.0	0.0	78.6	167.7

TABLE Opening With Project Saturday-18
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 10/15/2024

ROADWAY SEGMENT: Del Prado Avenue East of Golden Lantern

NOTES: Dana Point Harbor Hotel - Opening With Project Saturday

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 4870 SPEED (MPH): 35 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
	---	-----	-----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 12 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 60.49

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
-----	-----	-----	-----
0.0	0.0	66.6	141.7



Product Catalog

Packaged Rooftop Air Conditioners

Voyager™ Light Commercial —

Cooling, Gas/Electric

12.5 to 25 Tons, 60 Hz





Introduction

Packaged Rooftop Air Conditioners

Through the years, Trane has designed and developed the most complete line of Packaged Rooftop products available in the market today. Trane was the first to introduce the Micro—microelectronic unit controls—and has continued to improve and revolutionize this design concept.

The ReliaTel™ control platform offers the same great features and functionality as the original Micro, with additional benefits for greater application flexibility.

Voyager™ continues to provide the highest standards in quality and reliability, comfort, ease of service, and the performance of Trane light commercial products.

Trane customers demand products that provide exceptional reliability, meet stringent performance requirements, and are competitively priced. Trane delivers with Voyager.

Voyager features cutting edge technologies: reliable compressors, Trane engineered ReliaTel™ controls, computer-aided run testing, and Integrated Comfort™ Systems. So, whether you're the contractor, the engineer, or the owner, you can be certain Voyager products are built to meet your needs.

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Revision History

Updated General data—25 tons high efficiency table in General Data chapter.



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Features and Benefits

Note: Packaged Rooftop units cooling, heating capacities, and efficiencies are AHRI certified within scope of AHRI Standard 340-360 (I-P) and ANSI Z21.47 and 10 CFR Part 431 pertaining to Commercial Warm Air Furnaces (gas heating units).

Standard Features and Available Options

Table 1. Voyager™ Light Commercial control features — standard and optional

	Standard Features	Options ^(a)		
		Factory Installed	Factory or Field Installed	Field Installed
BACnet® Communications Interface (BCI)			X	
Discharge Line Thermostat	X			
Humidity Sensor				X
LonTalk® Communications Interface (LCI)			X	
ReliaTel™ Microprocessor Controls	X			
ReliaTel™ Options Module			X	
Thermostat				X
Trane® Air-Fi® Wireless Communication Interface		X		
Trane® Communications Interface (TCI)			X	
Wireless Zone Sensor				X
Zone Sensors and Remote Zone Sensors				X

(a) Refer to model number description for option availability

Table 2. Voyager™ Light Commercial features - standard and optional

	Standard Features	Options ^(a)		
		Factory Installed	Factory or Field Installed	Field Installed
1-year Limited Parts Warranty	X			
5-year Limited Compressor Warranty	X			
5-year Limited Heat Exchanger Warranty (12½–17½ Tons); 1 Year on 20 and 25 Tons	X			
2-in MERV 8 Filters or 2-in MERV 13 Filters with Filter Removal Tool		X		
2-in throwaway filters	X			
3 Stages of Cooling Capability on 12½–20 Tons, 4 Stages of Cooling Capability on 25 Tons (High Efficiency Units Only)	X			
Anti-Short Cycle Timer	X			
Barometric Relief ^(b)	X			
Belt Drive Motors	X			
Clogged Filter/Fan Failure Switch			X	
CO ₂ Sensor				X
CO ₂ Sensor Wiring (Wiring Only)		X		
Colored and Numbered Wiring	X			
Complete Coat™ Microchannel Condenser Coil		X		
Condensate Overflow Switch		X		
Crankcase Heaters	X			
Dedicated Airflow	X			

Table 2. Voyager™ Light Commercial features - standard and optional (continued)

	Standard Features	Options ^(a)		
		Factory Installed	Factory or Field Installed	Field Installed
Dehumidification (Hot Gas Reheat)		X		
Digital Display Zone Sensor				X
Discharge Air Temperature Sensing Kit			X	
Easy Access Low Voltage Terminal Board (LTB)	X			
Economizer - Standard, Downflow			X	
Economizer - Standard, Horizontal				X
Electric Heaters			X	
Fault Detection and Diagnostics (FDD)		X		
Foil-Faced and Edge Captured Insulation	X			
Frostat™			X	
High and Low Static Drive Kits				X
High Efficiency Drum and Tube Heat Exchanger	X			
High Efficiency Gas Heat with Hot Surface Ignition	X			
High Efficiency Motors		X		
High Pressure Cutout	X			
High Short Circuit Current Rated (SCCR) Electrical Subsystem		X		
Hinged Access Doors		X		
Human Interface - 5 inch Color Touchscreen		X		
IAQ Sloped Condensate Drain Pan	X			
Indoor Fan Motor Shaft Grounding Ring			X	
Liquid Line Refrigerant Drier	X			
Low Ambient Cooling to 0°F	X			
Low Leak Economizer - Downflow			X	
Low Leak Economizer - Downflow and Horizontal				X
LP Conversion Kit				X
Manual Outside Air Dampers				X
Microchannel Type Condenser Coils	X			
Microchannel Type Evaporator Coils (Standard Efficiency Only)	X			
Modulating Gas Heat Furnace with a 2.5:1 Turndown Ratio		X		
Motorized Outside Air Dampers				X
Multi-Speed Indoor Fans		X		
Multiple Zone Variable Air Volume (MZVAV)		X		
Operating Charge of R-410A	X			
Outside Air Measuring/Monitoring Control (TraQ Dampers)				X
Oversized Motors			X	
Phase Monitor	X			
Powered Exhaust				X
Powered or Unpowered Convenience Outlet		X		
Provisions for Through-the-Base Gas Connections	X			
Quick Access Panels	X			
Quick Adjust Idler Arm Pulley	X			
Reference or Comparative Enthalpy			X	



Features and Benefits

Table 2. Voyager™ Light Commercial features - standard and optional (continued)

	Standard Features	Options ^(a)		
		Factory Installed	Factory or Field Installed	Field Installed
Remote Potentiometer				X
Roof Curb (Downflow Only)				X
Single Point Power	X			
Single Side Service	X			
Single Zone Variable Air Volume (SZ VAV)		X		
Stainless Steel Drain Pan		X		
Stainless Steel Heat Exchanger with 10 Year Warranty		X		
Standardized Components	X			
Supply and/or Return Air Smoke Detector		X		
Thermal Expansion Valve	X			
Through the Base Electrical Access		X		
Through the Base Electrical with Circuit Breaker		X		
Through the Base Electrical with Disconnect Switch		X		
Through the Base Gas Piping		X		
Tool-less Hail Guards			X	
U-shaped Airflow Pattern	X			
Variable Frequency Drive (Multispeed Indoor Fan, VAV, and Single Zone VAV)	X			
Ventilation Override Accessory				X

(a) Refer to model number description for option availability.

(b) Barometric relief comes standard with economizers.

Note: Most Factory Installed Options (FIOPS) available for Downflow Air Discharge units only. Please verify with ordering system for availability.

Standard Features

Anti-Short Cycle Timer

Provides a 3 minute minimum “ON” time and 3 minute “OFF” time for compressors to enhance compressor reliability by assuring proper oil return.

Barometric Relief

Designed to be used on downflow units, barometric relief is an unpowered means of relieving excess building pressure.

Colored and Numbered Wiring

Save time and money tracing wires and diagnosing the unit.

Compressors



Voyager contains the best compressor technology available to achieve the highest possible performance. Dual compressors are outstanding for humidity control, light load cooling conditions and system back-up applications. Dual compressors are available on all models and allow for efficient cooling utilizing three stages of compressor operation (high efficiency 12½–20 Tons models only). 25 tons high efficiency units have 4 stages of cooling with a single compressor and tandem set (similar to variable speed).

Controls—ReliaTel™

ReliaTel microprocessor controls provide unit control for heating, cooling and ventilating utilizing input from sensors that measure indoor and outdoor temperature and other zone sensors. ReliaTel also provides outputs for building automation systems and expanded diagnostics. For a complete list of ReliaTel offerings, refer to [“Other Benefits,” p. 17.](#)

Conversionless Units

The dedicated design units (either downflow or horizontal) require no panel removal or alteration time to convert in the field — a major cost savings during installation. Horizontal units come complete with duct flanges so the contractor doesn't have to field fabricate them. These duct flanges are a time and cost saver.

Crankcase Heaters

These band or insertion heaters provide improved compressor reliability by warming the oil to prevent migration during off-cycles or low ambient conditions. These are standard on all Voyager models.

Discharge Line Thermostat

A bi-metal element discharge line thermostats installed as a standard feature on the discharge line of each system. This standard feature provides extra protection to the compressors against high discharge temperatures in case of loss of charge, extremely high ambient and other conditions which could drive the discharge temperature higher.

Efficiencies

Standard or High Efficiency Cooling available.

Easy Access Low Voltage Terminal Board



Foil Faced Insulation



Features and Benefits

Voyager's Low Voltage Terminal Board is external to the electrical control cabinet. It is extremely easy to locate and attach the thermostat wire and test operation of all unit functions. This is another cost and time saving installation feature.

Fork Pocket Access

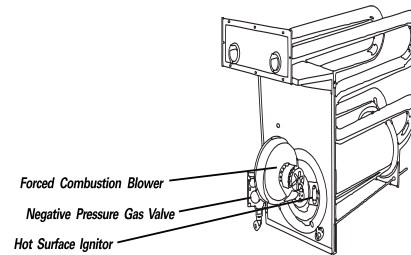
Voyager™ has the ability to be forked from 3 sides.

Heat Exchanger—Drum and Tube

The cabinet features a drum and tube heat exchanger (pictured right) that is manufactured using aluminized steel with stainless steel components for maximum durability.

The requirement for cycle testing of heat exchangers is 10,000 cycles by ANSI Z21.47. This is the standard required by both UL and AGA for cycle test requirements.

All panels in the evaporator section of the unit have cleanable foil-faced insulation. All edges are either captured or sealed to ensure no insulation fibers get into the airstream.



Trane requires the design to be tested to 2½ times this current standard. The drum and tube design has been tested and passed over 150,000 cycles, which is over 15 times the current ANSI cycling requirements. The negative pressure gas valve is used in the standard furnaces. This is one of our unique safety features. Modulating heaters use a pressure switch to ensure that the blower motor is operating before the gas valve is allowed to open.

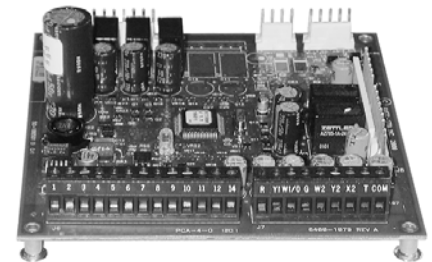
The forced combustion blower supplies pre-mixed fuel through a single stainless steel burner screen into a sealed drum where ignition takes place. It is more reliable to operate and maintain than a multiple burner system. Modulating furnaces contain a metal fiber material to ensure proper flame distribution at low fire. The hot surface ignitor is a gas ignition device which doubles as a safety device utilizing a continuous test to prove the flame. The design is cycle tested at the factory for quality and reliability. Our gas/electric rooftops exceed all California seasonal efficiency requirements and perform even better than the California NO_x emission requirements.

Low Ambient Cooling

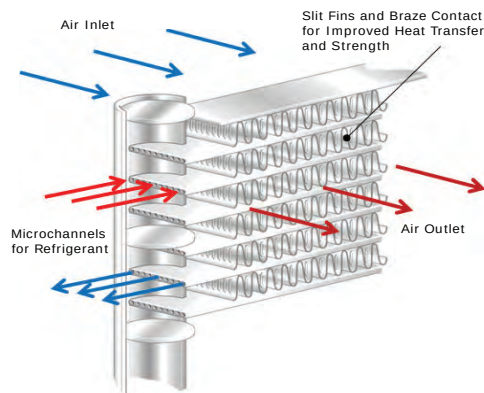
All Voyager microprocessor units have cooling capabilities down to 0°F as standard.

Low Voltage Connections

The wiring of the low voltage connections to the unit and the zone sensors is as simple as 1-1, 2-2, and 3-3. This simplified system makes it easy for the installer to wire.



Microchannel Coils



Microchannel coils are all-aluminum coils with fully-brazed construction. This design reduces risk of leaks and provides increased coil rigidity — making them more rugged on the jobsite. Their flat streamlined tubes with small ports and metallurgical tube-to-fin bond allow for exceptional heat transfer.

Microchannel all-aluminum construction provides several additional benefits:

- Light weight (simplifies coil handling)
- Easy to recycle
- Minimize galvanic corrosion

Motors

All indoor fan motors are belt drive as standard.

Pressure Cutouts

Low and high pressure cutouts are standard on all Voyager models.

Phase Monitor

Voyager features a three-phase line monitor module that protects against phase loss, phase reversal and phase unbalance. It is intended to protect compressors from reverse rotation. It has an operating input voltage range of 190–600 Vac, and LED indicators for ON and FAULT. There are no field adjustments and the module will automatically reset from a fault condition.

Quick-Access Panels

Remove three or more screws for access to the standardized internal components and wiring.

Quick-Adjust Slider Plate

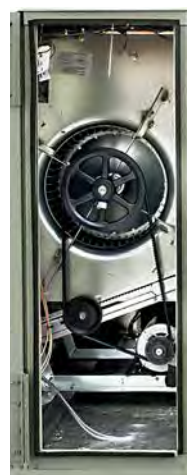
With the Quick-Adjust Slider Plate (pictured right), the belt and sheaves can be quickly adjusted without moving the mounted fan motor. The result is a major savings in time and money.

Single Point Power

A single electrical connection powers the unit.

Single Side Service

Single side service is standard on all units.



Sloped Drain Pans

Every Voyager unit has a non-corrosive, sloped drain pan made of pre-painted steel and standard on all units.

Standardized Components

Components are placed in the same location on all Voyager units. Familiarize yourself with one Voyager and you are familiar with every Voyager. Due to standardized components throughout the Voyager line, contractors/owners can stock fewer parts.



Features and Benefits

U-Shaped Airflow Pattern

The U-shaped airflow allows for improved static capabilities.

Variable Frequency Drives - VFD (Multispeed Indoor Fan, VAV, and SZ VAV Only)

Variable Frequency Drives are factory installed and tested to provide supply fan motor speed modulation. VFDs on the supply fan, as compared to inlet guide vanes or discharge dampers, are quieter, more efficient, and are eligible for utility rebates. All VFDs are designed to allow bypass if required. Bypass control will simply provide full nominal airflow in the event of drive failure. Bypass mode is indicated in the unit wiring manual. Modulating gas heat models with SZVAV allow tighter space temperature control with less temperature swing.

Variety of Options¹

Factory Installed Options

Trane® Air-Fi® Wireless

Trane® Air-Fi® wireless communication is a reliable, flexible solution that frees you from the hassles associated with wired components for your building controls system. With Air-Fi® wireless, you get easy problem solving, efficient performance, and cost savings over the life of the equipment.

CO₂ Sensor Wiring

This is the unit wiring for field installed CO₂ sensors. Factory-installed CO₂ sensor wiring saves time and ensures proper unit connections for the field installed CO₂ sensor kits.

Complete Coat™ Condenser Coil

The cathodic epoxy type electrodisposition coating is formulated for high edge build to a number of different types of heat exchangers. The coating is selected to provide excellent resistance and durability to corrosive effects of alkalies, acids, alcohols, petroleum, seawater, salt air, and corrosive environments. This coating is available for microchannel coils only.

Circuit Breaker (Required with Through-the-Base Electrical)

This option is a factory installed thermal magnetic, molded case, HACR Circuit Breaker with provisions for through the base electrical connections. Available on all models.

Condensate Overflow Switch

A condensate overflow switch is available to shut the unit down in the event that the condensate drain line becomes clogged. This option protects the unit from water overflowing from the drain pan and entering the base of the units.

Dehumidification (Hot Gas Reheat)

This option allows for increased outdoor air ventilation. It reduces humidity levels while increasing comfort level in the air space. Cooling can operate without a demand for dehumidification. The hot gas reheat coil is designed to deliver maximum reheat temperature.

¹ Refer to "Model Number Description," p. 24 for option availability.

Disconnect Switch (Required with Through-the-Base Electrical)



Factory installed 3-pole, molded case, disconnect switch with provisions for through the base electrical connections are available. Available on all models.

Codes require a method of assured unit shutdown for servicing. Field-installed disconnects sometimes interfere with service access. Factory installation of unit disconnects reduces costs, assures proper mounting and provides the opportunity to upgrade to unit circuit breaker protection.

Fault Detection and Diagnostics (FDD)

This offering meets the mandatory requirement of CA Title 24 of fully configurable diagnostics allowing fault history and reading fault codes at the unit. This option provides detection of the following faults: Air temperature sensor failure/fault and notification of acceptable economizer mode. The FDD system shall be certified by the Energy Commission as meeting the requirements.

High Efficiency Filtration

Voyager units offer a variety of high efficiency filtration options. MERV 8 and MERV 13 filters provide additional filtration beyond the capabilities of typical 2-inch throwaway filters. Also, when MERV 8 or MERV 13 filters are ordered, units come equipped with a filter removal tool.

High Efficiency Motors

High efficiency motors are available with efficiency ratings from 86.5 up to 91.0. It is not available for all models.

High Short Circuit Current Rating (SCCR)

Voyager rooftop units now have an optional high short circuit current rated electrical subsystem for units with an MOP above 60A. This option is a perfect fit for applications that need protection against high potential fault currents. This option also includes individual over current protection for each compressor and the indoor fan, as well as a dedicated over current protection to the condenser fan motor(s). When the high SCCR is ordered, the control box will have components separated into two sections - high and low voltage components.

Hinged Access Doors



These doors permit easy access to the filter, fan/heat, and compressor/control sections. They reduce the potential roof damage from screws or sharp access door corners.

Features and Benefits

Human Interface

The 5 inch Color Touchscreen Human Interface provides an intuitive user interface to the rooftop unit that speeds up unit commissioning, shortens unit troubleshooting times, and enhances preventative maintenance measures. The human interface includes several features such as:

- Data trending capabilities by means of time series graphs
- Historical alarm messages
- Real-time sensor measurements
- On board system setpoints
- USB port that enables the downloading of component runtime information as well as trended historical sensor data
- Customizable reports



Modulating Gas Heat with a 2.5:1 Turndown Ratio

Upon receiving a call for heat, modulating gas heat units with a 2.5:1 turndown ratio light their burner at full fire (100%). After the burner is lit, the unit controls will monitor the discharge air temperature and modulate the input rate down to match the load.

Note: Modulating gas heat units are equipped with a stainless steel heat exchanger as standard.

Multi-Speed Indoor Fan System

Multi-speed indoor fan system is designed for use in applications for meeting the minimum requirement of CA Title 24. This system incorporates a multi-speed fan control to change the speed of the fan to 66% of full airflow based off compressor stages.

Multiple-Zone VAV Control

A multiple-zone VAV (MZVAV) system consists of a packaged rooftop unit that serves several individually controlled zones. Each zone is equipped with a VAV terminal unit that varies the quantity of air delivered to maintain the desired temperature in that zone. The rooftop unit controller varies the speed of the indoor fan to maintain the static pressure in the supply ductwork at a setpoint, ensuring that all zones receive the necessary quantity of air. In addition, cooling capacity is cycled to maintain the supply air temperature at the desired setpoint.

For decades, Trane has been an industry leader in rooftop VAV systems. Now, multiple-zone VAV control is available in Trane's light commercial rooftop platform (3-25 tons).

Novar Unit Controls

Novar 3051 and 2024 are available for Voyager Cooling and Gas/Electric models.

Powered or Unpowered Convenience Outlet

This option is a GFCI, 120V/15amp, 2-plug, convenience outlet, either powered or unpowered. This option can only be ordered when Through the Base Electrical with either the Disconnect Switch or Circuit Breaker option is ordered. This option is available on all models.

Single Zone VAV - One Zone Variable Air Volume Mode

Note: Single Zone VAV is designed to be used with a zone sensor. If a unit is configured for Single Zone VAV operation but is connected to a thermostat, the control will revert to multi-speed (2-Speed) indoor fan control. (See "Multi-Speed Indoor Fan System" above.)

Single zone VAV is designed for use in single zone applications like gymnasiums, auditoriums, manufacturing facilities, retail box stores, and any large open spaces, where there is a lot of diversity in the load profile. Single Zone VAV (SZ VAV) is an ideal replacement to "yesterday's" constant volume (CV) systems, by reducing operating costs while improving occupant comfort. SZ VAV systems combine Trane application, control and system integration knowledge to exactly match fan speed with cooling and heating loads, regardless of the operating condition. Trane algorithms meet/exceed ASHRAE 90.1- 2010, SZ VAV energy-saving recommendations, and those of CA Title 24. The result is an optimized balance between zone temperature control and system energy savings. Depending on your specific application, energy savings can be as much as 20%.

Note: *Building system modeling in energy simulation software like TRACE is recommended to evaluate performance improvements for your application.*

SZ VAV is fully integrated into the ReliaTel Control system and is available today. It provides the simplest and fastest commissioning in the industry through proven factory-installed, wired, and tested system controllers. All control modules, logic and sensors are factory installed, and tested to assure the highest quality and most reliable system available. This means no special programming of algorithms, or hunting at the jobsite for sensors, boards, etc. that need to be installed in the field. Single zone VAV is a quick and simple solution for many applications and is available from your most trusted rooftop VAV system solution provider- Trane.

Stainless Steel Drain Pan

For excellent corrosion and oxidation resistance, the optional stainless steel drain pan provides a cleanable surface that complement other IAQ solutions such as high efficiency filtration (MERV 8 or 13), demand control ventilation (CO₂), and hot gas reheat.

Stainless Steel Heat Exchanger

The optional stainless steel heat exchanger is constructed of 439 stainless steel. It is resistant to corrosion and oxidation and easy to clean. The high strength to weight ratio allows for high ventilation rates with gas units and comes standard with a modulating gas heat option. With this option, a 10-year stainless steel heat exchanger warranty is standard.

Supply, Return, and Plenum Air Smoke Detector

With this option (pictured right) installed, if smoke is detected, all unit operation will be shut down. Reset will be manual at the unit. Return Air Smoke Detectors require minimum allowable airflow when used with certain models.

Supply and/or Return Smoke Detectors may not be used with the Plenum Smoke Detector.



Through-the-Base Electrical Utility Access

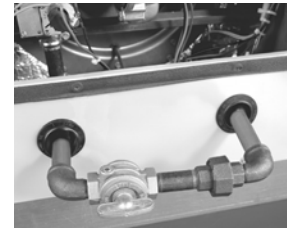
An electrical service entrance shall be provided allowing electrical access for both control and main power connections inside the curb and through the base of the unit. Option will allow for field installation of liquid-tight conduit and an external field installed disconnect switch.

Factory provided through the base openings simplify wiring and piping. Because these utility openings frequently minimize the number of roof penetrations, the integrity of roofing materials is enhanced.

Features and Benefits

Through-the-Base Gas Piping (Gas/Electric Only)

This option (pictured right) shall have all piping necessary including, black steel, manual gas shut-off valve, elbows, and union. This assembly will require minor field labor to install.



Factory or Field Installed Options¹

BACnet® Communications Interface

The BACnet® communications interface allows the unit to communicate directly with a generic open protocol BACnet® MS/TP Network Building Automation System Controls.

Clogged Filter/Fan Failure Switch

A dedicated differential pressure switch is available to achieve active fan failure indication and/or clogged filter indication. These sensors allow a zone sensor service light or Integrated Comfort System to indicate a dirty filter or a fan that's not working. The field installation charges for these valuable feedback devices often eliminate them from consideration. Factory installation can make such features a good investment.

Discharge Air Temperature Sensing Kit

Provides true discharge air temperature sensing in heating models. The kit is functional only with the ReliaTel Options Module.

Economizer - Standard, Downflow

Economizers are equipped with either dry bulb, reference, or comparative enthalpy sensing. These economizers provide free cooling as the outdoor temperature and/or humidity decreases. Correctly installed, they offer a valuable energy savings. Factory-installed economizers save time and ensure proper installation.

Note: *Factory-installed economizers require some field set-up.*

Economizer - Low Leak, Downflow

This accessory meets low leak requirements for ASHRAE 90.1, IECC, and CA Title 24 standards (3 cfm/ft²@1" wg exterior air, 4 cfm/ft²@1" wg return air). This option allows 100% outdoor air supply from 0-100% modulating dampers and is standard with barometric relief. It can be paired with powered exhaust for additional building pressure relief. This option can be paired with or without Fault Detection and Diagnostics (FDD) to meet current mandatory CA Title 24 requirements. Available on downflow units only. The economizers come with three control options, dry bulb and reference or comparative enthalpy (optional).

Electric Heaters

Electric heat modules are available within the basic unit. If ordering the Through the Base Electrical option with an Electrical Heater, the heater must be factory installed.

Frostat™

A capillary bulb embedded in the face of the evaporator coil or a thermostat on the suction line monitors coil temperature to prevent evaporator icing and protect the compressor. Recommended for applications with low leaving air temperatures, low airflow and/or high latent load applications.

Note: *Frostat is standard on all Single-Zone VAV, Multiple-Zone VAV, and high efficiency units.*

¹ Refer to "Model Number Description," p. 24 for option availability.

Indoor Fan Motor Shaft Grounding Ring

Shaft grounding rings are used on all VFD driven motors to provide a conductive discharge path away from the motor bearings to ground. Bearing Protection Rings shall be maintenance free circumferential rings of conductive micro fibers that discharge voltages to ground.

LonTalk® Communications Interface

The LonTalk communications interface allows the unit to communicate as a Tracer™LCI-V device or directly with generic LonTalk Network Building Automation System Controls.

Oversized Motors

Factory or field installed oversized motors are available for high static applications.

Reference or Comparative Enthalpy

Measures and communicates humidity while maximizing comfort control.

ReliaTel Options Module (RTOM)

The RTOM monitors the supply fan proving, clogged filter, supply air temperature, exhaust fan setpoint, dehumidification setpoint, supply air tempering, Froststat™ and smoke detector.

Note: The RTOM is standard on high efficiency units.

Tool-less Hail Guards

Tool-less, hail protection quality coil guards (pictured right) shall be either factory or field-installed for condenser coil protection. This option protects the condenser coil from vandalism and/or hail damage.



Trane Communication Interface (TCI)

Available factory or field installed. This module when applied with the ReliaTel™ easily interfaces with Trane's Integrated Comfort™ System.

Field Installed Options¹

CO₂ Sensor - Demand Control Ventilation (DCV)

Demand-controlled ventilation (DCV) is a control strategy that responds to the actual demand (need) for ventilation by regulating the rate at which the HVAC system brings outdoor air into the building. A CO₂ sensor measures the concentration (parts per million, ppm) of CO₂ (Carbon Dioxide) in the air. As the CO₂ concentration changes, the outside air damper modulates to meet the current ventilation needs of the zone. The CO₂ sensor kit is available as a field installed accessory. Two field installed kits are offered; CO₂ sensor and wiring or CO₂ sensor only. The CO₂ sensor only kit should be ordered with factory installed CO₂ sensor wiring. Factory installed CO₂ sensor wiring saves set-up time and ensures proper unit connections for the CO₂ sensor.

Dampers

0–25 percent manual or 0–50 percent motorized outside air dampers are available.

Digital Display Zone Sensor

The Digital LCD (Liquid Crystal Display) zone sensor has the look and functionality of standard zone sensors.

¹ Refer to "Model Number Description," p. 24 for option availability.



Features and Benefits

Economizer - Standard, Horizontal

Economizers are equipped with either dry bulb or reference or comparative enthalpy sensing. These economizers provide free cooling as the outdoor temperature and/or humidity decreases. Correctly installed, they offer a valuable energy savings.

Economizer - Low Leak, Downflow and Horizontal

This accessory meets low leak requirements for ASHRAE 90.1, IECC, and CA Title 24 standards (3 cfm/ft²@1" wg exterior air, 4 cfm/ft²@1" wg return air). This option allows 100% outdoor air supply from 0-100% modulating dampers and is standard with barometric relief. It can be paired with powered exhaust for additional building pressure relief.

Humidity Sensor/Humidistat

Used in conjunction with our Dehumidification (Hot Gas Reheat) units to provide outstanding humidity control and comfort. Humidity sensors can be wall or duct mounted and set for levels between 40% and 60%.

LP Conversion Kit

Provided for field conversion of gas/electric units from natural gas to propane.

Outside Air Measuring/Monitoring Control (Traq Dampers)

Quantity of fresh air entering the unit will be measured and monitored via Trane UC400 controller and series of pressure sensing rings mounted at the outside air intake.

Powered Exhaust

This option is available on downflow units and provides exhaust of the return air, when using a downflow economizer, to maintain proper building pressurization. Great for relieving most building overpressurization problems.

Remote Potentiometer

When properly installed in the economizer control circuitry, this accessory provides a remote variable resistance to enable the operator to adjust the minimum damper position.

Roof Curbs

Available for downflow units. Only two roof curbs for the entire Voyager line simplifies curb selection.

Static Drive Accessories

Available on many models, this high and low static drive accessories extend the capability of the standard motor. Avoid expensive motors and operating costs by installing this optimized sheave accessory.

Ventilation Override Accessory

With the Ventilation Override Accessory installed, the unit can be set to transition to up to 3 different pre-programmed sequences for Smoke Purge, Pressurization and Exhaust. The transition occurs when a binary input on the RTOM is closed (shorted). This would typically be a hard wired relay output from a smoke detector or fire control panel. The ventilation override kit is available as a field installed accessory.

Wireless Zone Sensor

LCD display that provides heat, cool, auto, or off. Includes two temperature setpoints and a lockable setting with °F or °C indicators.

Zone Sensors/Thermostats

Available in programmable, automatic and manual styles.

Note: Zone sensors required for units configured for Single Zone VAV indoor fan system control to enable Single Zone VAV functionality.

Other Benefits

Cabinet Integrity

For added water integrity, Voyager has a raised 1-1/8-inch lip around the supply and return of the downflow units to prevent water from blowing into the ductwork.

Easy to Install, Service and Maintain

Because today's owners are very cost-conscious when it comes to service and maintenance, Voyager was designed with direct input from service contractors. This valuable information helped to design a product that would get the serviceman off the job quicker and save the owner money. Voyager does this by offering outstanding standard features enhanced by a variety of factory and field installed options, multiple control options, rigorously tested proven designs and superior product and technical support.

Outstanding Airflow Distribution

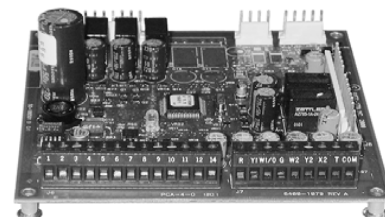
Airflow is outstanding. The Voyager can replace an older machine with old ductwork and, in many cases, improve the comfort through better air distribution.

ReliaTel™ Controls Benefits

ReliaTel controls provide unit control for heating, cooling and ventilating by utilizing input from sensors that measure outdoor and indoor temperature.

Quality and Reliability are enhanced through ReliaTel control and logic:

- Prevents the unit from short cycling, considerably improving compressor life.
- Ensures the compressor will run for a specific amount of time which allows oil to return for better lubrication, enhancing the reliability of the compressor.



Voyager with ReliaTel reduces the number of components required to operate the unit, thereby reducing possibilities for component failure.

ReliaTel Makes Installing and Servicing Easy

ReliaTel eliminates the need for field installed anti-shortcycle timer and time delay relays.

ReliaTel controls provide these functions as an integral part of the unit. The contractor no longer has to purchase these controls as options and pay to install them. The wiring of the low voltage connections to the unit and the zone sensors is as easy as 1-1, 2-2, and 3-3. This simplified system makes wiring easier for the installer.

ReliaTel Makes Testing Easy

ReliaTel requires no special tools to run Voyager unit through its paces. Simply place a jumper between Test 1 and Test 2 terminals on the Low Voltage Terminal Board and the unit will walk through its operational steps automatically.

The unit automatically returns control to the zone sensor after stepping through the test mode a single time, even if the jumper is left on the unit.



Features and Benefits

As long as the unit has power and the “system on” LED is lit, ReliaTel is operational. The light indicates that the controls are functioning properly. ReliaTel features expanded diagnostic capabilities when utilized with Trane Integrated Comfort™ Systems.

Some zone sensor options have central control panel lights which indicate the mode the unit is in and possible diagnostic information (dirty filters for example).

Other ReliaTel Benefits

The ReliaTel built-in anti-shortcycle timer, time delay relay and minimum “on” time control functions are factory tested to assure proper operation. ReliaTel softens electrical “spikes” by staging on fans, compressors and heaters. Intelligent Fallback is a benefit to the building occupant. If a component goes astray, the unit will continue to operate at predetermined temperature setpoint.

Intelligent Anticipation is a standard ReliaTel feature. It functions continuously as ReliaTel and zone sensor(s) work together in harmony to provide much tighter comfort control than conventional electro-mechanical thermostats.

The same ReliaTel Board fits all Packaged Gas/Electric, Cooling, and Heat Pump models. This provides standardization of parts for contractors. Less money is tied up in inventory with ReliaTel.

Rigorous Testing

All of Voyager’s designs were rigorously rain tested at the factory to ensure water integrity. Voyager units incorporate either a one piece top or the Trane-Tite-Top (T3). Each part of the top (either two or three pieces) overlaps in such a way that water cannot leak into the unit. These overlapped edges are gasketed and sealed to ensure superior water integrity.

Actual shipping tests were performed to determine packaging requirements. Units were test shipped around the country to determine the best packaging. Factory shake and drop tests were used as part of the package design process to help assure that the unit arrives at the job site in top condition.

Rigging tests include lifting a unit into the air and letting it drop one foot, assuring that the lifting lugs and rails hold up under stress. For the microchannel coils, the supplier will perform the leak check at 450 psig. The completely assembled refrigerant system is leak tested at a minimum of 225 psig with a refrigerant and nitrogen mixture.

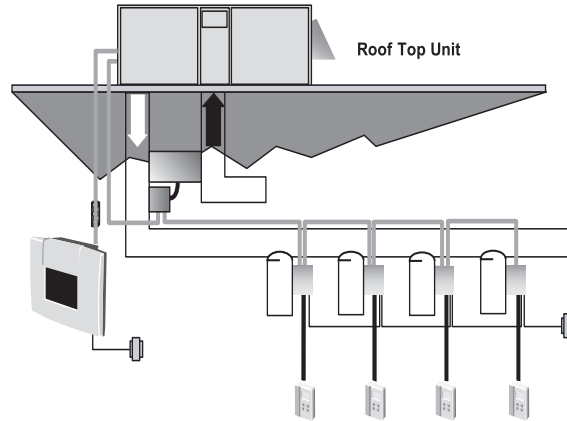
All parts are inspected at the point of final assembly. Sub-standard parts are identified and rejected immediately. Every unit receives a 100% unit run test before leaving the production line to make sure it lives up to rigorous Trane requirements.

Unmatched Support

Trane Sales Representatives are a Support Group that can assist you with:

- Product
- Application
- Service
- Training
- Special Applications
- Specifications
- Computer Programs and much more

VariTrac® – Changeover-Bypass System



A changeover-bypass system consists of a packaged rooftop unit that serves several individually controlled zones. Each zone is equipped with a damper that varies the quantity of air delivered to maintain the desired temperature in that zone. However, unlike a conventional multiple-zone VAV system, the fan inside the rooftop unit operates at a constant speed. Any unneeded air is diverted to the return air stream through a bypass damper.

The term “changeover” refers to how this system handles the cooling and heating requirements of the building. The central rooftop unit can provide either cooled or heated air, and it makes this decision by periodically “polling” the zones.



Application Considerations

Application of this product should be within the cataloged airflow and cooling considerations.

Air-Fi® Wireless

Please refer to Air-Fi® Network Design Installation, Operation, and Maintenance manual BAS-SVX55*-EN for additional details on applications with factory installed wireless.

Barometric Relief

This product line offers a barometric relief damper for use in conjunction with economizer option. This accessory consists of gravity dampers which open with increased pressure. As the building air pressure increases, the pressure in the unit return air section also increases, opening the dampers and relieving the conditioned space.

Note: *The effectiveness of barometric relief damper during economizing operation is limited, depending on the pressure drop of the return-air path. For some applications, powered exhaust may be better suited for preventing over-pressurization when economizing.*

Clearance Requirements

The recommended clearances identified with unit dimensions should be maintained to ensure adequate serviceability, maximum capacity and peak operating efficiency. Actual clearances which appear inadequate should be reviewed with local Trane sales personnel.

Complete Coat™ Microchannel Condenser Coil

The cathodic epoxy type electrodisposition coating is formulated for high edge build to a number of different types of heat exchangers. The coating is selected to provide excellent resistance and durability to corrosive effects of alkalies, acids, alcohols, petroleum, seawater, salt air, and corrosive environments. This coating shall be available on microchannel condenser coils.

Condensate Trap

The evaporator is a draw-through configuration. A trap must be field provided prior to start-up on the cooling cycle.

Dual Compressors — 3 Stages of Cooling (12½ to 20 Tons)

Using the ReliaTel™ microprocessor controls, the Voyager™ high efficiency line can provide three stages of cooling, allowing for a more efficient and comfortable cooling operation.

Important: *All high efficiency products will have intertwined evaporator coils as standard. No face split coils are allowed with 3 or 4 stages of cooling.*

Note: *Standard efficiency models do not have 3 stages of cooling operation.*

4 Stages of Cooling (25 Tons)

25 tons high efficiency units have 4 stages of cooling with a single compressor and tandem set (similar to variable speed).

Heating Operation

The heat exchanger is manufactured with aluminized steel. To prevent condensation within the heat exchanger, do not exceed 50 percent outside air or a minimum mixed air temperature of 40°F.

Optional Stainless Steel Heat Exchanger

The optional stainless steel heat exchanger is manufactured with 439 stainless steel. To prevent corrosion and prolong heat exchanger reliability, the minimum mixed air temperature allowed across the heat exchanger is 20°F. The stainless steel heat exchanger option is an excellent option that compliments the dehumidification package and is used in conjunction with the modulating heat option. Whenever high outside air or outside applications exist, these options should be utilized.

Low Ambient Cooling

The Voyager line features, with ReliaTel™ microprocessor controls, low ambient cooling down to 0°F. A frostat needs to be included in the selection when Low Ambient Cooling is required. Contact your local Trane Representative for more assistance with low ambient cooling applications.

Unit Pitch

These units have sloped condensate drain pans. Units must be installed level. Any unit slope must be toward access side of the unit.

Low Airflow

Unit applications designed for airflow below 320 cfm/ton are available on cooling only units and gas heat units equipped with modulating gas heat. Units must be high efficiency units with dehumidification (hot gas reheat) or TXV with Froststat and Crankcase heaters. Electric heat is restricted below 320 cfm/ton. Standard efficiency units are restricted below 250 cfm/ton. Multi-speed or single zone VAV applications are capable of running below 320 cfm/ton during low speed airflow operation, but "full" airflow must be set to 320 cfm/ton or higher.

VariTrac®

VariTrac is for Voyager units with constant-speed indoor fan control. It is not recommended for use with Multiple-Speed Indoor Fan Control, Single-Zone VAV Control, or Multiple-Zone VAV Control.



Selection Procedure

Cooling Capacity

Note: Cooling Capacity Procedure is the same for cooling (T*) and gas/electric (Y*).

Step 1.

Calculate the building's total and sensible cooling loads at design conditions. Use the following calculation methods or any other standard accepted method. Factors used in unit selection:

Total Cooling Load: 180 MBh

Sensible Cooling Load: 126 MBh

Airflow: 6000 cfm

Electrical Characteristics: 460/60/3

Summer Design Conditions: Entering Evaporator Coil: 80 DB, 67 WB Outdoor Ambient: 95 DB

External Static Pressure: 0.39 in. wg

Rooftop—downflow configuration

Accessories

- Roof curb
- Economizer
- Electric Heat

Step 2.

As a starting point, a rough determination must be made of the size of the unit. The final selection will be made after examining the performance at the given conditions. Divide the total cooling load by nominal Btu/h per ton (12 MBh per ton); then round up to the nearest unit size.

180 MBh / 12 MBh = 15.0 tons

Step 3.

Table 16, p. 39 shows that a TSD180F4 has a **gross** cooling capacity of 186.1 MBh and 139.1 MBh sensible capacity at 6000 cfm and 95 DB outdoor ambient with 80 DB, 67 WB air entering the evaporator.

To Find Capacity at Intermediate Conditions Not in the Table.

When the design conditions are between two numbers that are in the capacity table, interpolation is required to approximate the capacity.

Note: Extrapolation outside of the table conditions is not recommended.

Step 4.

In order to select the correct unit which meets the building's requirements, the fan motor heat must be deducted from the gross cooling capacity. The amount of heat that the fan motor generates is dependent on the effort by the motor—cfm and static pressure. To determine the total unit static pressure you add the external static pressure to the additional static related by the added features:

External Static Duct System	0.39 wg
Standard Filter 2 in. from Table 85, p. 115	0.06 wg
Economizer from Table 85, p. 115 (100% Return Air)	0.04 wg
Electric Heater Size 36 kW from Table 85, p. 115	0.07 wg
(Reference "Heating Capacity," p. 23 for determination of heater size.) No additional static add for gas/heat exchanger.	
Total Static Pressure	0.56 wg

Note: The Evaporator Fan Performance Table 45, p. 78 has already accounted for the pressure drop for standard filters and wet coils (see note below Table 45). Therefore, the actual total static pressure is 0.56 - 0.06 (from Table 85, p. 115 = 0.50 wg).

With 6000 cfm and 0.50 wg.

[Table 45, p. 78](#) shows 1.95 bhp for this unit. Note below the table gives a formula to calculate Fan Motor Heat,

$$3.15 \times \text{bhp} = \text{MBh.}$$

$$3.15 \times 1.95 = 6.14 \text{ MBh.}$$

Now subtract the fan motor heat from the gross cooling capacity of the unit:

$$\text{Net Total Cooling Capacity} = 186.1 \text{ MBh} - 6.14 = 179.96 \text{ MBh.}$$

$$\text{Net Sensible Cooling Capacity} = 139.1 \text{ MBh} - 6.14 = 132.96 \text{ MBh.}$$

Step 5.

If the performance will not meet the required load of the building—total or sensible cooling load, try a selection at the next higher size unit.

Heating Capacity

Note: Heating capacity procedures DIFFER for cooling (T^*) and gas/electric (Y^*) units.

Step 1.

Calculate the building heating load.

Step 2.

Size the system heating capacity to match the calculated building heating load. The following are building heating requirements:

T^* cooling units:

460 volt/3 phase Power Supply

Total heating load of 115.0 MBh

6000 cfm

The electric heat accessory capacities are listed in [Table 87, p. 117](#). From the table, a 36 kW heater will deliver 122.94 MBh at 480 volts. In order to determine capacity at 460 volts, the heater voltage correction factor from [Table 88, p. 118](#) must be used. Therefore, $122.94 \text{ MBh} \times .94$ (voltage correction factor) = 115.6 MBh.

Y^* gas/electric: Fuel natural gas total heating load of 195 MBh. [Table 86, p. 117](#) shows 250 MBh and 350 MBh input models. The output capacities of these furnaces are 203 MBh and 284 MBh respectively. The low heat model with 203 MBh output best matches the building requirements.

Air Delivery Selection

Note: Air Delivery procedures is the same for cooling (T^*) and gas/electric (Y^*) units.

External static pressure drop through the air distribution system has been calculated to be 0.50 inches of water. From [Table 85, p. 115](#) static pressure drop through the economizer is 0.04 and the 36 kW heater is 0.07 inches of water ($0.39 + 0.04 + 0.07$). Enter [Table 45, p. 78](#) for a TSD180F4 at 6000 cfm and 0.50 static pressure. The standard motor at 533 rpm will give the desired airflow at a rated bhp of 1.92.



Model Number Description

Digit 1 — Unit Type

- T = Packaged Cooling, Electric Heat
- Y = Packaged Cooling, Gas Heat

Digit 2 — Efficiency

- S = Standard Efficiency
- H = High Efficiency

Digit 3 — Airflow Configuration

- D = Downflow
- H = Horizontal

Digit 4, 5, 6 — Nominal Gross Cooling Capacity (MBh)

- 150 = 12½ Tons
- 180 = 15 Tons
- 210 = 17½ Tons, 60Hz DOE 2018
- 240 = 20 Tons
- 300 = 25 Tons, 60Hz DOE 2018

Digit 7 — Major Design Sequence

- G = ASHRAE 90.1-2013 (Fan/Compressor Staging)¹³ or Microchannel Type Evaporator and Condenser Coils

Digit 8 — Voltage Selection

- 3 = 208-230/60/3
- 4 = 460/60/3
- W = 575/60/3
- K = 380/60/3

Digit 9 — Unit Controls

- R = Reliatel

Digit 10 — Heating Capacity

Note: (Applicable to Digit 1 T models only)

- 0 = No Heat
- G = 18 kW Electric Heat
- K = 27 kW Electric Heat
- N = 36 kW Electric Heat
- P = 54 kW Electric Heat
- R = 72 kW Electric Heat

Note: (Applicable to Digit 1 Y models only)

- H = Gas Heat - High
- L = Gas Heat - Low
- V = Gas Heat - SS Ht Ex - Modulating
- X = Gas Heat - SS Ht Ex - Low
- Z = Gas Heat - SS Ht Ex - High

Digit 11 — Minor Design Sequence

Digit 12, 13 — Service Sequence

- 00 = None
- 01 = 18mm Microchannel Condenser Coil

Note: '01' only available on select models.

Digit 14 — Fresh Air Selection

- 0 = No Fresh Air
- D = Econ Dry Bulb w/ Barometric Relief¹

- F = Econ Reference Enthalpy w/ Barometric Relief¹
- H = Econ Comparative Enthalpy w/ Barometric Relief¹
- K = Low Leak Econ w/ Barometric Relief¹
- M = Low Leak Econ Reference Enthalpy w/ Barometric Relief¹
- P = Low Leak Econ Comparative Enthalpy w/ Barometric Relief¹

Digit 15 — Supply Fan/Drive Type/Motor

- 0 = Standard Motor
- 1 = Oversized Motor⁶
- 3 = High Efficiency Motor⁶
- 6 = Single Zone Variable Air Volume Standard Motor
- 7 = Multi-Speed Standard Motor
- 8 = Single Zone Variable Air Volume Oversized Motor
- 9 = Multi-Speed Oversized Motor
- A = Single Zone Variable Air Volume Standard Motor w/ Shaft Grounding Ring
- B = Multi-Speed Standard Motor w/ Shaft Grounding Ring
- C = Single Zone Variable Air Volume Oversized Motor w/ Shaft Grounding Ring
- D = Multi-Speed Oversized Motor w/ Shaft Grounding Ring
- E = VAV Supply Air Temperature Control - Standard Motor
- F = VAV Supply Air Temperature Control - Oversized Motor
- G = VAV Supply Air Temperature Control - Standard Motor w/ Shaft Grounding Ring
- H = VAV Supply Air Temperature Control - Oversized Motor w/ Shaft Grounding Ring

Digit 16 — Hinged Service Access / Filters

- 0 = Standard Panels/Standard Filters²²
- A = Hinged Access/Standard Filters²²
- B = Standard Panels/MERV 8 Filters⁶
- C = Hinged Access/MERV 8 Filters⁶
- D = Standard Panels/MERV 13 Filters⁶
- E = Hinged Access/MERV 13 Filters⁶

Digit 17 — Condenser Coil Protection

- 0 = Standard Coil
- 1 = Standard Coil With Hail Guard
- 4 = CompleteCoat™ Condenser Coil
- 5 = CompleteCoat™ Condenser Coil with Hail Guard

Digit 18 — Through The Base Provisions

Note: Applicable to Digit 1, T or Y models.

- 0 = No Through The Base Provisions
- A = Through The Base Electric¹²

Note: Applicable to Digit 1, Y models only.

- B = Through The Base Gas
- C = Through The Base Electric/Gas¹²
- D = Through The Base Access

Digit 19 — Disconnect Switch/Circuit Breaker¹¹

- 0 = No Disconnect/circuit break
- 1 = Unit Mounted Non-Fused Disconnect Switch
- 2 = Unit Mounted Circuit Breaker

Digit 20 — Convenience Outlet Option

- 0 = Without Convenience Outlet
- A = Unpowered Convenience Outlet⁵
- B = Powered Convenience Outlet⁵

Digit 21 — Communications Options

- 0 = Without Communications Options
- 1 = Trane Communications Interface^{6, 15}
- 2 = Lontalk Communications Interface⁶
- 6 = Building Automation Control Network Communications Interface
- 7 = Air-Fi® Wireless Communications²⁴

Digit 22 — Refrigeration System Option

- 0 = Standard refrigeration system
- B = Dehumidification (Hot Gas Reheat)^{4, 13}

Digit 23 — Refrigeration Controls

- 0 = Without Refrigeration Controls
- 1 = Froststat^{9, 18}

Digit 24 — Smoke Detector^{2, 10}

- 0 = Without Smoke Detector
- A = Return Air Smoke Detector
- B = Supply Air Smoke Detector
- C = Return/Supply Air Smoke Detector
- D = Plenum Smoke Detector¹⁹

Digit 25 — System Monitoring Controls

- 0 = No Monitoring Controls
- 1 = Clogged Filter Switch⁹
- 2 = Fan Failure Switch⁹
- 3 = Discharge Air Sensing⁹
- 4 = Clogged Filter Switch and Fan Failure switch⁹

- 5 = Clogged Filter Switch and Discharge Air Sensing⁹
- 6 = Fan Failure Switch and Discharge Air Sensing⁹
- 7 = Clogged Filter Switch, Fan Failure Switch and Discharge Air Sensing⁹
- A = Condensate Drain Pan Overflow Switch
- B = Clogged Filter Switch and Condensate Drain Pan Overflow Switch⁹
- C = Fan Failure Switch and Condensate Drain Pan Overflow Switch⁹
- D = Discharge Air Sensing and Condensate Drain Pan Overflow Switch⁹
- E = Clogged Filter Switch, Fan Failure Switch and Condensate Drain Pan Overflow Switch⁹
- F = Clogged Filter Switch, Discharge Air Sensing Tube and Condensate Drain Pan Overflow Switch⁹
- G = Fan Failure Switch, Discharge Air Sensing Tube and Condensate Drain Pan Overflow Switch⁹
- H = Clogged Filter Switch, Fan Failure Switch, Discharge Air Sensing and Condensate Drain Pan Overflow Switch⁹

Digit 26 - System Monitoring Controls

- 0 = No Monitoring Controls
- A = Demand Control Ventilation (CO₂)¹⁷
- B = FDD (Fault Detection and Diagnostics)
- C = FDD (Fault Detection Diagnostics) and Demand Control Ventilation (CO₂)¹⁷

Digit 27 - Unit Hardware Enhancements

- 0 = No Enhancements
- 1 = Stainless Steel Drain Pan

Digit 28 - Short Circuit Current Rating

- 0 = Standard SCCR
- A = 65kA SCCR Option^{20, 21}

Digit 31 - Advanced Unit Controls

- 0 = Standard Unit Controls
- 1 = Human Interface²³

Note: Most Factory Installed Options available for Downflow Air Discharge units only. Please verify with ordering system for availability.

Model Number Notes

1. Some field set up required.
2. Requires ReliaTel Options Module.
3. Requires Economizer.
4. All 22nd digit model numbers for reheat coil (B) require additional factory installed options: Froststat, and 2-inch pleated filters.
5. Must be ordered with Through-the-Base Electrical option or Horizontal-Side Access and either Unit Mounted Disconnect or Circuit Breaker.
6. Available factory installed on downflow AND horizontal units. Verify with ordering system.
7. Cannot be fused.
8. Must be factory installed when using Through-the-Base Options.
9. ReliaTel Options Module is required when ordering the following accessories: 4 Stage Cooling, Clogged Filter Switch, Fan Fail Switch, Condensate Overflow Switch, Discharge Air Sensing Kit, Froststat, Ventilation Override, Smoke Detector, Dehumidification and Modulating Gas Heat Furnace.
10. Option cannot be ordered in conjunction with field installed economizer on downflow units. Must be factory installed. The return air smoke detector may not fit up or work properly on the Voyager units when used in conjunction with 3rd party accessories (such as bolt on heat wheels, economizers, and power exhaust). Do not order the return air smoke detectors when using this type of accessory.
11. Unit mounted disconnect and circuit breakers are mutually exclusive of each other.
12. Through-the-base electrical option or Horizontal-Side Access must be ordered with either unit mounted disconnect or circuit breaker. When adding heat, you must order Trane Electric Heat.
13. Available on high efficiency units only.
14. All Factory Installed Options are Built-to-Order. Check order services for estimated production cycle.
15. TCI is for use with non-VariTrac systems and VariTrac systems.
16. For use with multi-speed and SZVAV units only.
17. Demand Control Ventilation Option includes wiring only. The CO₂ sensor is a field-installed only option.
18. Froststat is standard on VAV and high efficiency units.
19. Supply and/or return smoke detector may not be used with the plenum smoke detector.
20. Only available where MOP is above 60A.
21. 575 Vac option is 25kA.
22. Standard filters are not available with Low Leak Economizers.
23. Human Interface is standard with FDD (Fault Detection Diagnostics).
24. Must be used with BACnet® open protocol.



General Data

Table 3. General data—cooling 12½–15 tons standard efficiency

	12½ Tons Downflow and Horizontal Units		15 Tons Downflow and Horizontal Units	
	TS*150G3,4,W,K	YS*150G3,4,W,K	TS*180G3,4,W,K	YS*180G3,4,W,K
Cooling Performance^(a)				
Gross Cooling Capacity	150,000	150,000	186,000	186,000
EER (Downflow/Horizontal) ^(b)	11	11	11	11
Nominal Airflow CFM / AHRI Rated CFM	5,000 / 4,000	5,000 / 4,000	6,000 / 5,400	6,000 / 5,400
AHRI Net Cooling Capacity	140,000	140,000	176,000	176,000
Integrated Energy Efficiency Ratio (IEER) (One Speed Fan / Multi or Variable Speed Fan) ^(c)	12.4/13.5	12.2/13.5	12.4/13.2	12.2/13.2
Percent Capacity @ part load (Stage 1/Stage 2)	66/100	66/100	67/100	67/100
System Power (kW)	12.73	12.73	16.00	16.00
Compressor				
Number/Type	2 / Scrolls	2 / Scrolls	2 / Scrolls	2 / Scrolls
Sound				
Outdoor Sound Rating (BELS) ^(d)	9.2	9.2	9.2	9.2
Outdoor Coil				
Type	Microchannel	Microchannel	Microchannel	Microchannel
Coil Width (in.)	0.71	0.71	0.71	0.71
Face Area (sq. ft.)	25.9	25.9	35.2	35.2
Rows/FPI (DF/HZ)	1/23	1/23	1/23	1/23
Indoor Coil				
Type	Microchannel	Microchannel	Microchannel	Microchannel
Coil Width (in.)	1.00	1.00	0.81	0.81
Face Area (sq. ft.)	17.30	17.30	23.00	23.00
Rows/FPI	2/16	2/16	2/16	2/16
Refrigerant Control	TXV	TXV	TXV	TXV
Drain Connection Number/Size (in.)	1/1.00 NPT	1/1.00 NPT	1/1.00 NPT	1/1.00 NPT
Outdoor Fan				
Type	Propeller	Propeller	Propeller	Propeller
Number Used/Diameter (in.)	2 / 26	2 / 26	2 / 26	2 / 26
Drive Type/No. Speeds	Direct / 1	Direct / 1	Direct / 1	Direct / 1
cfm	11,000	11,000	11,000	11,000
Number Motors/hp	2 / 0.50	2 / 0.50	2 / 0.50	2 / 0.50
Motor rpm	1,100	1,100	1,100	1,100
Indoor Fan				
Type	FC Centrifugal	FC Centrifugal	FC Centrifugal	FC Centrifugal
Number Used/Diameter (in.)	1 / 15x15	1 / 15x15	1 / 18x18	1 / 18x18
Drive Type/No. Speeds	Belt / 1	Belt / 1	Belt / 1	Belt / 1
Number Motors	1	1	1	1
Motor hp (Standard/Oversized) ^(e)	3.0 / 5.0	3.0 / 5.0	3.0 / 5.0 or 7.5 ^(f)	3.0 / 5.0 or 7.5 ^(f)
Motor rpm (Standard/Oversized)	1,740 / 3,450	1,740 / 3,450	1,740 / 3,450	1,740 / 3,450
Motor Frame Size (Standard/Oversized)	56HZ / 56HZ	56HZ / 56HZ	184TZ / 56HZ/184TZ	56HZ / 56HZ/184TZ

Table 3. General data—cooling 12½–15 tons standard efficiency (continued)

	12 ½ Tons Downflow and Horizontal Units		15 Tons Downflow and Horizontal Units	
	TS*150G3,4,W,K	YS*150G3,4,W,K	TS*180G3,4,W,K	YS*180G3,4,W,K
Filters				
Type Furnished ^(g)	Throwaway	Throwaway	Throwaway	Throwaway
Number Size Recommended				
Downflow	(2)20x20x2 (4)20x25x2	(2)20x20x2 (4)20x25x2	(4)20x20x2 (4)20x25x2	(4)20x20x2 (4)20x25x2
Horizontal	(2)20x20x2 (4)20x25x2	(2)20x20x2 (4)20x25x2	(8)20x25x2	(8)20x25x2
Refrigerant Charge (Pounds of R-410A)^(h)				
Cir #1 / Cir #2 (DF)	8.1/5.1	8.1/5.1	9.0/5.0	9.0/5.0
Cir #1 / Cir #2 (HZ)	8.1/5.2	8.1/5.2	9.2/5.1	9.2/5.1

(a) Cooling Performance is rated at 95°F ambient, 80°F entering dry bulb, 67°F entering wet bulb. Gross capacity does not include the effect of fan motor heat. AHRI capacity is net and includes the effect of fan motor heat. Units are suitable for operation to ±20% of nominal cfm. Certified in accordance with the Unitary Large Equipment Certification Program, which is based on AHRI Standard 340/360.

(b) EER is rated at AHRI conditions and in accordance with AHRI Standard 210/240 or 340/360.

(c) Integrated Energy Efficiency Ratio (IEER) is rated in accordance with AHRI standard 210/240 or 340/360.

(d) Outdoor Sound Rating shown is tested in accordance with AHRI Standard 270 or 370.

(e) For 380V/60Hz units, the oversized motor (Indoor Fan) is used as the standard motor. Refer to oversized motor data.

(f) Offered only as a field installed accessory.

(g) An optional 2-inch pleated filter is also available.

(h) Refrigerant charge is an approximate value. For a more precise value, see unit nameplate and service instructions.

* Indicates both downflow and horizontal units.

Table 4. General data—heating—12½–15 tons standard efficiency

	12 ½ Tons Downflow and Horizontal Units			15 Tons Downflow and Horizontal Units		
	Heating Performance ^(a) (Gas/Electric Only)					
Heating Models	Low	High	Modulating Turn Down = 2.5:1	Low	High	Modulating Turn Down = 2.5:1
Heating Input (Btu/h)	150,000	250,000	350,000	250,000	350,000	350,000
1st Stage (Btu)	100,000	175,000	140,000	175,000	250,000	140,000
Heating Output (Btu/h)	120,000	200,000	280,000	200,000	280,000	280,000
1st Stage (Btu)	80,000	140,000	112,000	140,000	200,000	112,000
Steady State Efficiency %	80	80	80	80	80	80
No. Burners	1	1	1	1	1	1
No. Stages	2	2	N/A	2	2	N/A
Gas Supply Line Pressure (in. wc)	2.5/14.0	2.5/14.0	2.5/14.0	2.5/14.0	2.5/14.0	2.5/14.0
Natural or LP (minimum/maximum)	Natural or LP	Natural or LP	Natural Only	Natural or LP	Natural or LP	Natural Only
Gas Connection Pipe Size (in.)	1/2	1/2	3/4	1/2	3/4	3/4

(a) Heating Performance limit settings and rating data were established and approved under laboratory test conditions using American National Standards Institute standards. Ratings shown are for elevations up to 2000 feet. For elevations above 2000 feet, ratings should be reduced at the rate of 4% for each 1000 feet above sea level.

General Data

Table 5. General data—17½–20 tons standard efficiency

	17½ Tons Downflow and Horizontal Units		20 Tons Downflow and Horizontal Units	
	TS*210G3,4,W,K	YS*210G3,4,W,K	TS*240G3,4,W,K	YS*240G3,4,W,K
Cooling Performance^(a)				
Gross Cooling Capacity	210,000	210,000	259,000	259,000
EER (Downflow/Horizontal) ^(b)	11	11	10	10
Nominal Airflow CFM / AHRI Rated CFM	7,000 / 6,125	7,000 / 6,125	8,000 / 6,400	8,000 / 6,400
AHRI Net Cooling Capacity	196,000	196,000	240,000	240,000
Integrated Energy Efficiency Ratio (IEER) (One Speed Fan / Multi or Variable Speed Fan) ^(c)	12.4/13.2	12.2/13.2	11.6/12.4	11.4/12.4
Percent Capacity @ part load (Stage 1/Stage 2)	67/100	67/100	67/100	67/100
System Power (kW)	17.82	17.82	24.00	24.00
Compressor				
Number/Type	2 / Scrolls	2 / Scrolls	2 / Scrolls	2 / Scrolls
Sound				
Outdoor Sound Rating (BELS) ^(d)	9.4	9.4	9.4	9.4
Outdoor Coil				
Type	Microchannel	Microchannel	Microchannel	Microchannel
Coil Width (in.)	1.00	1.00	1.0	1.0
Face Area (sq. ft.)	35.2	35.2	35.2	35.2
Rows/FPI (DF/HZ)	1/20	1/20	1/23 / 1/20	1/23 / 1/20
Indoor Coil				
Type	Microchannel	Microchannel	Microchannel	Microchannel
Tube Size (in.) ID	1.00	1.00	1.00	1.00
Face Area (sq. ft.)	23.00	23.00	23.00	23.00
Rows/FPI	2 / 16	2 / 16	2 / 16	2 / 16
Refrigerant Control	TXV	TXV	TXV	TXV
Drain Connection Number/Size (in.)	1/1.00 NPT	1/1.00 NPT	1/1.00 NPT	1/1.00 NPT
Outdoor Fan				
Type	Propeller	Propeller	Propeller	Propeller
Number Used/Diameter (in.)	2 / 26	2 / 26	2 / 26	2 / 26
Drive Type/No. Speeds	Direct / 1	Direct / 1	Direct / 1	Direct / 1
cfm	14,500	14,500	15,500	15,500
Number Motors/hp	2 / 1.0	2 / 1.0	2 / 1.0	2 / 1.0
Motor rpm	1125	1125	1125	1125
Indoor Fan				
Type	FC Centrifugal	FC Centrifugal	FC Centrifugal	FC Centrifugal
Number Used/Diameter (in.)	1 / 18x18	1 / 18x18	1 / 18x18	1 / 18x18
Drive Type/No. Speeds	Belt / 1	Belt / 1	Belt / 1	Belt / 1
Number Motors	1	1	1	1
Motor hp (Standard/Oversized) ^(e)	5.0 / 7.5	5.0 / 7.5	5.0 / 7.5	5.0 / 7.5
Motor rpm (Standard/Oversized)	3,450 / 3,470	3,450 / 3,470	3,450 / 3,470	3,450 / 3,470
Motor Frame Size (Standard/Oversized)	56HZ / 184T	56HZ / 184T	56HZ / 184T	56HZ / 184T

Table 5. General data—17½–20 tons standard efficiency (continued)

	17 ½ Tons Downflow and Horizontal Units		20 Tons Downflow and Horizontal Units	
	TS*210G3,4,W,K	YS*210G3,4,W,K	TS*240G3,4,W,K	YS*240G3,4,W,K
Filters				
Type Furnished ^(f)	Throwaway	Throwaway	Throwaway	Throwaway
Number Size Recommended				
Downflow	(4)20x20x2 (4)20x25x2	(4)20x20x2 (4)20x25x2	(4)20x20x2 (4)20x25x2	(4)20x20x2 (4)20x25x2
Horizontal	(8)20x25x2	(8)20x25x2	(8)20x25x2	(8)20x25x2
Refrigerant Charge (Pounds of R-410A)				
Cir #1/Cir #2 (DF)	12.6/6.8	12.6/6.8	12.4/7.2	12.4/7.2
Cir #1/Cir #2 (HZ)	12.0/6.8	12.0/6.8	11.7/6.8	11.7/6.8

(a) Cooling Performance is rated at 95°F ambient, 80°F entering dry bulb, 67°F entering wet bulb. Gross capacity does not include the effect of fan motor heat. AHRI capacity is net and includes the effect of fan motor heat. Units are suitable for operation to ±20% of nominal cfm. Certified in accordance with the Unitary Large Equipment Certification Program, which is based on AHRI Standard 340/360.

(b) EER is rated at AHRI conditions and in accordance with AHRI Standard 210/240 or 340/360.

(c) Integrated Energy Efficiency Ratio (IEER) is rated in accordance with AHRI standard 210/240 or 340/360.

(d) Outdoor Sound Rating shown is tested in accordance with AHRI Standard 270 or 370.

(e) For 380V/60Hz units, the oversized motor (Indoor Fan) is used as the standard motor. Refer to oversized motor data.

(f) Refrigerant charge is an approximate value. For a more precise value, see unit nameplate and service instructions.

* Indicates both downflow and horizontal units.

Table 6. General data—heating—17½–20 tons standard efficiency

	17 ½ Tons Downflow and Horizontal Units			20 Tons Downflow and Horizontal Units		
	Heating Performance ^(a) (Gas / Electric Only)					
Heating Models	Low	High	Modulating Turn Down = 2.5:1	Low	High	Modulating Turn Down = 2.5:1
Heating Input (Btu / h)	250,000	350,000	350,000	250,000	400,000	350,000
1st Stage (Btu)	175,000	250,000	140,000	175,000	300,000	140,000
Heating Output (Btu / h)	200,000	280,000	280,000	200,000	320,000	280,000
1st Stage (Btu)	140,000	200,000	112,000	140,000	240,000	112,000
Steady State Efficiency %	80	80	80	80	80	80
No. Burners	1	1	1	1	1	1
No. Stages	2	2	N/A	2	2	N/A
Gas Supply Line Pressure (in. wc)	2.5/14.0	2.5/14.0	2.5/14.0	2.5/14.0	2.5/14.0	2.5/14.0
Natural or LP (minimum/maximum)	Natural or LP	Natural or LP	Natural Only	Natural or LP	Natural or LP	Natural Only
Gas Connection Pipe Size (in.)	1/2	3/4	3/4	1/2	3/4	3/4

(a) Heating Performance limit settings and rating data were established and approved under laboratory test conditions using American National Standards Institute standards. Ratings shown are for elevations up to 2000 feet. For elevations above 2000 feet, ratings should be reduced at the rate of 4% for each 1000 feet above sea level.

General Data

Table 7. General data—25 tons standard efficiency

	25 Tons Downflow and Horizontal Units	
	TS*300G3,4,W,K	YS*300G3,4,W,K
Cooling Performance^(a)		
Gross Cooling Capacity	285,300	285,300
EER (Downflow/Horizontal) ^(b)	10	10
Nominal Airflow CFM / AHRI Rated CFM	10,000 / 8,000	10,000 / 8,000
AHRI Net Cooling Capacity	266,000	266,000
Integrated Energy Efficiency Ratio (IEER) (One Speed Fan / Multi or Variable Speed Fan) ^(c)	11.6/12.4	11.4/12.4
Percent Capacity @ part load (Stage 1/Stage 2)	66/100	66/100
System Power (kW)	27	27
Compressor		
Number/Type	2 / Scrolls	2 / Scrolls
Sound		
Outdoor Sound Rating (BELS) ^(d)	9.4	9.4
Outdoor Coil		
Type	Microchannel	Microchannel
Coil Width (in.)	1.0	1.0
Face Area (sq. ft.)	35.2	35.2
Rows/FPI (DF/HZ)	1/23 / 1/20	1/23 / 1/20
Indoor Coil		
Type	Microchannel	Microchannel
Tube Size (in.) ID	1.00	1.00
Face Area (sq. ft.)	23.00	23.00
Rows/FPI	2 / 16	2 / 16
Refrigerant Control	TXV	TXV
Drain Connection Number/Size (in.)	1/1.00 NPT	1/1.00 NPT
Outdoor Fan		
Type	Propeller	Propeller
Number Used/Diameter (in.)	2 / 28	2 / 28
Drive Type/No. Speeds	Direct / 1	Direct / 1
cfm	16,100	16,100
Number Motors/hp	2 / 1.0	2 / 1.0
Motor rpm	1125	1125
Indoor Fan		
Type	FC Centrifugal	FC Centrifugal
Number Used/Diameter (in.)	1 / 18x18	1 / 18x18
Drive Type/No. Speeds	Belt / 1	Belt / 1
Number Motors	1	1
Motor hp (Standard/Oversized)	7.5 / N/A	7.5 / N/A
Motor rpm (Standard/Oversized)	3,470 / N/A	3,470 / N/A
Motor Frame Size (Standard/Oversized)	184T / N/A	184T / N/A

Table 7. General data—25 tons standard efficiency (continued)

	25 Tons Downflow and Horizontal Units	
	TS*300G3,4,W,K	YS*300G3,4,W,K
Filters		
Type Furnished ^(e)	Throwaway	Throwaway
Number Size Recommended		
Downflow	(4)20x20x2 (4)20x25x2	(4)20x20x2 (4)20x25x2
Horizontal	(8)20x25x2	(8)20x25x2
Refrigerant Charge (Pounds of R-410A)^(f)		
Cir #1/Cir #2 (DF)	12.5/6.7	12.5/6.7
Cir #1/Cir #2 (HZ)	11.7/6.7	11.7/6.7

(a) Cooling Performance is rated at 95°F ambient, 80°F entering dry bulb, 67°F entering wet bulb. Gross capacity does not include the effect of fan motor heat. AHRI capacity is net and includes the effect of fan motor heat. Units are suitable for operation to ±20% of nominal cfm. Certified in accordance with the Unitary Large Equipment Certification Program, which is based on AHRI Standard 340/360.

(b) EER is rated at AHRI conditions and in accordance with AHRI Standard 210/240 or 340/360.

(c) Integrated Energy Efficiency Ratio (IEER) is rated in accordance with AHRI standard 210/240 or 340/360.

(d) Outdoor Sound Rating shown is tested in accordance with AHRI Standard 270 or 370.

(e) An optional 2-inch pleated filter is also available.

(f) Refrigerant charge is an approximate value. For a more precise value, see unit nameplate and service instructions.

* Indicates both downflow and horizontal units.

Table 8. General data—heating—25 tons

	25 Tons Downflow and Horizontal Units		
	Heating Performance^(a) (Gas/Electric Only)		
Heating Models	Low	High	Modulating Turn Down = 2.5:1
Heating Input (Btu / h)	250,000	400,000	350,000
1st Stage (Btu)	175,000	300,000	140,000
Heating Output (Btu / h)	200,000	320,000	280,000
1st Stage (Btu)	140,000	240,000	112,000
Steady State Efficiency %	80	80	80
No. Burners	1	1	1
No. Stages	2	2	N/A
Gas Supply Line Pressure (in. wc)	2.5 / 14.0	2.5 / 14.0	2.5 / 14.0
Natural or LP (minimum/maximum)	Natural or LP	Natural or LP	Natural Only
Gas Connection Pipe Size (in.)	½	¾	¾

(a) Heating Performance limit settings and rating data were established and approved under laboratory test conditions using American National Standards Institute standards. Ratings shown are for elevations up to 2000 feet. For elevations above 2000 feet, ratings should be reduced at the rate of 4% for each 1000 feet above sea level.



General Data

Table 9. General data—12½–15 tons high efficiency

	12 ½ Tons Downflow and Horizontal Units		15 Tons Downflow and Horizontal Units	
	TH*150G3,4,W	YH*150G3,4,W	TH*180G3,4,W	YH*180G3,4,W
Cooling Performance^(a)				
Gross Cooling Capacity	152,400	152,400	180,500	180,500
EER ^(b)	12.1	12.1	12.1	12.1
Nominal CFM / AHRI Rated CFM	5,000 / 4,000	5,000 / 4,000	6,000 / 5,250	6,000 / 5,250
AHRI Net Cooling Capacity	144,000	144,000	174,000	174,000
Integrated Energy Efficiency Ratio (IEER) (One Speed Fan / Multi or Variable Speed Fan) ^(c)	13.5/15.0	13.5/15.0	14.0/15.0	14.0/15.0
Percent Capacity @ part load (Stage 1/Stage 2/Stage 3) ^(d)	30/70/100	30/70/100	32/68/100	32/68/100
System Power (kW)	11.90	11.90	14.38	14.38
Compressor				
Number/Type	2 / Scrolls	2 / Scrolls	2 / Scrolls	2 / Scrolls
Sound				
Outdoor Sound Rating (BELS) ^(e)	9.2	9.2	9.2	9.2
Outdoor Coil				
Type	Microchannel	Microchannel	Microchannel	Microchannel
Coil Width (in.)	1.0	1.0	1.0	1.0
Face Area (sq. ft.)	35.2	35.2	42.6	42.6
Rows/FPI	1 / 20	1 / 20	1 / 20	1 / 20
Indoor Coil				
Type	Hi-Performance	Hi-Performance	Hi-Performance	Hi-Performance
Tube Size (in.) ID	0.3125	0.3125	0.3125	0.3125
Face Area (sq. ft.)	26.00	26.00	31.42	31.42
Rows/FPI	4 / 15	4 / 15	4 / 15	4 / 15
Refrigerant Control	TXV	TXV	TXV	TXV
Drain Connection Number/Size (in.)	1/1.00 NPT	1/1.00 NPT	1/1.00 NPT	1/1.00 NPT
Outdoor Fan				
Type	Propeller	Propeller	Propeller	Propeller
Number Used/Diameter (in.)	2 / 26	2 / 26	2 / 26	2 / 26
Drive Type/No. Speeds	Direct / 1	Direct / 1	Direct / 1	Direct / 1
cfm	11,400	11,400	11,700	11,700
Number Motors/hp	2 / 0.50	2 / 0.50	2 / 0.50	2 / 0.50
Motor rpm	1,100	1,100	1,100	1,100
Indoor Fan				
Type	FC Centrifugal	FC Centrifugal	FC Centrifugal	FC Centrifugal
Number Used/Diameter (in.)	1 / 18x18	1 / 18x18	1 / 18x18	1 / 18x18
Drive Type/No. Speeds	Belt / 1	Belt / 1	Belt / 1	Belt / 1
Number Motors	1	1	1	1
Motor hp (Standard/Oversized)	3.0 / 5.0	3.0 / 5.0	3.0 / 5.0	3.0 / 5.0
Motor rpm (Standard/Oversized)	1,740 / 3,450	1,740 / 3,450	1,740 / 3,450	1,740 / 3,450
Motor Frame Size (Standard/Oversized)	145T / 145T	145T / 145T	145T / 145T	145T / 145T

Table 9. General data—12½–15 tons high efficiency (continued)

	12 ½ Tons Downflow and Horizontal Units		15 Tons Downflow and Horizontal Units	
	TH*150G3,4,W	YH*150G3,4,W	TH*180G3,4,W	YH*180G3,4,W
Filters				
Type Furnished ^(f)	Throwaway	Throwaway	Throwaway	Throwaway
Number Size Recommended				
Downflow	(4)20x20x2 (4)20x25x2	(4)20x20x2 (4)20x25x2	(8)20x20x2 (4)20x16x2	(8)20x20x2 (4)20x16x2
Horizontal	(8)20x25x2	(8)20x25x2	(12)20x20x2	(12)20x20x2
Refrigerant Charge (Pounds of R-410A) (g)				
Downflow and Horizontal (Cir#1/Cir#2)	12.5/7.1	12.5/7.1	13.0/8.5	13.0/8.5
Optional Hot Gas Reheat Coil (Cir#1/Cir#2)	9.2 / 6.9	9.2 / 6.9	10.9 / 8.9	10.9 / 8.9

(a) Cooling Performance is rated at 95°F ambient, 80°F entering dry bulb, 67°F entering wet bulb. Gross capacity does not include the effect of fan motor heat. AHRI capacity is net and includes the effect of fan motor heat. Units are suitable for operation to ±20% of nominal cfm. Certified in accordance with the Unitary Large Equipment Certification Program, which is based on AHRI Standard 340/360.

(b) EER is rated at AHRI conditions and in accordance with AHRI Standard 210/240 or 340/360.

(c) Integrated Energy Efficiency Ratio (IEER) is rated in accordance with AHRI standard 210/240 or 340/360.

(d) 3 stages not available with Reheat models.

(e) Outdoor Sound Rating shown is tested in accordance with AHRI Standard 270 or 370.

(f) An optional 2 inch pleated filter is also available.

(g) Refrigerant charge is an approximate value. For a more precise value, see unit nameplate and service instructions.

* Indicates both downflow and horizontal units.

Table 10. General data—heating—12½–15 tons high efficiency

	12 ½ Tons Downflow and Horizontal Units			15 Tons Downflow and Horizontal Units		
	Heating Performance ^(a) (Gas/Electric Only)					
Heating Models	Low	High	Modulating Turn Down = 2.5:1	Low	High	Modulating Turn Down = 2.5:1
Heating Input (Btu/h)	150,000	250,000	350,000	250,000	350,000	350,000
1st Stage (Btu)	100,000	175,000	140,000	175,000	250,000	140,000
Heating Output (Btu/h)	120,000	200,000	280,000	200,000	280,000	280,000
1st Stage (Btu)	80,000	140,000	112,000	140,000	200,000	112,000
Steady State Efficiency %	80	80	80	80	80	80
No. Burners	1	1	1	1	1	1
No. Stages	2	2	N/A	2	2	N/A
Gas Supply Line Pressure (in. wc)	2.5 / 14.0	2.5 / 14.0	2.5 / 14.0	2.5 / 14.0	2.5 / 14.0	2.5 / 14.0
Natural or LP (minimum/maximum)			Natural Only			Natural Only
Gas Connection Pipe Size (in.)	½	½	¾	½	¾	¾

(a) Heating Performance limit settings and rating data were established and approved under laboratory test conditions using American National Standards Institute standards. Ratings shown are for elevations up to 2000 feet. For elevations above 2000 feet, ratings should be reduced at the rate of 4% for each 1000 feet above sea level.

General Data

Table 11. General data—17½–20 tons high efficiency

	17 ½ Tons Downflow and Horizontal Units		20 Tons Downflow and Horizontal Units	
	TH*210G3,4,W	YH*210G3,4,W	TH*240G3,4,W	YH*240G3,4,W
Cooling Performance^(a)				
Gross Cooling Capacity	214,800	214,800	248,500	248,500
EER ^(b)	11.8	11.8	11.0	11.0
Nominal CFM / AHRI Rated CFM	7,000 / 5,600	7,000 / 5,600	8,000 / 6,400	8,000 / 6,400
AHRI Net Cooling Capacity	204,000	204,000	234,000	234,000
Integrated Energy Efficiency Ratio (IEER) (One Speed Fan / Multi or Variable Speed Fan) ^(c)	13.0/14.0	13.0/14.0	12.4/14.0	12.4/14.0
Percent Capacity @ part load (Stage 1/Stage 2/Stage 3) ^(d)	31/69/100	31/69/100	30/70/100	30/70/100
System Power (kW)	17.29	17.29	21.27	21.27
Compressor				
Number/Type	2 / Scrolls	2 / Scrolls	2 / Scrolls	2 / Scrolls
Sound				
Outdoor Sound Rating (BELS) ^(e)	9.2	9.2	9.4	9.4
Outdoor Coil				
Type	Microchannel	Microchannel	Microchannel	Microchannel
Coil Width (in.)	1.0	1.0	1.0	1.0
Face Area (sq. ft.)	42.6	42.6	42.6	42.6
Rows/FPI	1 / 20	1 / 20	1 / 20	1 / 20
Indoor Coil				
Type	Hi-Performance	Hi-Performance	Hi-Performance	Hi-Performance
Tube Size (in.) ID	0.3125	0.3125	0.3125	0.3125
Face Area (sq. ft.)	31.42	31.42	31.42	31.42
Rows/FPI	4 / 15	4 / 15	4 / 15	4 / 15
Refrigerant Control	TXV	TXV	TXV	TXV
Drain Connection Number/Size (in.)	1/1.00 NPT	1/1.00 NPT	1/1.00 NPT	1/1.00 NPT
Outdoor Fan				
Type	Propeller	Propeller	Propeller	Propeller
Number Used/Diameter (in.)	2 / 26	2 / 26	2 / 28	2 / 28
Drive Type/No. Speeds	Direct / 1	Direct / 1	Direct / 1	Direct / 1
cfm	15,800	15,800	16,500	16,500
Number Motors/hp	2 / 1.0	2 / 1.0	2 / 1.0	2 / 1.0
Motor rpm	1,125	1,125	1,125	1,125
Indoor Fan				
Type	FC Centrifugal	FC Centrifugal	FC Centrifugal	FC Centrifugal
Number Used/Diameter (in.)	1 / 18x18	1 / 18x18	1 / 18x18	1 / 18x18
Drive Type/No. Speeds	Belt / 1	Belt / 1	Belt / 1	Belt / 1
Number Motors	1	1	1	1
Motor hp (Standard/Oversized)	5.0 / 7.5	5.0 / 7.5	5.0 / 7.5	5.0 / 7.5
Motor rpm (Standard/Oversized)	3,450 / 3,470	3,450 / 3,470	3,450 / 3,470	3,450 / 3,470
Motor Frame Size (Standard/Oversized)	145T / 184T	145T / 184T	145T / 184T	145T / 184T

Table 11. General data—17½–20 tons high efficiency (continued)

	17 ½ Tons Downflow and Horizontal Units		20 Tons Downflow and Horizontal Units	
	TH*210G3,4,W	YH*210G3,4,W	TH*240G3,4,W	YH*240G3,4,W
Filters				
Type Furnished ^(f)	Throwaway	Throwaway	Throwaway	Throwaway
Number Size Recommended				
Downflow	(8)20x20x2 (4)20x16x2	(8)20x20x2 (4)20x16x2	(8)20x20x2 (4)20x16x2	(8)20x20x2 (4)20x16x2
Horizontal	(12)20x20x2	(12)20x20x2	(12)20x20x2	(12)20x20x2
Refrigerant Charge (Pounds of R-410A) (g)				
Downflow and Horizontal (Cir#1/Cir#2)	14.0 / 7.3	14.0 / 7.3	15.5 / 7.5	15.5 / 7.5
Optional Hot Gas Reheat Coil (Cir#1/Cir#2)	12.2/8.9	12.2/8.9	11.9 / 9.6	11.9 / 9.6

(a) Cooling Performance is rated at 95°F ambient, 80°F entering dry bulb, 67°F entering wet bulb. Gross capacity does not include the effect of fan motor heat. AHRI capacity is net and includes the effect of fan motor heat. Units are suitable for operation to ±20% of nominal cfm. Certified in accordance with the Unitary Large Equipment Certification Program, which is based on AHRI Standard 340/360.

(b) EER is rated at AHRI conditions and in accordance with AHRI Standard 210/240 or 340/360.

(c) Integrated Energy Efficiency Ratio (IEER) is rated in accordance with AHRI standard 210/240 or 340/360.

(d) 3 stages not available with Reheat models.

(e) Outdoor Sound Rating shown is tested in accordance with AHRI Standard 270 or 370.

(f) An optional 2 inch pleated filter is also available.

(g) Refrigerant charge is an approximate value. For a more precise value, see unit nameplate and service instructions.

* Indicates both downflow and horizontal units.

Table 12. General data—heating—17½–20 tons high efficiency

	17 ½ Tons Downflow and Horizontal Units			20 Tons Downflow and Horizontal Units		
	Heating Performance ^(a) (Gas/Electric Only)					
Heating Models	Low	High	Modulating Turn Down = 2.5:1	Low	High	Modulating Turn Down = 2.5:1
Heating Input (Btu/h)	250,000	350,000	350,000	250,000	400,000	350,000
1st Stage (Btu)	175,000	250,000	140,000	175,000	300,000	140,000
Heating Output (Btu/h)	200,000	280,000	280,000	200,000	320,000	280,000
1st Stage (Btu)	140,000	200,000	112,000	140,000	240,000	112,000
Steady State Efficiency %	80	80	80	80	80	80
No. Burners	1	1	1	1	1	1
No. Stages	2	2	N/A	2	2	N/A
Gas Supply Line Pressure (in. wc)	2.5 / 14.0	2.5 / 14.0	2.5/14.0	2.5 / 14.0	2.5 / 14.0	2.5/14.0
Natural or LP (minimum/maximum)			Natural Only			Natural Only
Gas Connection Pipe Size (in.)	½	¾	¾	½	¾	¾

(a) Heating Performance limit settings and rating data were established and approved under laboratory test conditions using American National Standards Institute standards. Ratings shown are for elevations up to 2000 feet. For elevations above 2000 feet, ratings should be reduced at the rate of 4% for each 1000 feet above sea level.

General Data

Table 13. General data—25 tons high efficiency

	25 Tons Downflow and Horizontal Units	
	TH*300G3,4,W	YH*300G3,4,W
Cooling Performance^(a)		
Gross Cooling Capacity	292,300	292,300
EER ^(b)	10.6	10.6
Nominal CFM / AHRI Rated CFM	10,000 / 8,000	10,000 / 8,000
AHRI Net Cooling Capacity	274,000	274,000
Integrated Energy Efficiency Ratio (IEER) (One Speed Fan / Multi or Variable Speed Fan) ^(c)	12.4/15.0	12.4/15.0
Percent Capacity @ part load (Stage 1/Stage 2/Stage 3/Stage 4) ^(d)	25/50/75/100	25/50/75/100
System Power (kW)	25.85	25.85
Compressor		
Number ^(e) /Type	3 / Scrolls	3 / Scrolls
Sound		
Outdoor Sound Rating (BELS) ^(f)	9.4	9.4
Outdoor Coil		
Type	Microchannel	Microchannel
Coil Width (in.)	1.0	1.0
Face Area (sq. ft.)	42.58	42.58
Rows/FPI	1 / 20	1 / 20
Indoor Coil		
Type	Hi-Performance	Hi-Performance
Tube Size (in.) ID	0.3125	0.3125
Face Area (sq. ft.)	31.42	31.42
Rows/FPI	4 / 15	4 / 15
Refrigerant Control	TXV	TXV
Drain Connection Number/Size (in.)	1/1.00 NPT	1/1.00 NPT
Outdoor Fan		
Type	Propeller	Propeller
Number Used/Diameter (in.)	2 / 28	2 / 28
Drive Type/No. Speeds	Direct / 1	Direct / 1
cfm	16,500	16,500
Number Motors/hp	2 / 1.0	2 / 1.0
Motor rpm	1,125	1,125
Indoor Fan		
Type	FC Centrifugal	FC Centrifugal
Number Used/Diameter (in.)	1 / 18x18	1 / 18x18
Drive Type/No. Speeds	Belt / 1	Belt / 1
Number Motors	1	1
Motor hp (Standard)	7.5	7.5
Motor rpm (Standard)	3,470	3,470
Motor Frame Size (Standard)	184T	184T

Table 13. General data—25 tons high efficiency (continued)

	25 Tons Downflow and Horizontal Units	
	TH*300G3,4,W	YH*300G3,4,W
Filters		
Type Furnished ^(g)	Throwaway	Throwaway
Number Size Recommended		
Downflow	(8)20x20x2 (4)20x16x2	(8)20x20x2 (4)20x16x2
Horizontal	(12)20x20x2	(12)20x20x2
Refrigerant Charge (Pounds of R-410A)^(h)		
Downflow and Horizontal (Cir#1/Cir#2)	11.8 / 10.6	11.8 / 10.6
Optional Hot Gas Reheat Coil (Cir#1/Cir#2)	12.7 / 11.4	12.7 / 11.4

(a) Cooling Performance is rated at 95°F ambient, 80°F entering dry bulb, 67°F entering wet bulb. Gross capacity does not include the effect of fan motor heat. AHRI capacity is net and includes the effect of fan motor heat. Units are suitable for operation to ±20% of nominal cfm. Certified in accordance with the Unitary Large Equipment Certification Program, which is based on AHRI Standard 340/360.

(b) EER is rated at AHRI conditions and in accordance with AHRI Standard 210/240 or 340/360.

(c) Integrated Energy Efficiency Ratio (IEER) is rated in accordance with AHRI standard 210/240 or 340/360.

(d) 3 and 4 stages not available with Reheat models.

(e) 2 compressors for Reheat Model

(f) Outdoor Sound Rating shown is tested in accordance with AHRI Standard 270 or 370.

(g) An optional 2-inch pleated filter is also available.

(h) Refrigerant charge is an approximate value. For a more precise value, see unit nameplate and service instructions.

* Indicates both downflow and horizontal units.

Table 14. General data—heating—25 tons high efficiency

	25 Tons Downflow and Horizontal Units		
	Heating Performance^(a) (Gas/Electric Only)		
Heating Models	Low	High	Modulating Turn Down = 2.5:1
Heating Input (Btu/h)	250,000	400,000	350,000
1st Stage (Btu)	175,000	300,000	140,000
Heating Output (Btu/h)	200,000	320,000	280,000
1st Stage (Btu)	140,000	240,000	112,000
Steady State Efficiency %	80	80	80
No. Burners	1	1	1
No. Stages	2	2	N/A
Gas Supply Line Pressure (in. wc)	2.5 / 14.0	2.5 / 14.0	2.5/14.0
Natural or LP (minimum/maximum)			Natural Only
Gas Connection Pipe Size (in.)	½	¾	¾

(a) Heating Performance limit settings and rating data were established and approved under laboratory test conditions using American National Standards Institute standards. Ratings shown are for elevations up to 2000 feet. For elevations above 2000 feet, ratings should be reduced at the rate of 4% for each 1000 feet above sea level.



