Product Catalog

Outdoor Air Handling Units

For use with Heating, Cooling, and Ventilating Applications

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Revision History

Updated the Motor Electrical Data chapter.

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Introduction

The Trane Packaged Rooftop Air Handlers are designed to perform with heating, cooling and ventilating systems, and are suitable for commercial, institutional and industrial applications where external system pressure losses are as high as 3" W.C. Air Handler units are available in 8 standard arrangements and are divided into two classifications: Standard and High-CFM blower types.

Standard Air Handler units have a CFM range of 1,500 – 8,000 CFM (0.7 – 4.0 m^3/s), and the High-CFM units have a range of 3,000 – 14,000 CFM (1.4 – 6.6 m^3/s). All arrangements are ETL certified for safety and performance and are in compliance with the UL-1995 Standard for HVAC Equipment.

Standard Air Handler units consist of a blower cabinet that houses dampers, filters, and blower in one cabinet. An optional Evaporative Cooling unit with 8 or 12" media may also be included with Standard blower type arrangements.

The High-CFM arrangements utilize separate cabinet sections: a damper/filter cabinet with a “V” bank filter layout and a blower cabinet. An additional cooling coil cabinet capable of up to 20 tons and a CFM range of 1,600 – 6,300 (0.8 – 3.0 m^3/s) is available to be added to certain High-CFM type units. This coil cabinet may also be suitable for installations of heating coils.

Both Standard and High-CFM Air Handler arrangements may also include a downturn supply air plenum, outside air intake hood (with standard bird screen or optional moisture eliminators), and a roof curb. All arrangements are rail mounted.

Control and other electrical components are located in the main electrical cabinet. This cabinet is located out of the air stream as part of the blower transition at the discharge end of the unit (between the blower cabinet and supply air plenum, if selected). For your safety and convenience, all Trane Packaged Rooftop Air Handler Units include 24 Volt control circuit, 24 Volt in line circuit breaker, and blower door interlock switch with terminal block wiring.

All cabinets are constructed of rugged 18 guage material and painted cloud gray. Cabinet design includes hinged access doors, water tight sealed seams, insulated blower, filter and plenum sections, and down-rolled (hat type) rails that mount tightly over roof curbs – all to ensure reliability and serviceability. In addition to standard convenience features, many accessory options such as variable frequency drives, remote control panel, and through the base utility penetrations are available to increase application versatility.

Features and Benefits

- ETL UL-1995 certified packaged units
- CFM ranges from 1,500 - 14,000 CFM
- Motor sizes up to 15 horse power (EPACT compliant)
- Standard ODP motors, with optional premium efficiency and totally enclosed
- Standard left side service access, right optional
- Draw-thru heating and/or cooling coil cabinet with stainless steel drain pan
- Evaporative cooling with standard 8 or optional 12" media (203 or 305 mm)
- Standard insulated roof curbs (Optional uninsulated roof curbs available)
- Vibration isolation roof curbs
- Seismic rated roof curbs
- Adapter roof curbs
- 18 ga. cabinets, painted cloud gray
- 1 in. washable filters
- Blower door safety interlock switch
- Reverse air flow safety switch
- 24 volt circuit breaker
- Printed circuit main connection board
- Wiring harnesses with stamped wire numbers
- Multiple control packages

Rooftop Air Handler Unit Number Description

A	H	A	A	20	O	A	0	F0	0	0	C	F	1	0	5	H	0	P
1	2	3	4	5, 6	7	8	9	10, 11	12	13	14	15	16	17	18	19	20	21

Digits 1, 2 — Unit Type

AH — Air Handling Unit

Digit 3 — Connection Side

A – Left-hand access
B – Right-hand access

Digit 4 — Development Sequence

A — First Generation

Digits 5, 6 — Unit Size

20 — 1500 - 8000 Cfm
40 — 4000 - 14000 Cfm

Digit 7 — Venting Type

O — None

Digit 8 — Main Power Supply

A — 115/60/1
B — 208/60/1
C — 230/60/1
D — 208/60/3
E — 230/60/3
F — 460/60/3
G — 575/60/3

Digit 9 — Gas Control Option

0 — No gas control option

Digits 10, 11 — Design Sequence

F0 — Design Sequence

Digit 12 — Fuel Type

0 — No selection

Digit 13 — Heat Exchanger Material

0 — No selection

Digit 14 — Air Handler Arrangements

B — Blower (Standard)
C — Blower (Standard) Plenum
D — Blower (Standard) Evaporative Cooler
E — Blower (Standard) Evaporative Cooler/ Plenum
G — Blower (High CFM)
J — Blower (High CFM)/Plenum
K — Blower (High CFM)/Coil Cabinet
L — Blower (High CFM)/Coil Cabinet/ Plenum

Digit 15 — Motor Selection

A — 1/2 HP. w/Contactor
B — 3/4 HP. w/Contactor
C — 1 HP. w/Contactor
D — 1-1/2 HP. w/Contactor
E — 2 HP. w/Contactor
F — 3 HP. w/Contactor
G — 5 HP. w/Contactor
H — 1/2 HP. w/Magnetic Starter
J — 3/4 HP. w/Magnetic Starter
K — 1 HP. w/Magnetic Starter
L — 1-1/2 HP. w/Magnetic Starter
N — 2 HP. w/Magnetic Starter
P — 3 HP. w/Magnetic Starter
Q — 5 HP. w/Magnetic Starter
R — 7-1/2 HP. w/Magnetic Starter
T — 10 HP. w/Magnetic Starter
U — 15 HP. w/Magnetic Starter
V — 1 HP. w/VFD
W — 1–1/2 HP. w/VFD
X — 2 HP. w/VFD
Y — 3 HP. w/VFD
Z — 5 HP. w/VFD
1 — 7–1/2 HP. w/ VFD
2 — 10 HP. w/VFD
3 — 15 HP. w/VFD

Digit 16 — Motor Speed and Starter

1 — Single Speed ODP 1800 RPM
2 — Single Speed TEFC 1800 RPM
3 — Single Speed High Efficiency ODP 1800 RPM
4 — Single Speed High Efficiency TEFC 1800 RPM

Digit 17 — Coil Options

O — No cooling coil selection
A — DX coil, 4 Row, Single Circuit
B — DX coil, 4 Row, Dual Circuit
C — DX coil, 6 Row, Single Circuit
D — DX coil, 6 Row, Dual Circuit
E — Chilled Water Coil, 4 Row, Single Circuit
G — Chilled Water Coil, 6 Row, Dual Circuit

Digit 18 — Air Inlet Configuration

1 — Outside Air (OA) Horizontal Inlet
2 — Outside Air W/Air Hood, Horizontal Inlet
3 — Bottom Return Air (RA)
4 — Outside and Return Air (OA/RA)
5 — Outside and Return Air W/Air Hood

Digit 19— Air Control and Damper Arrangements

0 — No selection
A — Outside Air 2 Pos. Motor / SR
B — Return Air 2 Pos. Motor / SR
C — OA/RA 2 Pos. / SR
Q — OA/RA Mod. Mtr. w/CO_2Sensor
E — OA/RA Mod. Mtr. w/Mixed Air Control / Min. Pot. / SR
H — OA/RA Mod. Mtr. w/Mixed Air Control / SR
K — OA/RA Mod. Mtr. w/Min. Pot. / SR
M — OA/RA Mod. Mtr. w/Dry Bulb / Mixed Air Control / Min. Pot. /SR
N — OA/RA Mod. Mtr. w/Enthalpy Controlled Economizer / SR
P — OA/RA Mod. Mtr. w/Pressure Control (Space Pressure)
R — OA/RA Mod. Mtr. w/S-350-P Proportional Mixed Air Control/SR
U — OA/RA MTR. W/External 0-10 VDC and 4-20 mA Analog Input/SR (External Input)
W — ASHRAE Cycle I (OA/RA 2 pos. w/warm-up stat/SR
X — ASHRAE Cycle II (OA/RA Mod W/Warm-up Stat/Mixed Air/min pot/SR
Y — ASHRAE Cycle III (OA/RA Mod. W/Warm-up Stat/Mixed Air/SR
Z — Manual Dampers

Digit 20 — California Shipment

0 — Non-California Shipment
1 — California Shipment

Digit 21 — Miscellaneous Options

B — 12” Evaporative Media (Celdek)
C — Moisture Eliminators
D — Horizontal Return
E — Air Flow Proving Switch
F — Freezestat
H — Return Air Firestat
J — Supply Air Firestat
K — Manual Blower Switch
N — Double Wall Construction
P — Low Leak Dampers
Q — Clogged Filter Switch
T — Status Indicator Lights (Elec Cabinet)
W — 8" Evaporative Media (Glasdek)
X — 12" Evaporative Media (Glasdek)
Y — Ambient Lockout
Z — Freezestat for Evap. Cooler
0 — No Filters Selected
1 — 1" Washable (Standard) Filters
2 — 2" Washable Filters
3 — 2" Throwaway Filters
4 — 1" Pleated Media Filters
5 — 2" Pleated Media Filters

Digit 22 — VFD Accessories

1 — Field Installed VFD
2 — Factory Installed VFD
3 — VFD Remote Keypad (Field Installed)
4 — CO_2 Sensor, 100% Outside Air
5 — CO_2 Sensor, Mixed Air
6 — Pressure Sensor
7 — 2-Speed VFD Relays
8 — 3-Speed VFD Relays
9 — VFD Enclosure

Packaged Rooftop Arrangements

Air Handler

Trane Packaged Rooftop Units are ETL certified to UL-1995 standard for heating cooling and ventilating equipment.Units are available in one of 8 standard arrangements (Air Handler Arrangements, Model digit 14). Air Handler units (Unit Type “AH”) are suitable for commercial, institutional, and industrial applications where external system pressure losses are as high as 3" W.C.

Figure 1. Air handler

Air Handler arrangements are divided into two classifications: Standard and High-CFM Blower types. The Standard Air Handler units (Air Handler Arrangement “B, C, D, E”) have a CFM range of 1,500 - 8,000 CFM (0.7 - 4.0 m^3/s). The Standard Air Handler arrangement consists of a blower cabinet that houses dampers, filters, and blower in one cabinet; an optional Evaporative cooling unit with standard 8 or optional 12" media may also be included.

The High-CFM Air Handler Units (Air Handler Arrangement “G & J”) have a range of 3,000-14,000 CFM (1.4 - 6.6m^3/s). High CFM Air Handler units utilize a separate damper/filter cabinet with a “V” bank filter arrangement and a blower cabinet. Air Handler Arrangements “K & L” include an additional cooling coil cabinet capable of up to 20 tons and a CFM range of 1,600 - 6,300 (0.8 - 3.0m^3/s). This coil cabinet may also be suitable for field installations of heating coils.

Both Standard and High-CFM Air Handler arrangements may also include a downturn supply air plenum, outside air intake hood with standard bird screen or optional moisture eliminators, and a roof curb. All arrangements are rail mounted.

For your safety and convenience all Trane Packaged Air Handler Units include a 24 Volt control circuit, 24 Volt in line circuit breaker, and blower door interlock switch with terminal block wiring. All wiring is processed at our factory as harness assemblies and each wire is permanently stamped with it’s wire number.

All Cabinets are constructed of rugged 18 ga. material and painted cloud gray. The modular design of the cabinetry ensures reliability as well as serviceability with hinged access doors, water tight sealed seams, insulated blower filter, and plenum cabinets and down-rolled (hat type) rails that mount tightly over the roof curb.

Air Handler Arrangements

B = Air Handler (STANDARD)

C = Air Handler (STANDARD) / Plenum

D = Air Handler (STANDARD) / Evap. Cooling

E = Air Handler (STANDARD) / Evap. Cooling / Plenum

G = Air Handler (HIGH-CFM)

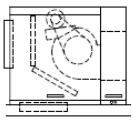
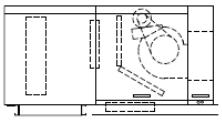
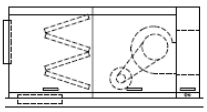
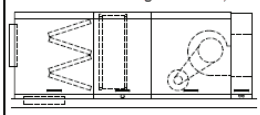
J = Air Handler (HIGH-CFM) / Plenum

K =Air Handler (HIGH-CFM) / Coil Cabinet

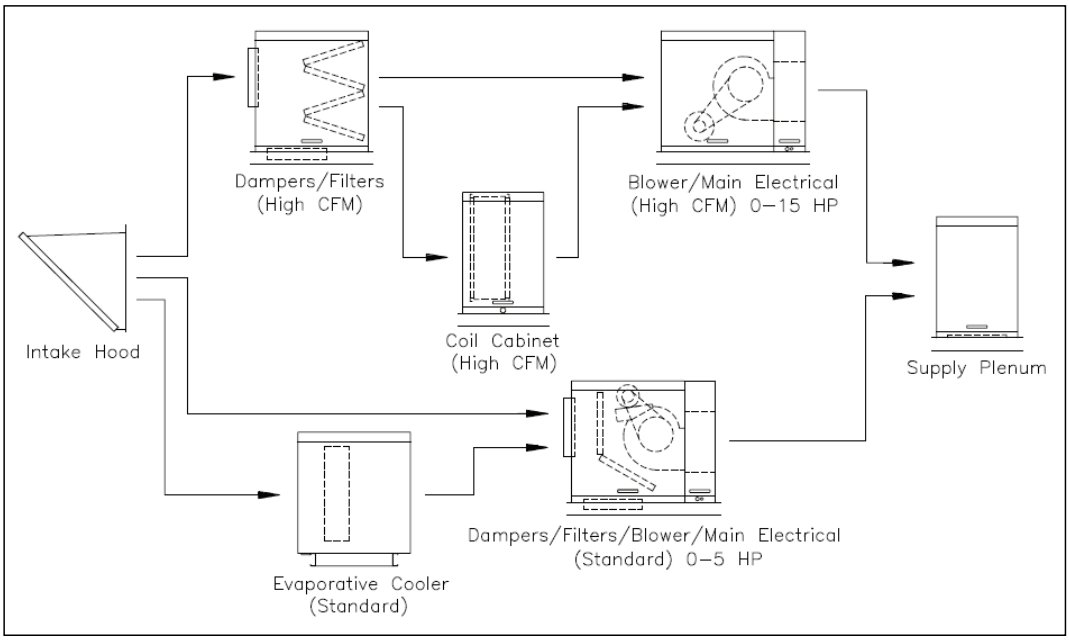
L = Air Handler (HIGH-CFM) / Coil Cabinet / Plenum

Packaged Rooftop Arrangement Reference

Air handlers, unit type (AH)

Standard Blower Air Handler Arrangements B, C	Standard Blower w/Evap. Air Handler Arrangements D, E	High CFM Blower Air Handler Arrangements G, J	High CFM Blower w/Cooling Air Handler Arrangements K, L
			
Capacity 20, 40	**Capacity 20, 40**	**Capacity 20, 40**	**Capacity 20, 40**
20 - 1,500-6,000 CFM, 1/2-5 HP. 40 - 4,000-8,000 CFM, 1/2-5 HP.	20 - 1,500-6,000 CFM, 1/2-5 HP. 40 - 4,000-8,000 CFM, 1/2-5 HP.	20 - 3,000-8,000 CFM, 3/4-10 HP. 40 - 5,000-14,000 CFM, 3/4-15 HP.	20 - 1,600-4,400 CFM, 3/4-10 HP. 40 - 2,100-6,300 CFM, 3/4-15 HP.
ESP. 0.1 - 3.0 in. WC. **Tables 1, 3**	ESP. 0.1 - 3.0 in. WC. **Tables 1, 3**	ESP. 0.1 - 3.0 in. WC. **Tables 2, 4**	ESP. 0.1 - 3.0 in. WC. **Tables 2, 4**

* The maximum CFM for Air Handler Arrangements K and L is 6,300 (3.0 m^3/s). A variable frequency drive may be utilized for non-cooling air flow up to 14,000 CFM (6.6 m^3/s).