Performance Data

Table 15. Gross cooling capacities 12½ tons three phase standard efficiency T/YS*150G3,4,W,K

Air Flow cfm	Ent DB (°F)	Ambient Temperature																	
		85						95						105					
		Entering Wet Bulb																	
		61		67		73		61		67		73		61		67		73	
MBh	SHC	MBh	SHC	MBh	SHC	MBh	SHC	MBh	SHC	MBh	SHC	MBh	SHC	MBh	SHC	MBh	SHC	MBh	SHC
4000	75	135	113	152	87	166	59	128	110	144	84	157	56	121.3	107.0	136.2	81.0	148.3	52.7
	80	135	134	152	109	166	81	128	128	144	106	158	78	121.5	121.4	136.2	103.0	148.6	75.1
	85	140	140	151	131	166	104	134	134	144	128	158	101	128.7	128.7	136.1	124.8	148.9	97.4
	90	148	148	151	151	166	126	142	142	144	144	158	123	136.0	136.0	136.2	136.1	148.8	119.4
4500	75	137	121	154	92	168	60	131	118	146	89	160	57	123.3	114.8	138.2	85.4	150.0	53.7
	80	138	137	154	117	169	85	131	131	146	113	160	82	125.1	125.1	138.1	110.2	150.4	78.9
	85	145	145	154	141	169	110	139	139	146	138	160	107	133.0	133.0	137.8	134.5	150.7	104.0
	90	153	153	154	154	169	135	147	147	147	147	160	132	140.3	140.3	140.5	140.5	150.5	128.7
5000	75	139	129	156	96	170	61	132	126	148	93	161	58	124.7	122.3	139.7	89.7	151.4	54.7
	80	141	141	156	124	171	89	135	135	148	121	162	86	128.6	128.6	139.6	117.2	151.9	82.7
	85	149	149	156	151	171	117	143	143	148	147	162	114	136.5	136.5	139.2	138.9	152.1	110.5
	90	157	157	157	157	171	144	151	151	151	151	162	141	143.7	143.7	143.9	143.9	151.9	137.9
5500	75	141	137	158	101	172	62	133	133	150	97	162	59	125.8	125.6	140.9	94.1	152.4	55.7
	80	144	144	158	131	172	93	138	138	149	128	163	90	131.5	131.5	140.8	124.2	153.1	86.5
	85	153	153	157	157	173	124	146	146	149	149	163	121	139.4	139.4	140.3	140.1	153.6	117.0
	90	161	161	161	161	172	154	154	154	154	154	163	151	146.4	146.4	146.5	146.5	152.8	147.1
6000	75	142	142	159	105	173	63	135	134	151	102	163	60	126.8	126.5	141.9	98.4	153.3	56.6
	80	147	147	159	138	174	97	141	141	150	135	164	94	134.0	134.0	141.6	131.2	154.2	90.3
	85	156	156	158	158	174	130	149	149	150	150	164	127	141.9	141.9	142.0	142.0	153.9	123.8
	90	164	164	164	164	173	163	157	157	157	157	164	160	148.9	148.9	149.0	149.0	153.3	152.9
Air Flow cfm	Ent DB (°F)	Ambient Temperature																	
		115						120						125					
		Entering Wet Bulb																	
		61		67		73		61		67		73		61		67		73	
MBh	SHC	MBh	SHC	MBh	SHC	MBh	SHC	MBh	SHC	MBh	SHC	MBh	SHC	MBh	SHC	MBh	SHC	MBh	SHC
4000	75	114.1	103.8	127.9	77.7	138.5	49.3	110.4	102.1	123.6	76.0	133.4	47.5	106.5	100.4	119.0	74.1	127.9	45.6
	80	115.3	115.3	127.9	99.7	138.9	71.7	112.3	112.3	123.6	98.0	133.7	69.9	109.1	109.1	119.1	96.2	128.3	68.1
	85	122.6	122.6	127.8	121.5	139.2	94.0	119.3	119.3	123.3	119.7	134.1	92.3	115.7	115.7	118.7	117.8	128.8	90.4
	90	129.4	129.4	129.5	129.5	139.2	116.0	125.8	125.8	125.9	125.9	134.1	114.3	121.9	121.9	122.0	122.0	128.7	112.4
4500	75	115.8	111.5	129.6	82.0	140.0	50.3	111.8	109.7	125.1	80.3	134.6	48.4	107.8	107.6	120.4	78.5	128.9	46.5
	80	119.0	119.0	129.5	106.8	140.4	75.5	115.8	115.8	125.0	105.0	135.1	73.7	112.3	112.3	120.3	103.2	129.5	71.8
	85	126.4	126.4	129.2	129.0	140.7	100.6	122.8	122.8	124.7	124.5	135.3	98.7	119.0	119.0	120.0	119.8	129.7	96.8
	90	133.1	133.1	133.2	133.2	140.5	125.2	129.1	129.1	129.3	129.3	135.2	123.4	124.9	124.9	125.0	125.0	129.5	121.5
5000	75	116.9	116.7	130.9	86.4	141.0	51.2	113.0	112.8	126.3	84.6	135.5	49.4	108.9	108.7	121.4	82.8	129.7	47.5
	80	122.1	122.1	130.8	113.8	141.7	79.3	118.7	118.7	126.1	112.0	136.3	77.5	114.9	114.9	121.3	110.2	130.6	75.6
	85	129.5	129.5	130.4	130.2	141.8	107.0	125.7	125.7	125.9	125.8	136.3	105.2	121.6	121.6	121.7	121.7	130.5	103.3
	90	135.9	135.9	136.0	136.0	141.5	134.4	131.6	131.6	131.7	131.7	135.9	132.4	127.0	127.0	127.1	127.1	130.0	129.5
5500	75	118.0	117.8	131.9	90.7	141.8	52.1	114.0	113.8	127.2	88.9	136.2	50.3	109.9	109.8	122.2	87.1	130.3	48.4
	80	124.7	124.7	131.7	120.8	142.7	83.0	121.0	121.0	127.0	119.0	137.3	81.2	117.1	117.1	121.9	117.1	131.5	79.4
	85	132.0	132.0	132.1	132.1	142.6	113.5	127.9	127.9	128.0	128.0	137.0	111.6	123.6	123.6	123.7	123.7	131.1	109.7
	90	138.2	138.2	138.3	138.3	142.0	141.6	133.7	133.7	133.8	133.8	136.3	135.9	128.8	128.8	128.9	128.9	130.3	130.0
6000	75	118.9	118.8	132.7	94.9	142.5	53.1	115.3	115.3	127.8	93.1	136.8	51.2	111.6	111.6	122.8	91.3	130.8	49.3
	80	126.8	126.8	132.4	127.7	143.7	86.9	123.0	123.0	127.4	125.8	138.0	85.1	118.9	118.9	122.2	121.9	132.0	83.1
	85	134.0	134.0	134.1	134.1	143.2	119.9	129.7	129.7	129.8	129.8	137.5	118.1	125.2	125.2	125.3	125.3	131.5	116.2
	90	140.3	140.3	140.3	140.3	142.4	142.0	135.5	135.5	135.6	135.6	136.7	136.4	130.4	130.4	130.4	130.4	130.8	130.5

Notes:

1. All capacities shown are gross and have not considered indoor fan heat. To obtain **NET** cooling capacity subtract indoor fan heat. For indoor fan heat formula, refer to appropriate airflow table notes.
2. MBh = Total Gross Capacity
3. SHC = Sensible Heat Capacity
4. * Stands for both downflow and horizontal unit.

Performance Data

Table 16. Gross cooling capacities 15 tons three phase standard efficiency T/YS*180G3,4,W,K

Air Flow cfm	Ent DB (°F)	Ambient Temperature																	
		85						95						105					
		Entering Wet Bulb																	
		61		67		73		61		67		73		61		67		73	
		MBh	SHC	MBh	SHC	MBh	SHC	MBh	SHC	MBh	SHC	MBh	SHC	MBh	SHC	MBh	SHC	MBh	SHC
4800	75	163.2	138.4	185.0	107.5	206.8	74.7	155.6	134.9	176.1	103.9	195.7	70.7	147.4	131.1	166.3	99.8	183.0	66.1
	80	162.9	162.6	185.1	134.2	206.9	101.8	155.4	155.2	176.2	130.5	195.8	97.7	147.3	147.0	166.3	126.5	183.1	93.1
	85	164.5	164.4	185.0	160.7	206.9	128.7	157.8	157.7	176.0	157.1	195.9	124.6	151.2	151.2	166.2	152.9	183.2	120.0
	90	173.3	173.3	184.6	184.2	207.0	155.3	167.1	167.1	175.7	175.4	195.9	151.3	160.1	160.1	166.1	165.8	183.2	146.7
5400	75	167.9	148.7	190.1	113.9	211.1	76.6	159.8	145.1	180.5	110.0	198.9	72.2	150.9	141.1	170.0	105.8	185.0	67.4
	80	167.5	167.2	190.1	143.8	211.2	107.0	159.6	159.3	180.5	140.0	199.0	102.7	151.0	150.7	170.0	135.8	185.2	97.8
	85	170.5	170.5	189.9	173.5	211.3	137.2	164.2	164.2	180.3	169.6	199.1	132.9	157.1	157.1	169.8	165.4	185.3	128.0
	90	180.7	180.7	189.4	189.1	211.3	167.2	174.0	174.0	180.0	179.7	199.2	162.9	166.3	166.3	169.8	169.5	185.4	158.0
6000	75	171.7	158.9	194.2	120.0	214.3	78.2	163.1	155.1	184.1	115.9	201.1	73.6	153.9	151.0	173.0	111.6	186.5	68.6
	80	171.3	171.0	194.2	153.2	214.4	112.0	162.8	162.6	184.1	149.2	201.3	107.4	154.0	153.9	173.0	144.9	186.6	102.3
	85	176.6	176.6	193.8	186.2	214.4	145.5	169.8	169.8	183.6	181.7	201.4	141.0	162.2	162.2	172.5	172.1	186.7	135.9
	90	187.2	187.2	193.3	192.9	214.5	178.8	179.9	179.9	183.4	183.2	201.4	174.3	171.6	171.6	172.9	172.8	186.6	169.2
6600	75	174.9	168.9	197.5	125.9	216.5	79.6	165.9	164.6	187.0	121.7	202.5	74.8	156.2	155.8	175.3	117.2	188.2	70.0
	80	174.4	174.2	197.5	162.5	216.7	116.8	165.8	165.7	186.9	158.3	202.6	112.0	156.7	156.6	175.2	153.8	188.3	107.1
	85	181.9	181.9	196.9	196.4	216.8	153.7	174.7	174.7	186.3	185.8	202.7	148.9	166.5	166.5	174.7	174.3	188.4	144.0
	90	192.8	192.8	196.4	196.1	216.8	190.3	184.9	184.9	186.5	186.3	202.9	185.5	176.0	176.0	176.1	176.1	188.3	180.6
7200	75	177.6	177.1	200.3	131.7	218.1	80.9	168.3	167.8	189.3	127.4	204.3	76.2	158.2	157.8	177.1	122.8	189.5	71.3
	80	177.2	177.0	200.3	171.5	218.3	121.4	168.5	168.3	189.2	167.3	204.4	116.8	160.2	160.2	177.0	162.6	189.7	111.8
	85	186.6	186.6	199.4	198.9	218.4	161.7	178.9	178.9	188.4	187.9	204.5	157.0	170.3	170.3	176.4	175.9	189.8	152.1
	90	197.7	197.7	199.4	199.2	218.4	201.7	189.3	189.3	189.4	189.2	204.2	196.9	179.6	179.6	179.6	179.6	189.5	188.8
Air Flow cfm	Ent DB (°F)	Ambient Temperature																	
		115						120						125					
		Entering Wet Bulb																	
		61		67		73		61		67		73		61		67		73	
		MBh	SHC	MBh	SHC	MBh	SHC	MBh	SHC	MBh	SHC	MBh	SHC	MBh	SHC	MBh	SHC	MBh	SHC
4800	75	138.6	127.2	155.7	95.6	168.4	61.0	134.2	125.2	150.1	93.3	160.9	58.4	-	-	144.2	91.0	153.4	55.8
	80	138.8	138.5	155.7	122.2	168.6	88.0	134.5	134.3	150.1	120.0	161.0	85.4	-	-	144.3	117.7	153.5	82.8
	85	144.0	144.0	155.6	148.6	168.7	114.9	140.2	140.2	150.0	146.4	161.1	112.3	136.3	136.3	144.2	143.7	153.6	109.7
	90	152.4	152.4	155.7	155.5	168.8	141.6	148.2	148.2	150.3	150.0	161.1	138.9	143.8	143.8	144.8	144.7	153.7	136.4
5400	75	141.6	137.0	158.7	101.3	170.1	62.3	136.9	134.9	152.6	99.0	162.5	59.7	132.1	131.8	146.3	96.6	154.4	57.0
	80	142.0	141.9	158.7	131.3	170.2	92.7	137.6	137.4	152.7	128.9	162.6	90.1	133.1	132.9	146.4	126.5	154.6	87.4
	85	149.3	149.3	158.4	158.0	170.3	122.8	145.2	145.2	152.5	152.1	162.7	120.3	140.8	140.8	146.3	145.9	154.7	117.6
	90	157.8	157.8	159.0	158.8	170.4	152.8	153.1	153.1	153.3	153.1	162.8	150.3	147.9	147.9	148.0	148.0	154.8	147.6
6000	75	144.0	143.6	160.9	106.9	171.6	63.5	139.0	138.6	154.5	104.5	163.5	60.9	134.0	133.6	147.8	102.0	155.0	58.1
	80	144.8	144.8	160.9	140.2	171.7	97.3	140.7	140.7	154.5	137.7	163.7	94.6	136.5	136.5	147.8	135.2	155.2	91.8
	85	153.8	153.8	160.6	160.3	171.8	130.9	149.2	149.2	154.4	154.0	163.8	128.2	144.4	144.4	147.9	147.5	155.4	125.4
	90	162.2	162.2	162.3	162.3	171.8	164.2	156.8	156.8	156.9	156.9	163.8	161.5	150.8	150.8	150.8	150.8	155.6	154.8
6600	75	146.0	145.6	162.6	112.4	172.5	64.8	140.8	140.4	155.9	109.9	164.1	62.0	135.4	135.1	148.9	107.3	155.2	59.1
	80	148.4	148.4	162.6	149.0	172.7	101.9	144.1	144.1	155.9	146.5	164.3	99.2	139.6	139.6	148.9	143.9	155.5	96.3
	85	157.5	157.5	162.3	161.9	172.9	138.8	152.6	152.6	155.6	155.2	164.5	136.1	147.2	147.2	148.8	148.5	155.8	133.2
	90	165.5	165.5	165.6	165.6	172.9	172.2	159.3	159.3	159.4	159.4	164.7	164.0	152.2	152.2	152.2	152.2	156.1	155.5
7200	75	147.6	147.2	163.9	117.8	173.2	66.0	142.2	141.8	156.9	115.2	164.5	63.2	136.6	136.2	149.6	112.5	155.3	60.2
	80	151.6	151.6	163.8	157.7	173.4	106.5	147.0	147.0	156.9	155.1	164.7	103.6	142.1	142.1	149.6	149.0	155.5	100.7
	85	160.6	160.6	163.3	163.0	173.6	146.7	155.2	155.2	156.6	156.4	165.0	143.9	149.4	149.4	149.7	149.4	156.0	141.1
	90	167.9	167.9	167.9	167.9	173.7	173.0	160.7	160.7	160.8	160.8	165.2	164.6	153.9	153.9	154.0	154.0	156.4	155.7

Notes:

1. All capacities shown are gross and have not considered indoor fan heat. To obtain **NET** cooling capacity subtract indoor fan heat. For indoor fan heat formula, refer to appropriate airflow table notes.
2. MBh = Total Gross Capacity
3. SHC = Sensible Heat Capacity
4. *Stands for both downflow and horizontal unit.



Performance Data

Table 17. Gross cooling capacities 17½ tons three phase standard efficiency T/YS*210G3,4,W,K

Air Flow cfm	Ent DB (°F)	Ambient Temperature																	
		85						95						105					
		Entering Wet Bulb																	
		61		67		73		61		67		73		61		67		73	
		MBh	SHC	MBh	SHC	MBh	SHC	MBh	SHC	MBh	SHC	MBh	SHC	MBh	SHC	MBh	SHC	MBh	SHC
5600	75	186.0	161.1	210.2	124.5	233.8	85.5	176.4	156.7	199.5	120.1	221.1	80.9	166.4	152.2	188.0	115.4	207.2	76.0
	80	185.1	184.9	209.9	155.7	233.8	117.2	175.8	175.6	199.3	151.4	221.1	112.6	166.2	166.1	187.8	146.7	207.3	107.7
	85	191.8	191.8	209.4	186.6	233.7	148.7	184.3	184.3	198.6	182.2	221.0	144.1	176.1	176.1	187.1	177.5	207.2	139.2
	90	203.1	203.1	208.5	208.2	233.5	180.1	195.2	195.2	198.0	197.7	220.9	175.5	186.5	186.5	187.0	186.9	207.0	170.5
6300	75	189.9	172.8	214.5	131.5	237.5	87.3	179.9	168.3	203.2	126.9	224.3	82.7	169.5	163.7	191.1	122.1	209.7	77.6
	80	189.1	188.9	214.2	166.6	237.5	123.0	179.8	179.7	203.0	162.1	224.3	118.4	171.3	171.3	190.9	157.3	209.8	113.3
	85	199.0	199.0	213.3	201.1	237.4	158.5	191.0	191.0	202.1	196.4	224.2	153.8	182.3	182.3	190.0	189.1	209.8	148.9
	90	210.7	210.7	212.4	212.2	237.1	193.7	202.2	202.2	202.4	202.4	223.9	189.0	192.8	192.8	193.0	193.0	209.5	183.9
7000	75	193.1	184.2	218.0	138.3	240.3	89.1	182.8	179.0	206.3	133.6	226.6	84.4	171.9	171.4	193.7	128.7	211.5	79.2
	80	193.0	193.0	217.6	177.2	240.4	128.8	185.0	185.0	205.9	172.6	226.7	124.0	176.3	176.3	193.3	167.7	211.7	118.9
	85	205.2	205.2	216.5	213.8	240.3	168.2	196.7	196.7	204.5	204.1	226.7	163.5	187.4	187.4	191.9	191.6	211.8	158.4
	90	217.3	217.3	217.5	217.5	239.8	207.1	208.2	208.2	208.4	208.4	226.2	202.4	198.2	198.2	198.3	198.3	211.4	197.3
7700	75	195.7	193.8	220.8	144.9	242.6	90.8	184.9	184.5	208.7	140.2	228.4	86.0	173.6	173.2	195.7	135.3	212.8	80.7
	80	198.1	198.1	220.4	187.8	242.7	134.4	189.7	189.7	208.3	183.1	228.6	129.6	180.5	180.5	195.3	178.1	213.2	124.4
	85	210.5	210.5	218.6	218.1	242.7	177.8	201.6	201.6	206.5	206.2	228.6	173.0	191.7	191.7	193.7	193.4	213.2	167.8
	90	222.9	222.9	223.1	223.1	242.0	220.6	213.4	213.4	213.5	213.5	228.1	215.8	202.6	202.6	202.7	202.7	212.8	208.8
8400	75	197.6	197.1	223.2	151.5	244.3	92.4	186.5	186.0	210.7	146.8	229.8	87.6	175.1	174.8	197.6	141.9	213.8	82.3
	80	202.5	202.5	222.6	198.2	244.5	140.0	193.8	193.8	210.2	193.5	230.1	135.2	184.2	184.2	196.9	188.5	214.3	129.9
	85	215.2	215.2	220.4	220.0	244.5	187.3	205.9	205.9	208.2	207.8	230.1	182.5	195.6	195.6	195.7	195.7	214.3	177.2
	90	227.8	227.8	228.0	228.0	243.9	234.0	217.7	217.7	217.8	217.8	229.5	226.5	206.2	206.2	206.3	206.3	213.4	212.7
Air Flow cfm	Ent DB (°F)	Ambient Temperature																	
		115						120						125					
		Entering Wet Bulb																	
		61		67		73		61		67		73		61		67		73	
		MBh	SHC	MBh	SHC	MBh	SHC	MBh	SHC	MBh	SHC	MBh	SHC	MBh	SHC	MBh	SHC	MBh	SHC
5600	75	156.8	147.9	176.0	110.7	192.2	70.7	152.4	145.9	170.0	108.3	184.3	68.0	-	-	164.1	106.0	176.1	65.2
	80	157.8	157.8	175.8	141.9	192.3	102.5	154.1	154.1	169.9	139.6	184.5	99.8	-	-	164.0	137.3	176.5	97.0
	85	167.6	167.6	175.3	171.8	192.4	134.1	163.4	163.4	169.2	167.8	184.7	131.4	159.1	159.1	163.2	162.9	176.8	128.7
	90	177.1	177.1	177.2	177.2	192.2	165.3	172.1	172.1	172.2	172.2	184.5	162.6	166.9	166.9	167.0	167.0	176.5	159.9
6300	75	159.4	157.6	178.6	117.2	193.9	72.2	154.5	154.1	172.3	114.8	185.6	69.4	150.2	149.9	166.1	112.5	177.1	66.6
	80	163.0	163.0	178.4	152.4	194.2	108.0	158.9	158.9	172.1	149.9	186.0	105.2	154.9	154.9	165.9	147.6	177.7	102.4
	85	173.0	173.0	177.3	177.0	194.3	143.5	168.3	168.3	171.1	170.8	186.2	140.8	163.4	163.4	164.9	164.6	177.9	138.0
	90	182.5	182.5	182.7	182.7	194.1	178.6	177.0	177.0	177.2	177.2	186.0	175.9	171.1	171.1	171.2	171.2	177.7	172.5
7000	75	161.1	160.8	180.6	123.7	195.1	73.7	156.2	155.9	174.2	121.3	186.5	70.8	151.7	151.4	167.8	118.9	177.7	67.9
	80	167.4	167.4	180.3	162.7	195.6	113.5	162.9	162.9	173.8	160.2	187.2	110.7	158.5	158.5	167.3	157.8	178.6	107.8
	85	177.4	177.4	179.1	178.7	195.7	152.9	172.2	172.2	172.7	172.5	187.3	150.1	166.8	166.8	166.9	166.9	178.6	147.2
	90	187.0	187.0	187.1	187.1	195.4	190.8	180.9	180.9	181.0	181.0	187.0	185.9	174.4	174.4	174.5	174.5	178.1	177.5
7700	75	162.7	162.4	182.3	130.3	195.9	75.2	157.6	157.3	175.7	127.8	187.1	72.3	153.1	152.9	169.2	125.3	178.1	69.3
	80	171.1	171.1	181.8	173.0	196.6	118.9	166.3	166.3	175.1	170.3	188.1	116.1	161.5	161.5	168.5	166.3	179.4	113.3
	85	181.2	181.2	181.3	181.3	196.6	162.3	175.6	175.6	175.7	175.7	188.0	159.4	169.7	169.7	169.8	169.8	179.1	156.8
	90	190.5	190.5	190.6	190.6	196.0	195.3	183.8	183.8	183.9	183.9	187.2	186.7	176.6	176.6	176.7	176.7	178.2	177.7
8400	75	164.1	163.9	183.9	136.8	196.5	76.6	159.1	159.1	177.0	134.2	187.5	73.7	154.9	154.9	170.1	131.7	-	-
	80	174.2	174.2	183.2	181.5	197.6	124.4	169.1	169.1	176.0	175.3	188.9	121.6	164.0	164.0	169.0	168.5	-	-
	85	184.4	184.4	184.5	184.5	197.3	171.6	178.5	178.5	178.6	178.6	188.5	169.2	172.2	172.2	172.2	172.2	-	-
	90	193.2	193.2	193.3	193.3	196.3	195.8	185.9	185.9	186.0	186.0	187.3	186.8	177.9	177.9	177.9	177.9	-	-

Notes:

1. All capacities shown are gross and have not considered indoor fan heat. To obtain **NET** cooling capacity subtract indoor fan heat. For indoor fan heat formula, refer to appropriate airflow table notes.
2. MBh = Total Gross Capacity
3. SHC = Sensible Heat Capacity
4. *Stands for both downflow and horizontal unit.

Performance Data

Table 18. Gross cooling capacities 20 tons three phase standard efficiency T/YS*240G3,4,W,K

Air Flow cfm	Ent DB (°F)	Ambient Temperature											
		85						95					
		Entering Wet Bulb											
		61		67		73		61		67		73	
		MBh	SHC	MBh	SHC	MBh	SHC	MBh	SHC	MBh	SHC	MBh	SHC
6400	75	230.4	187.9	260.3	147.4	287.7	103.3	219.7	182.8	247.5	142.0	271.7	97.5
	80	229.9	221.9	260.2	182.1	287.8	138.7	219.2	216.9	247.4	176.7	271.9	132.8
	85	231.6	231.5	260.0	216.6	287.9	173.7	222.2	222.2	247.2	211.2	272.0	167.9
	90	244.0	244.0	259.2	250.6	287.9	208.5	235.1	235.1	246.5	245.2	272.1	202.7
7200	75	236.0	200.9	265.9	154.9	292.1	105.1	224.6	195.6	252.3	149.4	275.0	99.0
	80	235.3	234.9	265.7	193.9	292.3	144.8	224.0	223.7	252.1	188.4	275.2	138.7
	85	239.6	239.6	265.4	232.7	292.4	184.2	230.6	230.6	251.7	227.1	275.5	178.2
	90	253.6	253.6	264.7	264.3	292.5	223.4	244.0	244.0	251.2	250.9	275.7	217.4
8000	75	240.4	213.5	270.2	162.2	295.3	106.7	228.3	208.1	256.0	156.5	277.2	100.4
	80	239.6	239.3	270.0	205.6	295.5	150.8	227.9	227.6	255.7	199.9	277.6	144.5
	85	247.4	247.4	269.5	248.5	295.8	194.6	237.8	237.8	255.2	242.8	278.0	188.4
	90	261.8	261.8	268.9	268.5	295.9	238.2	251.4	251.4	255.0	254.7	278.1	232.0
8800	75	243.8	225.9	273.8	169.4	297.6	108.2	231.2	220.4	258.9	163.6	279.5	101.9
	80	243.2	242.9	273.5	217.1	298.0	156.7	231.5	231.3	258.8	211.5	279.5	150.4
	85	254.2	254.2	272.7	264.2	298.3	204.9	243.9	243.9	258.0	257.1	279.9	198.5
	90	268.8	268.8	272.5	272.3	298.4	252.8	257.6	257.6	258.7	258.4	279.8	246.5
9600	75	246.6	238.2	276.6	176.5	299.5	109.6	233.8	232.7	261.3	170.6	281.4	103.5
	80	246.7	246.5	276.5	228.6	299.8	162.5	234.7	234.7	261.3	222.7	281.7	156.4
	85	260.1	260.1	275.5	274.8	300.3	215.2	249.2	249.2	260.3	259.7	281.7	209.0
	90	274.9	274.9	276.0	275.8	300.2	267.3	262.9	262.9	263.1	263.1	281.3	260.9
Air Flow cfm	Ent DB (°F)	Ambient Temperature											
		115						120					
		Entering Wet Bulb											
		61		67		73		61		67		73	
		MBh	SHC	MBh	SHC	MBh	SHC	MBh	SHC	MBh	SHC	MBh	SHC
6400	75	196.3	172.1	218.4	130.1	234.3	84.1	190.2	169.3	210.4	126.9	224.3	80.6
	80	196.0	195.8	218.4	164.8	234.5	119.4	190.1	189.9	210.5	161.7	224.6	116.0
	85	203.1	203.1	218.1	199.3	234.6	154.4	198.0	198.0	210.2	196.1	224.9	151.0
	90	214.2	214.2	218.0	217.8	234.7	189.3	208.2	208.2	210.3	210.1	225.0	185.9
7200	75	199.5	184.4	221.4	137.1	236.4	85.5	193.1	181.5	213.0	133.8	226.0	82.0
	80	199.6	199.5	221.4	176.2	236.7	125.3	193.6	193.5	213.1	172.9	226.4	121.7
	85	209.8	209.8	221.0	214.8	237.0	164.7	203.9	203.9	212.8	210.3	226.8	161.2
	90	220.8	220.8	221.5	221.3	237.0	203.9	214.0	214.0	214.1	214.1	226.7	200.3
8000	75	202.1	196.5	223.6	143.9	237.9	87.0	195.4	193.3	214.9	140.6	227.0	83.3
	80	203.3	203.3	223.7	187.4	238.3	131.1	197.8	197.8	215.0	184.0	227.6	127.5
	85	215.2	215.2	223.3	222.8	238.5	174.9	208.8	208.8	214.6	214.3	228.2	171.5
	90	225.9	225.9	226.1	226.1	238.6	218.3	218.3	218.3	218.4	218.4	228.0	214.8
8800	75	204.1	203.6	225.4	150.7	239.0	88.4	197.3	196.8	216.3	147.3	227.7	84.7
	80	207.8	207.8	225.4	198.5	239.5	136.9	201.8	201.8	216.3	195.1	228.5	133.3
	85	219.7	219.7	224.9	224.5	240.0	185.2	212.7	212.7	215.9	215.5	229.0	181.6
	90	229.8	229.8	229.9	229.9	239.7	232.8	221.2	221.2	221.3	221.3	228.9	224.7
9600	75	205.8	205.3	226.7	157.5	239.7	89.8	198.5	198.1	217.4	154.0	228.2	86.0
	80	211.6	211.6	226.6	209.5	240.4	142.7	205.2	205.2	217.3	206.0	229.1	139.1
	85	223.3	223.3	226.1	225.7	240.9	195.4	215.8	215.8	216.9	216.5	229.6	191.7
	90	232.6	232.6	232.7	232.7	240.7	239.0	223.6	223.6	223.7	223.7	229.5	228.8

Notes:

1. All capacities shown are gross and have not considered indoor fan heat. To obtain **NET** cooling capacity subtract indoor fan heat. For indoor fan heat formula, refer to appropriate airflow table notes.
2. MBh = Total Gross Capacity
3. SHC = Sensible Heat Capacity
4. *Stands for both downflow and horizontal unit.



Performance Data

Table 19. Gross cooling capacities 25 tons three phase standard efficiency T/YS*300G3,4,W,K

Air Flow cfm	Ent DB (°F)	Ambient Temperature											
		85				95				105			
		Entering Wet Bulb											
		61		67		73		61		67		73	
		MBh	SHC	MBh	SHC	MBh	SHC	MBh	SHC	MBh	SHC	MBh	SHC
7000	75	256.6	212.5	287.4	165.3	316.4	114.6	243.4	206.4	272.2	158.9	298.1	108.0
	80	256.2	251.4	287.4	204.9	316.6	154.9	243.2	242.6	272.1	198.5	298.3	148.2
	85	259.9	259.9	287.2	244.2	316.7	194.9	249.5	249.5	271.9	237.8	298.5	188.2
	90	274.2	274.2	286.8	283.1	316.8	234.5	263.2	263.2	271.7	271.3	298.6	227.9
8000	75	262.8	229.2	293.9	175.0	321.5	117.0	248.9	222.9	277.7	168.5	302.0	110.1
	80	262.4	262.1	293.8	220.2	321.8	162.9	248.6	248.3	277.6	213.7	302.4	156.1
	85	270.8	270.8	293.5	265.1	322.0	208.6	259.4	259.4	277.3	258.6	302.7	201.7
	90	285.9	285.9	292.9	292.5	322.2	254.0	273.8	273.8	277.0	276.7	302.9	247.1
9000	75	267.6	245.6	298.8	184.6	325.1	119.1	253.1	239.1	281.9	177.9	304.7	112.1
	80	267.2	266.9	298.7	235.5	325.5	170.8	253.5	253.3	282.0	228.9	305.2	163.8
	85	280.0	280.0	298.2	285.8	325.8	222.2	267.8	267.8	281.4	279.1	305.6	215.2
	90	295.6	295.6	298.1	297.8	326.0	273.2	282.4	282.4	282.6	282.6	305.7	266.2
10000	75	271.3	261.7	302.7	193.9	327.8	121.2	256.3	254.3	285.2	187.2	306.5	114.0
	80	271.8	271.5	302.8	250.5	328.2	178.6	259.5	259.5	285.3	243.7	307.1	171.5
	85	287.9	287.9	302.0	301.2	328.7	235.7	274.9	274.9	284.4	283.8	307.8	228.7
	90	303.6	303.6	303.8	303.8	328.7	292.3	289.4	289.4	289.6	289.6	307.8	285.2
11000	75	274.4	273.6	305.8	203.2	329.6	123.2	259.0	258.3	287.8	196.3	307.8	116.0
	80	277.9	277.9	305.8	265.4	330.2	186.4	265.2	265.2	287.7	258.5	308.6	179.2
	85	294.5	294.5	304.6	303.9	330.8	249.3	280.8	280.8	286.4	285.9	309.2	242.1
	90	310.2	310.2	310.4	310.4	330.8	311.4	295.1	295.1	295.3	295.3	309.4	304.2
Air Flow cfm	Ent DB (°F)	Ambient Temperature											
		115				120				125			
		Entering Wet Bulb											
		61		67		73		61		67		73	
		MBh	SHC	MBh	SHC	MBh	SHC	MBh	SHC	MBh	SHC	MBh	SHC
7000	75	215.5	193.7	238.4	145.3	255.8	93.0	208.6	190.6	229.4	141.7	244.0	88.9
	80	215.7	215.4	238.4	184.9	256.2	133.3	209.1	208.9	229.5	181.4	244.5	129.2
	85	225.9	225.9	238.3	224.2	256.7	173.3	219.6	219.6	229.4	220.6	245.2	169.3
	90	237.6	237.6	238.7	238.5	256.9	213.1	230.4	230.4	230.6	230.6	245.4	209.1
8000	75	219.4	209.8	242.0	154.5	257.2	94.7	212.0	206.6	232.5	150.8	244.8	90.5
	80	221.4	221.4	242.1	199.8	257.8	140.7	215.1	215.1	232.6	196.1	245.6	136.6
	85	233.6	233.6	241.9	241.3	258.6	186.5	226.4	226.4	232.4	231.9	246.6	182.5
	90	245.3	245.3	245.5	245.5	258.7	231.8	237.0	237.0	237.2	237.2	246.6	227.7
9000	75	222.3	221.7	244.7	163.5	257.8	96.3	214.5	213.9	234.7	159.8	245.1	92.1
	80	227.3	227.3	244.7	214.5	258.8	148.2	220.4	220.4	234.8	210.7	246.2	144.0
	85	239.8	239.8	244.2	243.6	259.6	199.7	231.9	231.9	234.3	233.9	247.0	195.5
	90	251.0	251.0	251.1	251.1	259.8	250.6	241.7	241.7	241.8	241.8	247.3	245.5
10000	75	224.3	223.8	246.6	172.5	258.2	98.0	216.2	215.7	236.4	168.7	245.3	93.9
	80	232.2	232.2	246.6	229.1	259.3	155.6	224.8	224.8	236.4	225.3	246.6	151.5
	85	244.8	244.8	246.2	245.9	260.0	212.8	236.2	236.2	236.3	236.3	247.1	208.6
	90	255.0	255.0	255.1	255.1	260.5	259.5	244.6	244.6	244.7	244.7	247.4	246.6
11000	75	225.8	225.3	248.1	181.6	258.8	100.0	217.6	217.3	237.7	177.7	246.2	96.0
	80	236.4	236.4	248.1	243.6	260.1	163.3	228.5	228.5	237.6	236.5	247.2	159.2
	85	248.7	248.7	248.8	248.8	260.4	226.1	239.4	239.4	239.5	239.5	247.4	221.8
	90	257.7	257.7	257.8	257.8	260.5	259.5	246.2	246.2	246.2	246.2	247.2	246.5

Notes:

1. All capacities shown are gross and have not considered indoor fan heat. To obtain **NET** cooling capacity subtract indoor fan heat. For indoor fan heat formula, refer to appropriate airflow table notes.
2. MBh = Total Gross Capacity
3. SHC = Sensible Heat Capacity
4. *Stands for both downflow and horizontal unit.

Table 20. Gross cooling capacities 12½ tons three phase high efficiency T/YH*150G3,4,W (stage 1)

Air Flow cfm	Ent DB (°F)	Ambient Temperature											
		85						95					
		Entering Wet Bulb											
		61		67		73		61		67		73	
		MBh	SHC	MBh	SHC	MBh	SHC	MBh	SHC	MBh	SHC	MBh	SHC
2000	75	42.0	39.3	45.3	31.2	49.8	15.0	39.2	37.2	42.3	29.4	46.7	13.6
	80	44.2	43.5	46.2	39.1	50.3	29.0	41.5	41.2	43.3	37.1	47.2	27.2
	85	46.9	46.6	48.0	44.3	50.7	38.0	44.1	44.1	45.1	42.1	47.6	36.1
	90	49.6	49.3	50.4	48.1	52.2	44.1	46.9	46.8	47.5	45.8	49.1	42.1
2500	75	43.3	41.5	46.2	33.6	50.4	17.5	40.4	39.2	43.1	31.6	47.1	15.9
	80	45.7	45.7	47.4	41.6	51.1	31.5	42.8	42.8	44.3	39.3	47.9	29.6
	85	48.5	48.5	49.5	46.9	51.8	40.7	45.6	45.6	46.4	44.6	48.6	38.6
	90	51.5	51.5	52.0	50.9	53.5	47.0	48.5	48.5	48.9	48.4	50.3	44.7
3000	75	44.4	43.3	46.9	35.5	50.8	19.5	41.3	40.8	43.7	33.3	47.3	17.7
	80	47.0	47.0	48.4	43.6	51.7	33.6	44.0	44.0	45.1	41.2	48.3	31.6
	85	50.0	50.0	50.6	49.1	52.7	42.9	46.9	46.9	47.4	46.5	49.3	40.6
	90	53.0	53.0	53.3	53.2	54.6	49.3	49.9	49.9	50.1	50.1	51.2	46.9
3500	75	45.2	44.7	47.4	37.0	50.9	21.1	42.0	42.0	44.0	34.6	47.7	19.1
	80	48.1	48.1	49.1	45.2	52.1	35.3	44.8	44.8	45.7	42.6	48.5	33.0
	85	51.2	51.2	51.6	50.8	53.3	44.7	48.1	47.9	48.2	48.0	49.8	42.2
	90	54.3	54.3	54.4	54.4	55.4	51.3	50.6	50.6	51.0	51.0	51.9	48.6
4000	75	45.8	45.6	47.6	38.0	51.3	22.3	42.4	42.4	44.3	35.4	48.4	20.0
	80	48.9	48.9	49.6	46.3	52.2	36.6	45.5	45.5	46.0	43.5	48.7	34.1
	85	52.1	52.1	52.3	52.1	53.7	46.1	48.6	48.6	48.7	48.7	50.0	43.4
	90	54.8	54.8	55.2	55.2	56.0	52.8	51.2	51.2	51.7	51.7	52.3	49.9
4375	75	46.1	46.0	47.6	38.5	51.9	22.8	42.6	42.6	44.6	35.8	48.7	20.5
	80	49.3	49.3	49.8	46.9	52.4	37.2	45.8	45.8	46.1	43.9	48.9	34.6
	85	52.3	52.3	52.6	52.6	53.9	46.8	48.8	48.8	49.0	49.0	50.3	44.0
	90	55.2	55.2	55.7	55.7	56.3	53.6	52.0	52.0	52.1	52.1	52.5	50.6

Notes:

1. All capacities shown are gross and have not considered indoor fan heat. To obtain NET cooling capacity subtract indoor fan heat. For indoor fan heat formula, refer to appropriate airflow table notes.
2. MBh = Total Gross Capacity
3. SHC = Sensible Heat Capacity
4. * Indicates both downflow and horizontal units.

Performance Data

Table 21. Gross cooling capacities 12½ tons three phase high efficiency T/YH*150G3,4,W (stage 2)

Air Flow cfm	Ent DB (°F)	Ambient Temperature											
		85						95					
		Entering Wet Bulb											
		61		67		73		61		67		73	
		MBh	SHC	MBh	SHC	MBh	SHC	MBh	SHC	MBh	SHC	MBh	SHC
2000	75	87.1	69.1	97.7	56.8	108.4	33.8	83.2	66.7	92.6	54.8	102.7	32.4
	80	88.4	76.3	98.3	68.1	110.1	52.4	84.5	73.5	93.8	65.7	104.8	50.5
	85	91.0	81.9	99.1	76.1	110.6	65.0	87.1	78.9	94.7	73.5	105.5	62.7
	90	94.6	86.6	101.5	82.3	111.0	73.9	90.6	83.5	97.0	79.4	106.0	71.4
2500	75	92.4	75.4	101.4	62.0	112.8	37.9	88.1	72.7	96.9	59.7	105.9	36.2
	80	94.3	83.2	103.5	74.1	114.0	57.5	90.1	80.3	98.7	71.6	109.8	55.3
	85	97.5	89.5	105.0	83.0	115.8	71.0	93.3	86.3	100.2	80.1	110.4	68.5
	90	101.5	94.7	107.9	89.7	116.8	80.7	97.3	91.3	103.2	86.6	111.5	77.9
3000	75	96.8	80.9	107.7	66.4	114.3	41.2	92.3	78.0	102.4	64.0	113.2	39.3
	80	99.4	89.5	107.8	79.5	118.5	61.9	94.9	86.3	102.7	76.7	114.1	59.5
	85	103.1	96.3	110.0	89.1	120.1	76.2	98.6	92.9	105.0	86.0	114.4	73.5
	90	107.6	102.0	113.5	96.4	121.8	86.7	103.1	98.4	108.5	93.1	116.2	83.7
3500	75	100.3	85.7	110.4	70.2	120.2	43.8	95.6	82.5	104.8	67.5	115.7	41.7
	80	103.6	95.0	111.4	84.2	123.3	65.5	98.9	91.6	106.0	81.1	117.2	62.9
	85	107.9	102.4	114.2	94.5	123.6	80.8	103.2	98.8	108.9	91.1	117.7	77.8
	90	112.9	108.7	118.3	102.4	126.0	92.0	108.1	104.9	112.9	98.9	120.1	88.7
4000	75	103.1	89.8	112.3	73.3	121.4	45.7	98.0	86.4	106.5	70.4	116.8	43.3
	80	107.0	99.8	114.1	88.1	125.2	68.5	102.0	96.2	108.4	84.9	118.8	65.7
	85	111.9	107.9	117.5	99.1	126.3	84.6	106.9	104.0	112.0	95.6	120.0	81.5
	90	117.4	114.6	122.2	107.7	129.3	96.5	112.3	110.6	116.6	103.9	123.2	93.1
4375	75	104.6	92.4	113.2	75.1	122.6	46.7	99.3	88.8	107.1	72.0	117.4	44.1
	80	109.0	103.0	115.5	90.6	126.1	70.3	103.8	99.1	109.7	87.2	119.4	67.3
	85	114.3	111.5	119.5	102.2	127.7	87.1	109.1	107.4	113.7	98.5	121.3	83.7
	90	120.1	118.6	124.6	111.2	131.3	99.5	114.8	114.4	118.8	107.3	124.9	95.9

Notes:

1. All capacities shown are gross and have not considered indoor fan heat. To obtain NET cooling capacity subtract indoor fan heat. For indoor fan heat formula, refer to appropriate airflow table notes.
2. MBh = Total Gross Capacity
3. SHC = Sensible Heat Capacity
4. * Indicates both downflow and horizontal units.

Performance Data

Table 22. Gross cooling capacities 12½ tons three phase high efficiency T/YH*150G3,4,W (full load)

Air Flow cfm	Ent DB (°F)	Ambient Temperature																	
		85						95						105					
		Entering Wet Bulb																	
		61		67		73		61		67		73		61		67		73	
MBh	SHC	MBh	SHC	MBh	SHC	MBh	SHC	MBh	SHC	MBh	SHC	MBh	SHC	MBh	SHC	MBh	SHC	MBh	SHC
2500	75	125.0	96.9	138.0	75.5	153.6	38.3	118.3	92.7	130.4	72.3	145.1	36.2	111.1	88.1	122.3	68.7	136.2	33.8
	80	127.7	109.0	139.6	94.4	154.2	68.6	121.0	104.1	132.0	90.4	145.7	65.6	113.8	98.9	123.9	86.0	136.7	62.2
	85	132.0	118.4	141.2	108.0	154.7	89.5	125.1	113.0	133.5	103.4	146.2	85.7	117.8	107.3	125.5	98.4	137.2	81.5
	90	137.2	126.3	144.6	118.4	155.2	104.6	130.0	120.5	136.8	113.3	146.7	100.1	122.5	114.3	128.6	107.7	137.8	95.3
3000	75	131.2	104.5	143.4	82.5	158.2	44.6	124.1	99.9	135.4	78.9	149.3	42.1	116.5	94.9	126.9	74.9	140.0	39.3
	80	134.4	117.1	145.5	102.0	159.3	75.6	127.3	111.8	137.5	97.6	150.4	72.2	119.7	106.2	129.0	92.9	141.0	68.4
	85	139.1	127.0	147.6	116.2	160.4	97.2	131.8	121.2	139.6	111.1	151.4	93.0	124.1	115.1	131.1	105.7	142.1	88.4
	90	144.6	135.3	151.5	127.1	161.4	112.8	137.1	129.1	143.3	121.5	152.5	107.9	129.1	122.5	134.6	115.6	143.1	102.7
3500	75	136.7	111.4	148.1	88.8	162.1	50.2	129.2	106.4	142.1	84.8	152.8	47.4	121.2	101.0	133.1	80.4	143.1	44.2
	80	140.5	124.5	150.7	108.9	163.7	82.0	132.9	118.8	142.3	104.1	154.4	78.2	124.9	112.8	133.4	99.0	144.6	74.0
	85	145.6	134.9	153.4	123.6	165.3	104.2	137.8	128.7	144.9	118.2	156.0	99.5	129.7	122.2	136.0	112.4	146.2	94.6
	90	151.4	143.6	157.6	135.0	166.9	120.3	143.4	137.0	149.0	129.0	157.6	115.1	135.0	130.0	140.0	122.7	147.8	109.5
4000	75	141.5	117.6	154.6	94.4	165.3	55.2	133.5	112.2	145.6	90.0	155.6	51.9	125.1	106.4	136.1	85.3	145.4	48.3
	80	145.8	131.3	155.2	115.2	167.4	87.7	137.8	125.2	146.4	110.0	157.7	83.4	129.4	118.8	137.0	104.5	147.5	78.9
	85	151.3	142.1	158.4	130.4	169.6	110.5	143.2	135.5	149.5	124.6	159.8	105.5	134.6	128.6	140.2	118.4	149.6	100.1
	90	157.4	151.2	163.1	142.3	171.7	127.2	149.1	144.2	154.0	135.9	161.9	121.5	140.2	136.9	144.6	129.2	151.7	115.5
4500	75	145.6	123.2	157.7	99.4	173.0	59.4	137.2	117.4	148.3	94.6	162.6	55.8	128.4	111.2	138.4	89.4	151.7	51.8
	80	150.4	137.3	159.0	120.8	173.0	92.7	142.0	130.9	149.7	115.2	162.7	88.1	133.2	124.1	140.0	109.3	152.0	83.1
	85	156.3	148.7	162.7	136.6	173.1	116.1	147.8	141.7	153.4	130.3	162.9	110.7	138.8	134.4	143.7	123.7	152.3	105.0
	90	162.8	158.2	167.8	148.9	175.8	133.4	154.0	150.8	158.4	142.1	165.6	127.3	144.7	143.1	148.5	135.0	155.0	120.9
5000	75	149.0	128.0	160.1	103.7	174.5	63.1	140.2	121.8	150.2	98.5	163.6	59.0	130.9	115.3	139.9	92.9	152.3	54.6
	80	154.3	142.8	162.1	125.7	175.2	97.0	145.5	135.9	152.4	119.7	164.5	92.0	136.2	128.7	142.2	113.4	153.3	86.7
	85	160.6	154.5	166.3	142.0	175.9	121.1	151.6	147.2	156.6	135.4	165.3	115.3	142.2	139.5	146.5	128.4	154.3	109.1
	90	167.4	164.5	171.8	154.8	179.1	138.9	158.2	156.7	162.0	147.6	168.5	132.4	148.5	148.5	151.7	140.1	157.5	125.6
5500	75	151.6	132.3	161.8	107.3	175.2	66.0	142.4	125.7	151.5	101.7	164.0	61.5	132.7	118.7	140.8	95.8	152.8	56.8
	80	157.5	147.5	164.5	129.9	176.6	100.7	148.2	140.3	154.3	123.6	165.5	95.3	138.6	132.7	143.8	116.8	153.9	89.5
	85	164.2	159.7	169.2	146.8	178.0	125.4	154.8	152.0	159.1	139.8	167.0	119.2	145.0	143.9	148.5	132.4	155.6	112.6
	90	171.3	170.1	175.1	160.0	181.8	143.7	161.7	161.7	164.9	152.5	170.7	136.9	151.6	151.6	154.2	144.6	159.3	129.7
6000	75	153.6	135.8	162.8	110.2	175.3	68.2	143.9	128.8	152.1	104.2	164.5	63.4	133.8	121.5	140.9	97.9	153.2	58.2
	80	160.0	151.6	166.1	133.5	177.4	103.7	150.3	144.0	155.6	126.7	165.8	97.9	140.2	136.0	144.6	119.6	154.5	91.7
	85	167.1	164.3	171.4	150.9	179.4	129.0	157.3	156.1	160.9	143.5	168.0	122.4	147.0	147.0	149.9	135.7	156.2	115.5
	90	174.5	174.5	177.7	164.6	183.7	147.9	164.4	164.4	167.1	156.7	172.3	140.6	154.0	154.0	155.9	148.4	160.4	133.1



Performance Data

Table 22. Gross cooling capacities 12½ tons three phase high efficiency T/YH*150G3,4,W (full load) (continued)

Air Flow cfm	Ent DB (°F)	Ambient Temperature																	
		115						120						125					
		Entering Wet Bulb																	
		61		67		73		61		67		73		61		67		73	
MBh	SHC	MBh	SHC	MBh	SHC	MBh	SHC	MBh	SHC	MBh	SHC	MBh	SHC	MBh	SHC	MBh	SHC	MBh	SHC
2500	75	103.5	83.2	113.8	64.9	126.9	31.1	99.5	80.7	109.4	62.8	122.0	29.6	95.5	78.0	104.9	60.6	117.0	28.0
	80	106.2	93.3	115.4	81.4	127.4	58.5	102.2	90.4	110.9	78.9	122.5	56.5	98.1	87.5	106.4	76.4	117.5	54.4
	85	110.0	101.2	116.9	93.0	127.9	77.0	105.9	98.1	112.5	90.3	123.0	74.7	101.8	94.8	107.9	87.4	118.0	72.2
	90	114.5	107.9	119.9	101.9	128.4	90.2	110.3	104.5	115.4	98.8	123.5	87.5	106.0	101.1	110.8	95.7	118.5	84.7
3000	75	108.5	89.6	118.0	70.6	130.2	36.2	104.3	86.8	113.3	68.4	125.1	34.5	100.0	84.0	108.6	66.0	120.0	32.7
	80	111.7	100.3	120.0	87.8	131.2	64.3	107.5	97.2	115.4	85.1	126.2	62.1	103.2	94.0	110.7	82.4	121.0	59.9
	85	115.9	108.6	122.1	100.0	132.3	83.5	111.6	105.3	117.5	97.0	127.2	80.9	107.3	101.8	112.7	94.0	122.0	78.3
	90	120.7	115.7	125.5	109.3	133.3	97.2	116.3	112.1	120.8	106.1	128.2	94.3	111.8	108.5	116.0	102.7	123.1	91.3
3500	75	112.7	95.3	123.6	75.8	132.9	40.6	108.3	92.4	118.7	73.3	127.6	38.7	103.8	89.3	113.7	70.8	122.2	36.8
	80	116.4	106.5	124.0	93.5	134.4	69.5	112.0	103.2	119.2	90.7	129.1	67.1	107.5	99.8	114.2	87.7	123.8	64.7
	85	121.1	115.3	126.6	106.3	136.0	89.3	116.6	111.8	121.8	103.1	130.7	86.5	112.0	108.2	116.8	99.8	125.3	83.7
	90	126.2	122.8	130.5	116.1	137.6	103.5	121.6	119.0	125.5	112.6	132.3	100.4	116.9	115.2	120.5	109.1	126.9	97.3
4000	75	116.3	100.4	126.2	80.2	134.8	44.4	111.7	97.2	121.0	77.5	129.3	42.3	107.0	94.0	115.8	74.8	123.7	40.1
	80	120.5	112.1	127.3	98.6	136.9	74.0	115.9	108.6	122.2	95.5	131.4	71.4	111.2	105.0	117.1	92.4	125.8	68.8
	85	125.6	121.4	130.4	111.9	139.0	94.4	120.9	117.6	125.4	108.5	133.5	91.5	116.1	113.8	120.2	105.1	127.9	88.4
	90	131.0	129.2	134.7	122.1	141.1	109.2	126.2	125.3	129.5	118.5	135.6	105.9	121.3	121.2	124.3	114.8	130.0	102.5
4500	75	119.1	104.7	128.0	84.0	140.3	47.5	114.3	101.4	122.7	81.1	134.5	45.2	109.4	97.9	117.3	78.2	128.6	42.8
	80	123.9	117.0	129.8	103.0	140.8	77.8	119.0	113.3	124.5	99.7	135.0	75.1	114.1	109.6	119.2	96.4	129.2	72.2
	85	129.3	126.7	133.5	116.8	141.3	98.9	124.4	122.8	128.2	113.3	135.6	95.7	119.4	118.8	122.8	109.6	129.8	92.5
	90	135.1	135.0	138.1	127.6	143.9	114.2	130.0	130.0	132.8	123.7	138.2	110.7	124.9	124.9	127.4	119.8	132.4	107.1
5000	75	121.2	108.4	129.2	87.1	140.6	49.9	116.2	104.9	123.6	84.0	134.5	47.4	111.1	101.2	118.0	80.9	129.0	44.9
	80	126.5	121.2	131.6	106.7	141.7	81.0	121.5	117.4	126.2	103.3	135.7	78.0	116.4	113.4	120.6	99.7	129.6	75.0
	85	132.4	131.4	135.8	121.1	142.8	102.7	127.3	127.3	130.4	117.3	136.9	99.3	122.1	122.1	124.8	113.5	130.9	95.9
	90	138.4	138.4	140.9	132.3	146.0	118.5	133.2	133.2	135.4	128.3	140.1	114.8	127.9	127.9	129.7	124.1	134.1	111.1
5500	75	122.6	111.5	129.6	89.5	141.0	51.7	117.4	107.7	123.9	86.3	134.8	49.0	112.1	103.9	118.0	82.9	130.0	46.2
	80	128.4	124.8	132.7	109.8	141.9	83.5	123.2	120.7	127.1	106.1	136.2	80.3	117.9	116.6	121.3	102.4	130.7	77.1
	85	134.7	134.7	137.5	124.7	143.7	105.8	129.4	129.4	131.8	120.7	137.6	102.2	124.0	124.0	126.0	116.7	131.4	98.6
	90	141.1	141.1	143.0	136.4	147.4	122.2	135.7	135.7	137.2	132.1	141.3	118.3	130.1	130.1	131.4	127.8	135.1	114.3
6000	75	123.3	113.8	130.0	91.3	142.0	52.7	117.9	109.9	125.0	87.8	135.3	49.9	112.3	105.8	119.0	84.3	130.2	46.9
	80	129.7	127.7	133.2	112.2	143.0	85.3	124.2	123.4	127.3	108.3	137.0	81.9	118.7	118.7	124.0	104.4	131.6	78.5
	85	136.4	136.4	138.4	127.6	143.8	108.2	130.8	130.8	132.5	123.5	139.0	104.5	125.2	125.2	126.5	119.2	133.0	100.6
	90	143.0	143.0	144.3	139.8	148.1	125.2	137.4	137.4	138.4	135.3	141.8	121.1	131.6	131.6	132.3	130.8	135.3	116.9

Notes:

1. All capacities shown are gross and have not considered indoor fan heat. To obtain NET cooling capacity subtract indoor fan heat. For indoor fan heat formula, refer to appropriate airflow table notes.
2. MBh = Total Gross Capacity
3. SHC = Sensible Heat Capacity
4. * Indicates both downflow and horizontal units.

Table 23. Gross cooling capacities 12½ tons three phase dehumidification (hot gas reheat) option high efficiency T/YHD150G3,4,W (Digit 22 = B)

Air Flow cfm	Ent DB (°F)	Ambient Temperature																	
		85						95						105					
		Entering Wet Bulb																	
		61		67		73		61		67		73		61		67		73	
MBh	SHC	MBh	SHC	MBh	SHC	MBh	SHC	MBh	SHC	MBh	SHC	MBh	SHC	MBh	SHC	MBh	SHC		
2500(a)	75	119.6	86.9	135.0	60.0	154.5	54.1	112.4	82.4	127.1	56.5	145.9	51.1	104.7	77.6	118.6	52.7	136.8	47.9
	80	121.1	102.6	134.0	82.6	151.3	52.9	114.0	97.4	126.2	78.4	142.8	50.0	106.3	92.0	117.9	74.0	133.7	46.8
	85	123.7	114.7	134.3	101.6	149.2	75.1	116.7	108.9	126.6	96.8	140.8	71.4	109.2	102.8	118.4	91.7	131.9	67.4
	90	127.5	123.2	135.8	116.9	148.3	97.4	120.6	116.7	128.2	111.5	140.0	93.0	113.2	110.0	120.1	105.8	131.2	88.4
3250(a)	75	129.1	96.7	143.2	68.4	161.5	56.5	121.5	91.9	134.9	64.6	152.5	53.4	113.3	86.8	126.0	60.5	142.9	50.0
	80	131.4	113.6	143.2	92.1	159.1	57.4	123.9	108.1	134.9	87.7	150.2	54.0	115.8	102.4	126.1	83.0	140.7	50.4
	85	134.9	126.9	144.3	112.3	157.9	84.4	127.5	120.8	136.2	107.2	149.1	80.4	119.5	114.4	127.5	101.9	139.7	76.2
	90	139.7	136.5	146.7	128.8	157.9	107.9	132.3	129.8	138.6	123.1	149.2	103.2	124.4	122.8	130.0	117.2	139.9	98.3
4000	75	137.1	105.6	149.9	75.8	167.0	58.4	129.0	100.4	141.1	71.7	157.4	55.1	120.3	95.0	131.7	67.4	147.4	51.6
	80	140.2	123.6	150.7	100.7	165.4	64.5	132.2	117.8	142.0	96.0	156.0	60.9	123.7	111.8	132.7	91.0	146.1	57.0
	85	144.6	138.0	152.7	122.0	165.1	92.7	136.7	131.6	144.1	116.7	155.8	88.5	128.3	124.9	135.0	111.1	145.9	83.9
	90	150.2	148.8	156.0	139.7	166.0	117.4	142.4	141.8	147.5	133.7	156.8	112.4	134.0	134.0	138.4	127.5	147.0	107.2
4500	75	141.5	110.9	153.5	80.1	169.7	59.4	133.1	105.5	144.3	75.9	159.9	56.0	124.1	100.0	134.7	71.3	149.5	52.3
	80	145.2	129.7	154.9	105.8	168.8	68.7	136.9	123.7	145.8	100.9	159.0	64.9	128.1	117.5	136.3	95.8	148.8	60.8
	85	150.2	144.9	157.5	127.9	169.0	97.7	142.0	138.3	148.6	122.4	159.4	93.2	133.2	131.4	139.1	116.6	149.2	88.5
	90	156.3	156.3	161.3	146.4	170.5	123.1	148.2	148.2	152.5	140.3	161.0	118.0	139.6	139.6	143.1	133.8	150.9	112.6
5000	75	145.2	115.7	156.3	84.0	171.8	60.1	136.5	110.2	146.9	79.6	161.6	56.6	127.2	104.5	137.0	74.9	151.0	52.8
	80	149.5	135.3	158.3	110.5	171.4	72.5	140.9	129.2	149.0	105.4	161.4	68.4	131.7	122.8	139.1	100.1	150.8	64.2
	85	155.0	151.3	161.5	133.4	172.2	102.3	146.5	144.5	152.3	127.7	162.3	97.6	137.5	137.5	142.5	121.7	151.8	92.7
	90	161.8	161.8	165.9	152.7	174.3	128.4	153.4	153.4	156.8	146.3	164.4	123.1	144.4	144.4	147.1	139.7	154.1	117.6
5500	75	148.2	120.1	158.5	87.5	173.1	60.6	139.2	114.4	148.8	82.9	162.7	56.9	129.6	108.5	138.5	78.0	151.7	53.1
	80	153.1	140.5	161.1	114.8	173.3	75.8	144.2	134.2	151.4	109.5	163.0	71.6	134.7	127.6	141.3	104.0	152.1	67.1
	85	159.2	157.2	164.8	138.4	174.7	106.3	150.4	150.3	155.3	132.5	164.5	101.5	141.0	141.0	145.3	126.3	153.7	96.4
	90	166.5	166.5	169.8	158.5	177.3	133.3	157.8	157.8	160.4	151.9	167.2	127.8	148.6	148.6	150.4	145.1	156.6	122.0
6000	75	150.5	124.1	160.0	90.5	173.7	60.8	141.2	118.2	150.0	85.7	163.0	57.1	131.3	112.1	139.4	80.6	151.7	53.1
	80	156.0	145.2	163.1	118.6	174.5	78.6	146.8	138.7	153.2	113.1	163.9	74.2	137.0	131.9	142.7	107.4	152.7	69.6
	85	162.7	162.7	167.5	143.0	176.5	110.0	153.6	153.6	157.6	136.9	166.0	104.9	143.9	143.9	147.3	130.5	154.9	99.6
	90	170.6	170.6	173.0	163.8	179.7	137.7	161.5	161.5	163.3	157.1	169.3	132.0	152.0	152.0	153.0	150.1	158.3	126.1



Performance Data

Table 23. Gross cooling capacities 12½ tons three phase dehumidification (hot gas reheat) option high efficiency T/YHD150G3,4,W (Digit 22 = B) (continued)

Air Flow cfm	Ent DB (°F)	Ambient Temperature																	
		115						120						125					
		Entering Wet Bulb																	
		61		67		73		61		67		73		61		67		73	
MBh	SHC	MBh	SHC	MBh	SHC	MBh	SHC	MBh	SHC	MBh	SHC	MBh	SHC	MBh	SHC	MBh	SHC	MBh	SHC
2500(a)	75	96.4	72.5	109.7	48.7	127.1	44.5	92.1	69.8	105.0	46.6	122.1	42.7	87.7	67.2	100.2	44.4	116.9	40.9
	80	98.2	86.3	109.0	69.4	124.1	43.5	93.9	83.3	104.4	66.9	119.2	41.7	89.5	80.3	99.6	64.4	114.0	39.9
	85	101.1	96.4	109.6	86.4	122.4	63.2	96.9	93.2	105.0	83.7	117.5	60.9	92.5	89.8	100.3	80.9	112.4	58.7
	90	105.3	103.0	111.4	99.9	121.8	83.5	101.1	99.4	106.9	96.9	116.9	81.0	96.8	95.8	102.2	93.7	111.9	78.4
3250(a)	75	104.6	81.4	116.5	56.2	132.7	46.5	100.0	78.7	111.6	54.0	127.5	44.6	95.3	75.8	106.6	51.7	122.1	42.7
	80	107.2	96.4	116.8	78.1	130.7	46.5	102.7	93.3	111.9	75.5	125.4	44.5	98.0	90.2	106.9	72.9	120.1	42.3
	85	111.0	107.7	118.3	96.3	129.8	71.6	106.5	104.3	113.4	93.4	124.6	69.3	101.9	100.9	108.5	90.5	119.3	66.9
	90	116.0	115.5	120.9	111.0	130.1	93.2	111.6	111.6	116.2	107.8	125.0	90.5	107.1	107.1	111.3	104.5	119.7	87.8
4000	75	111.1	89.4	121.8	62.8	136.8	47.9	106.3	86.5	116.7	60.4	131.3	46.0	101.4	83.5	111.4	57.9	125.7	44.0
	80	114.6	105.5	123.0	85.8	135.6	52.8	109.9	102.3	117.9	83.1	130.1	50.6	105.0	99.0	112.7	80.3	124.6	48.4
	85	119.3	118.0	125.3	105.2	135.6	79.1	114.6	114.5	120.3	102.2	130.2	76.6	109.8	109.8	115.1	99.1	124.7	74.0
	90	125.2	125.2	128.8	121.0	136.7	101.8	120.5	120.5	123.8	117.7	131.4	99.0	115.8	115.8	118.7	114.3	125.9	96.1
4500	75	114.6	94.1	124.5	66.6	138.6	48.5	109.7	91.1	119.2	64.1	133.0	46.5	104.6	88.1	113.8	61.5	127.2	44.5
	80	118.7	111.0	126.2	90.4	138.0	56.4	113.8	107.7	121.0	87.6	132.4	54.2	108.8	104.3	115.6	84.7	126.7	51.8
	85	123.9	123.9	129.1	110.6	138.6	83.5	119.1	119.1	123.9	107.4	133.0	80.9	114.1	114.1	118.6	104.3	127.3	78.3
	90	130.4	130.4	133.2	127.1	140.3	107.0	125.6	125.6	128.1	123.7	134.8	104.1	120.7	120.7	122.8	120.2	129.2	101.1
5000	75	117.4	98.4	126.5	69.9	139.8	48.9	112.3	95.3	121.0	67.4	134.0	46.9	107.1	92.2	115.4	64.7	128.0	44.8
	80	122.1	116.1	128.8	94.5	139.7	59.6	117.0	112.7	123.4	91.6	134.0	57.2	111.8	109.2	117.8	88.6	128.1	54.8
	85	127.9	127.9	132.2	115.5	140.8	87.5	122.9	122.9	126.9	112.3	135.1	84.8	117.8	117.8	121.4	109.0	129.3	82.0
	90	134.9	134.9	136.9	132.8	143.2	111.7	130.0	130.0	131.6	129.3	137.5	108.7	125.0	125.0	126.2	125.7	131.8	105.7
5500	75	119.5	102.3	127.7	72.8	140.2	49.1	114.3	99.1	122.1	70.2	134.2	47.0	108.9	95.8	116.4	67.4	128.2	44.9
	80	124.7	120.7	130.6	98.2	140.7	62.3	119.5	117.2	125.0	95.2	134.8	59.9	114.2	113.6	119.4	92.1	128.8	57.4
	85	131.1	131.1	134.7	119.9	142.4	91.0	126.0	126.0	129.2	116.6	136.6	88.2	120.7	120.7	123.5	113.2	130.6	85.4
	90	138.5	138.5	139.9	138.1	145.4	116.0	133.1	133.1	134.5	134.4	139.6	112.9	128.9	128.9	128.9	128.9	133.6	109.8
6000	75	120.9	105.7	128.3	75.3	139.9	49.0	115.5	102.4	122.5	72.5	133.8	46.8	110.0	99.0	116.7	69.7	127.6	44.7
	80	126.7	124.9	131.7	101.4	141.0	64.6	121.4	121.3	126.0	98.3	135.0	62.1	115.9	115.9	120.2	95.2	128.8	59.5
	85	133.7	133.7	136.4	123.9	143.3	94.1	128.4	128.4	130.7	120.5	137.3	91.2	123.0	123.0	125.0	117.1	131.2	88.2
	90	142.2	142.2	142.2	142.2	146.8	119.9	136.6	136.6	136.6	136.6	140.9	116.7	130.9	130.9	130.9	130.9	134.8	113.4

Notes:

- All capacities shown are gross and have not considered indoor fan heat. To obtain NET cooling capacity subtract indoor fan heat. For indoor fan heat formula, refer to appropriate airflow table notes.
 - MBh = Total Gross Capacity
 - SHC = Sensible Heat Capacity
- (a) For 2500 and 3250 cfm-Unit applications below 320 cfm/ton are only applicable to Constant Volume THD models without electric heat and YHD models equipped with modulating gas heat. See below for restrictions:
- Electric heaters on applications below 320 cfm/ton.
 - Dehumidification (Hot Gas Reheat) with Froststat and Crankcase heaters are required on applications below 320 cfm/ton.
 - Multi-speed or single zone VAV applications are capable of running below 320 cfm/ton during low speed airflow operation, but "full" airflow must be set to 320 cfm/ton or higher.

Table 24. Gross cooling capacities 15 tons three phase high efficiency T/YH*180G3,4,W (stage 1)

Air Flow cfm	Ent DB (°F)	Ambient Temperature											
		85						95					
		Entering Wet Bulb											
		61		67		73		61		67		73	
		MBh	SHC	MBh	SHC	MBh	SHC	MBh	SHC	MBh	SHC	MBh	SHC
2400	75	54.8	51.5	59.2	40.6	65.3	18.6	51.8	49.1	56.0	38.5	60.9	17.0
	80	57.4	56.8	60.0	50.8	65.5	37.2	54.3	54.2	56.8	48.5	62.1	35.2
	85	60.3	60.3	61.9	57.4	65.5	48.8	57.1	57.1	58.6	54.8	62.1	46.6
	90	63.3	63.3	64.3	61.8	66.8	56.5	60.1	60.1	61.0	59.1	63.3	54.1
3000	75	56.6	54.6	60.5	44.0	66.3	22.4	53.4	52.0	57.1	41.7	61.6	20.5
	80	59.5	59.5	61.7	54.3	66.7	40.9	56.2	56.2	58.2	51.8	63.1	38.7
	85	62.6	62.6	63.8	60.9	67.1	52.6	59.3	59.3	60.4	58.2	63.4	50.2
	90	65.7	65.7	66.4	65.5	68.6	60.4	62.3	62.3	62.9	62.6	64.9	57.7
3600	75	58.1	57.2	61.5	46.8	66.9	25.5	54.7	54.3	57.9	44.3	62.0	23.4
	80	61.2	61.2	63.0	57.2	67.5	44.0	57.8	57.8	59.4	54.4	63.8	41.6
	85	64.5	64.5	65.4	63.9	68.2	55.8	61.0	61.0	61.8	60.9	64.4	53.1
	90	67.9	67.9	68.3	68.3	70.0	63.7	64.3	64.3	64.6	64.6	66.2	60.7
4200	75	59.3	59.1	62.2	49.1	67.0	28.1	55.7	55.7	58.4	46.3	62.1	25.7
	80	62.6	62.6	64.0	59.5	68.1	46.6	59.0	59.0	60.2	56.4	64.1	43.9
	85	66.2	66.2	66.7	66.3	69.1	58.4	62.5	62.5	62.9	62.9	65.1	55.5
	90	69.7	69.7	69.7	69.7	71.2	66.3	64.6	64.6	65.9	65.9	67.2	63.2
4800	75	60.1	60.1	62.5	50.7	67.1	30.0	56.4	56.4	58.6	47.7	62.7	27.4
	80	63.7	63.7	64.7	61.1	68.3	48.5	59.9	59.9	60.7	57.9	64.1	45.6
	85	67.5	67.5	67.6	67.6	69.6	60.4	63.6	63.6	63.6	63.6	65.5	57.3
	90	69.8	69.8	70.9	70.9	72.0	68.5	65.9	65.9	66.8	66.8	67.8	65.1
5250	75	60.5	60.5	62.5	51.6	67.2	31.1	56.6	56.6	58.8	48.4	63.0	28.4
	80	64.3	64.3	65.0	62.0	68.5	49.6	60.4	60.4	60.9	58.6	64.1	46.5
	85	67.8	67.8	68.1	68.1	69.8	61.6	63.8	63.8	64.0	64.0	65.5	58.2
	90	70.7	70.7	71.5	71.5	72.4	69.6	66.7	66.7	67.4	67.4	68.0	66.1

Notes:

1. All capacities shown are gross and have not considered indoor fan heat. To obtain NET cooling capacity subtract indoor fan heat. For indoor fan heat formula, refer to appropriate airflow table notes.
2. MBh = Total Gross Capacity
3. SHC = Sensible Heat Capacity
4. * Indicates both downflow and horizontal units.



Performance Data

Table 25. Gross cooling capacities 15 tons three phase high efficiency T/YH*180G3,4,W (stage 2)

Air Flow cfm ^(a)	Ent DB (°F)	Ambient Temperature											
		85						95					
		Entering Wet Bulb											
		61		67		73		61		67		73	
		MBh	SHC	MBh	SHC	MBh	SHC	MBh	SHC	MBh	SHC	MBh	SHC
2400	75	102.0	81.9	111.7	65.6	123.0	36.1	96.8	78.4	105.8	62.6	116.0	33.6
	80	104.0	90.7	113.0	79.9	123.8	59.7	98.9	86.9	107.3	76.5	117.7	56.7
	85	107.1	97.4	114.3	89.8	124.6	75.5	102.0	93.4	108.8	86.1	118.5	72.1
	90	111.0	102.8	117.0	97.1	125.4	86.5	105.8	98.6	111.5	93.2	119.3	82.9
3000	75	107.2	88.8	117.9	71.7	126.6	41.1	101.7	85.0	111.7	68.3	120.0	38.3
	80	109.8	98.2	118.0	86.6	128.0	65.6	104.4	94.1	112.0	82.9	121.5	62.3
	85	113.4	105.4	120.0	97.2	129.4	82.2	108.0	101.1	114.1	93.2	123.0	78.5
	90	117.8	111.3	123.2	105.1	130.8	93.9	112.3	106.7	117.3	100.8	124.5	89.9
3600	75	111.5	94.8	121.2	76.7	133.1	45.2	105.7	90.6	114.7	73.0	125.9	42.1
	80	114.7	104.8	122.0	92.5	133.2	70.6	109.0	100.4	115.7	88.4	126.2	67.0
	85	118.9	112.5	124.7	103.7	133.3	87.9	113.2	107.9	118.5	99.3	126.5	84.0
	90	123.7	118.9	128.4	112.1	135.3	100.3	117.8	114.0	122.2	107.5	128.7	96.0
4200	75	114.9	99.8	123.6	80.9	134.5	48.4	108.8	95.3	116.8	76.9	127.0	44.9
	80	118.8	110.4	125.2	97.4	135.4	74.7	112.7	105.7	118.6	93.0	128.1	70.7
	85	123.5	118.7	128.5	109.2	136.3	92.8	117.4	113.7	122.0	104.6	129.2	88.5
	90	128.6	125.5	132.8	118.2	139.0	105.7	122.5	120.3	126.3	113.2	132.0	101.1
4800	75	117.4	103.9	125.1	84.1	135.0	50.6	111.0	99.1	117.9	79.7	128.0	46.8
	80	121.9	115.2	127.5	101.4	136.7	77.8	115.6	110.1	120.6	96.7	129.1	73.5
	85	127.1	123.9	131.5	113.9	138.4	96.7	120.8	118.6	124.6	108.8	131.0	92.0
	90	132.7	131.1	136.3	123.3	141.8	110.3	126.3	125.6	129.4	118.1	134.5	105.3
5250	75	118.7	106.3	125.6	85.9	135.5	51.7	112.0	101.3	118.2	81.3	129.0	47.6
	80	123.7	118.1	128.7	103.7	137.1	79.5	117.1	112.7	121.5	98.8	129.3	75.0
	85	129.3	127.3	133.1	116.7	139.4	99.0	122.7	121.7	126.0	111.4	131.8	94.1
	90	135.2	134.8	138.3	126.6	143.3	113.0	128.5	128.5	131.2	121.1	135.7	107.9

Notes:

1. All capacities shown are gross and have not considered indoor fan heat. To obtain NET cooling capacity subtract indoor fan heat. For indoor fan heat formula, refer to appropriate airflow table notes.
 2. MBh = Total Gross Capacity
 3. SHC = Sensible Heat Capacity
 4. * Indicates both downflow and horizontal units.
- (a) For 2400, 3000, 3600, and 4200 cfm-Unit applications below 320 cfm/ton are only applicable to Constant Volume THD models without electric heat and YHD models equipped with modulating gas heat. See below for restrictions:
- Electric heaters on applications below 320 cfm/ton.
 - Froststat and Crankcase heaters are required on applications below 320 cfm/ton.
 - Multi-speed, single zone VAV or multi-zone VAV applications are capable of running below 320 cfm/ton during low speed airflow operation, but "full" airflow must be set to 320 cfm/ton or higher.

Performance Data

Table 26. Gross cooling capacities 15 tons three phase high efficiency T/YH*180G3,4,W (full load)

Air Flow cfm ^(a)	Ent DB (°F)	Ambient Temperature																	
		85						95						105					
		Entering Wet Bulb																	
		61		67		73		61		67		73		61		67		73	
MBh	SHC	MBh	SHC	MBh	SHC	MBh	SHC	MBh	SHC	MBh	SHC	MBh	SHC	MBh	SHC	MBh	SHC		
3000	75	149.8	116.6	163.9	91.6	180.9	48.7	142.5	112.1	155.7	88.3	172.0	46.6	134.3	106.9	146.7	84.2	162.1	43.8
	80	153.0	130.6	165.9	113.6	181.8	83.7	145.7	125.4	157.8	109.4	172.9	80.6	137.5	119.5	148.7	104.5	163.1	76.8
	85	157.9	141.6	167.9	129.4	182.8	108.0	150.5	135.8	159.8	124.5	173.8	104.0	142.2	129.4	150.8	118.9	164.0	99.3
	90	163.8	150.7	171.9	141.5	183.7	125.5	156.2	144.5	163.7	136.0	174.7	120.8	147.7	137.7	154.6	129.9	164.9	115.5
3600	75	156.6	125.2	169.8	99.5	186.1	55.7	148.9	120.2	161.3	95.7	176.7	53.2	140.3	114.6	151.8	91.2	166.5	50.1
	80	160.4	139.8	172.4	122.2	187.5	91.6	152.7	134.2	163.9	117.5	178.2	88.1	144.1	127.9	154.4	112.2	168.0	83.9
	85	165.7	151.3	175.0	138.6	189.0	116.6	157.9	145.1	166.5	133.2	179.7	112.2	149.2	138.3	157.0	127.2	169.4	107.1
	90	172.0	160.9	179.5	151.2	190.5	134.7	163.9	154.2	170.8	145.3	181.2	129.6	155.0	147.0	161.3	138.7	170.9	123.8
4200	75	162.6	133.0	177.9	106.6	190.4	62.0	154.5	127.6	168.8	102.4	180.7	59.1	145.5	121.6	158.9	97.5	170.0	55.5
	80	166.9	148.2	178.1	129.9	192.5	98.7	158.8	142.1	169.2	124.9	182.7	94.8	149.8	135.4	159.4	119.1	172.1	90.1
	85	172.7	160.2	181.3	147.0	194.5	124.4	164.5	153.6	172.3	141.2	184.8	119.5	155.4	146.3	162.5	134.8	174.1	114.1
	90	179.3	170.2	186.2	160.1	196.6	143.1	170.9	163.1	177.2	153.8	186.8	137.6	161.6	155.5	167.2	146.8	176.2	131.4
4800	75	167.9	139.9	182.2	112.8	194.0	67.4	159.3	134.2	172.7	108.2	183.8	64.1	149.9	127.7	162.3	102.9	172.8	60.2
	80	172.7	155.7	183.1	136.9	196.6	105.0	164.2	149.3	173.7	131.4	186.5	100.6	154.8	142.2	163.5	125.3	175.4	95.6
	85	179.0	168.2	186.8	154.5	199.2	131.4	170.3	161.2	177.5	148.4	189.1	126.1	160.8	153.6	167.2	141.5	178.0	120.2
	90	185.9	178.7	192.2	168.2	201.9	150.7	177.1	171.3	182.7	161.4	191.7	144.7	167.3	163.2	172.4	154.0	180.7	138.2
5400	75	172.3	146.1	185.6	118.3	202.7	72.1	163.4	139.9	175.7	113.3	191.8	68.4	153.6	133.1	164.9	107.6	180.1	64.0
	80	177.8	162.5	187.3	143.1	202.9	110.5	168.8	155.6	177.5	137.2	192.2	105.7	159.0	148.1	166.9	130.6	180.6	100.3
	85	184.4	175.5	191.6	161.3	203.2	137.6	175.4	168.1	181.8	154.7	192.6	131.9	165.5	160.0	171.2	147.5	181.2	125.6
	90	191.7	186.4	197.4	175.5	206.4	157.5	182.5	178.6	187.5	168.3	195.8	151.1	172.3	170.1	176.8	160.5	184.4	144.1
6000	75	176.0	151.5	188.3	123.0	204.4	76.0	166.7	144.9	178.0	117.5	193.1	71.9	156.5	137.6	166.8	111.4	181.0	67.1
	80	182.0	168.5	190.7	148.5	205.4	115.2	172.7	161.2	180.5	142.2	194.3	110.0	162.5	153.3	169.5	135.2	182.3	104.1
	85	189.1	182.0	195.5	167.3	206.3	143.0	179.7	174.2	185.4	160.3	195.4	136.9	169.3	165.7	174.3	152.6	183.5	130.2
	90	196.8	193.3	201.8	181.9	210.1	163.5	187.1	185.1	191.5	174.4	199.1	156.7	176.6	176.2	180.4	166.2	187.3	149.3
6600	75	178.9	156.1	190.2	126.9	205.4	79.1	169.2	149.1	179.5	121.0	193.7	74.5	158.6	141.4	167.9	114.5	181.2	69.3
	80	185.5	173.7	193.3	153.1	207.0	119.1	175.7	166.0	182.7	146.3	195.5	113.5	165.1	157.6	171.3	139.0	183.1	107.2
	85	193.0	187.7	198.7	172.5	208.7	147.6	183.2	179.5	188.2	165.1	197.3	141.1	172.4	170.6	176.7	157.0	185.1	134.0
	90	201.0	199.5	205.5	187.6	213.0	168.7	190.9	190.8	194.8	179.7	201.7	161.5	180.0	180.0	183.2	171.1	189.4	153.7
7200	75	181.0	159.9	191.4	130.0	205.6	81.4	170.9	152.5	180.3	123.7	194.3	76.4	159.9	144.4	168.3	116.8	181.3	70.8
	80	188.2	178.1	195.2	156.8	207.9	122.2	178.0	170.0	184.2	149.7	196.0	116.2	167.0	161.2	172.3	141.9	183.2	109.5
	85	196.1	192.6	201.1	176.9	210.3	151.4	185.9	184.0	190.2	169.0	198.5	144.5	174.7	174.6	178.3	160.6	185.9	137.0
	90	204.5	204.5	208.3	192.5	215.2	173.1	194.0	194.0	197.2	184.2	203.4	165.5	182.7	182.7	185.3	175.1	190.8	157.3



Performance Data

Table 26. Gross cooling capacities 15 tons three phase high efficiency T/YH*180G3,4,W (full load) (continued)

Air Flow cfm(a)	Ent DB (°F)	Ambient Temperature																	
		115						120						125					
		Entering Wet Bulb																	
		61		67		73		61		67		73		61		67		73	
MBh	SHC	MBh	SHC	MBh	SHC	MBh	SHC	MBh	SHC	MBh	SHC	MBh	SHC	MBh	SHC	MBh	SHC	MBh	SHC
3000	75	125.3	101.0	136.8	79.5	151.4	40.4	120.4	97.8	131.5	76.9	145.7	38.5	115.3	94.5	126.0	74.1	139.8	36.4
	80	128.5	113.0	138.8	98.9	152.4	72.3	123.6	109.5	133.6	95.9	146.7	69.9	118.5	105.8	128.1	92.7	140.8	67.2
	85	133.0	122.3	140.9	112.6	153.3	94.0	128.1	118.5	135.6	109.3	147.6	91.1	122.9	114.6	130.1	105.7	141.7	88.1
	90	138.3	130.2	144.6	123.1	154.2	109.5	133.3	126.2	139.2	119.4	148.5	106.2	128.0	122.0	133.7	115.6	142.6	102.8
3600	75	130.9	108.3	141.5	86.1	155.4	46.3	125.8	105.0	138.6	83.3	149.5	44.1	120.5	101.4	132.9	80.4	143.4	41.8
	80	134.6	120.9	144.1	106.2	156.8	79.0	129.5	117.2	138.7	103.0	151.0	76.3	124.3	113.3	133.0	99.6	144.9	73.5
	85	139.6	130.8	146.7	120.6	158.3	101.4	134.5	126.8	141.3	117.0	152.5	98.3	129.1	122.6	135.6	113.3	146.4	95.0
	90	145.2	139.0	150.9	131.5	159.8	117.4	140.0	134.8	145.3	127.7	153.9	113.9	134.5	130.5	139.6	123.6	147.9	110.3
4200	75	135.7	114.9	148.0	92.0	158.5	51.3	130.4	111.3	142.2	88.9	152.4	48.9	124.9	107.5	136.3	85.8	146.1	46.4
	80	140.0	128.0	148.7	112.7	160.6	84.8	134.7	124.1	143.0	109.3	154.5	82.0	129.2	120.0	137.1	105.7	148.2	78.9
	85	145.4	138.4	151.8	127.7	162.6	107.9	140.1	134.2	146.1	123.9	156.5	104.6	134.5	129.8	140.2	120.0	150.2	101.1
	90	151.4	147.1	156.4	139.2	164.7	124.6	145.9	142.7	150.7	135.1	158.6	120.9	140.3	138.1	144.7	130.9	152.3	117.1
4800	75	139.7	120.6	151.0	97.0	160.9	55.5	134.2	116.8	145.1	93.8	159.7	53.0	128.5	112.9	138.9	90.4	153.1	50.2
	80	144.6	134.4	152.4	118.5	163.5	89.9	139.1	130.2	146.5	114.8	159.8	86.8	133.4	125.9	140.4	111.0	153.2	83.5
	85	150.4	145.3	156.1	134.0	166.1	113.7	144.9	140.8	150.2	130.0	159.8	110.2	139.1	136.3	144.1	125.9	153.3	106.5
	90	156.7	154.4	161.2	146.0	168.7	130.9	151.1	149.8	155.2	141.7	162.5	127.0	145.2	145.0	149.1	137.3	156.0	123.0
5400	75	142.9	125.6	153.3	101.2	167.5	59.0	137.3	121.6	147.1	97.8	160.8	56.2	131.4	117.4	140.7	94.2	154.0	53.2
	80	148.4	139.9	155.4	123.4	168.2	94.2	142.7	135.6	149.3	119.6	161.6	90.9	136.8	131.1	143.0	115.6	154.8	87.4
	85	154.7	151.3	159.7	139.6	168.8	118.6	148.9	146.7	153.6	135.4	162.4	114.9	143.0	141.9	147.3	131.0	155.6	111.0
	90	161.3	160.9	165.1	152.1	172.0	136.5	155.5	155.5	159.0	147.6	165.6	132.4	149.4	149.4	152.6	142.9	158.8	128.2
6000	75	145.4	129.7	154.8	104.7	168.0	61.6	139.5	125.5	148.4	101.0	161.2	58.6	133.4	121.1	141.8	97.3	154.1	55.5
	80	151.4	144.7	157.6	127.6	169.4	97.6	145.5	140.1	151.3	123.5	162.6	94.1	139.4	135.4	144.8	119.3	155.6	90.5
	85	158.1	156.6	162.4	144.3	170.8	122.8	152.2	151.7	156.1	139.9	164.1	118.9	146.0	146.0	149.6	135.4	157.2	114.8
	90	165.1	165.1	168.4	157.3	174.6	141.2	159.1	159.1	162.0	152.6	167.9	137.0	152.8	152.8	155.4	147.8	161.0	132.5
6600	75	147.1	133.1	155.5	107.3	168.5	63.4	141.0	128.7	148.9	103.5	161.5	60.3	134.7	124.1	142.1	99.5	154.2	56.9
	80	153.6	148.6	159.0	130.9	169.9	100.3	147.6	143.9	152.5	126.7	162.9	96.6	141.3	138.9	145.8	122.2	155.7	92.7
	85	160.8	160.8	164.4	148.3	172.0	126.2	154.7	154.7	157.9	143.7	165.1	122.0	148.3	148.3	151.2	138.9	158.0	117.7
	90	168.2	168.2	170.8	161.8	176.3	145.2	161.9	161.9	164.2	156.9	169.4	140.7	155.5	155.5	157.5	151.8	162.3	136.1
7200	75	148.0	135.6	156.1	109.2	169.1	64.5	141.7	131.0	149.4	105.1	161.8	61.1	135.2	126.2	142.4	100.9	154.4	57.5
	80	155.1	151.8	159.6	133.5	170.3	102.2	148.8	146.8	152.9	129.0	163.2	98.3	142.3	141.7	146.0	124.4	155.8	94.2
	85	162.7	162.7	165.6	151.4	172.4	128.8	156.4	156.4	158.9	146.6	165.3	124.4	149.8	149.8	152.0	141.6	158.7	119.9
	90	170.4	170.4	172.4	165.4	177.3	148.4	164.0	164.0	165.7	160.4	170.2	143.7	157.3	157.3	158.7	155.1	162.8	138.8

Notes:

1. All capacities shown are gross and have not considered indoor fan heat. To obtain NET cooling capacity subtract indoor fan heat. For indoor fan heat formula, refer to appropriate airflow table notes.
 2. MBh = Total Gross Capacity
 3. SHC = Sensible Heat Capacity
 4. * Indicates both downflow and horizontal units.
- (a) For 3000, 3600, and 4200 cfm-Unit applications below 320 cfm/ton are only applicable to Constant Volume THD models without electric heat and YHD models equipped with modulating gas heat. See below for restrictions:
- Electric heaters on applications below 320 cfm/ton.
 - Dehumidification (Hot Gas Reheat) with Froststat and Crankcase heaters are required on applications below 320 cfm/ton.
 - Multi-speed or single zone VAV applications are capable of running below 320 cfm/ton during low speed airflow operation, but "full" airflow must be set to 320 cfm/ton or higher.

Performance Data

Table 27. Gross cooling capacities 15 tons three phase dehumidification (hot gas reheat) option high efficiency T/YHD180G3,4,W (Digit 22 = B)

Air Flow cfm(a)	Ent DB (°F)	Ambient Temperature																	
		85						95						105					
		Entering Wet Bulb																	
		61		67		73		61		67		73		61		67		73	
MBh	SHC	MBh	SHC	MBh	SHC	MBh	SHC	MBh	SHC	MBh	SHC	MBh	SHC	MBh	SHC	MBh	SHC	MBh	SHC
3000	75	149.8	108.9	167.7	71.3	190.8	66.8	141.5	104.7	158.6	68.7	180.8	63.3	132.6	99.7	148.8	65.2	170.1	59.5
	80	151.5	129.2	166.7	101.1	187.0	65.5	143.4	124.3	157.7	97.7	177.1	62.0	134.7	118.5	148.1	93.4	166.7	58.3
	85	154.6	144.8	167.0	126.0	184.5	89.1	146.7	139.2	158.2	121.9	174.9	86.5	138.1	132.6	148.8	116.9	164.6	83.0
	90	159.1	155.7	168.7	146.3	183.5	118.7	151.3	149.2	160.1	141.4	174.0	115.3	143.0	141.9	150.9	135.6	163.9	111.1
3900	75	160.4	120.9	176.9	82.0	198.6	69.5	151.6	116.3	167.3	79.0	188.1	65.8	142.3	110.9	157.1	75.1	177.0	61.9
	80	163.1	142.6	176.9	113.1	195.8	68.5	154.6	137.2	167.5	109.3	185.5	64.9	145.4	131.0	157.4	104.6	174.5	61.1
	85	167.2	159.5	178.2	139.4	194.4	101.1	158.8	153.4	169.0	134.8	184.2	98.1	149.8	146.4	159.1	129.4	173.5	94.2
	90	172.7	171.6	180.9	160.9	194.3	132.0	164.5	164.5	171.9	155.6	184.3	128.2	155.7	155.7	162.2	149.4	173.8	123.5
4800	75	169.3	131.7	184.4	91.5	204.6	71.6	160.0	126.7	174.3	88.0	193.7	67.8	150.2	120.8	163.6	83.7	182.1	63.7
	80	173.0	154.7	185.4	123.8	202.8	74.8	164.0	148.9	175.5	119.6	192.1	72.1	154.3	142.3	164.9	114.5	180.7	68.6
	85	178.1	172.9	187.7	151.4	202.4	111.8	169.3	166.4	178.0	146.5	191.8	108.4	159.8	159.0	167.7	140.6	180.6	104.0
	90	184.6	184.6	191.4	174.3	203.4	144.0	176.0	176.0	181.9	168.5	192.9	139.8	166.7	166.7	171.7	161.9	181.9	134.7
5400	75	174.2	138.2	188.4	97.1	207.7	72.7	164.7	132.9	178.0	93.4	196.4	68.7	154.6	126.8	167.0	88.8	184.5	64.6
	80	178.6	162.0	190.0	130.3	206.6	80.4	169.3	156.0	179.8	125.8	195.5	77.4	159.3	149.1	169.0	120.4	183.8	73.6
	85	184.4	181.1	193.1	158.8	206.8	118.2	175.3	174.3	183.0	153.5	195.9	114.5	165.5	165.5	172.4	147.4	184.4	109.9
	90	191.6	191.6	197.4	182.5	208.4	151.4	182.6	182.6	187.6	176.5	197.7	146.9	173.0	173.0	177.2	169.5	186.4	141.5
6000	75	178.4	144.1	191.6	102.1	210.0	73.5	168.5	138.6	180.9	98.1	198.4	69.4	158.1	132.1	169.6	93.2	186.2	65.2
	80	183.5	168.8	193.9	136.2	209.5	85.4	173.8	162.5	183.4	131.4	198.1	82.2	163.6	155.3	172.3	125.8	186.1	78.1
	85	189.9	188.8	197.6	165.5	210.4	124.1	180.5	180.5	187.3	160.0	199.2	120.1	170.4	170.4	176.4	153.6	187.4	115.3
	90	197.8	197.8	202.7	190.1	212.7	158.1	188.5	188.5	192.6	183.8	201.7	153.4	178.6	178.6	181.8	176.6	190.1	147.7
6600	75	181.8	149.5	194.1	106.6	211.5	74.0	171.6	143.7	183.0	102.3	199.6	69.9	160.9	137.0	171.4	97.1	187.1	65.5
	80	187.5	175.0	197.1	141.5	211.7	89.9	177.6	168.5	186.2	136.5	200.0	86.4	167.0	161.0	174.8	130.6	187.7	82.0
	85	194.7	194.7	201.4	171.8	213.3	129.5	184.9	184.9	190.8	166.0	201.8	125.2	174.5	174.5	179.5	159.2	189.7	120.0
	90	203.2	203.2	207.2	197.2	216.3	164.3	193.6	193.6	196.7	190.6	204.9	159.3	183.4	183.4	185.6	183.2	193.0	153.3
7200	75	184.4	154.3	195.7	110.5	212.2	74.3	173.9	148.2	184.4	105.9	200.0	70.0	162.9	141.2	172.5	100.5	187.2	65.5
	80	190.8	180.7	199.4	146.3	213.1	93.8	180.6	173.9	188.3	141.0	201.1	90.0	169.7	166.1	176.5	134.8	188.5	85.3
	85	198.7	198.7	204.5	177.4	215.4	134.2	188.6	188.6	193.5	171.3	203.6	129.7	177.9	177.9	181.9	164.3	191.1	124.2
	90	207.8	207.8	210.9	203.8	219.0	170.0	198.0	198.0	200.1	196.9	207.4	164.6	188.7	188.7	188.7	188.7	195.1	158.4



Performance Data

Table 27. Gross cooling capacities 15 tons three phase dehumidification (hot gas reheat) option high efficiency T/YHD180G3,4,W (Digit 22 = B) (continued)

Air Flow cfm ^(a)	Ent DB (°F)	Ambient Temperature																	
		115						120						125					
		Entering Wet Bulb																	
		61		67		73		61		67		73		61		67		73	
MBh	SHC	MBh	SHC	MBh	SHC	MBh	SHC	MBh	SHC	MBh	SHC	MBh	SHC	MBh	SHC	MBh	SHC		
3000	75	123.1	93.8	138.4	60.9	158.9	55.6	118.1	90.5	133.0	58.3	153.0	53.5	112.9	87.0	127.4	55.6	147.0	51.4
	80	125.3	111.8	137.9	88.3	155.6	54.5	120.4	108.1	132.6	85.4	149.8	52.4	115.4	104.2	127.1	82.2	143.9	50.4
	85	129.0	125.1	138.8	111.0	153.7	78.6	124.2	121.1	133.5	107.7	148.0	76.1	119.2	116.8	128.1	104.1	142.2	73.3
	90	134.0	133.7	141.0	128.9	153.1	105.9	129.3	129.2	135.9	125.2	147.6	103.0	124.4	124.4	130.6	121.3	141.8	99.9
3900	75	132.3	104.6	146.2	70.3	165.3	57.8	127.1	101.1	140.6	67.6	159.2	55.7	121.7	97.3	134.7	64.6	152.9	53.5
	80	135.6	123.9	146.7	99.0	163.0	57.1	130.5	120.0	141.2	95.9	157.0	54.9	125.2	115.9	135.4	92.6	150.8	52.8
	85	140.2	138.5	148.6	123.0	162.1	89.3	135.2	134.2	143.1	119.5	156.2	86.6	130.0	129.7	137.5	115.8	150.1	83.6
	90	146.3	146.3	151.9	142.3	162.6	118.0	141.3	141.3	146.5	138.4	156.8	114.8	136.2	136.2	140.9	134.2	150.8	111.5
4800	75	139.8	114.1	152.3	78.5	169.9	59.5	134.3	110.4	146.4	75.5	163.6	57.3	128.7	106.4	140.4	72.4	157.1	55.0
	80	144.1	134.7	153.8	108.5	168.7	64.1	138.7	130.6	148.0	105.2	162.4	61.6	133.2	126.3	142.1	101.6	156.0	58.8
	85	149.8	149.8	156.7	133.8	168.8	98.8	144.5	144.5	151.0	130.1	162.6	95.9	139.1	139.1	145.1	126.2	156.4	92.7
	90	156.8	156.8	161.0	154.4	170.3	128.7	151.6	151.6	155.4	150.3	164.2	125.4	146.3	146.3	149.6	145.9	158.0	121.8
5400	75	143.8	119.7	155.4	83.3	172.0	60.2	138.2	115.9	149.3	80.2	165.6	57.9	132.4	111.8	143.1	76.9	158.9	55.6
	80	148.8	141.3	157.6	114.2	171.5	68.9	143.3	137.0	151.6	110.7	165.1	66.2	137.6	132.6	145.5	107.0	158.5	63.3
	85	155.1	155.1	161.1	140.3	172.3	104.4	149.7	149.7	155.3	136.5	166.0	101.3	144.1	144.1	149.3	132.4	159.5	98.0
	90	162.8	162.8	166.1	161.7	174.4	135.2	157.5	157.5	160.3	157.5	168.2	131.7	152.9	152.0	154.4	153.0	161.9	128.0
6000	75	147.1	124.8	157.7	87.5	173.4	60.7	141.3	120.8	151.5	84.2	166.8	58.4	135.4	116.6	145.1	80.8	160.0	56.0
	80	152.7	147.2	160.5	119.2	173.5	73.1	147.0	142.8	154.4	115.6	167.0	70.2	141.2	138.2	148.2	111.8	160.3	67.2
	85	159.7	159.7	164.8	146.3	175.0	109.5	154.2	154.2	158.8	142.3	168.5	106.2	148.4	148.4	152.6	138.0	161.9	102.8
	90	168.7	168.1	170.4	168.5	177.8	141.1	162.8	162.8	164.5	164.2	171.5	137.5	158.4	158.4	158.4	158.4	165.0	133.7
6600	75	149.5	129.4	159.2	91.1	174.0	60.9	143.6	125.2	152.8	87.7	167.2	58.5	137.6	120.9	146.3	84.1	160.3	56.1
	80	155.9	152.6	162.7	123.7	174.8	76.7	150.0	148.1	156.5	120.0	168.1	73.7	144.1	143.4	150.1	116.0	161.2	70.5
	85	163.6	163.6	167.7	151.6	176.9	114.0	157.8	157.8	161.5	147.5	170.3	110.6	151.9	151.9	155.2	143.1	163.6	107.0
	90	174.0	174.0	174.0	174.0	180.4	146.5	167.9	167.9	167.9	167.9	173.9	142.7	161.7	161.7	161.7	161.7	167.3	138.8
7200	75	151.2	133.3	159.9	94.2	173.8	60.8	145.2	129.0	153.4	90.7	166.9	58.4	138.9	124.6	146.8	86.9	159.8	55.9
	80	158.2	157.5	164.2	127.7	175.2	79.7	152.3	152.3	157.8	123.8	168.4	76.6	146.1	146.1	151.2	119.7	161.4	73.3
	85	166.6	166.6	169.8	156.5	178.1	117.9	160.7	160.7	163.5	152.2	171.3	114.4	154.7	154.7	157.0	147.7	164.4	110.7
	90	176.7	176.7	176.7	176.7	182.3	151.3	170.5	170.5	170.5	170.5	175.6	147.4	164.1	164.1	164.1	164.1	168.8	143.3

Notes:

1. All capacities shown are gross and have not considered indoor fan heat. To obtain **NET** cooling capacity subtract indoor fan heat. For indoor fan heat formula, refer to appropriate airflow table notes.
 2. MBh = Total Gross Capacity
 3. SHC = Sensible Heat Capacity
- (a) For 3000 and 3900 cfm-Unit applications below 320 cfm/ton are only applicable to Constant Volume THD models without electric heat and YHD models equipped with modulating gas heat. See below for restrictions:
- Electric heaters on applications below 320 cfm/ton.
 - Dehumidification (Hot Gas Reheat) with Froststat and Crankcase heaters are required on applications below 320 cfm/ton.
 - Multi-speed or single zone VAV applications are capable of running below 320 cfm/ton during low speed airflow operation, but "full" airflow must be set to 320 cfm/ton or higher.

Table 28. Gross cooling capacities 17½ tons three phase high efficiency T/YH*210G3,4,W (stage 1)

Air Flow cfm ^(a)	Ent DB (°F)	Ambient Temperature											
		85						95					
		Entering Wet Bulb											
		61		67		73		61		67		73	
		MBh	SHC	MBh	SHC	MBh	SHC	MBh	SHC	MBh	SHC	MBh	SHC
2800	75	63.9	60.0	68.3	47.4	74.6	22.7	59.8	56.7	64.0	44.6	70.2	20.3
	80	67.5	66.8	70.0	59.7	75.7	44.0	63.4	63.4	65.8	56.6	71.3	41.4
	85	71.6	71.6	73.0	68.1	76.7	58.1	67.5	67.5	68.8	64.8	72.4	55.2
	90	75.8	75.8	76.7	74.3	79.2	67.9	71.7	71.7	72.5	70.9	74.8	64.8
3500	75	65.8	63.2	69.7	50.8	75.5	26.3	61.5	59.7	65.2	47.7	70.8	23.7
	80	69.8	69.8	71.9	63.3	77.0	47.8	65.5	65.5	67.4	59.9	72.3	44.9
	85	74.1	74.1	75.2	71.9	78.4	62.1	69.8	69.8	70.8	68.3	73.8	58.9
	90	78.6	78.6	79.1	78.4	81.2	72.1	74.2	74.2	74.7	74.7	76.7	68.7
4200	75	67.3	65.7	70.6	53.5	76.0	29.2	62.8	61.9	65.9	50.1	71.1	26.3
	80	71.6	71.6	73.2	66.2	77.8	50.9	67.0	67.0	68.5	62.5	73.0	47.7
	85	76.2	76.2	76.9	75.0	79.7	65.4	71.6	71.6	72.2	71.2	74.9	61.9
	90	80.9	80.9	81.1	81.1	82.8	75.6	76.3	76.3	76.4	76.4	78.0	71.9
4900	75	68.4	67.6	71.1	55.5	76.8	31.5	63.6	63.5	66.2	51.9	71.5	28.2
	80	72.9	72.9	74.1	68.4	77.9	53.3	68.2	68.2	69.2	64.5	73.1	49.7
	85	77.8	77.8	78.1	77.4	80.5	67.9	73.0	73.0	73.2	73.2	75.5	64.1
	90	81.0	81.0	82.6	82.6	84.0	78.3	76.5	75.0	77.7	77.7	79.0	74.4
5600	75	68.9	68.7	71.2	56.9	77.0	33.0	63.7	63.7	67.0	52.9	72.2	29.5
	80	73.9	73.9	74.6	69.9	78.2	55.0	68.9	68.9	69.5	65.7	73.9	51.1
	85	78.0	78.0	78.9	78.9	80.9	69.8	73.2	71.0	73.8	73.8	75.6	65.7
	90	82.1	82.1	83.7	83.7	84.7	80.4	77.0	77.0	78.6	78.6	79.4	76.1
6125	75	69.1	69.1	71.6	57.4	77.4	33.7	63.9	63.9	68.0	53.2	73.0	30.0
	80	74.3	74.3	74.7	70.5	78.4	55.8	69.1	69.1	71.0	66.1	74.4	51.7
	85	78.6	78.6	79.3	79.3	81.8	70.7	73.5	73.5	74.0	74.0	77.0	66.4
	90	83.5	83.5	84.2	84.2	84.9	81.5	77.2	77.2	78.9	78.9	79.5	77.0

Notes:

1. All capacities shown are gross and have not considered indoor fan heat. To obtain NET cooling capacity subtract indoor fan heat. For indoor fan heat formula, refer to appropriate airflow table notes.
 2. MBh = Total Gross Capacity
 3. SHC = Sensible Heat Capacity
 4. * Indicates both downflow and horizontal units.
- (a) For 2800, 3500, 4200, and 4900 cfm-Unit applications below 320 cfm/ton are only applicable to Constant Volume THD models without electric heat and YHD models equipped with modulating gas heat. See below for restrictions:
- Electric heaters on applications below 320 cfm/ton.
 - Froststat and Crankcase heaters are required on applications below 320 cfm/ton.
 - Multi-speed, single zone VAV or multi-zone VAV applications are capable of running below 320 cfm/ton during low speed airflow operation, but "full" airflow must be set to 320 cfm/ton or higher.

Performance Data

Table 29. Gross cooling capacities 17½ tons three phase high efficiency T/YH*210G3,4,W (stage 2)

Air Flow cfm (a)	Ent DB (°F)	Ambient Temperature											
		85						95					
		Entering Wet Bulb											
		61		67		73		61		67		73	
		MBh	SHC	MBh	SHC	MBh	SHC	MBh	SHC	MBh	SHC	MBh	SHC
2800	75	123.5	100.2	134.4	80.1	147.8	44.0	117.3	96.3	127.4	77.0	139.9	41.8
	80	126.3	111.0	136.4	97.8	148.9	73.2	120.1	106.7	129.4	94.1	141.1	70.2
	85	130.4	119.4	138.3	110.3	150.0	92.9	124.2	114.7	131.3	106.1	142.3	89.4
	90	135.4	126.3	141.8	119.6	151.1	106.9	129.0	121.3	134.8	115.0	143.4	102.8
3500	75	129.9	108.5	142.2	87.5	152.2	50.4	123.2	104.2	134.6	84.0	143.9	47.6
	80	133.3	120.2	142.4	106.1	154.0	80.6	126.7	115.4	135.0	102.0	145.8	77.2
	85	138.0	129.2	145.1	119.4	155.8	101.2	131.3	124.0	137.7	114.7	147.7	97.2
	90	143.5	136.7	149.2	129.3	157.7	115.9	136.7	131.2	141.7	124.3	149.6	111.4
4200	75	135.1	115.8	146.3	93.8	160.5	55.6	128.0	111.0	138.3	89.8	151.6	52.4
	80	139.3	128.2	147.4	113.3	160.5	86.9	132.2	122.9	139.6	108.7	151.8	83.0
	85	144.5	137.8	150.7	127.3	160.6	108.4	137.4	132.2	142.9	122.2	152.0	103.9
	90	150.5	145.9	155.4	137.9	163.1	123.8	143.2	139.9	147.6	132.5	154.6	118.9
4900	75	139.2	121.9	149.3	99.0	162.4	59.6	131.7	116.7	140.9	94.5	153.0	56.0
	80	144.1	135.1	151.3	119.4	163.3	92.0	136.6	129.4	143.0	114.3	154.1	87.7
	85	149.9	145.4	155.3	134.1	164.2	114.4	142.4	139.3	147.1	128.6	155.2	109.5
	90	156.3	153.9	160.6	145.4	167.5	130.6	148.6	147.5	152.3	139.5	158.5	125.3
5600	75	142.3	126.9	151.2	103.0	163.2	62.6	134.3	121.2	142.3	98.1	153.4	58.5
	80	147.8	140.8	154.1	124.3	165.0	96.0	139.9	134.7	145.3	118.8	155.4	91.2
	85	154.2	151.7	158.8	139.8	166.8	119.3	146.3	145.2	150.1	133.8	157.4	114.0
	90	161.1	160.8	164.6	151.7	170.7	136.3	152.9	152.9	155.9	145.4	161.4	130.5
6125	75	143.8	129.9	151.9	105.3	164.1	64.0	135.5	123.9	142.7	100.0	154.0	59.6
	80	149.9	144.4	155.4	127.3	165.5	98.3	141.7	137.9	146.4	121.4	155.6	93.2
	85	156.7	155.8	160.7	143.3	168.0	122.3	148.4	148.4	151.7	137.0	158.2	116.6
	90	163.9	163.9	167.0	155.7	172.5	139.8	155.4	155.4	157.9	149.0	162.8	133.6

Notes:

1. All capacities shown are gross and have not considered indoor fan heat. To obtain NET cooling capacity subtract indoor fan heat. For indoor fan heat formula, refer to appropriate airflow table notes.
 2. MBh = Total Gross Capacity
 3. SHC = Sensible Heat Capacity
 4. * Indicates both downflow and horizontal units.
- (a) For 2800, 3500, 4200, and 4900 cfm-Unit applications below 320 cfm/ton are only applicable to Constant Volume THD models without electric heat and YHD models equipped with modulating gas heat. See below for restrictions:
- Electric heaters on applications below 320 cfm/ton.
 - Froststat and Crankcase heaters are required on applications below 320 cfm/ton.
 - Multi-speed, single zone VAV or multi-zone VAV applications are capable of running below 320 cfm/ton during low speed airflow operation, but "full" airflow must be set to 320 cfm/ton or higher.

Performance Data

Table 30. Gross cooling capacities 17½ tons three phase high efficiency T/YH*210G3,4,W (full load)

Air Flow cfm ^(a)	Ent DB (°F)	Ambient Temperature																	
		85						95						105					
		Entering Wet Bulb																	
		61		67		73		61		67		73		61		67		73	
MBh	SHC	MBh	SHC	MBh	SHC	MBh	SHC	MBh	SHC	MBh	SHC	MBh	SHC	MBh	SHC	MBh	SHC		
3500	75	178.2	140.1	193.8	111.1	207.3	60.7	169.5	134.8	186.6	107.2	204.8	58.4	159.9	128.9	174.5	102.7	183.6	55.5
	80	182.3	156.6	197.4	136.9	211.8	102.1	173.6	150.4	187.6	132.0	205.4	98.5	164.0	143.7	177.0	126.4	187.8	94.3
	85	188.5	169.5	200.2	155.6	217.6	130.7	179.6	162.7	190.4	149.7	206.7	126.0	169.9	155.2	179.7	143.3	195.0	120.8
	90	195.9	180.3	205.3	169.8	219.0	151.3	186.7	172.9	195.3	163.3	208.1	145.8	176.7	164.9	184.5	156.2	196.4	139.7
4200	75	186.2	150.2	194.6	120.2	212.8	68.8	177.0	144.4	193.2	115.8	211.6	66.0	166.9	138.0	183.6	110.8	196.3	62.6
	80	191.0	167.4	205.2	147.0	223.4	111.3	181.8	160.8	194.9	141.5	212.2	107.2	171.7	153.5	183.7	135.5	198.7	102.5
	85	197.7	181.0	208.6	166.4	225.1	140.8	188.3	173.7	198.3	160.1	213.7	135.6	178.1	165.7	187.1	153.2	201.5	129.9
	90	205.5	192.4	214.2	181.3	227.2	162.2	195.9	184.5	203.8	174.3	215.8	156.2	185.3	176.0	192.4	166.7	203.5	149.6
4900	75	193.4	159.4	211.5	128.5	229.7	76.0	183.6	153.0	200.5	123.6	217.5	72.7	173.0	146.1	188.6	118.0	204.6	68.8
	80	198.8	177.4	212.0	156.2	230.6	119.6	189.1	170.2	201.2	150.2	218.2	114.9	178.5	162.4	189.5	143.6	205.4	109.7
	85	206.0	191.6	216.1	176.3	231.7	150.0	196.1	183.7	205.2	169.5	219.8	144.3	185.4	175.3	193.6	162.1	207.0	138.0
	90	214.3	203.5	222.3	191.9	234.4	172.2	204.1	195.1	211.3	184.4	222.5	165.6	193.0	186.1	199.4	176.3	209.8	158.5
5600	75	199.6	167.6	216.7	135.8	236.2	82.3	189.4	160.8	205.1	130.4	223.6	78.5	178.3	153.3	192.7	124.3	206.4	74.0
	80	205.7	186.4	218.0	164.4	237.1	126.9	195.5	178.7	206.6	157.9	224.2	121.8	184.4	170.4	194.4	150.8	211.7	116.0
	85	213.5	201.3	222.7	185.3	237.4	158.2	203.1	192.9	211.4	178.0	225.0	152.0	191.8	183.9	199.1	170.0	211.7	145.2
	90	222.1	213.8	229.4	201.6	240.8	181.2	211.4	204.9	217.9	193.6	228.4	174.2	199.8	195.3	205.5	184.9	215.1	166.5
6300	75	205.0	174.9	220.9	142.2	240.8	87.7	194.2	167.6	208.8	136.2	227.7	83.3	182.6	159.6	195.9	129.7	208.9	78.4
	80	211.7	194.5	223.1	171.7	241.7	133.3	201.0	186.3	211.2	164.7	228.6	127.7	189.4	177.4	198.5	157.1	214.6	121.4
	85	220.0	210.0	228.4	193.4	242.2	165.6	209.1	201.1	216.6	185.6	229.3	158.8	197.3	191.6	203.8	177.1	215.5	151.5
	90	229.1	223.1	235.7	210.4	246.2	189.3	217.8	213.7	223.6	201.8	233.3	181.8	205.7	203.6	210.8	192.6	219.5	173.6
7000	75	209.4	181.3	224.2	147.7	243.2	92.1	198.2	173.4	211.7	141.2	230.3	87.2	186.0	165.0	198.2	134.1	210.2	81.8
	80	216.9	201.6	227.2	178.1	244.8	138.8	205.6	192.9	214.8	170.5	231.2	132.7	193.4	183.6	201.6	162.4	216.7	125.9
	85	225.6	217.8	233.3	200.6	246.1	172.0	214.2	208.4	220.9	192.2	232.7	164.7	201.9	198.4	207.6	183.2	218.4	156.9
	90	235.1	231.5	241.0	218.2	250.8	196.5	223.4	221.5	228.5	209.1	237.4	188.4	210.8	210.8	215.1	199.4	223.1	179.7
7700	75	213.0	186.8	226.7	152.2	245.6	95.6	201.2	178.4	213.6	145.2	231.9	90.2	188.6	169.4	199.6	137.6	210.6	84.2
	80	221.1	207.9	230.5	183.5	247.0	143.4	209.3	198.6	217.6	175.5	232.8	136.7	196.6	188.8	203.8	166.8	217.9	129.4
	85	230.4	224.7	237.2	206.8	249.1	177.5	218.4	214.8	224.3	197.9	235.2	169.7	205.6	204.3	210.5	188.4	220.4	161.4
	90	240.3	238.9	245.5	225.1	254.5	202.8	228.0	228.0	232.4	215.5	240.5	194.2	214.9	214.9	218.5	205.3	225.7	185.0
8400	75	215.7	191.3	228.2	155.8	246.8	98.2	203.4	182.4	214.6	148.3	232.7	92.3	190.2	172.9	200.2	140.2	220.4	85.8
	80	224.4	213.2	232.9	188.1	248.3	147.1	212.1	203.4	219.5	179.5	233.6	139.9	199.0	193.1	205.2	170.3	220.8	132.1
	85	234.2	230.7	240.2	212.1	251.3	182.0	221.8	220.3	226.8	202.7	236.8	173.8	208.4	208.4	212.6	192.7	221.5	164.9
	90	244.5	244.5	249.1	231.1	257.3	208.1	231.8	231.8	235.5	221.0	242.8	199.0	218.1	218.1	221.1	210.2	227.5	189.3



Performance Data

Table 30. Gross cooling capacities 17½ tons three phase high efficiency T/YH*210G3,4,W (full load) (continued)

Air Flow cfm (a)	Ent DB (°F)	Ambient Temperature																	
		115						120						125					
		Entering Wet Bulb																	
		61		67		73		61		67		73		61		67		73	
MBh	SHC	MBh	SHC	MBh	SHC	MBh	SHC	MBh	SHC	MBh	SHC	MBh	SHC	MBh	SHC	MBh	SHC	MBh	SHC
3500	75	149.5	122.4	158.0	97.6	172.5	52.1	144.0	119.0	155.8	94.8	165.9	50.1	138.2	115.3	148.3	91.9	160.8	48.0
	80	153.6	136.3	165.4	120.3	176.7	89.5	148.1	132.4	159.3	117.0	169.4	86.9	142.3	128.4	153.0	113.5	163.4	84.1
	85	159.3	147.2	168.2	136.3	182.4	114.9	153.7	143.0	162.1	132.6	175.8	111.8	147.8	138.6	155.8	128.7	169.0	108.4
	90	165.8	156.4	172.8	148.5	183.8	133.0	160.1	151.8	166.7	144.4	177.2	129.4	154.1	147.2	160.3	140.2	170.4	125.7
4200	75	156.0	131.0	171.4	105.2	184.6	58.6	150.2	127.2	164.9	102.2	174.8	56.4	144.2	123.3	158.3	99.0	162.4	54.0
	80	160.8	145.6	171.6	128.8	186.8	97.2	155.0	141.5	165.3	125.2	175.3	94.3	149.0	137.2	158.7	121.5	168.6	91.2
	85	167.0	157.2	175.0	145.6	188.4	123.5	161.1	152.7	168.7	141.6	181.5	120.1	155.0	148.0	162.1	137.5	174.4	116.5
	90	173.9	166.9	180.2	158.5	190.4	142.3	167.9	162.1	173.8	154.1	183.6	138.5	161.6	157.2	167.1	149.6	176.5	134.5
4900	75	161.6	138.6	175.9	111.9	190.2	64.3	155.5	134.6	169.2	108.6	180.7	61.8	149.3	130.4	162.3	105.2	175.1	59.2
	80	167.0	154.0	176.9	136.4	192.8	103.9	161.0	149.6	170.3	132.6	181.3	100.7	154.7	145.0	163.5	128.6	176.4	97.4
	85	173.7	166.2	181.0	154.0	193.4	131.1	167.6	161.4	174.4	149.8	186.3	127.4	161.3	156.5	167.6	145.3	178.9	123.6
	90	181.1	176.5	186.7	167.5	196.1	150.7	174.8	171.5	180.0	162.9	189.0	146.6	168.3	166.3	173.1	158.2	181.7	142.4
5600	75	166.3	145.3	179.4	117.7	192.5	69.0	160.0	141.0	172.5	114.1	184.5	66.3	153.5	136.6	165.3	110.4	176.9	63.4
	80	172.4	161.5	181.4	143.1	197.4	109.7	166.1	156.8	174.5	139.0	189.9	106.3	159.6	152.0	167.4	134.8	182.2	102.7
	85	179.6	174.3	186.1	161.5	197.6	137.8	173.2	169.3	179.2	157.0	190.2	133.9	166.6	164.1	172.1	152.3	182.6	129.8
	90	187.4	185.2	192.3	175.7	201.0	158.2	180.9	179.9	185.4	170.8	193.6	153.9	174.1	174.1	178.2	165.8	186.0	149.3
6300	75	170.1	151.0	182.1	122.5	194.1	72.8	163.6	146.5	174.9	118.7	185.6	69.8	156.8	141.9	167.5	114.8	178.3	66.7
	80	176.9	168.0	184.9	148.8	199.8	114.6	170.3	163.1	177.8	144.5	192.1	110.9	163.5	158.0	170.4	140.0	184.1	107.1
	85	184.6	181.5	190.2	168.0	200.8	143.6	178.0	176.2	183.1	163.2	193.2	139.4	171.1	170.8	175.8	158.3	185.3	135.1
	90	192.8	192.8	197.0	182.9	204.9	164.8	186.0	186.0	189.8	177.7	197.2	160.2	179.0	179.0	182.4	172.5	189.4	155.4
7000	75	173.0	155.9	183.9	126.5	194.4	75.7	166.2	151.1	176.5	122.4	186.5	72.4	159.2	146.2	168.8	118.2	178.8	69.0
	80	180.4	173.6	187.5	153.7	201.3	118.5	173.6	168.4	180.1	149.1	193.3	114.6	166.6	163.1	172.5	144.3	185.1	110.5
	85	188.7	187.8	193.5	173.6	203.2	148.5	181.8	181.8	186.2	168.6	195.3	144.0	174.7	174.7	178.6	163.4	187.2	139.4
	90	197.3	197.3	200.8	189.1	207.9	170.4	190.2	190.2	193.4	183.8	200.0	165.5	183.0	183.0	185.7	178.2	191.9	160.5
7700	75	175.1	159.8	184.8	129.4	195.2	77.6	168.0	154.8	177.1	125.1	187.2	74.1	160.7	149.6	169.2	120.7	179.2	70.5
	80	183.1	178.3	189.2	157.6	202.0	121.5	176.0	172.9	181.6	152.7	193.7	117.4	168.7	167.3	173.8	147.7	185.3	113.0
	85	191.9	191.9	195.9	178.3	204.7	152.4	184.8	184.8	188.3	173.0	196.5	147.7	177.4	177.4	180.4	167.6	188.1	142.8
	90	200.9	200.9	203.8	194.5	210.1	175.1	193.6	193.6	196.0	188.8	201.9	170.0	186.1	186.1	188.1	183.1	193.5	164.7
8400	75	176.2	162.8	184.8	131.5	195.6	78.7	168.9	157.5	177.8	126.9	187.9	74.9	161.3	152.0	170.0	122.2	180.3	71.0
	80	184.9	182.1	190.1	160.6	202.4	123.6	177.6	176.4	182.2	155.4	194.3	119.2	170.0	170.0	174.1	150.2	184.4	114.6
	85	194.2	194.2	197.4	182.1	205.3	155.4	186.8	186.8	189.5	176.5	196.8	150.4	179.2	179.2	181.4	170.8	188.2	145.3
	90	203.6	203.6	205.8	198.9	211.3	178.9	196.1	196.1	197.8	193.0	202.9	173.5	188.3	188.3	189.6	187.0	194.2	168.0

Notes:

1. All capacities shown are gross and have not considered indoor fan heat. To obtain NET cooling capacity subtract indoor fan heat. For indoor fan heat formula, refer to appropriate airflow table notes.
 2. MBh = Total Gross Capacity
 3. SHC = Sensible Heat Capacity
 4. * Indicates both downflow and horizontal units.
- (a) For 3500, 4200, and 4900 cfm-Unit applications below 320 cfm/ton are only applicable to Constant Volume THD models without electric heat and YHD models equipped with modulating gas heat. See below for restrictions:
- Electric heaters on applications below 320 cfm/ton.
 - Froststat and Crankcase heaters are required on applications below 320 cfm/ton.
 - Multi-speed, single zone VAV or multi-zone VAV applications are capable of running below 320 cfm/ton during low speed airflow operation, but "full" airflow must be set to 320 cfm/ton or higher.

Performance Data

Table 31. Gross cooling capacities 17½ tons three phase dehumidification (hot gas reheat) option high efficiency T/YHD210G3,4,W (Digit 22 = B)

Air Flow cfm(a)	Ent DB (°F)	Ambient Temperature																	
		85						95						105					
		Entering Wet Bulb																	
		61		67		73		61		67		73		61		67		73	
MBh	SHC	MBh	SHC	MBh	SHC	MBh	SHC	MBh	SHC	MBh	SHC	MBh	SHC	MBh	SHC	MBh	SHC	MBh	SHC
3500	75	157.6	122.6	174.5	95.9	196.1	56.8	151.2	119.5	166.8	93.6	187.2	55.2	143.7	115.7	158.2	90.5	177.3	53.0
	80	160.6	140.5	174.2	120.6	192.5	88.1	154.0	136.7	166.5	117.6	183.6	85.9	146.5	132.2	157.8	113.8	173.6	83.0
	85	165.2	154.7	175.6	141.4	190.7	115.7	158.6	150.2	167.8	137.7	181.7	112.8	151.0	145.0	159.0	133.3	171.6	109.2
	90	171.5	165.0	178.7	158.5	190.5	139.5	164.8	159.9	170.8	154.1	181.4	135.9	157.2	154.0	161.9	149.1	171.3	131.6
4550	75	167.1	138.7	182.4	110.5	202.3	69.8	160.1	134.8	174.2	107.4	192.8	67.5	152.2	130.2	164.9	103.5	182.4	64.4
	80	171.1	158.1	183.1	136.6	199.7	102.6	164.0	153.5	174.8	132.7	190.2	99.5	156.0	148.2	165.5	128.2	179.7	95.8
	85	176.7	173.6	185.5	158.8	198.9	131.5	169.6	168.3	177.1	154.3	189.3	127.8	161.4	161.4	167.7	149.1	178.7	123.4
	90	184.0	184.0	189.5	177.3	199.7	156.7	176.8	176.8	181.1	172.1	190.0	152.3	168.6	168.6	171.6	166.2	179.4	147.2
5600	75	174.9	145.5	188.5	116.5	206.7	75.0	167.3	141.2	179.7	113.0	196.7	72.3	158.8	136.2	169.9	108.7	185.7	68.8
	80	179.8	165.5	190.1	143.2	205.1	108.5	172.2	160.6	181.3	139.0	195.1	105.0	163.6	154.9	171.5	134.1	184.0	100.9
	85	186.4	181.8	193.5	166.2	205.3	138.1	178.7	176.1	184.6	161.3	195.1	134.0	170.0	169.7	174.7	155.7	184.0	129.2
	90	194.7	194.2	198.5	185.3	207.0	164.0	186.9	186.9	189.5	179.8	196.8	159.2	178.1	178.1	179.6	173.5	185.7	153.7
6300	75	179.1	151.4	191.5	121.6	208.6	79.4	171.1	146.7	182.4	117.7	198.3	76.2	162.2	141.3	172.3	113.1	187.0	72.4
	80	184.6	172.1	193.9	149.1	207.7	113.5	176.6	166.8	184.7	144.5	197.3	109.7	167.7	160.7	174.5	139.1	185.9	105.1
	85	191.9	189.1	197.9	172.7	208.5	143.9	183.8	183.0	188.6	167.4	198.0	139.3	174.8	174.8	178.3	161.4	186.5	134.1
	90	200.8	200.8	203.5	192.6	210.9	170.4	192.6	192.6	194.2	186.6	200.4	165.2	183.5	183.5	183.9	179.9	188.8	159.3
7000	75	182.4	156.5	193.8	125.9	209.8	82.9	174.2	151.4	184.3	121.6	199.1	79.3	164.9	145.6	173.8	116.6	187.4	75.1
	80	188.6	177.9	196.8	154.0	209.5	117.7	180.3	172.1	187.2	149.0	198.8	113.5	171.0	165.6	176.7	143.3	187.0	108.5
	85	196.5	195.5	201.4	178.4	211.0	148.7	188.1	188.1	191.8	172.7	200.1	143.8	178.7	178.7	181.2	166.3	188.3	138.2
	90	206.1	206.1	207.7	198.9	214.1	176.0	197.6	197.6	198.0	192.5	203.1	170.4	185.5	185.5	187.3	185.5	191.2	164.1
7700	75	185.0	160.6	195.3	129.3	210.2	85.5	176.4	155.2	185.4	124.6	199.1	81.5	166.7	149.0	174.6	119.2	187.0	76.9
	80	191.9	182.8	198.9	158.1	210.6	121.0	183.2	176.6	189.0	152.7	199.4	116.4	173.5	169.7	178.0	146.6	187.3	111.0
	85	200.4	200.4	204.2	183.1	212.6	152.7	191.6	191.6	194.2	177.1	201.4	147.4	181.9	181.9	183.2	170.3	189.2	141.4
	90	210.6	210.6	211.2	204.4	216.4	180.7	201.8	201.8	201.1	197.6	205.1	174.7	190.0	190.0	190.0	190.0	192.8	168.0
8400	75	186.8	164.0	195.9	131.8	209.7	87.2	177.8	158.1	185.7	126.7	198.3	82.9	167.8	151.5	174.5	120.9	185.9	77.8
	80	194.3	186.8	200.2	161.3	210.8	123.5	185.2	180.2	189.9	155.6	199.3	118.4	175.2	172.9	178.6	149.0	186.8	112.7
	85	203.5	203.5	206.2	187.1	213.5	155.9	194.4	194.4	195.8	180.6	201.9	150.2	184.2	184.2	184.5	173.4	189.3	143.8
	90	214.4	214.4	213.8	209.0	217.9	184.5	201.3	201.3	203.4	201.8	206.2	178.1	191.9	191.9	191.9	191.9	193.6	171.1



Performance Data

Table 31. Gross cooling capacities 17½ tons three phase dehumidification (hot gas reheat) option high efficiency T/YHD210G3,4,W (Digit 22 = B) (continued)

Air Flow cfm(a)	Ent DB (°F)	Ambient Temperature																	
		115						120						125					
		Entering Wet Bulb																	
		61		67		73		61		67		73		61		67		73	
MBh	SHC	MBh	SHC	MBh	SHC	MBh	SHC	MBh	SHC	MBh	SHC	MBh	SHC	MBh	SHC	MBh	SHC		
3500	75	135.3	111.1	148.5	86.8	166.4	50.0	130.7	108.6	143.3	84.7	160.6	48.2	125.9	105.9	137.9	82.4	154.5	46.3
	80	138.0	127.0	148.0	109.4	162.7	79.3	133.4	124.2	142.8	106.9	156.8	77.2	128.5	121.1	137.3	104.3	150.8	75.0
	85	142.4	139.2	149.2	128.2	160.6	104.8	137.8	136.0	143.9	125.4	154.8	102.4	132.9	132.6	138.4	122.4	148.6	99.8
	90	148.5	147.5	152.1	143.3	160.3	126.6	143.8	143.8	146.8	140.1	154.3	123.8	138.9	138.9	141.2	136.8	148.2	120.9
4550	75	143.2	124.9	154.8	99.0	171.0	60.6	138.3	119.0	149.3	93.8	164.9	56.2	133.2	118.9	143.6	93.8	158.6	56.2
	80	146.9	142.2	155.2	123.0	168.2	91.3	142.0	135.6	149.7	117.2	162.1	86.3	136.9	135.5	144.0	117.1	155.8	86.2
	85	152.3	152.3	157.4	143.2	167.2	118.3	147.4	147.4	151.9	136.7	161.0	112.5	142.2	142.2	146.1	136.6	154.6	112.4
	90	159.6	159.6	161.2	159.6	167.8	141.4	154.4	154.4	155.7	152.4	161.6	134.9	149.8	149.8	149.8	149.8	155.1	134.9
5600	75	149.3	130.5	159.2	103.8	173.8	64.6	144.2	127.4	153.5	101.1	167.4	62.3	138.8	124.1	147.5	98.2	160.8	59.8
	80	154.0	148.5	160.7	128.5	172.0	96.1	148.8	145.0	154.9	125.4	165.6	93.4	143.4	141.4	148.9	122.2	159.0	90.5
	85	160.4	160.4	163.8	149.4	171.9	123.7	155.2	155.2	158.0	146.0	165.5	120.6	149.7	149.7	151.9	142.4	158.8	117.4
	90	168.4	168.4	168.6	166.5	173.5	147.5	162.8	162.8	162.8	162.8	167.0	144.1	156.7	156.7	156.7	156.7	160.3	140.6
6300	75	152.4	135.2	161.2	107.7	174.6	67.8	147.0	131.9	155.2	104.8	168.1	65.3	141.5	128.4	149.1	101.7	161.3	62.5
	80	157.7	153.9	163.3	133.1	173.5	99.9	152.4	150.2	157.3	129.9	166.9	97.0	146.8	146.4	151.1	126.4	160.1	94.0
	85	164.7	164.7	167.1	154.7	174.1	128.2	159.4	159.4	161.1	151.1	167.5	125.0	153.7	153.7	154.8	147.3	160.6	121.6
	90	172.5	172.5	172.5	172.5	176.3	152.7	166.5	166.5	166.5	166.5	169.7	149.2	160.2	160.2	160.2	160.2	162.8	145.4
7000	75	154.6	139.1	162.3	110.8	174.7	70.1	149.1	135.5	156.2	107.7	168.0	67.4	143.4	131.9	149.9	104.4	161.0	64.4
	80	160.6	158.4	165.1	136.9	174.2	102.9	155.1	154.6	159.0	133.4	167.5	99.8	149.3	149.3	152.6	129.8	160.5	96.6
	85	168.3	168.3	169.6	159.2	175.4	131.9	162.8	162.8	163.4	155.4	168.7	128.5	156.9	156.9	157.0	151.4	161.6	124.9
	90	175.7	175.7	175.7	175.7	178.3	157.1	169.4	169.4	169.4	169.4	171.5	153.3	163.0	163.0	163.0	163.0	164.4	149.4
7700	75	156.1	142.0	162.7	113.0	174.0	71.5	150.5	138.3	156.4	109.7	167.1	68.6	144.5	134.4	149.9	106.2	159.9	65.5
	80	162.8	162.1	166.1	139.8	174.2	105.0	157.1	157.1	159.8	136.1	167.2	101.7	151.1	151.1	153.3	132.3	160.0	98.3
	85	171.1	171.1	171.2	162.8	176.0	134.7	165.4	165.4	164.9	158.8	169.0	131.1	159.4	159.4	158.3	154.6	161.8	127.3
	90	178.0	178.0	178.0	178.0	179.5	160.6	171.6	171.6	171.6	171.6	172.5	156.7	165.0	165.0	165.0	165.0	165.3	152.5
8400	75	156.8	144.2	162.3	114.4	172.5	72.1	151.0	140.3	155.8	110.8	165.4	69.0	144.9	136.2	149.1	107.1	158.0	65.6
	80	164.1	164.1	166.4	141.8	173.3	106.3	158.2	158.2	159.9	138.0	166.2	102.8	152.1	152.1	153.1	133.9	158.8	99.1
	85	173.1	173.1	172.1	165.5	175.8	136.7	167.2	167.2	165.6	161.3	168.6	132.8	157.2	157.2	158.8	156.9	161.2	128.8
	90	179.5	179.5	179.5	179.5	180.0	163.3	173.0	173.0	173.0	173.0	172.8	159.1	166.1	166.1	166.1	166.1	165.3	154.8

Notes:

1. All capacities shown are gross and have not considered indoor fan heat. To obtain **NET** cooling capacity subtract indoor fan heat. For indoor fan heat formula, refer to appropriate airflow table notes.
 2. MBh = Total Gross Capacity
 3. SHC = Sensible Heat Capacity
- (a) For 3500, and 4550 cfm-Unit applications below 320 cfm/ton are only applicable to Constant Volume THD models without electric heat and YHD models equipped with modulating gas heat. See below for restrictions:
- Electric heaters on applications below 320 cfm/ton.
 - Froststat and Crankcase heaters are required on applications below 320 cfm/ton.
 - Multi-speed, single zone VAV or multi-zone VAV applications are capable of running below 320 cfm/ton during low speed airflow operation, but "full" airflow must be set to 320 cfm/ton or higher.

Table 32. Gross cooling capacities 20 tons three phase high efficiency T/YH*240G3,4,W (stage 1)

Air Flow cfm ^(a)	Ent DB (°F)	Ambient Temperature											
		85						95					
		Entering Wet Bulb											
		61		67		73		61		67		73	
		MBh	SHC	MBh	SHC	MBh	SHC	MBh	SHC	MBh	SHC	MBh	SHC
3200	75	71.7	67.2	76.0	52.7	82.4	24.7	66.8	63.4	70.9	49.4	77.0	21.9
	80	76.1	75.4	78.6	67.1	84.3	49.4	71.3	71.3	73.5	63.4	78.9	46.1
	85	81.1	81.1	82.5	77.1	86.2	65.8	76.3	76.3	77.4	73.1	80.9	62.2
	90	86.3	86.3	87.1	84.6	89.5	77.4	81.4	81.4	82.0	80.5	84.3	73.6
4000	75	73.6	70.6	77.4	56.5	83.2	28.8	68.4	66.4	71.9	52.7	79.9	25.6
	80	78.5	78.5	80.4	71.0	85.6	53.6	73.3	73.3	75.0	66.9	79.9	50.0
	85	83.8	83.8	84.8	81.2	88.0	70.2	78.6	78.6	79.4	76.9	82.3	66.3
	90	89.3	89.3	89.8	89.1	91.8	82.0	84.1	84.1	84.4	84.4	86.2	77.9
4800	75	75.0	73.3	78.2	59.4	85.9	32.1	69.5	68.6	72.5	55.2	80.0	28.5
	80	80.3	80.3	81.8	74.2	86.4	57.1	74.8	74.8	76.1	69.7	80.4	53.0
	85	86.0	86.0	86.6	84.7	89.3	73.9	80.5	80.5	80.9	79.9	83.4	69.6
	90	91.8	91.8	91.9	91.9	93.6	86.0	85.0	85.0	86.2	86.2	87.6	81.4
5600	75	76.0	75.2	78.6	61.6	86.0	34.7	70.2	70.1	72.5	57.1	80.2	30.7
	80	81.7	81.7	82.7	76.6	86.8	59.8	75.9	75.9	76.7	71.7	80.5	55.4
	85	87.8	87.8	87.9	87.3	90.2	76.8	81.0	81.0	81.9	81.9	83.9	72.1
	90	92.0	92.0	93.6	93.6	94.9	89.2	87.0	88.0	87.6	87.6	88.6	84.2
6400	75	76.5	76.3	79.0	63.1	87.0	36.5	70.3	70.3	73.0	58.1	81.0	32.1
	80	82.6	82.6	83.2	78.3	88.0	61.8	76.5	76.5	76.8	73.0	82.5	56.9
	85	88.2	88.2	88.8	88.8	90.6	79.0	82.0	82.0	82.4	82.4	84.0	73.9
	90	93.5	93.5	94.8	94.8	95.7	91.6	88.2	88.2	88.5	88.5	89.1	86.2
7000	75	76.5	76.5	81.0	63.7	88.0	37.4	70.2	70.2	75.0	58.4	82.0	32.7
	80	83.0	83.0	83.2	79.0	91.0	62.7	76.6	76.6	78.0	73.4	84.0	57.6
	85	89.0	89.0	89.1	89.1	94.0	80.1	82.2	82.2	82.5	82.5	86.0	74.7
	90	95.0	95.0	95.4	95.4	96.0	92.9	88.4	89.0	88.8	88.8	89.1	87.3

Notes:

1. All capacities shown are gross and have not considered indoor fan heat. To obtain NET cooling capacity subtract indoor fan heat. For indoor fan heat formula, refer to appropriate airflow table notes.
 2. MBh = Total Gross Capacity
 3. SHC = Sensible Heat Capacity
 4. * Indicates both downflow and horizontal units.
- (a) For 3200, 4000, 4800, and 5600 cfm-Unit applications below 320 cfm/ton are only applicable to Constant Volume THD models without electric heat and YHD models equipped with modulating gas heat. See below for restrictions:
- Electric heaters on applications below 320 cfm/ton.
 - Froststat and Crankcase heaters are required on applications below 320 cfm/ton.
 - Multi-speed, single zone VAV or multi-zone VAV applications are capable of running below 320 cfm/ton during low speed airflow operation, but "full" airflow must be set to 320 cfm/ton or higher.



Performance Data

Table 33. Gross cooling capacities 20 tons three phase high efficiency T/YH*240G3,4,W (stage 2)

Air Flow cfm ^(a)	Ent DB (°F)	Ambient Temperature											
		85						95					
		Entering Wet Bulb											
		61		67		73		61		67		73	
		MBh	SHC	MBh	SHC	MBh	SHC	MBh	SHC	MBh	SHC	MBh	SHC
3200	75	147.4	116.5	161.9	94.0	179.6	54.5	139.3	111.3	153.0	89.7	169.9	51.2
	80	150.8	130.2	164.3	114.7	181.0	87.0	142.8	124.5	155.5	109.7	171.4	82.9
	85	155.8	141.5	166.7	130.2	182.4	110.0	147.8	135.4	158.0	124.7	172.9	105.2
	90	161.9	151.4	170.9	142.5	183.7	127.2	153.7	144.9	162.2	136.6	174.4	121.9
4000	75	155.6	127.1	171.7	103.0	185.5	61.7	147.0	121.3	162.1	98.1	175.3	57.9
	80	160.1	142.0	172.3	125.2	187.9	96.0	151.5	135.8	163.0	119.7	177.7	91.4
	85	165.9	154.4	175.7	141.9	190.2	120.5	157.3	147.7	166.4	135.9	180.2	115.2
	90	172.5	165.2	180.7	155.4	192.5	138.9	163.9	158.2	171.5	148.9	182.6	133.1
4800	75	162.5	136.3	177.1	110.6	195.7	67.6	153.4	130.0	167.0	105.3	184.6	63.2
	80	167.9	152.5	178.9	134.3	196.1	103.6	158.8	145.7	169.0	128.3	185.3	98.5
	85	174.5	166.0	183.2	152.3	196.6	129.6	165.4	158.8	173.5	145.8	186.0	123.8
	90	181.8	177.7	189.1	166.9	199.9	149.3	172.6	170.2	179.3	159.9	189.4	143.0
5600	75	168.0	144.2	181.2	116.9	198.4	72.1	158.3	137.4	170.5	111.0	186.8	67.2
	80	174.3	161.7	184.1	142.1	200.0	109.9	164.7	154.3	173.7	135.6	188.6	104.2
	85	181.7	176.2	189.4	161.4	201.6	137.4	172.0	168.4	179.1	154.3	190.5	131.1
	90	189.6	188.8	196.1	177.1	205.9	158.4	179.9	179.9	185.7	169.6	194.9	151.5
6400	75	172.1	150.7	183.8	121.9	199.6	75.3	161.8	143.4	172.6	115.5	187.5	69.9
	80	179.3	169.5	187.9	148.6	202.4	114.9	169.2	161.6	177.0	141.5	190.5	108.7
	85	187.5	185.1	194.2	169.2	205.2	143.9	177.3	176.8	183.3	161.6	193.5	137.0
	90	196.0	196.0	201.6	185.9	210.4	166.2	185.8	185.8	190.7	177.9	198.9	158.8
7000	75	174.2	154.7	184.8	124.8	199.6	76.8	163.5	147.0	173.2	117.9	190.8	71.0
	80	182.2	174.4	189.9	152.6	203.3	117.8	171.6	166.2	178.5	145.1	191.0	111.1
	85	190.9	190.8	196.8	174.1	207.0	147.9	180.3	180.3	185.5	166.1	194.9	140.6
	90	199.9	199.9	204.9	191.6	212.9	171.1	189.3	189.3	193.6	183.2	201.0	163.3

Notes:

1. All capacities shown are gross and have not considered indoor fan heat. To obtain NET cooling capacity subtract indoor fan heat. For indoor fan heat formula, refer to appropriate airflow table notes.
 2. MBh = Total Gross Capacity
 3. SHC = Sensible Heat Capacity
 4. * Indicates both downflow and horizontal units.
- (a) For 3200, 4000, 4800, and 5600 cfm-Unit applications below 320 cfm/ton are only applicable to Constant Volume THD models without electric heat and YHD models equipped with modulating gas heat. See below for restrictions:
- Electric heaters on applications below 320 cfm/ton.
 - Froststat and Crankcase heaters are required on applications below 320 cfm/ton.
 - Multi-speed, single zone VAV or multi-zone VAV applications are capable of running below 320 cfm/ton during low speed airflow operation, but "full" airflow must be set to 320 cfm/ton or higher.

Performance Data

Table 34. Gross cooling capacities 20 tons three phase high efficiency T/YH*240G3,4,W (full load)

Air Flow cfm ^(a)	Ent DB (°F)	Ambient Temperature																	
		85						95						105					
		Entering Wet Bulb																	
		61		67		73		61		67		73		61		67		73	
MBh	SHC	MBh	SHC	MBh	SHC	MBh	SHC	MBh	SHC	MBh	SHC	MBh	SHC	MBh	SHC	MBh	SHC	MBh	SHC
4000	75	204.7	159.8	224.3	126.6	248.0	69.4	194.8	153.5	213.3	121.7	235.9	66.2	184.1	146.6	201.4	116.3	223.0	62.4
	80	209.6	179.2	227.5	156.5	249.7	116.6	199.7	172.0	216.5	150.5	237.6	112.1	189.0	164.2	204.7	143.9	224.8	106.9
	85	217.0	194.6	230.8	178.3	251.4	149.6	206.9	186.7	219.8	171.4	239.4	143.9	195.9	178.1	208.0	163.9	226.5	137.7
	90	225.7	207.7	236.9	195.3	253.2	173.8	215.3	199.2	225.7	187.6	241.1	167.2	204.1	190.1	213.7	179.4	228.2	160.0
4800	75	214.2	171.5	232.6	137.1	255.1	78.6	203.7	164.6	225.1	131.7	242.5	74.8	192.4	157.1	212.5	125.6	229.0	70.4
	80	220.0	191.9	236.7	168.2	257.7	127.2	209.5	184.0	225.1	161.6	245.1	122.0	198.1	175.6	212.7	154.4	231.6	116.3
	85	228.0	208.1	240.9	191.0	260.3	161.4	217.3	199.6	229.2	183.5	247.7	155.1	205.7	190.4	216.8	175.4	234.2	148.2
	90	237.3	221.9	247.6	208.8	262.9	186.5	226.3	212.8	235.9	200.6	250.2	179.3	214.5	203.1	223.2	191.7	236.7	171.5
5600	75	222.7	182.1	243.9	146.6	261.2	86.7	211.5	174.6	231.5	140.5	248.0	82.3	199.6	166.5	218.3	133.9	233.9	77.4
	80	229.3	203.5	244.8	178.8	264.7	136.7	218.1	195.0	232.6	171.6	251.4	130.9	206.2	186.0	219.5	163.8	237.3	124.6
	85	237.9	220.6	249.8	202.6	268.1	172.0	226.6	211.4	237.6	194.5	254.8	165.1	214.5	201.7	224.5	185.8	240.7	157.6
	90	247.8	235.1	257.3	221.2	271.6	198.1	236.2	225.3	244.9	212.4	258.3	190.3	223.7	215.0	231.6	203.0	244.2	181.9
6400	75	230.0	191.6	249.9	154.9	274.8	93.8	218.3	183.5	236.8	148.3	260.5	88.8	205.7	174.8	223.0	141.0	245.5	83.2
	80	237.5	214.0	251.8	188.3	274.8	145.1	225.7	204.9	239.0	180.5	260.7	138.7	213.1	195.3	225.3	172.1	245.9	131.8
	85	246.8	231.9	257.6	213.1	274.8	181.6	234.9	222.1	244.8	204.4	260.9	174.1	222.1	211.8	231.1	195.1	246.2	166.0
	90	257.2	247.1	265.8	232.6	279.1	208.6	245.0	236.8	252.8	223.1	265.2	200.2	231.9	225.9	239.0	213.1	250.5	191.2
7200	75	236.2	200.1	254.7	162.2	278.3	99.8	223.9	191.4	241.1	155.0	263.4	94.2	210.7	182.0	226.6	147.1	247.8	88.0
	80	244.5	223.4	257.7	196.7	279.4	152.5	232.2	213.7	244.3	188.3	264.7	145.5	219.0	203.5	230.0	179.4	249.2	137.9
	85	254.6	242.2	264.4	222.5	280.4	190.0	242.0	231.8	250.9	213.2	265.9	181.9	228.7	220.8	236.7	203.3	250.6	173.3
	90	265.5	258.1	273.2	242.8	285.6	218.1	252.6	247.2	259.6	232.8	271.1	209.1	239.0	235.6	245.2	222.2	255.8	199.5
8000	75	241.4	207.5	258.4	168.5	280.7	104.7	228.4	198.1	244.2	160.6	265.2	98.5	214.6	188.2	229.1	152.1	249.0	91.7
	80	250.5	231.7	262.5	204.1	282.8	158.7	237.6	221.5	248.5	195.1	267.5	151.1	223.8	210.7	233.6	185.5	251.4	143.0
	85	261.2	251.3	270.1	230.8	284.9	197.4	248.1	240.4	256.0	220.9	269.8	188.7	234.1	228.8	241.1	210.5	253.9	179.4
	90	272.7	268.0	279.6	252.0	291.0	226.5	259.2	256.5	265.4	241.4	275.8	216.9	245.0	244.3	250.3	230.2	259.9	206.7
8800	75	245.4	213.8	261.1	173.6	282.0	108.5	231.9	203.8	246.2	165.1	265.9	101.7	217.5	193.3	230.6	156.1	249.1	94.3
	80	255.4	239.0	266.2	210.4	285.2	163.9	241.8	228.2	251.6	200.8	269.3	155.7	227.4	216.7	236.1	190.6	252.6	146.9
	85	266.8	259.4	274.6	238.1	288.4	203.8	253.0	247.9	259.9	227.6	272.6	194.4	238.5	235.7	244.4	216.5	256.1	184.6
	90	278.8	276.8	284.8	260.1	295.2	233.8	264.7	264.7	270.0	248.9	279.5	223.6	249.9	249.9	254.3	237.1	263.0	212.8
9600	75	248.4	219.0	262.6	177.6	282.2	111.2	234.2	208.4	247.2	168.6	265.5	103.8	219.2	197.3	230.9	158.9	248.1	95.8
	80	259.2	245.2	268.8	215.6	286.4	168.0	245.0	233.7	253.6	205.4	270.0	159.2	230.0	221.7	237.5	194.6	252.6	149.8
	85	271.3	266.5	278.1	244.3	290.7	209.0	256.9	254.3	262.8	233.2	274.4	199.1	241.7	241.5	246.7	221.5	257.2	188.6
	90	283.8	283.8	289.0	267.2	298.4	240.0	269.1	269.1	273.5	255.3	282.1	229.2	253.7	253.7	257.3	242.9	264.9	217.8



Performance Data

Table 34. Gross cooling capacities 20 tons three phase high efficiency T/YH*240G3,4,W (full load) (continued)

Air Flow cfm (a)	Ent DB (°F)	Ambient Temperature																	
		115						120						125					
		Entering Wet Bulb																	
		61		67		73		61		67		73		61		67		73	
MBh	SHC	MBh	SHC	MBh	SHC	MBh	SHC	MBh	SHC	MBh	SHC	MBh	SHC	MBh	SHC	MBh	SHC	MBh	SHC
4000	75	172.5	139.1	188.8	110.3	209.3	58.1	166.4	135.1	182.1	107.1	202.2	55.7	160.1	131.0	175.3	103.7	194.8	53.1
	80	177.4	155.8	192.0	136.8	211.0	101.2	171.3	151.4	185.4	133.0	203.9	98.1	164.9	146.8	178.5	129.1	196.5	94.9
	85	184.2	169.0	195.3	155.9	212.8	130.8	178.0	164.3	188.6	151.7	205.6	127.2	171.6	159.4	181.8	147.3	198.2	123.4
	90	192.0	180.4	200.9	170.7	214.5	152.2	185.7	175.3	194.2	166.1	207.3	148.1	179.1	170.1	187.2	161.3	199.9	143.9
4800	75	180.2	149.0	199.0	119.0	214.7	65.5	173.8	144.7	192.0	115.5	207.2	62.8	167.2	140.3	184.7	111.8	199.6	60.0
	80	185.9	166.6	199.4	146.7	217.3	110.0	179.5	161.9	192.4	142.6	209.8	106.6	172.9	157.1	185.3	138.4	202.1	103.1
	85	193.4	180.7	203.5	166.8	219.8	140.7	186.9	175.7	196.5	162.2	212.3	136.8	180.2	170.5	189.4	157.5	204.7	132.7
	90	201.8	192.8	209.8	182.4	222.4	163.1	195.2	187.4	202.7	177.5	214.9	158.7	188.3	181.9	195.5	172.4	207.2	154.2
5600	75	186.8	157.8	204.2	126.7	219.0	71.8	180.1	153.2	196.9	122.8	211.2	68.8	173.2	148.5	189.3	118.9	203.2	65.7
	80	193.4	176.4	205.6	155.5	222.4	117.6	186.6	171.4	198.4	151.1	214.6	114.0	179.7	166.2	190.9	146.5	206.6	110.1
	85	201.5	191.3	210.6	176.5	225.8	149.6	194.7	186.0	203.3	171.7	218.0	145.3	187.7	180.5	195.9	166.7	210.0	141.0
	90	210.5	204.1	217.6	193.0	229.2	172.9	203.5	198.5	210.2	187.8	221.4	168.3	196.4	192.7	202.7	182.4	213.4	163.4
6400	75	192.3	165.5	208.3	133.2	229.6	77.1	185.3	160.6	200.7	129.1	221.3	73.8	178.1	155.6	192.8	124.8	212.9	70.3
	80	199.7	185.1	210.8	163.2	230.1	124.3	192.7	179.8	203.3	158.5	222.0	120.3	185.5	174.3	195.5	153.7	213.6	116.1
	85	208.5	200.9	216.6	185.2	230.7	157.3	201.4	195.2	209.1	180.1	222.6	152.8	194.1	189.4	201.3	174.8	214.3	148.1
	90	218.0	214.4	224.3	202.5	235.0	181.7	210.8	208.4	216.7	197.0	226.9	176.7	203.3	202.3	208.8	191.4	218.6	171.5
7200	75	196.7	172.1	211.3	138.7	231.3	81.2	189.4	167.0	203.4	134.3	222.7	77.7	181.9	161.7	195.2	129.7	213.9	73.9
	80	205.0	192.7	214.9	169.8	232.9	129.8	197.7	187.1	207.0	164.8	224.4	125.5	190.1	181.4	199.0	159.7	215.7	121.1
	85	214.5	209.3	221.6	192.9	234.5	164.0	207.1	203.4	213.7	187.4	226.1	159.2	199.4	197.2	205.6	181.8	217.5	154.2
	90	224.5	223.5	229.9	211.0	239.6	189.3	216.9	216.9	222.0	205.2	231.2	184.0	209.2	209.2	213.8	199.2	222.6	178.6
8000	75	200.0	177.7	213.3	143.1	231.9	84.3	192.4	172.2	205.0	138.4	223.0	80.4	184.6	166.6	196.5	133.5	213.9	76.4
	80	209.1	199.3	217.9	175.4	234.5	134.2	201.5	193.4	209.7	170.1	225.7	129.6	193.7	187.3	201.3	164.7	216.7	124.9
	85	219.3	216.7	225.4	199.4	237.1	169.6	211.6	210.4	217.2	193.6	228.5	164.4	203.7	203.7	208.8	187.8	219.6	159.2
	90	229.9	229.9	234.4	218.4	243.1	195.9	222.0	222.0	226.2	212.3	234.4	190.3	214.0	214.0	217.7	206.0	225.5	184.6
8800	75	202.2	182.2	214.1	146.4	231.3	86.3	194.3	176.4	205.5	141.4	222.2	82.2	186.2	170.5	196.7	136.2	213.5	77.8
	80	212.2	204.7	219.7	179.9	235.0	137.6	204.3	198.5	211.3	174.3	226.0	132.7	196.1	192.1	202.6	168.5	217.0	127.7
	85	223.1	223.0	228.1	204.8	238.7	174.1	215.0	215.0	219.6	198.8	229.7	168.7	206.8	206.8	211.0	192.6	220.5	163.1
	90	234.2	234.2	237.8	224.7	245.6	201.4	226.0	226.0	229.3	218.3	236.6	195.5	217.6	217.6	220.5	211.7	227.4	189.5
9600	75	203.4	185.6	216.0	148.7	233.2	87.3	195.1	179.5	207.0	143.3	224.1	82.8	186.7	173.3	198.0	137.9	213.0	78.1
	80	214.2	209.1	220.5	183.2	236.2	139.9	205.9	202.6	211.8	177.4	227.0	134.7	197.5	195.9	202.8	171.3	218.0	129.4
	85	225.7	225.7	229.8	209.2	239.2	177.5	217.4	217.4	221.0	202.9	229.9	171.8	208.9	208.9	212.0	196.4	223.0	165.9
	90	237.4	237.4	240.2	229.9	246.9	205.8	228.9	228.9	231.3	223.2	237.6	199.6	220.2	220.2	222.3	216.3	228.1	193.3

Notes:

1. All capacities shown are gross and have not considered indoor fan heat. To obtain NET cooling capacity subtract indoor fan heat. For indoor fan heat formula, refer to appropriate airflow table notes.
 2. MBh = Total Gross Capacity
 3. SHC = Sensible Heat Capacity
 4. * Indicates both downflow and horizontal units.
- (a) For 4000, 4800, and 5600 cfm-Unit applications below 320 cfm/ton are only applicable to Constant Volume THD models without electric heat and YHD models equipped with modulating gas heat. See below for restrictions:
- Electric heaters on applications below 320 cfm/ton.
 - Froststat and Crankcase heaters are required on applications below 320 cfm/ton.
 - Multi-speed, single zone VAV or multi-zone VAV applications are capable of running below 320 cfm/ton during low speed airflow operation, but "full" airflow must be set to 320 cfm/ton or higher.

Table 35. Gross cooling capacities 20 tons three phase dehumidification (hot gas reheat) option high efficiency T/YHD240G3,4,W (Digit 22 = B)

Air Flow cfm ^(a)	Ent DB (°F)	Ambient Temperature																	
		85						95						105					
		Entering Wet Bulb																	
		61		67		73		61		67		73		61		67		73	
MBh	SHC	MBh	SHC	MBh	SHC	MBh	SHC	MBh	SHC	MBh	SHC	MBh	SHC	MBh	SHC	MBh	SHC		
4000	75	203.7	145.0	228.5	96.2	259.7	90.9	193.4	139.5	217.0	92.5	247.0	86.4	182.4	133.4	204.8	88.3	233.5	81.7
	80	206.0	171.4	227.3	134.7	254.8	89.2	195.8	164.9	215.8	130.0	242.1	84.7	184.8	157.8	203.6	124.6	228.6	80.0
	85	210.1	191.8	227.8	167.0	251.7	118.8	199.9	184.2	216.3	161.3	239.0	114.9	189.0	176.0	204.1	154.9	225.5	110.4
	90	216.1	206.0	230.1	193.2	250.4	157.1	205.9	197.4	218.6	186.5	237.7	152.1	194.9	188.2	206.4	179.1	224.2	146.5
5200	75	218.6	159.9	241.6	108.8	271.0	94.8	207.5	153.9	229.3	104.6	257.4	90.1	195.7	147.3	216.2	99.8	243.0	85.1
	80	222.2	188.3	241.6	149.2	267.3	93.6	211.1	181.3	229.3	144.0	253.7	88.8	199.3	173.6	216.2	138.2	239.4	83.8
	85	227.6	210.6	243.4	183.5	265.5	133.0	216.5	202.5	231.1	177.3	251.9	128.6	204.7	193.8	218.0	170.4	237.6	123.5
	90	234.8	226.8	247.0	211.7	265.4	173.2	223.7	217.7	234.6	204.4	251.9	167.7	211.9	207.9	221.6	196.5	237.5	161.6
6400	75	231.3	173.2	252.5	119.7	280.0	98.0	219.3	166.7	239.3	115.1	265.5	92.9	206.6	159.6	225.3	109.8	250.3	87.6
	80	236.2	203.6	253.7	162.1	277.6	97.2	224.2	196.0	240.5	156.4	263.2	93.4	211.5	187.9	226.6	150.1	248.0	88.8
	85	242.8	227.8	256.8	198.4	277.0	145.5	230.9	219.3	243.6	191.6	262.6	140.6	218.2	210.0	229.7	184.2	247.4	135.0
	90	251.2	245.9	261.6	228.5	278.2	187.7	239.3	236.3	248.4	220.7	263.8	181.7	226.7	226.1	234.5	212.3	248.6	175.1
7200	75	238.5	181.2	258.5	126.2	284.8	99.7	226.0	174.4	244.7	121.2	269.7	94.4	212.7	166.9	230.2	115.5	253.9	88.9
	80	244.2	212.9	260.6	169.9	283.2	103.4	231.7	205.0	246.8	163.8	268.2	99.2	218.5	196.5	232.3	157.1	252.4	94.3
	85	251.7	238.4	264.4	207.4	283.5	153.0	239.2	229.5	250.7	200.3	268.4	147.7	226.0	220.0	236.2	192.6	252.7	141.8
	90	261.0	257.9	270.1	238.9	285.5	196.5	248.5	247.9	256.3	230.7	270.5	190.2	235.3	235.3	241.9	222.0	254.7	183.2
8000	75	244.8	188.5	263.5	131.9	288.6	101.0	231.7	181.3	249.2	126.5	272.9	95.5	217.8	173.5	234.1	120.5	256.6	89.8
	80	251.3	221.5	266.4	176.9	287.8	108.9	238.2	213.2	252.1	170.5	272.2	104.3	224.4	204.4	237.0	163.5	255.9	99.1
	85	259.6	248.3	271.1	215.8	288.9	159.8	246.5	239.1	256.8	208.3	273.3	154.2	232.7	229.2	241.7	200.2	257.0	147.9
	90	269.7	269.0	277.6	248.5	291.8	204.5	256.7	256.7	263.3	240.0	276.2	197.9	242.9	242.9	248.2	230.9	259.9	190.6
8800	75	250.0	195.1	267.5	136.9	291.3	102.0	236.3	187.5	252.6	131.2	275.2	96.3	221.9	179.4	236.9	124.9	258.2	90.4
	80	257.4	229.3	271.3	183.2	291.5	113.6	243.7	220.8	256.4	176.5	275.3	108.7	229.3	211.6	240.7	169.1	258.4	103.2
	85	266.5	257.5	276.8	223.4	293.4	165.8	252.9	247.9	261.9	215.6	277.2	159.9	238.5	237.7	246.3	207.2	260.3	153.3
	90	277.5	277.5	284.1	257.4	297.1	211.9	263.8	263.8	269.2	248.6	280.9	204.9	249.5	249.5	253.6	239.2	264.0	197.3
9600	75	254.3	200.9	270.6	141.2	293.1	102.6	240.0	193.1	255.1	135.2	276.4	96.7	225.0	184.6	238.8	128.5	258.9	90.6
	80	262.5	236.5	275.1	188.8	294.1	117.7	248.2	227.6	259.7	181.7	277.4	112.4	233.3	218.1	243.4	174.0	259.9	106.5
	85	272.4	266.0	281.5	230.3	296.8	171.2	258.2	256.0	266.0	222.2	280.1	164.9	243.3	243.3	249.8	213.4	262.6	157.9
	90	284.2	284.2	289.6	265.7	301.4	218.6	270.0	270.0	274.2	256.5	284.7	211.2	255.1	255.1	258.0	246.7	267.2	203.2



Performance Data

Table 35. Gross cooling capacities 20 tons three phase dehumidification (hot gas reheat) option high efficiency T/YHD240G3,4,W (Digit 22 = B) (continued)

Air Flow cfm ^(b)	Ent DB (°F)	Ambient Temperature																	
		115						120						125					
		Entering Wet Bulb																	
		61		67		73		61		67		73		61		67		73	
MBh	SHC	MBh	SHC	MBh	SHC	MBh	SHC	MBh	SHC	MBh	SHC	MBh	SHC	MBh	SHC	MBh	SHC		
4000	75	170.7	126.7	191.8	83.3	219.2	76.7	164.5	123.1	185.0	80.6	211.8	74.1	158.2	119.3	178.1	77.8	204.2	71.5
	80	173.1	150.0	190.6	118.7	214.4	75.0	166.9	145.9	183.8	115.5	207.0	72.4	160.6	141.6	176.8	112.1	199.4	69.8
	85	177.3	167.2	191.1	147.9	211.3	105.2	171.1	162.6	184.4	144.2	203.9	102.4	164.8	157.7	177.4	140.3	196.3	99.4
	90	183.2	178.3	193.5	171.0	210.0	140.3	177.1	173.1	186.7	166.8	202.6	137.0	170.8	167.8	179.8	162.3	195.1	133.5
5200	75	183.1	140.0	202.3	94.4	227.9	79.8	176.5	136.2	195.1	91.4	220.1	77.0	169.7	132.1	187.7	88.3	212.0	74.2
	80	186.7	165.3	202.4	131.7	224.3	78.5	180.1	160.9	195.2	128.2	216.5	75.8	173.4	156.4	187.8	124.6	208.4	73.0
	85	192.1	184.5	204.2	162.9	222.5	117.8	185.6	179.6	197.0	158.9	214.7	114.7	178.8	174.5	189.6	154.7	206.7	111.5
	90	199.4	197.5	207.8	187.9	222.5	154.9	192.8	192.1	200.6	183.4	214.6	151.3	186.1	186.1	193.2	178.7	206.6	147.5
6400	75	193.2	151.8	210.6	103.8	234.3	82.0	186.2	147.7	203.0	100.6	226.1	79.1	179.0	143.4	195.2	97.2	217.6	76.2
	80	198.1	179.1	211.9	143.1	232.0	83.6	191.1	174.4	204.3	139.3	223.7	80.8	183.9	169.6	196.5	135.4	215.3	77.8
	85	204.8	200.2	215.0	176.2	231.4	128.8	197.8	195.0	207.4	172.0	223.2	125.5	190.6	189.7	199.5	167.5	214.8	122.0
	90	213.3	213.3	219.8	203.2	232.7	167.8	206.3	206.3	212.2	198.5	224.4	164.0	199.1	199.1	204.4	193.5	216.0	160.0
7200	75	198.7	158.8	214.9	109.2	237.4	83.1	191.4	154.5	207.0	105.8	228.9	80.1	183.9	150.0	198.9	102.3	220.1	77.0
	80	204.4	187.3	217.0	149.8	235.9	88.8	197.2	182.5	209.1	145.9	227.4	85.8	189.7	177.5	201.0	141.8	218.6	82.6
	85	212.0	209.8	220.9	184.2	236.2	135.3	204.7	204.4	213.0	179.8	227.6	131.7	197.2	197.2	204.9	175.2	218.9	128.1
	90	221.3	221.3	226.6	212.5	238.2	175.6	214.0	214.0	218.7	207.6	229.7	171.6	206.6	206.6	210.6	202.5	221.0	167.4
8000	75	203.2	165.0	218.2	113.9	239.5	83.8	195.7	160.6	210.0	110.3	230.6	80.7	187.9	155.9	201.6	106.6	221.6	77.6
	80	209.8	194.9	221.2	155.8	238.8	93.2	202.2	189.9	213.0	151.7	230.0	90.1	194.5	184.7	204.6	147.5	221.0	86.7
	85	218.2	218.2	225.9	191.5	239.9	141.0	210.6	210.6	217.7	186.9	231.1	137.3	202.9	202.9	209.3	182.2	222.1	133.5
	90	228.3	228.3	232.4	221.2	242.8	182.7	220.8	220.8	224.2	216.0	234.0	178.4	213.0	213.0	215.9	210.8	225.0	174.1
8800	75	206.8	170.6	220.5	117.9	240.6	84.2	198.9	165.9	212.0	114.2	231.4	81.0	190.9	161.1	203.3	110.3	222.1	77.7
	80	214.2	201.7	224.3	161.1	240.7	97.0	206.3	196.6	215.8	156.8	231.6	93.6	198.3	191.2	207.1	152.4	222.3	90.1
	85	223.4	223.4	229.9	198.1	242.7	146.0	215.5	215.5	221.4	193.3	233.6	142.2	207.5	207.5	212.7	188.4	224.3	138.1
	90	234.3	234.3	237.2	229.1	246.4	189.0	226.5	226.5	228.8	223.8	237.3	184.6	217.9	217.9	220.1	218.3	228.0	180.1
9600	75	209.3	175.4	221.8	121.2	240.6	84.2	201.2	170.6	213.0	117.3	231.2	80.9	192.8	165.6	204.1	113.2	221.6	77.6
	80	217.5	207.9	226.4	165.6	241.6	100.0	209.4	202.5	217.7	161.2	232.2	96.5	201.1	197.0	208.7	156.6	222.6	92.8
	85	227.6	227.6	232.8	204.0	244.4	150.4	219.4	219.4	224.1	199.1	235.0	146.3	211.1	211.1	215.1	194.0	225.4	142.1
	90	239.4	239.4	241.0	236.2	249.0	194.6	230.0	230.0	232.3	230.8	239.6	190.1	223.3	223.3	223.3	223.3	230.0	185.3

Notes:

1. All capacities shown are gross and have not considered indoor fan heat. To obtain **NET** cooling capacity subtract indoor fan heat. For indoor fan heat formula, refer to appropriate airflow table notes.
 2. MBh = Total Gross Capacity
 3. SHC = Sensible Heat Capacity^(a)
- (a) For 4000, and 5200 cfm-Unit applications below 320 cfm/ton are only applicable to Constant Volume THD models without electric heat and YHD models equipped with modulating gas heat. See below for restrictions:
- Electric heaters on applications below 320 cfm/ton.
 - Froststat and Crankcase heaters are required on applications below 320 cfm/ton.
 - Multi-speed, single zone VAV or multi-zone VAV applications are capable of running below 320 cfm/ton during low speed airflow operation, but "full" airflow must be set to 320 cfm/ton or higher.
- (b) For 4000, and 5200 cfm-Unit applications below 320 cfm/ton are only applicable to Constant Volume THD models without electric heat and YHD models equipped with modulating gas heat. See below for restrictions:
- Electric heaters on applications below 320 cfm/ton.
 - Froststat and Crankcase heaters are required on applications below 320 cfm/ton.
 - Multi-speed, single zone VAV or multi-zone VAV applications are capable of running below 320 cfm/ton during low speed airflow operation, but "full" airflow must be set to 320 cfm/ton or higher.

Table 36. Gross cooling capacities 25 tons three phase high efficiency T/YH*300G3,4,W (stage 1)

Air Flow cfm ^(a)	Ent DB (°F)	Ambient Temperature											
		85						95					
		Entering Wet Bulb											
		61		67		73		61		67		73	
		MBh	SHC	MBh	SHC	MBh	SHC	MBh	SHC	MBh	SHC	MBh	SHC
4000	75	80.5	78.0	85.7	62.9	93.7	32.5	75.1	73.7	80.0	59.3	87.7	29.5
	80	85.2	85.2	87.8	78.2	94.6	59.2	79.7	79.7	82.1	74.1	88.6	55.8
	85	90.1	90.1	91.3	88.2	95.4	76.5	84.6	84.6	85.6	83.8	89.4	72.6
	90	94.9	94.9	95.3	95.3	97.8	88.2	89.3	89.3	89.5	89.5	91.8	83.9
5000	75	83.0	82.1	87.6	67.4	95.0	37.4	77.3	77.3	81.6	63.4	88.7	34.1
	80	88.1	88.1	90.2	82.7	96.3	64.2	82.3	82.3	84.2	78.3	90.0	60.3
	85	93.3	93.3	94.0	92.9	97.6	81.6	87.5	87.5	88.0	88.0	91.3	77.2
	90	98.3	98.3	98.3	98.3	100.3	93.3	92.0	92.0	92.2	92.2	94.0	88.7
6000	75	85.1	85.1	89.0	71.1	95.7	41.5	79.1	79.1	82.7	66.7	89.2	37.8
	80	90.5	90.5	92.0	86.5	97.5	68.3	84.5	84.5	85.8	81.6	90.9	64.1
	85	96.0	96.0	96.2	96.2	99.2	85.8	89.9	89.9	89.9	89.9	92.7	81.1
	90	99.8	99.8	100.8	100.8	102.3	97.7	94.0	94.0	94.4	94.4	95.8	92.6
7000	75	86.6	86.6	89.8	74.0	96.0	44.9	80.3	80.3	83.3	69.2	89.5	40.7
	80	92.4	92.4	93.4	89.5	98.2	71.7	86.1	86.1	86.8	84.2	91.3	67.0
	85	96.0	96.0	97.9	97.9	100.4	89.2	91.0	91.0	91.3	91.3	93.6	84.1
	90	101.0	101.0	102.8	102.8	103.8	101.2	95.8	95.8	96.1	96.1	97.0	95.8
8000	75	87.7	87.7	90.2	76.1	98.2	47.4	81.1	81.1	83.3	70.9	91.0	42.9
	80	93.8	93.8	94.2	91.6	98.4	74.2	87.2	87.2	87.3	86.0	92.0	69.1
	85	98.4	98.4	99.1	99.1	101.0	91.8	92.0	92.0	92.2	92.2	93.9	86.3
	90	103.7	103.7	104.2	104.2	104.8	104.0	96.0	96.0	97.3	97.3	97.7	97.7
8750	75	88.1	88.1	91.0	77.1	98.5	48.8	81.3	81.3	84.0	71.6	92.0	43.9
	80	94.0	94.0	94.5	92.7	99.0	75.6	87.3	87.3	87.4	86.7	93.5	70.2
	85	99.0	99.0	99.7	99.7	101.2	93.2	92.4	92.4	92.6	92.6	95.0	87.4
	90	104.0	104.0	105.0	105.0	105.2	105.2	97.0	97.0	97.8	97.8	97.9	97.9

Notes:

1. All capacities shown are gross and have not considered indoor fan heat. To obtain NET cooling capacity subtract indoor fan heat. For indoor fan heat formula, refer to appropriate airflow table notes.
 2. MBh = Total Gross Capacity
 3. SHC = Sensible Heat Capacity
 4. * Indicates both downflow and horizontal units.
- (a) For 4000, 5000, 6000, and 7000 cfm-Unit applications below 320 cfm/ton are only applicable to Constant Volume THD models without electric heat and YHD models equipped with modulating gas heat. See below for restrictions:
- Electric heaters on applications below 320 cfm/ton.
 - Froststat and Crankcase heaters are required on applications below 320 cfm/ton.
 - Multi-speed, single zone VAV or multi-zone VAV applications are capable of running below 320 cfm/ton during low speed airflow operation, but "full" airflow must be set to 320 cfm/ton or higher.



Performance Data

Table 37. Gross cooling capacities 25 tons three phase high efficiency T/YH*300G3,4,W (stage 2)

Air Flow cfm (a)	Ent DB (°F)	Ambient Temperature											
		85						95					
		Entering Wet Bulb											
		61		67		73		61		67		73	
		MBh	SHC	MBh	SHC	MBh	SHC	MBh	SHC	MBh	SHC	MBh	SHC
4000	75	135.6	118.7	146.9	92.7	156.4	43.8	127.9	113.4	138.5	88.3	147.4	40.5
	80	140.7	132.3	148.2	116.5	159.0	84.6	132.9	126.3	139.8	111.3	150.0	80.4
	85	146.9	142.2	152.0	132.5	161.5	111.5	138.9	135.7	143.6	126.7	152.5	106.4
	90	153.5	150.3	157.2	144.1	164.1	129.8	145.3	143.4	148.6	137.8	155.0	124.2
5000	75	141.2	127.5	151.3	101.4	165.2	52.4	133.0	121.6	142.4	96.4	155.5	48.5
	80	147.0	141.5	153.5	125.6	165.8	93.7	138.7	134.9	144.5	119.9	156.2	88.8
	85	153.7	151.8	157.9	142.1	166.4	121.0	145.2	144.8	149.0	135.7	156.8	115.4
	90	160.7	160.3	163.6	154.1	169.7	139.7	152.0	152.0	154.5	147.2	160.0	133.5
6000	75	145.8	134.8	154.6	108.6	167.3	59.5	137.0	128.2	145.1	103.0	157.1	55.0
	80	152.2	149.2	157.6	133.2	168.7	101.2	143.4	142.0	148.2	126.9	158.6	95.8
	85	159.4	159.4	162.7	150.1	170.2	128.9	150.4	150.4	153.3	143.2	160.1	122.7
	90	166.8	166.8	169.0	162.6	174.1	148.1	157.6	157.6	159.3	155.1	164.0	141.3
7000	75	149.2	140.5	156.8	114.2	168.3	65.0	140.0	133.4	146.9	108.1	157.6	59.9
	80	156.3	155.3	160.7	139.3	170.6	107.2	147.0	147.0	150.8	132.4	160.0	101.2
	85	164.0	164.0	166.5	156.7	172.9	135.4	154.6	154.6	156.5	149.1	162.3	128.6
	90	171.8	171.8	173.2	169.5	177.5	155.0	162.1	162.1	163.1	161.4	166.8	147.6
8000	75	151.6	144.7	158.0	118.3	169.0	69.0	141.9	137.0	147.5	111.6	158.0	63.4
	80	159.4	159.4	162.7	143.9	171.4	111.7	149.6	149.6	152.2	136.4	160.3	105.1
	85	167.6	167.6	169.1	161.6	174.5	140.3	157.6	157.6	158.7	153.5	163.5	132.9
	90	175.7	175.7	176.4	174.9	179.8	160.3	165.5	165.5	165.7	165.7	168.6	152.3
8750	75	152.7	146.8	158.1	120.4	171.3	71.0	142.6	138.7	147.9	113.2	159.6	64.9
	80	161.0	161.0	163.4	146.3	172.0	114.0	150.8	150.8	152.7	138.3	161.0	107.0
	85	169.5	169.5	170.4	164.3	175.1	142.9	159.2	159.2	159.6	155.8	163.6	135.1
	90	178.0	178.0	178.0	177.9	180.8	163.3	166.0	167.4	167.0	167.0	169.3	154.9

Notes:

1. All capacities shown are gross and have not considered indoor fan heat. To obtain NET cooling capacity subtract indoor fan heat. For indoor fan heat formula, refer to appropriate airflow table notes.
 2. MBh = Total Gross Capacity
 3. SHC = Sensible Heat Capacity
 4. * Indicates both downflow and horizontal units.
- (a) For 4000, 5000, 6000, and 7000 cfm-Unit applications below 320 cfm/ton are only applicable to Constant Volume THD models without electric heat and YHD models equipped with modulating gas heat. See below for restrictions:
- Electric heaters on applications below 320 cfm/ton.
 - Froststat and Crankcase heaters are required on applications below 320 cfm/ton.
 - Multi-speed, single zone VAV or multi-zone VAV applications are capable of running below 320 cfm/ton during low speed airflow operation, but "full" airflow must be set to 320 cfm/ton or higher.

Table 38. Gross cooling capacities 25 tons three phase high efficiency T/YH*300G3,4,W (stage 3)

Air Flow cfm ^(a)	Ent DB (°F)	Ambient Temperature											
		85						95					
		Entering Wet Bulb											
		61		67		73		61		67		73	
		MBh	SHC	MBh	SHC	MBh	SHC	MBh	SHC	MBh	SHC	MBh	SHC
4000	75	188.9	150.3	205.8	121.4	226.6	71.4	179.7	145.2	195.3	117.2	214.8	68.3
	80	193.3	167.2	208.8	147.0	228.3	111.8	184.1	161.3	198.4	142.0	216.6	107.6
	85	199.5	180.7	211.8	165.8	230.0	140.0	190.3	174.2	201.4	160.0	218.4	135.0
	90	207.0	192.0	217.1	180.3	231.7	160.6	197.5	185.0	206.7	174.0	220.2	154.9
5000	75	199.5	162.2	218.5	131.4	234.4	79.3	189.4	156.2	206.9	126.4	221.8	75.4
	80	204.9	180.5	219.0	158.8	237.2	121.8	194.9	173.8	207.8	153.0	224.7	116.9
	85	212.0	195.3	223.1	179.1	240.0	151.8	202.0	188.0	211.9	172.5	227.6	146.0
	90	220.2	207.7	229.3	194.9	242.7	173.9	209.9	199.9	218.0	187.7	230.4	167.4
6000	75	208.4	172.8	225.7	140.2	247.8	86.1	197.5	166.0	213.4	134.4	234.0	81.4
	80	214.8	192.7	227.6	169.4	248.1	130.7	204.1	185.1	215.6	162.7	234.6	124.9
	85	222.8	208.7	232.7	191.2	248.3	162.4	212.0	200.6	220.8	183.8	235.1	155.8
	90	231.7	222.2	239.8	208.3	252.1	186.0	220.6	213.6	227.8	200.3	239.0	178.7
7000	75	215.6	182.2	231.3	147.8	251.9	91.6	204.0	174.6	218.2	141.2	237.3	86.1
	80	223.2	203.6	234.5	178.8	253.4	138.3	211.6	195.2	221.7	171.3	239.1	131.7
	85	232.0	220.9	240.7	202.1	255.0	171.8	220.4	211.9	228.0	193.8	241.0	164.4
	90	241.6	235.5	248.7	220.5	259.9	197.0	229.7	226.1	235.9	211.7	246.0	188.8
8000	75	221.2	190.4	235.3	154.2	254.3	96.0	208.8	181.9	221.3	146.7	238.9	89.6
	80	229.8	213.3	239.8	187.0	257.1	144.7	217.5	204.1	226.2	178.6	242.0	137.3
	85	239.6	231.8	247.1	211.8	260.0	180.0	227.1	222.1	233.5	202.7	245.2	171.7
	90	249.9	247.6	255.9	231.5	266.0	206.7	237.2	237.2	242.3	221.8	251.3	197.7
8750	75	224.3	195.7	237.2	158.2	255.0	98.4	211.3	186.6	222.6	150.1	239.0	91.4
	80	233.7	219.7	242.7	192.3	258.9	148.8	220.8	209.9	228.5	183.3	243.1	140.7
	85	244.1	239.3	250.8	218.2	262.7	185.4	231.1	228.9	236.6	208.5	247.3	176.5
	90	255.0	255.0	260.3	238.9	269.5	213.2	241.7	241.7	246.1	228.6	254.2	203.5

Notes:

1. All capacities shown are gross and have not considered indoor fan heat. To obtain NET cooling capacity subtract indoor fan heat. For indoor fan heat formula, refer to appropriate airflow table notes.
 2. MBh = Total Gross Capacity
 3. SHC = Sensible Heat Capacity
 4. * Indicates both downflow and horizontal units.
- (a) For 4000, 5000, 6000, and 7000 cfm-Unit applications below 320 cfm/ton are only applicable to Constant Volume THD models without electric heat and YHD models equipped with modulating gas heat. See below for restrictions:
- Electric heaters on applications below 320 cfm/ton.
 - Froststat and Crankcase heaters are required on applications below 320 cfm/ton.
 - Multi-speed, single zone VAV or multi-zone VAV applications are capable of running below 320 cfm/ton during low speed airflow operation, but "full" airflow must be set to 320 cfm/ton or higher.