Accessory Pressure Loss

Air Handler Arrangements (B,C,D,E)

Table 1. Pressure loss (inches of water)

Capacity	CFM	Rainhood With		Filters					Supply Air Plenum	Evaporative Media		Return or Outside Air Damper
				Throw-away	Washable		Pleated					
		Screen	Mstr. Elim	2″	1″	2″	1″	2″		8″	12″	
20	1,600	.02	.02	.05	<.01	.01	.06	.03	.02	.02	.03	.03
	1,800	.02	.03	.06	<.01	.01	.07	.04	.03	.02	.03	.03
	2,000	.02	.03	.07	.01	.02	.08	.04	.03	.03	.04	.04
	2,200	.03	.04	.08	.01	.02	.09	.05	.04	.03	.05	.05
	2,400	.03	.05	.09	.02	.02	.11	.06	.05	.04	.06	.05
	2,500	.04	.05	.09	.02	.03	.12	.07	.05	.04	.07	.06
	3,000	.05	.07	.12	.03	.04	.16	.09	.07	.06	.10	.08
	4,000	.09	.13	.17	.05	.07	.26	.16	.13	.11	.17	.15
	5,000	.15	.20	-	.07	.11	.38	.23	.21	.18	.27	.23
	5,500	.18	.25	-	.09	.13	.44	.28	.25	.22	.32	.28
40	3,200	.03	.04	.07	.01	.02	.09	.05	.02	.04	.06	.04
	3,600	.04	.05	.09	.02	.02	.11	.06	.03	.05	.07	.05
	4,000	.04	.06	.10	.02	.03	.13	.07	.04	.06	.09	.07
	4,400	.05	.07	.11	.03	.04	.15	.09	.05	.07	.11	.08
	4,800	.06	.09	.13	.03	.04	.18	.10	.05	.09	.13	.10
	5,000	.07	.10	.13	.03	.05	.19	.11	.06	.09	.14	.10
	6,000	.10	.14	.17	.05	.07	.26	.16	.08	.14	.20	.15
	7,000	.13	.19	-	.07	.09	.33	.23	.11	.18	.27	.20
	8,000	.17	.24	-	.09	.12	.44	.26	.15	.24	.36	.26
	8,500	.20	.28	-	.10	.14	-	-	.17	.27	.41	.30

Air Handler Arrangements (G,J,K,L)

Table 2. Pressure loss (inches of water)

				Filters						
		Rainhood With		Throw-away	Washable		Pleated		Supply Air Plenum	Return or Outside Air Damper
Capacity	CFM	Screen	Mstr.Elim	2″	1″	2″	1″	2″		
20	1,600	.02	.02	.03	<.01	<.01	.03	.01	.02	.03
	1,800	.02	.03	.03	<.01	<.01	.04	.02	.03	.03
	2,000	.02	.03	.04	<.01	<.01	.04	.02	.03	.04
	2,200	.03	.04	.04	<.01	<.01	.09	.02	.04	.05
	2,400	.03	.05	.05	<.01	<.01	.05	.03	.05	.05
	2,500	.04	.05	.05	<.01	.01	.05	.03	.05	.06
	3,000	.05	.07	.06	.01	.02	.07	.04	.07	.08
	4,000	.09	.13	.09	.02	.03	.12	.07	.13	.15
	5,000	.15	.20	.12	.03	.04	.17	.10	.21	.23
	6,000	.21	.29	.16	.04	.06	.23	.14	.30	.33
	6,500	.25	.34	.17	.05	.07	.26	.16	.35	.39
	7,000	.29	.40	.19	.06	.08	.30	.18	.40	.45
	7,400	.32	.45	-	.06	.09	.33	.20	.45	.50
40	3,300	.03	.04	.03	<.01	<.01	.03	.02	.03	.05
	3,500	.03	.05	.03	<.01	<.01	.03	.02	.03	.05
	4,000	.04	.06	.04	<.01	<.01	.04	.02	.04	.07
	4,500	.05	.08	.05	<.01	<.01	.05	.03	.05	.08
	5,000	.07	.10	.05	<.01	.01	.06	.03	.06	.10
	6,000	.10	.14	.07	.01	.02	.08	.04	.08	.15
	8,000	.17	.24	.10	.02	.03	.13	.07	.15	.26
	10,000	.27	.38	.13	.03	.05	.19	.11	.23	.41
	12,000	.39	.55	.17	.05	.07	.26	.16	.34	.59
	14,000	.53	.75	-	.07	.09	.33	.21	.46	.80

Note: *Refer to Tables 7 and 8 for DX Cooling Coil and Table 9 and 10 for Chilled Water Pressure Losses (Air Handler Arrangements K, L).*

Air Handler Performance

Air Handler Arrangement (B, C, D, E)

Table 3. Total static pressure (inches of water)

Capacity		.02		.04		.06		.08		1		1.2		1.4		1.6	
	CFM	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
20	1,500	395	.12	530	0.19	645	0.27	750	.35	845	0.44	930	0.54	1010	0.65	1085	0.76
	2,000	435	.22	550	0.3	655	0.4	750	.49	835	0.59	915	0.7	995	0.81	1065	0.93
	3,000	555	.61	630	0.71	710	0.83	790	.96	865	1.09	935	1.23	1000	1.37	1065	1.51
	4,000	700	1.33	750	1.47	805	1.61	865	1.75	930	1.9	990	2.07	1045	2.25	1105	2.43
	5,000	855	2.51	890	2.68	930	2.85	975	3.02	1020	3.19	1070	3.37	1120	3.55	1170	3.75
	5,500	935	3.3	965	3.49	1000	3.67	1040	3.86	1080	4.05	1120	4.24	1165	4.43	1210	4.63
	6,000	1015	4.25	1040	4.45	1075	4.65	1105	4.85	-	-	-	-	-	-	-	-
40	4,000	450	0.46	565	0.64	670	0.82	760	1.01	845	1.22	930	1.43	1005	1.66	1075	1.9
	5,000	510	0.79	605	0.99	700	1.21	785	1.44	860	1.67	935	1.91	1005	2.16	1070	2.42
	6,000	575	1.28	655	1.49	740	1.73	815	2	885	2.28	955	2.56	1020	2.84	1085	3.12
	7,000	650	1.95	715	2.19	785	2.44	855	2.73	920	3.04	985	3.36	1045	3.68	1105	4
	8,000	725	2.83	780	3.1	840	3.38	905	3.67	965	3.99	1025	4.34	1080	4.71	-	-

Notes:

- *Refer to Table 1 for Accessory Pressure Loss(es).*
- *Brake horsepower (BHP) includes drive losses.*
- *"Total External Pressure (TSP)" is the sum of the units' Internal Accessory pressure loss(es) from Table 1* ***plus*** *the external static pressure.*

Table 3. Total static pressure (inches of water) (continued)

Capacity	CFM	1.8		2		2.2		2.4		2.6		2.8		3	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
20	1,500	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	2,000	1135	1.06	-	-	-	-	-	-	-	-	-	-	-	-
	3,000	1125	1.66	1180	1.81	1240	1.96	1295	2.12	1350	2.28	1405	2.45	1455	2.62
	4,000	1160	2.61	1210	2.8	1260	2.98	1310	3.17	1360	3.35	1405	3.54	1455	3.74
	5,000	1220	3.96	1265	4.18	1310	4.4	1360	4.63	1400	4.86	-	-	-	-
	5,500	1255	4.84	-	-	-	-	-	-	-	-	-	-	-	-
	6,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-
40	4,000	1140	2.15	1205	2.42	-	-	-	-	-	-	-	-	-	-
	5,000	1135	2.69	1200	2.97	-	-	-	-	-	-	-	-	-	-
	6,000	1140	3.41	1200	3.71	1255	4.02	1315	4.34	1365	4.67	1420	5	-	-
	7,000	1160	4.33	1215	4.66	1270	4.99	-	-	-	-	-	-	-	-
	8,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:

- *Refer to Table 1 for Accessory Pressure Loss(es).*
- *Brake horsepower (BHP) includes drive losses.*
- *"Total External Pressure (TSP)" is the sum of the units' Internal Accessory pressure loss(es) from Table 1* ***plus*** *the external static pressure.*

Rooftop Arrangement (G, J, K, L)

The maximum CFM for Air Handler Arrangements K and L Cooling Coil is 6,300 (3.0 m³/s). A variable frequency drive may be utilized for non-cooling air flow up to 14,000 CFM (6.6 m³/s).

Table 4. Total static pressure (inches of water)

Capacity	CFM	.02		.04		.06		.08		1		1.2		1.4		1.6	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
20	3,000	455	0.52	495	0.6	550	0.7	610	0.82	670	0.93	730	1.06	785	1.21	840	1.37
	4,000	575	1.13	610	1.24	645	1.35	680	1.47	720	1.61	760	1.76	810	1.92	855	2.07
	5,000	695	2.11	730	2.27	760	2.41	790	2.55	815	2.68	840	2.83	870	2.99	905	3.17
	6,000	820	3.54	850	3.75	880	3.94	905	4.12	930	4.28	950	4.44	975	4.6	995	4.77
	7,000	945	5.51	975	5.78	1000	6.02	1025	6.24	1050	6.45	1070	6.64	1090	6.83	1105	7.02
	7,500	1005	6.74	1035	7.03	1060	7.3	1085	7.54	1110	7.77	1130	7.99	1150	8.19	1165	8.4
	8,000	1070	8.13	1095	8.45	1125	8.74	1145	9.01	1170	9.27	1190	9.5	1210	9.73	1225	9.95
40	5,000	405	0.67	465	0.84	540	1.03	610	1.25	675	1.5	740	1.77	800	2.04	855	2.31
	6,000	470	1.08	510	1.26	570	1.48	630	1.71	690	1.95	745	2.22	800	2.53	855	2.85
	8,000	595	2.4	630	2.62	665	2.84	700	3.1	745	3.39	790	3.71	835	4.02	880	4.33
	10,000	730	4.52	760	4.81	785	5.07	810	5.34	840	5.64	870	5.96	900	6.31	935	6.7
	12,000	860	7.64	890	8.01	915	8.35	935	8.67	960	8.99	980	9.32	1000	9.66	1025	10.04
	14,000	995	11.97	1020	12.41	1045	12.83	1065	13.22	1085	13.6	1105	13.97	1120	14.34	1140	14.73

Notes:

- *Refer to Table 2 for Accessory Pressure Loss(es).*
- *Brake horsepower (BHP) includes drive losses.*
- *"Total External Pressure (TSP)" is the sum of the units' Internal Accessory pressure loss(es) from Table 2* ***plus*** *the external static pressure.*

Table 4. Total static pressure (inches of water) (continued)

Capacity	CFM	1.8		2		2.2		2.4		2.6		2.8		3	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
20	3,000	890	1.53	940	1.69	985	1.86	1030	2.02	1075	2.19	-	-	-	-
	4,000	900	2.23	940	2.4	985	2.58	1025	2.78	1070	2.9	1110	3.2	1150	3.41
	5,000	940	3.36	975	3.56	1015	3.76	1050	3.95	1085	4.15	1120	4.35	1155	4.55
	6,000	1020	4.96	1045	5.15	1070	5.36	1100	5.59	1130	5.82	1160	6.06	1190	6.3
	7,000	1125	7.21	1145	7.4	1165	7.6	1185	7.81	1205	8.04	1225	8.28	1250	8.52
	7,500	1185	8.59	1200	8.8	1215	9	1235	9.21	1255	9.43	1270	9.66	1290	9.91
	8,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-
40	5,000	905	2.59	955	2.88	-	-	-	-	-	-	-	-	-	-
	6,000	905	3.17	955	3.5	-	-	-	-	-	-	-	-	-	-
	8,000	925	4.66	965	5.01	-	-	-	-	-	-	-	-	-	-
	10,000	975	7.1	1010	7.49	1045	7.88	1085	8.27	1120	8.66	-	-	-	-
	12,000	1050	10.44	1080	10.88	1110	11.33	1140	11.8	1170	12.28	-	-	-	-
	14,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-

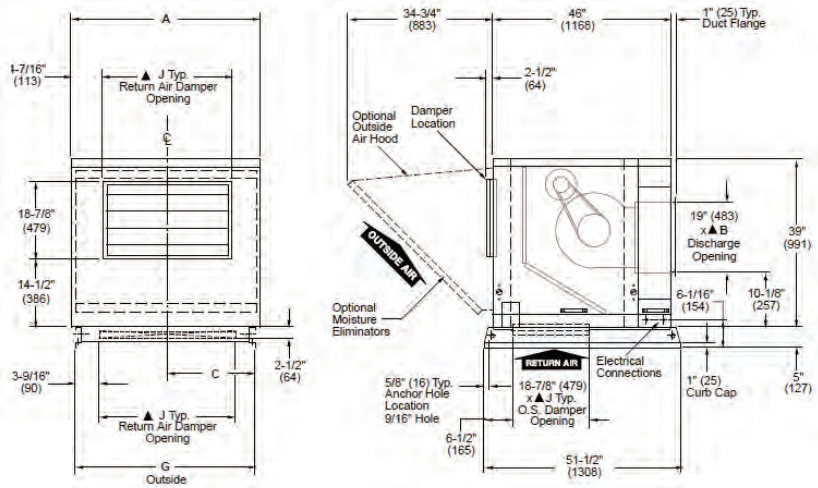
Notes:

- *Refer to Table 2 for Accessory Pressure Loss(es).*
- *Brake horsepower (BHP) includes drive losses.*
- *"Total External Pressure (TSP)" is the sum of the units' Internal Accessory pressure loss(es) from Table 2* ***plus*** *the external static pressure.*

Dimensional Data

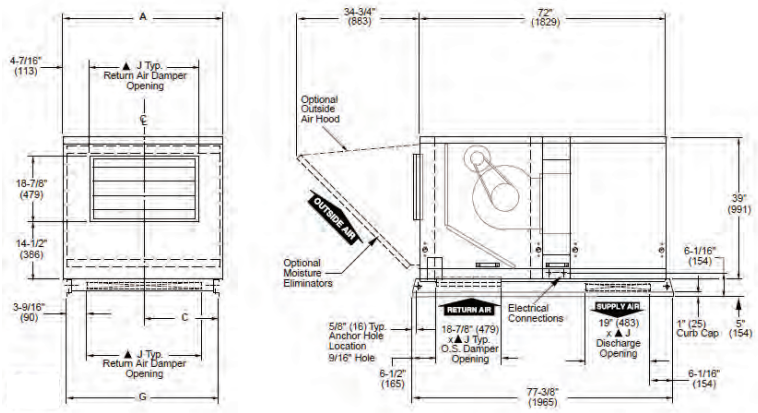
Air Handler Arrangement B

Figure 2. Air handler arrangement B: capacities 20 or 40 unit sizes (left hand service access shown)



Air Handler Arrangement C

Figure 3. Air handler arrangement C: capacities 20 or 40 unit sizes (left hand service access shown)



Note: *Refer to Table 5 for tabulated dimensional data.*

Table 5. Air handler dimensional data

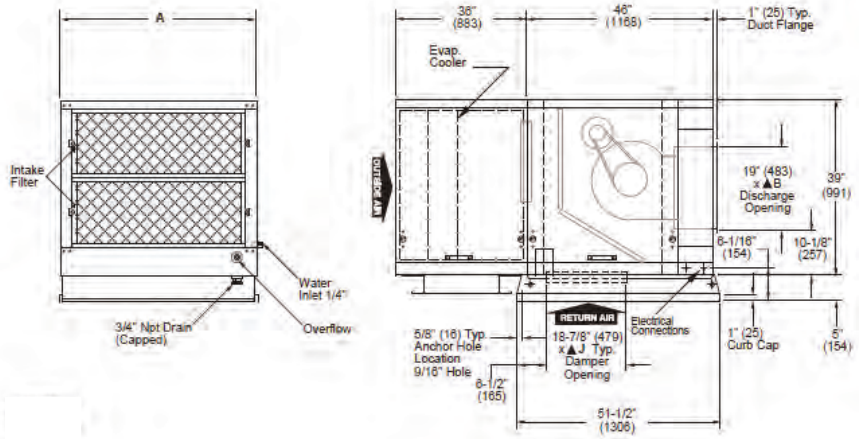
Capacity	A	B	C	G	J[a]
20	43- 7/8 (1114)	23-13/16 (605)	21-15/16 (557)	42- 1/16 (1068)	35 (889)
40	60- 3/8 (1534)	45-13/16 (1164)	30- 3/16 (767)	58- 9/16 (1487)	51- 1/2 (1308)

Note: *Dimensions are in inches. Dimensions in parenthesis are in millimeters.*

(a) "J" Dimension is an outside dimension for return air dampers.
"J" Dimension is also an inside dimension for the supply air opening (without damper).