Performance Data

Table 39. Gross cooling capacities 25 tons three phase high efficiency T/YH*300G3,4,W (full load)

Air Flow cfm (a)	Ent DB (°F)	Ambient Temperature																	
		85						95						105					
		Entering Wet Bulb																	
		61		67		73		61		67		73		61		67		73	
MBh	SHC	MBh	SHC	MBh	SHC	MBh	SHC	MBh	SHC	MBh	SHC	MBh	SHC	MBh	SHC	MBh	SHC	MBh	SHC
5000	75	244.4	192.5	271.7	152.0	293.2	82.9	232.4	184.9	257.9	146.3	278.4	79.2	219.4	176.7	243.2	139.9	262.5	74.8
	80	250.0	215.3	270.3	187.5	295.4	139.2	238.0	206.6	256.8	180.3	280.5	133.8	225.0	197.3	242.2	172.5	264.5	127.7
	85	258.5	233.2	274.2	213.2	297.6	178.4	246.2	223.6	260.6	204.8	282.6	171.4	232.8	213.3	246.0	195.8	266.5	163.9
	90	268.6	248.1	281.3	232.8	299.8	206.6	255.9	237.7	267.4	223.5	284.7	198.6	242.1	226.7	252.6	213.6	268.6	189.9
6000	75	255.4	206.3	281.1	164.5	301.6	93.9	242.7	198.1	266.6	158.1	286.0	89.5	228.9	189.1	251.1	150.9	269.3	84.3
	80	262.0	230.2	280.9	201.3	304.7	151.7	249.2	220.8	266.6	193.4	289.1	145.6	235.5	210.7	251.4	184.8	272.3	138.7
	85	271.2	249.0	285.7	228.0	307.8	192.1	258.2	238.7	271.4	219.0	292.1	184.5	244.1	227.7	256.1	209.2	275.3	176.2
	90	282.0	264.7	293.6	248.6	311.0	221.4	268.5	253.6	279.0	238.6	295.1	212.7	253.9	241.8	263.4	227.9	278.3	203.3
7000	75	265.0	218.8	289.1	175.7	308.5	103.5	251.6	209.8	273.9	168.5	292.2	98.3	237.1	200.1	257.7	160.6	274.8	92.5
	80	272.6	243.7	290.1	213.7	312.6	162.9	259.1	233.6	275.1	205.1	296.2	156.0	244.6	222.8	259.1	195.8	278.8	148.4
	85	282.6	263.5	295.9	241.5	316.7	204.5	268.8	252.4	280.9	231.7	300.2	196.1	254.0	240.6	264.8	221.2	282.7	187.1
	90	293.9	279.9	304.6	263.0	320.8	234.9	279.7	268.1	289.2	252.2	304.2	225.4	264.4	255.6	272.9	240.8	286.7	215.3
8000	75	273.3	229.9	295.7	185.4	324.1	111.8	259.1	220.1	279.8	177.5	306.4	105.9	243.9	209.7	262.8	168.9	287.8	99.3
	80	281.8	255.9	298.0	224.7	324.2	172.6	267.6	245.0	282.2	215.4	306.7	165.0	252.3	233.5	265.5	205.3	288.3	156.6
	85	292.5	276.6	304.7	253.7	324.2	215.6	278.0	264.7	288.9	243.1	307.0	206.4	262.5	252.2	272.1	231.9	288.7	196.7
	90	304.5	293.8	314.1	276.0	329.2	247.0	289.5	281.2	298.1	264.5	311.9	236.8	273.5	268.0	281.0	252.4	293.6	225.9
9000	75	280.1	239.6	301.0	193.8	327.8	118.7	265.2	229.1	284.3	185.2	309.4	112.0	249.3	218.0	266.6	175.8	290.0	104.7
	80	289.6	266.7	304.4	234.4	329.1	181.0	274.7	255.1	288.0	224.3	310.9	172.6	258.7	242.8	270.5	213.5	291.7	163.6
	85	301.1	288.3	312.1	264.4	330.3	225.2	285.9	275.7	295.6	253.1	312.3	215.4	269.6	262.5	278.1	241.2	293.3	204.9
	90	313.7	306.3	322.3	287.7	336.3	257.8	297.9	293.0	305.5	275.5	318.3	246.8	281.2	279.0	287.7	262.6	299.2	235.1
10000	75	285.6	247.9	304.9	200.8	330.2	124.2	270.0	236.7	287.4	191.4	311.0	116.8	253.3	224.8	269.0	181.3	290.9	108.7
	80	296.1	276.1	309.5	242.7	332.6	188.0	280.4	263.8	292.3	231.9	313.7	178.9	263.6	250.7	274.1	220.3	293.7	169.1
	85	308.3	298.6	318.2	273.8	335.0	233.5	292.3	285.3	300.9	261.7	316.3	222.9	275.3	271.3	282.6	249.0	296.6	211.7
	90	321.4	317.4	329.1	298.0	342.0	267.1	305.0	303.3	311.6	285.0	323.2	255.4	287.5	287.5	293.0	271.4	303.4	243.0
11000	75	289.7	254.9	307.3	206.5	331.1	128.3	273.3	243.0	289.2	196.3	311.2	120.2	255.9	230.3	270.0	185.5	291.5	111.3
	80	301.1	284.2	313.2	249.6	334.7	193.7	284.7	271.1	295.2	238.0	315.1	183.8	267.2	257.3	276.3	225.8	294.4	173.2
	85	314.1	307.6	322.8	281.8	338.3	240.4	297.4	293.5	304.8	269.0	318.9	229.1	279.6	278.8	285.8	255.6	298.4	217.1
	90	327.9	327.1	334.5	306.9	346.3	275.1	310.7	310.7	316.3	293.2	326.8	262.7	292.5	292.5	297.0	278.8	306.2	249.5

Performance Data

Table 39. Gross cooling capacities 25 tons three phase high efficiency T/YH*300G3,4,W (full load) (continued)

Air Flow cfm (a)	Ent DB (°F)	Ambient Temperature																	
		115						120						125					
		Entering Wet Bulb																	
		61		67		73		61		67		73		61		67		73	
MBh	SHC	MBh	SHC	MBh	SHC	MBh	SHC	MBh	SHC	MBh	SHC	MBh	SHC	MBh	SHC	MBh	SHC		
5000	75	205.4	167.9	227.4	132.8	245.5	69.7	198.0	163.2	219.2	129.0	236.7	66.9	190.4	158.3	210.7	125.0	227.6	64.0
	80	210.9	187.2	226.7	164.0	247.5	120.9	203.5	182.0	218.5	159.5	238.6	117.2	195.9	176.5	210.1	154.8	229.5	113.4
	85	218.5	202.3	230.4	186.2	249.5	155.7	211.0	196.6	222.2	181.1	240.6	151.3	203.2	190.7	213.8	175.8	231.4	146.8
	90	227.3	215.0	236.7	202.9	251.5	180.5	219.5	208.8	228.4	197.4	242.5	175.5	211.5	202.5	219.8	191.6	233.4	170.4
6000	75	214.2	179.5	234.6	143.1	251.7	78.5	206.5	174.4	226.0	138.9	242.5	75.3	198.5	169.2	217.1	134.6	233.0	72.0
	80	220.7	199.9	235.1	175.6	254.6	131.2	212.9	194.3	226.6	170.7	245.4	127.1	204.9	188.5	217.8	165.6	235.9	122.9
	85	229.0	216.0	239.7	198.8	257.5	167.2	221.1	209.8	231.2	193.3	248.3	162.5	213.0	203.6	222.4	187.7	238.8	157.6
	90	238.4	229.3	246.8	216.5	260.5	193.1	230.3	222.9	238.1	210.6	251.2	187.8	221.9	216.2	229.2	204.5	241.6	182.3
7000	75	221.7	189.7	240.4	152.0	256.4	85.9	213.6	184.3	231.5	147.5	246.8	82.4	205.2	178.7	222.2	142.8	237.0	78.7
	80	229.1	211.3	242.1	185.8	260.3	140.1	220.9	205.2	233.2	180.5	250.7	135.7	212.6	199.1	224.1	175.1	240.8	131.1
	85	238.2	228.2	247.7	210.1	264.2	177.4	229.9	221.7	238.8	204.3	254.6	172.3	221.4	215.1	229.6	198.2	244.7	167.0
	90	248.2	242.4	255.6	228.7	268.1	204.4	239.7	235.5	246.5	222.4	258.4	198.7	230.9	228.5	237.2	215.9	248.5	192.8
8000	75	227.7	198.6	244.9	159.6	268.2	92.0	219.2	192.8	235.5	154.6	258.0	88.1	210.5	186.8	225.9	149.6	247.5	84.0
	80	236.1	221.2	247.7	194.6	268.8	147.6	227.6	214.8	238.5	189.0	258.7	142.8	218.8	203.8	229.0	183.2	248.4	137.9
	85	245.9	239.0	254.3	220.0	269.5	186.2	237.3	232.2	245.0	213.8	259.5	180.8	228.4	225.2	235.5	207.4	249.2	175.1
	90	256.5	254.0	262.9	239.5	274.3	214.3	247.7	246.8	253.5	232.9	264.3	208.2	238.5	238.5	243.9	226.0	254.0	202.0
9000	75	232.4	206.1	247.9	165.7	269.7	96.6	223.5	200.0	238.2	160.5	259.1	92.4	214.4	193.6	228.2	155.0	248.3	87.9
	80	241.7	229.8	252.0	202.0	271.5	153.8	232.8	223.0	242.4	196.0	261.0	148.6	213.7	216.1	232.5	189.9	250.3	143.3
	85	252.3	248.5	259.5	228.5	273.4	193.7	243.3	241.3	249.9	221.9	263.0	187.8	234.1	233.9	240.0	215.2	252.4	181.8
	90	263.5	263.5	268.9	249.0	279.2	222.8	254.3	254.3	259.1	241.9	268.8	216.4	244.8	244.8	249.1	234.7	258.1	209.8
10000	75	235.6	212.3	249.6	170.5	269.8	99.9	226.4	205.7	239.5	164.9	260.5	95.3	217.0	199.0	229.2	159.1	249.2	90.5
	80	245.9	237.0	254.9	208.1	272.8	158.6	236.7	229.9	244.9	201.7	262.0	153.1	227.2	222.6	234.6	195.2	250.9	147.4
	85	257.3	256.6	263.3	235.7	275.9	199.7	247.9	247.9	253.3	228.7	265.1	193.5	238.3	238.3	243.1	221.6	254.1	187.1
	90	269.1	269.1	273.5	257.1	282.7	229.9	259.5	259.5	263.4	249.6	271.9	223.2	249.6	249.6	253.0	242.0	260.9	216.2
11000	75	237.5	217.0	249.9	174.0	271.0	101.8	228.0	210.1	240.5	167.9	261.3	96.8	218.1	203.0	229.8	161.7	252.3	91.6
	80	248.8	242.8	256.3	212.8	274.0	162.0	239.2	235.3	246.0	206.1	263.6	156.1	229.3	227.7	235.4	199.2	253.4	150.1
	85	260.9	260.9	265.8	241.4	277.0	204.4	251.2	251.2	255.4	234.1	265.9	197.9	241.2	241.2	244.8	226.6	254.5	191.1
	90	273.3	273.3	276.7	263.8	284.7	235.7	263.3	263.3	266.2	256.0	273.6	228.5	253.1	253.1	255.4	248.0	262.2	221.2

Notes:

1. All capacities shown are gross and have not considered indoor fan heat. To obtain NET cooling capacity subtract indoor fan heat. For indoor fan heat formula, refer to appropriate airflow table notes.
2. MBh = Total Gross Capacity
3. SHC = Sensible Heat Capacity
4. * Indicates both downflow and horizontal units.

(a) For 5000, 6000, and 7000 cfm-Unit applications below 320 cfm/ton are only applicable to Constant Volume THD models without electric heat and YHD models equipped with modulating gas heat. See below for restrictions:

- Electric heaters on applications below 320 cfm/ton.
- Froststat and Crankcase heaters are required on applications below 320 cfm/ton.
- Multi-speed, single zone VAV or multi-zone VAV applications are capable of running below 320 cfm/ton during low speed airflow operation, but "full" airflow must be set to 320 cfm/ton or higher.



Performance Data

Table 40. Gross cooling capacities 25 tons three phase dehumidification (hot gas reheat) option high efficiency T/YHD300G3,4,W (Digit 22 = B)

Air Flow cfm (a)	Ent DB (°F)	Ambient Temperature																	
		85						95						105					
		Entering Wet Bulb																	
		61		67		73		61		67		73		61		67		73	
MBh	SHC	MBh	SHC	MBh	SHC	MBh	SHC	MBh	SHC	MBh	SHC	MBh	SHC	MBh	SHC	MBh	SHC	MBh	SHC
5000	75	237.6	170.2	266.9	137.2	298.3	101.7	226.6	164.3	254.2	130.9	284.0	95.4	215.0	158.1	241.1	124.7	269.5	89.1
	80	237.8	197.2	266.6	164.6	298.3	130.4	226.8	191.3	254.2	158.7	284.5	124.4	215.2	184.8	241.2	152.8	269.5	117.9
	85	238.0	223.6	266.8	192.2	298.3	157.9	227.3	217.6	254.4	186.3	284.5	150.8	216.0	211.0	241.3	180.0	269.3	145.0
	90	244.4	244.4	267.0	219.3	298.3	185.7	235.5	235.5	254.6	213.1	284.2	179.6	226.0	225.9	241.7	206.9	269.5	173.2
6500	75	251.7	194.9	281.3	151.1	313.6	103.1	239.4	188.7	267.3	144.8	297.7	96.7	226.4	182.1	252.8	138.0	281.0	90.0
	80	252.2	230.1	281.5	185.9	313.9	142.8	239.8	223.7	267.7	179.8	299.0	134.7	227.0	216.7	253.1	173.7	281.5	129.6
	85	257.9	257.7	282.0	223.2	313.7	176.7	248.0	247.9	268.2	217.0	297.6	170.9	237.2	237.2	253.6	210.5	281.8	163.8
	90	272.5	272.4	282.5	258.1	314.3	213.5	262.0	261.9	268.8	251.7	298.7	207.5	250.8	250.7	254.4	244.6	282.3	201.7
8000	75	260.7	217.8	290.3	162.9	322.7	103.2	247.6	211.8	276.0	155.2	305.8	96.6	233.7	205.3	260.1	149.5	288.2	90.1
	80	262.3	259.5	291.1	207.3	323.0	153.7	249.7	247.8	276.3	201.2	306.2	146.9	238.4	236.1	260.8	195.0	288.7	139.6
	85	277.8	277.7	291.9	252.8	324.9	192.8	266.3	266.3	277.0	246.3	307.1	188.1	254.2	254.2	261.6	239.2	289.8	182.0
	90	293.7	293.6	293.9	292.8	324.5	241.9	281.8	281.8	280.5	277.0	307.8	235.5	269.1	269.1	269.3	268.3	290.6	229.1
9000	75	265.2	233.5	294.9	170.4	326.8	103.2	251.5	226.7	279.5	163.8	309.5	97.1	237.2	219.2	263.4	156.9	291.4	90.9
	80	269.5	264.6	294.7	223.9	328.3	159.2	259.7	259.5	280.4	215.9	310.2	152.6	247.7	247.6	264.4	209.5	292.4	145.4
	85	288.2	288.1	296.6	271.4	328.6	206.7	276.1	275.9	281.4	264.7	311.4	201.1	263.2	263.2	265.9	256.5	293.6	196.0
	90	302.2	301.5	303.9	299.6	329.4	260.3	292.3	292.2	292.9	292.7	311.8	255.6	278.9	278.9	279.6	279.5	294.5	248.5
10000	75	268.8	247.3	298.4	178.1	330.1	104.0	254.7	240.1	282.6	171.2	312.4	98.0	240.0	233.0	266.2	164.6	293.6	91.6
	80	279.8	279.8	299.5	236.4	331.3	165.7	267.6	267.5	284.2	228.6	313.0	159.1	254.0	254.5	267.3	223.1	295.4	151.0
	85	297.2	297.2	300.7	289.4	332.4	221.0	284.4	284.3	285.0	281.9	314.7	215.8	270.9	270.7	269.0	265.0	296.6	209.8
	90	315.0	315.0	315.6	315.6	333.5	279.6	301.5	301.5	302.1	301.9	316.4	271.6	287.3	287.2	287.9	287.6	297.7	265.0
10500	75	270.3	254.1	300.1	181.8	332.2	103.2	256.1	246.9	283.8	175.0	313.4	98.3	241.2	239.6	267.4	168.8	294.6	91.9
	80	283.5	283.4	301.2	243.4	332.8	168.0	271.0	270.7	285.1	236.6	314.6	149.6	257.8	257.6	268.5	229.6	296.6	153.9
	85	301.2	301.2	302.5	297.8	334.1	228.5	287.5	287.2	286.5	283.2	316.3	222.6	274.3	274.2	271.3	263.2	297.9	216.4
	90	319.3	319.3	320.0	319.8	335.2	288.2	305.5	305.3	306.2	305.9	317.5	280.7	291.0	290.9	291.6	291.5	299.1	272.8
11000	75	271.7	260.7	301.5	185.8	332.6	105.1	257.3	253.5	285.1	179.1	314.5	98.9	242.4	239.2	268.5	173.1	295.9	92.6
	80	287.0	286.7	302.6	250.0	334.2	170.7	273.9	273.7	286.4	243.2	316.9	162.5	260.6	260.6	269.7	235.9	297.6	156.7
	85	305.1	304.9	304.5	304.2	335.6	235.1	291.3	291.2	288.4	280.2	317.6	229.0	277.4	277.4	274.0	262.8	299.1	222.8
	90	323.4	323.3	324.1	323.8	336.7	295.8	309.2	309.1	309.9	309.7	318.9	288.2	294.5	294.5	295.1	295.0	300.4	280.4

Table 40. Gross cooling capacities 25 tons three phase dehumidification (hot gas reheat) option high efficiency T/YHD300G3,4,W (Digit 22 = B) (continued)

Air Flow cfm (a)	Ent DB (°F)	Ambient Temperature																	
		115						120						125					
		Entering Wet Bulb																	
		61		67		73		61		67		73		61		67		73	
MBh	SHC	MBh	SHC	MBh	SHC	MBh	SHC	MBh	SHC	MBh	SHC	MBh	SHC	MBh	SHC	MBh	SHC	MBh	SHC
5000	75	202.6	151.6	227.5	118.5	253.9	82.4	196.1	148.2	220.0	114.8	245.8	79.0	189.5	144.9	212.3	111.2	237.3	75.6
	80	202.9	178.2	227.2	145.7	253.8	111.3	196.5	175.0	220.0	142.3	245.6	107.9	189.8	171.5	212.6	138.9	237.3	104.5
	85	204.6	203.6	227.5	173.3	253.9	138.4	199.2	199.2	220.4	170.0	245.9	135.1	193.9	193.9	213.0	166.6	237.6	131.8
	90	215.9	215.9	227.9	200.1	254.2	166.7	210.6	210.6	220.7	196.6	246.2	163.4	205.0	204.9	213.3	193.2	237.9	160.1
6500	75	212.7	175.3	237.9	130.0	264.1	83.1	205.6	171.9	229.7	127.2	255.2	79.7	198.4	168.5	221.5	123.5	246.0	76.1
	80	214.0	209.1	238.0	167.4	264.3	122.8	207.2	205.4	230.1	164.0	255.6	119.4	200.5	199.9	222.1	160.6	246.4	116.0
	85	225.8	225.7	238.7	203.5	265.1	157.2	219.7	219.6	230.7	199.9	256.2	153.7	213.5	213.5	222.7	196.3	247.2	150.4
	90	238.9	238.9	240.2	236.6	265.6	195.5	232.7	232.6	232.7	232.0	256.8	192.1	226.1	226.1	226.1	225.3	247.8	188.5
8000	75	219.2	198.0	244.4	141.6	269.9	83.7	211.7	194.1	235.6	139.0	260.8	80.6	204.1	190.2	227.1	135.5	251.1	77.2
	80	227.1	227.0	244.7	188.9	271.1	132.5	220.8	220.8	236.4	185.6	261.6	128.7	214.1	214.1	227.9	182.0	252.2	125.1
	85	241.4	241.3	245.6	232.1	271.9	176.3	234.7	234.6	237.3	228.3	262.7	173.5	227.8	227.7	228.8	224.1	253.2	170.8
	90	255.9	255.8	256.4	256.2	272.7	223.1	248.8	248.8	249.4	249.3	263.5	219.9	241.6	241.6	242.1	242.1	254.1	216.4
9000	75	222.3	211.8	247.1	150.1	272.7	84.4	214.6	208.1	238.5	146.8	263.2	81.0	206.8	204.1	229.7	143.2	253.2	77.4
	80	234.7	234.5	247.9	202.7	274.0	137.8	228.0	227.7	239.4	199.2	265.6	132.5	220.9	220.7	230.7	195.4	255.1	130.9
	85	249.7	249.5	249.2	248.6	275.2	190.4	242.6	242.5	241.3	238.4	265.8	187.3	235.2	235.1	233.6	228.6	256.1	184.1
	90	264.8	264.8	265.3	265.1	276.2	241.1	257.5	257.3	258.0	257.7	266.8	237.2	249.8	249.7	250.3	250.1	257.1	233.0
10000	75	224.8	224.5	249.4	158.3	274.8	84.8	217.2	214.2	240.6	155.1	265.0	81.9	209.8	204.0	231.7	152.2	254.7	80.2
	80	241.0	241.0	250.5	215.8	277.5	141.3	233.9	233.9	241.8	212.1	267.0	140.3	226.6	226.4	232.8	208.4	257.0	136.7
	85	256.6	256.6	254.1	246.2	277.8	203.4	249.2	249.2	247.5	240.9	268.3	200.1	241.5	241.4	241.8	241.5	258.3	196.6
	90	272.5	272.5	272.9	272.9	279.0	256.9	264.7	264.7	265.2	265.1	269.4	252.9	256.6	256.6	257.1	256.9	259.5	249.1
10500	75	226.2	222.1	250.4	162.6	275.7	85.3	218.8	211.8	241.5	159.9	265.6	83.7	211.7	204.3	232.6	157.1	255.4	82.4
	80	243.8	243.8	251.6	222.3	277.7	147.0	236.6	236.4	242.8	218.6	268.0	143.5	229.1	228.8	234.2	213.6	258.0	140.1
	85	259.7	259.7	258.1	251.8	279.0	209.7	252.1	251.9	252.5	252.2	269.3	206.4	244.3	244.1	244.7	244.3	259.3	203.0
	90	275.9	275.8	276.3	276.2	280.7	263.7	267.9	267.8	268.4	268.1	270.5	261.0	259.7	259.6	260.1	259.8	260.6	257.1
11000	75	227.7	219.7	251.2	167.7	276.4	87.2	220.8	212.4	242.4	164.9	266.3	86.0	214.6	210.1	233.3	161.8	256.1	84.1
	80	246.4	246.2	252.6	228.5	278.6	149.9	239.1	238.8	243.7	224.6	268.8	146.8	231.5	231.3	234.6	220.7	259.6	141.2
	85	262.6	262.4	263.0	262.6	280.5	214.9	254.8	254.6	255.2	254.9	270.2	212.8	246.9	246.7	247.2	246.9	260.2	209.1
	90	279.0	278.9	279.5	279.2	281.4	272.9	270.9	270.8	271.3	271.0	271.6	269.0	262.5	262.4	263.0	262.8	261.5	258.0

Notes:

1. All capacities shown are gross and have not considered indoor fan heat. To obtain NET cooling capacity subtract indoor fan heat. For indoor fan heat formula, refer to appropriate airflow table notes.
2. MBh = Total Gross Capacity
3. SHC = Sensible Heat Capacity
4. * Indicates both downflow and horizontal units.

(a) For 5000, 6000, and 7000 cfm-Unit applications below 320 cfm/ton are only applicable to Constant Volume THD models without electric heat and YHD models equipped with modulating gas heat. See below for restrictions:

- Electric heaters on applications below 320 cfm/ton.
- Froststat and Crankcase heaters are required on applications below 320 cfm/ton.
- Multi-speed, single zone VAV or multi-zone VAV applications are capable of running below 320 cfm/ton during low speed airflow operation, but "full" airflow must be set to 320 cfm/ton or higher.



Performance Data

Table 41. Evaporator fan performance - 12½ tons - TSD150G - standard refrigeration system downflow

External Static Pressure (Inches of Water)																						
0.1			0.2		0.3		0.4		0.5		0.6		0.7		0.8		0.9		1.0			
cfm	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp		
3-hp Standard Motor and Low Static Drive											3-hp Standard Motor and Drive											
4000	-	-	461	0.60	522	0.79	575	0.98	624	1.18	667	1.37	707	1.56	743	1.75	773	1.90	802	2.05		
4500	410	0.51	485	0.74	545	0.95	598	1.17	645	1.39	688	1.60	728	1.82	765	2.04	800	2.25	833	2.47		
5000	437	0.64	509	0.89	569	1.14	621	1.38	667	1.62	710	1.86	749	2.10	786	2.34	821	2.58	853	2.82		
5500	465	0.79	535	1.08	593	1.35	644	1.62	690	1.88	732	2.14	771	2.41	807	2.67	842	2.94	874	3.20		
6000	493	0.97	561	1.28	618	1.58	668	1.87	713	2.16	754	2.45	793	2.75	829	3.03	863	3.31	896 ^(a)	3.60		
													3-hp Standard Motor and High Static Drive									

Continued

External Static Pressure (Inches of Water)																					
1.1			1.2		1.3		1.4		1.5		1.6		1.7		1.8		1.9		2.0		
cfm	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	
3-hp Standard Motor and High Static Drive																					
4000	826	2.17	856	2.33	880	2.47	902	2.60	923	2.72	944	2.84	963	2.96	982	3.08	1002	3.20	1021	3.32	
4500	858	2.64	888	2.82	909	2.96	932	3.11	958	3.29	981	3.46	1000	3.59	1020	3.73	1038	3.87	1056	4.00	
5000	885	3.06	916	3.31	941	3.51	963	3.69	991	3.89	1010	4.06	1029	4.22	1051	4.40	1074	4.60	1094	4.78	
5500	906	3.46	936	3.73	965	4.00	993	4.26	1019	4.53	1040	4.73	1061	4.93	1087	5.15	1104	5.34	1122	5.52	
6000	927	3.89	957	4.18	986	4.47	1014	4.76	1041	5.06	1066	5.34	1091	5.64	-	-	-	-	-	-	
5-hp Oversized Motor and Drive																					

Notes:

1. For Standard Evaporator Fan Speed (rpm), reference [Table 82, p. 114](#).
2. For High Evaporator Fan Speed (rpm), reference [Table 83, p. 114](#).
3. For Oversized Evaporator Fan Speed (rpm), reference [Table 84, p. 115](#).
4. Fan motor heat (MBh) = 3.15 x Fan bhp.
5. Data includes pressure drop due to standard filters and wet coils. No accessories or options are included in pressure drop data.
6. Refer to [Table 85, p. 115](#) to determine additional static pressure drop due to other options/accessories.
7. Factory supplied motors, in commercial equipment, are definite purpose motors, specifically designed and tested to operate reliably and continuously at all cataloged conditions. Using the full horsepower range of our fan motors as shown in our tabular data will not result in nuisance tripping or premature motor failure. Our product's warranty will not be affected.
8. For 380V/60 Hz units, the oversized motor is used as the standard motor. Refer to "Motor and Sheave/Fan Speed" tables to determine operating range.

(a) 5-hp Oversized Motor and Drive

Table 42. Evaporator fan performance - 12½ tons - TSH150G - standard refrigeration system horizontal

External Static Pressure (Inches of Water)																							
0.1			0.2		0.3		0.4		0.5		0.6		0.7		0.8		0.9		1.0				
cfm	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp			
3-hp Standard Motor and Low Static Drive									3-hp Standard Motor and Drive											3 hp Standard Motor and High Static Drive			
4000	-	-	494	0.80	558	1.02	613	1.23	662	1.44	707	1.64	749	1.84	787	2.04	824	2.24	851	2.40			
4500	-	-	521	1.00	584	1.26	638	1.50	686	1.74	731	1.98	772	2.21	811	2.43	847	2.66	882	2.88			
5000	475	0.92	549	1.24	610	1.53	663	1.80	711	2.08	756	2.34	797	2.61	835	2.86	871	3.12	905	3.37			
5500	506	1.15	578	1.50	637	1.83	690	2.15	737	2.45	781	2.75	821	3.04	859	3.34	895	3.62	929	3.91			
6000	538	1.42	607	1.81	666	2.18	717	2.53	764	2.87	807	3.20	846	3.52	884	3.85	920	4.17	953	4.48			
															5-hp Oversized Motor and Drive								

Continued

External Static Pressure (Inches of Water)																					
		1.1		1.2		1.3		1.4		1.5		1.6		1.7		1.8		1.9		2.0	
cfm	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	
3-hp Standard Motor and High Static Drive																					
4000	882	2.63	909	2.80	935	2.99	961	3.19	991	3.42	1017	3.65	1043	3.88	1069	4.12	1093	4.35	1116	4.58	
4500	915	3.10	941	3.27	968	3.53	994	3.75	1016	3.94	1042	4.18	1063	4.36	1090	4.62	1117	4.89	1139	5.13	
5000	938	3.62	969	3.86	999	4.11	1029	4.36	1049	4.52	1074	4.82	1100	5.10	1118	5.28	1141	5.54	1162	5.77	
5500	961	4.18	993	4.46	1022	4.73	1051	5.00	1080	5.28	1107	5.55	-	-	-	-	-	-	-	-	
6000	986	4.79	1016	5.09	1046	5.40	1076	5.71	-	-	-	-	-	-	-	-	-	-	-	-	
5-hp Oversized Motor and Drive																					

Notes:

1. For Standard Evaporator Fan Speed (rpm), reference [Table 82, p. 114](#).
2. For High Evaporator Fan Speed (rpm), reference [Table 83, p. 114](#).
3. For Oversized Evaporator Fan Speed (rpm), reference [Table 84, p. 115](#).
4. Fan motor heat (MBh) = 3.15 x Fan bhp.
5. Data includes pressure drop due to standard filters and wet coils. No accessories or options are included in pressure drop data.
6. Refer to [Table 85, p. 115](#) to determine additional static pressure drop due to other options/accessories.
7. Factory supplied motors, in commercial equipment, are definite purpose motors, specifically designed and tested to operate reliably and continuously at all cataloged conditions. Using the full horsepower range of our fan motors as shown in our tabular data will not result in nuisance tripping or premature motor failure. Our product's warranty will not be affected.
8. For 380V/60 Hz units, the oversized motor is used as the standard motor. Refer to "Motor and Sheave/Fan Speed" tables to determine operating range.



Performance Data

Table 43. Evaporator fan performance - 12½ tons with gas heat - YSD150G - standard refrigeration system downflow

External Static Pressure (Inches of Water)																					
		0.1		0.2		0.3		0.4		0.5		0.6		0.7		0.8		0.9		1.0	
cfm	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	
3-hp Standard Motor and Low Static Drive							3-hp Standard Motor and Drive														
4000	511	0.75	559	0.92	601	1.08	639	1.24	673	1.40	706	1.56	736	1.71	763	1.85	793	2.00	816	2.12	
4500	562	1.02	607	1.21	647	1.40	683	1.58	717	1.76	748	1.94	777	2.11	805	2.29	831	2.46	854	2.61	
5000	614	1.35	656	1.56	694	1.77	729	1.98	761	2.18	791	2.38	820	2.57	847	2.77	873	2.97	898	3.17	
5500	667	1.74	706	1.98	742	2.21	776	2.44	807	2.67	836	2.89	863	3.11	890	3.32	915	3.55	940	3.76	
6000	720	2.21	757	2.48	791	2.73	823	2.98	853	3.23	881	3.47	908	3.72	934	3.96	959	4.20	982	4.43	
3-hp Standard Motor and High Static Drive												5-hp Oversized Motor and Drive									

Continued

External Static Pressure (Inches of Water)																					
1.1			1.2		1.3		1.4		1.5		1.6		1.7		1.8		1.9		2.0		
cfm	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	
3-hp Standard Motor and High Static Drive																					
4000	844	2.27	868	2.41	889	2.52	910	2.64	929	2.76	948	2.87	967	2.98	986	3.10	1003	3.21	1020	3.32	
4500	883	2.78	905	2.93	926	3.07	951	3.24	973	3.40	993	3.54	1011	3.67	1028	3.79	1047	3.93	1064	4.06	
5000	921	3.36	942	3.52	967	3.72	990	3.89	1009	4.05	1027	4.20	1051	4.39	1072	4.59	1091	4.75	1107	4.89	
5500	962	3.97	985	4.19	1006	4.40	1027	4.60	1046	4.79	1069	5.00	1090	5.18	1108	5.37	1123	5.53	1144	5.72	
6000	1005	4.67	1026	4.90	1048	5.14	1069	5.38	1089	5.61	-	-	-	-	-	-	-	-	-	-	
5-hp Oversized Motor and Drive																					

Notes:

1. For Standard Evaporator Fan Speed (rpm), reference [Table 82, p. 114](#).
2. For High Evaporator Fan Speed (rpm), reference [Table 83, p. 114](#).
3. For Oversized Evaporator Fan Speed (rpm), reference [Table 84, p. 115](#).
4. Fan motor heat (MBh) = 3.15 x Fan bhp.
5. Data includes pressure drop due to standard filters and wet coils. No accessories or options are included in pressure drop data.
6. Refer to [Table 85, p. 115](#) to determine additional static pressure drop due to other options/accessories.
7. Factory supplied motors, in commercial equipment, are definite purpose motors, specifically designed and tested to operate reliably and continuously at all cataloged conditions. Using the full horsepower range of our fan motors as shown in our tabular data will not result in nuisance tripping or premature motor failure. Our product's warranty will not be affected.
8. For 380V/60 Hz units, the oversized motor is used as the standard motor. Refer to "Motor and Sheave/Fan Speed" tables to determine operating range.

Performance Data

Table 44. Evaporator fan performance - 12½ tons with gas heat - YSH150G - standard refrigeration system horizontal

External Static Pressure (Inches of Water)																					
0.1		0.2		0.3		0.4		0.5		0.6		0.7		0.8		0.9		1.0			
cfm	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	
3-hp Standard Motor and Low Static Drive					3-hp Standard Motor and Drive																3-hp Standard Motor and High Static Drive
4000	562	1.04	610	1.22	653	1.40	692	1.57	727	1.74	760	1.90	791	2.06	820	2.22	842	2.34	875	2.58	
4500	619	1.42	665	1.63	705	1.84	742	2.03	776	2.23	808	2.42	838	2.60	866	2.78	893	2.95	920	3.14	
5000	678	1.88	720	2.13	758	2.36	793	2.58	826	2.80	857	3.02	886	3.23	914	3.43	940	3.64	966	3.84	
5500	737	2.45	776	2.72	813	2.98	846	3.23	877	3.48	907	3.72	935	3.96	963	4.19	988	4.42	1013	4.64	
6000	796	3.12	834	3.42	868	3.71	900	3.99	930	4.26	959	4.53	986	4.79	1012	5.05	1037	5.31	1062	5.56	
5-hp Oversized Motor and Drive																					

Continued

External Static Pressure (Inches of Water)																					
1.1		1.2		1.3		1.4		1.5		1.6		1.7		1.8		1.9		2.0			
cfm	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	
3-hp Standard Motor and High Static Drive																					
4000	900	2.74	926	2.93	952	3.11	981	3.34	1008	3.56	1032	3.78	1057	4.01	1079	4.22	1102	4.45	1127	4.70	
4500	939	3.26	967	3.53	992	3.74	1014	3.92	1037	4.13	1060	4.34	1085	4.57	1110	4.82	1134	5.07	1156	5.33	
5000	990	4.03	1014	4.23	1035	4.41	1051	4.54	1079	4.89	1102	5.12	1121	5.31	1142	5.54	-	-	-	-	
5500	1037	4.87	1060	5.08	1082	5.30	1104	5.52	1125	5.73	-	-	-	-	-	-	-	-	-	-	
6000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
5-hp Oversized Motor and Drive																					

Notes:

1. For Standard Evaporator Fan Speed (rpm), reference [Table 82, p. 114](#).
2. For High Evaporator Fan Speed (rpm), reference [Table 83, p. 114](#).
3. For Oversized Evaporator Fan Speed (rpm), reference [Table 84, p. 115](#).
4. Fan motor heat (MBh) = 3.15 x Fan bhp.
5. Data includes pressure drop due to standard filters and wet coils. No accessories or options are included in pressure drop data.
6. Refer to [Table 85, p. 115](#) to determine additional static pressure drop due to other options/accessories.
7. Factory supplied motors, in commercial equipment, are definite purpose motors, specifically designed and tested to operate reliably and continuously at all cataloged conditions. Using the full horsepower range of our fan motors as shown in our tabular data will not result in nuisance tripping or premature motor failure. Our product's warranty will not be affected.
8. For 380V/60 Hz units, the oversized motor is used as the standard motor. Refer to "Motor and Sheave/Fan Speed" tables to determine operating range.



Performance Data

Table 45. Evaporator fan performance - 15 tons - TSD180G - standard refrigeration system downflow

External Static Pressure (Inches of Water)																					
0.1			0.2		0.3		0.4		0.5		0.6		0.7		0.8			0.9		1.0	
cfm	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	
3-hp Standard Motor and Low Static Drive Accessory											3-hp Std Motor Drive										
4800	-	-	452	0.89	490	1.05	526	1.21	558	1.37	588	1.54	619	1.72	649	1.91	678	2.11	706	2.32	
5400	453	1.01	489	1.17	525	1.35	558	1.53	590	1.71	618	1.89	646	2.08	673	2.27	699	2.47	726	2.69	
6000	495	1.35	528	1.52	560	1.71	592	1.91	622	2.11	651	2.31	677	2.51	702	2.72	726	2.93	750	3.14	
6600	537	1.75	569	1.95	598	2.14	627	2.36	656	2.57	683	2.79	709	3.01	734	3.24	757	3.46	779	3.69	
7200	580	2.23	610	2.45	637	2.66	664	2.88	690	3.11	717	3.35	742	3.59	766	3.83	788	4.07	811	4.32	
5hp Oversized Motor and Std Drive																					
Continued																					
External Static Pressure (Inches of Water)																					
1.1			1.2		1.3		1.4		1.5		1.6		1.7		1.8			1.9		2.0	
cfm	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	
3-hp Std Motor Drive					3HP Standard Motor and High Static Drive						5hp Oversized Motor and Std Drive										
4800	734	2.53	760	2.74	785	2.95	809	3.17	832	3.38	855	3.60	876	3.81	897	4.03	918	4.25	939	4.48	
5400	753	2.92	779	3.15	804	3.39	828	3.62	851	3.86	873	4.10	894	4.33	916	4.58	936	4.82	957	5.06	
6000	775	3.37 ^(a)	798	3.60	822	3.85	846	4.11	870	4.37	891	4.63	914	4.90	934	5.15	955	5.42	975	5.69	
6600	802	3.92	823	4.16	845	4.40	866	4.65	889	4.92	911	5.21	933	5.49	953	5.77	973	6.05	994	6.35	
7200	832	4.57	852	4.81	872	5.06	893	5.32	913	5.59	933	5.86	952	6.13	973	6.44	993	6.74	-	-	
5hp Oversized Motor and Std Drive											7.5hp OS Motor and High Static Drive ^(b)										

Notes:

1. For Standard Evaporator Fan Speed (rpm), reference [Table 85, p. 115](#).
2. For High Evaporator Fan Speed (rpm), reference [Table 86, p. 117](#).
3. For Oversized Evaporator Fan Speed (rpm), reference [Table 87, p. 117](#).
4. Fan motor heat (MBh) = 3.15 x Fan bhp.
5. Data includes pressure drop due to standard filters and wet coils. No accessories or options are included in pressure drop data.
6. For all non-standard sheave combinations, please refer to accessory installer's guides ACC-SVN34*-EN and ACC-SVN72*-EN.
7. Factory supplied motors, in commercial equipment, are definite purpose motors, specifically designed and tested to operate reliably and continuously at all cataloged conditions. Using the full horsepower range of our fan motors as shown in our tabular data will not result in nuisance tripping or premature motor failure. Our product's warranty will not be affected.

(a) 3HP Standard Motor and High Static Drive

(b) 7.5HP high static oversized motor offering is field installed only.

Performance Data

Table 46. Evaporator fan performance - 15 tons - TSH180G - standard refrigeration system horizontal flow

External Static Pressure (Inches of Water)																					
		0.1		0.2		0.3		0.4		0.5		0.6		0.7		0.8		0.9		1.0	
cfm	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	
3-hp Standard Motor and Low Static Drive											3-hp Std Motor Drive										
4800	-	-	-	-	475	1.02	509	1.17	540	1.32	569	1.46	596	1.60	620	1.73	645	1.87	667	2.00	
5400	-	-	474	1.17	509	1.32	541	1.49	571	1.66	599	1.82	625	1.98	650	2.14	673	2.30	695	2.45	
6000	477	1.34	511	1.51	544	1.70	574	1.87	603	2.06	630	2.24	655	2.43	680	2.61	702	2.79	724	2.96	
6600	518	1.74	549	1.94	580	2.13	609	2.33	635	2.52	661	2.72	686	2.93	710	3.14	732	3.33	754	3.54	
7200	559	2.22	588	2.44	617	2.64	645	2.87	670	3.07	694	3.28	718	3.51	741	3.73	763	3.96	785	4.18	
											5hp Oversized Mtr and Standard Drive										

Continued

External Static Pressure (Inches of Water)																					
		1.1		1.2		1.3		1.4		1.5		1.6		1.7		1.8		1.9		2.0	
cfm	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	
3-hp Std Motor Drive									3HP Standard Motor and High Static Drive												
4800	689	2.13	710	2.26	730	2.39	749	2.51	768	2.64	786	2.76	804	2.88	821	3.01	837	3.12	854	3.25	
5400	717	2.60	737	2.75	758	2.90	776	3.04	795	3.19	813	3.33	830	3.47	848	3.62	864	3.75	881	3.90	
6000	746	3.14	766	3.31	785	3.47	804	3.64	823	3.80	840	3.96	858	4.13	874	4.29	892	4.46	908	4.61	
6600	775	3.73	795	3.92	814	4.11	833	4.30	851	4.49	868	4.67	886	4.86	902	5.03	919	5.22	935	5.39	
7200	805	4.39	824	4.61	844	4.82	862	5.03	881	5.25	897	5.44	915	5.65	930	5.85	947	6.05	963	6.25	
5hp Oversized Motor and Std Drive															7.5hp OS Motor and High Static Drive ^(a)						

Notes:

1. For Standard Evaporator Fan Speed (rpm), reference [Table 85, p. 115](#).
2. For High Evaporator Fan Speed (rpm), reference [Table 86, p. 117](#).
3. For Oversized Evaporator Fan Speed (rpm), reference [Table 87, p. 117](#).
4. Fan motor heat (MBh) = 3.15 x Fan bhp.
5. Data includes pressure drop due to standard filters and wet coils. No accessories or options are included in pressure drop data.
6. For all non-standard sheave combinations, please refer to accessory installer's guides ACC-SVN34*-EN and ACC-SVN72*-EN.
7. Factory supplied motors, in commercial equipment, are definite purpose motors, specifically designed and tested to operate reliably and continuously at all cataloged conditions. Using the full horsepower range of our fan motors as shown in our tabular data will not result in nuisance tripping or premature motor failure. Our product's warranty will not be affected.

(a) 7.5HP high static oversized motor offering is field installed only.



Performance Data

Table 47. Evaporator fan performance - 15 tons with gas heat - YSD180G - standard refrigeration system downflow

External Static Pressure (Inches of Water)																					
0.1			0.2		0.3		0.4		0.5		0.6		0.7		0.8		0.9		1.0		
cfm	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	
3-hp Standard Motor and Low Static Drive Accessory									3-hp Std Motor Drive												
4800	-	-	467	0.95	504	1.11	538	1.27	571	1.44	603	1.62	633	1.80	663	2.01	692	2.21	720	2.42	
5400	472	1.09	507	1.26	541	1.43	573	1.61	604	1.80	634	1.99	662	2.19	689	2.39	716	2.60	743	2.83	
6000	516	1.46	549	1.64	580	1.83	610	2.03	639	2.23	667	2.43	693	2.64	719	2.86	743	3.08	768	3.30	
6600	561	1.90	592	2.10	620	2.31	648	2.52	676	2.73	702	2.95	727	3.18	751	3.41	775	3.64	798	3.89	
7200	606	2.42	635	2.64	662	2.86	688	3.10	713	3.32	739	3.56	763	3.80	785	4.04	808	4.29	830	4.55	
												5hp Oversized Motor and Std Drive									
Continued																					
External Static Pressure (Inches of Water)																					
1.1			1.2		1.3		1.4		1.5		1.6		1.7		1.8		1.9		2.0		
cfm	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	
	3-hp Std Motor Drive	3HP Standard Motor and High Static Drive							5hp Oversized Motor and Std Drive												
4800	748	2.64	773	2.85	798	3.07	822	3.28	845	3.50	867	3.72	889	3.94	909	4.16	929	4.37	949	4.60	
5400	769	3.07	794	3.30	820	3.54	843	3.78	866	4.02	887	4.25	909	4.50	930	4.74	950	4.98	970	5.23	
6000	793	3.54	817	3.79	842	4.06	865	4.32	888	4.58	909	4.84	931	5.10	951	5.37	972	5.65	992	5.91	
6600	820	4.12	843	4.38	865	4.63	886	4.89	909	5.18	931	5.47	952	5.76	973	6.05	992	6.33	-	-	
7200	851	4.80	872	5.06	893	5.34	914	5.61	934	5.88	954	6.17	975	6.47	-	-	-	-	-	-	
5hp Oversized Motor and Std Drive									7.5hp OS Motor and High Static Drive ^(a)												

Notes:

1. For Standard Evaporator Fan Speed (rpm), reference [Table 85, p. 115](#).
2. For High Evaporator Fan Speed (rpm), reference [Table 86, p. 117](#).
3. For Oversized Evaporator Fan Speed (rpm), reference [Table 87, p. 117](#).
4. Fan motor heat (MBh) = 3.15 x Fan bhp.
5. Data includes pressure drop due to standard filters and wet coils. No accessories or options are included in pressure drop data.
6. For all non-standard sheave combinations, please refer to accessory installer's guides ACC-SVN34*-EN and ACC-SVN72*-EN.
7. Factory supplied motors, in commercial equipment, are definite purpose motors, specifically designed and tested to operate reliably and continuously at all cataloged conditions. Using the full horsepower range of our fan motors as shown in our tabular data will not result in nuisance tripping or premature motor failure. Our product's warranty will not be affected.

(a) 7.5HP high static oversized motor offering is field installed only.

Table 48. Evaporator fan performance - 15 tons with gas heat - YSH180G - standard refrigeration system horizontal flow

External Static Pressure (Inches of Water)																					
0.1			0.2		0.3		0.4		0.5		0.6		0.7		0.8		0.9		1.0		
cfm	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	
3-hp Standard Motor and Low Static Drive Accessory											3-hp Std Motor Drive										
4800	-	-	453	0.94	490	1.09	521	1.23	550	1.37	577	1.50	602	1.63	626	1.76	648	1.89	669	2.01	
5400	456	1.09	492	1.25	526	1.41	557	1.58	585	1.74	611	1.90	635	2.05	658	2.20	680	2.34	701	2.49	
6000	500	1.46	531	1.63	563	1.81	593	1.99	620	2.18	645	2.36	669	2.53	692	2.70	713	2.87	734	3.04	
6600	543	1.90	572	2.08	601	2.28	630	2.48	656	2.69	681	2.89	704	3.08	726	3.28	747	3.47	767	3.66	
7200	588	2.43	614	2.62	641	2.84	667	3.05	693	3.27	717	3.50	740	3.72	761	3.94	781	4.14	801	4.35	
3-hp Std Motor Drive											5hp Oversized Mtr and Std Drive										
Continued																					
External Static Pressure (Inches of Water)																					
1.1			1.2		1.3		1.4		1.5		1.6		1.7		1.8		1.9		2.0		
cfm	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	
3-hp Std Motor Drive											3HP Standard Motor and High Static Drive										
4800	690	2.13	710	2.26	729	2.38	747	2.50	765	2.62	782	2.74	799	2.85	815	2.96	831	3.08	847	3.19	
5400	721	2.63	741	2.78	759	2.91	777	3.05	795	3.19	813	3.33	829	3.46	845	3.59	861	3.73	876	3.86	
6000	754	3.20	773	3.36	791	3.52	809	3.68	826	3.84	843	3.99	859	4.14	875	4.30	891	4.45	906	4.60	
6600	787	3.84	805	4.02	823	4.20	841	4.38	858	4.56	875	4.73	890	4.90	906	5.08	922	5.25	937	5.42	
7200	821	4.57	839	4.77	856	4.97	873	5.16	891	5.37	907	5.56	923	5.75	939	5.95	953	6.14	968	6.32	
5hp Oversized Motor and Std Drive															7.5hp OS Motor and High Static Drive ^(a)						

Notes:

1. For Standard Evaporator Fan Speed (rpm), reference [Table 85, p. 115](#).
2. For High Evaporator Fan Speed (rpm), reference [Table 86, p. 117](#).
3. For Oversized Evaporator Fan Speed (rpm), reference [Table 87, p. 117](#).
4. Fan motor heat (MBh) = 3.15 x Fan bhp.
5. Data includes pressure drop due to standard filters and wet coils. No accessories or options are included in pressure drop data.
6. For all non-standard sheave combinations, please refer to accessory installer's guides ACC-SVN34*-EN and ACC-SVN72*-EN.
7. Factory supplied motors, in commercial equipment, are definite purpose motors, specifically designed and tested to operate reliably and continuously at all cataloged conditions. Using the full horsepower range of our fan motors as shown in our tabular data will not result in nuisance tripping or premature motor failure. Our product's warranty will not be affected.

(a) 7.5HP high static oversized motor offering is field installed only.



Performance Data

Table 49. Evaporator fan performance - 17½ tons - TSD210G - standard refrigeration system downflow

External Static Pressure (Inches of Water)																					
		0.1		0.2		0.3		0.4		0.5		0.6		0.7		0.8		0.9		1.0	
cfm	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	
5-hp Standard Motor and Low Static Drive Accessory									5-hp Standard Motor Drive												
5600	-	-	530	1.41	563	1.59	594	1.77	623	1.96	651	2.15	679	2.36	706	2.57	731	2.78	757	3.00	
6300	547	1.70	580	1.89	610	2.10	638	2.30	666	2.51	692	2.72	717	2.93	742	3.16	767	3.40	790	3.63	
7000	601	2.28	631	2.49	659	2.72	686	2.95	711	3.17	736	3.40	759	3.63	783	3.87	805	4.11	828	4.37	
7700	655	2.98	683	3.22	709	3.46	734	3.71	758	3.96	781	4.21	803	4.46	826	4.72	847	4.97	867	5.23 (a)	
8400	710	3.82	735	4.08	760	4.34	784	4.61	806	4.88	828	5.16	849	5.43	870	5.7	890	5.98	910	6.26	
5-hp Standard Motor Drive													5-hp Standard Motor and High Static Drive			7.5-hp Oversized Motor and High Static Drive					

Continued

External Static Pressure (Inches of Water)																					
		1.1		1.2		1.3		1.4		1.5		1.6		1.7		1.8		1.9		2.0	
cfm	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	
5-hp Standard Motor Drive					5-hp Standard Motor and High Static Drive																
5600	782	3.24	807	3.48	832	3.72	854	3.96	877	4.20	898	4.44	919	4.69	940	4.93	960	5.18	979	5.42	
6300	814	3.87	837	4.12	859	4.36	882	4.63	903	4.89	926	5.17	946	5.43	967	5.71	986	5.98	-	-	
7000	850	4.63	872	4.89	892	5.15	913	5.42	933	5.69	953	5.96	973	6.26	993	6.55	-	-	-	-	
7700	888	5.51	909	5.78	928	6.06	948	6.36	967	6.65	987	6.94	-	-	-	-	-	-	-	-	
8400	929	6.54	948	6.82	967	7.12	986	7.42	-	-	-	-	-	-	-	-	-	-	-	-	
7.5-hp Oversized Motor and High Static Drive																					

Notes:

1. For Standard Evaporator Fan Speed (rpm), reference [Table 82, p. 114](#).
2. For High Evaporator Fan Speed (rpm), reference [Table 83, p. 114](#).
3. For Oversized Evaporator Fan Speed (rpm), reference [Table 84, p. 115](#).
4. Fan motor heat (MBh) = 3.15 x Fan bhp.
5. Data includes pressure drop due to standard filters and wet coils. No accessories or options are included in pressure drop data.
6. For all non-standard sheave combinations, please refer to accessory installer's guides ACC-SVN34*-EN and ACC-SVN72*-EN.
7. Factory supplied motors, in commercial equipment, are definite purpose motors, specifically designed and tested to operate reliably and continuously at all cataloged conditions. Using the full horsepower range of our fan motors as shown in our tabular data will not result in nuisance tripping or premature motor failure. Our product's warranty will not be affected.

(a) 5-hp Standard Motor and High Static Drive.

Table 50. Evaporator fan performance - 17½ tons - TSH210G - standard refrigeration system horizontal flow

External Static Pressure (Inches of Water)																					
		0.1		0.2		0.3		0.4		0.5		0.6		0.7		0.8		0.9		1.0	
cfm	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	
5-hp Standard Motor and Low Static Drive Accessory											5-hp Standard Motor Drive										
5600	-	-	-	-	533	1.47	569	1.70	600	1.90	630	2.08	658	2.26	684	2.45	709	2.62	733	2.79	
6300	513	1.57	542	1.73	574	1.91	606	2.15	639	2.41	667	2.63	693	2.84	719	3.05	743	3.25	766	3.45	
7000	563	2.11	590	2.28	619	2.48	646	2.68	676	2.96	705	3.26	731	3.51	755	3.75	779	3.98	802	4.21	
7700	613	2.77	639	2.97	663	3.15	690	3.38	714	3.61	742	3.93	769	4.27	793	4.55	815	4.81	837	5.07 (a)	
8400	665	3.55	689	3.78	710	3.97	734	4.20	758	4.45	780	4.70	806	5.05	831	5.42	854	5.75	875	6.04 (b)	
5-hp Standard Motor Drive																(a)		(b)			

Continued

External Static Pressure (Inches of Water)																					
		1.1		1.2		1.3		1.4		1.5		1.6		1.7		1.8		1.9		2.0	
cfm	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	
5-hp Standard Motor Drive									5-hp Standard Motor and High Static Drive Accessory												
5600	755	2.97	777	3.13	798	3.30	819	3.47	838	3.63	858	3.79	877	3.96	895	4.11	912	4.27	929	4.42	
6300	789	3.66	811	3.85	831	4.04	851	4.24	871	4.43	890	4.62	908	4.80	927	5.00	944	5.17	961	5.36	
7000	823	4.44	845	4.67	865	4.88	885	5.10	904	5.33	923	5.54	941	5.75	959	5.97	976	6.18	992	6.38	
7700	859	5.33	880	5.58	900	5.84	919	6.08	938	6.32	957	6.57	975	6.81	992	7.06	-	-	-	-	
8400	895	6.32	915	6.61	936	6.90	955	7.17	973	7.45	991	7.71	-	-	-	-	-	-	-	-	
7.5-hp Oversized Motor and High Static Drive																					

Notes:

1. For Standard Evaporator Fan Speed (rpm), reference [Table 82, p. 114](#).
2. For High Evaporator Fan Speed (rpm), reference [Table 83, p. 114](#).
3. For Oversized Evaporator Fan Speed (rpm), reference [Table 84, p. 115](#).
4. Fan motor heat (MBh) = 3.15 x Fan bhp.
5. Data includes pressure drop due to standard filters and wet coils. No accessories or options are included in pressure drop data.
6. For all non-standard sheave combinations, please refer to accessory installer's guides ACC-SVN34*-EN and ACC-SVN72*-EN.
7. Factory supplied motors, in commercial equipment, are definite purpose motors, specifically designed and tested to operate reliably and continuously at all cataloged conditions. Using the full horsepower range of our fan motors as shown in our tabular data will not result in nuisance tripping or premature motor failure. Our product's warranty will not be affected.

(a) 5-hp Standard Motor and High Static Drive Accessory

(b) 7.5-hp OS Motor and High Static Drive.



Performance Data

Table 51. Evaporator fan performance - 17½ tons with gas heat - YSD210G - standard refrigeration system downflow

External Static Pressure (Inches of Water)																					
		0.1		0.2		0.3		0.4		0.5		0.6		0.7		0.8		0.9		1.0	
cfm	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	
5-hp Standard Motor and Low Static Drive Accessory							5-hp Standard Motor Drive														
5600	-	-	547	1.50	579	1.69	609	1.87	639	2.07	667	2.27	694	2.48	721	2.70	748	2.93	775	3.17	
6300	569	1.83	600	2.02	629	2.23	657	2.44	684	2.65	710	2.87	735	3.09	760	3.33	784	3.57	809	3.82	
7000	625	2.45	653	2.67	680	2.9	707	3.13	731	3.36	756	3.60	779	3.83	803	4.08	825	4.33	847	4.60	
7700	682	3.22	708	3.45	733	3.70	757	3.96	781	4.21	804	4.46	826	4.72	847	4.98	869	5.25	889	5.52 (a)	
8400	740	4.12	764	4.38	787	4.64	809	4.92	832	5.21	853	5.48	874	5.76	894	6.04	914	6.31	934	6.60	
5-hp and High Static Drive															(b)						
Continued																					
External Static Pressure (Inches of Water)																					
		1.1		1.2		1.3		1.4		1.5		1.6		1.7		1.8		1.9		2.0	
cfm	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	
5-hp Standard Motor Drive					5-hp and High Static Drive																
5600	802	3.42	826	3.67	851	3.92	874	4.17	898	4.44	920	4.69	941	4.94	961	5.20	982	5.46	1001	5.71	
6300	832	4.06	856	4.33	880	4.61	903	4.89	926	5.18	947	5.45	969	5.74	990	6.03	-	-	-	-	
7000	869	4.86	891	5.13	912	5.41	934	5.71	955	5.99	976	6.30	-	-	-	-	-	-	-	-	
7700	909	5.79	929	6.08	950	6.38	970	6.68	990	6.99	-	-	-	-	-	-	-	-	-	-	
8400	953	6.90	972	7.20	991	7.50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
7.5-hp Oversized Motor and High Static Drive																					

Notes:

1. For Standard Evaporator Fan Speed (rpm), reference [Table 82, p. 114](#).
2. For High Evaporator Fan Speed (rpm), reference [Table 83, p. 114](#).
3. For Oversized Evaporator Fan Speed (rpm), reference [Table 84, p. 115](#).
4. Fan motor heat (MBh) = 3.15 x Fan bhp.
5. Data includes pressure drop due to standard filters and wet coils. No accessories or options are included in pressure drop data.
6. For all non-standard sheave combinations, please refer to accessory installer's guides ACC-SVN34*-EN and ACC-SVN72*-EN.
7. Factory supplied motors, in commercial equipment, are definite purpose motors, specifically designed and tested to operate reliably and continuously at all cataloged conditions. Using the full horsepower range of our fan motors as shown in our tabular data will not result in nuisance tripping or premature motor failure. Our product's warranty will not be affected.

(a) 5-hp and High Static Drive

(b) 7.5-hp Oversized Motor and High Static Drive.

Performance Data

Table 52. Evaporator fan performance - 17½ tons with gas heat - YSH210G - standard refrigeration system horizontal flow

External Static Pressure (Inches of Water)																					
		0.1		0.2		0.3		0.4		0.5		0.6		0.7		0.8		0.9		1.0	
cfm	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	
5-hp Standard Motor and Low Static Drive Accessory									5-hp Std Motor Drive												
5600	-	-	516	1.37	555	1.61	587	1.81	617	2.00	646	2.19	673	2.37	698	2.54	723	2.72	746	2.89	
6300	533	1.67	565	1.85	596	2.07	631	2.35	659	2.57	685	2.78	711	2.99	736	3.19	760	3.40	782	3.60	
7000	586	2.26	614	2.45	642	2.65	672	2.93	703	3.24	728	3.48	751	3.71	776	3.95	798	4.18	821	4.41	
7700	641	2.98	663	3.16	690	3.39	715	3.62	744	3.95	772	4.30	795	4.57	816	4.82	838	5.08	860	5.34 (a)	
8400	695	3.83	715	4.01	740	4.26	763	4.50	786	4.78	813	5.15	839	5.54	861	5.84	880	6.12	900	6.39	
5-hp Std Motor Drive													7.5-hp Oversized Motor and High Static Drive								

Continued

External Static Pressure (Inches of Water)																					
		1.1		1.2		1.3		1.4		1.5		1.6		1.7		1.8		1.9		2.0	
cfm	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	
5-hp Standard Motor Drive							5-hp Motor High Static Drive														
5600	768	3.06	789	3.23	810	3.39	830	3.55	849	3.72	868	3.88	885	4.03	904	4.19	921	4.35	938	4.50	
6300	804	3.79	825	3.99	846	4.18	865	4.37	884	4.56	902	4.74	921	4.93	938	5.11	956	5.30	972	5.47	
7000	842	4.63	863	4.86	883	5.08	902	5.3	921	5.52	939	5.73	956	5.93	974	6.15	991	6.35	-	-	
7700	880	5.59	900	5.84	920	6.09	939	6.34	958	6.58	975	6.82	993	7.06	-	-	-	-	-	-	
8400	920	6.67	940	6.95	959	7.24	977	7.51	-	-	-	-	-	-	-	-	-	-	-	-	
7.5-hp Oversized Motor and High Static Drive																					

Notes:

1. For Standard Evaporator Fan Speed (rpm), reference [Table 82, p. 114](#).
2. For High Evaporator Fan Speed (rpm), reference [Table 83, p. 114](#).
3. For Oversized Evaporator Fan Speed (rpm), reference [Table 84, p. 115](#).
4. Fan motor heat (MBh) = 3.15 x Fan bhp.
5. Data includes pressure drop due to standard filters and wet coils. No accessories or options are included in pressure drop data.
6. For all non-standard sheave combinations, please refer to accessory installer's guides ACC-SVN34*-EN and ACC-SVN72*-EN.
7. Factory supplied motors, in commercial equipment, are definite purpose motors, specifically designed and tested to operate reliably and continuously at all cataloged conditions. Using the full horsepower range of our fan motors as shown in our tabular data will not result in nuisance tripping or premature motor failure. Our product's warranty will not be affected.

(a) 5-hp Motor High Static Drive.

Performance Data

Table 53. Evaporator fan performance - 20 tons - TSD240G - standard refrigeration system downflow

External Static Pressure (Inches of Water)																					
0.1			0.2		0.3		0.4		0.5		0.6		0.7		0.8		0.9		1.0		
cfm	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	
5-hp Standard Motor and Low Static Drive Accessory					5-hp Motor and Standard Drive																
6400	555	1.77	587	1.97	617	2.18	645	2.39	672	2.60	698	2.81	723	3.03	748	3.25	772	3.49	796	3.73	
7200	617	2.46	646	2.69	673	2.92	699	3.15	724	3.39	748	3.62	772	3.86	794	4.10	817	4.35	839	4.60	
8000	679	3.32	705	3.57	731	3.82	755	4.08	779	4.34	801	4.60	823	4.86	844	5.12	865	5.38	885	5.65 (a)	
8800	742	4.36	766	4.64	790	4.91	812	5.19	834	5.47	855	5.76 (a)	876	6.05	896	6.34	915	6.62	935	6.91	
9600	805	5.61	827	5.91	849	6.21	870	6.50	891	6.81	911	7.12	930	7.44	949	7.75	968	8.06	986	8.37	
7.5-hp Oversized Motor and High Static Drive																					

Continued

External Static Pressure (Inches of Water)																				
1.1			1.2		1.3		1.4		1.5		1.6		1.7		1.8		1.9		2.0	
cfm	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp
5-hp Standard Motor Drive			5-hp Motor and High Static Drive												7.5-hp Oversized Motor and High Static Drive					
6400	819	3.97	841	4.21	863	4.47	886	4.73	908	5.01	929	5.27	950	5.56	971	5.84	990	6.10	-	-
7200	861	4.86	882	5.14	902	5.40	923	5.68	943	5.96	963	6.24	982	6.51	-	-	-	-	-	-
8000	905	5.93	926	6.21	945	6.50	964	6.80	983	7.09	-	-	-	-	-	-	-	-	-	-
8800	953	7.20	972	7.50	991	7.80	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7.5-hp Oversized Motor and High Static Drive																				

Notes:

1. For Standard Evaporator Fan Speed (rpm), reference [Table 82, p. 114](#).
2. For High Evaporator Fan Speed (rpm), reference [Table 83, p. 114](#).
3. For Oversized Evaporator Fan Speed (rpm), reference [Table 84, p. 115](#).
4. Fan motor heat (MBh) = 3.15 x Fan bhp.
5. Data includes pressure drop due to standard filters and wet coils. No accessories or options are included in pressure drop data.
6. For all non-standard sheave combinations, please refer to accessory installer's guides ACC-SVN34*-EN and ACC-SVN72*-EN.
7. Factory supplied motors, in commercial equipment, are definite purpose motors, specifically designed and tested to operate reliably and continuously at all cataloged conditions. Using the full horsepower range of our fan motors as shown in our tabular data will not result in nuisance tripping or premature motor failure. Our product's warranty will not be affected.

(a) 5-hp Motor and High Static Drive.

Table 54. Evaporator fan performance - 20 tons - TSH240G - standard refrigeration system horizontal flow

External Static Pressure (Inches of Water)																					
		0.1		0.2		0.3		0.4		0.5		0.6		0.7		0.8		0.9		1.0	
cfm	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	
5-hp Standard Motor and Low Static Drive Accessory							5-hp Standard Motor Drive														
6400	520	1.64	549	1.80	580	1.99	612	2.21	644	2.49	672	2.71	698	2.93	724	3.15	748	3.35	771	3.56	
7200	577	2.29	604	2.47	631	2.66	658	2.87	686	3.14	716	3.45	742	3.72	765	3.96	789	4.21	811	4.44	
8000	635	3.09	660	3.30	683	3.48	709	3.72	733	3.95	758	4.24	785	4.59	810	4.93	832	5.20	853	5.47 (a)	
8800	694	4.05	717	4.30	738	4.50	760	4.73	783	4.99	805	5.25	827	5.55	852	5.93	876	6.31	897	6.65	
9600	753	5.21	775	5.48	795	5.73	813	5.94	834	6.21	856	6.49	876	6.78	895	7.08	917	7.47	940	7.90	
7.5-hp Oversized Motor and High Static Drive																					

Continued

External Static Pressure (Inches of Water)																					
1.1		1.2		1.3		1.4		1.5		1.6		1.7		1.8		1.9		2.0			
cfm	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	
5-hp Std Motor Drive					5-hp Motor and High Static Drive																
6400	794	3.76	815	3.96	836	4.16	856	4.35	876	4.55	894	4.74	913	4.94	931	5.12	949	5.31	965	5.49	
7200	834	4.68	855	4.91	875	5.15	895	5.37	914	5.61	933	5.82	951	6.05	968	6.26	985	6.48	-	-	
8000	874	5.74	895	6.01	915	6.27	934	6.53	953	6.79	972	7.05	989	7.30	-	-	-	-	-	-	
8800	917	6.96	936	7.25	956	7.55	975	7.84	993	8.13	-	-	-	-	-	-	-	-	-	-	
9600	962	8.32	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
7.5-hp Oversized Motor and High Static Drive																					

Notes:

1. For Standard Evaporator Fan Speed (rpm), reference [Table 82, p. 114](#).
2. For High Evaporator Fan Speed (rpm), reference [Table 83, p. 114](#).
3. For Oversized Evaporator Fan Speed (rpm), reference [Table 84, p. 115](#).
4. Fan motor heat (MBh) = 3.15 x Fan bhp.
5. Data includes pressure drop due to standard filters and wet coils. No accessories or options are included in pressure drop data.
6. For all non-standard sheave combinations, please refer to accessory installer's guides ACC-SVN34*-EN and ACC-SVN72*-EN.
7. Factory supplied motors, in commercial equipment, are definite purpose motors, specifically designed and tested to operate reliably and continuously at all cataloged conditions. Using the full horsepower range of our fan motors as shown in our tabular data will not result in nuisance tripping or premature motor failure. Our product's warranty will not be affected.

(a) 5-hp Motor and High Static Drive.



Performance Data

Table 55. Evaporator fan performance - 20 tons with gas heat - YSD240G - standard refrigeration system downflow

External Static Pressure (Inches of Water)																					
0.1			0.2		0.3		0.4		0.5		0.6		0.7		0.8		0.9		1.0		
cfm	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	
(a)			5-hp Standard Motor Drive																		
6400	577	1.91	607	2.11	636	2.32	664	2.53	691	2.75	716	2.96	742	3.19	766	3.43	790	3.67	814	3.92	
7200	642	2.66	669	2.88	695	3.12	721	3.36	746	3.59	769	3.83	792	4.07	815	4.32	837	4.58	859	4.84 ^(b)	
8000	707	3.59	732	3.83	756	4.09	780	4.35	803	4.62	824	4.88	846	5.14	867	5.41	888	5.69	908	5.96	
8800	772	4.72	796	4.99	818	5.26	840	5.55	861	5.84	882	6.13	902	6.42	922	6.71	941	7.00	960	7.30	
9600	839	6.06	860	6.36	881	6.66	901	6.96	921	7.28	940	7.60	959	7.92	978	8.23	-	-	-	-	
7.5-hp Oversized Motor and High Static Drive																					
Continued																					
External Static Pressure (Inches of Water)																					
1.1			1.2		1.3		1.4		1.5		1.6		1.7		1.8		1.9		2.0		
cfm	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	
5-hp Motor and High Static Drive																					
6400	838	4.18	861	4.44	884	4.71	907	5.00	930	5.29	952	5.58	972	5.85	993	6.14	-	-	-	-	
7200	880	5.11	902	5.39	923	5.68	944	5.96	964	6.25	985	6.57	-	-	-	-	-	-	-	-	
8000	928	6.25	947	6.54	967	6.84	986	7.14	-	-	-	-	-	-	-	-	-	-	-	-	
8800	979	7.60	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
9600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
7.5-hp Oversized Motor and High Static Drive																					

Notes:

1. For Standard Evaporator Fan Speed (rpm), reference [Table 82, p. 114](#).
2. For High Evaporator Fan Speed (rpm), reference [Table 83, p. 114](#).
3. For Oversized Evaporator Fan Speed (rpm), reference [Table 84, p. 115](#).
4. Fan motor heat (MBh) = 3.15 x Fan bhp.
5. Data includes pressure drop due to standard filters and wet coils. No accessories or options are included in pressure drop data.
6. For all non-standard sheave combinations, please refer to accessory installer's guides ACC-SVN34*-EN and ACC-SVN72*-EN.
7. Factory supplied motors, in commercial equipment, are definite purpose motors, specifically designed and tested to operate reliably and continuously at all cataloged conditions. Using the full horsepower range of our fan motors as shown in our tabular data will not result in nuisance tripping or premature motor failure. Our product's warranty will not be affected.

(a) 5-hp Standard Motor and Low Static Drive Accessory

(b) 5-hp Motor and High Static Drive.

Table 56. Evaporator fan performance - 20 tons with gas heat - YSH240G - standard refrigeration system horizontal flow

External Static Pressure (Inches of Water)																					
0.1			0.2		0.3		0.4		0.5		0.6		0.7		0.8		0.9		1.0		
cfm	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	
5-hp Standard Motor and Low Static Drive Accessory							5-hp Standard Motor Drive														
6400	540	1.75	572	1.93	602	2.14	637	2.43	665	2.66	691	2.87	717	3.08	742	3.30	765	3.50	788	3.70	
7200	602	2.45	628	2.63	656	2.85	684	3.11	715	3.44	740	3.71	763	3.94	787	4.18	810	4.42	831	4.66 ^(a)	
8000	664	3.33	685	3.5	711	3.74	735	3.98	762	4.29	790	4.65	814	4.98	835	5.24	855	5.50 ^(a)	877	5.77	
8800	726	4.39	745	4.57	768	4.81	791	5.08	812	5.34	836	5.69	862	6.09	886	6.48	905	6.78	925	7.07	
9600	789	5.66	806	5.86	825	6.09	847	6.38	867	6.66	887	6.94	909	7.33	933	7.76	956	8.20	976	8.58	
7.5-hp Oversized Motor and High Static Drive																					

Continued

External Static Pressure (Inches of Water)																				
1.1			1.2		1.3		1.4		1.5		1.6		1.7		1.8		1.9		2.0	
cfm	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp
5-hp Standard Motor Drive			5-hp Standard Motor and High Static Drive																	
6400	809	3.91	831	4.11	851	4.31	870	4.50	890	4.69	908	4.88	926	5.07	943	5.25	960	5.44	977	5.63
7200	853	4.90	873	5.12	893	5.35	912	5.58	931	5.80	949	6.03	967	6.25	984	6.47	-	-	-	-
8000	897	6.04	917	6.30	937	6.57	956	6.83	974	7.09	992	7.34	-	-	-	-	-	-	-	-
8800	943	7.35	962	7.64	982	7.95	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7.5-hp Oversized Motor and High Static Drive																				

Notes:

1. For Standard Evaporator Fan Speed (rpm), reference [Table 82, p. 114](#).
2. For High Evaporator Fan Speed (rpm), reference [Table 83, p. 114](#).
3. For Oversized Evaporator Fan Speed (rpm), reference [Table 84, p. 115](#).
4. Fan motor heat (MBh) = 3.15 x Fan bhp.
5. Data includes pressure drop due to standard filters and wet coils. No accessories or options are included in pressure drop data.
6. For all non-standard sheave combinations, please refer to accessory installer's guides ACC-SVN34*-EN and ACC-SVN72*-EN.
7. Factory supplied motors, in commercial equipment, are definite purpose motors, specifically designed and tested to operate reliably and continuously at all cataloged conditions. Using the full horsepower range of our fan motors as shown in our tabular data will not result in nuisance tripping or premature motor failure. Our product's warranty will not be affected.

(a) 5-hp Standard Motor and High Static Drive.

Performance Data

Table 57. Evaporator fan performance - 25 tons - TSD300G - standard refrigeration system downflow

External Static Pressure (Inches of Water)																						
	0.1		0.2		0.3		0.4		0.5		0.6		0.7		0.8		0.9		1.0			
cfm	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp		
	7.5-hp Standard Motor and Low Static Drive Accessory								7.5-hp Standard Motor and Drive Accessory													
7000	601	2.28	631	2.49	659	2.72	686	2.95	711	3.17	736	3.40	759	3.63	783	3.87	805	4.11	828	4.37		
7500	640	2.77	668	3.00	695	3.24	720	3.48	745	3.73	768	3.97	791	4.21	813	4.46	835	4.71	856	4.97		
8000	679	3.32	705	3.57	731	3.82	755	4.08	779	4.34	801	4.60	823	4.86	844	5.12	865	5.38	885	5.65		
8500	718	3.95	743	4.22	767	4.48	791	4.75	813	5.03	835	5.31	856	5.58	876	5.86	896	6.13	916	6.42		
9000	757	4.65	781	4.93	804	5.22	827	5.5	848	5.79	869	6.08	889	6.38	909	6.67	928	6.96	947	7.25		
9500	797	5.44	819	5.74	841	6.03	863	6.33	884	6.63	904	6.94	923	7.25	943	7.56	961	7.87	979	8.18		
10000	836	6.31	858	6.62	879	6.94	900	7.25	920	7.56	939	7.88	958	8.21	977	8.54	-	-	-	-		
10500	876	7.27	897	7.60	917	7.93	936	8.25	956	8.58	-	-	-	-	-	-	-	-	-	-		
11000	916	8.32	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
7.5-hp Standard Motor and High Static Drive Accessory																						

Continued

External Static Pressure (Inches of Water)																					
1.1		1.2		1.3		1.4		1.5		1.6		1.7		1.8		1.9		2.0			
cfm	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	
7.5-hp Standard Motor and Drive Accessory					7.5-hp Standard Motor and High Static Drive Accessory																
7000	850	4.63	872	4.89	892	5.15	913	5.42	933	5.69	953	5.96	973	6.26	993	6.55	-	-	-	-	
7500	877	5.24	898	5.51	917	5.79	938	6.08	958	6.36	976	6.64	-	-	-	-	-	-	-	-	
8000	905	5.93	926	6.21	945	6.50	964	6.80	983	7.09	-	-	-	-	-	-	-	-	-	-	
8500	935	6.70	954	6.99	973	7.28	992	7.59	-	-	-	-	-	-	-	-	-	-	-	-	
9000	966	7.55	984	7.85	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
9500	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
10000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
10500	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
11000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
7.5-hp Standard Motor and High Static Drive Accessory																					

Notes:

1. For Standard Evaporator Fan Speed (rpm), reference [Table 82, p. 114](#).
2. For High Evaporator Fan Speed (rpm), reference [Table 83, p. 114](#).
3. For Oversized Evaporator Fan Speed (rpm), reference [Table 84, p. 115](#).
4. Fan motor heat (MBh) = 3.15 x Fan bhp.
5. Data includes pressure drop due to standard filters and wet coils. No accessories or options are included in pressure drop data.
6. For all non-standard sheave combinations, please refer to accessory installer's guides ACC-SVN34*-EN and ACC-SVN72*-EN.
7. Factory supplied motors, in commercial equipment, are definite purpose motors, specifically designed and tested to operate reliably and continuously at all cataloged conditions. Using the full horsepower range of our fan motors as shown in our tabular data will not result in nuisance tripping or premature motor failure. Our product's warranty will not be affected.

Performance Data

Table 58. Evaporator fan performance - 25 tons - TSH300G - standard refrigeration system horizontal flow

External Static Pressure (Inches of Water)																					
		0.1		0.2		0.3		0.4		0.5		0.6		0.7		0.8		0.9		1.0	
cfm	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	
7.5-hp Standard Motor and Low Static Drive Accessory											7.5-hp Standard Motor and Drive Accessory										
7000	-	-	590	2.28	619	2.48	646	2.68	676	2.96	705	3.26	731	3.51	755	3.75	779	3.98	802	4.21	
7500	599	2.57	625	2.76	650	2.95	677	3.17	703	3.41	731	3.73	759	4.05	782	4.31	804	4.56	827	4.81	
8000	635	3.09	660	3.30	683	3.48	709	3.72	733	3.95	758	4.24	785	4.59	810	4.93	832	5.20	853	5.47	
8500	672	3.67	696	3.90	717	4.10	741	4.33	764	4.58	786	4.83	811	5.17	836	5.54	860	5.89	880	6.19	
9000	709	4.32	732	4.58	752	4.79	773	5.01	796	5.28	817	5.54	838	5.82	862	6.19	886	6.59	908	6.97	
9500	746	5.05	767	5.33	788	5.56	806	5.78	828	6.04	850	6.33	869	6.60	889	6.92	912	7.32	935	7.74	
10000	783	5.86	803	6.15	823	6.41	841	6.64	860	6.89	881	7.19	900	7.48	920	7.78	939	8.13	961	8.55	
10500	820	6.75	839	7.06	859	7.34	876	7.59	893	7.83	913	8.13	933	8.45	-	-	-	-	-	-	
11000	857	7.73	876	8.06	894	8.36	912	8.63	-	-	-	-	-	-	-	-	-	-	-	-	
7.5-hp Standard Motor and High Static Drive Accessory																					

Continued

External Static Pressure (Inches of Water)																					
	1.1		1.2		1.3		1.4		1.5		1.6		1.7		1.8		1.9		2.0		
cfm	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	
	7.5-hp Standard Motor and Drive Accessory						7.5-hp Standard Motor and High Static Drive Accessory														
7000	823	4.44	845	4.67	865	4.88	885	5.10	904	5.33	923	5.54	941	5.75	959	5.97	976	6.18	992	6.38	
7500	849	5.06	870	5.31	890	5.55	910	5.79	928	6.03	947	6.27	965	6.50	983	6.73	-	-	-	-	
8000	874	5.74	895	6.01	915	6.27	934	6.53	953	6.79	972	7.05	989	7.30	-	-	-	-	-	-	
8500	901	6.48	921	6.76	940	7.05	959	7.33	978	7.60	-	-	-	-	-	-	-	-	-	-	
9000	928	7.28	947	7.58	966	7.89	985	8.19	-	-	-	-	-	-	-	-	-	-	-	-	
9500	956	8.15	975	8.49	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
10000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
10500	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
11000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
7.5-hp Standard Motor and High Static Drive Accessory																					

Notes:

1. For Standard Evaporator Fan Speed (rpm), reference [Table 82, p. 114](#).
2. For High Evaporator Fan Speed (rpm), reference [Table 83, p. 114](#).
3. For Oversized Evaporator Fan Speed (rpm), reference [Table 84, p. 115](#).
4. Fan motor heat (MBh) = 3.15 x Fan bhp.
5. Data includes pressure drop due to standard filters and wet coils. No accessories or options are included in pressure drop data.
6. For all non-standard sheave combinations, please refer to accessory installer's guides ACC-SVN34*-EN and ACC-SVN72*-EN.
7. Refer to [Table 85, p. 115](#) to determine additional static pressure drop due to other options/accessories.
8. Factory supplied motors, in commercial equipment, are definite purpose motors, specifically designed and tested to operate reliably and continuously at all cataloged conditions. Using the full horsepower range of our fan motors as shown in our tabular data will not result in nuisance tripping or premature motor failure. Our product's warranty will not be affected.

Performance Data

Table 59. Evaporator fan performance - 25 tons with gas heat - YSD300G - standard refrigeration system downflow

External Static Pressure (Inches of Water)																					
	0.1		0.2		0.3		0.4		0.5		0.6		0.7		0.8		0.9		1.0		
cfm	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	
7.5-hp Standard Motor and Low Static Drive Accessory							7.5-hp Standard Motor and Drive Accessory														
7000	625	2.45	653	2.67	680	2.90	707	3.13	731	3.36	756	3.60	779	3.83	803	4.08	825	4.33	847	4.60	
7500	666	2.98	692	3.21	718	3.46	743	3.71	767	3.95	790	4.20	812	4.45	834	4.71	855	4.97	877	5.24	
8000	707	3.59	732	3.83	756	4.09	780	4.35	803	4.62	824	4.88	846	5.14	867	5.41	888	5.69	908	5.96	
8500	748	4.27	772	4.53	794	4.79	817	5.07	839	5.36	860	5.64	881	5.92	901	6.20	921	6.48	940	6.77	
9000	789	5.03	812	5.31	833	5.58	855	5.88	876	6.18	896	6.48	916	6.77	936	7.07	955	7.37	973	7.67	
9500	830	5.88	852	6.18	873	6.47	893	6.77	913	7.08	933	7.40	952	7.72	970	8.02	989	8.34	-	-	
10000	872	6.83	892	7.14	912	7.45	932	7.75	951	8.08	970	8.41	-	-	-	-	-	-	-	-	
10500	913	7.87	933	8.20	952	8.52	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
11000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
7.5-hp Standard Motor and High Static Drive Accessory																					

Continued

External Static Pressure (Inches of Water)																					
	1.1		1.2		1.3		1.4		1.5		1.6		1.7		1.8		1.9		2.0		
cfm	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	
	(a)		7.5-hp Standard Motor and High Static Drive Accessory																		
7000	869	4.86	891	5.13	912	5.41	934	5.71	955	5.99	976	6.30	-	-	-	-	-	-	-	-	
7500	898	5.52	918	5.80	939	6.10	958	6.38	979	6.67	-	-	-	-	-	-	-	-	-	-	
8000	928	6.25	947	6.54	967	6.84	986	7.14	-	-	-	-	-	-	-	-	-	-	-	-	
8500	959	7.07	979	7.37	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
9000	991	7.97	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
9500	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
10000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
10500	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
11000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
7.5-hp Standard Motor and High Static Drive Accessory																					

Notes:

1. For Standard Evaporator Fan Speed (rpm), reference [Table 82, p. 114](#).
2. For High Evaporator Fan Speed (rpm), reference [Table 83, p. 114](#).
3. For Oversized Evaporator Fan Speed (rpm), reference [Table 84, p. 115](#).
4. Fan motor heat (MBh) = 3.15 x Fan bhp.
5. Data includes pressure drop due to standard filters and wet coils. No accessories or options are included in pressure drop data.
6. For all non-standard sheave combinations, please refer to accessory installer's guides ACC-SVN34*-EN and ACC-SVN72*-EN.
7. Factory supplied motors, in commercial equipment, are definite purpose motors, specifically designed and tested to operate reliably and continuously at all cataloged conditions. Using the full horsepower range of our fan motors as shown in our tabular data will not result in nuisance tripping or premature motor failure. Our product's warranty will not be affected.

(a) 7.5-hp Standard Motor and Drive Accessory.

Performance Data

Table 60. Evaporator fan performance - 25 tons with gas heat - YSH300G - standard refrigeration system horizontal flow

External Static Pressure (Inches of Water)																					
		0.1		0.2		0.3		0.4		0.5		0.6		0.7		0.8		0.9		1.0	
cfm	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	
7.5-hp Standard Motor and Low Static Drive Accessory									7.5-hp Standard Motor and Drive Accessory												
7000	586	2.26	614	2.45	642	2.65	672	2.93	703	3.24	728	3.48	751	3.71	776	3.95	798	4.18	821	4.41	
7500	625	2.76	649	2.94	676	3.17	702	3.41	732	3.74	759	4.06	782	4.31	804	4.55	827	4.81	848	5.05	
8000	664	3.33	685	3.50	711	3.74	735	3.98	762	4.29	790	4.65	814	4.98	835	5.24	855	5.50	877	5.77	
8500	703	3.97	722	4.14	747	4.39	770	4.64	792	4.91	819	5.28	845	5.68	867	6.00	887	6.28	906	6.55	
9000	742	4.68	760	4.87	782	5.11	805	5.38	826	5.65	849	5.98	874	6.38	898	6.79	919	7.13	937	7.43	
9500	781	5.49	799	5.69	817	5.91	840	6.21	860	6.48	880	6.77	903	7.16	927	7.60	950	8.03	969	8.37	
10000	820	6.37	837	6.59	854	6.81	875	7.10	896	7.41	915	7.70	934	8.04	957	8.46	-	-	-	-	
10500	860	7.36	876	7.58	891	7.80	910	8.09	931	8.42	-	-	-	-	-	-	-	-	-	-	
11000	899	8.43	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
7.5-hp Standard Motor and High Static Drive Accessory																					

Continued

External Static Pressure (Inches of Water)																					
		1.1		1.2		1.3		1.4		1.5		1.6		1.7		1.8		1.9		2.0	
cfm	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	
7.5-hp Standard Motor and Drive Accessory					7.5-hp Standard Motor and High Static Drive Accessory																
7000	842	4.63	863	4.86	883	5.08	902	5.30	921	5.52	939	5.73	956	5.93	974	6.15	991	6.35	-	-	
7500	870	5.31	890	5.55	909	5.79	929	6.03	947	6.27	965	6.50	983	6.73	-	-	-	-	-	-	
8000	897	6.04	917	6.30	937	6.57	956	6.83	974	7.09	992	7.34	-	-	-	-	-	-	-	-	
8500	926	6.84	946	7.13	965	7.41	983	7.68	-	-	-	-	-	-	-	-	-	-	-	-	
9000	955	7.72	974	8.01	993	8.33	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
9500	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
10000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
10500	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
11000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
7.5-hp Standard Motor and High Static Drive Accessory																					

Notes:

1. For Standard Evaporator Fan Speed (rpm), reference [Table 82, p. 114](#).
2. For High Evaporator Fan Speed (rpm), reference [Table 83, p. 114](#).
3. For Oversized Evaporator Fan Speed (rpm), reference [Table 84, p. 115](#).
4. Fan motor heat (MBh) = 3.15 x Fan bhp.
5. Data includes pressure drop due to standard filters and wet coils. No accessories or options are included in pressure drop data.
6. For all non-standard sheave combinations, please refer to accessory installer's guides ACC-SVN34*-EN and ACC-SVN72*-EN.
7. Refer to [Table 85, p. 115](#) to determine additional static pressure drop due to other options/accessories.
8. Factory supplied motors, in commercial equipment, are definite purpose motors, specifically designed and tested to operate reliably and continuously at all cataloged conditions. Using the full horsepower range of our fan motors as shown in our tabular data will not result in nuisance tripping or premature motor failure. Our product's warranty will not be affected.

Performance Data

Table 61. Evaporator fan performance—12½ tons—TH*150G

External Static Pressure (Inches of Water)																					
		0.1		0.2		0.3		0.4		0.5		0.6		0.7		0.8		0.9		1.0	
cfm	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	
3-hp Standard Motor and Low Static Drive Accessory									3-hp Standard Motor and Drive												
2500 ^(a)	-	-	-	-	370	0.32	417	0.43	458	0.54	496	0.66	531	0.79	564	0.91	593	1.03	623	1.16	
3000 ^(a)	-	-	-	-	386	0.42	430	0.54	472	0.67	508	0.80	543	0.94	576	1.08	606	1.22	635	1.35	
3500 ^(a)	-	-	360	0.43	404	0.55	447	0.68	486	0.81	522	0.96	556	1.11	588	1.26	619	1.40	647	1.55	
4000	-	-	387	0.59	426	0.71	465	0.85	502	0.99	537	1.14	570	1.29	602	1.44	631	1.59	660	1.74	
4500	377	0.66	417	0.79	452	0.92	486	1.06	521	1.20	555	1.36	586	1.50	617	1.65	645	1.80	673	1.95	
5000	409	0.88	448	1.03	481	1.17	512	1.30	542	1.44	573	1.59	604	1.74	633	1.89	662	2.04	688	2.18	
5500	441	1.14	479	1.30	510	1.44	539	1.58	567	1.71	594	1.85	624	2.01	652	2.16	679	2.31	705	2.46	
6000	474	1.42	510	1.59	540	1.74	568	1.88	594	2.01	620	2.15	645	2.29	671	2.45	698	2.62	724	2.81	
3-hp Standard Motor and High Static Drive Accessory ^(b)																					

Continued

External Static Pressure (Inches of Water)																					
		1.1		1.2		1.3		1.4		1.5		1.6		1.7		1.8		1.9		2.0	
cfm	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	
3-hp Standard Motor and High Static Drive Accessory ^(b)													3-hp Standard Motor and High Static Drive Accessory ^(c)								
2500 ^(a)	650	1.28	676	1.40	701	1.52	726	1.64	748	1.76	771	1.87	793	1.98	814	2.09	835	2.21	855	2.32	
3000 ^(a)	662	1.48	688	1.61	713	1.74	737	1.86	760	1.98	783	2.11	806	2.23	827	2.36	847	2.48	867	2.61	
3500 ^(a)	674	1.69	701	1.82	726	1.96	750	2.09	772	2.22	795	2.35	818	2.49	839	2.64	859	2.78	879	2.96	
4000	687	1.89	713	2.04	738	2.18	762	2.32	785	2.47	808	2.62	829	2.79	851	2.97	871	3.17	891	3.40	
4500	700	2.10	726	2.26	750	2.41	775	2.58	798	2.75	821	2.95	842	3.15	864	3.41	885	3.71	904	4.06	
5000	714	2.34	740	2.50	765	2.68	788	2.87	811	3.09	834	3.36	855	3.66	875	4.02	897	4.49	917	5.04	
5500	730	2.63	755	2.81	778	3.02	801	3.26	824	3.56	846	3.93	868	4.40	889	4.96	909	5.65	-	-	
6000	748	3.02	772	3.26	795	3.54	818	3.89	839	4.32	860	4.85	881	5.51	-	-	-	-	-	-	
5-hp Oversized Motor and Drive																					

Notes:

1. For Standard Evaporator Fan Speed (rpm), reference [Table 82, p. 114](#).
 2. For High Evaporator Fan Speed (rpm), reference [Table 83, p. 114](#).
 3. For Oversized Evaporator Fan Speed (rpm), reference [Table 84, p. 115](#).
 4. Fan motor heat (MBh) = 3.15 x Fan bhp.
 5. Data includes pressure drop due to standard filters and wet coils. No accessories or options are included in pressure drop data.
 6. For all non-standard sheave combinations, please refer to accessory installer's guides ACC-SVN34*-EN and ACC-SVN72*-EN.
 7. Factory supplied motors, in commercial equipment, are definite purpose motors, specifically designed and tested to operate reliably and continuously at all cataloged conditions. Using the full horsepower range of our fan motors as shown in our tabular data will not result in nuisance tripping or premature motor failure. Our product's warranty will not be affected.
- (a) Unit applications below 320 cfm/ton are only applicable to Constant Volume THD models without electric heat and YHD models equipped with modulating gas heat. See below for restrictions:
- Electric heaters on applications below 320 cfm/ton.
 - Froststat and Crankcase heaters are required on applications below 320 cfm/ton.
 - Multi-speed, single zone VAV or multi-zone VAV applications are capable of running below 320 cfm/ton during low speed airflow operation, but "full" airflow must be set to 320 cfm/ton or higher.
- (b) Fan Sheave BK110X1 3/16 and 1VP50X7/8 Required.
- (c) Fan Sheave BK110X1 3/16 and 1VP56X7/8 Required.