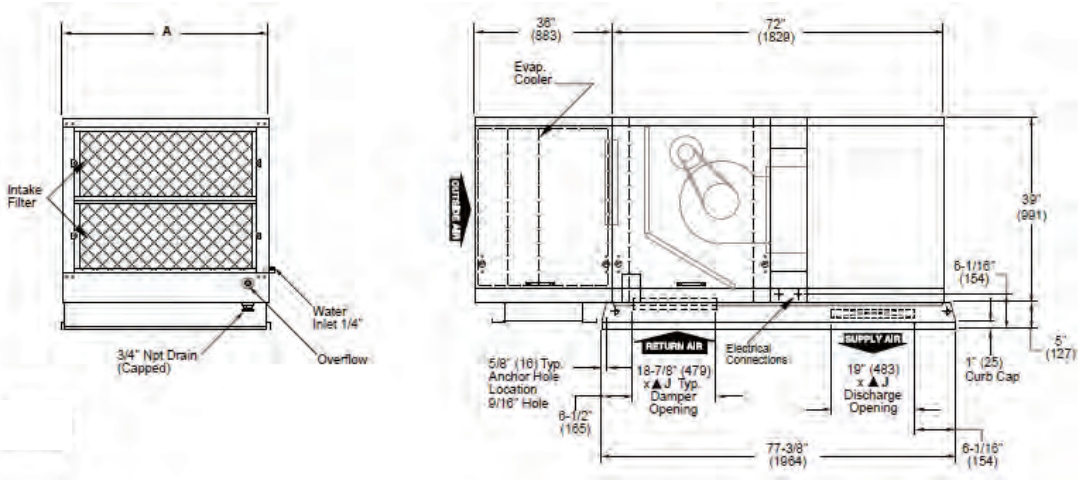
Air Handler Arrangement D

Figure 4. Air handler arrangement D: capacities 20 or 40 unit sizes (left hand service access shown



Air Handler Arrangement E

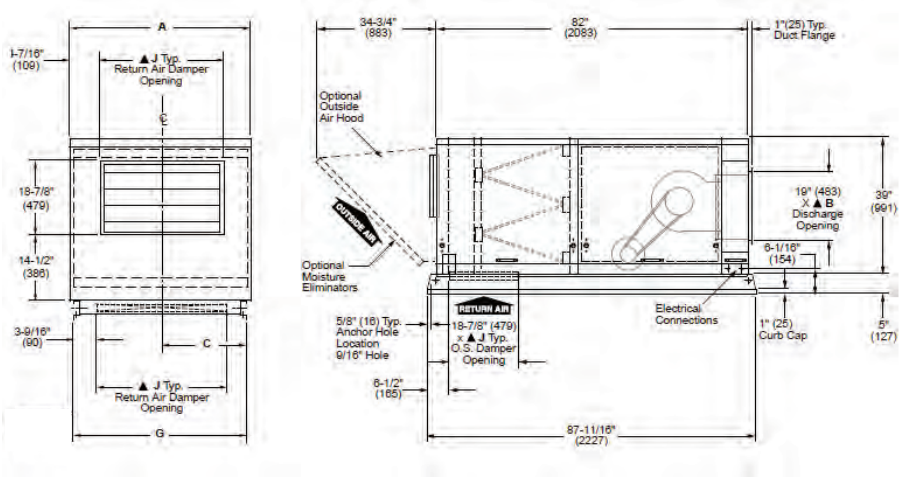
Figure 5. Air handler arrangement E: capacities 20 or 40 unit sizes (right hand service access shown



Note: *See Air Handler Dimensional Data for tabulated dimensional data.*

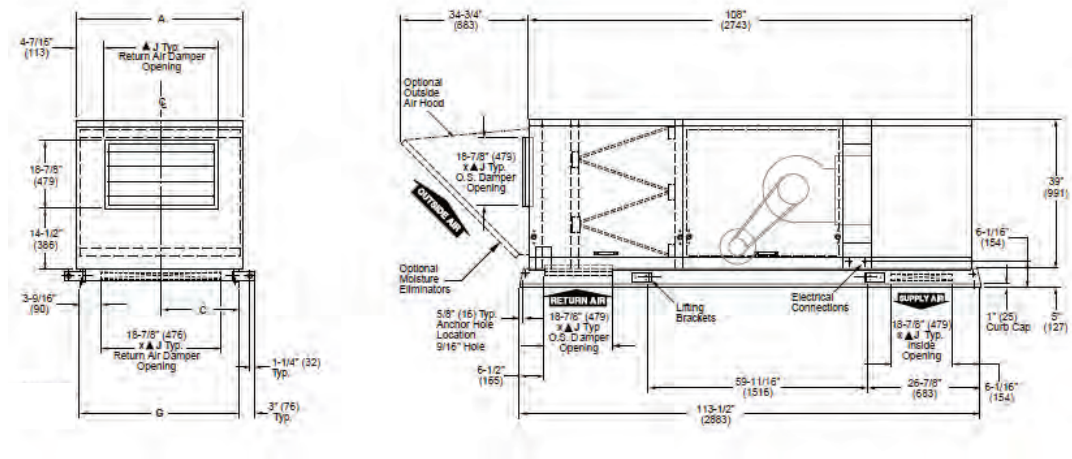
Air Handler Arrangement G

Figure 6. Air handler arrangement G: capacities 20 or 40 unit sizes (left hand service access shown



Air Handler Arrangement J

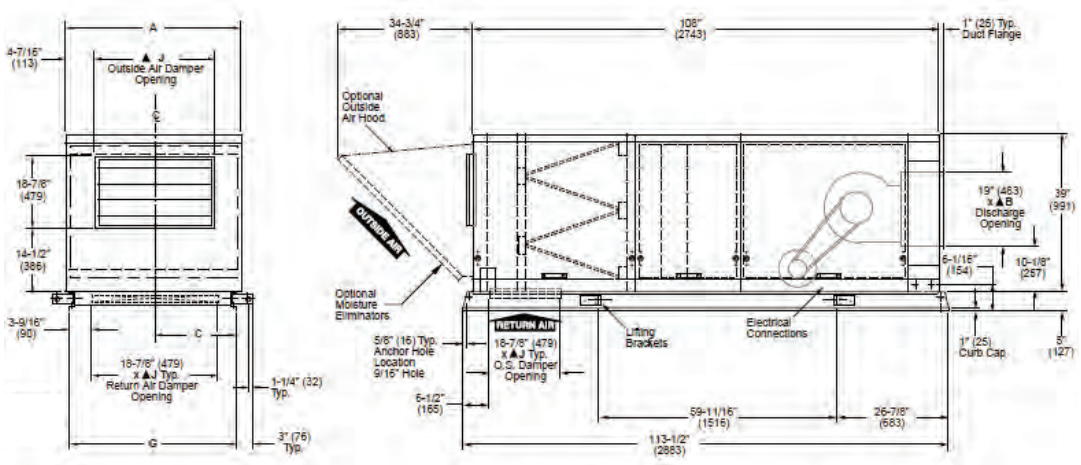
Figure 7. Air handler arrangement J: capacities 20 or 40 unit sizes (left hand service access shown



Note: *See Air Handler Dimensional Data for tabulated dimensional data.*

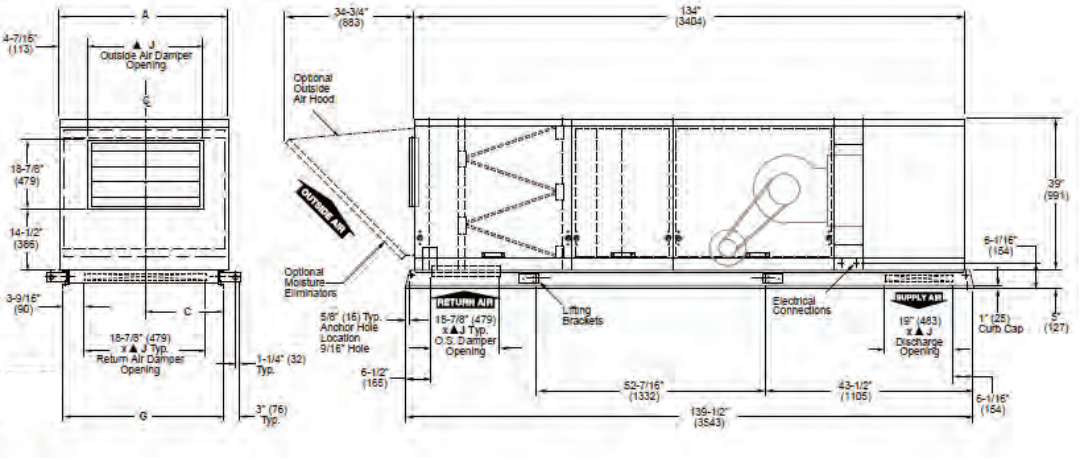
Air Handler Arrangement K

Figure 8. Air handler arrangement K: capacities 20 or 40 unit sizes (left hand service access shown



Air Handler Arrangement L

Figure 9. Air handler arrangement L: capacities 20 or 40 unit sizes (left hand service access shown



Note: *See Air Handler Dimensional Data for tabulated dimensional data.*

Evaporative Cooling

Air Handler Arrangements D, E

Evaporative Cooling is the simplest and most-cost effective cooling method without the use of mechanical refrigeration. Trane Evaporative Cooling systems meet a wide range of commercial, industrial, and institutional heating and ventilating requirements. The Evaporative Cooler saves up to 80% on utility charges, requires little maintenance, and replaces exhausted, stale, indoor air with cool, clean, filtered outdoor air.

Evaporative Coolers are also combined in Air Handler Unit Arrangements D and E. The Evaporative Cooler will replace the need for a 100% Outside Air Inlet Hood. If an Evaporative Cooler is to be installed upstream of a duct furnace, a 409 stainless steel heat exchanger is recommended.

Figure 10. Evaporative cooler module

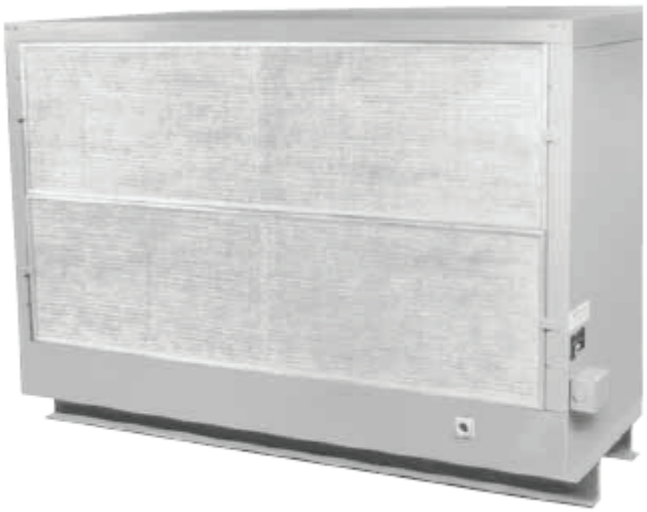
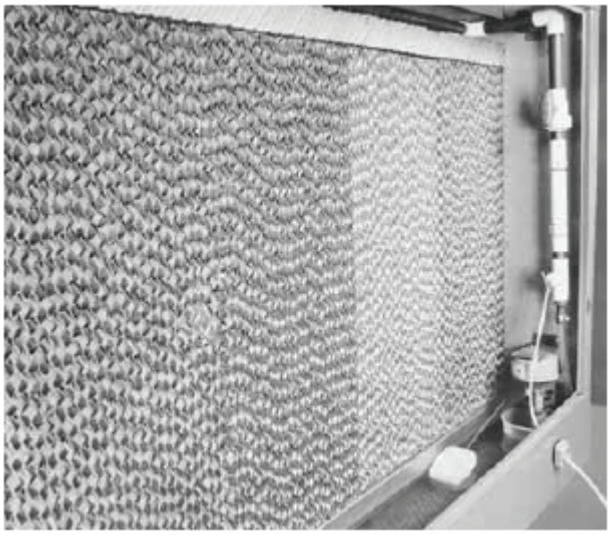


Figure 11. Internal view evaporative cooler



Standard Features

- **High cooling efficiency:** Up to 88% saturation efficiency with standard 8" depth of CELdek® media, and up to 92% saturation efficiency with optional 12" depth media; a 2" distribution pad is included to disperse water evenly. CELdek® media includes insoluble anti-rot salts and rigidifying saturants. The unique design of the CELdek pads optimizes air and water mixing for maximum cooling.
- Optional 8" or 12" GLASdek® media is also available. See Accessory Options W and X.
- **Recirculating pump:** Factory wired, sealed design, durable, thermally protected motor. Permanently lubricated bearings. Standard 115 Volt, 50/60 cycle. Optional 230V motor. Protective basket screen. U.L. recognized.
- **Heavy-duty stainless steel water tank:** Stainless steel sump tank and water distributor designed to resist rust, corrosion, and scaling.
- **Ball valve:** Single-entry ball valve regulates water flow using a 1/4 turn handle.
- **Bleed-off:** Prevents excessive concentration of minerals in sump water.
- **Float valve:** Brass float valve and rod with plastic float. Maintains proper water level in sump for most efficient operation. Factory installed in cabinet.
- **Drain and overflow:** Drain is capped. Overflow controlled by float level allowing slight continued overflow. Optional automatic fill and drain kit is available for field installation.
- **Water distribution:** Copper water distributor tube for corrosion-free operation and low maintenance.
- **Intake filters:** Removable intake filters of easy-to-clean 1" aluminum mesh to remove insects, dust, and dirt from airflow.
- **Skid rails:** With lifting and anchor holes. Optional adjustable platform curb assembly available, shipped separately (see Roof Curb section).

Evaporative Cooling Modules

Performance

Evaporative Cooling is most commonly used in areas where the relative humidity is low and the dry bulb temperatures are high. However, cooling through evaporation can be used in most areas.

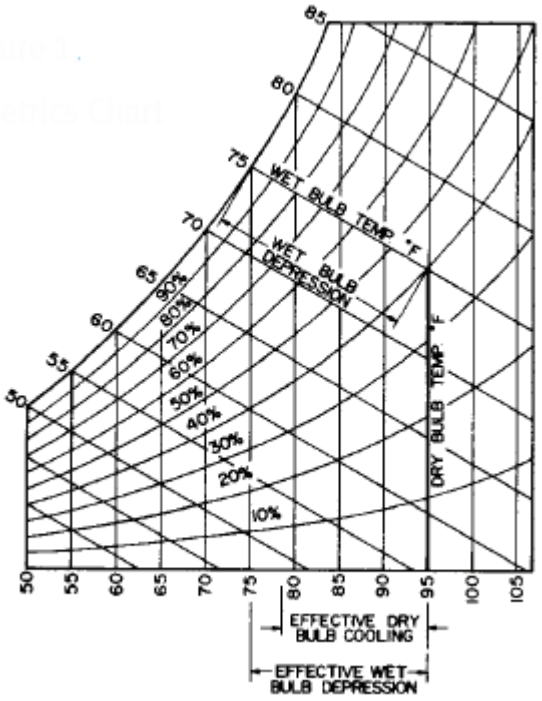
Evaporative cooling is best utilized whenever the wet bulb depression (difference between dry and wet bulb temperature) is a minimum of 15°. The efficiency of the Trane Evaporative Cooler is determined by a variety of factors: geographical location, application, air change requirements, sufficient water supply, air flow, and maintenance. In most instances, efficiency is expected to be between 77% and 88%. Heat gains in the distribution system will effect the final output temperature.

Use the psychometrics chart or actual humidity temperature readings to estimate the leaving dry bulb temperature at the outlet of the Evaporative Cooler.

Example:

- Entering Dry Bulb: 95°F
- Entering Wet Bulb: 75°F
- Wet Bulb Depression (95°F - 75°F) = 20°F
- Effective Wet Bulb Depression (20°F x .85) = 17°F
- Leaving Dry Bulb Temperature (95°F -17° F) = 78°F
- Leaving Wet Bulb = Entering Wet Bulb = 75°F

Figure 12. Psychometrics chart



Selection Method

The easiest method for selecting an evaporative cooler, is to first determine the required number of air changes per minute:

1. Using the Zone chart, choose the geographical zone in which the unit is to be installed.

Figure 13. Zone chart

2. Determine the internal load within the structure:
   Normal load: structures with normal people loads, and without high internal heat gains.
   High load: Structures with high equipment loads (factories, laundromats, beauty salons, restaurant kitchens), and structures with high occupancy (nightclubs, arenas).
3. Determine whether the structure has normal or high heat gains:
   Normal gain: Structures that have insulated roofs, or are in shaded areas. Structures that have two or more stories, or facing directions with no sun.
   High gain: Structures that have uninsulated roofs, unshaded areas, or rooms that are exposed to sun.
4. Using table below, determine the required air changes per minute based on zone selection and the type of heat load.

Table 6. Air changes per minute

	Zone			
Type heat load	1	2	3	4
High load/high gain	3/4	1	1–1/3	2
High load/normal gain	1/2	3/4	1	1–1/3
Normal load/high gain	1/2	3/4	1	1–1/3
Normal load/normal gain	1/2	1/2	3/4	1

5. Determine the air quantity for the space chosen, by calculating the volume (L x W x H). Multiply this volume by the air changes per minute.

For example:

1. Structure dimensions: 25 L x 24 W x 10 H = 6000 Ft^3
2. Exterior load type: Normal
3. Interior load type: Normal
4. Location: Dallas, Texas- Zone 3
5. Air changes per minute: 3/4

Evaporative cooler requirements: 6000 Ft^3 x 3/4 air change / minute- 4500 CFM required.

See Evaporative Cooler Performance Chart for unit size that would best apply.

Figure 14. Evaporative cooling unit

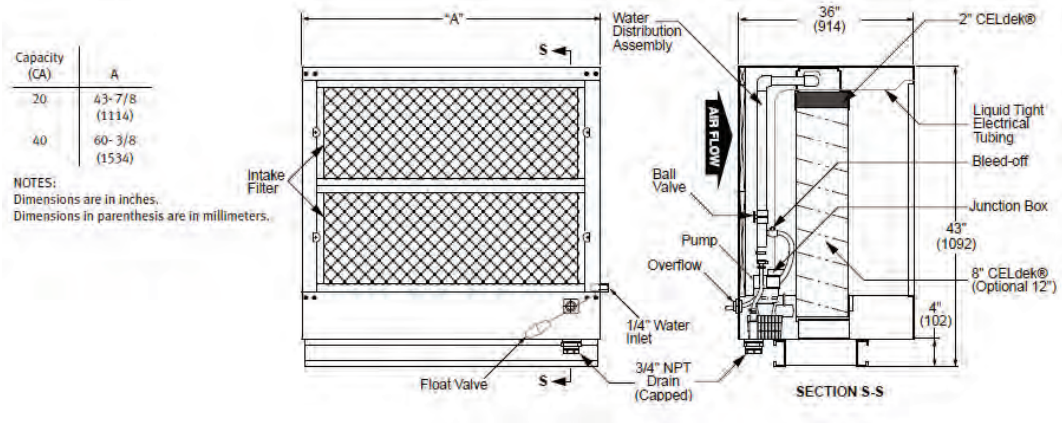


Table 7. Performance and dimensional data

Performance and Dimensional Data

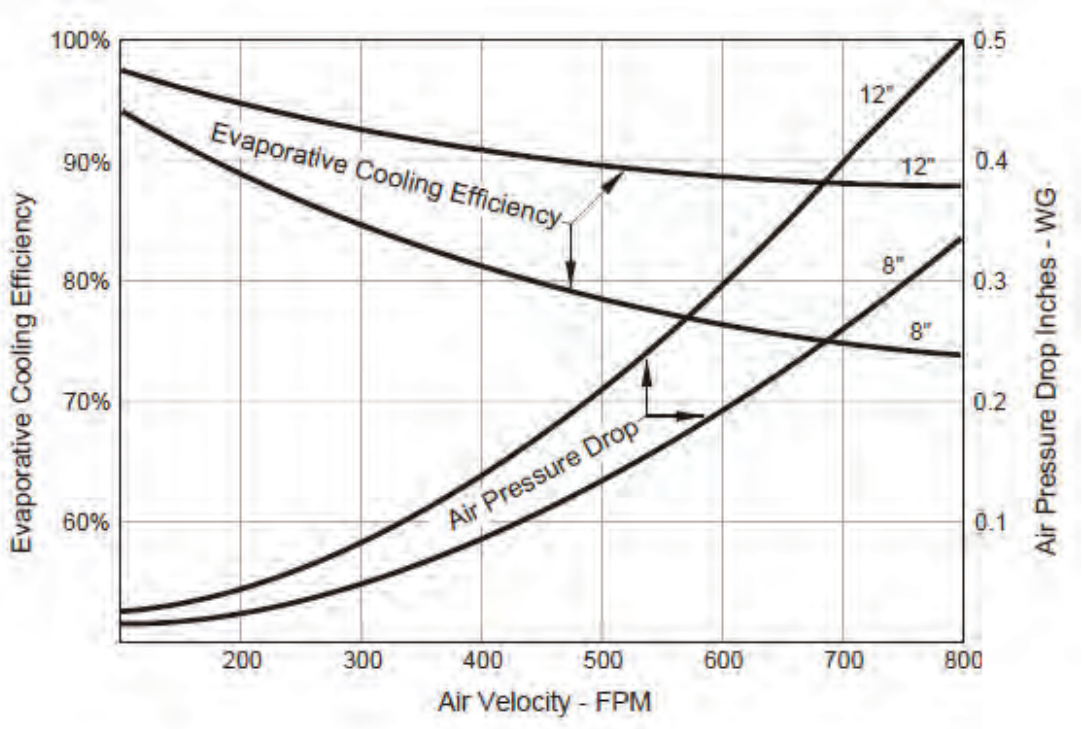
Capacity 20, 40	CFM (cu. m/s) MIN.	CFM (cu. m/s) MAX.	8" Saturation Efficiency Range MIN	8" Saturation Efficiency Range MAX.	12" Saturation Efficiency Range MIN	12" Saturation Efficiency Range MAX.	8" or 12" Media Face Area Ft.² (m²)	8" or 12" Media Size In. (mm)	Pressure Drop in. W.C. (KPa) MIN.	Pressure Drop in. W.C. (KPa) MAX.	"A" Unit Width in. (mm)	Shipping Wt.* lb. (kg)	Operating Wt.* lb. (kg)
20	1,600	5,500	77	88	88	92	9.38	31 x 43-9/16	0.03	0.20	43 3/4	166	386
	(0.755)	(2.596)					(0.87)	(787) (1106)	(0.01)	(0.05)	(1111)	(75)	(175)
40	3,200	8,500	77	86	87	92	12.92	31 x 60	0.07	0.28	60 1/4	206	509
	(1.510)	(4.012)					(1.20)	(787) (1524)	(0.02)	(0.07)	(1530)	(93)	(231)

* Weights are for the Evaporative Cooler Module only.

CELdek® Evaporative Media

The Trane Evaporative Cooler utilizes high efficiency CELdek®media. CELdek is made from a special cellulose paper, impregnated with insoluble anti-rot salts and rigidifying saturants. The cross fluted design of the pads induces highly-turbulent mixing of air and water for optimum heat and moisture transfer. Trane Evaporative coolers utilize 8" CELdek as standard equipment. Optional 12" CELdek, 8" and 12" GLASdek® are also available. A 2" distribution pad is used to disperse water evenly over the media.

Figure 15. Evaporative cooler efficiency and air pressure drop



Cooling Coil Options

Air Handler Arrangements (K, L) Coil Options Model Digit 17

Trane also offers coil cabinets and factory installed coils with our packaged air handlers. As standard equipment, we offer 4 or 6 row, single or dual circuit intertwine, DX (20 tons max.) or chilled water coils. Hot water and steam heating coils are also available. Trane coil cabinets feature draw through design to ensure even air flow across the coil face and a one piece 409

stainless steel positive drain drip pan conforming to ASHRAE standard No. 62-1989. The positive drain pan is designed for side outlet drainage piping.

Figure 16. Cooling coils

See the tables below for cooling coil performance data. If a cooling coil is to be installed upstream of a duct furnace, a 409 stainless steel heat exchanger is recommended.

Note: *Air Handler Arrangements (K,L) should not exceed 6,300 CFM (3.0m³/s) or face velocities of 600 FPM.*

Coil Options Digit 17

A - DX Coil, 4 Row, Single Circuit

B - DX Coil, 4 Row, Dual Circuit

C - DX Coil, 6 Row, Single Circuit

D - DX Coil, 6 Row, Dual Circuit

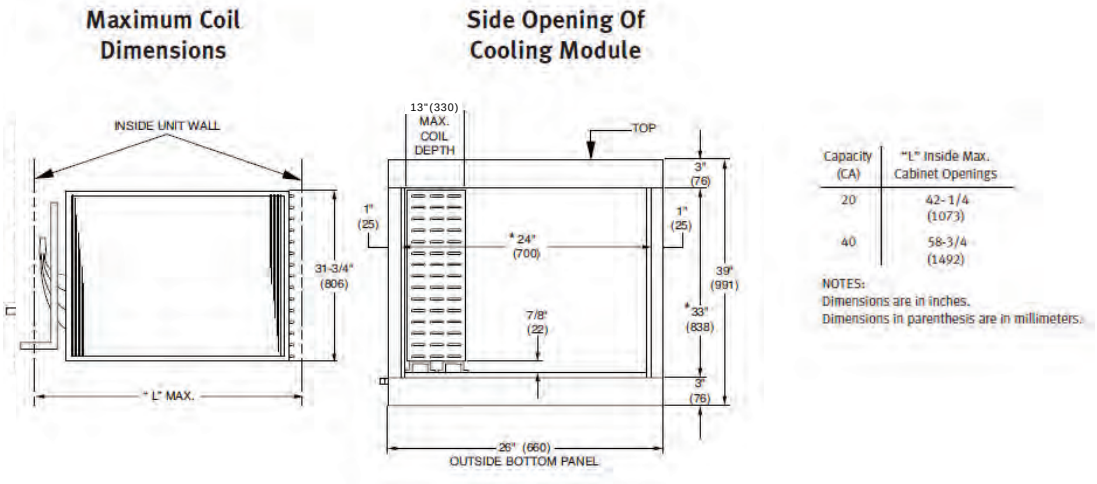
E - Chilled Water Coil, 4 Row

G - Chilled Water Coil, 6 Row

0 - None

S - Other (Special)

Figure 17. Cooling coil specifications



Capacity (CA)	"L" Inside Max. Cabinet Openings
20	42-1/4 (1073)
40	58-3/4 (1492)

NOTES:
Dimensions are in inches.
Dimensions in parenthesis are in millimeters.

Air Handler Arrangements (K, L)
DX Cooling Coil Performance Data (Ref. R-410A)

Table 8. Capacity based on 80°F EDB, 67°F EWB, 45°F Sat. Suction, 100°F Liquid.