Performance Data

Table 62. Evaporator fan performance—12½ tons—THD150G—dehumidification (hot gas reheat) option

External Static Pressure (Inches of Water)																					
0.1			0.2		0.3		0.4		0.5		0.6		0.7		0.8		0.9		1.0		
cfm	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	
3-hp Standard Motor and Low Static Drive Accessory										3-hp Standard Motor and Drive											
2500 ^(a)	—	—	—	—	369	0.32	416	0.42	458	0.52	496	0.63	530	0.74	561	0.85	591	0.97	618	1.09	
3000 ^(a)	—	—	—	—	383	0.41	429	0.52	470	0.64	508	0.76	543	0.88	575	1.01	606	1.13	634	1.26	
3500 ^(a)	—	—	358	0.42	403	0.53	444	0.64	484	0.77	520	0.90	554	1.04	587	1.18	618	1.32	647	1.47	
4000	—	—	386	0.57	424	0.67	464	0.80	500	0.93	535	1.07	569	1.21	600	1.36	629	1.52	658	1.69	
4500	375	0.62	415	0.75	450	0.86	484	0.99	519	1.13	552	1.28	583	1.42	615	1.58	644	1.75	671	1.92	
5000	407	0.82	446	0.97	479	1.09	510	1.22	540	1.37	572	1.53	602	1.69	630	1.84	658	2.01	686	2.20	
5500	440	1.06	477	1.22	508	1.37	537	1.50	565	1.65	592	1.81	621	1.99	650	2.16	676	2.34	701	2.51	
6000	471	1.34	508	1.52	538	1.69	566	1.84	592	1.99	617	2.15	643	2.32	669	2.51	695	2.71	721	2.90	
													3-hp Standard Motor and High Static Drive Accessory ^(b)								
Continued																					
External Static Pressure (Inches of Water)																					
1.1			1.2		1.3		1.4		1.5		1.6		1.7		1.8		1.9		2.0		
cfm	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	
3-hp Standard Motor and High Static Drive Accessory ^(b)										3-hp Standard Motor and High Static Drive Accessory ^(c)											
2500 ^(a)	645	1.22	670	1.35	694	1.48	718	1.61	740	1.75	762	1.88	783	2.02	803	2.17	823	2.31	843	2.46	
3000 ^(a)	660	1.40	686	1.54	710	1.69	733	1.83	755	1.98	777	2.13	798	2.28	819	2.44	839	2.60	858	2.76	
3500 ^(a)	674	1.61	700	1.76	725	1.91	749	2.07	771	2.23	793	2.39	814	2.56	834	2.73	854	2.90	873	3.07	
4000	686	1.85	712	2.02	737	2.18	762	2.35	785	2.51	808	2.68	830	2.86	850	3.04	870	3.22	889	3.41	
4500	698	2.10	724	2.28	749	2.47	773	2.65	797	2.84	820	3.02	842	3.21	863	3.39	884	3.58	904	3.77	
5000	712	2.38	737	2.57	762	2.76	785	2.97	809	3.17	831	3.38	853	3.58	875	3.79	895	3.99	916	4.20	
5500	727	2.70	753	2.90	776	3.10	799	3.31	822	3.52	844	3.74	865	3.96	886	4.19	907	4.42	927	4.64	
6000	744	3.09	767	3.28	791	3.49	815	3.71	837	3.92	858	4.15	879	4.37	899	4.60	919	4.84	939	5.08	
5-hp Oversized Motor and Drive																					

Continued

External Static Pressure (Inches of Water)																					
		1.1		1.2		1.3		1.4		1.5		1.6		1.7		1.8		1.9		2.0	
cfm	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	
3-hp Standard Motor and High Static Drive Accessory ^(b)											3-hp Standard Motor and High Static Drive Accessory ^(c)										
2500 ^(a)	645	1.22	670	1.35	694	1.48	718	1.61	740	1.75	762	1.88	783	2.02	803	2.17	823	2.31	843	2.46	
3000 ^(a)	660	1.40	686	1.54	710	1.69	733	1.83	755	1.98	777	2.13	798	2.28	819	2.44	839	2.60	858	2.76	
3500 ^(a)	674	1.61	700	1.76	725	1.91	749	2.07	771	2.23	793	2.39	814	2.56	834	2.73	854	2.90	873	3.07	
4000	686	1.85	712	2.02	737	2.18	762	2.35	785	2.51	808	2.68	830	2.86	850	3.04	870	3.22	889	3.41	
4500	698	2.10	724	2.28	749	2.47	773	2.65	797	2.84	820	3.02	842	3.21	863	3.39	884	3.58	904	3.77	
5000	712	2.38	737	2.57	762	2.76	785	2.97	809	3.17	831	3.38	853	3.58	875	3.79	895	3.99	916	4.20	
5500	727	2.70	753	2.90	776	3.10	799	3.31	822	3.52	844	3.74	865	3.96	886	4.19	907	4.42	927	4.64	
6000	744	3.09	767	3.28	791	3.49	815	3.71	837	3.92	858	4.15	879	4.37	899	4.60	919	4.84	939	5.08	
5-hp Oversized Motor and Drive																					

Notes:

1. For Standard Evaporator Fan Speed (rpm), reference [Table 82, p. 114](#).
2. For High Evaporator Fan Speed (rpm), reference [Table 83, p. 114](#).
3. For Oversized Evaporator Fan Speed (rpm), reference [Table 84, p. 115](#).
4. Fan motor heat (MBh) = 3.15 x Fan bhp.
5. Data includes pressure drop due to standard filters and wet coils. No accessories or options are included in pressure drop data.
6. For all non-standard sheave combinations, please refer to accessory installer's guides ACC-SVN34*-EN and ACC-SVN72*-EN.
7. Factory supplied motors, in commercial equipment, are definite purpose motors, specifically designed and tested to operate reliably and continuously at all cataloged conditions. Using the full horsepower range of our fan motors as shown in our tabular data will not result in nuisance tripping or premature motor failure. Our product's warranty will not be affected.

(a) Unit applications below 320 cfm/ton are only applicable to Constant Volume THD models without electric heat and YHD models equipped with modulating gas heat. See below for restrictions:

- Electric heaters on applications below 320 cfm/ton.
- Froststat and Crankcase heaters are required on applications below 320 cfm/ton.
- Multi-speed, single zone VAV or multi-zone VAV applications are capable of running below 320 cfm/ton during low speed airflow operation, but "full" airflow must be set to 320 cfm/ton or higher.

(b) Fan Sheave BK110X1 3/16 and 1VP50X7/8 Required.

(c) Fan Sheave BK110X1 3/16 and 1VP56X7/8 Required.

Performance Data

Table 63. Evaporator fan performance—12½ tons—YH*150G

External Static Pressure (Inches of Water)																				
0.1			0.2		0.3		0.4		0.5		0.6		0.7		0.8		0.9		1.0	
cfm	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp
3-hp Standard Motor and Low Static Drive Accessory									3-hp Standard Motor and Drive											
2500 ^(a)	263	0.15	322	0.23	375	0.33	421	0.44	463	0.56	501	0.68	536	0.80	568	0.92	599	1.04	627	1.16
3000 ^(a)	292	0.23	344	0.33	393	0.43	436	0.55	477	0.69	515	0.82	549	0.96	582	1.10	612	1.23	640	1.36
3500 ^(a)	324	0.35	369	0.45	413	0.57	455	0.71	494	0.84	529	0.99	563	1.14	595	1.29	626	1.43	655	1.57
4000	358	0.51	398	0.62	437	0.75	475	0.89	512	1.03	547	1.18	579	1.33	609	1.48	639	1.63	668	1.78
4500	392	0.71	429	0.84	464	0.97	499	1.11	532	1.25	566	1.41	597	1.55	627	1.70	655	1.85	682	2.00
5000	427	0.95	462	1.09	493	1.22	525	1.36	556	1.51	587	1.66	617	1.80	645	1.95	673	2.10	700	2.25
5500	462	1.23	496	1.38	525	1.51	553	1.64	582	1.79	610	1.93	638	2.08	666	2.23	692	2.38	718	2.54
6000	497	1.53	530	1.69	558	1.83	584	1.96	610	2.09	636	2.24	662	2.39	688	2.56	713	2.73	738	2.92
3-hp Standard Motor and High Static Drive Accessory ^(b)																				

Continued

External Static Pressure (Inches of Water)																					
		1.1		1.2		1.3		1.4		1.5		1.6		1.7		1.8		1.9		2.0	
cfm	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	
3-hp Standard Motor and High Static Drive Accessory ^(b)												3-hp Standard Motor and High Static Drive Accessory ^(c)									
2500 ^(a)	655	1.28	681	1.40	706	1.51	730	1.63	754	1.74	776	1.85	798	1.96	820	2.07	839	2.17	860	2.28	
3000 ^(a)	668	1.49	694	1.62	719	1.74	743	1.87	766	1.98	790	2.11	811	2.22	833	2.35	852	2.46	873	2.59	
3500 ^(a)	681	1.71	708	1.85	732	1.97	756	2.10	780	2.24	803	2.37	824	2.50	846	2.65	866	2.79	887	2.96	
4000	695	1.93	721	2.07	746	2.22	770	2.36	794	2.50	816	2.66	838	2.82	859	3.00	879	3.20	899	3.44	
4500	708	2.15	735	2.31	760	2.47	784	2.63	807	2.81	830	3.01	852	3.24	873	3.50	893	3.79	913	4.18	
5000	725	2.41	750	2.57	773	2.75	798	2.97	821	3.20	843	3.47	865	3.81	887	4.22	907	4.71	926	5.27	
5500	744	2.73	767	2.92	790	3.14	813	3.41	836	3.75	857	4.16	878	4.65	900	5.31	920	6.07	940	7.01	
6000	761	3.14	786	3.42	809	3.74	831	4.15	852	4.64	873	5.25	894	6.07	913	6.97	934	8.19	954	9.61	
5-hp Oversized Motor and Drive																					

Notes:

1. For Standard Evaporator Fan Speed (rpm), reference [Table 82, p. 114](#).
2. For High Evaporator Fan Speed (rpm), reference [Table 83, p. 114](#).
3. For Oversized Evaporator Fan Speed (rpm), reference [Table 84, p. 115](#).
4. Fan motor heat (MBh) = 3.15 x Fan bhp.
5. Data includes pressure drop due to standard filters and wet coils. No accessories or options are included in pressure drop data.
6. For all non-standard sheave combinations, please refer to accessory installer's guides ACC-SVN34*-EN and ACC-SVN72*-EN.
7. Refer to [Table 85, p. 115](#) to determine additional static pressure drop due to other options/accessories.
8. Factory supplied motors, in commercial equipment, are definite purpose motors, specifically designed and tested to operate reliably and continuously at all cataloged conditions. Using the full horsepower range of our fan motors as shown in our tabular data will not result in nuisance tripping or premature motor failure. Our product's warranty will not be affected.

(a) Unit applications below 320 cfm/ton are only applicable to Constant Volume THD models without electric heat and YHD models equipped with modulating gas heat. See below for restrictions:

- Electric heaters on applications below 320 cfm/ton.
- Froststat and Crankcase heaters are required on applications below 320 cfm/ton.
- Multi-speed, single zone VAV or multi-zone VAV applications are capable of running below 320 cfm/ton during low speed airflow operation, but "full" airflow must be set to 320 cfm/ton or higher.

(b) Fan Sheave BK110X1 3/16 and 1VP50X7/8 Required.

(c) Fan Sheave BK110X1 3/16 and 1VP56X7/8 Required.

Table 64. Evaporator fan performance—12½ tons—YHD150G—dehumidification (hot gas reheat) option

External Static Pressure (Inches of Water)																					
0.1		0.2		0.3		0.4		0.5		0.6		0.7		0.8		0.9		1.0			
cfm	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	
3-hp Standard Motor and Low Static Drive Accessory									3-hp Standard Motor and Drive												
2500 ^(a)	—	—	—	—	374	0.33	420	0.43	462	0.54	500	0.64	534	0.75	565	0.87	594	0.99	621	1.11	
3000 ^(a)	—	—	—	—	391	0.43	436	0.54	476	0.65	513	0.78	548	0.90	580	1.03	610	1.15	638	1.29	
3500 ^(a)	—	—	368	0.44	412	0.55	453	0.67	492	0.79	528	0.93	561	1.07	593	1.21	624	1.36	653	1.50	
4000	356	0.49	397	0.60	435	0.71	474	0.84	509	0.96	545	1.11	577	1.25	608	1.41	638	1.57	666	1.74	
4500	390	0.67	428	0.79	462	0.90	496	1.04	531	1.18	563	1.33	594	1.48	625	1.64	653	1.81	681	1.98	
5000	425	0.89	460	1.02	492	1.15	522	1.28	554	1.43	585	1.60	614	1.76	642	1.91	671	2.09	698	2.27	
5500	460	1.15	493	1.30	523	1.44	552	1.58	579	1.73	607	1.90	636	2.08	664	2.26	689	2.43	714	2.61	
6000	495	1.45	527	1.63	555	1.78	582	1.93	608	2.09	633	2.25	659	2.44	685	2.64	711	2.83	736	3.02	
3-hp Standard Motor and Drive									3-hp Standard Motor and High Static Drive Accessory ^(b)												
Continued																					
External Static Pressure (Inches of Water)																					
1.1		1.2		1.3		1.4		1.5		1.6		1.7		1.8		1.9		2.0			
cfm	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	
3-hp Standard Motor and High Static Drive Accessory ^(b)											3-hp Standard Motor and High Static Drive Accessory ^(c)										
2500 ^(a)	648	1.23	673	1.36	697	1.49	720	1.62	742	1.76	764	1.90	785	2.04	806	2.18	825	2.33	845	2.47	
3000 ^(a)	664	1.42	689	1.56	713	1.71	737	1.86	759	2.00	781	2.15	802	2.31	822	2.46	842	2.62	861	2.78	
3500 ^(a)	680	1.64	706	1.79	730	1.94	754	2.10	776	2.27	797	2.43	818	2.60	839	2.77	858	2.94	878	3.11	
4000	693	1.90	719	2.06	744	2.23	768	2.39	792	2.56	814	2.73	835	2.91	855	3.09	875	3.27	894	3.46	
4500	707	2.16	733	2.35	758	2.53	782	2.72	805	2.90	827	3.09	849	3.27	870	3.46	891	3.65	911	3.84	
5000	723	2.46	748	2.65	772	2.85	795	3.05	818	3.26	841	3.47	862	3.67	884	3.88	904	4.08	924	4.28	
5500	741	2.81	765	3.01	788	3.21	811	3.42	833	3.63	855	3.85	876	4.08	897	4.31	917	4.53	937	4.76	
6000	758	3.21	782	3.41	806	3.62	829	3.84	850	4.06	871	4.28	892	4.51	912	4.75	932	4.99	951	5.24	
5-hp Oversized Motor and Drive																					

Notes:

1. For Standard Evaporator Fan Speed (rpm), reference [Table 82, p. 114](#).
2. For High Evaporator Fan Speed (rpm), reference [Table 83, p. 114](#).
3. For Oversized Evaporator Fan Speed (rpm), reference [Table 84, p. 115](#).
4. Fan motor heat (MBh) = 3.15 x Fan bhp.
5. Data includes pressure drop due to standard filters and wet coils. No accessories or options are included in pressure drop data.
6. For all non-standard sheave combinations, please refer to accessory installer's guides ACC-SVN34*-EN and ACC-SVN72*-EN.
7. Refer to [Table 85, p. 115](#) to determine additional static pressure drop due to other options/accessories.
8. Factory supplied motors, in commercial equipment, are definite purpose motors, specifically designed and tested to operate reliably and continuously at all cataloged conditions. Using the full horsepower range of our fan motors as shown in our tabular data will not result in nuisance tripping or premature motor failure. Our product's warranty will not be affected.

(a) Unit applications below 320 cfm/ton are only applicable to Constant Volume THD models without electric heat and YHD models equipped with modulating gas heat. See below for restrictions:

- Electric heaters on applications below 320 cfm/ton.
- Froststat and Crankcase heaters are required on applications below 320 cfm/ton.
- Multi-speed, single zone VAV or multi-zone VAV applications are capable of running below 320 cfm/ton during low speed airflow operation, but "full" airflow must be set to 320 cfm/ton or higher.

(b) Fan Sheave BK110X1 3/16 and 1VP50X7/8 Required.

(c) Fan Sheave BK110X1 3/16 and 1VP56X7/8 Required.



External Static Pressure (Inches of Water)																					
		0.1		0.2		0.3		0.4		0.5		0.6		0.7		0.8		0.9		1.0	
cfm	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	
3-hp Standard Motor and Low Static Drive Accessory											3-hp Standard Motor and Drive										
3000 ^(a)	-	-	-	-	369	0.38	411	0.47	448	0.57	483	0.68	514	0.78	543	0.89	570	1.00	596	1.11	
3600 ^(a)	-	-	-	-	391	0.50	429	0.61	465	0.72	499	0.84	530	0.96	560	1.08	587	1.21	614	1.33	
4200 ^(a)	-	-	378	0.55	416	0.66	451	0.78	485	0.90	516	1.03	547	1.16	575	1.30	603	1.44	629	1.58	
4800	370	0.62	408	0.74	443	0.87	476	0.99	507	1.12	537	1.26	565	1.40	593	1.55	619	1.71	645	1.86	
5400	405	0.84	439	0.97	472	1.11	502	1.25	532	1.39	560	1.54	587	1.69	613	1.85	638	2.01	662	2.18	
6000	440	1.11	472	1.25	502	1.40	531	1.56	558	1.72	584	1.87	610	2.03	635	2.20	659	2.37	682	2.54	
6600	476	1.43	505	1.58	533	1.74	560	1.92	586	2.09	611	2.26	635	2.44	659	2.61	682	2.79	704	2.97	
7200	512	1.81	539	1.98	565	2.15	590	2.33	615	2.52	639	2.71	661	2.90	683	3.08	706	3.28	727	3.47	
											3-hp Standard Motor and High Static Drive Accessory ^(b)									5-hp Oversized Motor and Drive	

External Static Pressure (Inches of Water)																					
		1.1		1.2		1.3		1.4		1.5		1.6		1.7		1.8		1.9		2.0	
cfm	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	
3-hp Standard Motor and High Static Drive Accessory ^(b)													3HP Standard Motor and High Static Drive Accessory ^(c)								
3000 ^(a)	620	1.23	643	1.35	664	1.47	684	1.59	703	1.72	722	1.86	740	1.99	757	2.13	775	2.27	791	2.41	
3600 ^(a)	638	1.46	662	1.59	684	1.73	705	1.86	726	2.00	746	2.14	765	2.28	784	2.42	801	2.57	817	2.72	
4200 ^(a)	654	1.73	678	1.87	701	2.02	723	2.17	744	2.32	764	2.47	784	2.62	802	2.78	821	2.94	839	3.10	
4800	670	2.02	693	2.18	716	2.34	738	2.51	760	2.67	780	2.84	800	3.01	820	3.18	838	3.35	856	3.52	
5400	686	2.35	709	2.52	732	2.70	753	2.88	775	3.06	795	3.24	815	3.42	835	3.61	854	3.80	872	3.98	
6000	705	2.73	727	2.91	749	3.10	770	3.29	790	3.48	810	3.68	830	3.88	850	4.08	869	4.28	887	4.48	
6600	725	3.16	747	3.35	767	3.55	788	3.75	808	3.96	827	4.17	846	4.37	865	4.59	884	4.80	902	5.02	
7200	748	3.66	768	3.86	788	4.07	808	4.28	827	4.49	846	4.71	864	4.93	883	5.15	900	5.38	918	5.61	
5-hp Oversized Motor and Drive																					

1. For Standard Evaporator Fan Speed (rpm), reference [Table 82, p. 114](#).
2. For High Evaporator Fan Speed (rpm), reference [Table 83, p. 114](#).
3. For Oversized Evaporator Fan Speed (rpm), reference [Table 84, p. 115](#).
4. Fan motor heat (MBh) = $3.15 \times \text{Fan bhp}$.
5. Data includes pressure drop due to standard filters and wet coils. No accessories or options are included in pressure drop data.
6. For all non-standard sheave combinations, please refer to accessory installer's guides ACC-SVN34*-EN and ACC-SVN72*-EN.
7. Factory supplied motors, in commercial equipment, are definite purpose motors, specifically designed and tested to operate reliably and continuously at all cataloged conditions. Using the full horsepower range of our fan motors as shown in our tabular data will not result in nuisance tripping or premature motor failure. Our product's warranty will not be affected.

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Performance Data

Table 66. Evaporator fan performance—15 tons—THD180G—dehumidification (hot gas reheat) option

External Static Pressure (Inches of Water)																					
		0.1		0.2		0.3		0.4		0.5		0.6		0.7		0.8		0.9		1.0	
cfm	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	
3-hp Standard Motor and Low Static Drive Accessory												3-hp Standard Motor and Drive									
3000(a)	—	—	—	—	—	—	387	0.49	424	0.61	458	0.72	489	0.84	516	0.96	541	1.08	565	1.20	
3600(a)	—	—	—	—	367	0.51	407	0.63	441	0.76	472	0.89	502	1.02	532	1.16	559	1.30	584	1.44	
4200(a)	—	—	354	0.54	391	0.67	426	0.80	460	0.94	492	1.08	520	1.23	546	1.38	572	1.54	598	1.70	
4800	—	—	383	0.73	418	0.86	449	1.01	480	1.15	510	1.31	540	1.48	567	1.65	591	1.81	614	1.98	
5400	371	0.82	412	0.97	446	1.11	476	1.26	504	1.43	531	1.59	558	1.76	585	1.94	611	2.13	635	2.32	
6000	403	1.08	441	1.25	475	1.41	504	1.57	530	1.74	555	1.93	580	2.11	604	2.29	629	2.48	653	2.69	
6600	435	1.39	472	1.59	504	1.78	532	1.94	558	2.12	582	2.31	605	2.51	628	2.71	650	2.91	672	3.11	
7200	467	1.75	502	1.98	533	2.19	561	2.38	587	2.56	610	2.76	632	2.97	653	3.19	674	3.41	694	3.62	
3-hp Standard Motor and High Static Drive Accessory ^(b)																5-hp Oversized Motor and Drive					

Continued

External Static Pressure (Inches of Water)																							
		1.1		1.2		1.3		1.4		1.5		1.6		1.7		1.8		1.9		2.0			
cfm	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp			
3-hp Standard Motor and Drive					3-hp Standard Motor and High Static Drive Accessory ^(b)																	3-hp Standard Motor and High Static Drive Accessory ^(c)	
3000 ^(a)	587	1.32	609	1.44	629	1.57	649	1.70	668	1.83	687	1.97	705	2.11	723	2.25	740	2.39	758	2.54			
3600 ^(a)	608	1.58	629	1.72	650	1.87	670	2.01	689	2.16	708	2.30	725	2.45	743	2.61	760	2.76	776	2.92			
4200 ^(a)	623	1.86	647	2.03	669	2.19	690	2.36	709	2.52	728	2.68	746	2.85	764	3.01	781	3.18	797	3.35			
4800	636	2.16	659	2.34	682	2.52	704	2.71	726	2.90	746	3.09	765	3.28	783	3.46	801	3.65	817	3.83			
5400	656	2.51	677	2.70	698	2.89	717	3.09	738	3.29	758	3.50	778	3.71	798	3.92	817	4.13	835	4.34			
6000	676	2.90	698	3.11	718	3.32	737	3.53	756	3.74	774	3.95	792	4.17	810	4.40	829	4.63	847	4.86			
6600	694	3.33	716	3.56	737	3.79	758	4.02	777	4.25	795	4.48	812	4.71	829	4.94	846	5.18	862	5.42			
7200	715	3.84	735	4.06	755	4.30	775	4.55	795	4.80	814	5.05	833	5.31	849.90	5.56	—	—	—	—			
5-hp Oversized Motor and Drive																							

Notes:

1. For Standard Evaporator Fan Speed (rpm), reference [Table 82, p. 114](#).
2. For High Evaporator Fan Speed (rpm), reference [Table 83, p. 114](#).
3. For Oversized Evaporator Fan Speed (rpm), reference [Table 84, p. 115](#).
4. Fan motor heat (MBh) = 3.15 x Fan bhp.
5. Data includes pressure drop due to standard filters and wet coils. No accessories or options are included in pressure drop data.
6. For all non-standard sheave combinations, please refer to accessory installer's guides ACC-SVN34*-EN and ACC-SVN72*-EN.
7. Factory supplied motors, in commercial equipment, are definite purpose motors, specifically designed and tested to operate reliably and continuously at all cataloged conditions. Using the full horsepower range of our fan motors as shown in our tabular data will not result in nuisance tripping or premature motor failure. Our product's warranty will not be affected.

- (a) Unit applications below 320 cfm/ton are only applicable to Constant Volume THD models without electric heat and YHD models equipped with modulating gas heat. See below for restrictions:
- Electric heaters on applications below 320 cfm/ton.
 - Froststat and Crankcase heaters are required on applications below 320 cfm/ton.
 - Multi-speed, single zone VAV or multi-zone VAV applications are capable of running below 320 cfm/ton during low speed airflow operation, but "full" airflow must be set to 320 cfm/ton or higher.
- (b) Fan Sheave BK110X1 3/16 and 1VP50X7/8 Required.
- (c) Fan Sheave BK110X1 3/16 and 1VP56X7/8 Required.



Performance Data

Table 67. Evaporator fan performance—15 tons—YH*180G

External Static Pressure (Inches of Water)																					
		0.1		0.2		0.3		0.4		0.5		0.6		0.7		0.8		0.9		1.0	
cfm	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	
3-hp Standard Motor and Low Static Drive Accessory									3-hp Standard Motor and Drive												
3000 ^(a)	-	-	-	-	376	0.39	417	0.49	454	0.59	488	0.69	519	0.80	547	0.91	574	1.02	600	1.13	
3600 ^(a)	-	-	359	0.42	400	0.52	438	0.63	473	0.75	506	0.87	537	0.99	566	1.11	594	1.24	619	1.36	
4200 ^(a)	-	-	390	0.59	427	0.70	462	0.81	495	0.94	526	1.07	555	1.21	584	1.34	611	1.48	637	1.63	
4800	386	0.66	422	0.79	456	0.92	489	1.04	519	1.18	548	1.32	577	1.46	604	1.61	630	1.77	655	1.92	
5400	422	0.90	456	1.04	487	1.18	517	1.32	546	1.47	574	1.62	600	1.77	626	1.93	651	2.09	675	2.26	
6000	460	1.19	491	1.34	520	1.50	548	1.66	574	1.81	601	1.97	626	2.14	650	2.30	673	2.48	696	2.66	
6600	498	1.54	526	1.70	554	1.87	580	2.05	605	2.22	629	2.39	653	2.57	676	2.75	699	2.93	720	3.11	
7200	536	1.96	562	2.13	588	2.31	613	2.50	636	2.69	659	2.88	681	3.07	703	3.26	725	3.45	746	3.65	
									3-hp Standard Motor and High Static Drive Accessory ^(b)										5-hp Oversized Motor and Drive		

Continued

External Static Pressure (Inches of Water)																					
		1.1		1.2		1.3		1.4		1.5		1.6		1.7		1.8		1.9		2.0	
cfm	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	
3-hp Standard Motor and High Static Drive Accessory ^(b)													3HP Standard Motor and High Static Drive Accessory ^(c)								
3000 ^(a)	624	1.25	646	1.36	667	1.49	687	1.62	706	1.74	725	1.88	743	2.01	760	2.15	777	2.29	794	2.43	
3600 ^(a)	643	1.49	667	1.62	689	1.76	710	1.89	731	2.03	750	2.17	769	2.31	788	2.45	804	2.60	821	2.76	
4200 ^(a)	662	1.77	685	1.92	708	2.07	729	2.21	750	2.37	770	2.52	789	2.67	808	2.83	826	2.99	844	3.14	
4800	679	2.08	703	2.24	725	2.41	747	2.57	768	2.74	789	2.91	808	3.08	827	3.25	845	3.42	863	3.59	
5400	698	2.44	721	2.61	743	2.79	764	2.97	785	3.15	806	3.33	825	3.52	845	3.70	863	3.89	881	4.08	
6000	719	2.84	741	3.03	762	3.22	783	3.41	803	3.61	823	3.80	842	4.00	862	4.20	880	4.40	898	4.61	
6600	742	3.30	763	3.50	783	3.70	803	3.91	823	4.11	842	4.32	861	4.54	879	4.75	897	4.97	915	5.19	
7200	766	3.84	786	4.05	806	4.26	825	4.47	844	4.68	863	4.91	881	5.13	899	5.36	916	5.58	-	-	
5-hp Oversized Motor and Drive																					

Notes:

1. For Standard Evaporator Fan Speed (rpm), reference [Table 82, p. 114](#).
2. For High Evaporator Fan Speed (rpm), reference [Table 83, p. 114](#).
3. For Oversized Evaporator Fan Speed (rpm), reference [Table 84, p. 115](#).
4. Fan motor heat (MBh) = 3.15 x Fan bhp.
5. Data includes pressure drop due to standard filters and wet coils. No accessories or options are included in pressure drop data.
6. For all non-standard sheave combinations, please refer to accessory installer's guides ACC-SVN34*-EN and ACC-SVN72*-EN.
7. Factory supplied motors, in commercial equipment, are definite purpose motors, specifically designed and tested to operate reliably and continuously at all cataloged conditions. Using the full horsepower range of our fan motors as shown in our tabular data will not result in nuisance tripping or premature motor failure. Our product's warranty will not be affected.

- (a) Unit applications below 320 cfm/ton are only applicable to Constant Volume THD models without electric heat and YHD models equipped with modulating gas heat. See below for restrictions:
- Electric heaters on applications below 320 cfm/ton.
 - Froststat and Crankcase heaters are required on applications below 320 cfm/ton.
 - Multi-speed, single zone VAV or multi-zone VAV applications are capable of running below 320 cfm/ton during low speed airflow operation, but "full" airflow must be set to 320 cfm/ton or higher.
- (b) Fan Sheave BK110X1 3/16 and 1VP50X7/8 Required.
- (c) Fan Sheave BK110X1 3/16 and 1VP56X7/8 Required.

Performance Data

Table 68. Evaporator fan performance—15 tons—YHD180G—dehumidification (hot gas reheat) option

External Static Pressure (Inches of Water)																				
0.1			0.2		0.3		0.4		0.5		0.6		0.7		0.8		0.9		1.0	
cfm	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp
3-hp Standard Motor and Low Static Drive Accessory											3-hp Standard Motor and Drive									
3000 ^(a)	—	—	—	—	355	0.40	393	0.51	429	0.63	463	0.74	493	0.86	520	0.98	545	1.10	568	1.22
3600 ^(a)	—	—	—	—	377	0.53	415	0.66	448	0.79	478	0.91	509	1.05	538	1.19	565	1.33	590	1.47
4200 ^(a)	—	—	366	0.58	402	0.71	436	0.84	470	0.98	501	1.13	528	1.28	554	1.43	580	1.59	606	1.75
4800	358	0.66	397	0.78	430	0.92	461	1.07	492	1.21	522	1.38	551	1.54	576	1.71	600	1.88	623	2.05
5400	393	0.90	430	1.04	461	1.19	490	1.35	517	1.51	545	1.67	572	1.85	598	2.04	623	2.23	646	2.41
6000	428	1.19	463	1.35	493	1.51	520	1.68	546	1.86	571	2.04	595	2.22	619	2.41	644	2.61	667	2.82
6600	463	1.54	496	1.73	525	1.90	552	2.07	576	2.26	599	2.46	622	2.66	644	2.86	666	3.06	688	3.27
7200	499	1.96	531	2.18	559	2.36	584	2.55	607	2.74	630	2.95	651	3.17	672	3.38	692	3.60	713	3.82
3-hp Standard Motor and High Static Drive Accessory ^(b)																5-hp Oversized Motor and Drive				
Continued																				
External Static Pressure (Inches of Water)																				
1.1			1.2		1.3		1.4		1.5		1.6		1.7		1.8		1.9		2.0	
cfm	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp
3-hp Standard Motor and Drive					3-hp Standard Motor and High Static Drive Accessory ^(b)															3HP Standard Motor and High Static Drive Accessory ^(c)
3000 ^(a)	591	1.34	612	1.46	632	1.59	652	1.72	671	1.86	690	1.99	708	2.13	725	2.27	743	2.42	761	2.56
3600 ^(a)	613	1.61	634	1.76	655	1.90	674	2.04	693	2.19	712	2.34	729	2.49	746	2.64	763	2.79	780	2.95
4200 ^(a)	631	1.91	654	2.08	676	2.24	696	2.40	715	2.57	734	2.73	752	2.90	769	3.07	786	3.23	802	3.41
4800	645	2.23	668	2.41	691	2.60	713	2.79	734	2.98	754	3.16	772	3.35	790	3.54	807	3.72	824	3.91
5400	667	2.60	687	2.79	708	2.99	728	3.19	748	3.40	768	3.60	788	3.81	807	4.03	826	4.24	844	4.45
6000	690	3.03	711	3.24	730	3.45	749	3.66	767	3.87	785	4.09	803	4.31	822	4.54	840	4.77	858	5.00
6600	711	3.50	732	3.73	753	3.96	772	4.20	790	4.42	808	4.66	825	4.88	841	5.12	858	5.36	874	5.60
7200	733	4.04	753	4.28	773	4.52	793	4.77	812	5.02	831	5.28	848.25	5.53	—	—	—	—	—	—
5-hp Oversized Motor and Drive																				

Notes:

1. For Standard Evaporator Fan Speed (rpm), reference [Table 82, p. 114](#).
2. For High Evaporator Fan Speed (rpm), reference [Table 83, p. 114](#).
3. For Oversized Evaporator Fan Speed (rpm), reference [Table 84, p. 115](#).
4. Fan motor heat (MBh) = 3.15 x Fan bhp.
5. Data includes pressure drop due to standard filters and wet coils. No accessories or options are included in pressure drop data.
6. For all non-standard sheave combinations, please refer to accessory installer's guides ACC-SVN34*-EN and ACC-SVN72*-EN.
7. Factory supplied motors, in commercial equipment, are definite purpose motors, specifically designed and tested to operate reliably and continuously at all cataloged conditions. Using the full horsepower range of our fan motors as shown in our tabular data will not result in nuisance tripping or premature motor failure. Our product's warranty will not be affected.

- (a) Unit applications below 320 cfm/ton are only applicable to Constant Volume THD models without electric heat and YHD models equipped with modulating gas heat. See below for restrictions:
- Electric heaters on applications below 320 cfm/ton.
 - Froststat and Crankcase heaters are required on applications below 320 cfm/ton.
 - Multi-speed, single zone VAV or multi-zone VAV applications are capable of running below 320 cfm/ton during low speed airflow operation, but "full" airflow must be set to 320 cfm/ton or higher.
- (b) Fan Sheave BK110X1 3/16 and 1VP50X7/8 Required.
- (c) Fan Sheave BK110X1 3/16 and 1VP56X7/8 Required.



Performance Data

Table 69. Evaporator fan performance— 17½ tons — TH*210G

External Static Pressure (Inches of Water)																				
0.1			0.2		0.3		0.4		0.5		0.6		0.7		0.8		0.9		1.0	
cfm	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp
5-hp Standard Motor and Low Static Drive Accessory																				
3500 ^(a)	—	—	—	—	—	—	—	—	—	—	470	0.86	501	1.00	531	1.13	558	1.27	582	1.41
4200 ^(a)	—	—	—	—	—	—	—	—	462	0.94	494	1.09	521	1.24	547	1.39	573	1.54	599	1.71
4900 ^(a)	—	—	—	—	—	—	455	1.06	485	1.20	515	1.36	544	1.53	572	1.70	596	1.88	619	2.05
5600	—	—	—	—	458	1.21	487	1.37	514	1.54	541	1.71	567	1.88	593	2.07	619	2.26	643	2.46
6300	—	—	459	1.43	492	1.60	520	1.76	546	1.94	570	2.13	594	2.32	618	2.51	641	2.70	664	2.91
7000	460	1.65	495	1.86	526	2.07	554	2.24	580	2.42	603	2.63	625	2.83	646	3.05	668	3.25	689	3.47
7700	498	2.13	531	2.38	562	2.62	589	2.82	614	3.02	637	3.22	658	3.44	678	3.66	698	3.90	717	4.13
8400	537	2.71	568	2.99	597	3.26	624	3.50	648	3.71	670	3.93	692	4.15	711	4.38	730	4.63	748	4.88
5-hp Standard Motor and Drive												5-hp Standard Motor and High Static Drive Accessory								
Continued																				
External Static Pressure (Inches of Water)																				
1.1			1.2		1.3		1.4		1.5		1.6		1.7		1.8		1.9		2.0	
cfm	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp
5-hp Standard Motor and Drive												5-hp Standard Motor and High Static Drive Accessory								
3500 ^(a)	605	1.54	627	1.68	648	1.82	667	1.96	686	2.11	705	2.25	723	2.40	740	2.55	757	2.70	773	2.86
4200 ^(a)	624	1.87	648	2.04	670	2.20	691	2.36	710	2.53	729	2.69	747	2.86	765	3.03	782	3.19	798	3.36
4900 ^(a)	641	2.22	663	2.41	686	2.59	708	2.79	729	2.98	750	3.17	769	3.36	788	3.55	805	3.74	822	3.93
5600	665	2.65	686	2.85	706	3.05	725	3.25	745	3.45	764	3.66	784	3.88	803	4.09	822	4.31	841	4.54
6300	687	3.13	709	3.35	730	3.57	750	3.79	768	4.01	786	4.23	804	4.46	821	4.69	838	4.92	856	5.15
7000	710	3.68	731	3.91	752	4.15	772	4.40	792	4.64	811	4.89	828	5.14	845	5.38	861	5.62	878	5.87
7700	737	4.36	756	4.59	775	4.83	794	5.07	813	5.33	832	5.60	850	5.87	868	6.14	886	6.41	902	6.68
8400	767	5.14	784	5.38	802	5.63	820	5.89	837	6.15	854	6.41	872	6.68	889	6.97	907	7.26	924	7.55
7.5-hp Oversized Motor and Drive																				

Notes:

1. For Standard Evaporator Fan Speed (rpm), reference [Table 82, p. 114](#).
2. For High Evaporator Fan Speed (rpm), reference [Table 83, p. 114](#).
3. For Oversized Evaporator Fan Speed (rpm), reference [Table 84, p. 115](#).
4. Fan motor heat (MBh) = 3.15 x Fan bhp.
5. Data includes pressure drop due to standard filters and wet coils. No accessories or options are included in pressure drop data.
6. For all non-standard sheave combinations, please refer to accessory installer's guides ACC-SVN34*-EN and ACC-SVN72*-EN.
7. Factory supplied motors, in commercial equipment, are definite purpose motors, specifically designed and tested to operate reliably and continuously at all cataloged conditions. Using the full horsepower range of our fan motors as shown in our tabular data will not result in nuisance tripping or premature motor failure. Our product's warranty will not be affected.

- (a) Unit applications below 320 cfm/ton are only applicable to Constant Volume THD models without electric heat and YHD models equipped with modulating gas heat. See below for restrictions:
- Electric heaters on applications below 320 cfm/ton.
 - Froststat and Crankcase heaters are required on applications below 320 cfm/ton.
 - Multi-speed, single zone VAV or multi-zone VAV applications are capable of running below 320 cfm/ton during low speed airflow operation, but "full" airflow must be set to 320 cfm/ton or higher.

Performance Data

Table 70. Evaporator fan performance — 17½ tons — THD210G — dehumidification (hot gas reheat) option

External Static Pressure (Inches of Water)																					
		0.1		0.2		0.3		0.4		0.5		0.6		0.7		0.8		0.9		1.0	
cfm	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	
												5HP Standard Motor and Low Static Drive Accessory				5HP Standard Motor and Drive					
3500 ^(a)	—	—	—	—	—	—	—	—	—	—	470	0.86	501	1.00	531	1.13	558	1.27	582	1.41	
4200 ^(a)	—	—	—	—	—	—	—	—	462	0.94	494	1.09	521	1.24	547	1.39	573	1.54	599	1.71	
4900 ^(a)	—	—	—	—	—	—	455	1.06	485	1.20	515	1.36	544	1.53	572	1.70	596	1.88	619	2.05	
5600	—	—	—	—	458	1.21	487	1.37	514	1.54	541	1.71	567	1.88	593	2.07	619	2.26	643	2.46	
6300	—	—	459	1.43	492	1.60	520	1.76	546	1.94	570	2.13	594	2.32	618	2.51	641	2.70	664	2.91	
7000	460	1.65	495	1.86	526	2.07	554	2.24	580	2.42	603	2.63	625	2.83	646	3.05	668	3.25	689	3.47	
7700	498	2.13	531	2.38	562	2.62	589	2.82	614	3.02	637	3.22	658	3.44	678	3.66	698	3.90	717	4.13	
8400	537	2.71	568	2.99	597	3.26	624	3.50	648	3.71	670	3.93	692	4.15	711	4.38	730	4.63	748	4.88	
														5HP Standard Motor and High Static Drive Accessory							

Continued

External Static Pressure (Inches of Water)																					
1.1			1.2		1.3		1.4		1.5		1.6		1.7		1.8		1.9		2.0		
cfm	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	
5HP Standard Motor and Drive											5HP Standard Motor and High Static Drive Accessory										
3500 ^(a)	605	1.54	627	1.68	648	1.82	667	1.96	686	2.11	705	2.25	723	2.40	740	2.55	757	2.70	773	2.86	
4200 ^(a)	624	1.87	648	2.04	670	2.20	691	2.36	710	2.53	729	2.69	747	2.86	765	3.03	782	3.19	798	3.36	
4900 ^(a)	641	2.22	663	2.41	686	2.59	708	2.79	729	2.98	750	3.17	769	3.36	788	3.55	805	3.74	822	3.93	
5600	665	2.65	686	2.85	706	3.05	725	3.25	745	3.45	764	3.66	784	3.88	803	4.09	822	4.31	841	4.54	
6300	687	3.13	709	3.35	730	3.57	750	3.79	768	4.01	786	4.23	804	4.46	821	4.69	838	4.92	856	5.15	
7000	710	3.68	731	3.91	752	4.15	772	4.40	792	4.64	811	4.89	828	5.14	845	5.38	861	5.62	878	5.87	
7700	737	4.36	756	4.59	775	4.83	794	5.07	813	5.33	832	5.60	850	5.87	868	6.14	886	6.41	902	6.68	
8400	767	5.14	784	5.38	802	5.63	820	5.89	837	6.15	854	6.41	872	6.68	889	6.97	907	7.26	924	7.55	
7.5HP Oversized Motor and Drive																					

Notes:

1. For Standard Evaporator Fan Speed (rpm), reference [Table 82, p. 114](#).
2. For High Evaporator Fan Speed (rpm), reference [Table 83, p. 114](#).
3. For Oversized Evaporator Fan Speed (rpm), reference [Table 84, p. 115](#).
4. Fan motor heat (MBh) = 3.15 x Fan bhp.
5. Data includes pressure drop due to standard filters and wet coils. No accessories or options are included in pressure drop data.
6. For all non-standard sheave combinations, please refer to accessory installer's guides ACC-SVN34*-EN and ACC-SVN72*-EN.
7. Factory supplied motors, in commercial equipment, are definite purpose motors, specifically designed and tested to operate reliably and continuously at all cataloged conditions. Using the full horsepower range of our fan motors as shown in our tabular data will not result in nuisance tripping or premature motor failure. Our product's warranty will not be affected.

(a) Unit applications below 320 cfm/ton are only applicable to Constant Volume THD models without electric heat and YHD models equipped with modulating gas heat. See below for restrictions:

- Electric heaters on applications below 320 cfm/ton.
- Froststat and Crankcase heaters are required on applications below 320 cfm/ton.
- Multi-speed, single zone VAV or multi-zone VAV applications are capable of running below 320 cfm/ton during low speed airflow operation, but "full" airflow must be set to 320 cfm/ton or higher.

Performance Data

Table 71. Evaporator fan performance—17½ tons—YH*210G

External Static Pressure (Inches of Water)																					
		0.1		0.2		0.3		0.4		0.5		0.6		0.7		0.8		0.9		1.0	
cfm	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	
5-hp Standard Motor and Low Static Drive Accessory												5-hp Standard Motor and Drive									
3500 ^(a)	—	—	—	—	—	—	—	—	—	—	476	0.89	508	1.02	537	1.16	563	1.30	587	1.43	
4200 ^(a)	—	—	—	—	—	—	—	—	—	472	0.99	502	1.14	529	1.28	555	1.43	581	1.59	607	1.76
4900 ^(a)	—	—	—	—	—	—	468	1.12	497	1.27	527	1.43	556	1.60	582	1.78	605	1.95	628	2.12	
5600	—	—	—	—	474	1.29	501	1.46	528	1.63	555	1.80	581	1.98	607	2.17	632	2.37	655	2.56	
6300	—	—	482	1.55	512	1.71	538	1.88	563	2.07	587	2.26	610	2.45	634	2.64	657	2.84	680	3.06	
7000	490	1.84	522	2.04	550	2.22	576	2.39	599	2.59	621	2.80	643	3.01	665	3.22	686	3.43	707	3.65	
7700	532	2.39	562	2.62	589	2.83	614	3.02	637	3.22	658	3.44	679	3.67	698	3.90	718	4.13	737	4.36	
8400	574	3.03	603	3.30	629	3.55	653	3.76	675	3.97	696	4.20	715	4.43	734	4.68	752	4.93	770	5.18	
												5-hp Standard Motor and High Static Drive Accessory									

Continued

External Static Pressure (Inches of Water)																					
1.1			1.2		1.3		1.4		1.5		1.6		1.7		1.8		1.9		2.0		
cfm	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	
5-hp Standard Motor and Drive											5-hp Standard Motor and High Static Drive Accessory										
3500 ^(a)	610	1.57	631	1.71	652	1.85	672	1.99	690	2.14	709	2.28	726	2.43	744	2.58	760	2.73	777	2.89	
4200 ^(a)	632	1.92	655	2.09	677	2.25	697	2.41	716	2.58	735	2.74	753	2.91	770	3.08	787	3.24	803	3.42	
4900 ^(a)	650	2.30	673	2.48	695	2.67	717	2.86	738	3.06	758	3.25	777	3.44	795	3.63	812	3.82	829	4.01	
5600	677	2.76	697	2.96	717	3.15	736	3.36	755	3.56	775	3.78	795	3.99	814	4.21	832	4.43	850	4.65	
6300	702	3.28	724	3.50	744	3.72	762	3.94	781	4.17	798	4.39	816	4.61	833	4.84	850	5.08	868	5.32	
7000	727	3.88	748	4.11	769	4.36	789	4.60	808	4.85	826	5.10	843	5.34	859	5.59	875	5.83	891	6.08	
7700	756	4.59	775	4.83	794	5.08	813	5.34	832	5.60	851	5.87	869	6.15	886	6.41	903	6.69	918	6.96	
8400	788	5.44	806	5.69	824	5.95	841	6.21	858	6.46	876	6.74	893	7.03	910	7.32	927	7.61	944	7.91	
7.5-hp Oversized Motor and Drive																					

Notes:

1. For Standard Evaporator Fan Speed (rpm), reference [Table 82, p. 114](#).
2. For High Evaporator Fan Speed (rpm), reference [Table 83, p. 114](#).
3. For Oversized Evaporator Fan Speed (rpm), reference [Table 84, p. 115](#).
4. Fan motor heat (MBh) = 3.15 x Fan bhp.
5. Data includes pressure drop due to standard filters and wet coils. No accessories or options are included in pressure drop data.
6. For all non-standard sheave combinations, please refer to accessory installer's guides ACC-SVN34*-EN and ACC-SVN72*-EN.
7. Refer to [Table 85, p. 115](#) to determine additional static pressure drop due to other options/accessories.
8. Factory supplied motors, in commercial equipment, are definite purpose motors, specifically designed and tested to operate reliably and continuously at all cataloged conditions. Using the full horsepower range of our fan motors as shown in our tabular data will not result in nuisance tripping or premature motor failure. Our product's warranty will not be affected.

- (a) Unit applications below 320 cfm/ton are only applicable to Constant Volume THD models without electric heat and YHD models equipped with modulating gas heat. See below for restrictions:
- Electric heaters on applications below 320 cfm/ton.
 - Froststat and Crankcase heaters are required on applications below 320 cfm/ton.
 - Multi-speed, single zone VAV or multi-zone VAV applications are capable of running below 320 cfm/ton during low speed airflow operation, but "full" airflow must be set to 320 cfm/ton or higher.

Performance Data

Table 72. Evaporator fan performance — 17½ tons — YHD210G — dehumidification (hot gas reheat) option

External Static Pressure (Inches of Water)																					
0.1			0.2		0.3		0.4		0.5		0.6		0.7		0.8		0.9		1.0		
cfm	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	
					5HP Standard Motor and Low Static Drive Accessory				5HP Standard Motor and Drive												
5600	—	—	—	—	474	1.29	501	1.46	528	1.63	555	1.80	581	1.98	607	2.17	632	2.37	655	2.56	
6300	—	—	482	1.55 ^(a)	512	1.71	538	1.88	563	2.07	587	2.26	610	2.45	634	2.64	657	2.84	680	3.06	
7000	490	1.84 ^(a)	522	2.04	550	2.22	576	2.39	599	2.59	621	2.80	643	3.01	665	3.22	686	3.43	707	3.65	
7700	532	2.39	562	2.62	589	2.83	614	3.02	637	3.22	658	3.44	679	3.67	698	3.90	718	4.13	737	4.36	
8400	574	3.03	603	3.30	629	3.55	653	3.76	675	3.97	696	4.20	715	4.43	734	4.68	752	4.93	770	5.18	
												5HP Standard Motor and High Static Drive Accessory									
Continued																					
External Static Pressure (Inches of Water)																					
1.1			1.2		1.3		1.4		1.5		1.6		1.7		1.8		1.9		2.0		
cfm	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	
			5HP Standard Motor and High Static Drive Accessory																		
5600	677	2.76 ^(b)	697	2.96	717	3.15	736	3.36	755	3.56	775	3.78	795	3.99	814	4.21	832	4.43	850	4.65	
6300	702	3.28	724	3.50	744	3.72	762	3.94	781	4.17	798	4.39	816	4.61	833	4.84	850	5.08	868	5.32	
7000	727	3.88	748	4.11	769	4.36	789	4.60	808	4.85	826	5.10	843	5.34	859	5.59	875	5.83	891	6.08	
7700	756	4.59	775	4.83	794	5.08	813	5.34	832	5.60	851	5.87	869	6.15	886	6.41	903	6.69	918	6.96	
8400	788	5.44	806	5.69	824	5.95	841	6.21	858	6.46	876	6.74	893	7.03	910	7.32	927	7.61	944	7.91	
7.5HP Oversized Motor and Drive																					

Notes:

1. For Standard Evaporator Fan Speed (rpm), reference [Table 82, p. 114](#).
2. For High Evaporator Fan Speed (rpm), reference [Table 83, p. 114](#).
3. For Oversized Evaporator Fan Speed (rpm), reference [Table 84, p. 115](#).
4. Fan motor heat (MBh) = 3.15 x Fan bhp.
5. Data includes pressure drop due to standard filters and wet coils. No accessories or options are included in pressure drop data.
6. For all non-standard sheave combinations, please refer to accessory installer's guides ACC-SVN34*-EN and ACC-SVN72*-EN.
7. Refer to [Table 85, p. 115](#) to determine additional static pressure drop due to other options/accessories.
8. Factory supplied motors, in commercial equipment, are definite purpose motors, specifically designed and tested to operate reliably and continuously at all cataloged conditions. Using the full horsepower range of our fan motors as shown in our tabular data will not result in nuisance tripping or premature motor failure. Our product's warranty will not be affected.

(a) 5HP Standard Motor and Low Static Drive Accessory

(b) 5HP Standard Motor and Drive



Performance Data

Table 73. Evaporator fan performance—20 tons—TH*240G

External Static Pressure (Inches of Water)																					
		0.1		0.2		0.3		0.4		0.5		0.6		0.7		0.8		0.9		1.0	
cfm	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	
5-hp Standard Motor and Low Static Drive Accessory												5-hp Standard Motor and Drive									
4000 ^(a)	—	—	—	—	—	—	—	—	456	0.88	486	1.02	514	1.16	541	1.31	569	1.46	595	1.62	
4800 ^(a)	—	—	—	—	—	—	451	1.02	481	1.16	512	1.32	541	1.49	568	1.66	592	1.82	615	1.99	
5600 ^(a)	—	—	—	—	458	1.21	487	1.37	514	1.54	541	1.71	567	1.88	593	2.07	619	2.26	643	2.46	
6400	—	—	464	1.49	497	1.66	525	1.82	551	2.00	575	2.20	598	2.39	622	2.58	645	2.78	667	2.98	
7200	470	1.77	505	2.00	536	2.21	564	2.40	589	2.58	612	2.78	634	3.00	655	3.21	676	3.43	697	3.65	
8000	514	2.37	547	2.63	577	2.87	603	3.10	628	3.30	651	3.51	672	3.73	692	3.96	711	4.20	730	4.44	
8800	560	3.10	590	3.38	618	3.65	644	3.92	667	4.16	690	4.39	711	4.61	731	4.84	749	5.09	767	5.35	
9600	606	3.97	633	4.27	660	4.59	685	4.88	708	5.15	729	5.42	750	5.66	769	5.91	788	6.16	805	6.42	
5-hp Standard Motor and High Static Drive Accessory											7.5-hp Oversized Motor and Field Supplied Motor Sheave ^(b)										

Continued

External Static Pressure (Inches of Water)																					
1.1			1.2		1.3		1.4		1.5		1.6		1.7		1.8		1.9		2.0		
cfm	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	
5-hp Standard Motor and Drive											5-hp Standard Motor and High Static Drive Accessory										
4000 ^(a)	620	1.78	643	1.93	664	2.09	685	2.25	704	2.40	722	2.56	740	2.72	758	2.88	775	3.05	791	3.21	
4800 ^(a)	638	2.17	661	2.35	684	2.54	706	2.72	727	2.91	747	3.10	767	3.29	785	3.48	802	3.66	819	3.85	
5600 ^(a)	665	2.65	686	2.85	706	3.05	725	3.25	745	3.45	764	3.66	784	3.88	803	4.09	822	4.31	841	4.54	
6400	690	3.20	712	3.43	733	3.65	753	3.88	772	4.10	790	4.32	807	4.55	824	4.78	841	5.01	858	5.25	
7200	717	3.86	737	4.09	758	4.33	778	4.58	798	4.83	817	5.08	835	5.34	852	5.59	868	5.84	885	6.10	
8000	749	4.68	768	4.92	786	5.16	804	5.41	823	5.66	841	5.93	859	6.20	877	6.48	895	6.76	912	7.04	
8800	784	5.61	802	5.89 ^(b)	819	6.15	836	6.41	853	6.67	869	6.95	886	7.21	902	7.49	919	7.78	936	8.09	
9600	822	6.69	839	6.98	854	7.26	870	7.55	886	7.85	901	8.13	917	8.42	—	—	—	—	—	—	
7.5-hp Oversized Motor and Drive							7.5-hp Oversized Motor and Field Supplied Motor Sheave ^(c)														

Notes:

1. For Standard Evaporator Fan Speed (rpm), reference [Table 82, p. 114](#).
2. For High Evaporator Fan Speed (rpm), reference [Table 83, p. 114](#).
3. For Oversized Evaporator Fan Speed (rpm), reference [Table 84, p. 115](#).
4. Fan motor heat (MBh) = 3.15 x Fan bhp.
5. Field Supplied Fan Sheave BK190 Required. Field Supplied Belt may be necessary.
6. For all non-standard sheave combinations, please refer to accessory installer's guides ACC-SVN34*-EN and ACC-SVN72*-EN.
7. Refer to [Table 85, p. 115](#) to determine additional static pressure drop due to other options/accessories.
8. Data includes pressure drop due to standard filters and wet coils. No accessories or options are included in pressure drop data.
9. Factory supplied motors, in commercial equipment, are definite purpose motors, specifically designed and tested to operate reliably and continuously at all cataloged conditions. Using the full horsepower range of our fan motors as shown in our tabular data will not result in nuisance tripping or premature motor failure. Our product's warranty will not be affected.

(a) Unit applications below 320 cfm/ton are only applicable to Constant Volume THD models without electric heat and YHD models equipped with modulating gas heat. See below for restrictions:

- Electric heaters on applications below 320 cfm/ton.
- Froststat and Crankcase heaters are required on applications below 320 cfm/ton.
- Multi-speed, single zone VAV or multi-zone VAV applications are capable of running below 320 cfm/ton during low speed airflow operation, but "full" airflow must be set to 320 cfm/ton or higher.

(b) 7.5-hp Oversized Motor and Field Supplied Motor Sheave^(c)

(c) Field supplied motor sheave 1VP50 x 1 1/8 required.

Table 74. Evaporator fan performance—20 tons—THD240G—dehumidification (hot gas reheat) option

External Static Pressure (Inches of Water)																					
	0.1		0.2		0.3		0.4		0.5		0.6		0.7		0.8		0.9		1.0		
cfm	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	
5-hp Standard Motor and Low Static Drive Accessory													5-hp Standard Motor and Drive								
4000 ^(a)	—	—	—	—	—	—	—	—	454	0.88	485	1.01	513	1.16	540	1.30	568	1.46	594	1.61	
4800 ^(a)	—	—	—	—	—	—	449	1.01	480	1.15	510	1.31	540	1.48	567	1.65	591	1.81	614	1.98	
5600 ^(a)	—	—	—	—	456	1.20	485	1.36	512	1.53	539	1.70	565	1.87	591	2.05	617	2.24	641	2.44	
6400	—	—	461	1.47	494	1.65	523	1.81	549	1.99	573	2.18	596	2.37	619	2.56	642	2.76	665	2.96	
7200	467	1.75	502	1.98	533	2.19	561	2.38	587	2.56	610	2.76	632	2.97	653	3.19	674	3.41	694	3.62	
8000	511	2.35	544	2.60	573	2.85	601	3.08	625	3.28	648	3.48	670	3.70	690	3.93	709	4.16	728	4.41	
8800	556	3.06	586	3.34	614	3.62	640	3.89	664	4.13	687	4.36	708	4.58	728	4.80	746	5.05	764	5.31	
9600	601	3.91	629	4.22	656	4.53	680	4.82	704	5.12	726	5.38	746	5.62	766	5.87	784	6.10	802	6.37	
5-hp Standard Motor and High Static Drive Accessory										7.5-hp Oversized Motor and Field Supplied Motor Sheave ^(b)											
Continued																					
External Static Pressure (Inches of Water)																					
	1.1		1.2		1.3		1.4		1.5		1.6		1.7		1.8		1.9		2.0		
cfm	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	
5-hp Standard Motor and Drive										5-hp Standard Motor and High Static Drive Accessory											
4000 ^(a)	619	1.77	642	1.93	663	2.08	683	2.24	703	2.39	721	2.55	739	2.71	757	2.87	774	3.04	790	3.20	
4800 ^(a)	636	2.16	659	2.34	682	2.52	704	2.71	726	2.90	746	3.09	765	3.28	783	3.46	801	3.65	817	3.83	
5600 ^(a)	663	2.64	684	2.83	704	3.03	724	3.23	743	3.43	763	3.64	782	3.86	802	4.08	821	4.29	839	4.51	
6400	688	3.18	710	3.40	731	3.63	751	3.85	770	4.08	788	4.30	805	4.52	822	4.75	839	4.98	856	5.22	
7200	715	3.84	735	4.06	755	4.30	775	4.55	795	4.80	814	5.05	833	5.31	850	5.56	866	5.81	882	6.06	
8000	747	4.65	765	4.89	784	5.12	802	5.37	820	5.62	838	5.89	856	6.16	874	6.44	892	6.71	909	7.00	
8800	782	5.57	799	5.84 ^(c)	816	6.10	833	6.36	850	6.63	866	6.89	883	7.16	899	7.44	916	7.73	933	8.03	
9600	819	6.64	835	6.92	851	7.21	867	7.49	883	7.79	898	8.08	914	8.36	—	—	—	—	—	—	
7.5-hp Oversized Motor and Field Supplied Motor Sheave ^(b)												7.5-hp Oversized Motor and Drive									

Continued

External Static Pressure (Inches of Water)																					
		1.1		1.2		1.3		1.4		1.5		1.6		1.7		1.8		1.9		2.0	
cfm	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	
5-hp Standard Motor and Drive									5-hp Standard Motor and High Static Drive Accessory												
4000 ^(a)	619	1.77	642	1.93	663	2.08	683	2.24	703	2.39	721	2.55	739	2.71	757	2.87	774	3.04	790	3.20	
4800 ^(a)	636	2.16	659	2.34	682	2.52	704	2.71	726	2.90	746	3.09	765	3.28	783	3.46	801	3.65	817	3.83	
5600 ^(a)	663	2.64	684	2.83	704	3.03	724	3.23	743	3.43	763	3.64	782	3.86	802	4.08	821	4.29	839	4.51	
6400	688	3.18	710	3.40	731	3.63	751	3.85	770	4.08	788	4.30	805	4.52	822	4.75	839	4.98	856	5.22	
7200	715	3.84	735	4.06	755	4.30	775	4.55	795	4.80	814	5.05	833	5.31	850	5.56	866	5.81	882	6.06	
8000	747	4.65	765	4.89	784	5.12	802	5.37	820	5.62	838	5.89	856	6.16	874	6.44	892	6.71	909	7.00	
8800	782	5.57	799	5.84 ^(c)	816	6.10	833	6.36	850	6.63	866	6.89	883	7.16	899	7.44	916	7.73	933	8.03	
9600	819	6.64	835	6.92	851	7.21	867	7.49	883	7.79	898	8.08	914	8.36	—	—	—	—	—	—	
7.5-hp Oversized Motor and Field Supplied Motor Sheave ^(b)												7.5-hp Oversized Motor and Drive									

Notes:

- For Standard Evaporator Fan Speed (rpm), reference [Table 82, p. 114](#).
 - For High Evaporator Fan Speed (rpm), reference [Table 83, p. 114](#).
 - For Oversized Evaporator Fan Speed (rpm), reference [Table 84, p. 115](#).
 - Fan motor heat (MBh) = 3.15 x Fan bhp.
 - Data includes pressure drop due to standard filters and wet coils. No accessories or options are included in pressure drop data.
 - For all non-standard sheave combinations, please refer to accessory installer's guides ACC-SVN34*-EN and ACC-SVN72*-EN.
 - Factory supplied motors, in commercial equipment, are definite purpose motors, specifically designed and tested to operate reliably and continuously at all cataloged conditions. Using the full horsepower range of our fan motors as shown in our tabular data will not result in nuisance tripping or premature motor failure. Our product's warranty will not be affected.
- (a) Unit applications below 320 cfm/ton are only applicable to Constant Volume THD models without electric heat and YHD models equipped with modulating gas heat. See below for restrictions:
- Electric heaters on applications below 320 cfm/ton.
 - Frostat and Crankcase heaters are required on applications below 320 cfm/ton.
 - Multi-speed, single zone VAV or multi-zone VAV applications are capable of running below 320 cfm/ton during low speed airflow operation, but "full" airflow must be set to 320 cfm/ton or higher.
- (b) Field supplied motor sheave 1VP50 x 1 1/8 required.
- (c) 7.5-hp Oversized Motor and Field Supplied Motor Sheave^(b)



Performance Data

Table 75. Evaporator fan performance—20 tons—YH*240G

External Static Pressure (Inches of Water)																					
0.1			0.2		0.3		0.4		0.5		0.6		0.7		0.8		0.9		1.0		
cfm	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	
5-hp Standard Motor and Low Static Drive Accessory												5-hp Standard Motor and Drive									
4000 ^(a)	—	—	—	—	—	—	—	—	465	0.92	494	1.06	522	1.20	549	1.35	576	1.51	602	1.66	
4800 ^(a)	—	—	—	—	—	—	463	1.07	493	1.22	524	1.39	552	1.56	578	1.72	601	1.89	624	2.06	
5600 ^(a)	—	—	—	—	474	1.29	501	1.46	528	1.63	555	1.80	581	1.98	607	2.17	632	2.37	655	2.56	
6400	454	1.43	487	1.61	517	1.77	544	1.95	568	2.14	591	2.33	615	2.52	638	2.72	661	2.92	684	3.14	
7200	502	1.98	533	2.19	561	2.38	587	2.56	610	2.76	632	2.97	653	3.19	674	3.41	695	3.63	715	3.84	
8000	550	2.64	579	2.89	606	3.12	631	3.32	653	3.53	674	3.75	694	3.98	713	4.22	732	4.47	751	4.70	
8800	599	3.46	627	3.75	652	4.00	675	4.23	697	4.45	718	4.69	737	4.93	755	5.18	773	5.44	790	5.71	
9600	648	4.44	674	4.74	698	5.04	721	5.33	742	5.56	761	5.80	780	6.05	798	6.30	815	6.58	832	6.86	
5-hp Standard Motor and High Static Drive Accessory									7.5-hp Oversized Motor and Field Supplied Motor Sheave ^(b)							7.5-hp Oversized Motor and Drive					

Continued

External Static Pressure (Inches of Water)																					
1.1			1.2		1.3		1.4		1.5		1.6		1.7		1.8		1.9		2.0		
cfm	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	
5-hp Standard Motor Drive									5-hp Standard Motor and High Static Drive Accessory												
4000 ^(a)	627	1.82	649	1.98	670	2.13	690	2.29	709	2.45	728	2.61	745	2.77	763	2.93	779	3.09	796	3.26	
4800 ^(a)	647	2.24	670	2.42	693	2.61	714	2.80	735	2.99	755	3.18	774	3.36	792	3.55	809	3.74	825	3.92	
5600 ^(a)	677	2.76	697	2.96	717	3.15	736	3.36	755	3.56	775	3.78	795	3.99	814	4.21	832	4.43	850	4.65	
6400	706	3.36	727	3.58	748	3.81	766	4.03	784	4.26	802	4.48	819	4.71	836	4.94	853	5.18	870	5.42	
7200	735	4.07	756	4.31	776	4.56	795	4.80	815	5.06	833	5.31	850	5.57	867	5.81	883	6.06	899	6.32	
8000	770	4.94	788	5.18	806	5.44	825	5.69	843	5.96	861	6.23	879	6.51	896	6.79	913	7.07	930	7.36	
8800	807	5.97	825	6.23	841	6.50	858	6.77	875	7.03	891	7.30	908	7.58	925	7.89	941	8.19	958	8.49	
9600	848	7.14	864	7.43	879	7.73	895	8.01	911	8.30	926	8.59	—	—	—	—	—	—	—	—	
7.5-hp Oversized Motor and Drive																					

Notes:

1. For Standard Evaporator Fan Speed (rpm), reference [Table 82, p. 114](#).
 2. For High Evaporator Fan Speed (rpm), reference [Table 83, p. 114](#).
 3. For Oversized Evaporator Fan Speed (rpm), reference [Table 84, p. 115](#).
 4. Fan motor heat (MBh) = 3.15 x Fan bhp.
 5. Data includes pressure drop due to standard filters and wet coils. No accessories or options are included in pressure drop data.
 6. For all non-standard sheave combinations, please refer to accessory installer's guides ACC-SVN34*-EN and ACC-SVN72*-EN.
 7. Factory supplied motors, in commercial equipment, are definite purpose motors, specifically designed and tested to operate reliably and continuously at all cataloged conditions. Using the full horsepower range of our fan motors as shown in our tabular data will not result in nuisance tripping or premature motor failure. Our product's warranty will not be affected.
- (a) Unit applications below 320 cfm/ton are only applicable to Constant Volume THD models without electric heat and YHD models equipped with modulating gas heat. See below for restrictions:
- Electric heaters on applications below 320 cfm/ton.
 - Froststat and Crankcase heaters are required on applications below 320 cfm/ton.
 - Multi-speed, single zone VAV or multi-zone VAV applications are capable of running below 320 cfm/ton during low speed airflow operation, but "full" airflow must be set to 320 cfm/ton or higher.
- (b) Field supplied motor sheave 1VP50 x 1 1/8 required.

Table 76. Evaporator fan performance—20 tons—YHD240G—dehumidification (hot gas reheat) option

External Static Pressure (Inches of Water)																					
		0.1		0.2		0.3		0.4		0.5		0.6		0.7		0.8		0.9		1.0	
cfm	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	
5-hp Standard Motor and Low Static Drive Accessory													5-hp Standard Motor and Drive								
4000 ^(a)	—	—	—	—	—	—	—	—	464	0.91	493	1.05	521	1.20	548	1.34	575	1.50	601	1.66	
4800 ^(a)	—	—	—	—	—	—	—	461	1.07	492	1.21	522	1.38	551	1.54	576	1.71	600	1.88	623	2.05
5600 ^(a)	—	—	—	—	472	1.28	500	1.45	527	1.62	553	1.79	579	1.96	605	2.15	630	2.35	654	2.55	
6400	451	1.42	485	1.60	515	1.76	541	1.93	566	2.12	589	2.32	613	2.51	636	2.70	658	2.90	681	3.12	
7200	499	1.96	531	2.18	559	2.36	584	2.55	607	2.74	630	2.95	651	3.17	672	3.38	692	3.60	713	3.82	
8000	548	2.64	577	2.88	603	3.10	627	3.29	650	3.50	672	3.72	691	3.95	711	4.19	730	4.43	748	4.67	
8800	596	3.45	623	3.71	649	3.97	672	4.21	694	4.43	715	4.66	734	4.89	752	5.13	770	5.39	787	5.66 ^(b)	
9600	645	4.41	670	4.70	694	4.98	717	5.26	738	5.52	758	5.76	777	6.00	795	6.25	812	6.52	829	6.80	
5-hp Standard Motor and High Static Drive Accessory												7.5-hp Oversized Motor and Field Supplied Motor Sheave ^(c)				7.5-hp Oversized Motor and Drive					

Continued

External Static Pressure (Inches of Water)																					
		1.1		1.2		1.3		1.4		1.5		1.6		1.7		1.8		1.9		2.0	
cfm	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	
5-hp Standard Motor Drive									5-hp Standard Motor and High Static Drive Accessory												
4000 ^(a)	626	1.81	648	1.97	669	2.12	689	2.28	708	2.44	726	2.60	744	2.76	762	2.92	778	3.08	795	3.25	
4800 ^(a)	645	2.23	668	2.41	691	2.60	713	2.79	734	2.98	754	3.16	772	3.35	790	3.54	807	3.72	824	3.91	
5600 ^(a)	675	2.74	695	2.94	715	3.14	734	3.34	753	3.54	773	3.76	793	3.97	812	4.19	831	4.41	849	4.63	
6400	704	3.34	725	3.56	746	3.79	764	4.01	783	4.23	800	4.46	817	4.69	834	4.91	851	5.15	868	5.39	
7200	733	4.04	753	4.28	773	4.52	793	4.77	812	5.02	831	5.28	848	5.53	865	5.78	881	6.03	896	6.29	
8000	767	4.91	785	5.15	804	5.40	822	5.65	840	5.92	858	6.19	876	6.46	894	6.75	911	7.03	927	7.31	
8800	805	5.93 ^(d)	822	6.19	839	6.45	855	6.72	872	6.99	888	7.25	905	7.54	922	7.83	938	8.13	955	8.43	
9600	845	7.09	861	7.38	876	7.67	892	7.96	907	8.24	923	8.52	—	—	—	—	—	—	—	—	
7.5-hp Oversized Motor and Field Supplied Motor Sheave ^(c)									7.5-hp Oversized Motor and Drive												

Notes:

1. For Standard Evaporator Fan Speed (rpm), reference [Table 82, p. 114](#).
2. For High Evaporator Fan Speed (rpm), reference [Table 83, p. 114](#).
3. For Oversized Evaporator Fan Speed (rpm), reference [Table 84, p. 115](#).
4. Fan motor heat (MBh) = 3.15 x Fan bhp.
5. Data includes pressure drop due to standard filters and wet coils. No accessories or options are included in pressure drop data.
6. For all non-standard sheave combinations, please refer to accessory installer's guides ACC-SVN34*-EN and ACC-SVN72*-EN.
7. Factory supplied motors, in commercial equipment, are definite purpose motors, specifically designed and tested to operate reliably and continuously at all cataloged conditions. Using the full horsepower range of our fan motors as shown in our tabular data will not result in nuisance tripping or premature motor failure. Our product's warranty will not be affected.

- (a) Unit applications below 320 cfm/ton are only applicable to Constant Volume THD models without electric heat and YHD models equipped with modulating gas heat. See below for restrictions:
 - Electric heaters on applications below 320 cfm/ton.
 - Froststat and Crankcase heaters are required on applications below 320 cfm/ton.
 - Multi-speed, single zone VAV or multi-zone VAV applications are capable of running below 320 cfm/ton during low speed airflow operation, but "full" airflow must be set to 320 cfm/ton or higher.
- (b) 5-hp Standard Motor and High Static Drive Accessory
- (c) Field supplied motor sheave 1VP50 x 1 1/8 required.
- (d) 7.5-hp Oversized Motor and Field Supplied Motor Sheave^(c)



Performance Data

Table 77. Evaporator fan performance—25 tons—TH*300G

External Static Pressure (Inches of Water)																					
		0.1		0.2		0.3		0.4		0.5		0.6		0.7		0.8		0.9		1.0	
cfm	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	
7.5-hp Standard Motor and Drive																					
5000 ^(a)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	575	1.75	599	1.93	622	2.10	
6500 ^(a)	—	—	—	—	—	—	—	—	—	—	579	2.26	603	2.46	626	2.65	648	2.85	671	3.06	
7000 ^(a)	—	—	—	—	—	—	—	—	580	2.42	603	2.63	625	2.83	646	3.05	668	3.25	689	3.47	
7500 ^(a)	—	—	—	—	—	—	579	2.65	604	2.84	627	3.04	648	3.26	669	3.48	689	3.71	709	3.93	
8000	—	—	—	—	577	2.87	603	3.10	628	3.30	651	3.51	672	3.73	692	3.96	711	4.20	730	4.44	
8500	—	—	574	3.09	602	3.34	628	3.60	653	3.83	675	4.04	696	4.25	716	4.49	735	4.74	753	5.00	
9000	572	3.31	600	3.58	628	3.87	654	4.15	678	4.40	700	4.63	720	4.86	740	5.08	759	5.34	777	5.60	
9500	600	3.85	628	4.17	655	4.47	680	4.75	703	5.02	724	5.27	745	5.52	764	5.76	783	6.00	801	6.28	
10000	627	4.42	656	4.78	681	5.09	705	5.41	728	5.71	749	5.99	770	6.26	789	6.50	807	6.76	825	7.02	
10500	657	5.13	683	5.45	708	5.80	731	6.13	753	6.44	775	6.76	794	7.04	813	7.31	831	7.57	849	7.84	
11000	685	5.81	711	6.21	735	6.58	758	6.93	778	7.23	800	7.58	819	7.88	838	8.19	856	8.45	—	—	
7.5-hp Standard Motor and High Static Drive Accessory																					

Continued

External Static Pressure (Inches of Water)										
1.1		1.2		1.3		1.4		1.5		
cfm	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp
7.5-hp Standard Motor and Drive										
5000 ^(a)	644	2.28	666	2.46	688	2.65	710	2.85	731	3.04
6500 ^(a)	693	3.28	715	3.50	736	3.73	757	3.96	775	4.19
7000 ^(a)	710	3.68	731	3.91	752	4.15	772	4.40	792	4.64
7500 ^(a)	729	4.16	748	4.38	768	4.62	787	4.87	807	5.13
8000	749	4.68	768	4.92	786	5.16	804	5.41	823	5.66
8500	771	5.25	789	5.51	806	5.76	824	6.02	841	6.28
9000	794	5.87	811	6.14	827	6.41	844	6.69	861	6.95
9500	817	6.55	834	6.83	850	7.12	866	7.41	882	7.69
10000	841	7.29	857	7.59	873	7.87	888	8.18	904	8.48
10500	865	8.11	881	8.41	—	—	—	—	—	—
11000	—	—	—	—	—	—	—	—	—	—
7.5-hp Standard Motor and High Static Drive Accessory										

Notes:

1. For Standard Evaporator Fan Speed (rpm), reference [Table 82, p. 114](#).
 2. For High Evaporator Fan Speed (rpm), reference [Table 83, p. 114](#).
 3. For Oversized Evaporator Fan Speed (rpm), reference [Table 84, p. 115](#).
 4. Fan motor heat (MBh) = 3.15 x Fan bhp.
 5. Data includes pressure drop due to standard filters and wet coils. No accessories or options are included in pressure drop data.
 6. For all non-standard sheave combinations, please refer to accessory installer's guides ACC-SVN34*-EN and ACC-SVN72*-EN.
 7. Factory supplied motors, in commercial equipment, are definite purpose motors, specifically designed and tested to operate reliably and continuously at all cataloged conditions. Using the full horsepower range of our fan motors as shown in our tabular data will not result in nuisance tripping or premature motor failure. Our product's warranty will not be affected.
- (a) Unit applications below 320 cfm/ton are only applicable to Constant Volume THD models without electric heat and YHD models equipped with modulating gas heat. See below for restrictions:
- Electric heaters on applications below 320 cfm/ton.
 - Froststat and Crankcase heaters are required on applications below 320 cfm/ton.
 - Multi-speed, single zone VAV or multi-zone VAV applications are capable of running below 320 cfm/ton during low speed airflow operation, but "full" airflow must be set to 320 cfm/ton or higher.

Table 78. Evaporator fan performance—25 tons—THD300G—dehumidification (hot gas reheat) option

External Static Pressure (Inches of Water)																					
		0.1		0.2		0.3		0.4		0.5		0.6		0.7		0.8		0.9		1.0	
cfm	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	
7.5-hp Standard Motor and Low Static Drive																					
5000 ^(a)	-	-	-	-	-	-	-	-	-	-	-	-	602	1.57	633	1.73	661	1.89	688	2.05	
6500 ^(a)	-	-	-	-	-	-	587	2.00	614	2.18	640	2.35	665	2.53	690	2.70	714	2.89	739	3.08	
7000 ^(a)	-	-	-	-	588	2.19	616	2.39	641	2.57	666	2.75	690	2.94	713	3.13	736	3.32	759	3.52	
7500 ^(a)	-	-	593	2.42	620	2.63	645	2.82	670	3.02	693	3.21	716	3.41	738	3.61	760	3.82	782	4.02	
8000	597	2.66	625	2.89	650	3.09	674	3.29	698	3.51	722	3.73	743	3.93	765	4.15	785	4.36	806	4.57	
8500	632	3.18	658	3.41	683	3.64	706	3.86	728	4.07	750	4.29	771	4.51	792	4.74	812	4.97	832	5.20	
9000	666	3.74	692	4.00	714	4.22	737	4.46	757	4.67	779	4.92	799	5.15	819	5.39	839	5.64	858	5.88	
9500	701	4.38	726	4.67	746	4.87	769	5.15	788	5.36	808	5.61	828	5.86	847	6.10	866	6.36	885	6.62	
10000	737	5.11	760	5.39	778	5.60	800	5.89	819	6.11	838	6.37	858	6.64	876	6.89	895	7.17	913	7.45	
10500	766	5.76	792	6.15	813	6.44	832	6.70	851	6.96	869	7.21	888	7.50	905	7.75	923	8.05	941	8.33	
11000	806	6.73	824	6.98	844	7.27	864	7.56	883	7.88	900	8.14	918	8.44	-	-	-	-	-	-	
7.5-hp Standard Motor and Drive														7.5-hp Standard Motor and High Static Drive Accessory							

Continued

External Static Pressure (Inches of Water)										
	1.1		1.2		1.3		1.4		1.5	
cfm	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp
	7.5-hp Standard Motor and Low Static Drive				7.5-hp Standard Motor and Drive					
5000 ^(a)	712	2.20	736	2.36	758	2.52	779	2.67	799	2.82
6500 ^(a)	763	3.28	787	3.48	810	3.69	833	3.90	855	4.11
7000 ^(a)	782	3.73	805	3.94	827	4.15	849	4.37	871	4.59
7500 ^(a)	803	4.23	825	4.44	846	4.66	867	4.89	888	5.12
8000	826	4.79	846	5.01	867	5.24	886	5.47	906	5.71
8500	851	5.42	870	5.65	889	5.88	908	6.12	927	6.37
9000	876	6.11	895	6.36	913	6.61	931	6.85	949	7.09
9500	903	6.88	921	7.13	938	7.38	955	7.63	973	7.89
10000	930	7.70	947	7.97	964	8.22	981	8.50	-	-
10500	958	8.60	-	-	-	-	-	-	-	-
11000	-	-	-	-	-	-	-	-	-	-
7.5-hp Standard Motor and High Static Drive Accessory										

Notes:

1. For Standard Evaporator Fan Speed (rpm), reference [Table 82, p. 114](#).
2. For High Evaporator Fan Speed (rpm), reference [Table 83, p. 114](#).
3. For Oversized Evaporator Fan Speed (rpm), reference [Table 84, p. 115](#).
4. Fan motor heat (MBh) = 3.15 x Fan bhp.
5. Data includes pressure drop due to standard filters and wet coils. No accessories or options are included in pressure drop data.
6. For all non-standard sheave combinations, please refer to accessory installer's guides ACC-SVN34*-EN and ACC-SVN72*-EN.
7. Factory supplied motors, in commercial equipment, are definite purpose motors, specifically designed and tested to operate reliably and continuously at all cataloged conditions. Using the full horsepower range of our fan motors as shown in our tabular data will not result in nuisance tripping or premature motor failure. Our product's warranty will not be affected.

(a) Unit applications below 320 cfm/ton are only applicable to Constant Volume THD models without electric heat and YHD models equipped with modulating gas heat. See below for restrictions:

- Electric heaters on applications below 320 cfm/ton.
- Froststat and Crankcase heaters are required on applications below 320 cfm/ton.
- Multi-speed, single zone VAV or multi-zone VAV applications are capable of running below 320 cfm/ton during low speed airflow operation, but "full" airflow must be set to 320 cfm/ton or higher.

Performance Data

Table 79. Evaporator fan performance—25 tons—YH*300G

External Static Pressure (Inches of Water)																					
		0.1		0.2		0.3		0.4		0.5		0.6		0.7		0.8		0.9		1.0	
cfm	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	
7.5-hp Standard Motor and Drive																					
5000 ^(a)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	586	1.83	609	2.00	632	2.18	
6500 ^(a)	—	—	—	—	—	—	—	—	—	—	596	2.41	619	2.60	642	2.80	664	3.00	687	3.22	
7000 ^(a)	—	—	—	—	—	—	—	—	599	2.59	621	2.80	643	3.01	665	3.22	686	3.43	707	3.65	
7500 ^(a)	—	—	—	—	—	—	603	2.83	626	3.03	648	3.25	668	3.47	688	3.70	708	3.92	728	4.15	
8000	—	—	—	—	606	3.12	631	3.32	653	3.53	674	3.75	694	3.98	713	4.22	732	4.47	751	4.70	
8500	582	3.16	609	3.41	635	3.66	658	3.87	680	4.09	701	4.31	721	4.55	739	4.80	757	5.05	775	5.31	
9000	611	3.68	639	3.99	664	4.25	687	4.49	708	4.73	728	4.95	748	5.18	766	5.44	783	5.71	800	5.98	
9500	644	4.36	668	4.60	692	4.89	715	5.16	736	5.41	756	5.66	775	5.89	793	6.15	810	6.43	826	6.71	
10000	676	5.05	698	5.31	722	5.62	744	5.93	764	6.19	784	6.44	802	6.68	820	6.95	837	7.22	853	7.51	
10500	703	5.70	728	6.07	752	6.43	772	6.72	792	7.00	811	7.27	829	7.54	847	7.81	864	8.08	880	8.38	
11000	739	6.65	759	6.93	780	7.27	801	7.58	821	7.92	840	8.23	857	8.48	—	—	—	—	—	—	
7.5-hp Standard Motor and High Static Drive Accessory																					

Continued

External Static Pressure (Inches of Water)									
1.1		1.2		1.3		1.4		1.5	
cfm	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm
7.5-hp Standard Motor and Drive									
5000 ^(a)	653	2.36	675	2.54	697	2.74	719	2.93	740
6500 ^(a)	709	3.44	731	3.67	751	3.90	770	4.13	788
7000 ^(a)	727	3.88	748	4.11	769	4.36	789	4.60	808
7500 ^(a)	748	4.37	767	4.61	787	4.86	806	5.12	825
8000	770	4.94	788	5.18	806	5.44	825	5.69	843
8500	793	5.57	811	5.83	828	6.08	845	6.34	862
9000	817	6.25	834	6.52	851	6.79	867	7.06	884
9500	843	6.99	858	7.27	875	7.57	890	7.84	906
10000	869	7.79	884	8.10	899	8.39	—	—	—
10500	—	—	—	—	—	—	—	—	—
11000	—	—	—	—	—	—	—	—	—
7.5-hp Standard Motor and High Static Drive Accessory									

Notes:

1. For Standard Evaporator Fan Speed (rpm), reference [Table 82, p. 114](#).
 2. For High Evaporator Fan Speed (rpm), reference [Table 83, p. 114](#).
 3. For Oversized Evaporator Fan Speed (rpm), reference [Table 84, p. 115](#).
 4. Fan motor heat (MBh) = 3.15 x Fan bhp.
 5. Data includes pressure drop due to standard filters and wet coils. No accessories or options are included in pressure drop data.
 6. For all non-standard sheave combinations, please refer to accessory installer's guides ACC-SVN34*-EN and ACC-SVN72*-EN.
 7. Factory supplied motors, in commercial equipment, are definite purpose motors, specifically designed and tested to operate reliably and continuously at all cataloged conditions. Using the full horsepower range of our fan motors as shown in our tabular data will not result in nuisance tripping or premature motor failure. Our product's warranty will not be affected.
- (a) Unit applications below 320 cfm/ton are only applicable to Constant Volume THD models without electric heat and YHD models equipped with modulating gas heat. See below for restrictions:
- Electric heaters on applications below 320 cfm/ton.
 - Froststat and Crankcase heaters are required on applications below 320 cfm/ton.
 - Multi-speed, single zone VAV or multi-zone VAV applications are capable of running below 320 cfm/ton during low speed airflow operation, but "full" airflow must be set to 320 cfm/ton or higher.

Performance Data

Table 80. Evaporator fan performance—25 tons—YHD300G—dehumidification (hot gas reheat) option

External Static Pressure (Inches of Water)																				
0.1			0.2		0.3		0.4		0.5		0.6		0.7		0.8		0.9		1.0	
cfm	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp
7.5-hp Standard Motor and Low Static Drive Accessory																				
5000 ^(a)	-	-	-	-	-	-	-	-	-	-	584	1.48	613	1.63	642	1.78	670	1.94	696	2.10
6500 ^(a)	-	-	-	-	-	-	606	2.13	633	2.30	658	2.47	683	2.65	708	2.84	732	3.03	756	3.22
7000 ^(a)	-	-	585	2.17	612	2.36	637	2.54	662	2.72	686	2.91	710	3.10	733	3.30	756	3.49	779	3.70
7500 ^(a)	593	2.44	618	2.60	645	2.82	668	3.01	692	3.20	716	3.41	737	3.60	760	3.81	781	4.01	803	4.23
8000	626	2.88	654	3.12	677	3.32	700	3.53	723	3.75	745	3.95	767	4.17	788	4.38	808	4.60	829	4.82
8500	665	3.48	688	3.68	711	3.90	733	4.13	755	4.35	776	4.57	797	4.80	816	5.02	836	5.25	855	5.47
9000	702	4.11	723	4.31	745	4.54	766	4.78	787	5.02	807	5.26	827	5.49	846	5.73	865	5.97	884	6.21
9500	734	4.72	758	5.01	780	5.27	799	5.49	820	5.77	838	5.99	858	6.27	876	6.50	895	6.76	913	7.02
10000	771	5.49	796	5.83	815	6.09	835	6.34	852	6.55	871	6.82	889	7.10	907	7.35	925	7.63	942	7.89
10500	814	6.50	831	6.68	848	6.90	869	7.23	886	7.46	903	7.73	921	8.00	939	8.30	956	8.57	-	-
11000	848	7.34	866	7.61	885	7.92	903	8.19	920	8.46	-	-	-	-	-	-	-	-	-	-
7.5-hp Standard Motor and Drive							7.5-hp Standard Motor and High Static Drive Accessory													

Continued

External Static Pressure (Inches of Water)										
	1.1		1.2		1.3		1.4		1.5	
cfm	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp
7.5-hp Standard Motor and Drive										
5000 ^(a)	722	2.27 ^(b)	746	2.43	770	2.60	791	2.76	812	2.92
6500 ^(a)	779	3.41	801	3.61	823	3.81	845	4.01	866	4.22
7000 ^(a)	801	3.90	822	4.10	844	4.31	865	4.53	885	4.75
7500 ^(a)	824	4.44	845	4.66	866	4.88	886	5.10	905	5.32
8000	849	5.05	869	5.27	889	5.51	908	5.73	927	5.97
8500	875	5.72	895	5.96	913	6.19	932	6.43	951	6.68
9000	902	6.45	921	6.71	938	6.94	956	7.19	975	7.46
9500	930	7.26	948	7.52	965	7.77	983	8.04	-	-
10000	959	8.15	976	8.41	-	-	-	-	-	-
10500	-	-	-	-	-	-	-	-	-	-
11000	-	-	-	-	-	-	-	-	-	-
7.5-hp Standard Motor and High Static Drive Accessory										

Notes:

1. For Standard Evaporator Fan Speed (rpm), reference [Table 82, p. 114](#).
2. For High Evaporator Fan Speed (rpm), reference [Table 83, p. 114](#).
3. For Oversized Evaporator Fan Speed (rpm), reference [Table 84, p. 115](#).
4. Fan motor heat (MBh) = 3.15 x Fan bhp.
5. Data includes pressure drop due to standard filters and wet coils. No accessories or options are included in pressure drop data.
6. For all non-standard sheave combinations, please refer to accessory installer's guides ACC-SVN34*-EN and ACC-SVN72*-EN.
7. Factory supplied motors, in commercial equipment, are definite purpose motors, specifically designed and tested to operate reliably and continuously at all cataloged conditions. Using the full horsepower range of our fan motors as shown in our tabular data will not result in nuisance tripping or premature motor failure. Our product's warranty will not be affected.

(a) Unit applications below 320 cfm/ton are only applicable to Constant Volume THD models without electric heat and YHD models equipped with modulating gas heat. See below for restrictions:

- Electric heaters on applications below 320 cfm/ton.
- Froststat and Crankcase heaters are required on applications below 320 cfm/ton.
- Multi-speed, single zone VAV or multi-zone VAV applications are capable of running below 320 cfm/ton during low speed airflow operation, but "full" airflow must be set to 320 cfm/ton or higher.

(b) 7.5-hp Standard Motor and Low Static Drive Accessory.



Performance Data

Table 81. Standard motor and drive/fan speed (rpm)

Tons	Unit Model Number	6 Turns Open	5 Turns Open	4 Turns Open	3 Turns Open	2 Turns Open	1 Turn Open	Closed
12½	T/YS*150G3,4,W,K	642	683	725	766	808	849	N/A
	T/YH*150G3,4,W	452	485	518	551	584	619	N/A
15	T/YS*180G3,4,W,K	559	600	642	683	725	766	N/A
	T/YH*180G3,4,W	452	485	518	551	584	619	N/A
17½	T/YS*210G3,4,W,K	605	650	695	740	785	829	N/A
	T/YH*210G3,4,W	506	544	582	620	658	694	N/A
20	T/YS*240G3,4,W,K	605	650	695	740	785	829	N/A
	T/YH*240G3,4,W	506	544	582	620	658	694	N/A
25	T/YS*300G3,4,W,K	694	731	768	805	842	881	N/A
	T/YH*300G3,4,W	581	619	657	695	733	769	N/A
	T/YH*300G3,4,W with Reheat	694	739	784	829	874	919	N/A

Note: Factory set at 3 turns open.

Table 82. Standard motor and low static fan drive

Tons	Unit Model Number	6 Turns Open	5 Turns Open	4 Turns Open	3 Turns Open	2 Turns Open	1 Turn Open	Closed
12½	T/YS*150G3,4,W,K	452	485	518	551	584	619	N/A
	T/YH*150G3,4,W	351	377	403	429	455	480	N/A
15	T/YS*180G3,4,W,K	452	485	518	551	584	619	N/A
	T/YH*180G3,4,W	351	377	403	429	455	480	N/A
17½	T/YS*210G3,4,W,K	506	544	582	620	658	694	N/A
	T/YH*210G3,4,W	450	480	510	540	570	600	N/A
20	T/YS*240G3,4,W,K	506	544	582	620	658	694	N/A
	T/YH*240G3,4,W	450	480	510	540	570	600	N/A
25	T/YS*300G3,4,W,K	581	619	657	695	733	769	N/A
	T/YH*300G3,4,W with Reheat	581	619	657	695	733	769	N/A

Table 83. Standard motor and high static drive accessory sheave/fan speed (rpm)

Tons	Unit Model Number	6 Turns Open	5 Turns Open	4 Turns Open	3 Turns Open	2 Turns Open	1 Turn Open	Closed
12½	T/YS*150G3,4,W,K	766	808	849	891	891	974	N/A
	T/YH*150G3,4,W	619	652	685	718	751	786	N/A
15	T/YS*180G3,4,W,K	719	753	786	820	853	887	N/A
	T/YH*180G3,4,W	619	652	685	718	751	786	N/A
17½	T/YS*210G3,4,W,K	829	874	919	964	1009	1053	N/A
	T/YH*210G3,4,W	694	731	768	805	842	881	N/A
20	T/YS*240G3,4,W,K	829	874	919	964	1009	1053	N/A
	T/YH*240G3,4,W	694	731	768	805	842	881	N/A
25	T/YS*300G3,4,W,K	806	844	882	920	958	994	N/A
	T/YH*300G3,4,W	694	739	784	829	874	919	N/A
	T/YH*300G3,4,W with Reheat	806	844	882	920	958	994	N/A

Table 84. Oversized motor and drive/fan speed (rpm)

Tons	Unit Model Number	6 Turns Open	5 Turns Open	4 Turns Open	3 Turns Open	2 Turns Open	1 Turn Open	Closed
12½	T/YS*150G3,4,W,K	863	919	974	1030	1085	1141	N/A
	T/YH*150G3,4,W	695	747	799	851	903	953	N/A
15	T/YS*180G3,4,W,K	695	747	799	851	903	953	N/A
	T/YH*180G3,4,W	695	747	799	851	903	953	N/A
17½	T/YS*210G3,4,W,K	806	844	882	920	958	994	N/A
	T/YH*210G3,4,W	806	844	882	920	958	994	N/A
20	T/YS*240G3,4,W,K	806	844	882	920	958	994	N/A
	T/YH*240G3,4,W	806	844	882	920	958	994	N/A

Table 85. Static pressure drop through accessories (inches water column)

Tons	Unit Model Number	cfm (a)	Std Filters (b)	Through Reheat Coil	2-in MERV 8 Filter (c)	2-in MERV 13 Filter (c)	Std Economizer with OA/RA Dampers (d)		Low Leak Economizer with OA/RA Dampers (d)		Electric Heater Accessory (kW) (e)			
							100 % OA	100 % RA	100 % OA	100 % RA	14-27	36	54	72
12½	T/YSH150G	4000	0.05	—	0.08	0.12	0.19	0.02	0.27	0.06	0.03	0.03	0.04	—
		5000	0.07	—	0.11	0.15	0.26	0.03	0.42	0.10	0.04	0.05	0.06	—
		6000	0.10	—	0.15	0.19	0.33	0.04	0.61	0.14	0.06	0.07	0.09	—
	T/YSD150G	4000	0.05	—	0.08	0.12	0.19	0.02	0.27	0.18	0.03	0.03	0.04	—
		5000	0.07	—	0.11	0.15	0.26	0.03	0.41	0.29	0.04	0.05	0.06	—
		6000	0.10	—	0.15	0.19	0.33	0.04	0.58	0.44	0.06	0.07	0.09	—
	T/YHH150G	4000	0.02	—	0.04	0.07	0.19	0.02	0.25	0.04	0.03	0.03	0.04	—
		5000	0.03	—	0.05	0.10	0.26	0.03	0.39	0.07	0.04	0.05	0.06	—
		6000	0.05	—	0.07	0.13	0.33	0.04	0.57	0.10	0.06	0.07	0.09	—
	T/YHD150G	2500	0.01	0.00	0.01	0.03	0.07	0.01	0.07	0.04	*	*	*	—
		4000	0.02	0.01	0.04	0.08	0.19	0.02	0.16	0.10	0.03	0.03	0.04	—
		5000	0.03	0.02	0.05	0.11	0.26	0.03	0.24	0.16	0.04	0.05	0.06	—
		6000	0.05	0.03	0.07	0.13	0.33	0.04	0.33	0.24	0.06	0.07	0.09	—
15	T/YSH180G	4800	0.03	—	0.06	0.09	0.14	0.03	0.36	0.06	0.04	0.04	0.05	—
		6000	0.05	—	0.09	0.13	0.20	0.04	0.57	0.10	0.06	0.07	0.08	—
		7200	0.07	—	0.11	0.16	0.27	0.05	0.81	0.14	0.09	0.10	0.12	—
	T/YSD180G	4800	0.04	—	0.07	0.11	0.14	0.03	0.22	0.15	0.04	0.04	0.05	—
		6000	0.06	—	0.10	0.14	0.20	0.04	0.33	0.24	0.06	0.07	0.08	—
		7200	0.09	—	0.13	0.18	0.27	0.05	0.45	0.35	0.09	0.10	0.12	—
	T/YHH180G	4800	0.03	—	0.04	0.06	0.14	0.03	0.36	0.06	0.04	0.04	0.05	—
		6000	0.05	—	0.06	0.1	0.20	0.04	0.57	0.10	0.06	0.07	0.08	—
		7200	0.07	—	0.08	0.13	0.27	0.05	0.81	0.14	0.09	0.10	0.12	—
	T/YHD180G	3000	0.02	0.01	0.02	0.03	0.07	0.03	0.10	0.06	*	*	*	—
		4800	0.04	0.01	0.05	0.08	0.14	0.03	0.22	0.15	0.04	0.04	0.05	—
		6000	0.06	0.02	0.06	0.11	0.2	0.04	0.33	0.24	0.06	0.07	0.08	—
		7200	0.09	0.03	0.08	0.14	0.27	0.05	0.45	0.35	0.09	0.1	0.12	—

Performance Data

Table 85. Static pressure drop through accessories (inches water column) (continued)

Tons	Unit Model Number	cfm ^(a)	Std Filters ^(b)	Through Reheat Coil	2-in MERV 8 Filter ^(c)	2-in MERV 13 Filter ^(c)	Std Economizer with OA/RA Dampers ^(d)		Low Leak Economizer with OA/RA Dampers ^(d)		Electric Heater Accessory (kW) ^(e)			
							100 % OA	100 % RA	100 % OA	100 % RA	14-27	36	54	72
17½	T/YSH210G	5600	0.05	—	0.08	0.11	0.18	0.04	0.49	0.08	—	0.05	0.06	0.07
		7000	0.07	—	0.11	0.15	0.26	0.04	0.77	0.13	—	0.08	0.09	0.11
		8400	0.10	—	0.14	0.18	0.35	0.06	1.11	0.19	—	0.12	0.13	0.16
	T/YSD210G	5600	0.06	—	0.08	0.13	0.18	0.04	0.29	0.21	—	0.05	0.06	0.07
		7000	0.09	—	0.11	0.17	0.26	0.04	0.43	0.33	—	0.08	0.09	0.11
		8400	0.12	—	0.14	0.21	0.35	0.06	0.59	0.48	—	0.12	0.13	0.16
	T/YHH210G	5600	0.03	—	0.05	0.09	0.18	0.04	0.49	0.08	—	0.05	0.06	0.07
		7000	0.05	—	0.08	0.12	0.26	0.04	0.77	0.13	—	0.08	0.09	0.11
		8400	0.07	—	0.10	0.15	0.35	0.06	1.11	0.19	—	0.12	0.13	0.16
	T/YHD210G	3500	0.01	0.04	0.02	0.04	0.09	0.03	0.13	0.08	—	*	*	*
		5600	0.04	0.10	0.05	0.10	0.18	0.04	0.29	0.21	—	0.05	0.06	0.07
		7000	0.06	0.13	0.08	0.13	0.26	0.04	0.43	0.33	—	0.08	0.09	0.11
		8400	0.08	0.16	0.10	0.16	0.35	0.06	0.59	0.48	—	0.12	0.13	0.16
20	T/YSH240G	6400	0.06	—	0.10	0.14	0.22	0.04	0.64	0.11	—	0.06	0.08	0.09
		8000	0.09	—	0.13	0.18	0.32	0.05	1.0	0.17	—	0.10	0.12	0.14
		9600	0.13	—	0.17	0.21	0.44	0.07	1.44	0.24	—	0.14	0.17	0.20
	T/YSD240G	6400	0.07	—	0.11	0.15	0.22	0.04	0.37	0.27	—	0.06	0.08	0.09
		8000	0.11	—	0.15	0.20	0.32	0.05	0.54	0.43	—	0.10	0.12	0.14
		9600	0.16	—	0.20	0.25	0.44	0.07	0.75	0.62	—	0.14	0.17	0.20
	T/YHH240G	6400	0.04	—	0.07	0.11	0.22	0.04	0.64	0.11	—	0.06	0.08	0.09
		8000	0.06	—	0.09	0.14	0.32	0.05	1.0	0.17	—	0.10	0.12	0.14
		9600	0.09	—	0.12	0.18	0.44	0.07	1.44	0.24	—	0.14	0.17	0.20
	T/YHD240G	4000	0.02	0.02	0.03	0.06	0.11	0.03	0.16	0.10	—	*	*	*
		6400	0.05	0.05	0.08	0.12	0.22	0.04	0.37	0.27	—	0.06	0.08	0.09
		8000	0.08	0.07	0.10	0.15	0.32	0.05	0.54	0.43	—	0.10	0.12	0.14
		9600	0.11	0.11	0.14	0.19	0.44	0.07	0.75	0.62	—	0.14	0.17	0.20
25	T/YSH300G	7000	0.07	—	0.11	0.15	0.26	0.04	0.77	0.13	—	0.08	0.10	0.11
		9000	0.11	—	0.15	0.20	0.4	0.07	1.27	0.21	—	0.13	0.15	0.18
		11000	0.17	—	0.22	0.26	0.6	0.1	1.89	0.32	—	0.18	0.22	0.26
	T/YSD300G	7000	0.09	—	0.13	0.17	0.26	0.04	0.43	0.33	—	0.08	0.10	0.11
		9000	0.14	—	0.18	0.23	0.4	0.07	0.67	0.55	—	0.13	0.15	0.18
		11000	0.21	—	0.25	0.32	0.57	0.1	0.95	0.82	—	0.18	0.22	0.26
	T/YHH300G	7000	0.05	—	0.08	0.12	0.26	0.04	0.77	0.13	—	0.08	0.10	0.11
		9000	0.08	—	0.10	0.16	0.4	0.07	1.27	0.21	—	0.13	0.15	0.18
		11000	0.12	—	0.15	0.20	0.6	0.1	1.89	0.32	—	0.18	0.22	0.26
	T/YHD300G	5000	0.03	0.02	0.04	0.08	0.15	0.03	0.24	0.16	—	*	*	*
		7000	0.06	0.04	0.09	0.13	0.26	0.04	0.43	0.33	—	0.08	0.1	0.11
		9000	0.10	0.06	0.12	0.18	0.4	0.07	0.67	0.55	—	0.13	0.15	0.18
		11000	0.10	0.08	0.17	0.22	0.57	0.10	0.95	0.82	—	0.18	0.22	0.26

(a) Unit applications below 320 cfm/ton are only applicable to Constant Volume THD models without electric heat and YHD models equipped with modulating gas heat. See below for restrictions:

- Electric heaters on applications below 320 cfm/ton.
- Froststat and Crankcase heaters are required on applications below 320 cfm/ton.
- Multi-speed, single zone VAV or multi-zone VAV applications are capable of running below 320 cfm/ton during low speed airflow operation, but "full" airflow must be set to 320 cfm/ton or higher.

(b) Tested with: 2-in filters 12½–25 tons.

(c) Difference in pressure drop should be considered when utilizing optional 2-in pleated filters.

(d) OA = Outside Air and RA = Return Air.

(e) Nominal kW ratings at 240, 480, 600 volts.

Table 86. Gas fired heating capacities

Tons	Unit Model Number	Heating Input MBh ^(a)	Heating Output MBh ^(a)	Air Temp. Rise, °F
12½	YS/H*150G-L1	150/100	120/80	10–40
	YS/H*150G-H1	250/175	200/140	25–55
	YS/H*150G-V1	350/140	280/112	35–65
15	YS/H*180G-L1	250/175	200/140	25–55
	YS/H*180G-H1	350/250	280/200	35–65
	YS/H*180G-V1	350/140	280/112	35–65
17½	YS/H*210G-L1	250/175	200/140	25–55
	YS/H*210G-H1	350/250	280/200	35–65
	YS/H*210G-V1	350/140	280/112	35–65
20	YS/H*240G-L1	250/175	200/140	15–45
	YS/H*240G-H1	400/300	320/240	25–55
	YS/H*240G-V1	350/140	280/112	35–65
25	YS/H*300G-L1	250/175	200/140	15–45
	YS/H*300G-H1	400/300	320/240	25–55
	YS/H*300G-V1	350/140	280/112	35–65

(a) For two stage heaters (input or output), second stage is total heating capacity. Second stage/first stage.

Table 87. Auxiliary electric heat capacity

Tons	Unit Model Number	Total ^(a)		No. of Stages	Stage1		Stage 2	
		kW	MBh		kW	MBh	kW	MBh
		Input ^(b)	Output		Input	Output	Input	Output
12½–15	TS/H*150G3,4,W TS/H*180G3,4,W	18.00	61.47	1	18.00	61.47	—	—
		27.00 ^(c)	92.15	2	9.00	30.72	18.00	61.43
		36.00	122.94	2	18.00	61.47	18.00	61.47
		54.00	184.41	2	36.00	122.94	18.00	61.47
17½–25	TS/H*210G3,4,W TS/H*240G3,4,W TS/H*300G3,4,W	36.00	122.94	2	18.00	61.47	18.00	61.47
		54.00	184.41	2	36.00	122.94	18.00	61.47
		72.00	245.88	2	36.00	122.94	36.00	122.94

(a) Heaters are rated at 240V, 380V, 480V, and 600V. For other than rated voltage, CAP = (voltage/rated voltage)² x rated cap.

(b) For all input/output categories, does not include fan power or heat.

(c) 27 kW heater can be used with TSD180F4, TSD210F4, TSD240F4, and TSD300F4 only. Cannot be used with oversized motor.

* Indicates both downflow and horizontal units.

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Table 88. Electric heater voltage correction factors (applicable to auxiliary heat capacity)

Nominal Voltage	Distribution Voltage	Capacity Multiplier
240	208	0.75
	230	0.92
	240	1.00
480	440	0.84
	460	0.94
	480	1.00
600	540	0.81
	575	0.92
	600	1.00

Table 89. Air temperature rise across electric heaters (°F)

kW	Stages	12 ½ Tons 5000 cfm Three Phase TS*150G TH*150G	15 Tons 6000 cfm Three Phase TS*180G TH*180G	17 ½ Tons 7000 cfm Three Phase TS*210G TH*210G	20 Tons 8000 cfm Three Phase TS*240G TH*240G	25 Ton 9000 cfm Three Phase TS*300G TH*300G
9.00	1	—	—	—	—	—
17.30	1	—	—	—	—	—
18.00	1	11.4	9.5	—	—	—
27.00	2	—	14.2 ^(a)	12.2	10.7	9.5
36.00	2	22.8	19.0	16.3	14.2	12.6
54.00	2	34.1	28.5	24.4	21.3	19.0
72.00	2	—	—	32.5	28.5	25.3

Notes:

- For minimum design airflow, see airflow performance table for each unit. To calculate temp rise at different airflow, use the following formula:
Temp. rise across Electric Heater = kW x 3414/1.08 x cfm.
- * Indicates both downflow and horizontal units.

(a) 27 kW heater can be used with TSD180F4, TSD210F4, TSD240F4, and TSD300F4 only. Cannot be used with oversized motor.

Table 90. Hot gas reheat temperature rise^{(a), (b)}

Tons	SCFM	Leaving Evaporator Dry Bulb [°F] ^(c)						
		35	40	45	50	55	60	65
12 ½	2500	30.6	31.8	32.9	33.8	34.7	35.5	36.2
	3000	25.7	26.8	27.8	28.7	29.5	30.2	30.8
	3500	22.2	23.2	24.1	24.9	25.6	26.3	26.9
	4000	19.4	20.4	21.2	22.0	22.6	23.2	23.8
	4500	17.3	18.2	19.0	19.7	20.3	20.9	21.5
	5000	15.6	16.4	17.2	17.8	18.4	19.0	19.5
	5500	14.2	15.0	15.7	16.3	16.9	17.4	17.9
	6000	13.0	13.8	14.5	15.1	15.6	16.1	16.5

Table 90. Hot gas reheat temperature rise^{(a), (b)} (continued)

Tons	SCFM	Leaving Evaporator Dry Bulb [°F] ^(c)						
		35	40	45	50	55	60	65
15	3000	30.4	31.5	32.5	33.3	34.1	34.9	35.5
	3600	25.4	26.4	27.3	28.1	28.8	29.4	30.0
	4200	21.9	22.8	23.6	24.4	25.1	25.7	26.3
	4800	19.1	20.0	20.8	21.5	22.2	22.7	23.3
	5400	17.0	17.8	18.6	19.2	19.8	20.4	20.9
	6000	15.3	16.1	16.8	17.4	18.0	18.5	19.0
	6600	13.9	14.7	15.3	15.9	16.4	16.9	17.4
	7200	12.7	13.5	14.1	14.7	15.2	15.6	16.1
17½	3500	34.5	37.9	41.5	45.2	48.5	50.6	50.6
	4200	28.0	30.9	33.9	36.8	39.6	42.0	43.8
	4900	23.5	26.0	28.6	31.4	34.0	36.2	37.9
	5600	20.3	22.4	24.7	27.2	29.7	31.9	33.5
	6300	17.9	19.7	21.7	23.8	26.1	28.3	29.9
	7000	16.0	17.5	19.3	21.3	23.4	25.3	26.9
	7700	14.4	15.8	17.4	19.2	21.1	23.0	24.5
	8400	13.2	14.4	15.8	17.4	19.3	21.0	22.5
20	4000	30.5	31.8	33.0	34.0	35.0	35.8	36.6
	4800	25.5	26.7	27.8	28.8	29.6	30.4	31.2
	5600	21.8	23.0	24.0	24.9	25.7	26.4	27.1
	6400	19.1	20.2	21.1	22.0	22.8	23.4	24.1
	7200	17.0	18.0	18.9	19.6	20.3	21.0	21.6
	8000	15.3	16.2	17.1	17.8	18.5	19.1	19.6
	8800	13.9	14.8	15.6	16.3	16.9	17.5	18.0
	9600	12.7	13.6	14.3	15.0	15.6	16.1	16.6
25	5000	25.5	27.3	29.03	30.4	31.7	32.5	32.4
	5800	21.9	23.5	25.1	26.5	27.5	28.4	28.8
	6600	19.2	20.7	22.1	23.4	24.3	25.2	25.7
	7400	17.1	18.4	19.7	20.9	21.7	22.7	23.2
	8000	15.8	17	18.3	19.3	20.3	21.1	21.6
	8800	14.3	15.5	16.6	17.6	18.7	19.2	19.8
	9600	13.1	14.2	15.2	16.2	17.1	17.7	18.3
	10400	12.1	13.1	14	14.9	15.8	16.4	16.9
	11200	11.2	12.1	13	13.9	14.7	15.1	15.8
	12000	10.4	11.2	12.2	13	13.7	14.2	14.8

(a) 70°F OD Ambient Temperature.

(b) For units with the Dehumidification (Hot Gas Reheat) option.

(c) Temperature does not account for indoor fan heat.



Controls

Economizer Controls

The standard equipment offering is a fixed dry bulb changeover control. In addition, there are two optional controls, Enthalpy and Differential Enthalpy Control.

Enthalpy Control

Replaces the dry bulb control with a wet bulb changeover controller which has a fully adjustable setpoint. Enthalpy control offers a higher level of comfort control, along with energy savings potential, than the standard dry bulb control. This is due to the additional wet bulb sensing capability.

Differential Enthalpy Control

Differential Enthalpy replaces the standard dry bulb control with two enthalpy sensors that compare total heat content of the indoor air and outdoor air to determine the most efficient air source. This control option offers the highest level of comfort control, plus energy efficiency, available.

Remote Potentiometer

Minimum position setting of economizer can be remotely adjusted with this accessory.

Zone Sensors

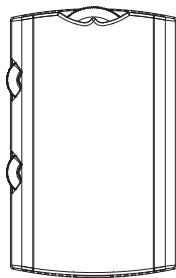
Zone Sensors are the building occupant's comfort control devices. They replace the conventional electro-mechanical thermostats.

Note: Zone sensor required for units configured for Single Zone VAV indoor fan system control to enable Single Zone VAV functionality.

Differential Pressure Switches

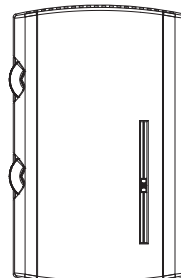
This factory or field-installed option allows individual fan failure and dirty filter indication. The fan failure switch will disable all unit functions and "flash" the Service LED on the zone sensor. The dirty filter switch will light the Service LED on the zone sensor and will allow continued unit operation.

Manual Changeover



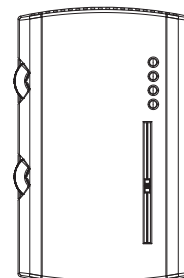
Heat, Cool or Off System Switch. Fan Auto or Off Switch. One temperature setpoint lever.

Manual/Automatic Changeover



Auto, Heat, Cool or Off System Switch. Fan Auto or Off Switch. Two temperature setpoint levers.

Manual/Automatic Changeover

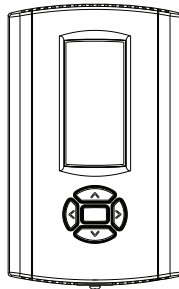


Auto, Heat, Cool or Off System Switch. Fan Auto or Off Switch. Two temperature setpoint levers. Status Indication LED lights, System On, Heat, Cool, or Service.

RA Remote Sensor and Room Remote Sensor

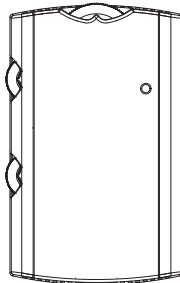
The RA Remote Sensor is a Return Air Remote Sensor which can be mounted in the return air duct to report return air temperature. The Room Remote Sensor is a Space Remote Sensor which can be mounted on the wall to report/control from a remote location in the space.

Wireless Zone Sensor



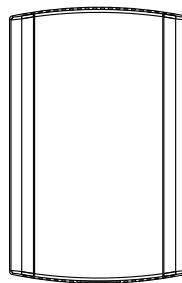
LCD display that provides heat, cool, auto, or off. Includes two temperature setpoints and a lockable setting with °F or °C indicators.

Manual/Automatic Changeover



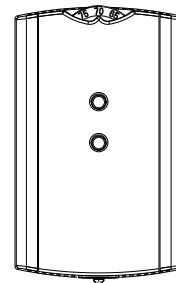
Auto, Heat, Cool or Off System Switch. Fan Auto or Off Switch. Two temperature setpoint levers.

Remote Sensor



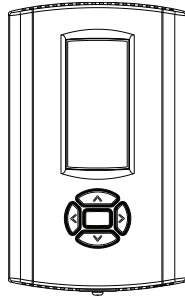
Sensor(s) available for all zone sensors to provide remote sensing capabilities.

Integrated Comfort™ System



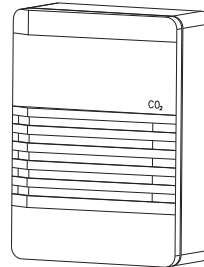
Sensor(s) available with optional temperature adjustment and override buttons to provide central control through a Trane Integrated Comfort™ system.

Programmable Night Setback



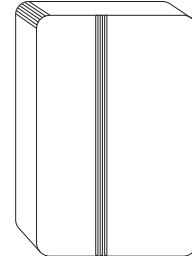
Auto or manual changeover with seven-day programming. Keyboard selection of Heat, Cool, Fan, Auto, or On. All programmable sensors have System On, Heat, Cool, Service LED/indicators as standard. Night Setback Sensors have one (1) Occupied, one (1) Unoccupied, and one (1) Override program per day.

CO₂ Sensor



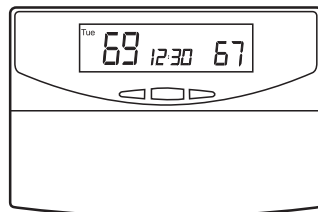
The CO₂ sensor shall have the ability to monitor the concentration (parts per million, ppm) of CO₂ (Carbon Dioxide) in the air. As the CO₂ concentration changes, the outside air damper modulates to meet the current ventilation needs of the zone.

Humidity Sensor



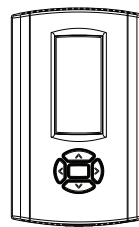
Field installed, wall-mounted or duct-mounted humidity sensor is used to control activation of the hot gas reheat dehumidification option. The humidity sensor can be set for humidity levels between 40 percent and 60 percent relative humidity by adjusting the ReliaTel Options Module.

Digital Display Programmable Thermostat with Built-In Relative Humidity Sensing (3H/2C)



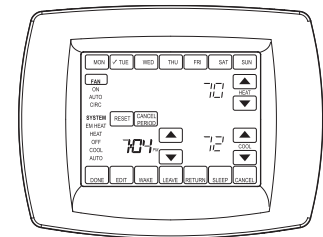
Three Heat/Two Cool digital display thermostat with built-in humidity control and display. This thermostat combines both humidity and dry bulb into one. Fully programmable with night setback.

Digital Display Programmable Thermostat (3H/2C)

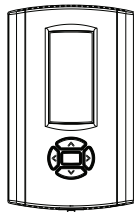


Three Heat/Two Cool auto changeover digital display thermostat. 7-day programmable stat with night setback shall be available.

Touchscreen Programmable Thermostat (2H/2C)



Two Heat/Two Cool programmable thermostat with touch screen digital display. Menu-driven programming. Effortless set-up. Program each day separately with no need to copy multiple days. All programming can be done on one screen. Easy to read and use. Large, clear backlit digital display.

Digital Display Thermostat (3H/2C)

Three Heat, Two Cool auto changeover digital display thermostat.

Communication Interfaces

Air-Fi® Wireless Communication - Factory Installed

The factory installed Air-Fi® Wireless communication allows customers to benefit from reduced installed/labor cost. This factory installed solution comes pre-wired and tested.

BACnet® Communications Interface - Factory or Field Installed

The BACnet® communications interface allows the unit to communicate directly with a generic open protocol BACnet® MS/TP Network Building Automation System Controls.

LonTalk® Communications Interface - Factory or Field Installed

The LonTalk communications interface allows the unit to communicate as a Tracer® LCI-V device or directly with generic LonTalk Network Building Automation System Controls.

Trane Communication Interface (TCI) - Factory or Field Installed

This factory or field-installed micro-processor interface allows the unit to communicate with Trane's Integrated Comfort™ system.



Electrical Data

Table 91. Unit wiring with cooling (no electric heat) or gas heat—standard refrigeration system

Tons	Unit Model Number	Unit Operating Voltage Range	Standard Indoor Fan Motor		Oversized Indoor Fan Motor	
			Minimum Circuit Ampacity ^(a)	Maximum Fuse Size or Maximum Circuit Breaker	Minimum Circuit Ampacity	Maximum Fuse Size or Maximum Circuit Breaker
12½	T/YS*150G3	187–253	61	80	67	90
	T/YS*150G4	414–506	29	40	32	40
	T/YS*150GW	517–633	22	30	24	30
	T/YS*150GK	342–418	36	45	39	50
15	T/YS*180G3	187–253	69	90	75	100
	T/YS*180G4	414–506	34	45	37	50
	T/YS*180GW	517–633	31	40	32	45
	T/YS*180GK	342–418	45	60	47	60
17½	T/YS*210G3	187–253	77	100	87	110
	T/YS*210G4	414–506	37	50	41	50
	T/YS*210GW	517–633	34	45	37	50
	T/YS*210GK	342–418	52	70	56	70
20	T/YS*240G3	187–253	105	150	112	150
	T/YS*240G4	414–506	50	70	54	70
	T/YS*240GW	517–633	43	60	46	60
	T/YS*240GK	342–418	60	80	64	80
25	T/YS*300G3	187–253	112	150	—	—
	T/YS*300G4	414–506	53	70	—	—
	T/YS*300GW	517–633	45	60	—	—
	T/YS*300GK	342–418	69	90	—	—

(a) For Standard and Oversized Indoor Fan Motor, values do not include power exhaust accessory.

* Indicates both downflow and horizontal units.

Table 92. Unit wiring with electric heat (single point connection)—standard refrigeration system (downflow and horizontal)

Tons	Unit Model Number	Heater kW Rating	Control Stages	Standard Indoor Motor		Oversized Indoor Motor	
				MCA	Max Fuse Size or Max Circuit Breaker	MCA	Max Fuse Size or Max Circuit Breaker ^(a)
208 / 230 Volts Three Phase							
12½	TS*150G3	13.5/18.0	1	62/69	80/80	69/77	90/90
		27.0/36.0	2	109/123	110/125	116/131	125/150
		40.5/54.0	2	155/145	175/175	163/152	175/175
15	TS*180G3	13.5/18.0	1	69/69	90/90	75/77	100/100
		27.0/36.0	2	109/123	110/125	116/131	125/150
		40.5/54.0	2	155/145	175/175	163/152	175/175
17½	TS*210G3	27.0/36.0	2	116/131	125/150	126/140	150/150
		40.5/54.0	2	163/152	175/175	172/162	175/175
		54.0/72.0	2	172/196	200/225	182/205	200/225
20	TS*240G3	27.0/36.0	2	116/131	150/150	126/140	150/150
		40.5/54.0	2	163/152	175/175	172/162	175/175
		54.0/72.0	2	172/196	200/225	182/205	200/225
25	TS*300G3	27.0/36.0	2	126/140	150/150	—	—
		40.5/54.0	2	172/162	175/175	—	—
		54.0/72.0	2	182/205	200/225	—	—
460 Volts Three Phase							
12½	TS*150G4	18.0	1	28	30	38	40
		36.0	2	62	70	65	70
		54.0	2	72	90	76	90
15	TS*180G4	18.0	1	36	50	39	50
		36.0	2	62	70	65	70
		54.0	2	72	90	76	90
17½	TS*210G4	36.0	2	65	70	69	70
		54.0	2	76	90	80	90
		72.0	2	98	110	102	110
20	TS*240G4	36.0	2	65	70	69	70
		54.0	2	76	90	80	90
		72.0	2	98	110	102	110
25	TS*300G4	36.0	2	69	70	—	—
		54.0	2	80	90	—	—
		72.0	2	102	110	—	—



Electrical Data

Table 92. Unit wiring with electric heat (single point connection)—standard refrigeration system (downflow and horizontal) (continued)

Tons	Unit Model Number	Heater kW Rating	Control Stages	Standard Indoor Motor		Oversized Indoor Motor	
				MCA	Max Fuse Size or Max Circuit Breaker	MCA	Max Fuse Size or Max Circuit Breaker ^(a)
575 Volts Three Phase							
12½	TS*150GW	18.0	1	28	30	31	35
		36.0	2	50	50	52	60
		54.0	2	58	70	61	70
15	TS*180GW	18.0	1	30	45	32	45
		36.0	2	50	50	52	60
		54.0	2	58	70	61	70
17½	TS*210GW	36.0	2	52	60	56	60
		54.0	2	61	70	65	70
	TSD210GW	72.0	2	78	90	82	90
20	TS*240GW	36.0	2	52	60	56	60
		54.0	2	61	70	65	70
	TSD240GW	72.0	2	78	90	82	90
25	TS*300GW	36.0	2	56	60	—	—
		54.0	2	65	70	—	—
	TSD300GW	72.0	2	82	90	—	—
380 Volts Three Phase							
12½	TS*150GK	18.0	2	36	45	—	—
		36.0	2	52	60	—	—
		54.0	2	60	70	—	—
15	TS*180GK	18.0	2	44	60	—	—
		36.0	2	52	60	—	—
		54.0	2	60	70	—	—
17½	TS*210GK	36.0	2	56	70	—	—
		54.0	2	64	70	—	—
20	TS*240GK	36.0	2	60	80	—	—
		54.0	2	64	80	—	—
		72.0	2	82	90	—	—
25	TS*300GK	36.0	2	69	90	—	—
		54.0	2	70	90	—	—
		72.0	2	87	90	—	—

(a) Values do not include power exhaust accessory.

* Indicates both downflow and horizontal units.

Table 93. Electrical characteristics—compressor motor and condenser motor—60 cycle—standard efficiency

Tons	Unit Model No.	Compressor Motors							Condenser Fan Motors				
		No.	Volts	Phase	hp ^(a)	rpm	Amps ^(b)		No.	Phase	hp	Amps ^(b)	
							RLA	LRA				FLA	LRA
12½	T/YS*150G3	2	208–230	3	6.9/3.5	3450	25/13.7	164/83.1	2	3	0.5	2.2	8.4
	T/YS*150G4	2	460	3	6.9/3.5	3450	12.2/6.2	100/41	2	3	0.5	1.1	4.2
	T/YS*150GW	2	575	3	6.9/3.5	3450	9.0/4.8	78/33	2	3	0.5	1.1	3.6
	T/YS*150GK	2	380	3	6.9/3.5	3450	13.9/8.1	94.3/56	2	3	0.5	1.3	5.2
15	T/YS*180G3	2	208–230	3	9.2/4.5	3450	29.4/15.6	267/110	2	3	0.5	2.2	8.4
	T/YS*180G4	2	460	3	9.2/4.5	3450	14.7/7.7	142/52	2	3	0.5	1.1	4.2
	T/YS*180GW	2	575	3	9.2/4.5	3450	14.7/5.8	103/38.9	2	3	0.5	1.1	3.6
	T/YS*180GK	2	380	3	9.2/4.5	3450	16.6/10.1	160/65.6	2	3	0.5	1.3	5.2
17½	T/YS*210G3	2	208–230	3	9.2/4.5	3450	29.4/15.6	267/110	2	3	1.0	4.8	20.0
	T/YS*210G4	2	460	3	9.2/4.5	3450	14.7/7.7	142/52	2	3	1.0	2.5	10.1
	T/YS*210GW	2	575	3	9.2/4.5	3450	14.7/5.8	103/38	2	3	1.0	1.9	8.0
	T/YS*210GK	2	380	3	9.2/4.5	3450	16.6/10.1	160/65.6	2	3	0.5	3.1	12.6
20	T/YS*240G3	2	208–230	3	12.9/6.3	3450	44.2/25	315/164	2	3	1.0	4.8	20.0
	T/YS*240G4	2	460	3	12.9/6.3	3450	21.1/12.8	158/100	2	3	1.0	2.5	10.1
	T/YS*240GW	2	575	3	12.9/6.3	3450	18.6/9.6	136/78	2	3	1.0	1.9	8.0
	T/YS*240GK	2	380	3	12.9/6.3	3450	23/12.5	177/94.3	2	3	0.5	3.1	12.6
25	T/YS*300G3	2	208–230	3	13.4/6.9	3450	44.2/25	315/164	2	3	1.0	4.8	20.0
	T/YS*300G4	2	460	3	13.4/6.9	3450	21.1/12.2	158/100	2	3	1.0	2.5	10.1
	T/YS*300GW	2	575	3	13.4/6.9	3450	18.6/9	136/78	2	3	1.0	1.9	8.0
	T/YS*300GK	2	380	3	13.4/6.9	3450	23.7/13.9	177/94.3	2	3	0.5	3.1	12.6

(a) Horsepower for each compressor.

* Indicates both downflow and horizontal units.

(b) For Compressor Motors and Condenser Fan Motors: Amp draw for each motor; multiply value by number of motors to determine total amps.

Electrical Data

Table 94. Electrical characteristics—evaporator fan motor—60 cycle—standard and oversized

Tons	Unit Model Number	Standard Evaporator Fan Motor						No.	Oversized Evaporator Fan Motor					
		No.	Volts	Phase	hp ^(a)	Amps ^(b)			No.	Volts	Phase	hp	Amps	
						FLA	LRA						FLA	LRA
12½	T/YS*150G3	1	208–230	3	3.00	10.6	81.0	1	208–230	3	5.00	16.7	109.8	
	T/YS*150G4	1	460	3	3.00	4.8	40.5	1	460	3	5.00	7.6	54.9	
	T/YS*150GW	1	575	3	3.00	3.9	31.0	1	575	3	5.00	6.1	41.6	
	T/YS*150GK	1	380	3	5.00	9.2	66.5	1	—	—	—	—	—	
15	T/YS*180G3	1	208–230	3	3.00	10.6	81.0	1	208–230	3	5.00	16.7	109.8	
	T/YS*180G4	1	460	3	3.00	4.8	40.5	1	460	3	5.00	7.6	54.9	
	T/YS*180GW	1	575	3	3.00	3.9	31.0	1	575	3	5.00	6.1	41.6	
	T/YS*180GK	1	380	3	5.00	9.2	66.5	1	—	—	—	—	—	
17½	T/YS*210G3	1	208–230	3	5.00	16.7	109.8	1	208–230	3	7.50	24.2	120.4	
	T/YS*210G4	1	460	3	5.00	7.6	54.9	1	460	3	7.50	11.0	74.0	
	T/YS*210W	1	575	3	5.00	6.1	41.6	1	575	3	7.50	9.0	60.0	
	T/YS*210GK	1	380	3	7.50	13.3	83.5	1	—	—	—	—	—	
20	T/YS*240G3	1	208–230	3	5.00	16.7	109.8	1	208–230	3	7.50	24.2	120.4	
	T/YS*240G4	1	460	3	5.00	7.6	54.9	1	460	3	7.50	11.0	74.0	
	T/YS*240GW	1	575	3	5.00	6.1	41.6	1	575	3	7.50	9.0	60.0	
	T/YS*240GK	1	380	3	7.50	13.3	83.5	1	—	—	—	—	—	
25	T/YS*300G3	1	208–230	3	7.50	24.2	120.4	—	—	—	—	—	—	
	T/YS*300G4	1	460	3	7.50	11.0	74.0	—	—	—	—	—	—	
	T/YS*300GW	1	575	3	7.50	9.0	60	—	—	—	—	—	—	
	T/YS*300GK	1	380	3	7.50	13.3	83.5	—	—	—	—	—	—	

(a) Horsepower for each compressor.

* Indicates downflow and horizontal units.

(b) For Compressor Motors and Condenser Fan Motors: Amp draw for each motor; multiply value by number of motors to determine total amps.

Table 95. Electrical characteristics—power exhaust (cooling and gas/electric)

Tons	Volts	Phase	hp	rpm	Amps	
					FLA	LRA
12½–25	208–230	1	3/4	1040	6.6	13.5
	460	1	3/4	1040	3.2	8.4
	575	1	3/4	1040	2.1	5.2

Table 96. Unit wiring with cooling (no electric heat) or gas heat—high efficiency

Tons	Unit Model Number	Unit Operating Voltage Range	Standard Indoor Fan Motor		Oversized Indoor Fan Motor	
			Minimum Circuit Ampacity ^(a)	Maximum Fuse Size or Maximum Circuit Breaker	Minimum Circuit Ampacity	Maximum Fuse Size or Maximum Circuit Breaker
12½	T/YH*150G3	187–253	64	90	71	90
	T/YH*150G4	414–506	30	40	33	45
	T/YH*150GW	517–633	23	30	26	35
15	T/YH*180G3	187–253	68	90	74	100
	T/YH*180G4	414–506	33	45	36	50
	T/YH*180GW	517–633	26	35	27	35
17½	T/YH*210G3	187–253	83	125	91	110
	T/YH*210G4	414–506	41	50	44	60
	T/YH*210GW	517–633	33	45	36	45
20	T/YH*240G3	187–253	96	125	103	125
	T/YH*240G4	414–506	44	60	48	60
	T/YH*240GW	517–633	38	50	41	50
25	T/YH*300G3	187–253	117	150	N/A	N/A
	T/YH*300G4	414–506	54	70	N/A	N/A
	T/YH*300GW	517–633	44	50	N/A	N/A

(a) For Standard and Oversized Indoor Fan Motor, values do not include power exhaust accessory.

* Indicates both downflow and horizontal units.

Table 97. Unit wiring with cooling (no electric heat) or gas heat—dehumidification (hot gas reheat) option (downflow only)

Tons	Unit Model Number	Unit Operating Voltage Range	Standard Indoor Fan Motor		Oversized Indoor Fan Motor	
			Minimum Circuit Ampacity ^(a)	Maximum Fuse Size or Maximum Circuit Breaker	Minimum Circuit Ampacity	Maximum Fuse Size or Maximum Circuit Breaker
12½	T/YHD150G3	187–253	67	80	73	90
	T/YHD150G4	414–506	32	40	35	40
	T/YHD150GW	517–633	23	30	26	30
15	T/YHD180G3	187–253	73	90	79	100
	T/YHD180G4	414–506	35	45	38	45
	T/YHD180GW	517–633	27	35	29	35
17½	T/YHD210G3	187–253	86	125	92	110
	T/YHD210G4	414–506	41	50	45	50
	T/YHD210GW	517–633	34	45	37	45
20	T/YHD240G3	187–253	113	150	120	150
	T/YHD240G4	414–506	53	70	57	70
	T/YHD240GW	517–633	45	50	48	60
25	T/YHD300G3	187–253	117	150	-	-
	T/YHD300G4	414–506	54	70	-	-
	T/YHD300GW	517–633	42	50	-	-

(a) For Standard and Oversized Indoor Fan Motor, values do not include power exhaust accessory.

Electrical Data

Table 98. Unit wiring with electric heat (single point connection)—high efficiency

Tons	Unit Model Number	Heater kW Rating	Control Stages	Standard Indoor Motor		Oversized Indoor Motor	
				MCA	Max Fuse Size or Max Circuit Breaker	MCA	Max Fuse Size or Max Circuit Breaker ^(a)
208/230 Volts Three Phase							
12½	TH*150G3	13.5/18.0	1	64/69	90/90	71/77	90/90
		27.0/36.0	2	109/123	110/125	116/131	125/150
		40.5/54.0	2	155/145	175/175	163/152	175/175
15	TH*180G3	13.5/18.0	1	68/69	90/90	74/77	100/100
		27.0/36.0	2	109/123	110/125	116/131	125/150
		40.5/54.0	2	155/145	175/175	163/152	175/175
17½	TH*210G3	27.0/36.0	2	116/131	125/150	126/140	150/150
		40.5/54.0	2	163/152	175/175	172/162	175/175
		54.0/72.0	2	172/196	200/225	182/205	200/225
20	TH*240G3	27.0/36.0	2	116/131	125/150	126/140	150/150
		40.5/54.0	2	163/152	175/175	172/162	175/175
		54.0/72.0	2	172/196	200/225	182/205	200/225
25	TH*300G3	27.0/36.0	2	126/140	150/150	—	—
		40.5/54.0	2	172/162	175/175	—	—
		54.0/72.0	2	182/205	200/225	—	—
460 Volts Three Phase							
12½	TH*150G4	18.0	1	35	40	38	45
		36.0	2	62	70	65	70
		54.0	2	72	90	76	90
15	TH*180G4	18.0	1	35	45	38	50
	THD180G4	27.0	2	48	50	52	60
	TH*180G4	36.0	2	62	70	65	70
		54.0	2	72	90	76	90
17½	THD210G4	27.0	2	52	60	56	60
	TH*210G4	36.0	2	65	70	69	70
		54.0	2	76	90	80	90
		72.0	2	98	110	102	110
20	THD240G4	27.0	2	52	60	56	60
	TH*240G4	36.0	2	65	70	69	70
		54.0	2	76	90	80	90
		72.0	2	98	110	102	110
25	THD300G4	27.0	2	56	70	—	—
	TH*300G4	36.0	2	69	70	—	—
		54.0	2	80	90	—	—
		72.0	2	102	110	—	—

Table 98. Unit wiring with electric heat (single point connection)—high efficiency (continued)

Tons	Unit Model Number	Heater kW Rating	Control Stages	Standard Indoor Motor		Oversized Indoor Motor	
				MCA	Max Fuse Size or Max Circuit Breaker	MCA	Max Fuse Size or Max Circuit Breaker ^(a)
575 Volts Three Phase							
12½	TH*150GW	18.0	1	28	30	31	35
		36.0	2	50	50	52	60
		54.0	2	58	70	61	70
15	TH*180GW	18.0	1	28	35	31	35
		36.0	2	50	50	52	60
		54.0	2	58	70	61	70
17½	TH*210GW	36.0	2	52	60	56	60
		54.0	2	61	70	65	70
	THD210GW	72.0	2	78	90	82	90
20	TH*240GW	36.0	2	52	60	56	60
		54.0	2	61	70	65	70
	THD240GW	72.0	2	78	90	82	90
25	TH*300GW	36.0	2	56	60	—	—
		54.0	2	65	70	—	—
	THD300GW	72.0	2	82	90	—	—

(a) Values do not include power exhaust accessory.

* Indicates both downflow and horizontal units.

Table 99. Unit wiring with electric heat (single point connection)—dehumidification (hot gas reheat) refrigeration system (downflow only)

Tons	Unit Model Number	Heater kW Rating	Control Stages	Standard Indoor Motor		Oversized Indoor Motor	
				MCA	Max Fuse Size or Max Circuit Breaker	MCA	Max Fuse Size or Max Circuit Breaker ^(a)
208 / 230 Volts Three Phase							
12½	THD150G3	13.5/18.0	1	67/69	80/80	73/77	90/90
		27.0/36.0	2	109/123	110/125	116/131	125/150
		40.5/54.0	2	155/145	175/150	163/152	175/175
15	THD180G3	13.5/18.0	1	73/73	90/90	79/79	100/100
		27.0/36.0	2	109/123	110/125	116/131	125/150
		40.5/54.0	2	155/145	175/175	163/152	175/175
17½	THD210G3	27.0/36.0	2	116/131	125/150	126/140	150/150
		40.5/54.0	2	163/152	175/175	172/162	175/175
		54.0/72.0	2	172/196	200/225	182/205	200/225
20	THD240G3	27.0/36.0	2	116/131	125/150	126/140	150/150
		40.5/54.0	2	163/152	175/175	172/162	175/175
		54.0/72.0	2	172/196	200/225	182/205	200/225
25	THD300G3	27.0/36.0	2	126/140	150/150	-	-
		40.5/54.0	2	172/162	175/175	-	-
		54.0/72.0	2	182/205	200/225	-	-



Electrical Data

Table 99. Unit wiring with electric heat (single point connection)—dehumidification (hot gas reheat) refrigeration system (downflow only) (continued)

Tons	Unit Model Number	Heater kW Rating	Control Stages	Standard Indoor Motor		Oversized Indoor Motor	
				MCA	Max Fuse Size or Max Circuit Breaker	MCA	Max Fuse Size or Max Circuit Breaker ^(a)
460 Volts Three Phase							
12½	THD150G4	18.0	1	35	40	38	40
		36.0	2	62	70	65	70
		54.0	2	72	90	76	90
15	THD180G4	18.0	1	35	45	38	45
		27.0	2	48	50	52	60
		36.0	2	62	70	65	70
		54.0	2	72	90	76	90
17½	THD210G4	27.0	2	52	60	56	60
		36.0	2	65	70	69	70
		54.0	2	76	90	80	90
		72.0	2	98	110	102	110
20	THD240G4	27.0	2	53	70	57	70
		36.0	2	65	70	69	70
		54.0	2	76	90	80	90
		72.0	2	98	110	102	110
25	THD300G4	27.0	2	56	70	-	-
		36.0	2	69	70	-	-
		54.0	2	80	90	-	-
		72.0	2	102	110	-	-
575 Volts Three Phase							
12½	THD150GW	18.0	1	28	30	31	35
		36.0	2	50	50	52	60
		54.0	2	58	70	61	70
15	THD180GW	18.0	1	28	35	31	35
		36.0	2	50	50	52	60
		54.0	2	58	70	61	70
17½	THD210GW	36.0	2	52	60	56	60
		54.0	2	61	70	65	70
		72.0	2	78	90	82	90
20	THD240GW	36.0	2	52	60	56	60
		54.0	2	61	70	65	70
		72.0	2	78	90	82	90
25	THD300GW	36.0	2	56	60	-	-
		54.0	2	65	70	-	-
		72.0	2	82	90	-	-

(a) Values do not include power exhaust accessory.

Table 100. Electrical characteristics—compressor motor and condenser motor—60 cycle—high efficiency

Tons	Unit Model No.	Compressor Motors							Condenser Fan Motors				
		No.	Volts	Phase	hp ^(a)	rpm	Amps ^(b)		No.	Phase	hp	Amps ^(b)	
							RLA	LRA				FLA	LRA
12½	T/YH*150G3	2	208–230	3	5.6/3.67	3450	27.5/13.6	191/100	2	3	0.5	2.2	8.4
	T/YH*150G4	2	460	3	5.6/3.67	3450	12.8/6.1	100/41	2	3	0.5	1.1	4.2
	T/YH*150GW	2	575	3	5.6/3.67	3450	10.38/4.2	78/33	2	3	0.5	1.1	3.6
15	T/YH*180G3	2	208–230	3	7.5/4.75	3450	28.3/15.9	240/110	2	3	0.5	2.2	8.4
	T/YH*180G4	2	460	3	7.5/4.75	3450	14.7/7.0	130/52	2	3	0.5	1.1	4.2
	T/YH*180GW	2	575	3	7.5/4.75	3450	11.3/5.1	93.7/39.5	2	3	0.5	1.1	3.6
17½	T/YH*210G3	2	208–230	3	8.6/4.75	3450	34.1/15.6	240/110	2	3	1.0	4.8	20.0
	T/YH*210G4	2	460	3	8.6/4.75	3450	17.3/7.7	140/52	2	3	1.0	2.5	10.1
	T/YH*210GW	2	575	3	8.6/4.75	3450	13.32/5.8	107.6/38.9	2	3	1.0	1.9	8.0
20	T/YH*240G3	2	208–230	3	11.7/6.9	3450	41.0/19.6	304/136	2	3	1.0	4.8	20.0
	T/YH*240G4	2	460	3	11.7/6.9	3450	19.75/8.2	147/66.1	2	3	1.0	2.5	10.1
	T/YH*240GW	2	575	3	11.7/6.9	3450	16.7/6.6	122/55.3	2	3	1.0	1.9	8.0
25	T/YH*300G3	3	208–230	3	12.8/6.9	3450	19.6/19.6/36.63	136/136/240	2	3	1.0	4.8	20.0
	T/YH*300G4	3	460	3	12.8/6.9	3450	8.2/8.2/18.26	66.1/66.1/140	2	3	1.0	2.5	10.1
	T/YH*300GW	3	575	3	12.8/6.9	3450	6.6/6.6/14.06	55.3/55.3/107.6	2	3	1.0	1.9	8.0

(a) Horsepower for each compressor.

*Indicates both downflow and horizontal units.

(b) For Compressor Motors and Condenser Fan Motors: Amp draw for each motor; multiply value by number of motors to determine total amps.

Table 101. Electrical characteristics—compressor motor and condenser motor—60 cycle—dehumidification (hot gas reheat) option (downflow only)

Tons	Unit Model No.	No.	Compressor Motors						Condenser Fan Motors				
			Volts	Phase	hp ^(b)	rpm	Amps ^(a)		No.	Phase	hp	Amps ^(b)	
							RLA	LRA				FLA	LRA
12½	T/YHD150G3	2	208–230	3	5.6	3450	22.4/22.4	149/149	2	3	0.5	2.2	8.4
	T/YHD150G4	2	460	3	5.6	3450	10.6/10.6	75/75	2	3	0.5	1.1	4.2
	T/YHD150GW	2	575	3	5.6	3450	7.7/7.7	54/54	2	3	0.5	1.1	3.6
15	T/YHD180G3	2	208–230	3	6.9	3450	25.0/25.0	149/149	2	3	0.5	2.2	8.4
	T/YHD180G4	2	460	3	6.9	3450	13.2/13.2	75/75	2	3	0.5	1.1	4.2
	T/YHD180GW	2	575	3	6.9	3450	11.5/11.5	54/54	2	3	0.5	1.1	3.6
17½	T/YHD210G3	2	208–230	3	7.5 / 6.9	3450	27.6 / 26.2	203 / 164	2	3	1.0	4.8	20.0
	T/YHD210G4	2	460	3	7.5 / 6.9	3450	14.1 / 13.2	98 / 100	2	3	1.0	2.5	10.1
	T/YHD210GW	2	575	3	7.5 / 6.9	3450	11.6 / 11.5	84 / 78	2	3	1.0	1.9	8.0
20	T/YHD240G3	2	208–230	3	10	3450	39.1/39.1	267/267	2	3	1.0	4.8	20.0
	T/YHD240G4	2	460	3	10	3450	18.6/18.6	142/142	2	3	1.0	2.5	10.1
	T/YHD240GW	2	575	3	10	3450	15.4/15.4	103/103	2	3	1.0	1.9	8.0
25	T/YHD300G3	2	208–230	3	10	3450	36.6/36.6	240/240	2	3	1.0	4.8	20.0
	T/YHD300G4	2	460	3	10	3450	17.2/17.8	140/140	2	3	1.0	2.5	10.1
	T/YHD300GW	2	575	3	10	3450	12.9/12.9	108/108	2	3	1.0	1.9	8.0

(a) For Compressor Motors and Condenser Fan Motors: Amp draw for each motor; multiply value by number of motors to determine total amps.

(b) Horsepower for each compressor.

Electrical Data

Table 102. Electrical characteristics—evaporator fan motor—60 cycle—standard and oversized

Tons	Unit Model Number	Standard Evaporator Fan Motor						Oversized Evaporator Fan Motor					
		No.	Volts	Phase	hp ^(a)	Amps ^(b)		No.	Volts	Phase	hp	Amps	
						FLA	LRA					FLA	LRA
12½	T/YH*150G3	1	208–230	3	3	10.6	81	1	208–230	3	5	16.7	109.8
	T/YH*150G4	1	460	3	3	4.8	40.5	1	460	3	5	7.6	54.9
	T/YH*150GW	1	575	3	3	3.9	31	1	575	3	5	6.1	41.6
15	T/YH*180G3	1	208–230	3	3	10.6	81	1	208–230	3	5	16.7	109.8
	T/YH*180G4	1	460	3	3	4.8	40.5	1	460	3	5	7.6	54.9
	T/YH*180GW	1	575	3	3	3.9	31	1	575	3	5	6.1	41.6
17½	T/YH*210G3	1	208–230	3	5	16.7	109.8	1	208–230	3	7.5	24.2	120.4
	T/YH*210G4	1	460	3	5	7.6	54.9	1	460	3	7.5	11	74
	T/YH*210GW	1	575	3	5	6.1	41.6	1	575	3	7.5	9	60
20	T/YH*240G3	1	208–230	3	5	16.7	109.8	1	208–230	3	7.5	24.2	120.4
	T/YH*240G4	1	460	3	5	7.6	54.9	1	460	3	7.5	11	74
	T/YH*240GW	1	575	3	5	6.1	41.6	1	575	3	7.5	9	60
25	T/YH*300G3	1	208–230	3	7.5	24.2	120.4	—	—	—	—	—	—
	T/YH*300G4	1	460	3	7.5	11	74	—	—	—	—	—	—
	T/YH*300GW	1	575	3	7.5	9	60	—	—	—	—	—	—

(a) Horsepower for each compressor.

* Indicates both downflow and horizontal units.

(b) For Compressor Motors and Condenser Fan Motors: Amp draw for each motor; multiply value by number of motors to determine total amps.

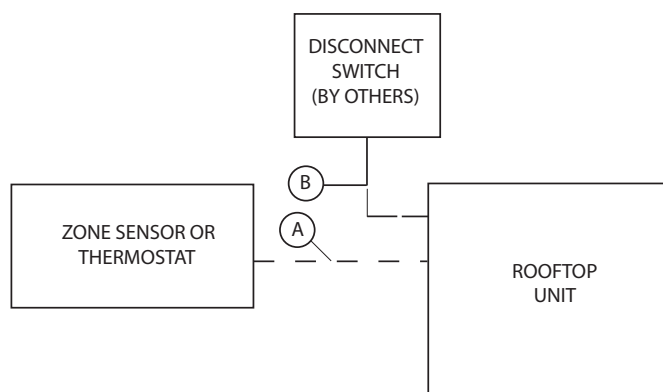
Table 103. Electrical characteristics—power exhaust (cooling and gas/electric)

Tons	Volts	Phase	hp	rpm	Amps	
					FLA	LRA
12½–25	208–230	1	3/4	1040	6.6	13.5
	460	1	3/4	1040	3.2	8.4
	575	1	3/4	1040	2.1	5.2

Jobsite Connections

Table 104. Typical number of wires

Zone Sensors		
A	Manual Changeover.....	4
	Manual/Auto Changeover.....	5
	Manual/Auto Changeover with Status Indication LEDs.....	10
	Programmable Night Setback with Status Indication LEDs.....	7
B	3 Power Wires + 1 Ground Wire (three phase)	
	2 Power Wires + 1 Ground Wire (single phase)	



Notes:

- For specific wiring information, see the installation instructions.
- All wiring except power wire is low voltage.
- All customer supplied wiring to be copper and must conform to applicable electrical codes and local electric codes. Wiring shown dotted is to be furnished and installed by the customer.
- Zone sensors are required for units configured for Single Zone VAV indoor fan system control in order to enable Single Zone VAV functionality.

Dimensional Data

Figure 1. Cooling with optional electric heat and gas/electric models—12½ tons standard efficiency

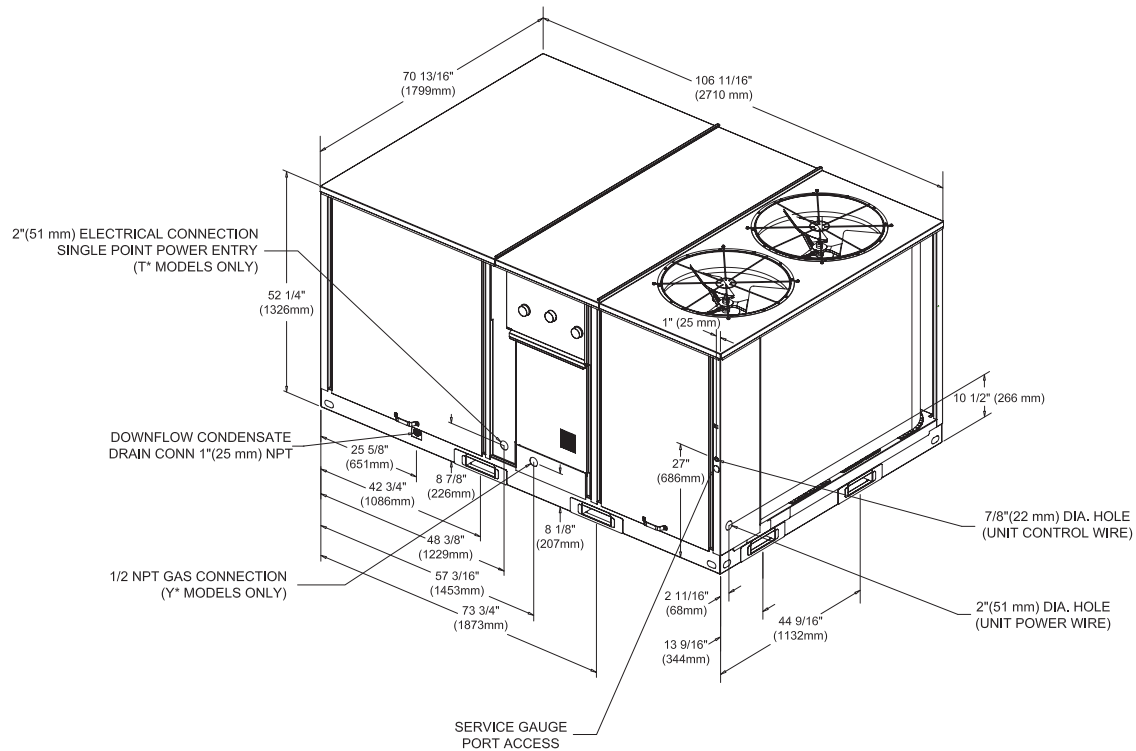


Figure 2. Cooling with optional electric heat and gas/electric models—12½ tons standard efficiency horizontal unit clearance

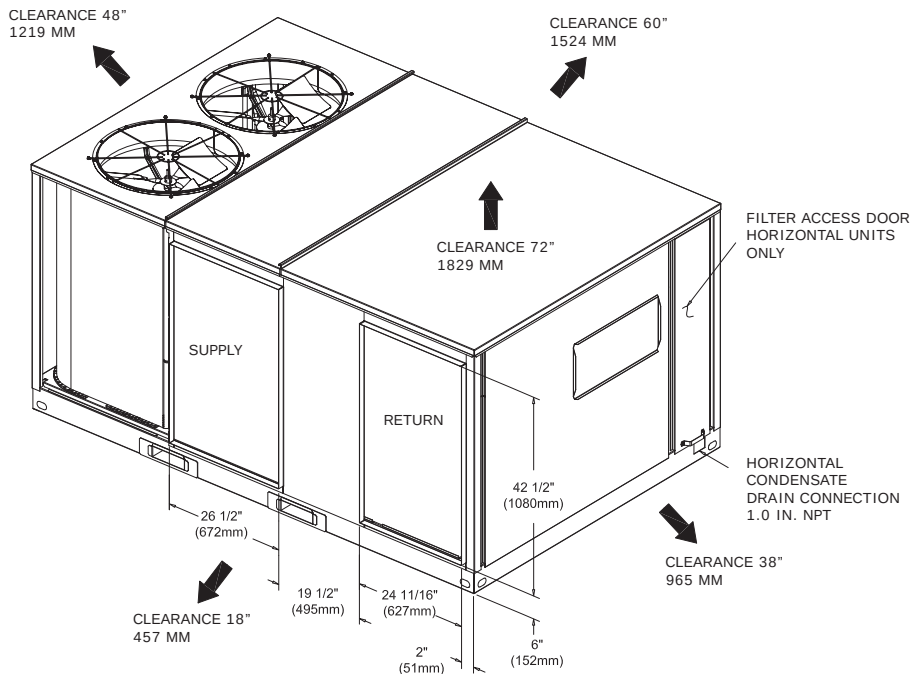


Figure 3. Cooling with optional electric heat and gas/electric models 12½ tons standard efficiency—roof curb

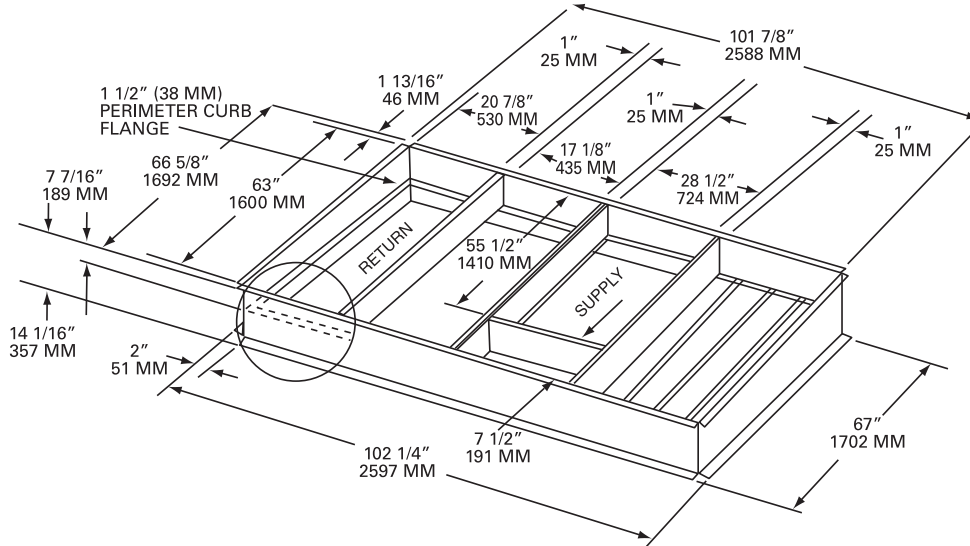
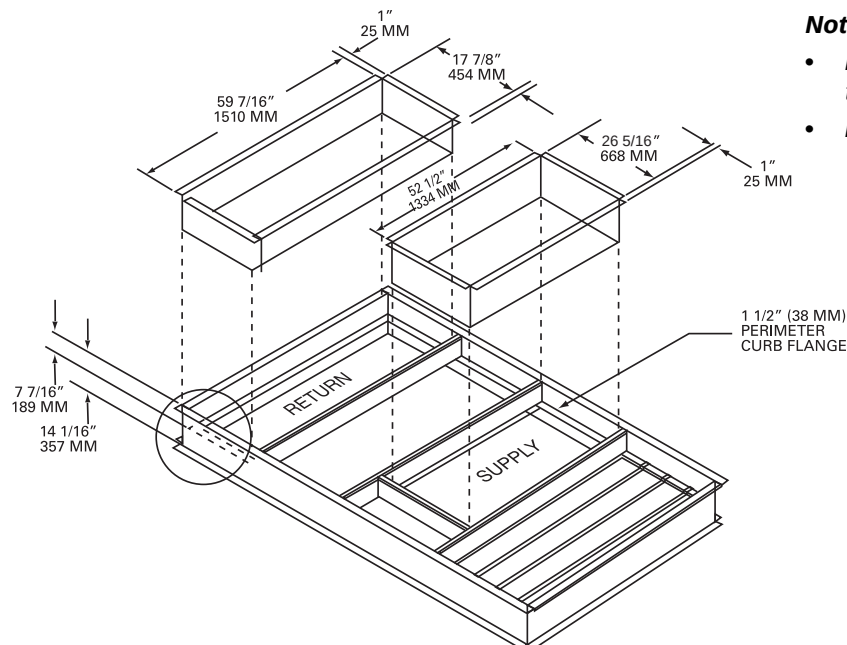


Figure 4. Cooling with optional electric heat and gas/electric models 12½ tons standard efficiency—downflow duct connections—field fabricated



Notes:

- Duct flanges mount 7-7/16-inch down inside the curb on the 1-1/2-inch curb flanges.
- Roofcurb is intended for downflow use only.

Dimensional Data

Figure 5. Cooling with optional electric heat and gas/electric models—12½ tons standard efficiency—downflow unit supply/return and unit clearance

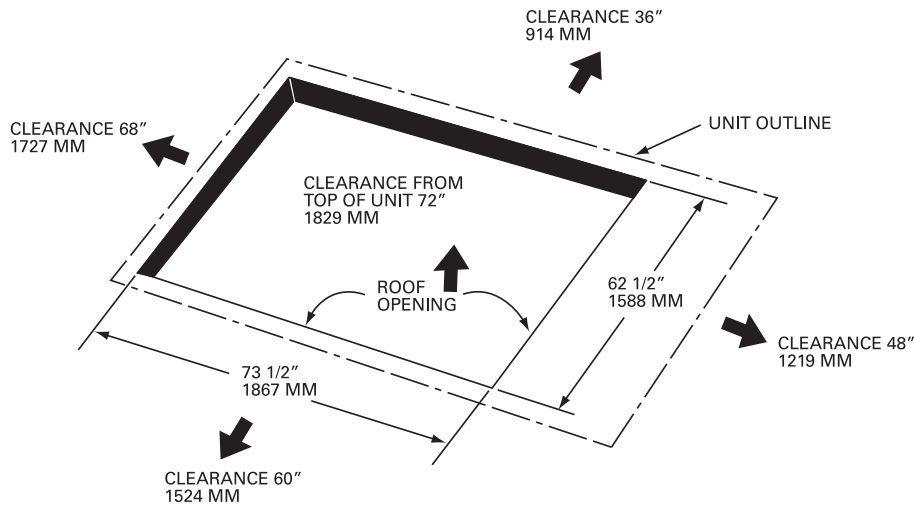


Figure 6. Cooling with optional electric heat and gas/electric models—15–25 tons standard efficiency and 12.5 ton high efficiency

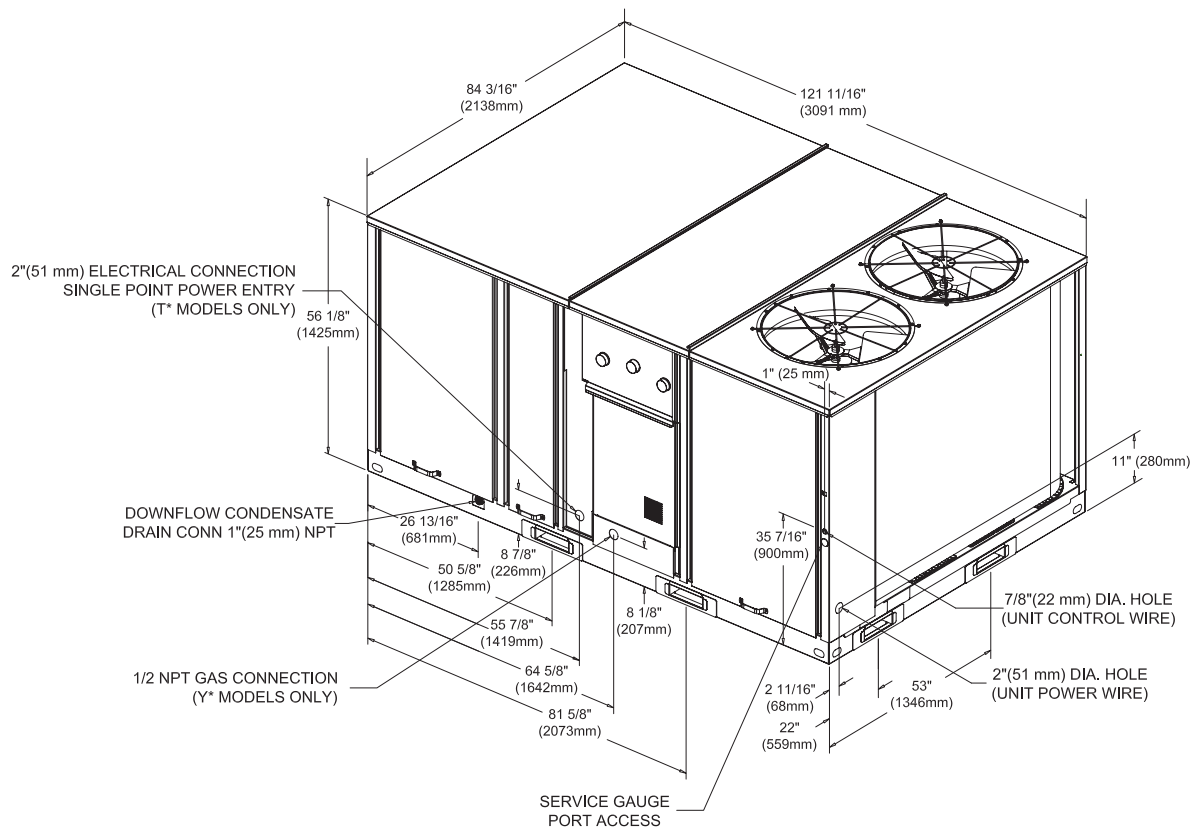


Figure 7. Cooling with optional electric heat and gas/electric models—15–25 tons high efficiency

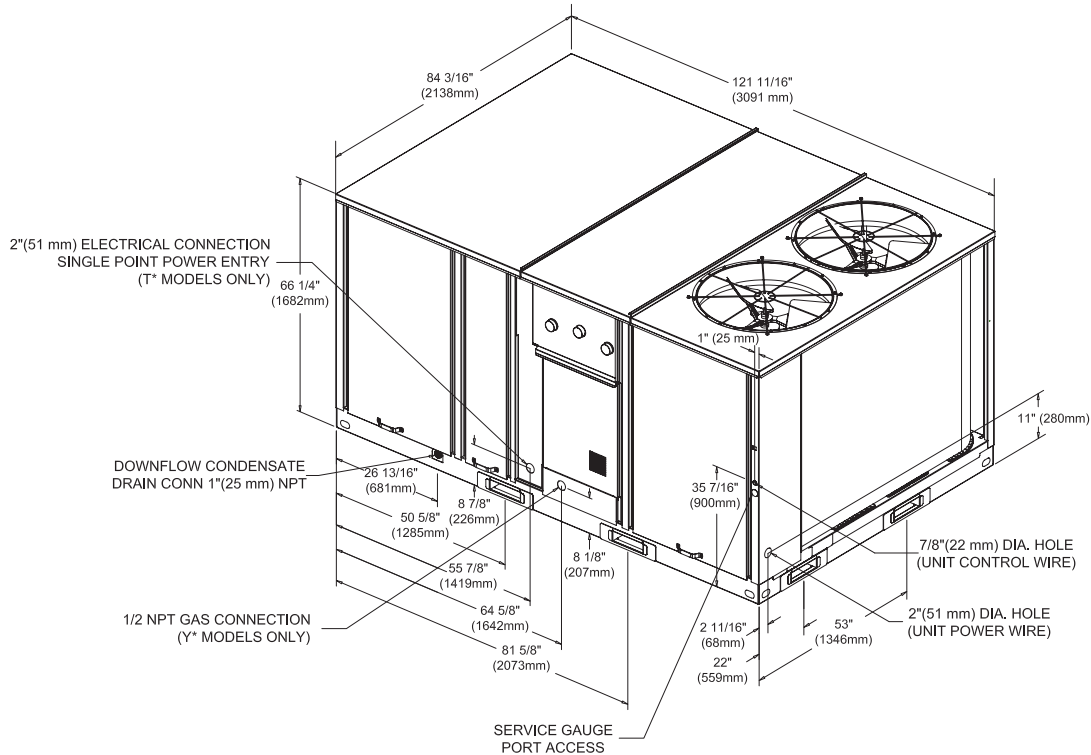
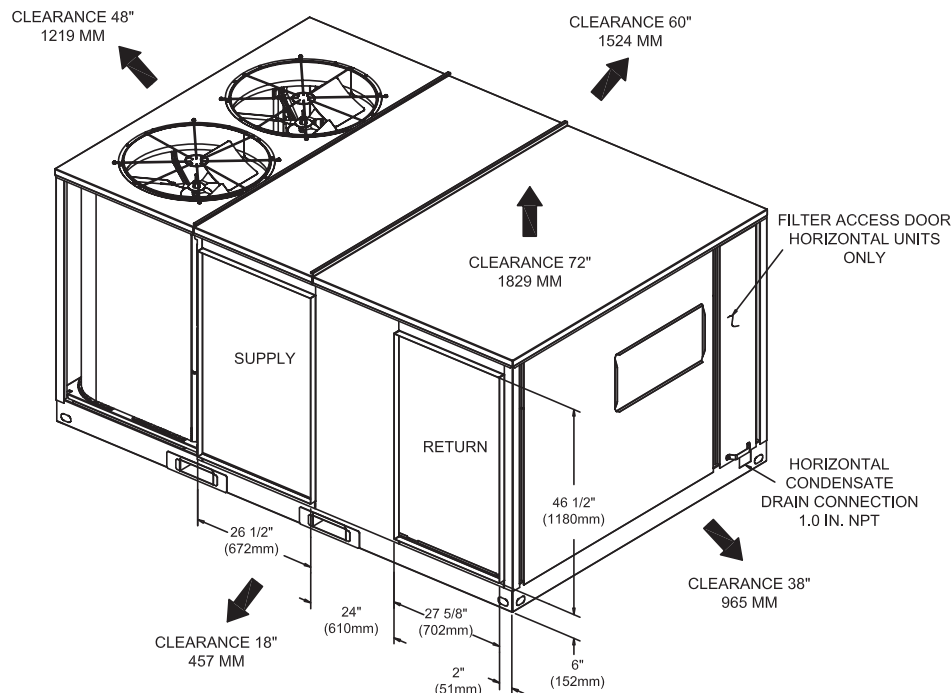


Figure 8. Cooling with optional electric heat and gas/electric models—15–25 tons standard efficiency, 12½–25 tons high efficiency—unit clearance and horizontal unit supply/return



Dimensional Data

Figure 9. Cooling with optional electric heat and gas/electric models—15–25 tons standard efficiency, 12½–25 tons high efficiency—roof curb

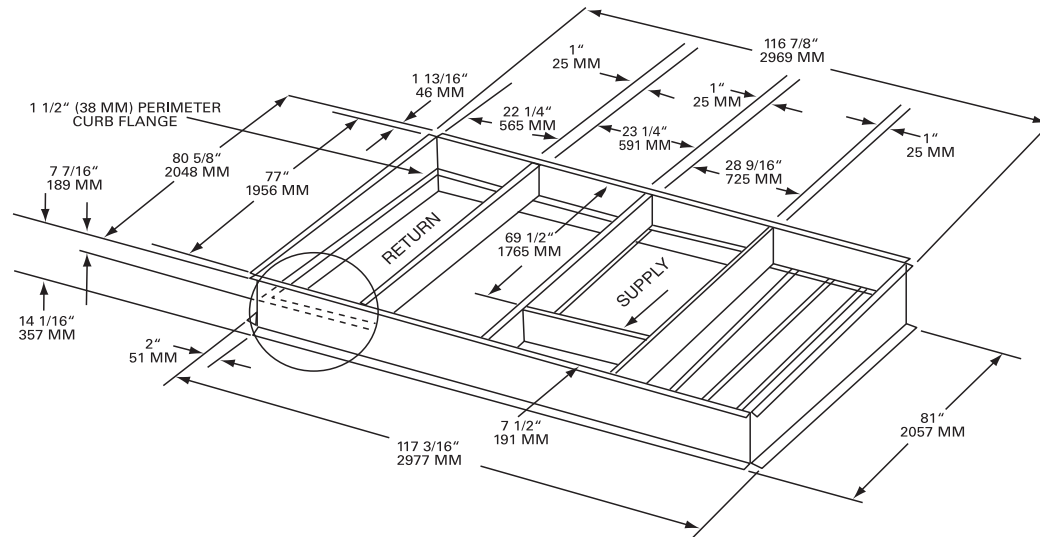
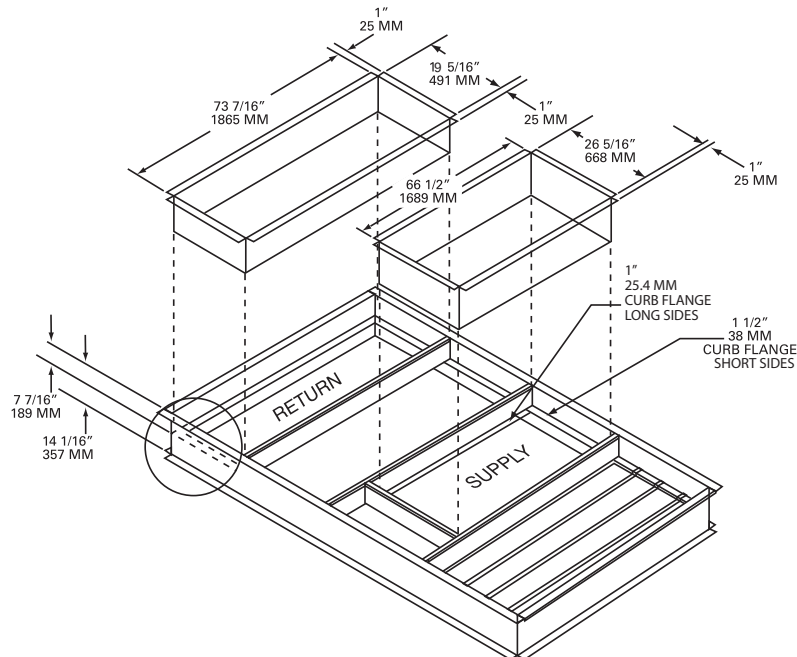


Figure 10. Cooling with optional electric heat and gas/electric models—15–25 tons standard efficiency, 12½–25 tons high efficiency—downflow duct connections—field fabricated



Notes:

- Duct flanges mount 7-7/16-inch down inside the curb on the 1-1½-inch curb flanges.
- Roofcurb is intended for downflow use only.

Figure 11. Cooling with optional electric heat and gas/electric models—15–25 tons standard efficiency, 12½–25 tons high efficiency—downflow unit clearance

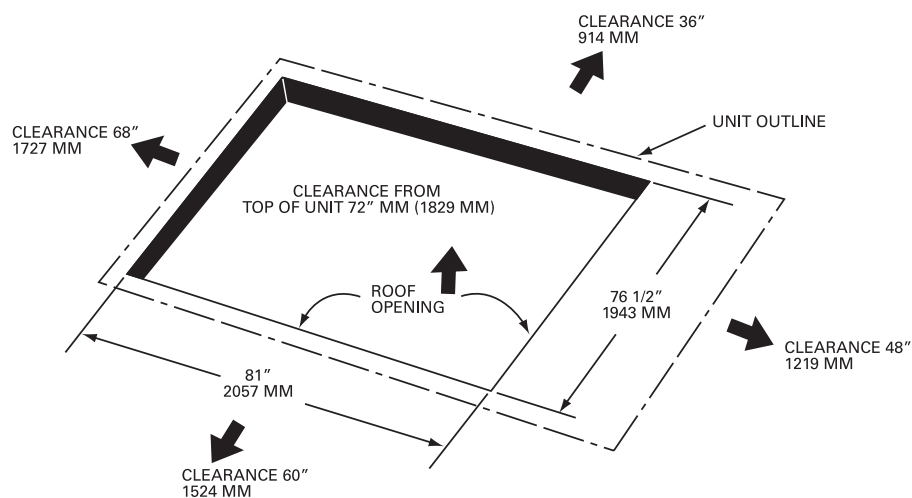


Figure 12. Downflow and horizontal condensate locations

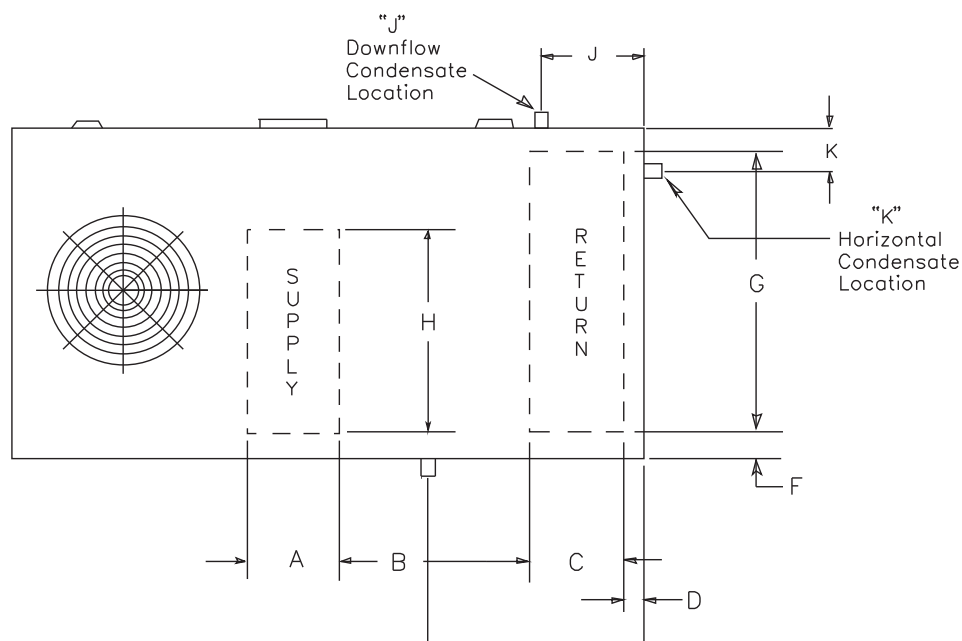


Table 105. Standard efficiency units (cooling and gas/electric)

Tons	Downflow Only							Condensate Drain Location	
								Downflow	Horizontal
	A	B	C	D	F	G	H	J	K
12½	26 7/16	22 1/2	18 11/16	4 1/4	4 1/4	62 7/16	54 11/16	1 NPT	25 5/8
15–25	26 7/16	28 3/4	19 15/16	4 1/4	4 1/4	76 5/16	68 11/16	1 NPT	5 3/8

Dimensional Data

Table 106. High efficiency units (cooling and gas/electric)

Tons	Downflow Only								Condensate Drain Location	
	A	B	C	D	F	G	H	Condensate Drain Size	Downflow	Horizontal
12½–25	26 7/16	28 3/4	19 15/16	4 1/4	4 1/4	76 5/16	68 11/16	1 NPT	26 3/4	5 3/8

Table 107. Cooling unit—swing diameter and through the base electrical

Unit Model #	A	B	C	D	E
TSD150G	42 3/8	48 3/8	31	N/A	N/A
TSD180–300G, THD150–300G	29 1/2	56	38 1/2	18 1/2	N/A
TSH150G	42 3/8	N/A	31	N/A	12
TSH180–300G, THH150–300G	29 1/2	N/A	38 1/2	18 1/2	14

Note: All dimensions are in inches.

TOP VIEW SHOWING THROUGH THE BASE
ELECTRICAL UTILITY LOCATIONS AND ACCESS PANEL SWING CLEARANCES.

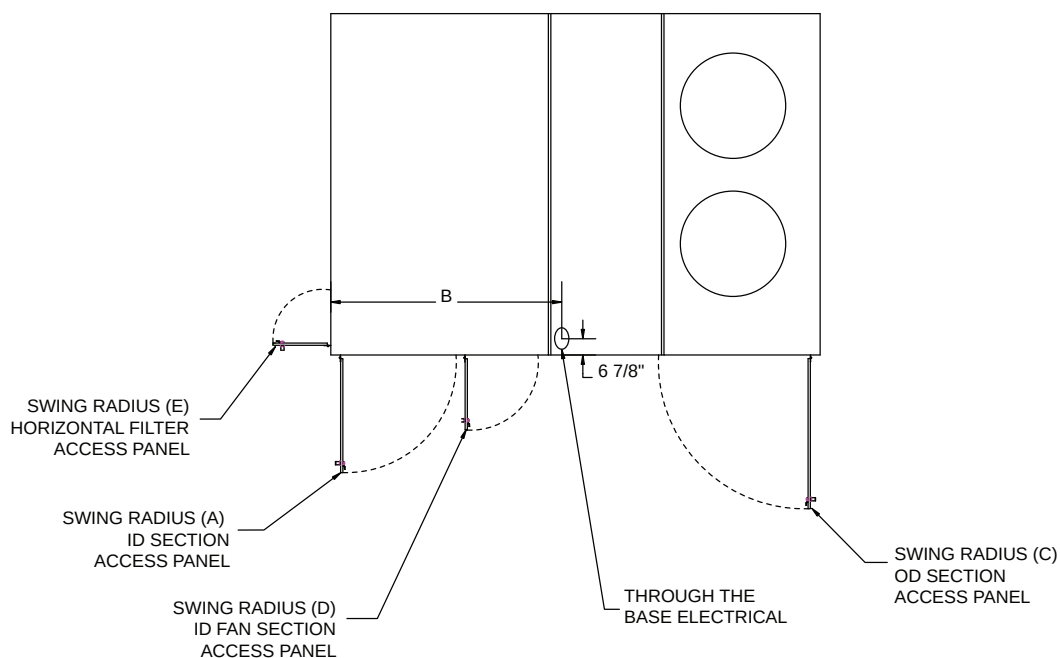


Table 108. Gas/electric unit—swing diameter and through the base electrical; height of gas pipe

Unit Model #	A	B	C	D	E	F
YSD150G	42 3/8	66 3/8	48 3/8	N/A	N/A	31
YSD180–300G, YHD150–300G	29 1/2	77 7/8	56	18 1/2	N/A	38 1/2
YSH150G	42 3/8	N/A	N/A	N/A	12	31
YSH180–300G, YHH150–300G	29 1/2	N/A	N/A	18 1/2	14	38 1/2

Note: All dimensions are in inches.