Unit Capacity (CA)	Air Flow (SCFM)	Face Velocity (FPM)	4 Row					6 Row				
			Fin Spacing (FPF)	Coil Capacity (MBH)	L.A.T. (DB / WB)	A.P.D. IN. W.C.	WT. (LBS.)	Fin Spacing (FPF)	Coil Capacity (MBH)	L.A.T. (DB / WB)	A.P.D IN. W.C.	WT. (LBS.)
20	1600	217	72	58	56/55	0.10	80	85	70	53/52	0.18	113
			84	62	55/54	0.11	82	104	74	52/51	0.21	119
			104	67	54/53	0.14	86	128	78	50/50	0.23	126
	2100	271	73	69	57/56	0.15	80	78	82	54/53	0.23	111
			88	74	56/55	0.18	83	94	87	53/52	0.28	116
			118	82	56/54	0.21	89	119	93	51/51	0.32	123
	3000	407	72	88	60/57	0.29	80	80	112	55/54	0.45	111
			95	98	58/56	0.36	84	102	122	54/53	0.56	118
			117	106	56/55	0.41	89	122	129	53/52	0.61	124
	4000	542	72	102	62/59	0.45	80	80	135	57/56	0.69	111
			99	116	59/57	0.57	85	104	149	56/55	0.86	119
			117	124	58/57	0.62	89	121	157	55/54	0.94	124
	4400	596	85	106	62/59	0.52	82	80	143	57/56	0.79	111
			96	120	60/58	0.64	85	106	159	56/55	1.00	119
			129	130	58/57	0.73	91	113	163	55/55	1.03	121
40	3200	295	85	114	56/55	0.20	115	72	134	54/53	0.25	153
			122	127	55/54	0.21	126	90	143	52/52	0.32	161
			137	134	54/53	0.26	131	125	155	51/50	0.38	177
	4000	369	82	128	58/56	0.26	114	72	157	55/54	0.37	153
			107	143	56/55	0.33	122	90	168	54/53	0.46	161
			131	154	55/54	0.37	129	109	177	52/52	0.51	170
	5000	464	81	145	60/58	0.37	114	87	179	56/55	0.55	160
			107	164	57/56	0.47	122	93	196	55/54	0.66	163
			132	178	56/55	0.52	129	109	206	54/53	0.71	170
	6000	553	81	160	61/58	0.48	114	85	200	57/56	0.72	159
			108	182	58/57	0.61	122	100	224	55/54	0.89	166
			126	194	57/56	0.66	127	113	233	55/54	0.94	172
	6500	599	77	163	62/59	0.53	112	80	205	58/57	0.79	156
			105	187	59/58	0.67	121	93	229	56/55	0.96	163
			116	196	58/57	0.71	124	105	238	55/55	1.01	168

Table 9. Capacity based on 95°F EDB, 74°F EWB, 45°F Sat. Suction, 100°F Liquid.

Capacity based on 95°F EDB, 74°F EWB, 45°F Sat. Suction, 100°F Liquid.

Unit Capacity (CA)	Air Flow (SCFM)	Face Velocity (FPM)	4 Row Fin Spacing (FPF)	4 Row Coil Capacity (MBH)	4 Row L.A.T. (DB / WB)	4 Row A.P.D. IN. W.C.	4 Row WT. (LBS.)	6 Row Fin Spacing (FPF)	6 Row Coil Capacity (MBH)	6 Row L.A.T. (DB / WB)	6 Row A.P.D IN. W.C.	6 Row WT. (LBS.)
20	1600	217	76	91	59/57	0.10	80	72	105	55/54	0.15	109
			92	97	57/56	0.13	84	92	112	53/53	0.19	115
			116	104	55/54	0.15	89	127	120	51/50	0.23	126
	2100	271	80	106	62/59	0.17	81	72	130	56/55	0.24	109
			91	116	59/58	0.20	84	87	137	55/54	0.27	113
			117	123	57/56	0.23	89	104	144	53/53	0.33	119
	3000	407	80	136	64/61	0.30	81	77	170	57/57	0.45	110
			115	155	60/59	0.40	88	93	181	57/56	0.54	115
			144	169	58/57	0.45	94	120	195	55/54	0.61	124
	4000	542	83	159	67/63	0.47	82	94	205	60/59	0.81	115
			115	184	63/61	0.60	88	97	221	59/58	0.84	117
			141	200	61/59	0.68	94	112	232	57/57	0.91	121
	4400	596	82	165	68/63	0.53	82	77	215	62/60	0.79	110
			117	195	63/61	0.70	89	97	234	59/58	0.96	117
			130	204	62/61	0.74	91	126	244	58/57	1.09	125
40	3200	295	86	173	60/58	0.19	115	89	206	55/54	0.32	161
			132	189	57/56	0.25	129	116	225	52/52	0.37	173
			130	200	56/55	0.26	129	147	235	51/51	0.42	187
	4000	369	82	195	63/60	0.27	114	78	238	57/56	0.38	156
			105	215	60/58	0.33	121	108	260	55/54	0.51	170
			122	227	58/57	0.36	126	136	275	53/53	0.56	182
	5000	464	81	220	65/61	0.37	114	84	279	59/57	0.56	159
			119	245	61/60	0.48	125	118	307	56/55	0.74	174
			130	266	59/58	0.52	129	141	328	54/54	0.81	184
	6000	553	92	242	66/62	0.55	117	84	312	60/59	0.81	156
			107	272	63/61	0.61	122	126	348	57/57	1.00	178
			129	293	61/60	0.67	128	135	368	56/55	1.04	182
	6500	599	87	245	67/63	0.60	115	81	322	61/59	0.80	157
			104	280	64/62	0.67	121	108	359	59/58	1.01	169
			124	301	62/61	0.74	127	123	376	57/57	1.09	176

Conversions: 2119 SCFM = 1m³/s, 196.8FPM = 1m/s, 3.412 MBH = 1kW, (°F-32) 5/9 = °C, 1 IN.W.C. = 248.8 Pa, 0.4536 kg = 1 lb.

Notes:

- *Data certified in accordance with ARI Standard 410.*
- *Weight listed is the total weight of the dry coil.*
- *Consult Customer Service Department for special coil requirements.*

Air Handler Arrangements (K, L)
Chilled Water Cooling Coil Performance Data

Table 10. Capacity based on 80°F EDB, 67°F EWB, 45°F EWT, 70 GPM.

Capacity	Air Flow SCFM	Face Velocity FPM	4 Row Fin Spacing FPF	4 Row Coil Capacity MBH	4 Row L.A.T. DB / WB	4 Row A.P.D. IN. W.C.	4 Row WT. LBS.	6 Row Fin Spacing FPF	6 Row Coil Capacity MBH	6 Row L.A.T. DB / WB	6 Row A.P.D IN. W.C.	6 Row WT. LBS.
20	1800	243	84	78.8	53/ 52	0.14	83	84	93.5	50/ 49	0.21	113
			90	84.0	52/ 51	0.15	86	103	98.0	49/ 48	0.24	119
			111	90.0	51/ 50	0.17	90	123	101.2	48/ 47	0.26	125
	3000	406	84	107.2	57/ 55	0.32	83	84	133.3	53/ 52	0.48	113
			88	116.0	56/ 54	0.33	86	102	141.2	52/ 51	0.53	119
			104	124.0	54/ 53	0.36	89	123	148.6	51/ 50	0.59	125
	4300	582	84	127.5	60/ 58	0.54	83	84	163.3	55/ 54	0.82	113
			102	138.0	58/ 56	0.60	86	103	175.0	54/ 53	0.91	119
			124	149.0	57/ 56	0.67	91	125	186.0	53/ 52	1.00	126
40	2200	202	84	100.8	52/ 51	0.10	115	85	118.0	49/ 48	0.15	160
			95	105.0	52/51	0.11	119	92	120.0	48/ 48	0.16	163
			111	110.0	51/ 50	0.12	123	100	122.0	48/ 47	0.17	167
	3500	322	84	136.0	55/ 54	0.22	115	84	165.4	52/ 51	0.33	159
			102	146.0	54/ 53	0.25	121	101	174.0	50/ 50	0.37	167
			122	155.0	53/ 52	0.27	127	125	183.0	49/ 49	0.41	178
	4900	451	84	162.5	58/ 56	0.38	115	84	203.2	54/ 53	0.56	159
			102	175.2	56/ 55	0.42	121	102	216.0	53/ 52	0.63	168
			124	188.1	55/ 54	0.46	127	124	228.0	52/ 51	0.69	178
	6300	580	84	181.9	60/ 58	0.54	115	84	231.0	56/ 55	0.81	159
			104	198.0	58/ 57	0.60	121	104	249.0	54/ 54	0.89	168
			103	213.0	57/ 56	0.60	213	125	264.0	53/ 53	0.98	178

Table 11. Capacity based on 95°F EDB, 74°F EWB, 45°F EWT, 70 GPM.

Unit Capacity (CA)	Air Flow (SCFM)	Face Velocity (FPM)	4 Row					6 Row				
			Fin Spacing (FPF)	Coil Capacity (MBH)	L.A.T. (DB / WB)	A.P.D. IN. W.C.	WT. (LBS.)	Fin Spacing (FPF)	Coil Capacity (MBH)	L.A.T. (DB / WB)	A.P.D IN. W.C.	WT. (LBS.)
20	1600	217	76	91	59/57	0.10	80	72	105	55/54	0.15	109
			92	97	57/56	0.13	84	92	112	53/53	0.19	115
			116	104	55/54	0.15	89	127	120	51/50	0.23	126
	2100	271	80	106	62/59	0.17	81	72	130	56/55	0.24	109
			91	116	59/58	0.20	84	87	137	55/54	0.27	113
			117	123	57/56	0.23	89	104	144	53/53	0.33	119
	3000	407	80	136	64/61	0.30	81	77	170	57/57	0.45	110
			115	155	60/59	0.40	88	93	181	57/56	0.54	115
			144	169	58/57	0.45	94	120	195	55/54	0.61	124
	4000	542	83	159	67/63	0.47	82	94	205	60/59	0.81	115
			115	184	63/61	0.60	88	97	221	59/58	0.84	117
			141	200	61/59	0.68	94	112	232	57/57	0.91	121
	4400	596	82	165	68/63	0.53	82	77	215	62/60	0.79	110
			117	195	63/61	0.70	89	97	234	59/58	0.96	117
			130	204	62/61	0.74	91	126	244	58/57	1.09	125
40	3200	295	86	173	60/58	0.19	115	89	206	55/54	0.32	161
			132	189	57/56	0.25	129	116	225	52/52	0.37	173
			130	200	56/55	0.26	129	147	235	51/51	0.42	187
	4000	369	82	195	63/60	0.27	114	78	238	57/56	0.38	156
			105	215	60/58	0.33	121	108	260	55/54	0.51	170
			122	227	58/57	0.36	126	136	275	53/53	0.56	182
	5000	464	81	220	65/61	0.37	114	84	279	59/57	0.56	159
			119	245	61/60	0.48	125	118	307	56/55	0.74	174
			130	266	59/58	0.52	129	141	328	54/54	0.81	184
	6000	553	92	242	66/62	0.55	117	84	312	60/59	0.81	156
			107	272	63/61	0.61	122	126	348	57/57	1.00	178
			129	293	61/60	0.67	128	135	368	56/55	1.04	182
	6500	599	87	245	67/63	0.60	115	81	322	61/59	0.80	157
			104	280	64/62	0.67	121	108	359	59/58	1.01	169
			124	301	62/61	0.74	127	123	376	57/57	1.09	176

Conversions: 2119 SCFM = 1m^3/s, 196.8FPM = 1m/s, 3.412 MBH = 1kW, (°F-32) 5/9 = °C, 1 IN.W.C. = 248.8 Pa, 0.4536 kg = 1 lb.

Notes:

- *Data certified in accordance with ARI Standard 410.*
- *Weight listed is the total weight of the dry coil.*
- *Consult Customer Service Department for special coil requirements.*

Component Descriptions

Supply Voltage

Model Digit 8

The standard supply voltages are listed below.

A - 115 VAC, Single Phase, 60 Cycle

B- 208 VAC, Single Phase, 60 Cycle

C - 230 VAC, Single Phase, 60 Cycle

D - 208 VAC, Three Phase, 60 Cycle

E - 230 VAC, Three Phase, 60 Cycle

F - 460 VAC, Three Phase, 60 Cycle

G - 575 VAC, Three Phase, 60 Cycle

Motor Type

Model Digit 16

Blower Motors are available in Open Drip Proof, Totally Enclosed, Premium Efficiency Open Drip Proof and Premium Efficiency Totally Enclosed. Motors are ball bearing type with a resilient base and NEMA frame sizes from 48 to 256T. Windings are Class “B”, 1800 RPM with service factors of 1/2–3/4 HP = 1.25 and 1–15 HP = 1.15. Motors are in compliance with the Energy Policy Act (EPACT) of 1992 and any of its latest editions.

1 - Open Drip Proof Motor (ODP)

2 - Totally Enclosed (TEFC)

3 - Premium Efficiency Open Drip Proof (PEODP)

4 - Premium Efficiency Totally Enclosed (PETE)

Motor Size

Model Digit 15

Motors are available from 1/2 to 15 HP. Thermal Protection is automatic for most motors up to 5 HP., a Magnetic Starter with IEC (International Electrotechnical Commission) type over current protection must be used for motors without automatic thermal protection and motors above 5 HP.

Variable Frequency Drive (VFD) operating range: 14°F to 130°F. For temperatures below 14°F, VFD must be factory-installed within the VFD Enclosure accessory (Model Digit 22, option 9), or field-mounted indoors.

A - 1/2 HP. with Contactor

B - 3/4 HP. with Contactor

C - 1 HP. with Contactor

D - 1 1/2 HP. with Contactor

E - 2 HP. with Contactor

F- 3 HP. with Contactor

G - 5 HP. with Contactor

H - 1/2 HP. with Magnetic Starter and IEC over current protection

J - 3/4 HP. with Magnetic Starter and IEC over current protection

K - 1 HP. with Magnetic Starter and IEC over current protection

L- 1 1/2 HP. with Magnetic Starter and IEC over current protection

N - 2 HP. with Magnetic Starter and IEC over current protection

P - 3 HP. with Magnetic Starter and IEC over current protection

Q - 5 HP. with Magnetic Starter and IEC over current protection

R - 7 1/2 HP. with Magnetic Starter and IEC over current protection

T - 10 HP. with Magnetic Starter and IEC over current protection

U - 15 HP. with Magnetic Starter and IEC over current protection

V - 1 HP. with Variable Frequency Drive

W- 1 1/2 HP. with Variable Frequency Drive

X - 2 HP. with Variable Frequency Drive

Y- 3 HP. with Variable Frequency Drive

Z- 5 HP. with Variable Frequency Drive

1- 7 1/2 HP. with Variable Frequency Drive

2- 10 HP. with Variable Frequency Drive

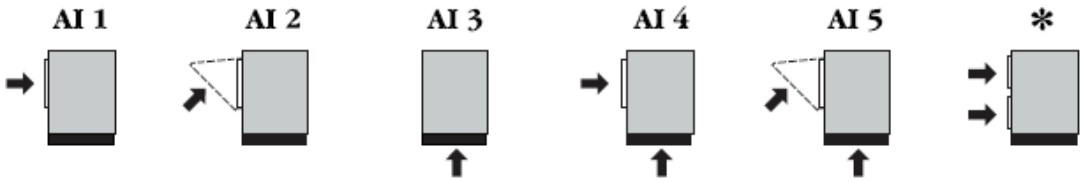
3- 15 HP. with Variable Frequency Drive

Air Inlet Configuration

Model Digit 18

The Air Inlet Configuration defines the entering air openings for Trane Engineered Products. This item does not include dampers and must match the required opening for Air Control and Damper Arrangement. A horizontal return air feature is offered on air inlet configurations 4 and 5. Refer to Digit 21 Accessory Option D.

Figure 18. Air inlet configuration



1 - Horizontal Inlet (100% Outside Air or 100% Return Air)

2 - Horizontal Inlet (100% Outside Air or 100% Return Air) with Intake Hood

3 - Bottom Return Air Opening

4 - Outside and Return Air Opening

5 - Outside and Return Air Opening with Intake Hood

* Horizontal Outside and Return Air Openings. See Accessories Section Model Digit 21, Option D.

Air Control and Damper Arrangement

Model Digit 19

A - Outside air damper with 2 Position spring return damper motor. Outside air damper opens upon energizing the unit blower motor.

B - Return air damper with 2 Position spring return damper motor. Return air damper opens upon energizing the unit blower motor.

C - Outside and return air interlocked dampers with 2 position spring return damper motor. Outside air damper opens and return air damper closes upon energizing the unit blower motor.

E - Outside and return air interlocked dampers with modulating spring return damper motor, mixed air temperature control, and minimum position potentiometer. Outside and return air dampers modulate in response to the mixed air temperature setpoint and allow minimum outside air setting. When de-energized outside air dampers close and return air dampers open.

H - Outside and return air interlocked dampers with modulating spring return damper motor and mixed air temperature control. Outside and return air dampers modulate in response to the mixed air temperature setpoint. When de-energized outside air dampers close and return air dampers open.

K - Outside and return air interlocked dampers with modulating spring return damper motor and positioning potentiometer. Outside and return air dampers open and close with respect to the setting of the positioning potentiometer. When de-energized outside air dampers close and return air dampers open.

M - Outside and return air interlocked dampers with modulating spring return damper motor. Mixed air temperature control, minimum position potentiometer, and dry bulb economizer. Outside and return air dampers modulate in response to the mixed air temperature setpoint and allow minimum outside air setting. Dampers respond to the economizer when the outside air temperature is within the set point range by opening the outside and closing the return air damper to achieve free cooling effect. When de-energized outside air dampers close and return air dampers open.

N - Outside and return air interlocked dampers with modulating spring return damper motor and enthalpy controlled economizer outside and return air dampers modulate in response to the heat content of sensed mixed air. The air mixture is optimized to provide inlet air with the lowest possible load characteristics in both heating and cooling modes. When de-energized outside air dampers close and return air dampers open.

P - Outside and return air interlocked dampers with modulating damper motor and atmospheric pressure sensor. Outside and return air dampers modulate in response to sensed building pressure, typically maintaining a slightly positive building pressure in order to reduce heat loss due to infiltration.

Q - Outside and return air interlocked dampers with modulating damper motor and CO_2 (carbon dioxide) monitor. Outside and return air dampers modulate in response to the CO_2 monitor set point. Monitor is located in the return air stream. On a rise in CO_2 level, the outside damper modulates open and the return air damper closes. A decrease in CO_2 level modulates the outside air damper closed and opens the return air damper. When the unit is de-energized, the damper motor will close the outside air damper and open the return air damper. Equipped with one normally open contact for alarm light or bell to guard against times of sustained high CO_2 levels. CO_2 monitor is shipped loose for field installation.

R - Outside and return air interlocked dampers with modulating spring return damper motor and S350 proportional mixed air control. Outside and return air dampers modulate in response to the mixed air temperature setpoint, and allow minimum outside air setting. When de-energized outside air dampers close and return air dampers open.

U- Outside and return air interlocked dampers with modulating spring return damper motor and 0-10VDC or 4-20mA input. Requires an external input signal from a Direct Digital Controller (DDC). Provides proportional control from a building management system or electronic controller based on programmed parameters. When de-energized outside air dampers close and return air dampers open.

W- ASHRAE Cycle I Outside and return dampers with two position spring return damper motor and warm-up thermostat. When energized dampers open in response to the warm-up thermostat preventing cold air starts.

X- ASHRAE Cycle II Outside and return air interlocked dampers with modulating spring return damper motor. Mixed air temperature control, minimum position potentiometer, and warm-up thermostat. Outside and return air dampers modulate in response to the mixed air temperature setpoint and allow minimum outside air setting once the warm-up thermostat has been satisfied. When de-energized outside air dampers close and return air dampers open.

Y- ASHRAE Cycle III Outside and return air interlocked dampers with modulating spring return damper motor. Mixed air temperature control and warm-up thermostat. Outside and return air dampers modulate in response to the mixed air temperature setpoint once the warmup thermostat has been satisfied. When de-energized outside air dampers close and return air dampers open.

Z - Manual outside and return air dampers. Dampers are locked into position utilizing a manual quadrant for field adjustment.

Accessories

Model Digit 21

Mechanical Accessories

C- Moisture eliminators
Use in place of the bird screen with an outside air hood. The metal wire filter is designed to collect water droplets/mists and drain them to the bottom of the filter. This item includes an electrically interlocked differential pressure switch with indicator lamp in case of blockage.

D - Horizontal return
Locates the return air opening under the outside air opening location. For units with both outside air and return air openings Model Digit 18(4 or 5). Includes moisture eliminators as standard when 5 is chosen.

P- Low Leak Damper
This item includes vinyl blade edge seals with a standard opposed blade galvanized steel damper and neoprene nylon bushings. For outside side air inlet only.

Filters

1- 1" Washable Filters (Standard)

2- 2" Washable Filters

3- 2" Throwaway Filters

4- 1" High Efficiency 30% Filters (MERV 8)

5- 2" High Efficiency 30% Filters (MERV 8)

Table 12. Filter quantity and size

Capacity	20	40
Air Handler Arrangements B,C,D,E (Qty.)Filter Size	(4)20 x 20	(6)20 x 20
Air Handler Arrangements G,J,K,L (Qty.)Filter Size	(8)20 x 20	(12)20 x 20

Evaporative Cooler Accessories

0134–0210–01- Fill and drain kit
Includes 3 way valve and relay for automatic fill and drain for evaporative cooling units. Field installed.

B- 12" CELdek® Media
Optional high efficiency 12" media replaces standard 8" media.

Z- Freezestat
Automatic shutoff and drain upon meeting outside air setpoint when used with "Fill and Drain kit".

W- 8" Glasdek®
Optional 8" GLASdek evaporative cooler media is available in lieu of the standard 8" CELdek. GLASdek media is manufactured from a wettable fiberglass and is designed for applications requiring UL900 Class II fire rating.

X- 12" Glasdek
Optional 12" GLASdek evaporative cooler media is available in lieu of the standard 8" CELdek. GLASdek media is manufactured from a wettable fiberglass and is designed for applications requiring UL900 Class II fire rating.

Time Clocks

0134-0201-02-	7 day time clock Provides single pole double throw (SPDT) relay output at setpoint time with maximum 6 set points per day, field installed.
0134-0201-03-	24 hour time clock Provides single pole double throw (SPDT) relay output at setting time with maximum 12 set points per day, field installed.

Electrical Accessories

Q-	Clogged filter switch Factory installed differential pressure switch with clogged filter indicator lamp located in the main electrical cabinet.
0134-0204-01-	Ground fault convenience outlet 115VAC G.F.I. outlet with manual reset in a weather resistant enclosure, field installed.
0134-0201-01-	Remote control panel Wall mounted and distinctively styled the "Trane Remote Panel" offers 6 LED status lamps with System On/Off, Fan Auto/On, Heat Auto/Off, Cool Auto/Off, Auxiliary On/Off switching and Modulating damper potentiometer mounting. Designed for E-Z Installation with plug-in terminal block wiring and wall mounting bracket. Field installed. (Auxiliary On/OFF may be used with Evaporative Cooler Fill & Drain Kit or exhaust fan) (6-1/4" W x 3-3/4" H x 1-3/8" D)
K-	Manual blower switch Factory installed in the electrical cabinet to provide manual blower operation (On/Auto).

Figure 19. Remote control panel

Duct and Room Thermostats

0134-0207-03 -	One stage duct thermostat Field installed, single pole double throw switching. 55°-175°F set point range. (2" W x 5-5/8" H x 2-7/16" D)
0134-02006 -	Two stage duct thermostat Field installed, single pole double throw switching. 55°-175°F set point range. (2" W x 5-5/8" H x 2-7/16" D)
0134-THT02569-01 -	T87K thermostat with subbase Single stage heating thermostat. Subbase includes fan switching relay. Standard round styling suitable for any decor. 40°-90°F range. Mercury free.
0134-THT02569G-01 -	T87K thermostat with subbase and guard Same features as 0134-THT02569-01 except a tamper proof guard is included.
0350-0015-02 -	T83N thermostat with subbase Single stage heating thermostat with fan switch. 50°-90°F range. (2-3/8" W x 4-3/4" H x 1-1/2" D) Mercury free.

0134-THT02568-01 -	TB8220U programmable commercial touchscreen thermostat Provides 7 day programmability for up to two stages of heating and two stages of cooling. Includes a terminal to enable an economizer or control a lighting panel when used as a time of day relay. Temperature ranges: Heating 40°-90°F, Cooling 50-99°F (6" W x 3-3/4" H x 1-3/8" D) Mercury free.
0134-THT02532-01 -	TH5220D two stage thermostat Two stage heating and two stage cooling with system and fan switching and built in 10°F heating/cooling differential. Includes fan relay. Temperature ranges: Heating 40°-90°F, Cooling 50°-99°F (5-13/16" W x 3-9/16" H x 1-1/2" D) Mercury free.
0134-0207-07 -	TG511 locking thermostat cover Universal locking thermostat cover for use with all thermostats listed.

Figure 20. T83N thermostat with subbase

Figure 21. TH8320R programmable commercial touchscreen thermostat

Figure 22. TH5220D two stage thermostat

Freeze and Fire Protection

H - Return firestat
130°-270°F setting range with single pole double throw (SPDT) output. The Return Firestat is electrically interlocked to shut down the unit upon reaching the set point with manual reset. Factory mounted in the return air stream and set at 130°. This item is utilized as a reverse air flow switch.

J - Supply firestat
130°-270°F setting range with single pole double throw (SPDT) output. The Supply Firestat is electrically interlocked to shut down the unit upon reaching the setpoint with manual reset. Factory mounted in the supply air stream on units with a downturn plenum and shipped loose for units with standard horizontal discharge.

F - Time delay freezestat
30°-75°F setting range in 5°F increments with single pole double throw (SPDT) output. Time delay adjustment range – one minute to ten minutes in one minute increments. Manual reset by turning unit disconnect off then on. The freezestat is electrically interlocked to ensure minimum discharge air temperature. Factory mounted in the electrical compartment. Sensing bulb will be factory mounted in the supply air stream on units with a downturn plenum. Units with standard horizontal discharge will need to have the sensing bulb field installed in the supply duct work.

Y - Ambient Lockout
Intake air temperature sensor factory mounted for application specific control based on ambient air temperature. Control range 0°-100°F fixed 1°F differential.

Limits and Indicator Lamps

T - Status lamps
Long life factory installed LED lamps located in the electrical cabinet. The status lamps are designed as a troubleshooting aid and setup for indicating Power On, Fan On, Heating energized at furnace one, two, three and cooling energized when applicable.

Note: *Blocked inlet and clogged filter indicator lamps are standard with Moisture Eliminators and Clogged Filter Switch.*

0134-0218-01 - Air flow prove switch
Field installed. A Dwyer 1910-0 pressure switch suitable for duct of plenum mounting, with a range of 0.15 - 0.5" W.C. is provided.

Interlock Relays

0134-0303-01 - 24 volt DPDT relay
Plug-in, Type 2, Form C relay with 24 volt coil and double pole double throw 10 amp. contacts. This relay plugs in to the Main Connection PC board in the electrical cabinet. Included with Packaged units including an evaporative cooler and outside return air dampers or may be utilized as an exhaust fan interlock. When energized at terminal "K2" of the main connection board, the blower is engaged and outside air dampers are opened to 100% position. Factory installed.

0134-0301-01 - 24/115 volt SPDT relay
This relay has selectable coil voltage of 24 or 115 volts and single pole double throw 10 amp contacts with LED On indicator lamp. Relay is utilized as an auxiliary relay when 24 volt DPDT relay does not apply for exhaust fan interlock or digital interface with an external control. Factory mounted and wired when applicable.

Note: *Shipped loose unless otherwise specified.*

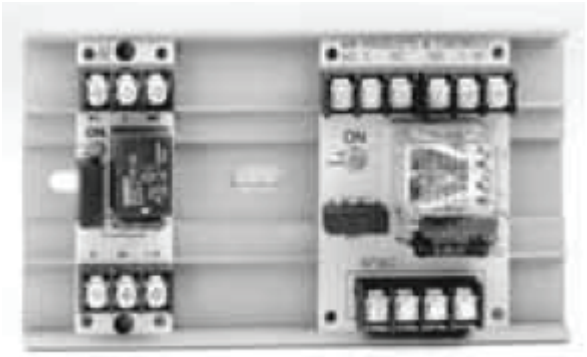
0134-0302-01 - 24/115/230 volt DPDT relay
This relay has selectable coil voltage of 24, 115 or 230 volts and double pole double throw 10 amp contacts. Relay is utilized as an auxiliary relay for general purpose duty. Factory mounted and wired when applicable.

Note: *Shipped loose unless otherwise specified.*

0134-0304-01 - 24 volt 4PDT relay
This relay has a coil voltage of 24 volts and four pole double throw 10 amp contacts. Relay is included as standard for packaged units with an Evaporative Cooler or Coil Cabinet and may be utilized as an auxiliary relay for general purpose duty. Factory mounted and wired when applicable.

Note: *Shipped loose unless otherwise specified.*

Figure 23. Interlock relays - 24/115 volt SPDT relay and 24/115/230 volt DPDT relay



Disconnect Switches (NEMA-3R)

0134-0202-06 (115-230V, 1 Ph.) 0134-0202-07 (208-230V, 3 Ph.) 0134-0202-08 (460-575V, 3 Ph.)	30 Amp. fused disconnect Field installed.
0134-0202-01 (115-230V, 1 Ph.) 0134-0202-02 (208-230V, 3 Ph.) 0134-0202-03 (460-575V, 3 Ph.)	30 Amp. non-fused disconnect Field installed.
0134-0202-09 (208-230V, 3 Ph.) 0134-0202-10 (460-575V, 3 Ph.)	60 Amp. fused disconnect Field installed.
0134-0202-04 (208-230V, 3 Ph.) 0134-0202-05 (460-575V, 3 Ph.)	60 Amp. non-fused disconnect Field installed.

Convenience Accessories

7 - Through-the-base utility penetrations
Through the base utility penetrations allows the electric and coil connections to be passed through base and curb of the unit. This results in a reduction in the number of roof penetrations, thus enhancing the integrity of the roofing materials. roofing materials. Electrical and coil connections will enter the unit in the blower cabinet.

6 - Service convenience package
Includes a factory mounted switch type fused disconnect and GFI convenience outlet mounted behind a hinged access door on the units' blower section. Both items are accessible from the outside of the unit via a weather proof hinged access door. This accessory also includes Through-The-Base Utility Penetrations.

N - Double wall cabinet construction
Consists of a 24 gauge inner liner wall with 1" 1-1/2 LB density insulation. Available on the filter / damper, blower, coil, and plenum cabinets only.

VFD Options

Model Digit 22

1 - Field installed VFD
Replaces the Magnetic Starter and provides soft start operation, prolonging the life of blowers and bearings as well as reducing start up noise. All VFD's are UL approved and are manufactured with a NEMA 1 plenum rated enclosure. Field installed VFD is standard for motor size selections 1-8. For a factory installed option, see VFD Option 2.

2 - Factory installed VFD
UL approved with a NEMA 1 plenum rated enclosure, is mounted in the unit blower cabinet with a remote programming keypad located in the electrical cabinet.

3 - Remote keypad
Allows operation of drive up to 100 ft. (30 Meters) from the drive and duplicates the functionality of the drive's local keypad. Shipped loose for field installation.