TOP VIEW SHOWING THROUGH THE BASE
ELECTRICAL UTILITY LOCATIONS AND ACCESS PANEL SWING CLEARANCES.

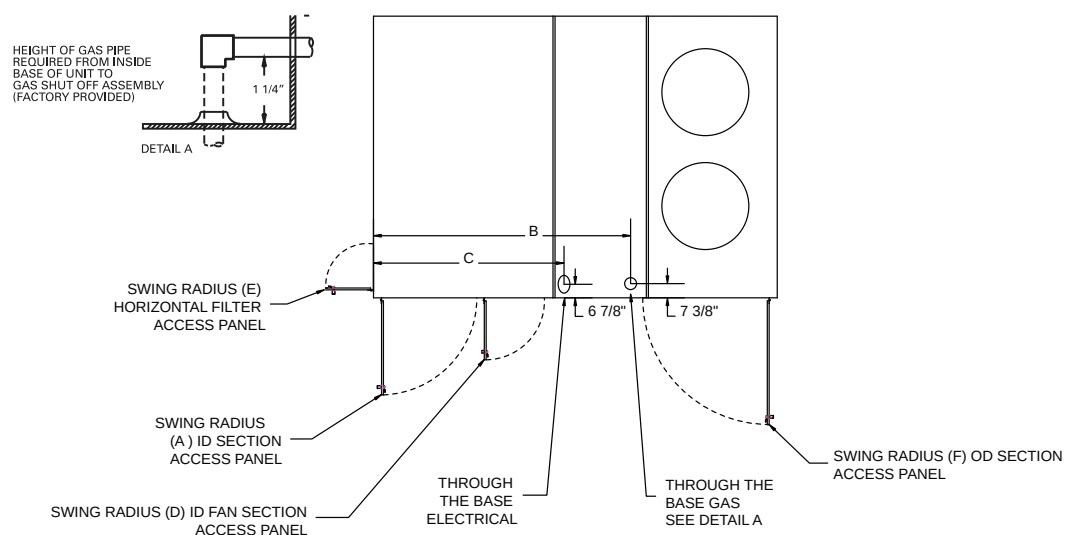


Figure 13. Fresh air hood (horizontal units)

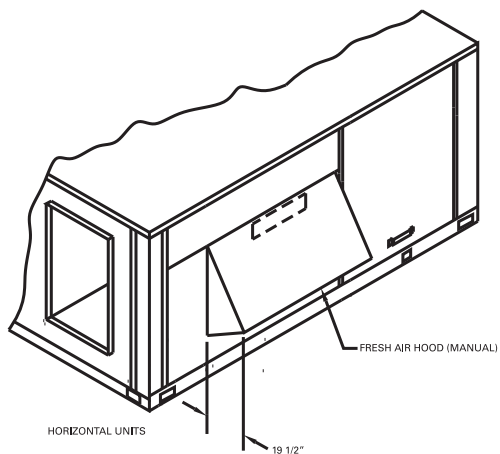
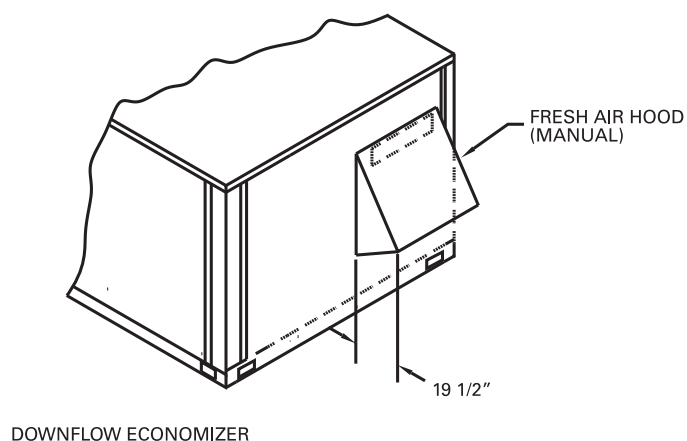


Figure 14. Fresh air hood (downflow units)



Dimensional Data

Figure 15. Power exhaust—downflow economizers

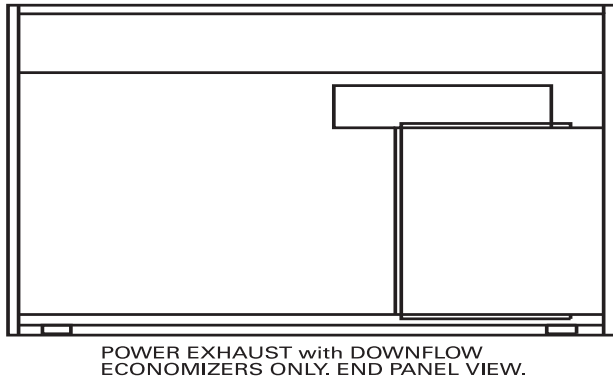


Figure 16. Power exhaust—downflow economizers—side view

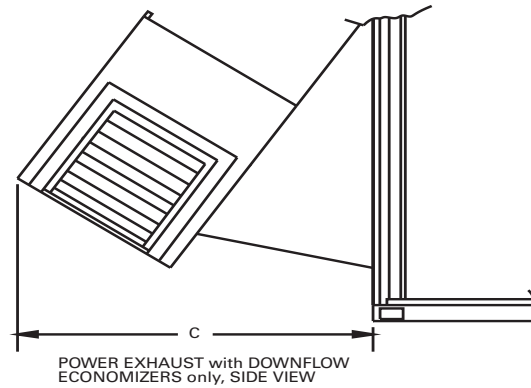


Figure 17. Economizer—horizontal units

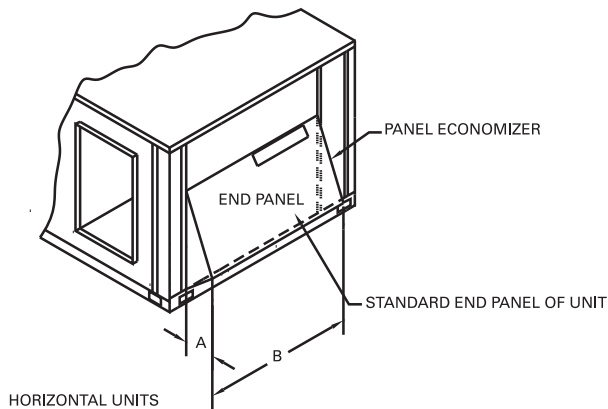
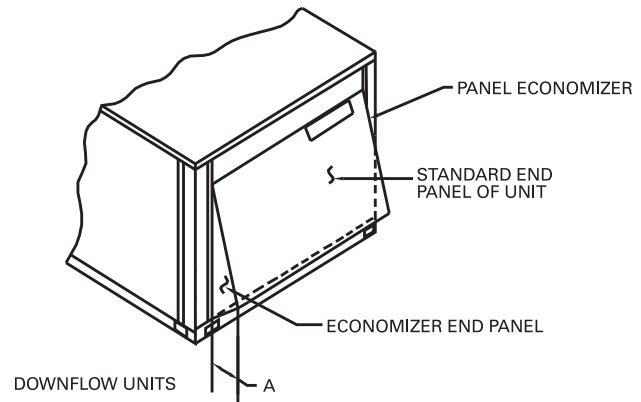


Figure 18. Economizer—downflow units



Note: When applying economizer to horizontal units, connected ductwork must be run full size to allow proper operation of economizer damper.

Table 109. Power exhaust dimensions

Unit Model #	A	B(a)	C(b)
T/YS*150G	17½	53¾	36
T/YH*150G, T/YS*180–300G, T/YH*180–300G	19½	64¾	39

(a) Horizontal dimension only. Downflow economizer is width of end panel.

(b) Power exhaust is applied on downflow economizer only.

Weights

Table 110. Maximum unit and corner weights (lb) and center of gravity dimensions (in.) cooling with optional electric heat units only

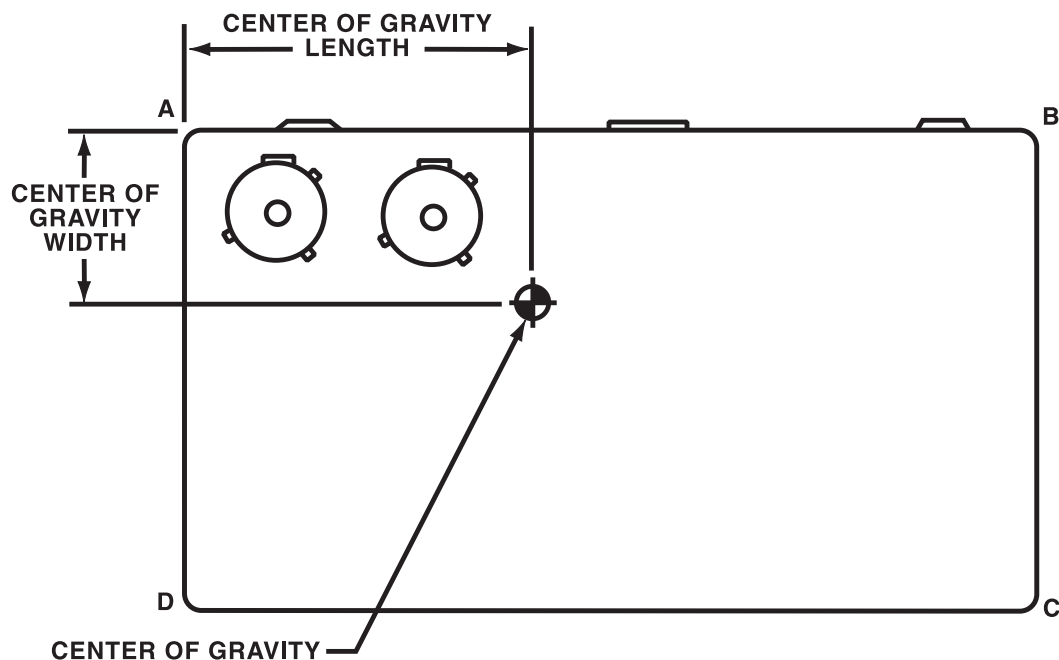
Tons	Unit Model No.	Weights (lb) ^{(a), (b)}		Corner Weights ^(c)				Center of Gravity (in.)	
		Shipping	Net	A	B	C	D	Length	Width
12½	TS*150G	1745	1373	516	364	208	285	44	25
	TH*150G	2299	1868	632	503	345	391	55	33
	THD150G (Reheat Units)	2390	1959	693	470	337	458	50	34
15	TS*180G	2194	1763	575	480	338	370	56	34
	TH*180G	2519	2076	619	564	425	469	58	36
	THD180G (Reheat Units)	2469	2026	701	491	360	474	51	35
17½	TS*210G	2251	1819	583	494	354	388	57	34
	TH*210G	2480	2037	622	542	399	474	56	36
	THD210G (Reheat Units)	2514	2071	736	495	360	480	50	34
20	TS*240G	2334	1902	615	498	357	433	55	35
	TH*240G	2550	2107	671	552	401	483	55	35
	THD240G (Reheat Units)	2534	2091	751	497	361	482	50	34
25	TS*300G	2376	1945	624	512	369	440	55	35
	TH*300G	2551	2108	672	556	400	481	55	35
	THD300G (Reheat Units)	2576	2133	738	522	385	487	52	34

(a) Weights are approximate. Horizontal and downflow unit and corner weights may vary slightly.

(b) Weights do not include additional factory or field installed options/accessories. For option/accessory additional weights, reference [Table 112, p. 146](#) to be added to unit weights.

(c) Corner weights are given for information only. 12½–25 ton models must be supported continuously by a curb or equivalent frame support.

* Indicates both downflow and horizontal units.



Weights

Table 111. Maximum unit and corner weights (lb) and center of gravity dimensions (in.) gas/electric heat units only

Tons	Unit Model No.	Weights (lb) ^{(a), (b)}		Corner Weights ^(c)				Center of Gravity (in.)	
		Shipping	Net	A	B	C	D	Length	Width
12½	YS*150G	1820	1448	537	381	225	306	45	26
	YH*150G	2402	1971	680	515	352	423	54	33
	YHD150G (Reheat Units)	2465	2034	714	487	354	478	50	34
15	YS*180G	2269	1838	595	497	355	390	56	34
	YH*180G	2665	2222	665	602	453	503	58	36
	YHD180G (Reheat Units)	2544	2101	722	508	377	494	51	35
17½	YS*210G	2326	1894	604	511	371	409	57	35
	YH*210G	2629	2186	670	581	427	508	56	36
	YHD210G (Reheat Units)	2589	2146	756	512	377	500	50	34
20	YS*240G	2409	1977	635	515	374	454	55	35
	YH*240G	2700	2257	719	591	430	517	55	35
	YHD240G (Reheat Units)	2609	2166	771	514	378	503	50	34
25	YS*300G	2451	2020	644	529	386	461	55	35
	YH*300G	2734	2291	734	603	432	523	55	35
	YHD300G (Reheat Units)	2651	2208	759	539	402	508	52	35

(a) Weights are approximate. Horizontal and downflow unit and corner weights may vary slightly.

(b) Weights do not include additional factory or field installed options/accessories. For option/accessory additional weights, reference [Table 112, p. 146](#) to be added to unit weights.

(c) Corner weights are given for information only. 12½–25 ton models must be supported continuously by a curb or equivalent frame support.

* Indicates both downflow and horizontal units.

Table 112. Factory installed options (FIOPS)/accessory net weight (lb)^{(a), (b)}

Accessories	B Cabinet		C Cabinet		C+ Cabinet	
	T/YSD150G	T/YSH150G	T/YSD180-300G T/YHD150G	T/YSH180-300G T/YHH150G	T/YHD180-300G	T/YHH180-300G
Standard Economizer	65	50	80	65	80	65
Low Leak Economizer	180	180	250	250	250	250
Manual Outside Air Damper	32	32	32	32	32	32
Motorized Outside Air Damper	60	60	75	75	75	75
Power Exhaust ^(c)	95	—	95	—	95	—
Roof Curb ^(c)	205	—	235	—	235	—
Oversized Motor	5	5	5	5	5	5
Hail Guard	34	34	43	43	51	51
Hinged Access Doors ^(d)	27	27	27	27	27	27
Powered Conv. Outlet	38	38	38	38	38	38
Through the Base Electrical	23	23	23	23	23	23
Circuit Breaker	10	10	10	10	10	10
Disconnect	10	10	10	10	10	10
Smoke Detector Supply	5	5	5	5	5	5
Smoke Detector Return	5	5	5	5	5	5
Novar	7	7	7	7	7	7
High Static Drive Kit ^(e)	2	2	2	2	2	2
Low Static Drive Kit ^(e)	2	2	—	—	—	—

Table 112. Factory installed options (FIOPS)/accessory net weight (lb)^{(a), (b)}

Accessories	B Cabinet		C Cabinet		C+ Cabinet	
	T/YSD150G	T/YSH150G	T/YSD180-300G T/YHD150G	T/YSH180-300G T/YHH150G	T/YHD180-300G	T/YHH180-300G
LP Gas Conversion	5	5	5	5	5	5
All Zone Sensors	1	1	1	1	1	1
Electric Heaters						
6–23 kW ^(f) (g)	28/21	28/21	28/21 ^(h)	28/21 ^(h)	—	—
27–36 kW ^(f) (g)	31/27	31/27	33/27	33/27	33/27	33/27
54 kW ^(f) (g)	38/32	38/32	40/32	40/32	40/32	40/32
72 kW ^(f) (g) (i)	—	—	43/34	43/34	43/34	43/34
Stainless Steel Heat Exchanger						
150 MBh	50	50	50 ^(h)	50 ^(h)	—	—
250 MBh	50	50	50	50	50	50
350 MBh	75	75	75	75	75	75
400 MBh ^(j)	—	—	75	75	75	75
Stainless Steel Drain Pan	6.6	6.6	8.1	8.1	8.1	8.1
VFD						
3 and 5 HP ^(k)	32	34	32	34	32	34
7.5 HP ⁽ⁱ⁾	—	—	63	65	63	65
Traq Dampers	25	25	23	23	23	23

(a) Net weight should be added to unit weight when ordering factory-installed accessories.

(b) Weights for FIOP accessories not listed are < 5 lb.

(c) Downflow only.

(d) An additional 30lbs should be added to the shipping weight when hinged door option is ordered.

(e) Not available on all models (see Fan Performance tables for specific models).

(f) For 600V heaters net weights are same as 480V heaters.

(g) To estimate shipping weight add 5 lb to net weight.

(h) Applicable to T/YH*150G units only.

(i) Not applicable to T/YH*150-180G, and T/YS*180G units.

(j) Applicable to T/Y**240-300* units only.

(k) Not applicable to T/Y**300* units.



Mechanical Specifications

General

The units shall be dedicated downflow or horizontal airflow. The operating range shall be between 115°F and 0°F in cooling as standard from the factory for all units. Cooling performance shall be rated in accordance with AHRI testing procedures. All units shall be factory assembled, internally wired, fully charged with R-410A, and 100 percent run tested to check cooling operation, fan and blower rotation and control sequence, before leaving the factory. Wiring internal to the unit shall be colored and numbered for simplified identification. Units shall be UL listed and labeled, classified in accordance to UL 1995/C 22.2, 236-05 3rd Edition.

Packaged Rooftop units cooling, heating capacities, and efficiencies are AHRI certified within scope of AHRI Standard 340/360 (I-P) and ANSI Z21.47 and 10 CFR Part 431 pertaining to Commercial Warm Air Furnaces (gas heating units).

Barometric Relief

Designed to be used on downflow units, barometric relief is an unpowered means of relieving excess building pressure.

Casing

Unit casing shall be constructed of zinc coated, heavy gauge, galvanized steel. Exterior surfaces shall be cleaned, phosphatized, and finished with a weather-resistant baked enamel finish. Unit's surface shall be tested 672 hours in a salt spray test in compliance with ASTM B117. Cabinet construction shall allow for all maintenance on one side of the unit. In order to ensure a water and air tight seal, service panels shall have lifting handles and no more than three screws to remove. All exposed vertical panels and top covers in the indoor air section shall be insulated with a 1/2-inch, 1-pound density foil-faced, fire-resistant, permanent, odorless, glass fiber material. The base of the downflow unit shall be insulated with 1/2-inch, 1-pound density foil-faced, closed-cell material. The downflow unit's base pan shall have no penetrations within the perimeter of the curb other than the raised 11/8-inch high supply/return openings to provide an added water integrity precaution, if the condensate drain backs up. The base of the unit shall have provisions for forklift and crane lifting.

Compressors

All units shall have direct-drive, hermetic, scroll type compressors with centrifugal type oil pumps. Motor shall be suction gas-cooled and shall have a voltage utilization range of plus or minus 10 percent of nameplate voltage. Internal overloads shall be provided with the scroll compressors. All models shall have crankcase heaters, phase monitors and low and high pressure control as standard. Dual compressors are available on all standard efficiency models and 12.5 to 20 tons high efficiency models and allow for efficient cooling utilizing 3 stages of compressor operation (high efficiency models only). 25 tons high efficiency units have 3 compressors for up to 4 stages of compressor operation.

Controls

Unit shall be completely factory wired with necessary controls and contactor pressure lugs or terminal block for power wiring. Unit shall provide an external location for mounting a fused disconnect device. ReliaTel controls shall be provided for all 24-volt control functions. The resident control algorithms shall make all heating, cooling, and/or ventilating decisions in response to electronic signals from sensors measuring indoor and outdoor temperatures. The control algorithm maintains accurate temperature control, minimizes drift from set point, and provides better building comfort. A centralized control shall provide anti-short cycle timing and time delay between compressors to provide a higher level of machine protection.

Crankcase Heaters

These band heaters provide improved compressor reliability by warming the oil to prevent migration during off-cycles or low ambient conditions. These are standard on all Voyager models.

Defrost Controls

Adaptive demand defrost shall be provided to permit defrost wherever coil icing conditions begin to significantly reduce unit capacity.

Discharge Line Thermostat

A bi-metal element discharge line thermostat is installed as a standard option on the discharge line of each system. This standard option provides extra protection to the compressors against high discharge temperatures in case of loss of charge, extremely high ambient and other conditions which could drive the discharge temperature higher. Discharge line thermostat is wired in series with high pressure control. When the discharge temperature rises above the protection limit, the bi-metal disc in the thermostat switches to the off position, opening the 24 Vac circuit. When the temperature on the discharge line cools down, the bi-metal disc closes the contactor circuit, providing power to the compressor. When the thermostat opens the fourth time, the ReliaTel control must be manually reset to resume operation on that stage.

Evaporator and Condenser Coils

Microchannel coils will be burst tested by the manufacturer. Internally finned, 5/16-inch copper tubes mechanically bonded to a configured aluminum plate fin shall be standard on high efficiency models and microchannel shall be standard on standard efficiency for evaporator coils. Microchannel condenser coils shall be standard on all units. Coils shall be leak tested to ensure the pressure integrity. The evaporator coil and condenser coil shall be leak tested to 225 psig and pressure tested to 450 psig. Sloped condensate drain pans are standard.

Filters

Two inch standard filters shall be factory supplied on all units. Optional MERV 8 or MERV 13 filters with filter removal tool shall be available.

Gas Heating Section

The heating section shall have a drum and tube heat exchanger design using corrosion resistant steel components. A forced combustion blower shall supply premixed fuel to a single burner ignited by a pilotless hot surface ignition system.

In order to provide reliable operation, a negative pressure gas valve shall be used on standard furnaces and a pressure switch on furnaces with modulating heat that requires blower operation to initiate gas flow. On an initial call for heat, the combustion blower shall purge the heat exchanger 45 seconds before ignition.

After three unsuccessful ignition attempts, the entire heating system shall be locked out until manually reset at the thermostat. Units shall be suitable for use with natural gas or propane (field installed kit) and shall also comply with California requirements for low NO_x emissions. The 12½–25 tons shall have two stage heating (Gas/Electric only).

Indoor Fan

Units above shall have belt driven, FC centrifugal fans with adjustable motor sheaves. Units with standard motors shall have an adjustable idler-arm assembly for quick-adjustment of fan belts and motor sheaves. All motors shall be thermally protected. Oversized motors shall be available for high static application. All indoor fan motors meet the U.S. Energy Policy Act of 1992 (EPACT).

Outdoor Fans

The outdoor fan shall be direct-drive, statically and dynamically balanced, draw-through in the vertical discharge position. The fan motor(s) shall be permanently lubricated and shall have built-in thermal overload protection.

Phase Monitor

The Phase Monitor is a three-phase line monitor module that protects against phase loss, phase reversal and phase unbalance. It is intended to protect compressors from reverse rotation. It has

Mechanical Specifications

an operating input voltage range of 190–600 Vac, and LED indicators for ON and FAULT. There are no field adjustments and the module will automatically reset from a fault condition.

Refrigerant Circuits

Each refrigerant circuit shall have independent fixed orifice or thermostatic expansion devices, service pressure ports, and refrigerant line filter driers factory installed as standard. An area shall be provided for replacement suction line driers. Thermal Expansion Valves (TXVs) shall be standard on all high efficiency units.

Unit Top

The top cover shall be one piece, or where seams exist, double hemmed and gasket sealed to prevent water leakage.

Variable Frequency Drive

Variable Frequency Drives are factory installed and tested to provide supply fan motor speed modulation, as well as modulating gas heat. VFDs on the supply fan, as compared to inlet guide vanes or discharge dampers, are quieter, more efficient, and are eligible for utility rebates. All VFDs are designed to allow bypass if required.

Note: *It has to be hard wired with relay and removed for temporary operations; see wave 121927.*

Bypass control will simply provide full nominal airflow in the event of drive failure.

Modulating gas heat models with VFDs allow tighter space temperature control with less temperature swing.

Factory Installed Options

CO₂ Sensor Wiring

The unit wiring for field installed CO₂ sensors. Factory-installed CO₂ sensor wiring saves time and ensures proper unit connections for the field installed CO₂ sensor kits.

Complete Coat™ Microchannel Condenser Coil

The cathodic epoxy type electrodisposition coating is formulated for high edge build to a number of different types of heat exchangers. The coating is selected to provide excellent resistance and durability to corrosive effects of alkalies, acids, alcohols, petroleum, seawater, salty air, and other corrosive environments. This coating shall be available on microchannel condenser coils.

Condensate Overflow Switch

This option shall shut the unit down in the event that a clogged condensate drain line prevents proper condensate removal from the unit.

Fault Detection and Diagnostics (FDD)

This offering meets the mandatory requirement of Title 24. This option provides detection of the following faults: Air temperature sensor failure/fault, not economizing when it should, economizing when it should not, damper not modulating, and excessive outdoor air. The FDD system shall be certified by the Energy Commission as meeting the requirements.

High Efficiency Motors

This option is available with efficiency ratings from 86.5 up to 91.0. It is not available for all models.

High Short Circuit Current Rating

Unit shall be provided with electrical subsystem that will withstand fault currents up to 65kA (208/230, 460 Vac) or 25kA (575 Vac) compliant with UL 1995 and NEC 440.4 (B). Each compressor circuit and the indoor fan shall have dedicated overcurrent protection. Three phase motors shall be protected by Class J time delay fuses. Single phase motors shall be protected by Class CC time

delay fuses. All transformers shall also be protected with Class CC time delay fuses. Contactors shall be din rail mounted.

Hinged Access Doors

Sheet metal hinges are available on the Filter/Evaporator Access Door and the Compressor/Control Access Door. This option is available on all downflow models.

Horizontal Side Access with Circuit Breaker

This option is a thermal magnetic, molded case, HACR Circuit Breaker with provisions for through the base electrical connections. The circuit breaker will be installed in a water tight enclosure in the unit with access through a swinging door. Factory wiring will be provided from the switch to the unit high voltage terminal block. The circuit breaker will provide overcurrent protection, be sized per NEC and UL guidelines, and be agency recognized by UL/CSA.

Horizontal Side Access with Disconnect Switch

Three-pole, molded case, disconnect switch with provisions for through the base electrical connections are available. The disconnect switch will be installed in the unit in a water tight enclosure with access through a swinging door. Factory wiring will be provided from the switch to the unit high voltage terminal block. The switch will be UL/CSA agency recognized.

Note: *The disconnect switch will be sized per NEC and UL guidelines but will not be used in place of unit overcurrent protection.*

Human Interface

The Human Interface shall have a 5 inch color touchscreen display that conforms to FCC Part 15 Class B with an Ingress Protection Rating of IP24. The display text shall be readable by a person with 20/20 vision at a distance of 3 feet and 60° angle at lighting levels ranging from 100 lux - 25,000 lux. Also, the display shall operate at temperatures of -40° C to 70° C. Firmware and unit configurations shall be able to be restored via a USB storage device.

Multi-Speed Indoor Fan System

The multiple-speed (two-speed) indoor fan control option shall automatically switch operation of the indoor fan between high speed and low speed, based on the number of compressors operating. The indoor fan shall operate at high speed whenever the gas or electric heater is operating.

Multiple-Zone VAV Control

Multiple-zone VAV control shall vary the speed of the indoor fan to maintain the duct static pressure at a setpoint. In cooling mode, the compressors shall be cycled (or economizer modulated) to maintain the supply air temperature (SAT) at the desired setpoint. In heating mode, the indoor fan shall operate at maximum speed whenever the heater operating.

Powered or Unpowered Convenience Outlet

This option is a GFCI, 120V/15amp, 2-plug, convenience outlet, either powered or unpowered. When the convenience outlet is powered, a service receptacle disconnect will be available. The convenience outlet is powered from the line side of the disconnect or circuit breaker, and therefore will not be affected by the position of the disconnect or circuit breaker. This option can only be ordered when the Through the Base Electrical with either the Disconnect Switch, or Circuit Breaker, option is ordered. This option is available on all downflow models (Gas/Electric only).

Single Zone VAV

SZVAV systems combine Trane application, control and system integration knowledge to exactly match fan speed with cooling and heating loads, regardless of the operating condition.

Note: *Zone sensors are required for units configured for Single Zone VAV indoor fan system control in order to enable Single Zone VAV functionality.*

Mechanical Specifications

Stainless Steel Drain Pan

This option provides excellent corrosion and oxidation resistance. Drain pan shall be constructed of 304 stainless steel.

Stainless Steel Heat Exchanger

Gas heat exchanger shall be of drum and tube design constructed from a minimum 439 Grade stainless steel. The stainless steel heat exchanger shall have a 10-year warranty as standard (Gas/Electric only).

Supply, Return and Plenum Air Smoke Detector

With this option installed, if smoke is detected, all unit operation will be shut down. Reset will be manual at the unit. Return Air Smoke Detectors require minimum allowable airflow when used with certain models. See the Installation, Operation, and Maintenance (IOM) manual for the models affected and the minimum allowable airflow required. This option is available on all downflow models. Supply and/or Return Detectors may not be used with the Plenum Smoke Detector.

Through the Base Electrical with Circuit Breaker

This option is a thermal magnetic, molded case, HACR Circuit Breaker with provisions for through the base electrical connections. The circuit breaker will be installed in a water tight enclosure in the unit with access through a swinging door. Factory wiring will be provided from the switch to the unit high voltage terminal block. The circuit breaker will provide overcurrent protection, be sized per NEC and UL guidelines, and be agency recognized by UL/CSA.

Through the Base Electrical with Disconnect Switch

Three-pole, molded case, disconnect switch with provisions for through the base electrical connections are available. The disconnect switch will be installed in the unit in a water tight enclosure with access through a swinging door. Factory wiring will be provided from the switch to the unit high voltage terminal block. The switch will be UL/CSA agency recognized.

Note: *The disconnect switch will be sized per NEC and UL guidelines but will not be used in place of unit overcurrent protection.*

Through the Base Utilities Access

An electrical service entrance shall be provided allowing electrical access for both control and main power connections inside the curb and through the base of the unit. Option will allow for field installation of liquid-tight conduit and an external field installed disconnect switch.

Trane® Air-Fi® Wireless

Trane® Air-Fi® wireless communication shall be factory installed and pre-wired. Air-Fi® must also be Zigbee® Building Automation certified and the system communicates using standard BACnet® open protocol.

Two-Inch Pleated Filters

Two-inch MERV 8 and MERV 13 media filters with filter removal tool shall be available on all models.

VAV Operation

The VFD shall receive a 0-10 Vdc signal from the unit control based upon supply static pressure, and shall cause the drive to accelerate or decelerate as required to maintain the supply static pressure setpoint. When subjected to high ambient return conditions the VFD shall reduce its output frequency to maintain operation.

Factory or Field Installed Options

BACnet® Communications Interface

This option shall be provided to allow the unit to communicate directly with a generic open protocol BACnet® MS/TP Network Building Automation System Controls.

Clogged Filter/Fan Failure Switch

A dedicated differential pressure switch is available to achieve active fan failure indication and/or clogged filter indication. These indications will be registered with either a zone sensor with status indication lights or an Integrated Comfort™ System.

Differential Pressure Switches

These options allow for individual fan failure and dirty filter indication. The fan failure switch will disable all unit functions and “flash” the Service LED on the zone sensor. The dirty filter switch will light the Service LED on the zone sensor and will allow continued unit operation.

Discharge Air Temperature Sensing Kit

This kit provides true discharge air temperature sensing in heating models. This sensor is a status indicator readable through Tracer® or Tracker™. The kit is functional only with the ReliaTel Options Module.

Economizer— Standard, Downflow

The assembly includes fully modulating 0–100% motor and dampers, barometric relief, minimum position setting, preset linkage, wiring harness with plug, fixed dry bulb and spring return actuator. The barometric relief damper shall be standard with the downflow economizer and shall provide a pressure operated damper that shall be gravity closing and shall prohibit entrance of outside air during the equipment “off” cycle. Solid state enthalpy and differential enthalpy control shall be field-installed.

Economizer - Low Leak, Downflow

This accessory meets low leak requirements for ASHRAE 90.1, IECC, and CA Title 24 standards (3 cfm/ft²@1" wg exterior air, 4 cfm/ft²@1" wg return air). This option allows 100% outdoor air supply from 0-100% modulating dampers and is standard with barometric relief. It can be paired with powered exhaust for additional building pressure relief. This option can be paired with or without Fault Detection and Diagnostics (FDD) to meet current mandatory CA Title 24 requirements. Available on downflow units only. The economizers come with three control options, dry bulb and reference or comparative enthalpy (optional).

Electric Heaters

Electric heat modules shall be available for installation within the basic unit. Electric heater elements shall be constructed of heavy-duty nickel chromium elements internally delta connected for 240 volt, wye connected for 480 and 600 volt. Staging shall be achieved through ReliaTel. Each heater package shall have multiple automatic reset and single operation high temperature limit controls operating to break line power to the heater element. All heaters shall be individually fused from the factory, where required, and shall meet all NEC and CEC requirements when properly installed. Power assemblies shall provide single-point connection. Electric heat modules shall be UL listed or CSA certified. If ordering the Through the Base Electrical option with an Electric Heater, the heater must be factory installed.

Indoor Fan Motor Shaft Grounding Ring

Shaft grounding rings are used on all VFD driven motors to provide a conductive discharge path away from the motor bearings to ground. Bearing Protection Ring shall be maintenance free circumferential ring of conductive micro fibers that discharges voltages to ground.

Mechanical Specifications

LonTalk® Communications Interface

The LonTalk communications interface, when installed in a Voyager unit, allows the unit to communicate as a Tracer® LCI-V device or directly with generic LonTalk Network Building Automation System Controls.

Oversized Motors

Oversized motors shall be available for high static applications.

Reference or Comparative Enthalpy

Reference Enthalpy is used to measure and communicate outdoor humidity. The unit receives and uses this information to provide improved comfort cooling while using the economizer. Comparative Enthalpy measures and communicates humidity for both outdoor and return air conditions, and return air temperature. The unit receives and uses this information to maximize use of economizer cooling, and to provide maximum occupant comfort control. Reference or Comparative Enthalpy option shall be available when a factory or field installed Downflow Economizer is ordered. This option is available on all downflow models.

Tool-less Hail Guards

Tool-less, hail protection quality coil guards are available for condenser coil protection.

Trane Communication Interface

This factory or field-installed option shall be provided to interface ReliaTel™ controlled units with the Trane Integrated Comfort™ systems.

Field Installed Options

CO₂ Sensor

The CO₂ sensor shall have the ability to monitor the concentration (parts per million, ppm) of CO₂ (Carbon Dioxide) in the air. As the CO₂ concentration changes, the outside air damper modulates to meet the current ventilation needs of the zone.

Note: Two field installed kits are offered: CO₂ sensor and wiring or CO₂ sensor only. The CO₂ sensor only kit should be ordered with factory installed CO₂ sensor wiring. Factory installed CO₂ sensor wiring saves set-up time and ensures proper unit connections for the CO₂ sensor.

Economizer — Standard, Horizontal

The horizontal economizer shall contain the same features as the downflow economizer with the exception of barometric relief.

Economizer - Low Leak, Downflow and Horizontal

This accessory meets low leak requirements for ASHRAE 90.1, IECC, and CA Title 24 standards (3 cfm/ft²@1" wg exterior air, 4 cfm/ft²@1" wg return air). This option allows 100% outdoor air supply from 0-100% modulating dampers and is standard with barometric relief. It can be paired with powered exhaust for additional building pressure relief.

High Static Drive

The high static drive option shall allow the standard motor on the 12½, 15, 17½, 20 and 25 ton units to operate with improved external static capabilities.

Humidity Sensor

Field installed, wall-mounted or duct-mounted humidity sensor is used to control activation of the hot gas reheat dehumidification option. The humidity sensor can be set for humidity levels between 40% and 60% relative humidity by adjusting the ReliaTel Options Module.

Manual Outside Air Damper

The rain hood and screen shall provide up to 25% outside air.

Motorized Outside Air Dampers

Manually set outdoor air dampers shall provide up to 50% outside air. Once set, outdoor air dampers shall open to set position when indoor fan starts. The damper shall close to the full closed position when indoor fan shuts down.

Outside Air Measuring/Monitoring Control (Traq Dampers)

Requires Low Leak Economizer (Factory or Field Installed) and include:

- UC400 Controller
- Damper Actuator
- Pressure Sensors

Powered Exhaust

The powered exhaust shall provide exhaust of return air, when using an economizer, to maintain better building pressurization.

Roof Curb—Downflow

The roof curb shall be designed to mate with the downflow unit and provide support and a water tight installation when installed properly. The roof curb design shall allow field-fabricated rectangular supply/return ductwork to be connected directly to the curb. Curb shall be shipped knocked down for field assembly and shall include wood nailer strips.

Remote Potentiometer

The minimum position setting of the economizer shall be adjusted with this accessory.

Ventilation Override Accessory

With the Ventilation Override Accessory installed, the unit can be set to transition up to three different pre-programmed sequences for Smoke Purge, Pressurization, and Exhaust. The transition occurs when a binary input on the RTOM is closed (shorted). This would typically be a hard wired relay output from a smoke detector or fire control panel.

Wireless Zone Sensor

LCD display that provides heat, cool, auto, or off. Includes two temperature setpoints and a lockable setting with °F or °C indicators.

Zone Sensors

This option shall be provided to interface with ReliaTel and shall be available in either manual, automatic, programmable with night setback, with system malfunction lights or remote sensor options.

Note: *Zone sensors are required for units configured for Single Zone VAV indoor fan system control in order to enable Single Zone VAV functionality.*



The AHRI Certified mark indicates Trane U.S. Inc. participation in the AHRI Certification program. For verification of individual certified products, go to ahridirectory.org.

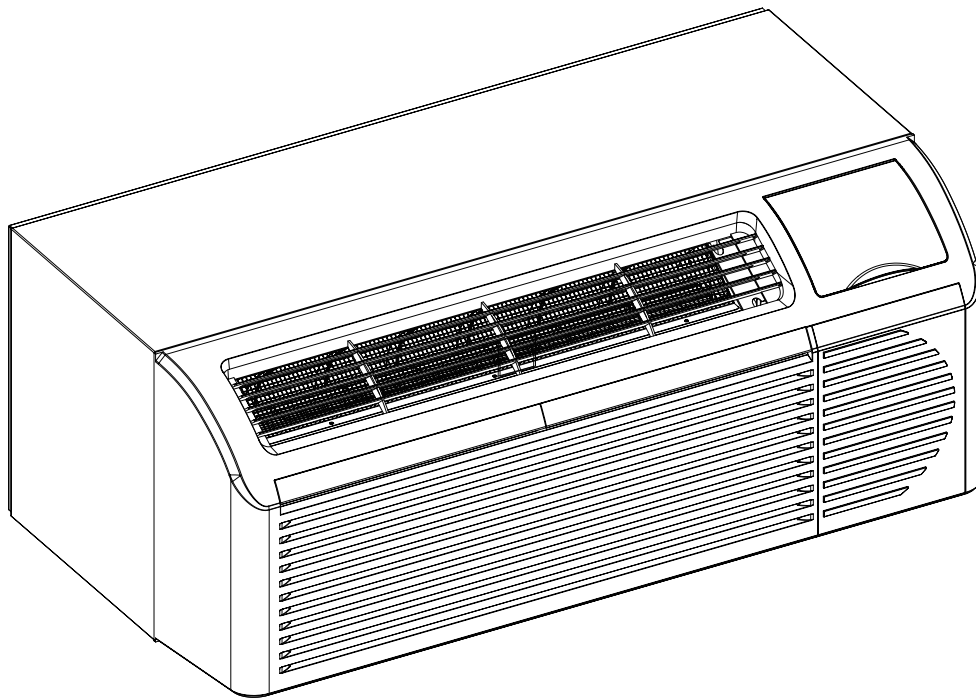
Trane - by Trane Technologies (NYSE: TT), a global climate innovator - creates comfortable, energy efficient indoor environments for commercial and residential applications. For more information, please visit trane.com or tranetechnologies.com.

Trane has a policy of continuous product and product data improvement and reserves the right to change design and specifications without notice. We are committed to using environmentally conscious print practices.

**E-TAC (GB Series)
Packaged Terminal Air Conditioner / Heat Pump
7,000 – 15,000 Btuh**



Performance and Specifications



Engineered Terminal Air Conditioner

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APPLICATIONS

Whether you are designing a new structure or replacing packaged terminal air conditioning units in an existing building, Gree E-TAC will meet your needs.

- Hotels and motels
- Nursing homes and assisted living care centers
- Offices
- Apartments
- Single-family dwellings
- Home conversions and residential add-ons

NEW CONSTRUCTION

The Gree E-TAC Packaged Terminal Air Conditioning (E-TAC) unit is designed to meet the needs of the architect, engineer, and contractor. For unit installation, Gree's expert support network will assist in all applicable aspects of the construction project, from preparing a budget to start-up.

ADVANTAGES FOR NEW CONSTRUCTION

Design Flexibility for the Architect/Engineer

- Whisper-quiet performance, indoors and out
- No bulky duct system
- No separate equipment room
- No water towers or additional cooling equipment
- No complex match-up of different HVAC components
- Less sensitivity to building orientation (sun, wind, shade)
- Optional architectural grille to permit custom exterior appearance

Initial Cost Savings for the Building Owner

- No expensive component HVAC system purchase
- No equipment room or maintenance engineering staff
- Two-part delivery to minimize on-site damage
- Weather-protected wall sleeve that goes in place during construction; chassis that slides in place after construction
- No seasonal changeover required for cooling or heating - units are self-contained comfort systems

Lower Operating Costs and Reliable Comfort for The Occupant

- Heat pump models offer substantial savings over models with conventional electric resistance heaters
- Individual units allow tenants to choose the degree of comfort and operating economy.
- Rapid servicing reduces downtime: complete chassis can be replaced in minutes without disrupting other occupants.
- Each unit operates independently of other units in the building. No dependency by building on central HVAC system.

RETROFIT/REPLACEMENT

If you are replacing a unit in an existing wall sleeve, your options include:

- Replace the existing wall sleeve with the the polymer wall sleeve. See accessory sleeve section for selecting the correct sleeve for your application.
NOTE: in most cases, when replacing the wall sleeve, the exterior grille must also be replaced.
- Use an existing sleeve and exterior grille. The Gree E-TAC will fit into:
 - The following major competitors' wall sleeves/grilles: Carrier, GE, Amana, Trane, Friedrich and Bryant, and NO accessory retrofit kit is required.
 - Friedrich T series and ZoneAire wall sleeves, with a required wall sleeve extension (see accessory Friedrich Retrofit Wall Sleeve Adapter).

PRODUCT CATALOG NUMBER-NOMENCLATURE

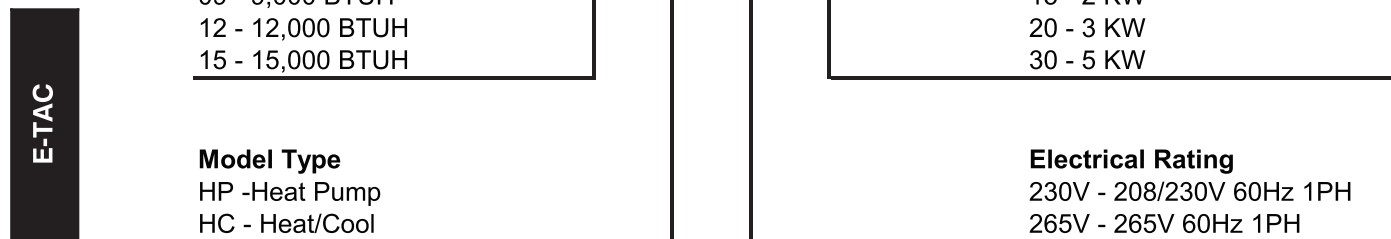


Fig. 3 – Catalog Number Nomenclature

APPLICATION CONSIDERATIONS

Installation instructions are shipped with all E-TAC units. It is important that air conditioning systems be properly sized and installed for each application in order to achieve the desired temperature and humidity levels within the space to be conditioned. It is strongly recommended that a professional engineer match the E-TAC units with the building structure and climate.

The following application considerations are all important in choosing the proper E-TAC for the building structure.

Undersizing

If an E-TAC unit is undersized (cooling capacity is less than required load for an application), the unit will not be able to cool the space down to the desired temperature during very hot days. The result could be warm and humid or warm and dry conditioned space.

Oversizing

If an E-TAC unit is oversized (cooling capacity is greater than required load for the specific application), the unit will cool the space down to the desired temperature too quickly.

The unit will cycle on and off, however, dehumidification only takes place when the unit is operating. The result of this type of application in a hot and/or humid climate would be a cool, yet excessively humid, space.

Air Infiltration

Excessive air infiltration can intensify problems associated with undersizing or oversizing a E-TAC unit. This can be the cause of insufficient cooling, dehumidification, or heating. Sources of air infiltration include vents, gaps around windows and doors, and improperly sealed floors, ceilings or wall joints.

Condensate Removal

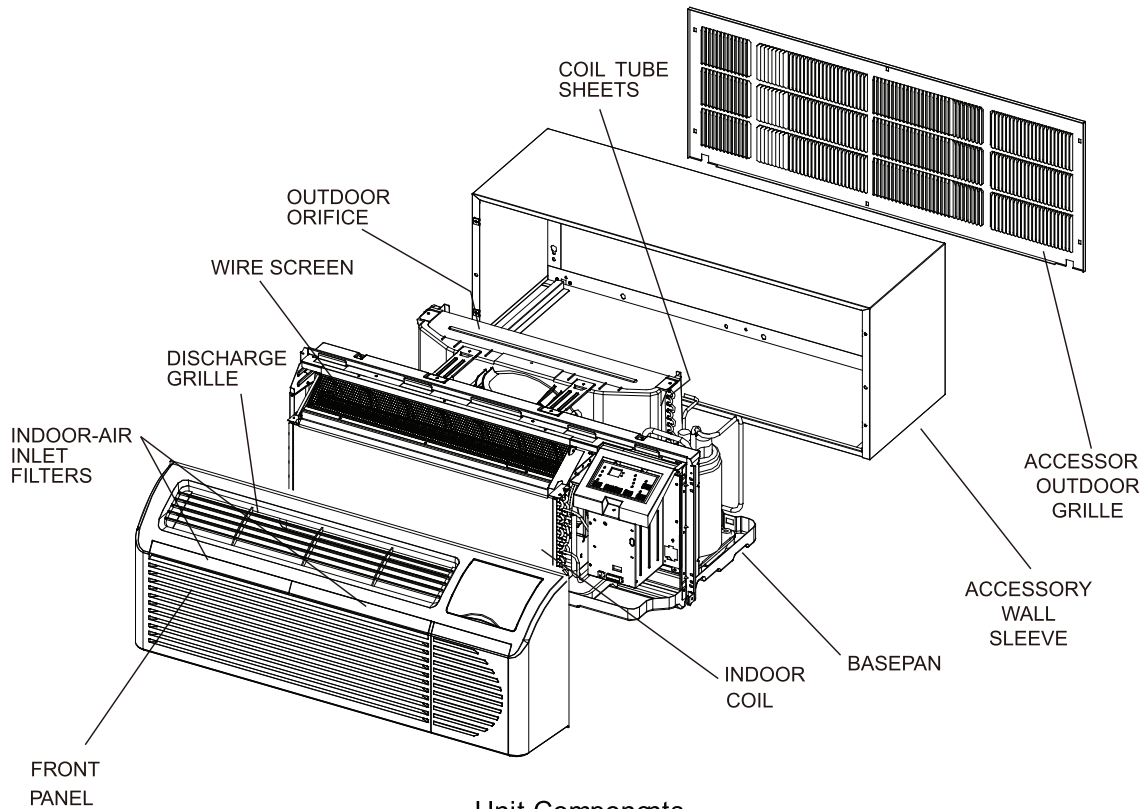
Gree's E-TAC has a new condensate (water) disposal system. The outdoor fan prop has a built in slinger ring which draws condensate and sprays it on the warm outdoor coil for evaporation. Thus providing better disposal of excess condensate and improving unit operating efficiency.

It is normal and desirable to have some condensate water in the base pan to boost operating efficiency.

NOTE: This unit will not always evaporate 100% of the unit generated condensate and blown in rain water. If it is necessary to control 100% of the condensate, the Drain Kit (Part No.: DRAIN-KIT-1PK) and a building condensate drain system is recommended.

PRODUCT OVERVIEW (E-TAC)

This section summarizes product features covered in detail in later sections of this manual.



Unit Components

Comfortouch Digital Control

- **Temperature Display and Touch Pad on Unit**
Precise and easy-to-use
- **Continuous Temperature Sensing**
Ideal comfort for your guests
- **Cooling, Heating and Fan Modes**
One unit for all seasons
- **Setpoint Stoppers**
Electronic temperature limiting reduces operating costs
- **Auto Restart and Random Restart Delay**
Automatically restarts after a power failure
- **Freeze Protection**
Protects unoccupied rooms from freezing temperatures
- **Emergency Heat (Heat Pump Models)**
Bypasses compressor operation and activates electric heater for guest comfort
- **Remote Control Options**
The ultimate in installation flexibility; Wired, Wireless or Energy Management

Silencer System

- **Three-Speed Indoor Fan**
More comfort options for guests to choose from
- **Dual Motor Technology**
Separate indoor and outdoor motors allows one of the quietest and most efficient units in the industry
- **AeroQuiet Indoor Blower Wheel**
Provides quiet and consistent airflow for maximum guest comfort
- **Rotary Compressor Technology**
Quiet operation and low sound transmission indoors
- **Insulated Bulkhead Between Indoors and Outdoors**
Quiet operation and low sound transmission indoors

Smartfan Comfort Control

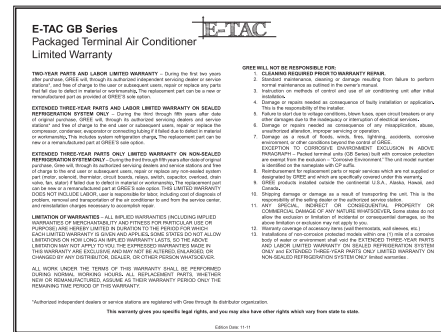
- **Programmable Constant Fan Operation**
Gree customized comfort in heating or cooling modes.
- **Quiet Fan Start-Up and Stops**
Smooth ramp-up and ramp-down of fan speed for quiet comfort

E-TAC PRODUCT FEATURES AND BENEFITS

E-TAC 5-YEAR WARRANTY

All E-TACs are protected by a five-year limited warranty.

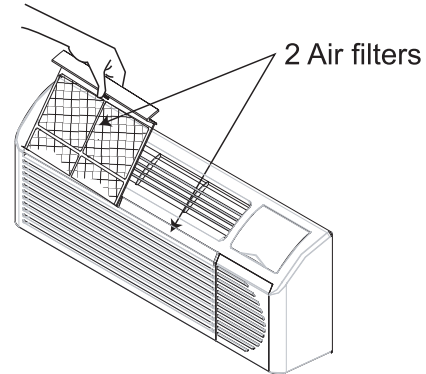
- Two-year parts and labor limited warranty
- Three years additional parts and labor coverage on the sealed refrigeration system
- Limited three years (years 3-5) parts-only coverage



Exclusive Warranty

TWO-PIECE LIFETIME INDOOR FILTER

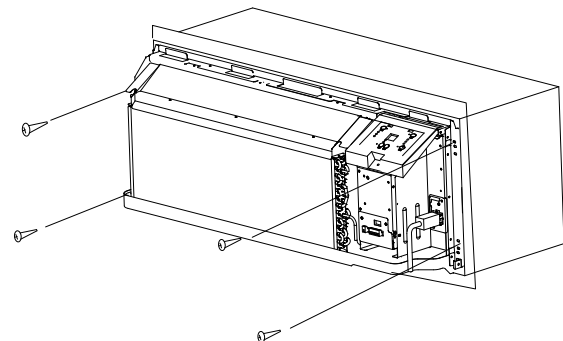
Two-piece removable filters easily slide in and out from the front of the E-TAC unit and are interchangeable. The front panel does not need to be removed to access or change the filters. The filters are washable and permanent.



Two-Piece Indoor Filter

EASY ACCESS TO CHASSIS

Access to the chassis simply requires removing front panel, then four easy to access screws and then sliding the chassis out of the sleeve for service or maintenance.



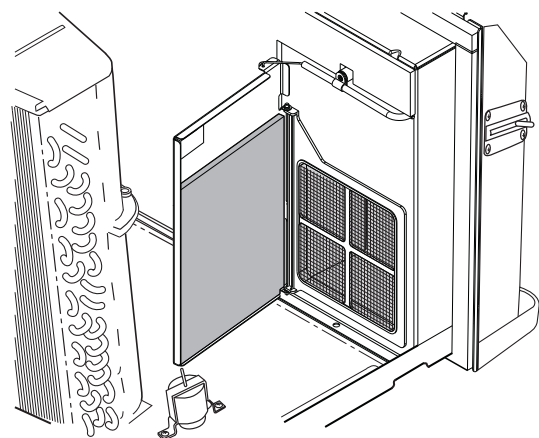
Easy to Access Chassis

A07057

OUTDOOR AIR VENTILATION

The unique vent system is activated by a two-position control. Fresh outside air is redirected by the vent door to the indoor room. A molded plastic filter prevents dirt and debris from entering the room side of the unit. The vent mechanism is made from non corrosive material ensuring reliable operation. A magnet or screw on the door and high-pressure airflow create a tight, draft free seal when the vent door is closed.

The vent will provide fresh air. For vent airflow data see page 37.

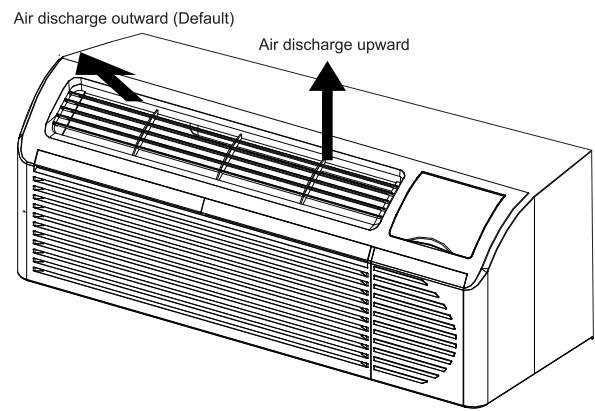


Outdoor Air Ventilation

A07550

BI-DIRECTIONAL DISCHARGE GRILLE

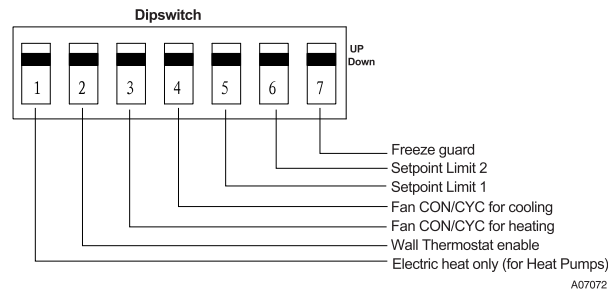
The discharge grille is constructed of durable polycarbonate and is reversible. Air flows upward at a 40 degree angle to the floor but can easily be adjusted to an 80 degree angle to the floor.



Bi-Directional Discharge Grille

SYSTEM CONFIGURATION

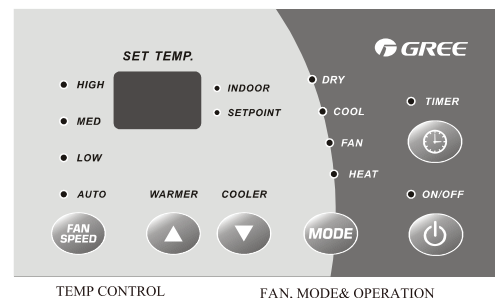
There are many different configuration possibilities, through both dip switches and the digital keypad, that allow you to configure the E-TAC for your exact application. See Owner's Manual for more detailed information.



Configuration Switches

COMFORTOUCH DIGITAL CONTROL

The digital keypad provides a simple to operate control. The large, easy to press, "On/Off", "Fan Speed", "Mode", "Setpoint Up" and "Setpoint Down" buttons make the control easy to operate. LEDs are used to show the operating conditions selected. Large numbers are used to display the Setpoint, and if configured, room air temperature.



Comfortouch Display

STAY DRY DEHUMIDIFICATION

The E-TAC provide users with Stay Dry mode to reduce the humidity in the room, making it more comfortable.

The Stay Dry mode is designed to assist removing extra moisture from the air, not dry it out completely. This is not intended to replace a dehumidifier or act as a dehumidifier.



Stay Dry Mode

SLEEP MODE

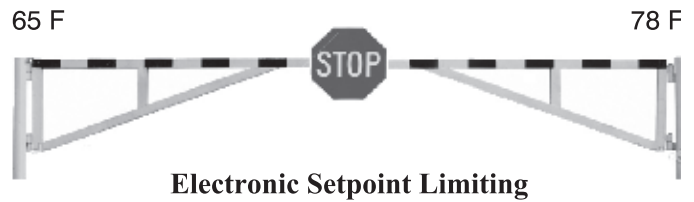
The E-TAC sleep mode function is geared toward making sleeping conditions more pleasant without your having to get up and adjust the unit while in bed. The sleep mode feature allows a time period between 0.5 to 24 hours for the E-TAC to automatically turn off for a pleasant sleeping experience.



Sleep Mode

SETPOINT STOPPER

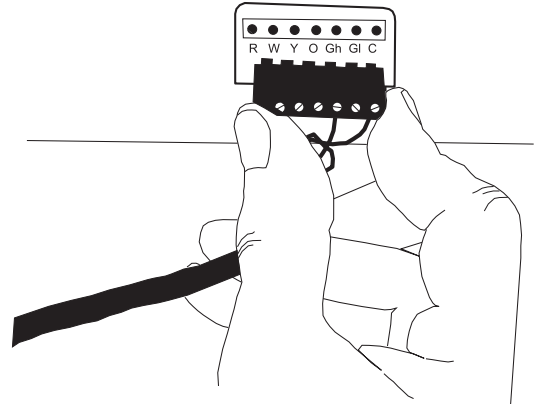
The E-TAC allows property owners to set setpoint for heating and cooling. The ETAC comes from the factory with the economical range of 65 to 78°. The cooling and heating setpoint ranges can be adjusted independently and the range may be expanded or reduced to satisfy your needs and application.



E-TAC

WALL THERMOSTAT INTERFACE

E-TAC provides a standard wired wall thermostat interface connecting block for quick easy installation. The unit has a removable terminal connector to make field wiring easy. See more info on wall thermostat connections in the Dimensional Drawings and Installation Data Section.

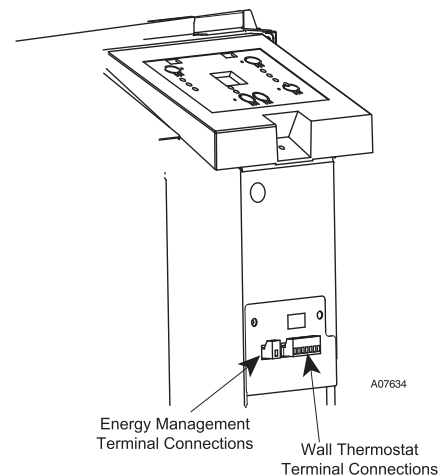


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ENERGY MANAGEMENT INTERFACE

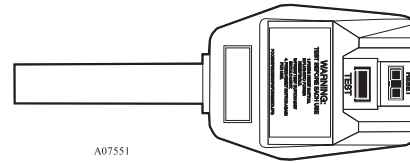
The Energy Management interface is standard and provides a simple to install Energy Management connection. The unit has a removable terminal connector to make field wiring easy. When 24VAC is supplied to the input the unit will turn off. Once the 24VAC is removed (becomes 0 volts), the unit will turn back on.

Note: For more info, see the section in the back, Typical Wiring Schematic For Energy Management Interface.



LCDI POWER CORD PROTECTION

The power cord for the 208/230 volt unit provides LCDI protection by automatically disconnecting power during an unsafe condition. Power can be restored by pressing the RESET button.



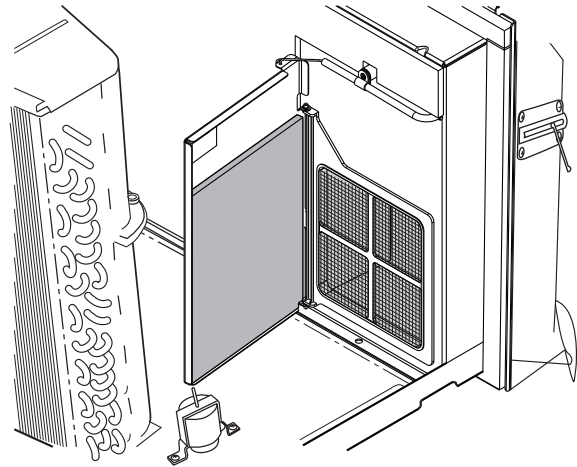
LCDI Power Cord Plug Head

SEAMLESS BASEPAN

Seamless drawn basepan add protection against water accumulation resulting from storm-driven rain with heavy wind. Gree's deep basepan hold up to 1-3/4 gallons (6.6 liters) of water without spilling.

CONDENSATE DRAIN VALVE

The temperature-activated drain valve opens when the outdoor temperature drops below 55° F (12.8° C) to prevent water from freezing in the basepan.

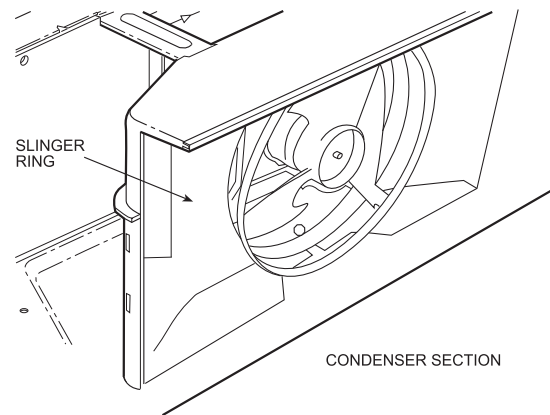


Condensate Drain Valve Prevents Water from Freezing in Basepan

CONDENSATE REMOVAL

Gree's E-TAC has a new condensate (water) disposal system. The suction pull, along with the slinger ring, draws in water which is sprayed up onto the outdoor coil. The water then evaporates, thus providing better disposal of excess condensate and improving unit efficiency.

NOTE: If it is necessary to control 100% of the condensate, the Drain Kit (Part No.: DRAIN-KIT-1PK) is recommended.



Condensate Removal System

E-TAC

COASTAL PROTECTION

The Gree Coastal E-TAC features a corrosion-resistant coating that exceeds the performance and protection of other products of this kind on the market. The coating provides salt air corrosion protection giving you added reliability in your business.

Install the best in corrosion protection for your property, without the worry of performance degradation, coating breakdown or shortened life.

Gree's Coastal Units are made with a blue-colored anti-corrosion epoxy treated to resist corrosion. This technology maintains excellent heat transfer properties while extending the coil life against damage from salt air and salt water in seacoast installations. This is a tough epoxy coating that uniformly covers the outside coil surface with a thick .5 to 1.0 mil layer of protection. This advanced material is highly flexible, eliminating cracking problems with traditional coatings and dipped coils.



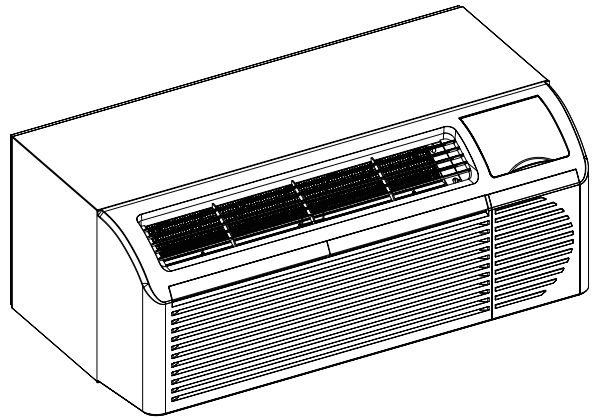
A09078

Corrosion Protection

COASTAL PREMIUM PROTECTION

- Condenser Coils are coated with a corrosion resistant epoxy resin *providing enhanced resistance to acidic and salt air conditions.*
- *1500 hr salt spray tested.*
- Durable non-corrosive fan wheel and *shroud.*
- Added protection with durable powder *coated paint.*
- All exposed fasteners manufactured of *high quality stainless steel.*

NOTE: Refer to the product warranty for reduced warranty coverage on standard non-corrosion protected units installed within one mile of the of the sea coast or within a corrosive environment.



HEAT PUMPS PAY THEIR OWN WAY

Heat pump models are available at a nominal additional cost. In many locales, the payback is realized in just a few months

SPECIAL FEATURES

Two-Stage Thermostat:

The indoor thermostat senses the indoor temperature and automatically turns on the electric heat to warm the room quickly. After the desired temperature conditions have been satisfied, the thermostat automatically switches to heat pump mode. If compressor failure occurs, the thermostat will provide backup electric heat automatically.

Outdoor Thermostat:

During the heating cycle, the outdoor thermostat senses outdoor coil temperature. It switches the unit to electric heat mode when the outdoor coil temperature is 28° F (-2.2° C) or below for one (1) minute. The thermostat switches the unit back to heat pump mode when the outdoor coil temperature rises above 40° F (4.4° C) for ten (10) minutes, which is enough to provide heat to meet demand. The entire operation is completely automatic.

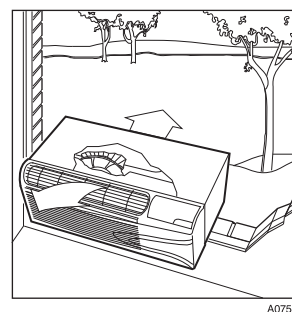
Reversing Valve:

The reversing valve provides quiet refrigerant flow when energized in heating mode. The valve controls the direction of refrigerant flow for both heating and cooling functions and remains energized as long as the controls are in the heat position. When the cooling controls are activated, the valve automatically reverses to the cooling position.

Manual Compressor Override Configuration:

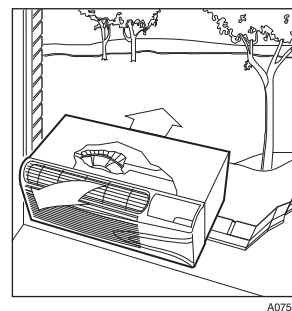
This configuration dip switch completely locks out the compressor. See Owners Manual for more details. Note that the compressor and heater do not operate at the same time, thus conserving energy.

HOW THE HEAT PUMP WORKS



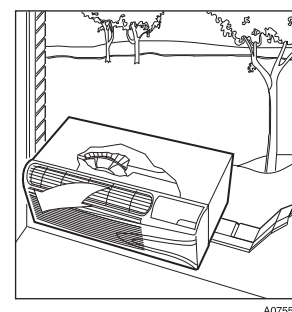
In Hot Weather:

Gree's E-TAC units provide indoor comfort in the same manner as conventional air conditioners, removing heat and humidity from indoor air. The heat and humidity is released to the outdoors. Gree's high efficiency design saves energy and reduces cooling costs.



In Cool Weather:

When the outdoor coil temperature is above 28° F (-2.2° C), the heat pump draws heat from outdoor air and uses it to heat indoor air. Since heat is transferred and not produced, Gree's heat pump uses less electricity and reduces energy costs significantly.



In Sub-Freezing Weather:

When the outdoor coil temperature falls below 28° F (-2.2° C) for one (1) minute, the unit automatically switches on a built-in electric heater. The compressor stops and the indoor fan circulates warm air produced by the heater. When the outdoor coil temperature rises above 40° F (4.4° C) for ten (10) minutes, heat pump operation resumes automatically.

FIELD-INSTALLED ACCESSORIES

POLYMER WALL SLEEVES

For the best performance and longest life, Gree recommends genuine polymer wall sleeves for all installations.

All polymer wall sleeves are made from a molded polymer that is designed for strength and durability. This material has excellent corrosion resistance and a flammability rating of UL94-5V.

The sleeve surface is textured to prevent shine and hide scratches. The rib configuration on the sleeve bottom allows easy chassis removal and aids in drainage



The locating holes in the side and top panels allow for easy fastening of the sleeve to wall openings. Refer to dimension drawings in Typical Wall Installation and Dimension section.

The sleeve's alpine mist color (a shade of beige) closely matches the front panel and blends in well with any inside or outside decor. The polymer wall sleeve comes in both insulated (factory installed) or non-insulated, to meet the requirements of every application.

E-TAC

Insulated Polymer Wall Sleeve

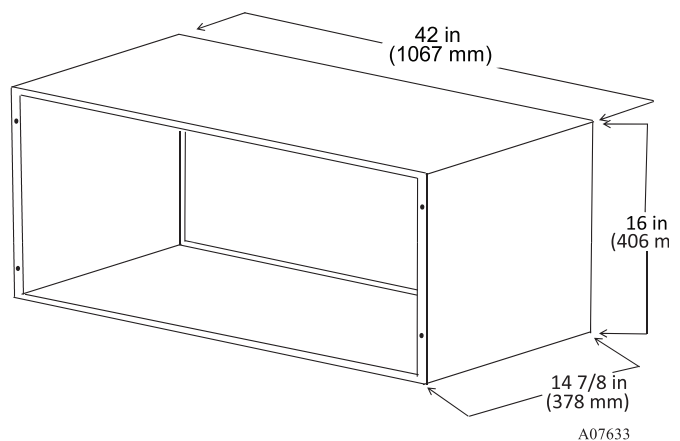
Part No.: SLEEVE-INSUL-1PK

Gree's accessory insulated polymer wall sleeve, with factory-installed insulation, provides superior sound absorption, reduces heat loss and prevents sleeve sweating, a condition that can occur when the outside temperature is cold and the indoor conditions are warm and humid.

Non-Insulated Polymer Wall Sleeve

Part No.: WALL-SLEEVE-1PK

Gree's accessory non-insulated polymer wall sleeve provides a superior appearance and protection for many applications.



Corrosion-Protected Polymer Sleeve

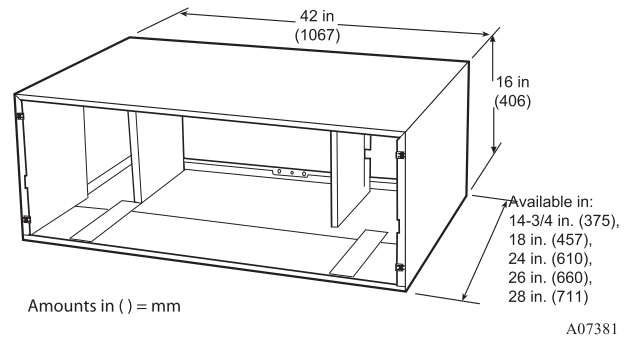
IMPORTANT For applications where weather conditions could influence sleeve sweating, a condition that can occur when the outside temperature is cold and the indoor conditions are warm and humid, the Insulated Polymer Wall Sleeve should be considered.

FIELD-INSTALLED ACCESSORIES (CONT.)

Metal Insulated Wall Sleeves

Part No.: SLEEVE-STEEL-1PK
SLEEVE-EXT18-1PK
SLEEVE-EXT24-1PK
SLEEVE-EXT26-1PK
SLEEVE-EXT28-1PK

Gree's metal wall sleeves are available in a variety of sizes for most applications and difficult installations. Choose from 14-3/4 in., 18 in., 24 in., 26 in., or 28 in. (375 mm, 457 mm, 610 mm, 660 mm, and 711 mm) standard depth sizes. All metal wall sleeves come with factory-installed insulation, designed to minimize heat loss, reduce outdoor noise transmissions into the room and prevent sleeve sweating. In addition, the metal wall sleeve provides a flammability rating higher than UL94-5V.

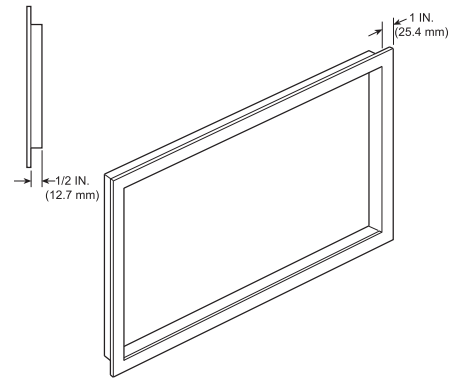


Metal Wall Sleeve

Wall Sleeve Molding Kit

Part No.: SLEEVE-MOLDING

For a superior look and to hide any construction imperfections, use Gree's wall sleeve molding kit to trim the wall sleeve to the wall. The molding kit is a perfect solution and can be used with any Gree wall sleeve (matches wall sleeve color).

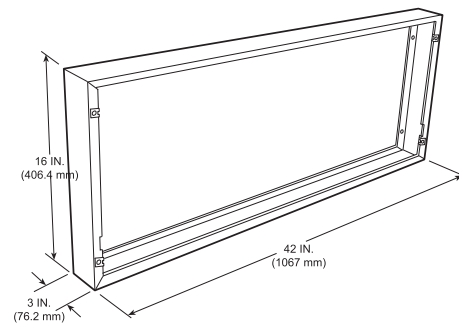


Wall Sleeve Molding Kit

Friedrich (and ZoneAire) Retrofit Wall Sleeve Adapter

Part No.: FR-SLEEVE-EXT

The Friedrich (and ZoneAire) wall sleeve adapter is constructed of metal and is designed to increase the depth of an existing Friedrich T-series or ZoneAire wall sleeve to accommodate all industry standard PTAC units.



Friedrich Wall Sleeve Adapter Kit

FIELD-INSTALLED ACCESSORIES (CONT.)

OUTDOOR GRILLES

Polymeric Architectural Outdoor Grilles (Louvered)

Part No.: GRILLE-PLA-BEIGE

GRILLE-PLA-ALPIN

(color matches Gree's polymer wall sleeve)

GRILLE-PLA-BROWN

GRILLE-PLA-WHITE

This value line of polymeric architectural outdoor grilles will blend attractively with most building exteriors. Mounted easily from inside the room, the one-piece, molded grille is designed for protection, enhanced appearance, and superior weather-resistance. The grille is made of durable polymer and has a colorfast, lightly textured finish that blends well with most exterior finishes.

Aluminum Architectural Outdoor Grilles (Louvered)

Part No.: GRILLE-ALU-CLEAR (anodized aluminum)

GRILLE-ALU-WHITE

GRILLE-ALU-BEIGE

GRILLE--ALU--ALPIN -Matches wall sleeve

(Custom colors available)

This premium line of decorative outdoor grilles will enhance the appearance of any building. The grilles are made of strong, durable, extruded, anodized aluminum and are designed to be mounted easily from inside the room. These elegant grilles, available in many standard colors, have baked enamel finishes containing 50% Kynar[®] resin, for a superior finish that will withstand the most extreme conditions.

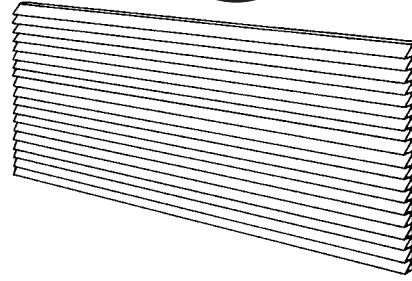
Standard Outdoor Aluminum Grille

Part No.: GRILLE-ALU-STAMP

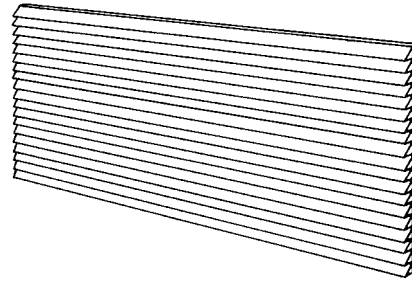
This cost-effective, one-piece standard grille is made from durable anodized aluminum. The grille is lightweight, has a clear finish, and is easy to install from inside the room.

IMPORTANT: Gree recommends only the use of Gree-supplied grilles for use with the E-TAC units. However, the architectural designs of a building may dictate the use of special or oversized grilles and/or louvers. Special louvers or any special architectural treatment of the building facade that may restrict free circulation of condenser airflow should be referred to Gree Corporation for evaluation and approval.

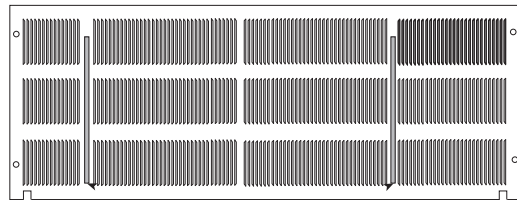
See Sizing Outdoor Grille Selection.



Polymer Architectural Grille



Aluminum Architectural Grille



Standard Grille

FIELD-INSTALLED ACCESSORIES (CONT.)

SUBBASE

Part No.: PTACSUBBASE-A

The easy to install, non-electrical subbase provides mechanical support and requires no wiring.

All subbase models mount to the wall sleeve, and come with adjustable legs and side skirting to provide a finished appearance.

A subbase (or leveling legs) is required for installations where the wall sleeve extends 4 or more inches into the room or the wall is less than 2 in. (50.8 mm) thick. The minimum clearance between the bottom of the sleeve and the floor is 3-1/4 in. (82.6 mm), and the maximum clearance is 5-1/2 (139.7 mm) inches.

Electrical Subbase Modules

Upgrade non-electrical subbase to a fully electrical subbase by adding an Electrical Subbase module.

The electrical subbase modules have an electrical junction box, receptacle outlet, and cover plate.

Part No: PTAC-REC-230V15-A

PTAC-REC-230V20-A

PTAC-REC-230V30-A

PTAC-REC-265V15-A

PTAC-REC-265V20-A

PTAC-REC-265V30-A

PTAC-REC-HW-A

Subbase Fuse Kit

Part No.: PTAC-FUSE-15-A

PTAC-FUSE-20-A

PTAC-FUSE-30-A

The fuse kit provides in-line over-current protection at the unit when required by NEC (National Electric Code) or local codes.

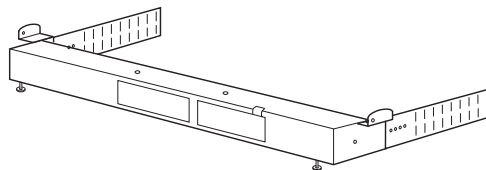
Subbase Power Disconnect Switch

Part No.: PTAC-SWITCH-A

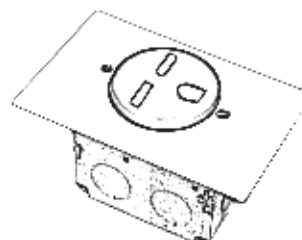
The subbase power disconnect 2-pole switch provides a recessed power disconnect for the PTAC unit when required by NEC or local codes.

IMPORTANT: The fuse kits and disconnect switch accessories can only be used with Part No. PTAC-SUBBASE-A.

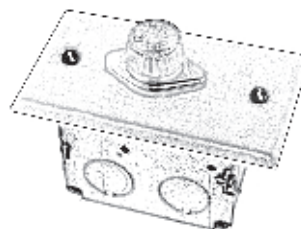
IMPORTANT: All standard cord-connected 265-v units will require a field-installed electrical subbase accessory per UL and NEC electrical codes.



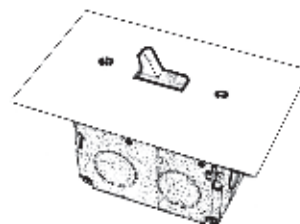
Non-Electrical Subbase Assembly



Electrical Subbase Modules



Subbase Fuse Module



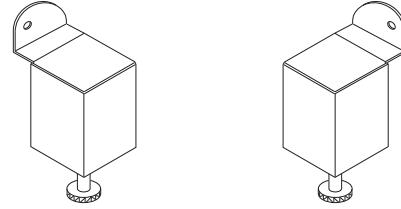
Power Disconnect Switch Module

FIELD-INSTALLED ACCESSORIES (CONT.)

Leveling Legs

Part No.: LEVELING-LEGS

Leveling legs attach easily to the wall sleeve and offer accurate leveling and support for units without a subbase. Leveling legs are adjustable from 3-1/4 to 5-1/2 inches (82.6 to 139.7 mm).

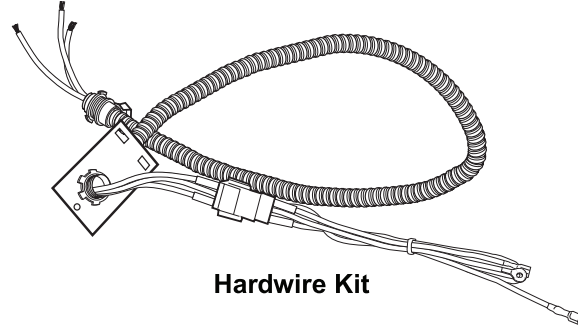


Leveling Legs

Hardwire Kit

Part No.: HARDWIRE-KIT-1PK

This accessory hardwire kit provides a permanent connection to the unit. Electrical hard wiring is required when NEC (National Electrical Code) or local codes restrict the use of power cord and plug connections. The hardwire kit mounts on the front right side of the unit and comes with 36 inches of flexible steel conduit and a Molex connector for easy connect/disconnect.

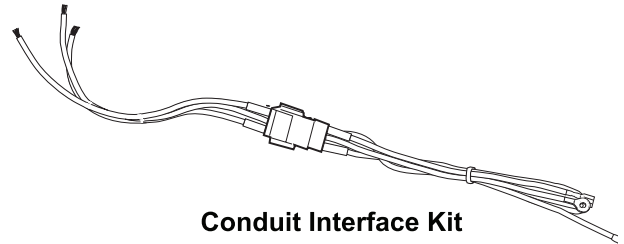


Hardwire Kit

Conduit Interface Kit

Part No.: CONDUIT-INTF-1PK

The conduit interface accessory kit provides the wire connection to the unit to interface to existing installed conduit.



Conduit Interface Kit

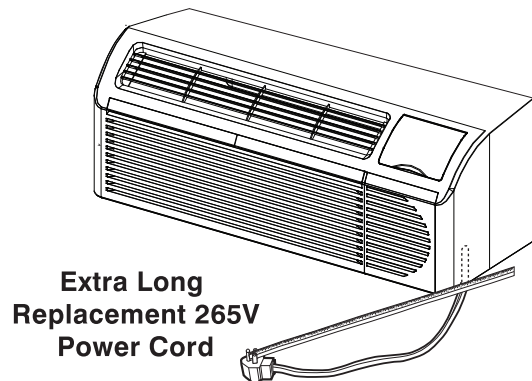
Extra Long Replacement 265v Power Cord

Part No. PWRCORD-265V-15A

PWRCORD-265V-20A

PWRCORD-265V-30A

The Extra Long Replacement 265v power cord extends 58 inches from bottom of front panel to the plug head. Do not use where prohibited by codes or regulations.



**Extra Long
Replacement 265V
Power Cord**

FIELD-INSTALLED ACCESSORIES (CONT.)

THERMOSTATS

Gree's full line of wall thermostats are designed to enhance every E-TAC application. The TopTech Comfort Series of thermostats consists of programmable and non-programmable air conditioner and heat pump controls. Wall thermostats are simple and easy to use. Wall thermostats provide better temperature and

humidity control as they can be placed in an optimal position in the room.

For wiring multiple E-TAC units to one wall thermostat see the Multiple Wall Thermostat Wiring section in the installation manual.

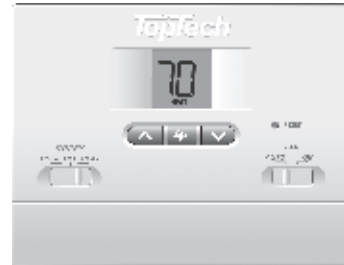
Non-Programmable Thermostat

Part No.: TT-N-411 (Heat / Cool Models)

TT-N-421 (Heat Pump Models)

This low-voltage, easy-to-use non-programmable thermostat provides maximum guest comfort.

- Dual Powered – Hardwired or Battery
- Large Display with Bright Blue Backlight
- Adjustable Temperature Set Point Limits
- Non-Volatile Memory Retains User Settings
- Separate Heating and Cooling Set Points
- Display Degree F or C Switch
- Mount to Horizontal Box
- Adjustable Temperature Differential



Non – Programmable Thermostat

Digital Programmable Thermostat

Part No.: TT-P-411 (Heat / Cool Models)

TT-P-421 (Heat Pump Models)

This micro computer controlled, 7-day programmable wall thermostat has enhanced features for both heat pumps and heating/cooling units.

The programmable model includes the non-programmable features plus the following:

- 5-2 Day Separate Programming
- Adaptive Recovery Mode (ARM™)
- Separate Set Point Program Times
- Temporary Program Override
- Programmable Extended Hold Mode
- Meets California Title 24 Guidelines



Programmable Thermostat

Wireless Non-Programmable Thermostat

Part No.: TT-N-631W (for Heat Pump & Heat /Cool Models)

This low voltage wireless wall thermostat provides easy installation and superior performance. Includes both wireless wall thermostat and receiver module and features:

- Two speed fan control (High and Low Speed)
- Universal 2H/1C Heat Pump or 1H/1C Conventional
- Power Loss Memory
- Heating and Cooling Set-point Limit
- Large Temperature and Set-point Display
- Large Blue Backlight Screen



FIELD-INSTALLED ACCESSORIES (CONT.)

Air Deflector

Part No.: PTAC-DEFLECTOR-A

The PTAC Air Deflector mounts easily to the units and directs air up and away from overhanging drapes. The Air Deflector saves energy by eliminating trapped air flow between the window and the curtain while increasing guest comfort levels and helping to manage mold and mildew in the window area.



Air Deflector

Sound Muzzler

Part No.: PTAC-SOUND-A

Our Sound Muzzler is specifically designed and constructed with environmental friendly materials that absorb mechanical sound energy and block offensive noise from the compressor. This acoustic wrap is weatherproof and easy to install.



Sound Muzzler

Security Door

Part No.: PTAC-LOCK-A

This key-locking security door kit prevents unauthorized access to the unit's heating and cooling controls and prevents tampering with units in public locations and institutions. This field-installed accessory includes a control door with lock assembly and two matching keys.



Security Door

E-9000 Remote Control

Part No. 30510092MX

The E-9000 remote control is versatility and allows users to change room temperature and modes from the palm of your hand. The large LCD display and buttons makes it easy-to-understand and easy-to-use.



E-9000 Remote Control

FIELD-INSTALLED ACCESSORIES (CONT.)

Condensate Drain Kit

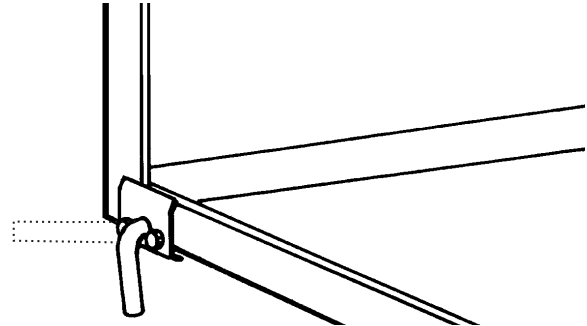
Part No.: DRAIN-KIT-1PK

This universal drain kit may be used internally or externally to route condensate to a drainage system. It can be field-installed on any Gree wall sleeve. Although Gree units are designed to dissipate all the condensate generated during normal cooling, there may be times when abnormal conditions cause more condensate than the unit can dissipate. If condensate that drips from the wall sleeve is objectionable, this internal/external drain kit should be installed.

The drain kit may be attached to the exterior right or left side of the wall sleeve for external draining or mounted to the room side of the wall sleeve for internal draining.

A 3 in. (152.4 mm) straight tube and 90° curved tube are supplied to simplify any application (1/2 in. / 12.7 mm OD copper).

IMPORTANT: For internal drains installed in the plastic wall sleeve, the drain must be installed on the flat area of the sleeve. It cannot be installed in the wafer area.



Drain Kit

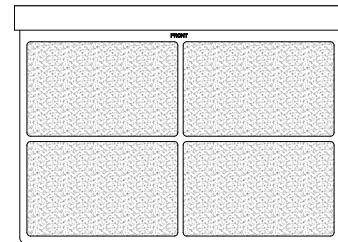
A07748

E-TAC

Replacement Filters

Part No.: GA-FILTER-2PK

The Gree E-TAC model replacement air filters come in packages of two (2). The filters save energy by preventing the evaporator coils from being plugged with dirt and lint. These economical and sturdy filters are interchangeable and may be washed, vacuumed, and reused.



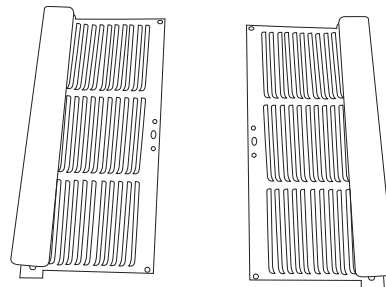
Replacement Filters

Baffle Kit

Part No.: BAFFLE-KIT-1PK

The accessory baffle kit ensures a good seal between the unit and the exterior grille to prevent air recirculation, which can cause system failure.

The accessory baffle kit is required for applications using unauthorized exterior grille.



Baffle Kit

FIELD-INSTALLED ACCESSORIES (CONT.)

Air Knight

The Air Knight by TopTech is an air treatment system not a filter. It drastically reduce odors, smoke, mold, fungi, VOC's (chemical odors) and bacteria found in

many rooms. Airborne bacteria and mold reduction is normally in the 90+ percentile.

Air Knight Plug-In

Part No.: RGF-PIP-16-GA.

The Air Knight Plug-In, plugs directly into a wall outlet and can be used with or without its internal fan. Because it has its own outlets as part of the unit, you do not lose the wall outlet.

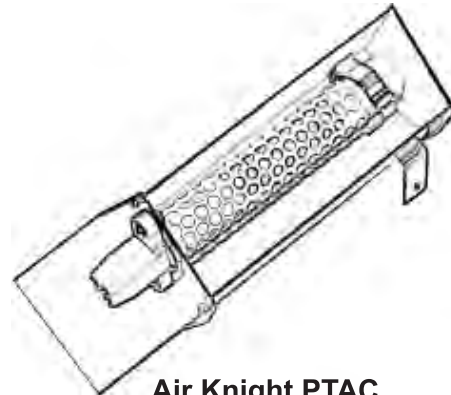


Air Knight Plug In

Air Knight PTAC

Part No: TT-AKPTAC

The Air Knight PTAC mounts inside the E-TAC air discharge stream. The indoor fan delivers air treatment quietly and affectively into the room. The PTAC Air Knight is never lost or misplaced since it is installed in the unit.