4 - CO_2 Sensor 100% Outside Air
Factory supplied, field installed CO_2 monitor range 0 to 2,000 ppm, adjustable, for mounting in occupied space. Upon rise in CO_2 above field programmed set point, 0-10VDC or 4-20 mA signal will be sent from CO_2 sensor to VFD to modulate air flow between minimum set point and maximum CFM.

5 - CO_2 Sensor Mixed Air
Factory supplied, field installed CO_2 monitor range 0 to 2,000 ppm, adjustable, for mounting in return air duct. Upon rise in CO_2 above field programmed set point, signal will drive return air damper to 100% closed and outside air damper to 100% open. 0-10VDC or 4-20 mA signal will be sent from CO_2 sensor to VFD to modulate air flow between minimum set point and maximum CFM.

6 - Pressure Sensor
Factory supplied, field installed pressure control, range -0.1 to +0.1" W.C. VFD will modulate motor speed based on 4-20 mA signal from pressure control sensor mounted in space to maintain field programmed set point.

7 - 2-Speed VFD Relays
Factory installed relays provided to energize second speed setting. Relay coil will accept 24V, 115V and 230V.

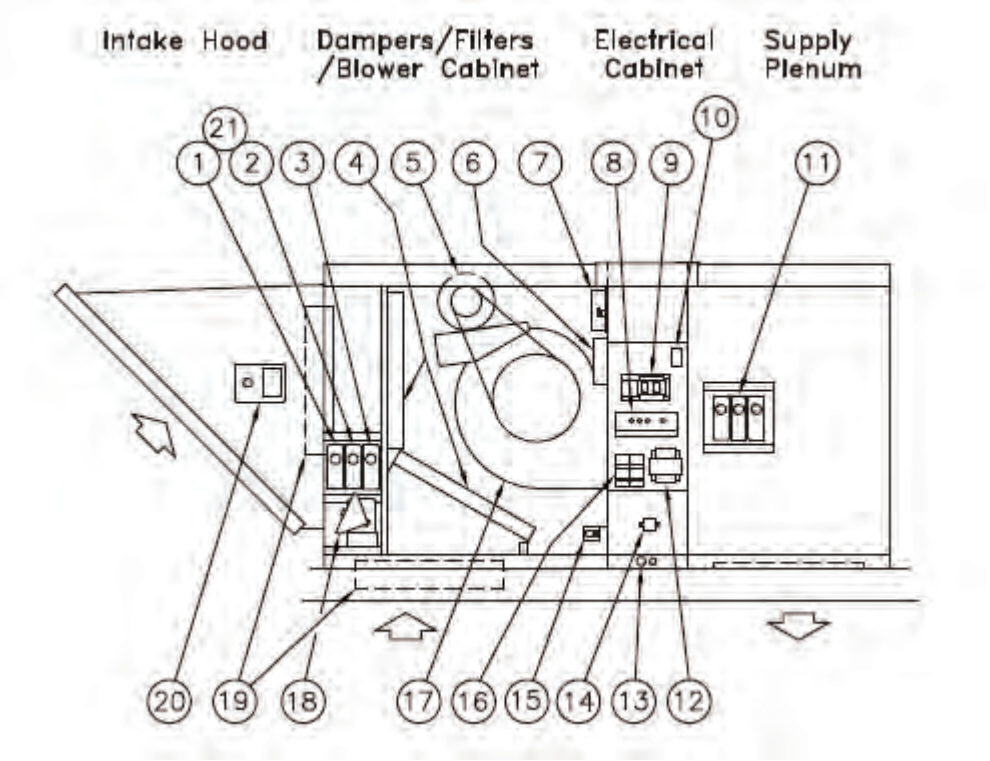
8 - 3-Speed VFD Relays
Factory installed relays provided to energize second and third speed settings. Relay coil will accept 24V, 115V and 230V.

9 - A factory installed NEMA-3R enclosure will be provided to protect the VFD in outdoor applications. Enclosure includes a small electric heater and vent fan to protect the VFD in ambient temperatures of -30 - 115°F (-34 - 46°C).

Note: *Enclosure only available when factory installed VFD is selected.*

Component Locations

Figure 24. Accessory component locations



1. Mixed air controller
2. Return firestat
3. Economizer
4. Filters
5. Blower motor
6. Reverse air flow switch
7. Clogged filter switch
8. High voltage barrier and lamp and circuit breaker mount
9. Main connection board with fan time delay and function relays
10. Time delay freezestat
11. Duct thermostat
12. Transformer
13. Electrical wiring inlet
14. High voltage terminal block
15. Door safety switch
16. Contactor
17. Centrifugal blower
18. Damper motor
19. Outside and return dampers
20. Enthalpy controlled economizer
21. Ambient lockout

Roof Curb Kits

Standard Roof Curb Kits

Trane roof curbs are available in various types depending upon your application needs. All curbs kits are knocked down for field assembly and are shipped separately. Curbs are typically available on a short lead time basis allowing the installer to set the curb in place prior to receiving the rooftop unit.

Standard curbs are 12" high. Factoring in the 4" unit base rail, overall height to the bottom of the rooftop unit is actually 16". All standard curbs are fully factory insulated.

Uninsulated Roof Curb Kits

Trane uninsulated roof curb kits are identical to the standard kits, with the exception of the insulation.

Vibration Isolation and Seismic Curbs

Vibration isolation curbs are utilized in installations where slight rooftop vibration or noise is a concern. These curbs incorporate adjustable spring isolators into the roof curb which are specifically engineered and positioned to accommodate the rooftop unit.

Seismic curbs are designed to meet all local and federal building code seismic requirements by providing a reinforced curb constructed to allow rooftop units to be properly secured to the mounting structure and will withstand the regional seismic load.

Contact Trane for further information, including part numbers and pricing.

Adaptor Curbs

Adaptor curbs are designed for retrofit installations. With the use of an adaptor curb it is not necessary to remove the existing curb, thus eliminating extensive rooftop work, time and associated construction costs. Provide us with the existing unit model number and curb dimensions and a custom adaptor curb will be supplied to accommodate the new rooftop unit.

Dimensional Data

Figure 25. Roof curb kit dimensions

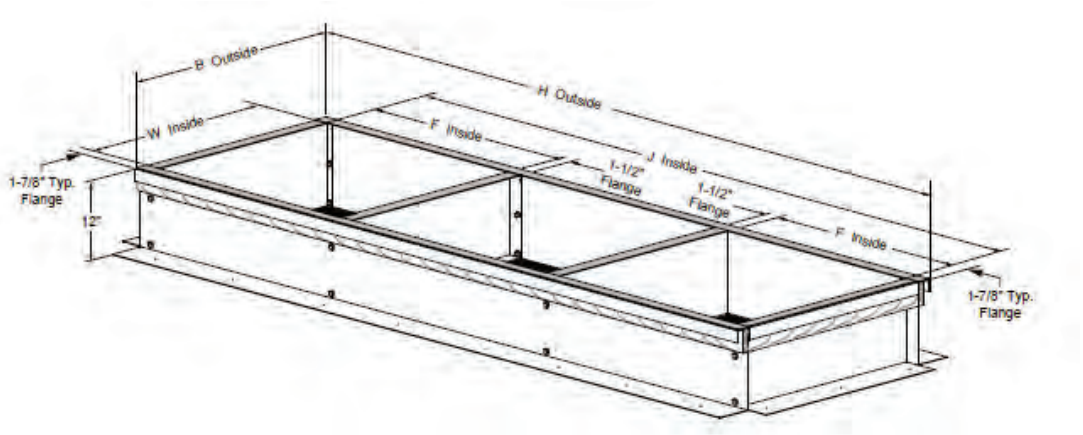


Table 13. Roof curb kit dimensional data

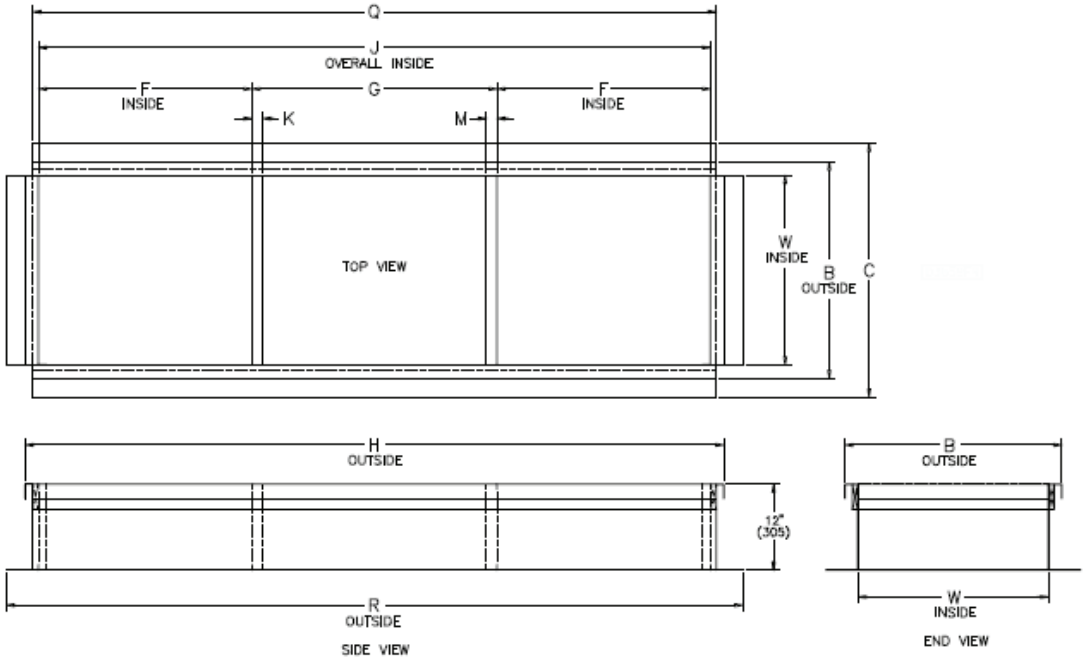
Air Handler Arrange-ment	Capaci-ty	Trane P/N	F	G	H	J	Q	R	K	M	W	B	C
B	20	0134-0214-01	N/A	N/A	45-1/4	41-1/2	43-1/8	50-1/2	N/A	N/A	37-7/16	41-3/16	46-7/16
					(1,149)	(1,054)	(1,095)	(1,283)			(951)	(1,046)	(1,179)
B	40	0134-0214-02	N/A	N/A	45-1/4	41-1/2	43-1/8	50-1/2	N/A	N/A	53-15/16	57-11/16	62-15/16
					(1,149)	(1,054)	(1,095)	(1,283)			(1,370)	(1,465)	(1,599)
C	20	0134-0214-03	29-5/8	8-1/8	71-1/8	67-3/8	69	76-3/8	1-1/2	1-1/2	37-7/16	41-3/16	46-7/16
			(752)	(206)	(1,806)	(1,711)	(1,753)	(1,940)	(38)	(38)	(951)	(1,046)	(1,179)
C	40	0134-0214-04	29-5/8	8-1/8	71-1/8	67-3/8	69	76-3/8	1-1/2	1-1/2	53-15/16	57-11/16	62-15/16
			(752)	(206)	(1,806)	(1,711)	(1,753)	(1,940)	(38)	(38)	(1,370)	(1,465)	(1,599)
D	20	0134-0214-05	N/A	N/A	45-1/4	41-1/2	43-1/8	50-1/2	N/A	N/A	37-7/16	41-3/16	46-7/16
					(1,149)	(1,054)	(1,095)	(1,283)			(951)	(1,046)	(1,179)
D	40	0134-0214-06	N/A	N/A	45-1/4	41-1/2	43-1/8	50-1/2	N/A	N/A	53-15/16	57-11/16	62-15/16
					(1,149)	(1,054)	(1,095)	(1,283)			(1,370)	(1,465)	(1,599)
E	20	0134-0214-07	29-5/8	8-1/8	71-1/8	67-3/8	69	76-3/8	1-1/2	1-1/2	37-7/16	41-3/16	46-7/16
			(752)	(206)	(1,806)	(1,711)	(1,753)	(1,940)	(38)	(38)	(951)	(1,046)	(1,179)
E	40	0134-0214-08	29-5/8	8-1/8	71-1/8	67-3/8	69	76-3/8	1-1/2	1-1/2	53-15/16	57-11/16	62-15/16
			(752)	(206)	(1,806)	(1,711)	(1,753)	(1,940)	(38)	(38)	(1,370)	(1,465)	(1,599)
G	20	0134-0214-09	38-1/8	N/A	81-7/16	77-11/16	79-5/16	86-11/16	1-1/2	N/A	37-7/16	41-3/16	46-7/16
			(968)		(2,069)	(1,973)	(2,015)	(2,202)	(38)		(951)	(1,046)	(1,179)
G	40	0134-0214-10	38-1/8	N/A	81-7/16	77-11/16	79-5/16	86-11/16	1-1/2	N/A	53-15/16	57-11/16	62-15/16
			(968)		(2,069)	(1,973)	(2,015)	(2,202)	(38)		(1,370)	(1,465)	(1,599)
J	20	0134-0214-11	37-3/16	29-3/16	107-5/16	103-9/16	105-3/16	112-9/16	1-1/2	1-1/2	37-7/16	41-3/16	46-7/16
			(944)	(741)	(2,726)	(2,631)	(2,672)	(2,859)	(38)	(38)	(951)	(1,046)	(1,179)
J	40	0134-0214-12	37-3/16	29-3/16	107-5/16	103-9/16	105-3/16	112-9/16	1-1/2	1-1/2	53-15/16	57-11/16	62-15/16
			(944)	(741)	(2,726)	(2,631)	(2,672)	(2,859)	(38)	(38)	(1,370)	(1,465)	(1,599)
K	20	0134-0214-13	37-3/16	29-3/16	107-5/16	103-9/16	105-3/16	112-9/16	1-1/2	1-1/2	37-7/16	41-3/16	46-7/16
			(944)	(741)	(2,726)	(2,631)	(2,672)	(2,859)	(38)	(38)	(951)	(1,046)	(1,179)

Table 13. Roof curb kit dimensional data (continued)

Air Handler Arrange-ment	Capaci-ty	Trane P/N	F	G	H	J	Q	R	K	M	W	B	C
K	40	0134-0214-14	37-3/16	29-3/16	107-5/16	103-9/16	105-3/16	112-9/16	1-1/2	1-1/2	53-15/16	57-11/16	62-15/16
			(944)	(741)	(2,726)	(2,631)	(2,672)	(2,859)	(38)	(38)	(1,370)	(1,465)	(1,599)
L	20	0134-0214-15	37-1/8	55-1/4	133-1/4	129-1/2	131-1/8	138-1/2	1-1/2	1-1/2	37-7/16	41-3/16	46-7/16
			(943)	(1,403)	(3,385)	(3,289)	(3,331)	(3,518)	(38)	(38)	(951)	(1,046)	(1,179)
L	40	0134-0214-16	37-1/8	55-1/4	133-1/4	129-1/2	131-1/8	138-1/2	1-1/2	1-1/2	53-15/16	57-11/16	62-15/16
			(943)	(1,403)	(3,385)	(3,289)	(3,331)	(3,518)	(38)	(38)	(1,370)	(1,465)	(1,599)

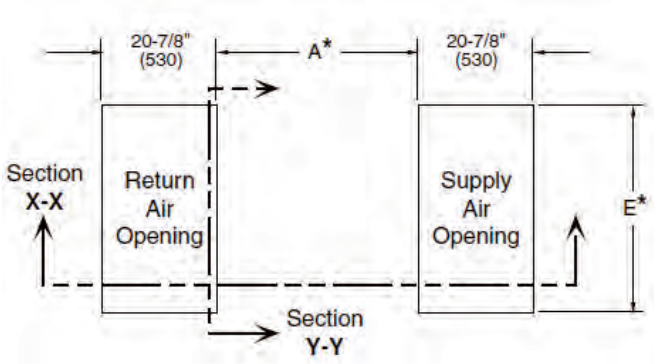
Note: *Dimensions listed apply to both insulated and uninsulated roof curb types. Roof curb kit part numbers listed are the insulated roof curb type; contact customer service for uninsulated part numbers.*

Figure 26. Roof curb kit dimensions



Specifications

Figure 27. Roof curb specifications



Unit Type [UT] "AH"

Capacity (CA)	E*†
20	37 (940)
40	53- 1/2 (1359)

* All dimensions shown have been calculated to include a one (1) inch clearance around return and suppy ducts.
† E dimension also applies to the return air opening.