Air Knight PTAC

Lateral Duct Kit

Part No.: LATERAL-DUCT (Adapter Plenum and Extension)

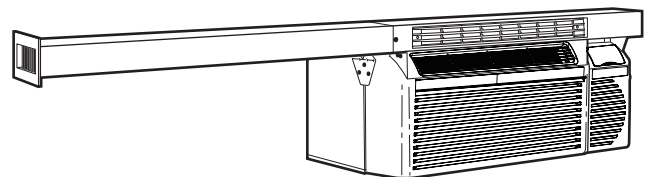
The accessory lateral duct kit allows one unit to heat or cool two rooms. The kit provides substantial savings for apartments, hotel suites, and office suites by eliminating the need for separate units for every room. The amount of air that can be diverted to an adjoining room is adjustable from 20 to 25 percent.

The lateral duct kit consists of two main components, the plenum and the extension duct. The kit mounts to the wall sleeve and allows either right or left side ducting. Consider the following when designing a ducted application.

- The maximum extension of the duct length is 4 feet.
- The duct run must be straight and horizontal; no bends or turns.
- The minimum recommended clearance between the unit and the adjoining room wall is 6 inches.
- You must provide for return air from the adjoining room.

NOTES:

1. Lateral duct kit includes wall register for duct extension and a molding kit to trim the wall opening.
2. The sleeve should extend a minimum of 3-in. into the adjacent room to install mounting brackets.

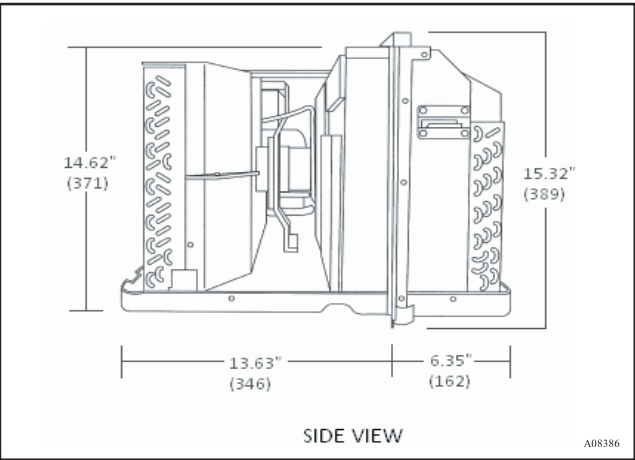
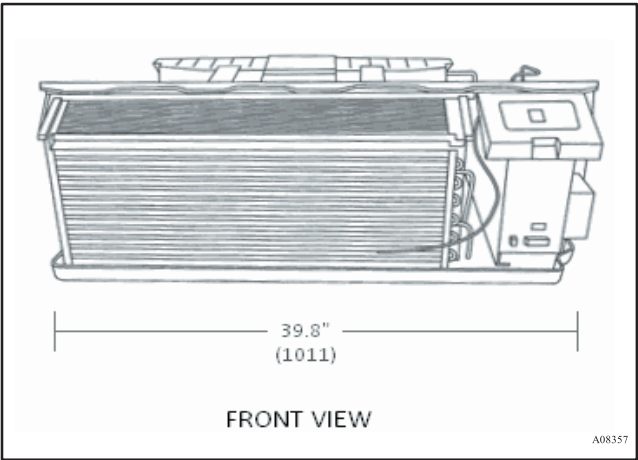


Lateral Duct Kit

DIMENSIONAL DRAWINGS AND INSTALLATION DATA - NEW CONSTRUCTION

Proper building practices must be used when constructing a wall opening to support a PTAC wall sleeve and chassis.

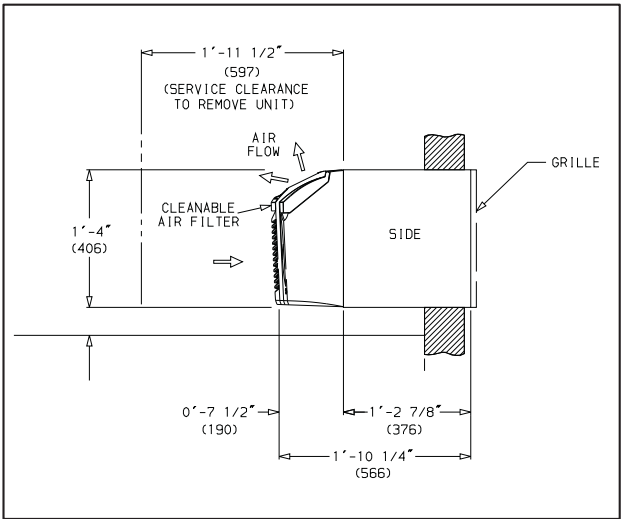
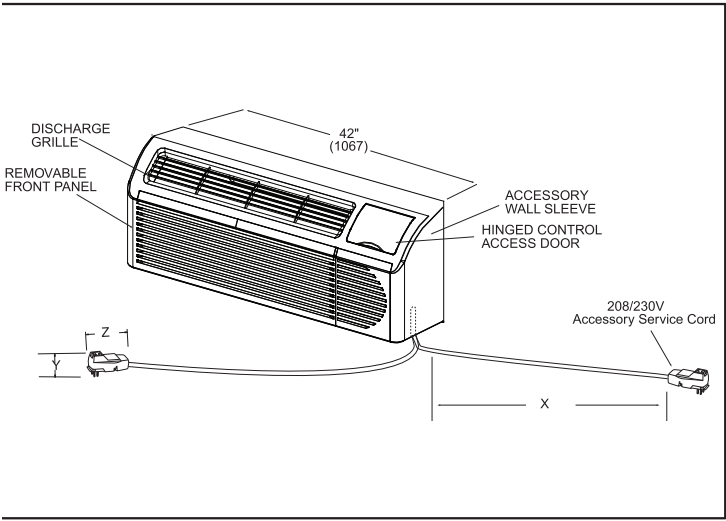
If practices are unknown, consult your local architect or building contractor. Installed wall sleeve must be level from side to side and a quarter bubble to the outside.



E-TAC

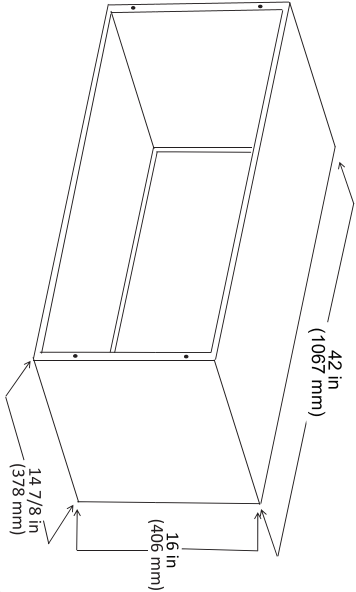
DIMENSIONAL DRAWINGS AND INSTALLATION DATA

VOLTAGE	CURRENT	DIMENSIONS – Inches (mm)					PLUG TYPE	
VOLTS	AMPS	X	Y		Z		NEMA PLUG	NEMA RECEPTACLE
			SUPPLIER 1	SUPPLIER 2	SUPPLIER 1	SUPPLIER 2		
208/230	15	58 (1473)	2.36 (60)	2.44 (62)	3.35 (85)	4 (101)	6–15P	6–15R
208/230	20	58 (1473)	2.36 (60)	2.44 (62)	3.35 (85)	4 (101)	6–20P	6–20R
208/230	30	58 (1473)	2.55 (65)	4 (101)	2.63 (67)	3.8 (96)	6–30P	6–30R
265	15	15 (381)	1.5 (38.2)		1.46 (37.3)		7–15P	7–15R
265	20	15 (381)	2 (50)		2.48 (63.2)		7–20P	7–20R
265	30	15 (381)	2.41 (61.3)				7–30P	7–30R

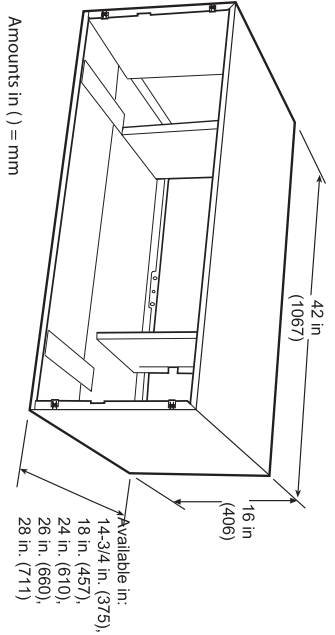


DIMENSIONAL DRAWINGS AND INSTALLATION DATA - NEW CONSTRUCTION (CONT.)

WALL SLEEVE MOUNTING DIMENSIONS FOR STANDARD AND ACCESSORY GRILLES



A07633



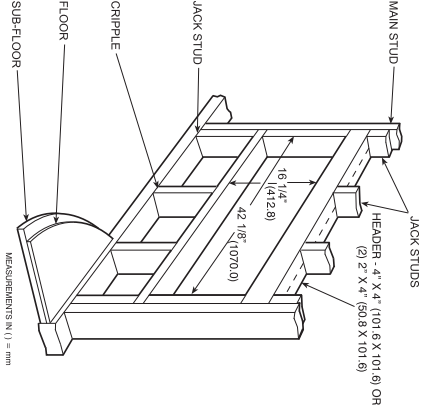
Amounts in () = mm

A07361

E-TAC

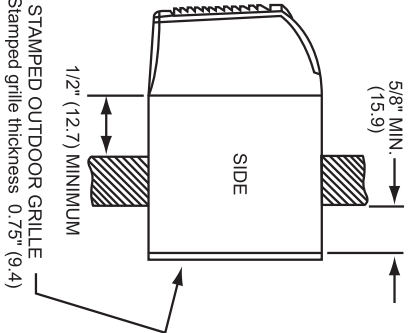
Standard Polymer Non-Insulated Wall Sleeve
Standard Polymer Insulated Wall Sleeve

Standard and Extended Metal Insulated Wall Sleeve

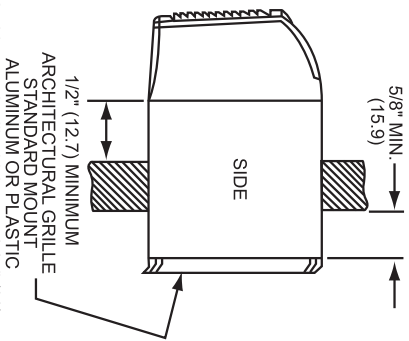


A07382

Framing and Minimum Wall Sleeve Opening



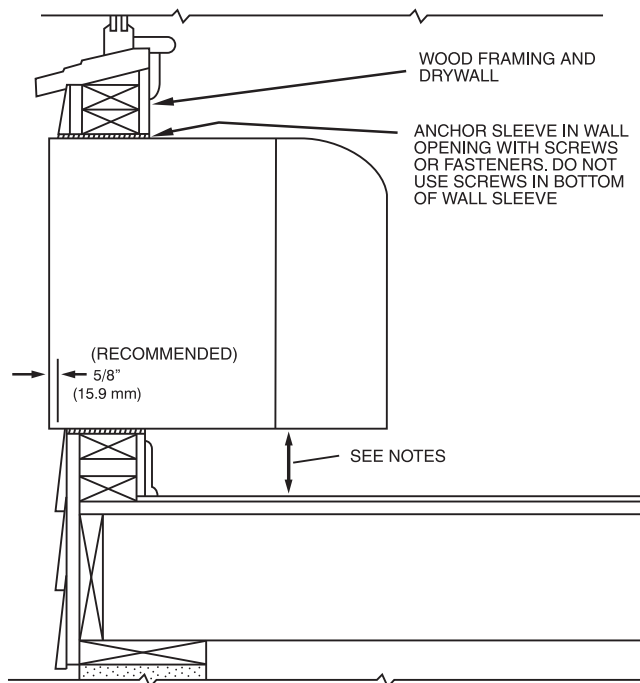
NOTE: Dimensions in () are in millimeters



A07383A

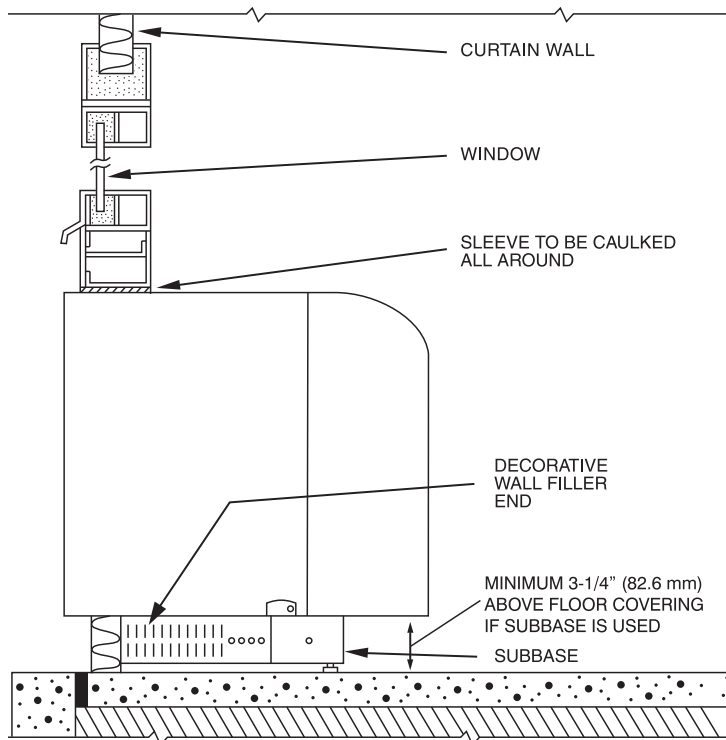
Wall Sleeve Mounting (All Models)

TYPICAL WALL INSTALLATION



A07384

Typical Wall Sleeve Installation



A07385

Typical Curtain Wall Installation (All Models)

Important Sleeve Installation Considerations:

- Wall Sleeve should be pitched 1/4 bubble to the outside for condensate drainage.
- The sleeve should be caulked on all sides, including both inside and outside the building.
- If more than 4 in. (101 mm) of wall sleeve projects into the room, an accessory subbase or leveling legs must be used for support.
- For all applications with an accessory subbase, wall sleeve must extend 3-1/4 in. (82.6 mm) minimum into room and must be 3-1/4 in. (82.6 mm) minimum to 5-1/2 in. (139.7 mm) maximum above floor (including carpeting) to allow for proper fit of subbase.
- For applications where the wall sleeve is mounted flush to the exterior of the building (or recessed in), Gree recommends a field-supplied drip edge be installed to prevent water infiltration into the building.
- Insulated wall sleeves should be considered for superior sound absorption, to reduce heat loss and to prevent sleeve sweating, a condition that can occur when the outside temperature is cold and the indoor conditions are warm and humid.

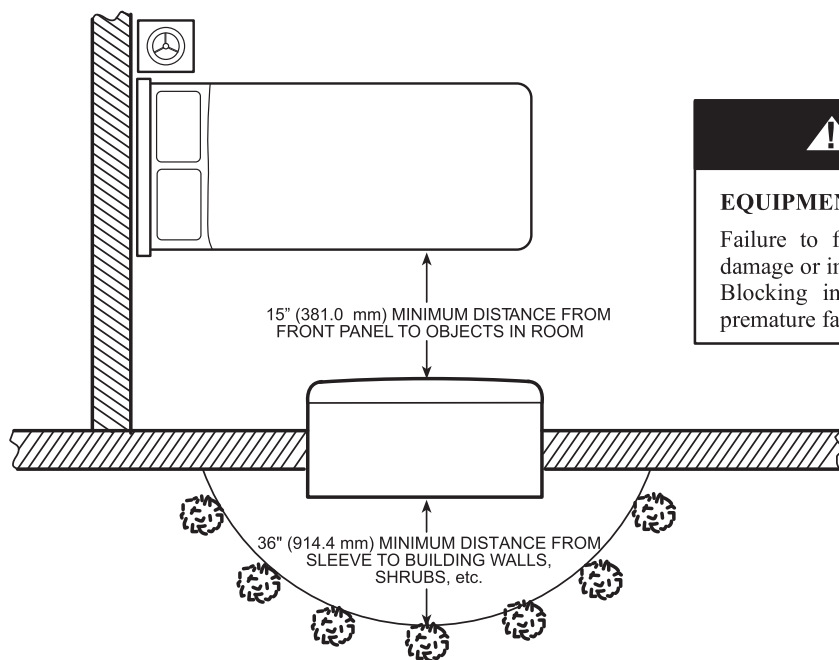
NOTES:

1. Sleeve may be flush mounted to floor, but front panel may have to be notched to accommodate service cord.
2. If more than 4 in. (101.6 mm) of sleeve projects into room, an accessory subbase or leveling legs must be used for support.
3. For walls 2 in. (50.8 mm) thick or less, an accessory subbase must be used for support.
4. Caulk around sleeve on both indoor and outdoor sides.

DIMENSIONAL DRAWINGS AND INSTALLATION - NEW CONSTRUCTION (CONT.)

MINIMUM CLEARANCE FOR INDOOR AND OUTDOOR DISCHARGE AIR

E-TAC



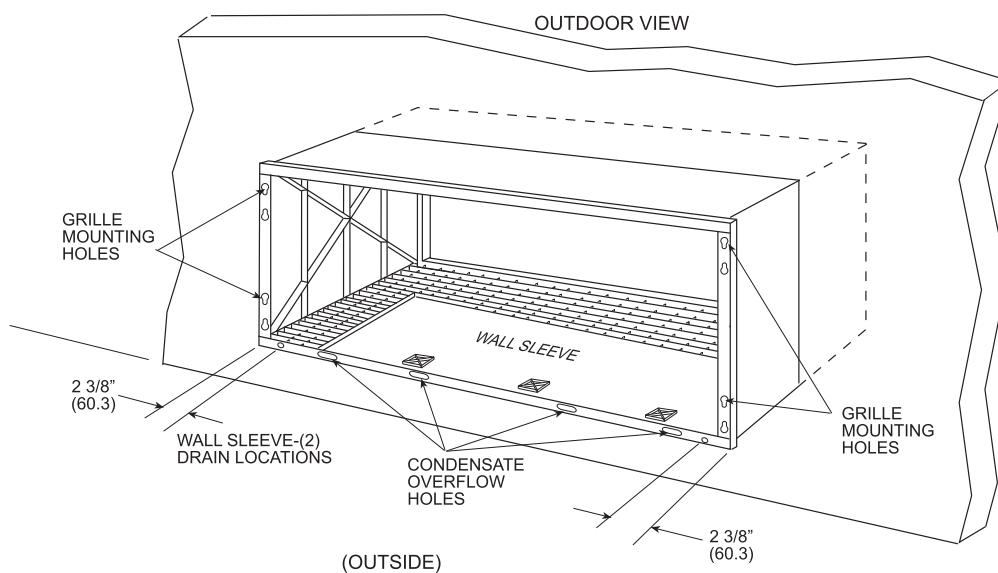
CAUTION

EQUIPMENT OPERATION HAZARD

Failure to follow this caution may result in equipment damage or improper operation. Blocking indoor or outdoor discharge air could cause premature failure of unit.

**Indoor and Outdoor Discharge Air
Circulation**

A07386

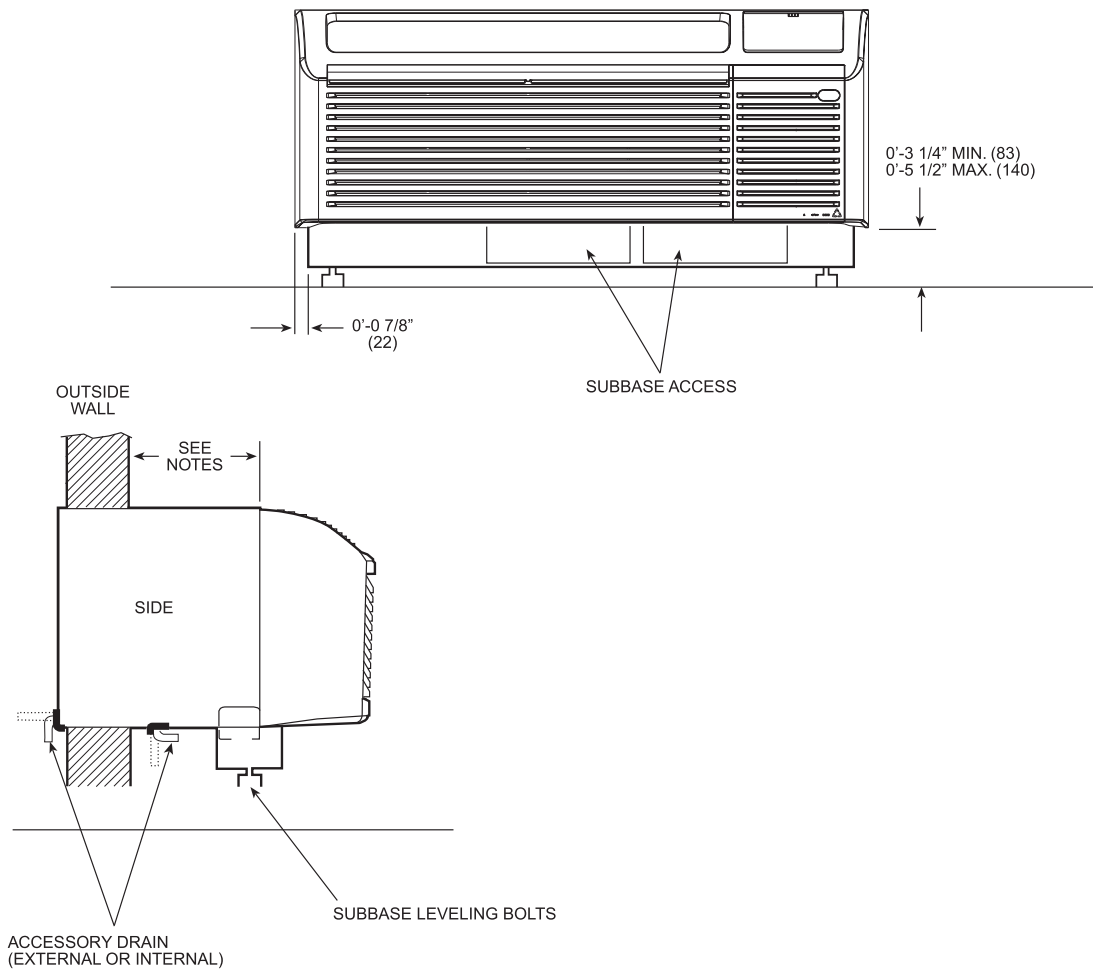


Back of Polymer Wall Sleeve

A07387

DIMENSIONAL DRAWINGS AND INSTALLATION DATA - NEW CONSTRUCTION (CONT.)

TYPICAL SUBBASE INSTALLATION

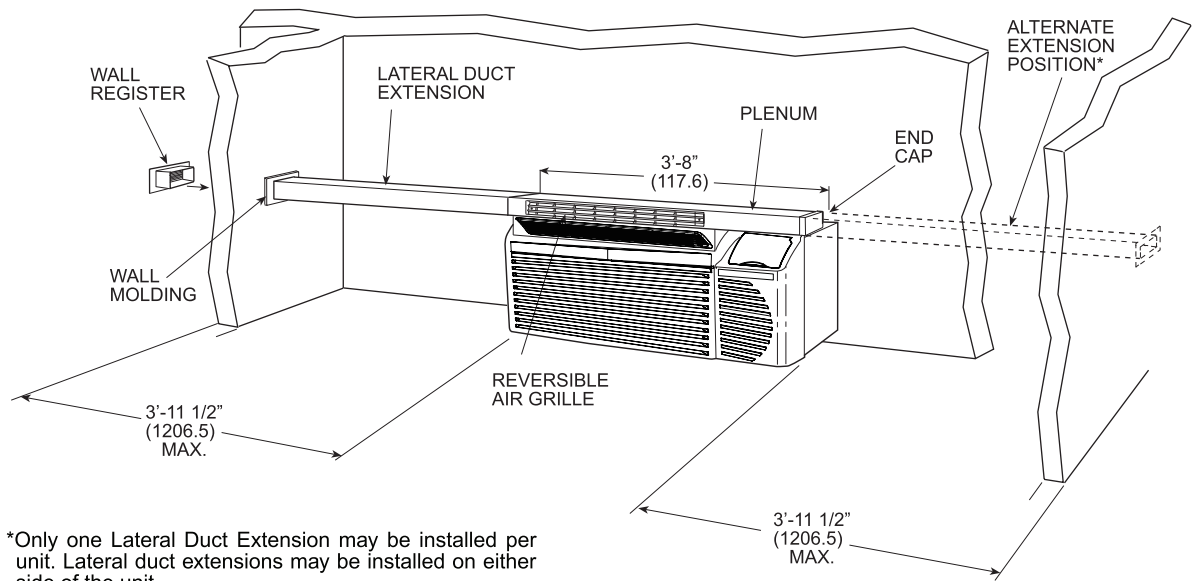


NOTES:

1. Accessory subbase is required for applications where:
 - Wall sleeve extends 4 inches (101.6 mm) or more into the room.
 - Wall thickness is less than 2 inches (50.8 mm).
 - All 265-v cord-connected applications.
 2. For all applications with an accessory subbase:
 - Wall sleeve must extend 4 in. (101.6 mm) into the room and 3-1/4 in. (82.6 mm) minimum above the floor
 - Subbase height is adjustable from 3-1/4 in. (82.6 mm) to 5-1/2 in. (139.7 mm) maximum above floor (including carpeting).
- Refer to wall sleeve installation instructions.

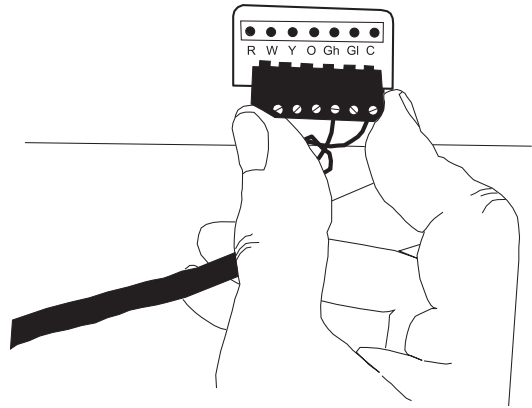
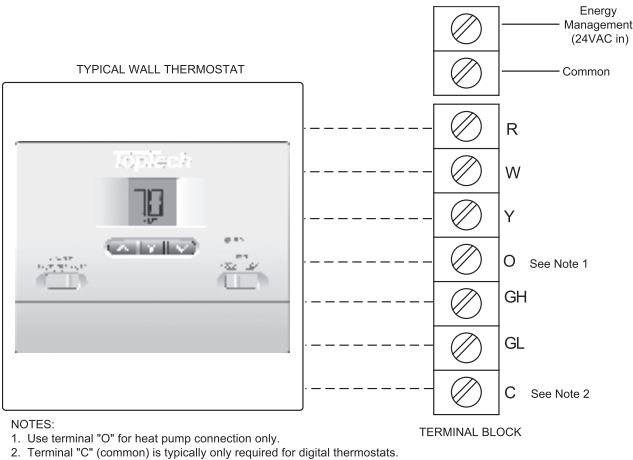
A07389

TYPICAL LATERAL DUCT INSTALLATION



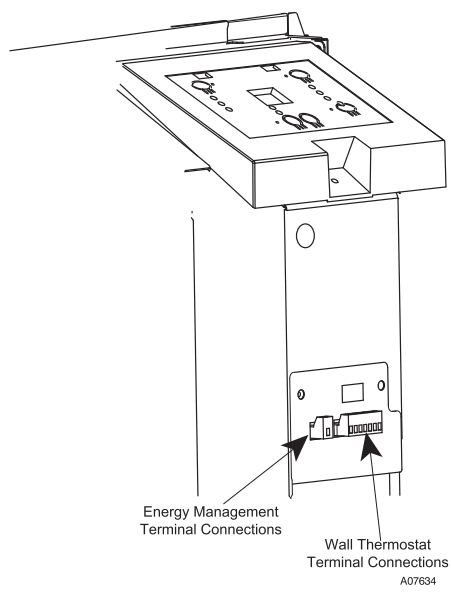
NOTE: For all applications with an accessory lateral duct, sleeve must extend into the room a minimum of 3 inches. In applications where the sleeve will not extend a minimum of 3 in., the lateral duct mounting brackets will need to be mounted on the sleeve prior to installation to the wall.

WALL THERMOSTAT CONNECTIONS

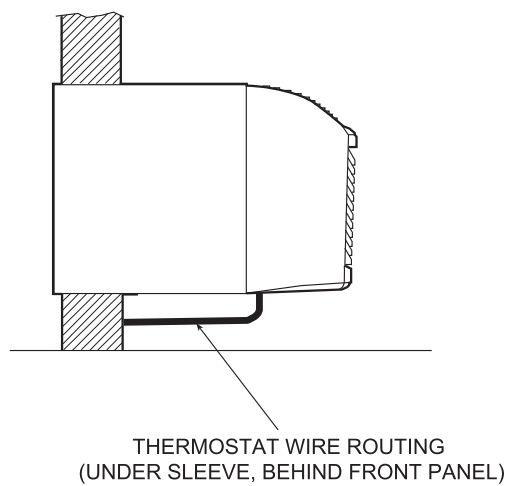


Terminal Connector Removal and Replacement

Control Box Wire Terminal for Wall Thermostat Models



Terminal Connections



NOTE: Thermostat wire is field supplied. Recommended wire gauge is 18 to 20 gauge solid thermostat wire. Thermostat wire should always be routed around or under, NEVER through, the wall sleeve. The wire should then be routed behind the front panel to the easily accessible terminal connector.

Terminal Wire Routing

PERFORMANCE AND ELECTRICAL DATA

208/230V HEAT/COOL MODELS

MODEL NUMBER	CAPACITY* (Btuh)			HEATER KW	EER	COP†	CHASSIS SHIP WT. (lbs)	RECEP-TACLE TYPE
	Cooling	Heating						
		Rev. Cyc.	Electric					
ETAC-07HC230V15A-A	7,600/7,700	N/A	5,200/6,800	1.6/2.0	12.2/12.0	NA	126	A
ETAC-07HC230V20A-A	7,600/7,700	N/A	8,300/10,200	2.4/3.0	12.2/12.0	NA	126	B
ETAC-09HC230V15A-A	8,800/9,000	N/A	5,200/6,800	1.6/2.0	11.4/11.3	NA	128	A
ETAC-09HC230V20A-A	8,800/9,000	N/A	8,300/10,200	2.4/3.0	11.4/11.3	NA	128	B
ETAC-12HC230V15A-A	11,800/12,000	N/A	5,200/6,800	1.6/2.0	10.5/10.7	NA	132	A
ETAC-12HC230V20A-A	11,800/12,000	N/A	8,300/10,200	2.4/3.0	10.5/10.7	NA	132	B
ETAC-12HC230V30A-A	11,800/12,000	N/A	13,900/17,000	4.1/5.0	10.5/10.7	NA	132	C
ETAC-15HC230V20A-A	14,600/15,000	N/A	8,300/10,200	2.4/3.0	9.7/9.8	NA	141	B
ETAC-15HC230V30A-A	14,600/15,000	N/A	13,900/17,000	4.1/5.0	9.7/9.8	NA	141	C

MODEL NUMBER	POWER FACTOR (%)	INDOOR FAN			R-410A CHARGE (oz)	DEHUMIDIFI-CACTION (Pints/Hr)	SENSIBLE HEAT FACTOR
		Horsepower	Full Load Amps	CFM HI Speed			
ETAC-07HC230V15A-A	97%	0.024	0.42	280/294	18.0	1.7	84%
ETAC-07HC230V20A-A	97%	0.024	0.42	280/294	18.0	1.7	84%
ETAC-09HC230V15A-A	99%	0.028	0.36	280/312	21.5	2.1	81%
ETAC-09HC230V20A-A	99%	0.028	0.36	280/312	21.5	2.1	81%
ETAC-12HC230V15A-A	99%	0.031	0.36	290/330	26.8	2.7	67%
ETAC-12HC230V20A-A	99%	0.031	0.36	290/330	26.8	2.7	67%
ETAC-12HC230V30A-A	99%	0.031	0.36	290/330	26.8	2.7	67%
ETAC-15HC230V20A-A	98%	0.031	0.2	320/340	38.1	3.5	65%
ETAC-15HC230V30A-A	98%	0.031	0.2	320/340	38.1	3.5	65%

MODEL NUMBER	VOLTAGE RANGE	WATTS		AMPS		MAX FUSE SIZE (Amps)	MIN. CIRCUIT AMP.
		Cooling	Heating	Cooling	Heating**		
ETAC-07HC230V15A-A	187-253	620/640	1,635/2,000	3.1/2.8	7.9/8.9	15	11.1
ETAC-07HC230V20A-A		620/640	2,452/3,000	3.1/2.8	12.2/13.2	20	16.5
ETAC-09HC230V15A-A		770/800	1,635/2,000	3.9/3.7	7.9/8.9	15	11.1
ETAC-09HC230V20A-A		770/800	2,452/3,000	3.9/3.7	12.2/13.2	20	16.5
ETAC-12HC230V15A-A		1,120/1,120	1,635/2,000	5.7/5.1	7.9/8.9	15	11.1
ETAC-12HC230V20A-A		1,120/1,120	2,452/3,000	5.7/5.1	12.2/13.2	20	16.5
ETAC-12HC230V30A-A		1,120/1,120	4,087/5,000	5.7/5.1	20.5/21.5	30	27.2
ETAC-15HC230V20A-A		1,510/1,530	2,452/3,000	7.5/6.7	12.2/13.2	20	16.5
ETAC-15HC230V30A-A		1,510/1,530	4,087/5,000	7.5/6.7	20.5/21.5	30	27.2

*Rated in accordance with ARI Standard 380-93.

†Coefficient of Performance (COP) at 47 F outdoor ambient temperature

**Electric resistance heater power and fan motor power.

LEGEND

EER — Energy Efficiency Ratio
COP — Coefficient of performance
CFM — Cubic feet per minute

RECEPTACLE	A	B	C
			
NEMA CONFIGURATION	6-15R	6-20R	6-30R
AMPS	15	20	30
RATED VOLTS	250	250	250
TIME-DELAY TYPE FUSE (or HACR Circuit Breaker)	15	20	30



PERFORMANCE AND ELECTRICAL DATA (CONT.)

265V HEAT/COOL MODELS

MODEL NUMBER	CAPACITY* (Btuh)			HEATER KW	EER	COP†	CHASSIS SHIP WT. (lbs)	RECEP TACLE TYPE
	Cooling	Heating						
		Rev. Cyc.	Electric					
ETAC-07HC265V20B-A	7,700	N/A	10,200	3.0	12.0	NA	124	E
ETAC-09HC265V20A-A	9,000	N/A	10,200	3.0	11.3	NA	126	E
ETAC-12HC265V20A-A	12,000	N/A	10,200	3.0	10.7	NA	132	E
ETAC-12HC265V30A-A	12,000	N/A	17,000	5.0	10.7	NA	132	F
ETAC-15HC265V20A-A	15,000	N/A	10,200	3.0	9.8	NA	141	E
ETAC-15HC265V30A-A	15,000	N/A	17,000	5.0	9.8	NA	141	F

MODEL NUMBER	POWER FACTOR (%)	INDOOR FAN			R-410A CHARGE (oz)	DEHUMIDIFI-CACTION (Pints/Hr)	SENSIBLE HEAT FACTOR
		Horsepower	Full Load Amps	CFM HI Speed			
ETAC-07HC265V20B-A	97%	0.028	0.4	294	24.7	1.7	84%
ETAC-09HC265V20A-A	99%	0.028	0.2	300	19.4	2.1	81%
ETAC-12HC265V20A-A	99%	0.031	0.2	310	25.0	2.7	67%
ETAC-12HC265V30A-A	99%	0.031	0.2	310	25.0	2.7	67%
ETAC-15HC265V20A-A	98%	0.031	0.2	320	40.2	3.5	65%
ETAC-15HC265V30A-A	98%	0.031	0.2	320	40.2	3.5	65%

MODEL NUMBER	VOLTAGE RANGE	WATTS		AMPS		MAX FUSE SIZE (Amps)	MIN. CIRCUIT AMP.
		Cooling	Heating	Cooling	Heating**		
ETAC-07HC265V20B-A	239-292	640	3,000	2.4	11.3	20	16.5
ETAC-09HC265V20A-A		800	3,000	3.2	11.3	20	16.5
ETAC-12HC265V20A-A		1,120	3,000	4.6	11.3	20	16.5
ETAC-12HC265V30A-A		1,120	5,000	4.6	18.9	30	27.2
ETAC-15HC265V20A-A		1,120	3,000	5.9	11.3	20	16.5
ETAC-15HC265V30A-A		1,530	5,000	5.9	18.9	30	27.2
ETAC-15HC265V30A-A		1,530	5,000	5.9	18.9	30	27.2

*Rated in accordance with ARI Standard 380-93.

†Coefficient of Performance (COP) at 47 F outdoor ambient temperature

**Electric resistance heater power and fan motor power.

LEGEND

EER — Energy Efficiency Ratio
COP — Coefficient of performance
CFM — Cubic feet per minute

RECEPTACLE	D	E	F
			
NEMA CONFIGURATION	7-15R	7-20R	7-30R
AMPS	15	20	30
RATED VOLTS	277	277	277
TIME-DELAY TYPE FUSE	15	20	30
(or HACR Circuit Breaker)			



PERFORMANCE AND ELECTRICAL DATA

208/230V HEAT PUMP MODELS

MODEL NUMBER	CAPACITY* (Btuh)			HEATER KW	EER	COP†	CHASSIS SHIP WT. (lbs)	RECEP- TACLE TYPE
	Cooling	Heating						
		Rev. Cyc.	Electric					
ETAC-07HP230V15B-A	7,600/7,700	6,100/6,300	5,200/6,800	1.6/2.0	12.2/12.0	3.4/3.4	126	A
ETAC-07HP230V20B-A	7,600/7,700	6,100/6,300	8,300/10,200	2.4/3.0	12.2/12.0	3.4/3.4	126	B
ETAC-09HP230V15B-A	8,800/9,000	7,900/8,100	5,200/6,800	1.6/2.0	11.4/11.3	3.3/3.3	130	A
ETAC-09HP230V20B-A	8,800/9,000	7,900/8,100	8,300/10,200	2.4/3.0	11.4/11.3	3.3/3.3	130	B
ETAC-12HP230V15A-A	11,800/12,000	10,500/10,700	5,200/6,800	1.6/2.0	10.5/10.7	3.1/3.1	135	A
ETAC-12HP230V20A-A	11,800/12,000	10,500/10,700	8,300/10,200	2.4/3.0	10.5/10.7	3.1/3.1	135	B
ETAC-12HP230V30A-A	11,800/12,000	10,500/10,700	13,900/17,000	4.1/5.0	10.5/10.7	3.1/3.1	135	C
ETAC-15HP230V20B-A	14200/14,500	13,000/13,300	8,300/10,200	2.4/3.0	9.7/9.8	3.0/3.0	143	B
ETAC-15HP230V30B-A	14200/14,500	13,000/13,300	13,900/17,000	4.1/5.0	9.7/9.8	3.0/3.0	143	C

MODEL NUMBER	POWER FACTOR (%)	INDOOR FAN			R-410A CHARGE (oz)	DEHUMIDIFICATION (Pints/Hr)	SENSIBLE HEAT FACTOR
		Horsepower	Full Load Amps	CFM HI Speed			
ETAC-07HP230V15B-A	97%	0.028	0.42	280/294	22.9	1.7	84%
ETAC-07HP230V20B-A	97%	0.028	0.42	280/294	22.9	1.7	84%
ETAC-09HP230V15B-A	99%	0.028	0.36	280/312	25.0	2.1	81%
ETAC-09HP230V20B-A	99%	0.028	0.36	280/312	25.0	2.1	81%
ETAC-12HP230V15A-A	99%	0.031	0.36	290/330	26.8	2.7	67%
ETAC-12HP230V20A-A	99%	0.031	0.36	290/330	26.8	2.7	67%
ETAC-12HP230V30A-A	99%	0.031	0.36	290/330	26.8	2.7	67%
ETAC-15HP230V20B-A	98%	0.031	0.8	320/341	38.1	3.2	65%
ETAC-15HP230V30B-A	98%	0.031	0.8	320/341	38.1	3.2	65%

MODEL NUMBER	VOLTAGE RANGE	WATTS		AMPS		MAX FUSE SIZE (Amps)	MIN. CIRCUIT AMP.
		Cooling	Heating	Cooling	Heating**		
ETAC-07HP230V15B-A	187-253	620/640	1,635/2,000	3.0/2.8	7.9/8.9	15	11.1
ETAC-07HP230V20B-A		620/640	2,452/3,000	3.0/2.8	12.2/13.2	20	16.5
ETAC-09HP230V15B-A		770/800	1,635/2,000	3.9/3.7	7.9/8.9	15	11.1
ETAC-09HP230V20B-A		770/800	2,452/3,000	3.9/3.7	12.2/13.2	20	16.5
ETAC-12HP230V15A-A		1,120/1,120	1,635/2,000	5.7/5.1	7.9/8.9	15	11.1
ETAC-12HP230V20A-A		1,120/1,120	2,452/3,000	5.7/5.1	12.2/13.2	20	16.5
ETAC-12HP230V30A-A		1,120/1,120	4,087/5,000	5.7/5.1	20.5/21.5	30	27.2
ETAC-15HP230V20B-A		1,460/1,480	2,452/3,000	7.5/6.7	12.2/13.2	20	16.5
ETAC-15HP230V30B-A		1,460/1,480	4,087/5,000	7.5/6.7	20.5/21.5	30	27.2

*Rated in accordance with ARI Standard 380-93.

†Coefficient of Performance (COP) at 47 F outdoor ambient temperature

**Electric resistance heater power and fan motor power.

LEGEND

EER — Energy Efficiency Ratio

COP — Coefficient of performance

CFM — Cubic feet per minute

RECEPTACLE	A	B	C
			
NEMA CONFIGURATION	6-15R	6-20R	6-30R
AMPS	15	20	30
RATED VOLTS	250	250	250
TIME-DELAY TYPE FUSE (or HACR Circuit Breaker)	15	20	30



PERFORMANCE AND ELECTRICAL DATA (CONT.)

265V HEAT PUMP MODELS

MODEL NUMBER	CAPACITY* (Btuh)			HEATER KW	EER	COP†	CHASSIS SHIP WT. (lbs)	RECEP TACLE TYPE
	Cooling	Heating						
		Rev. Cyc.	Electric					
ETAC-07HP265V20B-A	7,700	6,300	10,200	3.0	12.0	3.4	124	E
ETAC-09HP265V20A-A	9,300	8,100	10,200	3.0	11.3	3.3	131	E
ETAC-12HP265V20A-A	12,000	10,700	10,200	3.0	10.7	3.1	135	E
ETAC-12HP265V30A-A	12,000	10,700	17,000	5.0	10.7	3.1	135	F
ETAC-15HP265V20B-A	14,500	13,300	10,200	3.0	9.8	3.0	140	E
ETAC-15HP265V30B-A	14,500	13,300	17,000	5.0	9.8	3.0	140	F

MODEL NUMBER	POWER FACTOR (%)	INDOOR FAN			R-410A CHARGE (oz)	DEHUMIDIFI-CACTION (Pints/Hr)	SENSIBLE HEAT FACTOR
		Horsepower	Full Load Amps	CFM HI Speed			
ETAC-07HP265V20B-A	97%	0.028	0.4	294	24.7	1.7	84%
ETAC-09HP265V20A-A	99%	0.028	0.2	300	23.6	2.1	81%
ETAC-12HP265V20A-A	99%	0.031	0.2	310	27.2	2.7	67%
ETAC-12HP265V30A-A	99%	0.031	0.2	310	27.2	2.7	67%
ETAC-15HP265V20B-A	98%	0.031	0.6	341	36.3	2.8	65%
ETAC-15HP265V30B-A	98%	0.031	0.6	341	36.3	2.8	65%

MODEL NUMBER	VOLTAGE RANGE	WATTS		AMPS		MAX FUSE SIZE (Amps)	MIN. CIRCUIT AMP.
		Cooling	Heating	Cooling	Heating**		
ETAC-07HP265V20B-A	239-292	640	3,000	2.4	11.3	20	16.5
ETAC-09HP265V20A-A		825	3,000	3.4	11.3	20	16.5
ETAC-12HP265V20A-A		1,120	3,000	4.6	11.3	20	16.5
ETAC-12HP265V30A-A		1,120	5,000	4.6	18.9	30	27.2
ETAC-15HP265V20B-A		1,480	3,000	5.8	11.3	20	16.5
ETAC-15HP265V30B-A		1,480	5,000	5.8	18.9	30	27.2
ETAC-15HP265V30B-A		1,480	5,000	5.8	18.9	30	27.2

*Rated in accordance with ARI Standard 380-93.

†Coefficient of Performance (COP) at 47 F outdoor ambient temperature

**Electric resistance heater power and fan motor power.

LEGEND

EER — Energy Efficiency Ratio
COP — Coefficient of performance
CFM — Cubic feet per minute

RECEPTACLE	D	E	F
			
NEMA CONFIGURATION	7-15R	7-20R	7-30R
AMPS	15	20	30
RATED VOLTS	277	277	277
TIME-DELAY TYPE FUSE	15	20	30
(or HACR Circuit Breaker)			



EXPANDED RATING DATA

COOLING PERFORMANCE - HEAT/COOL MODELS

ALL 7,000 NORMAL BTUH MODELS

Evaporator entering air temp (D.B.) = 80 deg F

TEMP (DEG F) AIR ENT COND (40%RH)		Temp EVAP AIR-EWB (DEG F)		
		62	67	72
75	BtuH	8062	8709	9055
	Kw	536	531	522
	Amps	2.4	2.3	2.3
	SHR	0.96	0.72	0.53
85	BtuH	7500	8131	8624
	Kw	582	575	569
	Amps	2.5	2.5	2.5
	SHR	0.98	0.74	0.54
95	BtuH	6815	7700	8285
	Kw	640	640	640
	Amps	2.8	2.8	2.8
	SHR	0.99	0.77	0.54
105	BtuH	6075	6892	7762
	Kw	693	691	692
	Amps	3.0	3.0	3.0
	SHR	0.99	0.81	0.55
110	BtuH	5251	5944	6907
	Kw	758	755	755
	Amps	3.3	3.3	3.3
	SHR	0.99	0.87	0.58

ALL 9,000 NORMAL BTUH MODELS

Evaporator entering air temp (D.B.) = 80 deg F

TEMP (DEG F) AIR ENT COND (40%RH)		Temp EVAP AIR-EWB (DEG F)		
		62	67	72
75	BtuH	9423	10179	10584
	Kw	670	663	653
	Amps	3.1	3.1	3.1
	SHR	0.89	0.66	0.49
85	BtuH	8766	9504	10080
	Kw	727	718	711
	Amps	3.3	3.3	3.3
	SHR	0.91	0.69	0.5
95	BtuH	7965	9000	9684
	Kw	800	800	800
	Amps	3.7	3.7	3.7
	SHR	0.91	0.71	0.5
105	BtuH	7101	8055	9072
	Kw	866	864	865
	Amps	4.0	4.0	4.0
	SHR	0.92	0.75	0.51
110	BtuH	6138	6948	8073
	Kw	947	943	943
	Amps	4.4	4.3	4.3
	SHR	0.91	0.8	0.54

ALL 12,000 NORMAL BTUH MODELS

Evaporator entering air temp (D.B.) = 80 deg F

TEMP (DEG F) AIR ENT COND (40%RH)		Temp EVAP AIR-EWB (DEG F)		
		62	67	72
75	BtuH	12564	13572	14112
	Kw	939	928	914
	Amps	4.3	4.2	4.2
	SHR	0.89	0.66	0.49
85	BtuH	11688	12672	13440
	Kw	1018	1006	996
	Amps	4.6	4.6	4.5
	SHR	0.91	0.69	0.5
95	BtuH	10620	12000	12912
	Kw	1120	1120	1120
	Amps	5.1	5.1	5.1
	SHR	0.91	0.71	0.5
105	BtuH	9468	10740	12096
	Kw	1213	1210	1211
	Amps	5.5	5.5	5.5
	SHR	0.92	0.75	0.51
110	BtuH	8184	9264	10764
	Kw	1326	1320	1320
	Amps	6	6	6
	SHR	0.91	0.8	0.54

ALL 15,000 NORMAL BTUH MODELS

Evaporator entering air temp (D.B.) = 80 deg F

TEMP (DEG F) AIR ENT COND (40%RH)		Temp EVAP AIR-EWB (DEG F)		
		62	67	72
75	BtuH	15705	16965	17640
	Kw	1282	1268	1248
	Amps	5.6	5.6	5.5
	SHR	0.85	0.63	0.47
85	BtuH	14610	15840	16800
	Kw	1391	1374	1360
	Amps	6	6	6
	SHR	0.87	0.66	0.48
95	BtuH	13275	15000	16140
	Kw	1530	1530	1530
	Amps	6.7	6.7	6.7
	SHR	0.87	0.68	0.48
105	BtuH	11835	13425	15120
	Kw	1657	1652	1654
	Amps	7.2	7.2	7.2
	SHR	0.88	0.72	0.49
110	BtuH	10230	11580	13455
	Kw	1812	1804	1804
	Amps	7.9	7.9	7.9
	SHR	0.87	0.77	0.51

LEGEND

EWB - Entering Wet Bulb
D.B. - Dry Bulb
AMP - Total Current
Kw - Total Power
BtuH - Total Cooling Capacity
SHR- Sensible Heating Ratio-

EXPANDED RATING DATA

COOLING PERFORMANCE - HEAT PUMP MODELS

ALL 7,000 NOMINAL BTUH MODELS

Evaporator entering air temp (D.B.) = 80 deg F

TEMP (DEG F) AIR ENT COND (40%RH)		Temp EVAP AIR-EWB (DEG F)		
		62	67	72
75	BtuH	8062	8709	9055
	Kw	536	531	522
	Amps	2.4	2.3	2.3
	SHR	0.96	0.72	0.53
85	BtuH	7500	8131	8624
	Kw	582	575	569
	Amps	2.5	2.5	2.5
	SHR	0.98	0.74	0.54
95	BtuH	6815	7700	8285
	Kw	640	640	640
	Amps	2.8	2.8	2.8
	SHR	0.99	0.77	0.54
105	BtuH	6075	6892	7762
	Kw	693	691	692
	Amps	3.0	3.0	3.0
	SHR	0.99	0.81	0.55
110	BtuH	5251	5944	6907
	Kw	758	755	755
	Amps	3.3	3.3	3.3
	SHR	0.99	0.87	0.58

ALL 9,000 NOMINAL BTUH MODELS

Evaporator entering air temp (D.B.) = 80 deg F

TEMP (DEG F) AIR ENT COND (40%RH)		Temp EVAP AIR-EWB (DEG F)		
		62	67	72
75	BtuH	9423	10179	10584
	Kw	670	663	653
	Amps	3.1	3.1	3.1
	SHR	0.89	0.66	0.49
85	BtuH	8766	9504	10080
	Kw	727	718	711
	Amps	3.3	3.3	3.3
	SHR	0.91	0.69	0.5
95	BtuH	7965	9000	9684
	Kw	800	800	800
	Amps	3.7	3.7	3.7
	SHR	0.91	0.71	0.5
105	BtuH	7101	8055	9072
	Kw	866	864	865
	Amps	4.0	4.0	4.0
	SHR	0.92	0.75	0.51
110	BtuH	6138	6948	8073
	Kw	947	943	943
	Amps	4.4	4.3	4.3
	SHR	0.91	0.8	0.54

ALL 12,000 NOMINAL BTUH MODELS

Evaporator entering air temp (D.B.) = 80 deg F

TEMP (DEG F) AIR ENT COND (40%RH)		Temp EVAP AIR-EWB (DEG F)		
		62	67	72
75	BtuH	12564	13572	14112
	Kw	939	928	914
	Amps	4.3	4.2	4.2
	SHR	0.89	0.66	0.49
85	BtuH	11688	12672	13440
	Kw	1018	1006	996
	Amps	4.6	4.6	4.5
	SHR	0.91	0.69	0.5
95	BtuH	10620	12000	12912
	Kw	1120	1120	1120
	Amps	5.1	5.1	5.1
	SHR	0.91	0.71	0.5
105	BtuH	9468	10740	12096
	Kw	1213	1210	1211
	Amps	5.5	5.5	5.5
	SHR	0.92	0.75	0.51
110	BtuH	8184	9264	10764
	Kw	1326	1320	1320
	Amps	6	6	6
	SHR	0.91	0.8	0.54

ALL 15,000 NOMINAL BTUH MODELS

Evaporator entering air temp (D.B.) = 80 deg F

TEMP (DEG F) AIR ENT COND (40%RH)		Temp EVAP AIR-EWB (DEG F)		
		62	67	72
75	BtuH	15182	16400	17052
	Kw	1240	1227	1208
	Amps	5.5	5.5	5.4
	SHR	0.88	0.65	0.48
85	BtuH	14123	15312	16240
	Kw	1345	1329	1316
	Amps	5.9	5.9	5.9
	SHR	0.89	0.68	0.49
95	BtuH	12833	14500	15602
	Kw	1480	1480	1480
	Amps	6.6	6.6	6.5
	SHR	0.9	0.7	0.49
105	BtuH	11441	12978	14616
	Kw	1603	1598	1600
	Amps	7.1	7.1	7.1
	SHR	0.9	0.74	0.5
110	BtuH	9889	11194	13007
	Kw	1752	1745	1745
	Amps	7.7	7.7	7.7
	SHR	0.9	0.79	0.53

LEGEND

EWB - Entering Wet Bulb
 D.B. - Dry Bulb
 AMP - Total Current
 Kw - Total Power
 BtuH - Total Cooling Capacity
 RH - Relative Humidity
 SHR - Sensible Heating Ratio

EXPANDED RATING DATA

HEAT PUMP HEATING PERFORMANCE

E-TAC

NORNIMAL BtuH SIZE		OUTDOOR TEMP D.B (DEG F)				
		37	42	47	52	57
7,000	BtuH	5250	5540	6300	6900	7620
	Kw	509	518	540	549	580
	Amps	2.3	2.4	2.4	2.5	2.6
9,000	BtuH	6005	6399	8100	8647	9245
	Kw	647	656	720	725	735
	Amps	3.3	3.3	3.4	3.4	3.5
12,000	BtuH	7726	8531	10700	11278	12234
	Kw	883	917	1010	1039	1073
	Amps	4	4.1	4.5	4.7	4.9
15,000	BtuH	10530	10850	13300	14550	15940
	Kw	1197	1212	1300	1377	1439
	Amps	5.3	5.4	5.8	6.1	6.3

Based on 70 Deg F Indoor Temperature

LEGEND

- D.B. - Dry Bulb
- AMP - Total current
- Kw - Total Power
- BtuH - Total Cooling Capacity
- RH - Relative Humidity

INDOOR FAN PERFORMANCE DATA

Model	Voltage	Dry Coil (CFM)*			Wet Coil (CFM)*		
		Low	Medium	High	Low	Medium	High
7000 BTUH Heat / Cool 7000 BTUH Heat Pump	208	235	250	270	220	235	250
	230	260	280	300	240	260	280
7000 BTUH Heat / Cool 7000 BTUH Heat Pump	265	260	280	300	240	260	280
9000 BTUH Heat / Cool 9000 BTUH Heat Pump	208	235	250	270	220	235	250
	230	260	280	300	240	260	280
9000 BTUH Heat / Cool 9000 BTUH Heat Pump	265	260	280	300	240	260	280
12,000 BTUH Heat / Cool 12,000 BTUH Heat Pump	208	245	260	280	225	240	260
	230	270	290	310	250	270	290
12,000 BTUH Heat / Cool 12,000 BTUH Heat Pump	265	270	290	310	250	270	290
15,000 BTUH Heat / Cool 15,000 BTUH Heat Pump	208	270	290	305	250	270	290
	230	300	320	340	280	300	320
15,000 BTUH Heat / Cool 15,000 BTUH Heat Pump	265	300	320	340	280	300	320

*
Dry CFM = INDOOR AIRFLOW WITH DRY INDOOR COIL
Wet CFM = INDOOR AIRFLOW WITH WET INDOOR COIL

CFM = Cubic Feet per Minute

INDOOR SOUND POWER DATA

Indoor SoundEstimatingTable (Sound Pressure)

Operating Mode	Volts	NOMINAL SIZES (dBA)						NOMINAL SIZES (BELS)					
		HEAT PUMP			HEAT / COOL			HEAT PUMP			HEAT / COOL		
		7000	9000	12000	15000	7000	9000	12000	15000	7000	9000	12000	15000
Low Cool	208	47.8	46.3	52.4	51.4	46.0	47.8	51.6	52.5	5.5	5.8	5.9	6.1
	230	48.9	47.8	54.1	52.2	47.4	50.6	52.8	52.8	5.7	6.0	6.1	6.2
	265	50.7	47.9	49.9	50.0	47.6	51.6	51.7	51.2	6.1	5.8	6.0	6.1
Medium Cool	208	48.1	46.7	52.9	52.1	46.7	48.3	52.0	52.6	5.5	5.9	5.9	6.0
	230	49.5	48.8	54.4	53.0	48.4	51.1	53.1	53.2	5.7	6.1	6.1	6.2
	265	50.9	48.7	50.3	50.0	47.9	52.0	52.4	51.9	6.1	5.9	6.0	6.2
High Cool	208	48.6	47.4	53.8	52.9	47.2	49.3	52.5	53.0	5.6	5.9	6.0	6.2
	230	50.0	49.1	54.4	53.5	48.9	51.5	53.5	53.7	5.8	6.1	6.1	6.3
	265	51.1	49.5	51.2	52.0	48.3	52.3	52.8	52.9	6.1	5.9	6.1	6.3
Low Fan	208	39.6	41.0	47.0	46.2	38.8	40.4	47.0	46.0	4.7	5.1	5.3	5.5
	230	42.6	44.3	48.3	48.6	41.9	44.0	48.1	47.4	5.0	5.3	5.5	5.8
	265	41.1	41.4	43.6	46.0	41.9	41.9	43.5	46.6	5.1	5.1	5.4	5.7
Medium Fan	208	41.9	43.1	48.1	48.2	41.3	42.2	48.3	47.1	4.9	4.9	5.3	5.5
	230	44.5	45.8	49.1	49.7	43.8	45.2	49.1	48.2	5.2	5.4	5.6	5.9
	265	42.7	43.9	45.6	47.0	43.5	45.1	45.6	48.0	5.3	5.4	5.6	5.8
High Fan	208	43.6	44.5	49.2	49.8	43.0	43.9	49.2	48.2	5.1	5.2	5.5	5.9
	230	45.7	46.5	49.7	50.6	45.4	46.2	49.8	49.0	5.4	5.6	5.7	6.0
	265	44.1	45.6	47.1	49.0	44.4	46.3	47.4	50.2	5.4	5.6	5.7	6.0
Low Heat	208	47.5	47.6	53.5	52.1	40.5	40.6	47.0	47.8	5.5	5.9	5.9	6.0
	230	49.5	49.5	56.4	53.4	43.2	44.0	48.1	49.2	5.7	6.1	6.2	6.3
	265	49.0	52.2	50.7	51.0	42.6	43.2	43.5	47.0	5.9	6.2	6.1	6.1
Medium Heat	208	48.3	48.1	54.2	52.8	42.4	42.4	48.3	49.1	5.5	5.9	6.0	6.1
	230	50.1	49.6	55.5	53.6	44.9	45.2	49.1	50.2	5.7	6.1	6.1	6.2
	265	49.8	52.5	50.9	50.0	43.6	45.5	48.6	48.5	6.0	6.3	6.1	6.0
High Heat	208	48.5	48.4	54.0	53.3	43.8	43.7	49.2	50.2	5.6	6.0	6.1	6.1
	230	50.3	49.8	54.7	53.8	46.2	46.1	49.8	50.8	5.8	6.2	6.2	6.1
	265	50.2	52.7	51.5	52.0	45.0	47.2	47.9	50.4	6.0	6.3	6.2	6.0

See notes on page 36

OUTDOOR SOUND PRESSURE DATA

Outdoor Sound Estimating Table (dBA and BELS)

Operating Mode	Volts	NOMINAL SIZES (dBA)						NOMINAL SIZES (BELS)					
		HEAT PUMP			HEAT / COOL			HEAT PUMP			HEAT / COOL		
		7000	9000	12000	15000	7000	9000	12000	15000	7000	9000	12000	15000
Low Cool	208	61.9	61.0	64.5	65.4	61.5	60.4	64.8	65.1	67	69	7.0	7.2
	230	63.3	62.7	65.7	66.4	62.9	63.0	65.7	66.1	6.9	7.1	7.2	7.3
	265	59.9	60.7	62.9	63.0	59.4	62.2	62.5	63.3	7.0	7.1	7.3	7.3
Medium Cool	208	61.7	61.2	64.7	65.2	61.6	60.4	64.7	65.1	6.7	6.9	7.0	7.1
	230	63.5	63.0	65.7	66.4	63.2	63.2	65.9	66.0	6.9	7.1	7.2	7.3
	265	59.9	60.7	62.9	63.0	59.4	62.2	62.5	63.3	7.0	7.1	7.3	7.3
High Cool	208	61.8	61.1	65.2	65.6	61.7	60.4	64.6	65.1	6.7	6.9	7.1	7.2
	230	63.3	62.9	66.0	66.4	63.5	63.0	66.0	65.8	6.9	7.1	7.2	7.3
	265	59.9	60.7	62.9	63.0	59.4	62.2	62.5	63.3	7.0	7.1	7.3	7.3
Low Heat	208	62.7	62.3	68.1	66.6	---	---	---	---	6.8	7.0	7.1	7.2
	230	64.6	64.5	70.0	67.6	---	---	---	---	7.0	7.2	7.3	7.4
	265	50.6	61.7	63.2	64.0	---	---	---	---	7.1	7.2	7.3	7.4
Medium Heat	208	62.8	62.3	68.0	66.8	---	---	---	---	6.8	7.0	7.1	7.2
	230	64.9	64.5	69.5	67.6	---	---	---	---	7.0	7.2	7.3	7.4
	265	60.6	61.7	63.2	64.0	---	---	---	---	7.1	7.2	7.3	7.4
High Heat	208	62.8	62.3	68.0	66.8	---	---	---	---	6.8	7.0	7.2	7.3
	230	64.8	64.5	69.5	67.9	---	---	---	---	7.0	7.2	7.3	7.4
	265	60.6	61.7	63.2	64.0	---	---	---	---	7.1	7.2	7.3	7.4

Sound Transmission Coefficient (STC) = 23

NOTES:

1. The tables above indicate the approximate indoor and outdoor sound levels of an ETAC unit.

Tests were conducted in the Gree Sound Testing Laboratory according to AHRI (Air Conditioning, Heating and Refrigeration Institute) Noise Rating Standard 300 for non-ducted indoor air conditioning equipment.

FIELD-INSTALLED ACCESSORIES

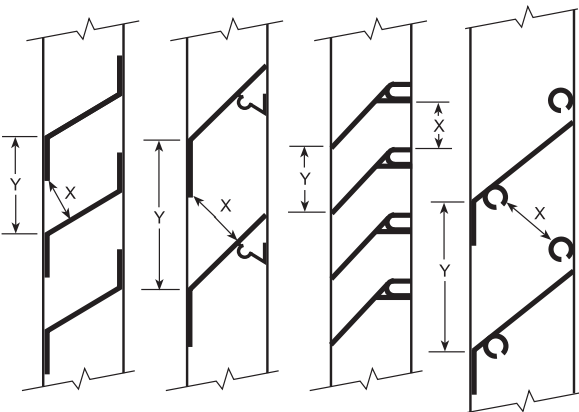
OUTDOOR GRILLE SIZING

IMPORTANT: If you wish to use a grille not made for the Gree E-TAC contact Gree Application Engineering.

The following guidelines must be followed in the initial selection of any alternate exterior grille or louver:

1. The louver must have a minimum of 65% free area. Free area is the minimum area of the opening in an air inlet or outlet in which air can pass. Free Area (%) = X/Y.
2. The louver should be attached to the wall sleeve in a manner that will prevent recirculation of condenser discharge air into the inlet. In most applications, baffles, splitters, and/or gasket will be required between the chassis tube end sheets and the louver to prevent air recirculation.

The above criteria must be followed, since a louver that is restrictive or allows re-circulation will result in a reduction of the unit's capacity and efficiency and will ultimately shorten the compressor life.



Louver Dimensional Reference

Sample Calculations

$$\text{Free Area (\%)} = \frac{X}{Y} \times 100$$

$$\begin{aligned} X &= 1 \\ Y &= 1.5 \end{aligned}$$

$$\text{F.A. (\%)} = \frac{1}{1.5} \times 100 = 66.7\%$$

E-TAC

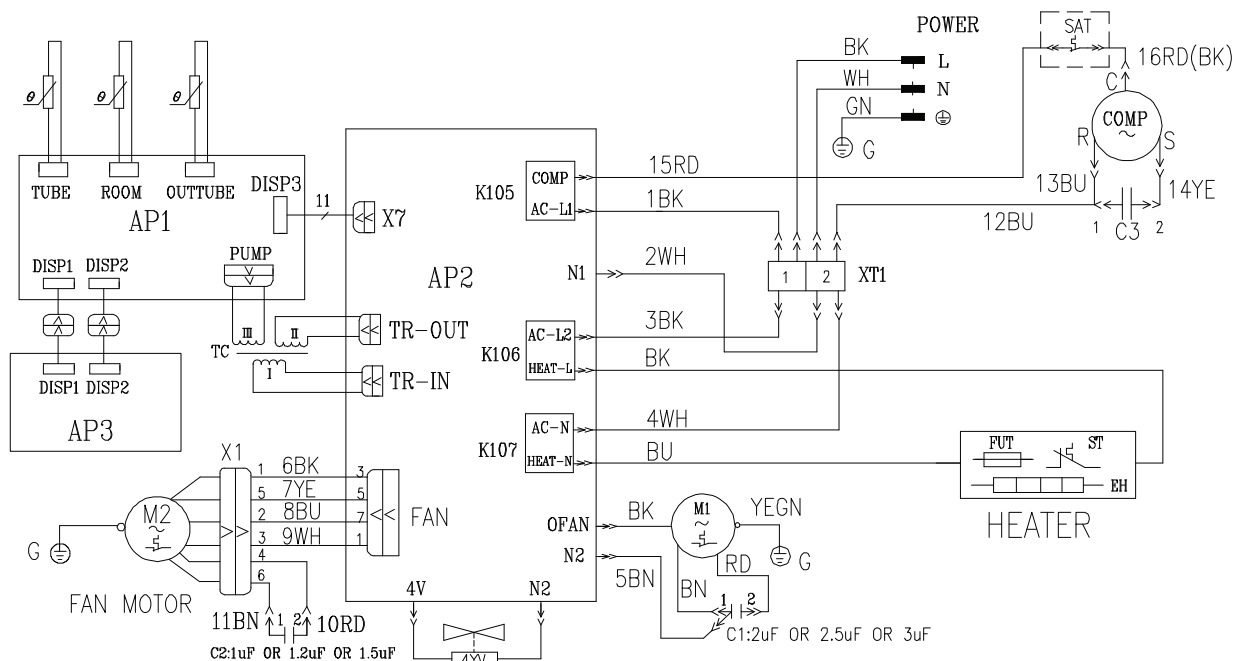
OUTDOOR AIR VENTILATION

The ETAC will supply outdoor air through the ventilation opening in the partition wall into the room. The following ventilation airflow is based on the vent door fully open and the indoor fan operating at HIGH speed:

Cooling Capacity Size	Max Vent Aiflow (CFM)
7,000	45
9,000	65
12,000	75
15,000	75

WIRING SCHEMATIC

E-TAC

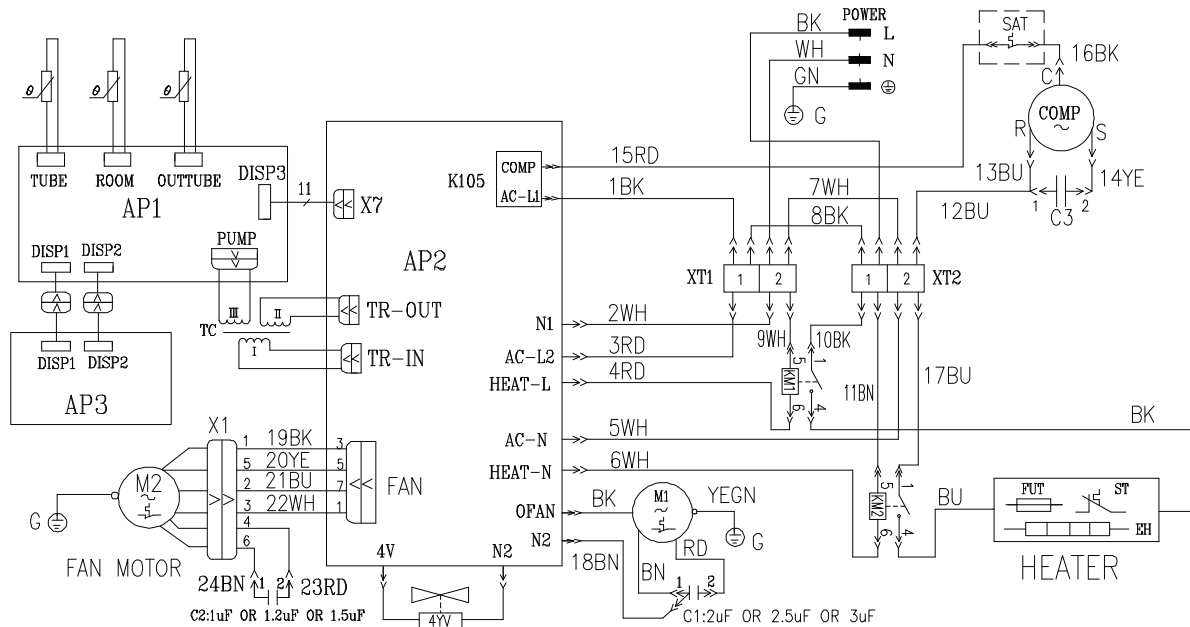


LEGEND

AP1	Main Circuit Board
AP2	Relay Circuit Board
AP3	Display Circuit Board
C1	Compressor Capacitor
C2	Fan Motor Capacitor
L1, L2	Electric Heater Relay
L3	Compressor Relay
M1	Compressor Motor
M2	Outdoor Fan Motor
M3	Indoor Fan Motor
OUTTUBE	Outdoor Coil Sensor
ROOM	Room Air Temp. Sensor
SAT	Compressor Overload
TC	Transformer
TRIN-24V	Transformer 24 Volt Connector
TUBE	Indoor Coil Sensor
X1	Main Power Connector
X2	Heater Connector
X3	Heater Limit Connector
X4	Indoor Fan Motor Connector
X5,X6	Transformer Connector
X7,X8	Board Jumper Connector
XT1	Terminal Block (White)
XT2	Terminal Block (Black)
YV	Reversing Valve (Heat Pump Units)

**E-TAC – Typical Wiring Schematic for Standard Units
(Except Models with 5KW Elec. Heaters)**

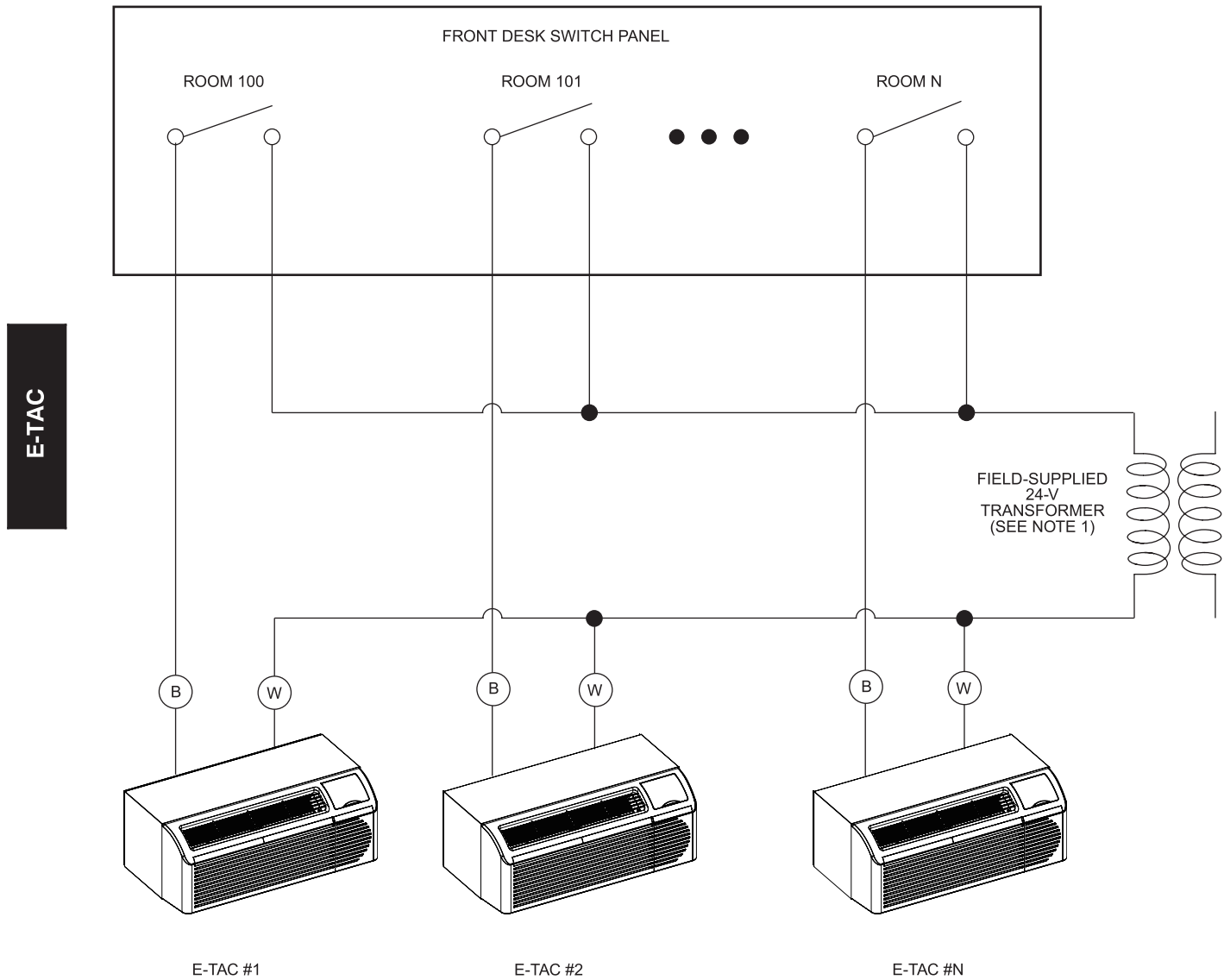
WIRING SCHEMATIC



LEGEND	
AP1	Main Circuit Board
AP2	Relay Circuit Board
AP3	Display Circuit Board
C1	Compressor Capacitor
C2	Fan Motor Capacitor
L1, L2	Electric Heater Relay
L3	Compressor Relay
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X1	Main Power Connector
X2	Heater Connector
X3	Heater Limit Connector
X4	Indoor Fan Motor Connector
X5,X6	Transformer Connector
X7,X8	Board Jumper Connector
XT1	Terminal Block (White)
XT2	Terminal Block (Black)
YV	Reversing Valve (Heat Pump Units)

E-TAC – Typical Wiring Schematic for Models with 5KW Elec. Heaters

TYPICAL WIRING SCHEMATIC FOR ENERGY MANAGEMENT INTERFACE



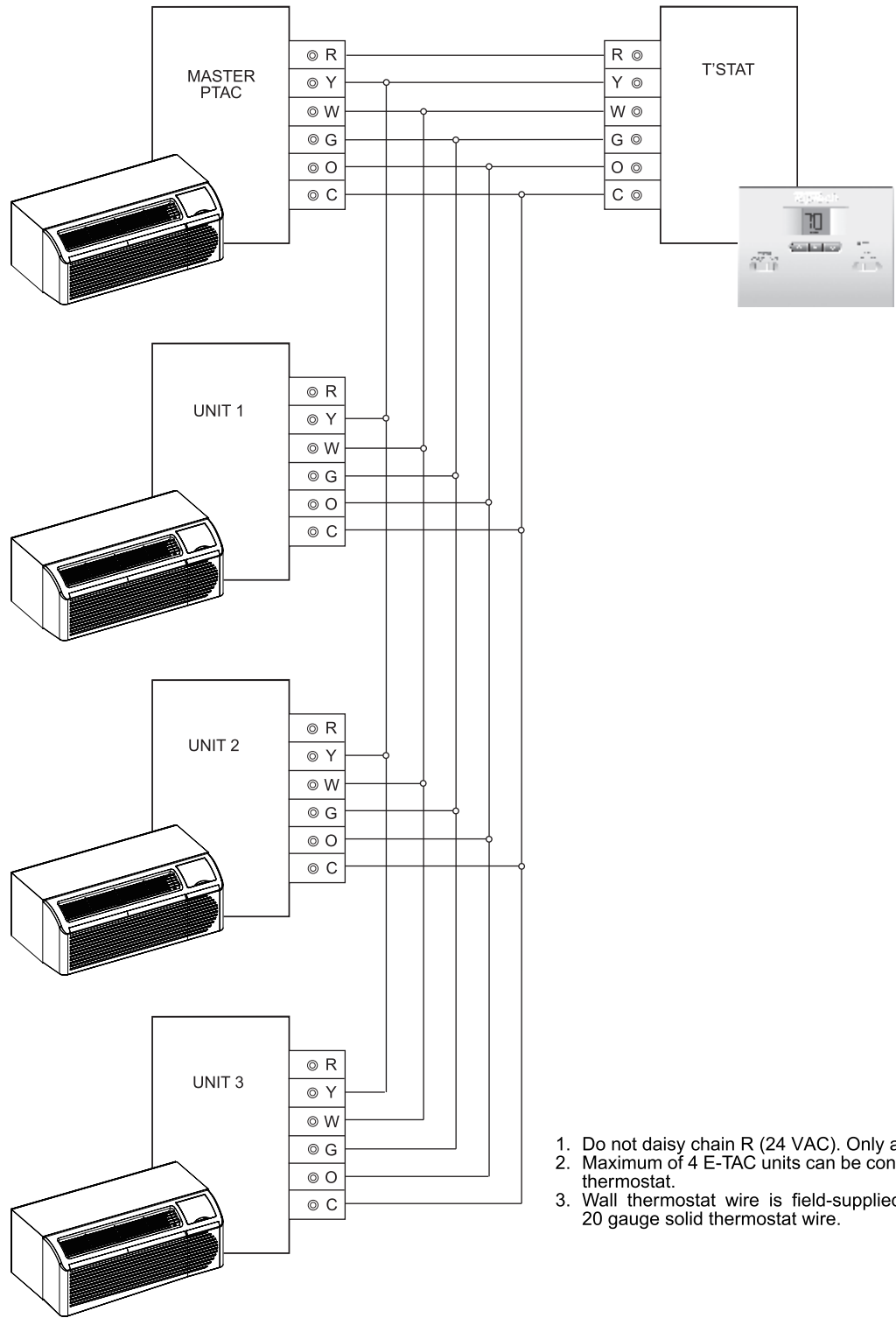
LEGEND

AWG — American Wire Gage
B — Black
PTAC — Packaged Terminal Air Conditioner
W — White

NOTES:

1. To size transformer, use the following equation:
Quantity of ETAC units x 0.1VA = transformer Size (VA)
Example: 110 ETAC units x 0.1VA = 11 VA (24V) Transformer
2. Following are recommended wire sizes:
Recommend 20 AWG wire (or larger) for wire runs up to
2,000 feet in length

TYPICAL WIRING SCHEMATIC FOR MULTIPLE E-TACS CONNECTED TO A SINGLE WALL THERMOSTAT



1. Do not daisy chain R (24 VAC). Only a single "R" is needed.
2. Maximum of 4 E-TAC units can be connected to one single wall thermostat.
3. Wall thermostat wire is field-supplied and should be 18 to 20 gauge solid thermostat wire.

E-TAC

PACKAGED TERMINAL COOLING UNIT WITH HEAT PUMP OR ELECTRIC HEATING

HVAC Guide Specifications

Size Range:

Cooling: 7,200 to 15,000 Btuh

Electrical Heating: 5,600 to 17,100 Btuh

Heat Pump: 6,100 to 13,800 Btuh

Model Numbers:

Cooling with Electric Heat

Heat Pump with Electric Heat

Part 1 — System Description

Packaged Terminal Air Conditioners shall be of the sizes and capacities as shown on the contract drawing schedule and in the specifications.

System shall be tested to insure no water infiltration into the room, when tested at eight inches of rain per hour with 40 mph (64.4 KPh) wind.

The complete system shall consist of the following:

- A. **Packaged Terminal Heat Pump or Heat/Cool Chassis** : See section 2 – Chassis Description
- B. **Power Cord or Hardwire Kit** shall provide the power connection to the unit.
- C. **Insulated Polymer Wall Sleeve** shall provide excellent thermal insulation, be textured to hide scratches and prevent shine, will have superior outdoor noise absorption and shall be corrosion free for the life of the product. The Wall Sleeve must have dimensions of 42" (1067 mm) width x 16" (406 mm) height x 14-7/8" (377.8 mm) depth and be shipped with a rear weather barrier installed.
- D. **Wall Sleeve Molding** shall trim the wall sleeve to the existing wall to hide wall imperfections and irregularities due to the sleeve opening.
- E. **Outdoor Polymer Louvered Grille** shall resist corrosion, breakage and match the color specified on drawing schedule and specifications.
- F. **Subbase** will support the wall sleeve when it extends into the room more than 4" (101.6 mm). Subbase must come from the factory pre-assembled, (size as specified on drawing schedule and specifications).

Part 2 — Chassis Description

2.1 General:

The chassis shall be a factory-assembled, single-piece heating and/or cooling unit, that is simple to install and operate. Just slide the chassis into a wall sleeve, plug it into an outlet, and operate after installation. The chassis dimensions shall not exceed 42" (1067 mm) wide and 16" (406 mm) high with room cabinet in place. The chassis shall consist of the following functional sections and components:

A. **Certifications:**

System shall be approved and certified by UL & UL, Canada. Chassis shall meet ASHRAE Standard 90.1 for minimum energy efficiency.

B. **Operating Characteristics:**

Chassis shall be capable of starting and running at 115° F (46.1° C) ambient outdoor temperature per maximum load criteria of ARI Standard 310/380.

C. **Electrical:**

The power cord will be 58" (1473 mm) for 208/230v models or 15" (381 mm) for 265v models. The Hardwire kit accessory will provide 36" (914 mm) of flexible conduit. The chassis current draw shall be specified on the chassis nameplate and match electrical requirements specified on the Contract drawing schedule and specifications.

The power cord plug configuration shall conform to NEMA standards and the rating shall support the current draw of the electric resistance heater.

For 265v installations, UL codes require the use of an electrical equipped subbase for power cord usage or hardwire conduit for non-corded installations.

D. **Safeties:**

Compressor shall have automatic reset, over temperature and over current protection. The fan motors shall have an inherent, automatic reset over temperature protection. The electric heater shall have two over temperature protectors.

E. Air Flow System:

For superior sound and comfort, the airflow system shall consist of two, direct-drive permanently lubricated fan motors. The outdoor fan motor will be single speed, with a dynamically balanced, corrosion resistant, multi-blade axial flow design, with integrated slinger ring. The indoor fan motor will be three speeds, with a dynamically balanced aluminum, tangential blower wheel, to assure uniform air distribution and optimal sound. Both Fan Motors shall be of an enclosed design to reduce the effects of moisture and corrosion.

F. Compressor & Refrigerant:

The rotary-type Compressor shall be fully hermetic with internal and external vibration isolation. The refrigeration system will be sealed and contain a full refrigerant charge (R410A).

G. Coils:

Condenser and evaporator coils to be constructed of high-efficiency copper and aluminum, necessary to achieve EER and COP rating, as specified on the chassis name plate.

H. Factory-Installed Electric Heater:

The factory-installed, open coil type, electric heater is standard in heat/cool and heat pump chassis. The electric heater shall contain both an automatic reset and a one-shot over temperature protection device. The heating capacity of the electric heater shall be as identified on the Contract drawing schedule and in the specifications.

I. Controls:

All standard models shall be equipped with electronics, for added features and improved reliability of the unit.

The chassis shall have an easy to operate, user friendly, electronic display with simple to push, large digital buttons. All controls will be easily accessible and covered by a hinged door.

The mode selection control shall consist of OFF, FAN ONLY, HEAT, COOL and DRY operations. There will be 3 optional Fan Speed Options, LOW, MED or HIGH. The temperature selection will be controlled by color coded, simple to operate warmer and cooler buttons. The upper and lower setpoint temperature limits, can be easily configured.

All models shall have a configuration dipswitch, easily accessible for optimal comfort settings, CONTINUOUS or CYCLE fan mode in HEATING, CONTINUOUS or CYCLE fan mode in COOLING, FREEZE GUARD enabled or disabled, WALL

THERMOSTAT enabled or disabled, EMERGENCY HEAT (for heatpumps), and 4 optional SETPOINT LIMIT selections.

Fan cycle configuration switches, will allow continuous fan operation for maximum comfort or cycle operation for maximum energy savings. Settings can be different for both heating and cooling operations, for maximum comfort and efficiency.

All standard models shall have Temperature Limiting control, with four easy to configure settings. Temperature limiting allows a room temperature range to be set to avoid extreme temperature settings and to maximize savings.

Emergency Heat Switch (Heat Pump Models Only) shall disable the compressor in heating mode and only allow the use of electric heat during heating cycles. The Emergency Heat switch is active at all outdoor ambient temperatures.

All units shall be capable of interfacing to a wall thermostat; have a blank out label to cover the control panel for wall thermostat applications; and have a removable wall thermostat terminal block, to simplify field wiring. No additional field-installed kits shall be required.

Wall thermostat interface shall provide two fan speed selections to maximize comfort.

Compatible with 2 wire central desk control systems.

Freeze Guard to automatically activate the electric heater and indoor fan to warm the room, to prevent damage from freezing temperatures. Freeze guard will be active as long as there is power supplied to the unit. Unit shall have the ability to disable Freeze guard, if needed.

Unit shall have the option to display temperature in °F or °C.

Unit will have memory; in case power is lost, unit will return to all previous settings.

Unit will have a random compressor restart after a power outage, to prevent power surges due to many units turning on at the same time.

Room temperature sensing shall use a Solid state thermostat control.

- J. Front Panel (supplied with chassis):** Front panel shall be constructed of a polymer material to resist breakage and corrosion. It shall have a front louvered surface with integrated control door and air filters. The air filters shall be easily accessible without removing the front panel from the chassis.
- K. Air Filters:** The chassis shall contain air filters, with a minimum of 40% arrestance per ASHRAE Standard 52.1. Two easily accessible front access supply air filters, shall be interchangeable, washable and permanent type. The vent filter shall be a one-piece, removable and washable type filter.
- L. Bi-Directional Discharge Grille:** Bi-directional polymer discharge grille shall resist corrosion and breakage. It shall be easily set to direct air at 40 degrees from horizontal or 80 degrees from horizontal. This non-metallic discharge grille shall be cool to the touch during the heating cycle.
- M. Ventilation:** The chassis shall have a manual adjustable fresh air vent with a concealed manual control. The vent control shall allow a maximum of up to 65 CFM of fresh air to be drawn into the room when the indoor fan is operating and the door is open.
- N. High Efficiency Condensate Removal System:** The chassis shall have a condensate removal system consisting of a slinger ring integrated in the outdoor fan, to disperse condensate onto the condenser coil to be evaporated.
- O. Accessories:**
1. **Hardwire kit** (PN: HARDWIRE-KIT-xxxV) shall be required if an accessory power cord is not used. The hardwire kit provides a permanent connection to the unit and shall have 36" (914 mm) of flexible steel conduit and a plug-in connector for easy connect/disconnect.
 2. **Insulated Polymer Wall Sleeve** (PN: SLEEVE-INSUL-1PK) shall be made from a molded polymer, with factory installed insulation and a minimum flammability rating of UL94-5V. The sleeve surface shall be textured to prevent shine and hide scratches.
 3. **Deep Wall Metal Wall Sleeve** (up to 28" / 711.2 mm.) (PN: SLEEVE-EXTxx-1PK) shall be a one-piece, extended wall sleeve, with factory installed insulation and deep wall baffles integrated.
 4. **Sleeve Molding** (PN: SLEEVE-MOLDING) shall trim the wall sleeve to the existing wall to hide wall joints and irregularities due to the sleeve opening.
 5. **Architectural Grille** (PN: GRILLE-PLA-xxxxx or GRILLE-ALU-xxxxx) shall be polymeric for long durable life or painted aluminum for a superior color match to the building.
 6. **Subbase** (PN: PTAC-SUBBASE-A): Non-electrical subbase shall provide mechanical support and adjustable legs for leveling. the subbase. Access electrical modules below:
 - 230V Receptacle Module** (PN: PTAC-REC-230Vxx-A): 208/230V outlet receptacle module (available in 15, 20, or 30amp configurations) that mounts in the subbase.
 - 265V Receptacle Module** (PN: PTAC-REC-265Vxx-A): 265V outlet receptacle module (available in 15, 20, or 30amp configurations) that mounts in the subbase.
 - Disconnect Switch** (PN: PTAC-SWITCH-A): Two (2) pole power disconnect switch (DPST) module that mount in the subbase.
 - Fuse Protection** (PN: PTAC-FUSE-xxA): Fuse module (available in 15, 20, or 30amp) provides in-line over-current protection. The module mounts in the subbase and contains a cartridge-style fuse.
 7. **Drain Kit** (PN: DRAIN-KIT-1PK): This universal drain kit shall be used internally or externally to route excess condensate to a central drainage system. The drain kit include both a straight tube and a 90° bend tube.
 8. **Wall Thermostats**
 - A. Wireless Wall Thermostat (PN: TT-N631W)**
The wireless digital wall thermostat and receiver module provide maximum temperature control without pulling wires. The non-programmable wall thermostat comes complete with LCD display, backlighting and two speed fan control.
 - B. Wired Wall Thermostats** (PN: TT-N-411 & PN: TT-N-421) The digital wall thermostat shall have a large LCD display with backlighting, operate with 24VAC, be non-programmable, easy to use and provide maximum guest comfort.

3.0 DELIVERY, STORAGE, AND HANDLING

The packaging of the chassis shall be sufficient to protect the chassis from damage during shipment via an enclosed truck. Chassis must also be able to withstand an impact force of 8 g's and a random continuous force of 1g, during shipping.

Chassis, wall sleeves, and grilles shall be shipped in separate cartons. Universal handling instructions shall be defined and visible on the carton, from front, back and sides.

Chassis shall be capable of withstanding temperatures from -40°F to 155°F (-40°C to 68.3°C), at 5 to 95 percent RH, non-condensing, during shipment and storage, without component failure.

Chassis must be stored and left in a horizontal position for several hours before attempting to engage or start unit.

NOTES:

E-TAC

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