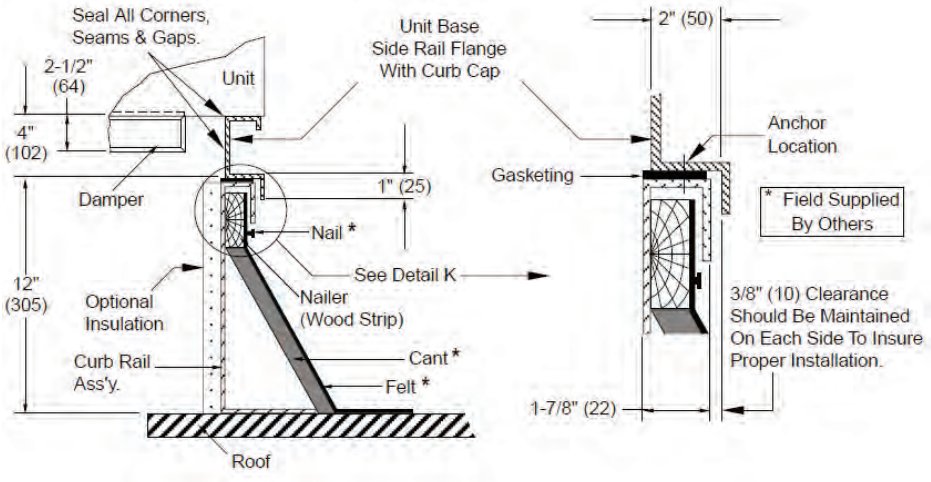
NOTES:
Dimensions are in inches.
Dimensions in parenthesis are in millimeters.

Table 14. Roof curb specifications

Furnace	**Rooftop Arrangement [RA]	Capacity [CA]	Unit Specifications (References)				* Dimension A
			Blower		Coil	Supply Plenum	
			Standard	High CFM			
Unit Type [UT] "AH"							
	N, R	20 or 40	√			√	24 7/8 (631)
	T	20 or 40		√		√	61 1/16 (1,551)
	W	20 or 40		√	√	√	87 1/16 (2,211)

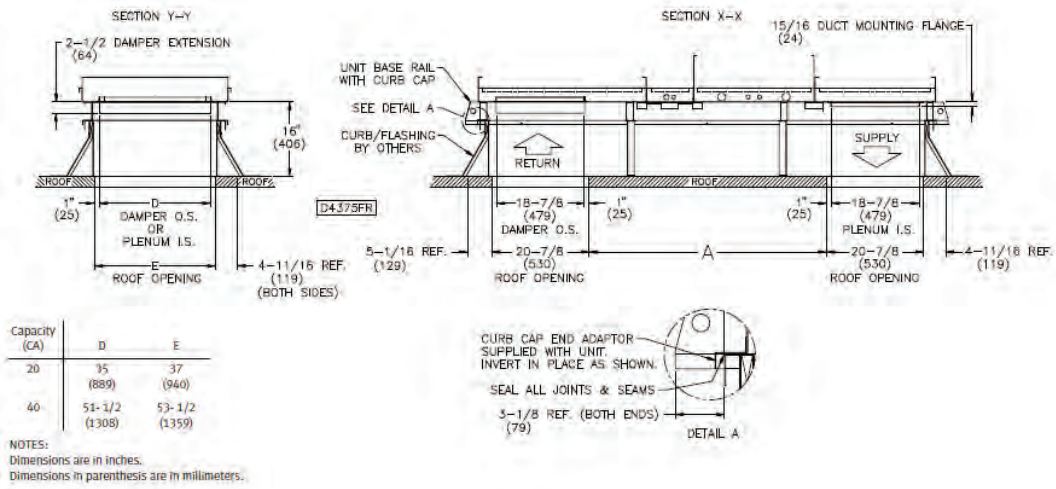
** Air Handler Arragements B, D, G, & K are without a supply plenum. Use the same return air dimensions for these units rooftop openings. Refer to unit submittals for more detail.

Figure 28. Section curb side rail - Detail K



Assembly

Figure 29. Roof curb kit assembly



Capacity (CA)	D	E
20	35 (889)	37 (940)
40	51-1/2 (1308)	53-1/2 (1359)

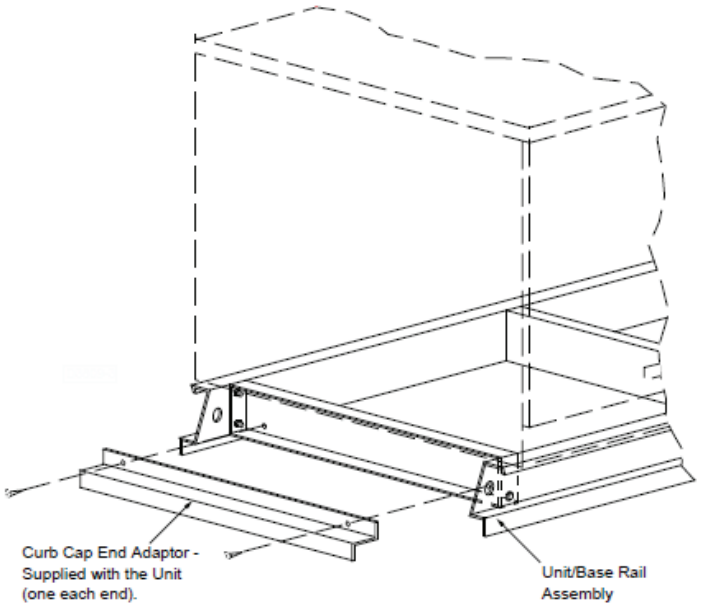
Note: *Refer to Roof Curb Specifications for "A" dimensions and references to sections X-X and Y-Y.*

Unit/Curb End Rail Assembly

For Field Installations: These crossbrace/curb adapters (2 adapters ship with each rooftop arrangement) must be repositioned in the field when the unit is mounted on a curb or a platform (one for each end). Remove the screws, turn the piece over (end for end), and secure in place using the holes/hardware provided.

Important: *All joints and seams must be sealed completely in the field to prevent leaks*

Figure 30. End rail assembly



Engineered Products Specification Guide

A. General

A.1 Standards and Certifications

A.1.a ETL or UL Certified for electrical safety in compliance with UL 1995 safety standard for heating, ventilating and cooling equipment (see previous information).

A.2 Mechanical Arrangements

Rooftop unit will consist of a:

A.2.a Blower section containing supply blower(s) and blower motor. The blower motor will be inter-locked electrically and disengage the blower motor and control circuit upon opening the service panel.

A.2.b Electrical Cabinet that is isolated from the air stream with a non removable access panel interior to the outer service panel. Provision for component mounting, wire routing and high voltage isolation.

A.2.c Rooftop unit will be provided with:
(a) Outside air and Return air opposed blade dampers.
(b) Outside air opposed blade dampers.
(c) Return air opposed blade dampers.
(d) No dampers.

A.2.d Filter Section will accommodate 1 or 2" washable, pleated high-efficiency filters, or 2" throwaway; and be of a V-bank design for minimal pressure drop.

A.2.e Supply plenum will be provided with down flow discharge.

A.2.f Return air will enter through a bottom return air opening.

A.2.f.1 (opt.) For units with both Outside and Return Air, Return air opening will be located horizontally on the rear of the unit under the outside air inlet.

A.2.g A Cooling Coil Section constructed of galvanized steel will be provided with the unit.

A.2.g.1 Direct Expansion (DX) Evaporator Coil certified by ARI will be provided.

A.2.g.2 Chilled Water Coil certified by ARI will be provided.

A.2.h An Evaporative Cooler with 8" CELdek® media will be provided. The Evaporative cooler will be of a self cleaning design with a stainless steel water tank, regulated water flow and overflow protection. The cooler will have a cabinet assembly of heavy-gauge aluminized steel with weatherproof finish, a U.L. recognized thermally protected sealed re-circulating pump motor, two inch distribution pad, and corrosion resistant PVC water distribution tubes.

A.2.h.1 (opt.) An automatic Fill and Drain Kit will be provided for field installation.

A.2.h.2 (opt.) A platform Mounting Curb will be provided.

A.2.h.3 (opt.) High-Efficiency 12" deep CELdek media will be provided.

A.2.h.4 (opt.) UL900 Class II fire rated 8" GLASdek® media will be provided.

A.2.h.5 (opt.) UL900 Class II fire rated 12" GLASdek media will be provided.

A.2.I (opt.) The unit will mount on a factory supplied roof curb, that is shipped un-assembled with hardware package and gasket attached. Curb and rail will total 16 inches high and supplied with a cross-member which allows isolation of return and supply air streams. Curb will be:
(a) Insulated.
(b) (opt.) Spring Isolated.
(c) (opt.) Adapter Type.
(d) Seismic Rated.

A.3 Electrical Systems

A.3.a All electrical components and fixtures will carry UL or ETL listing, certification and/or recognition.

A.3.b All wire will be rated to meet or exceed electrical requirements for voltage, ampacity, dielectric strength of sheathing and temperature rating per location.

A.3.c Standard control relays will be socket mounted with terminal block connections.

A.3.d All high voltage wiring will be enclosed in flexible metallic sheathed BX cable and include an identifying marker corresponding to the wiring diagram.

A.3.e All control wiring will terminate at terminal strips (single point connection) and include an identifying marker corresponding to the wiring diagram.

A.4 Mounting

Rooftop unit will be mounted on metal rails with down-rolled outer edges with lifting and anchor holes and be suitable for slab or curb mounting.

A.5 Standard Safety Provisions

A.5.a Rooftop unit will be provided with a low voltage circuit breaker rated for 150% of the units normal 24 volt operating load.

A.5.b An access interlock switch will be installed in the blower compartment and will disengage the blower upon opening the service panel. An override or cheat switch will be incorporated into the interlock switch for serviceability.

A.5.c Warning labels will be visible in accessible areas of the rooftop where unsafe conditions could occur.

A.6 Optional Safety Provisions

A.6.a Rooftop unit will be provided with a Firestat located in the return air stream. If the return air temperature reaches the set point (typically 130°F) the unit will close all gas valves, return dampers to their normal position and shut down the blower.

A.6.b Rooftop unit will be provided with a Firestat located in the supply air stream. If the supply air temperature reaches the set point (typically 150°F) the unit will close all gas valves, return dampers to their normal position and shut down the blower.

A.6.c Rooftop unit will be provided with a Time Delay Freezestat with the sensing bulb located in the discharge air stream. Wired as an interlock to prevent cold air discharge.

A.6.d A Clogged Filter Pressure Switch with adjustable operating range and normally open switch will be installed to sense increased suction pressure by the blower due to filter obstruction. Provision for remote indication will be provided by terminal block connection points.

B. Cabinetry

B.1 Cabinetry will be die-formed, 18 gauge Galvanized steel and finished in air-dry enamel.

B.2 Hinged Access Doors will be provided by the manufacturer on the blower and filter cabinet doors. Doors will be double wall construction and incorporate dual quick opening tool-less latches. Door stops will be included to prevent against closure while open.

B.3 Supply Plenums and coil section (when provided) will be insulated with fire resistant, environmentally safe, odorless, one inch fiber material.

C. Dampers

Dampers will be of the opposed blade type, constructed of galvanized steel with neoprene nylon bushings, blades to be mechanically interlocked. (opt.) Low Leak Damper (outside air only) will be of the opposed blade type, constructed of galvanized steel with neoprene nylon bushings and vinyl blade edge seals, blades to be mechanically interlocked.

D. Filter Rack

Filter Rack will be constructed of galvanized steel with access through the side service panel.

E. Intake Hood

Intake hood will be constructed of galvanized steel and include a:
(std.) bird screen.
(opt.) moisture eliminator.

F. Supply Blower

Supply Blower will be belt driven, forward curved, centrifugal type blower assembly, statically and dynamically balanced with double inlet. The blower wheel will be fixed on a shaft, supported with super quiet rubber cartridges for vibration isolation, and ball bearing.

G. Blower Motor

G.1 Type

G.1.a Motor will be Single Speed, Ball Bearing Drive, Permanently Lubricated, EPACT Compliant, Standard NEMA Frame Size and Service Factor, with Resilient Base and Class B Windings:
(a) Open Drip Proof
(b) Totally Enclosed
(c) Premium Efficiency, Open Drip Proof
(d) Premium Efficiency, Totally Enclosed

G.1.b Motor will operate at:
(a) 115V/1/60
(b) 208V/1/60
(c) 230V/1/60
(d) 208V/3/60
(e) 230V/3/60
(f) 460V/3/60
(g) 575V/3/60

G.1.c Motor will have a horse power rating of: (1/2 - 15 HP)

G.2 Wiring

Motor wiring will be enclosed in flexible metallic sheathed BX conduit.

G.3 Control

Motor will be activated through a:
(a) Relay. (std. 1/2 - 1 HP)
(b) Contactor. (std. 1-1/2 - 5 HP)
(c) Magnetic starter. (std. 7-1/2 - 15 HP)
(d) Variable frequency drive. (opt.)

G. 4 Motor Protection shall be provided with:

(a) Internal thermal protection. (Relay/Contactor actuated)
(b) IEC overload protection. (Magnetic starter)

H. Damper Motor

H.1 Type

H.1.a Damper motor will be: (a) Two position with spring return. (b) Modulating. (c) Modulating with spring return.

H.1.b Motor will operate at 24 volts.

H.2 Wiring

Motor and control wiring will be harnessed with terminal block connections. Wire will have a temperature rating of at least 105°C.

I. Damper Control

(a) Two position spring return motor with outside air damper will be provided. The motor will power the outside air damper full open when the unit is on and full closed when the unit is off.

(b) Two position spring return motor with return air damper will be provided. The motor will power the return air damper full open when the unit is on and full closed when the unit is off.

(c) Two position spring return motor with interlocked outside and return air dampers will be provided. The motor will power either the outside air damper full open and the return air damper full closed or the outside air damper full closed and the return air damper full open in response to an outside air temperature sensor. When the unit is off the motor will drive the outside air dampers full closed and the return air dampers full open.

(d) Modulating motor with spring return and interlocked outside and return air dampers will be provided. The motor will modulate the position of the outside and return air dampers in response to a thermostatic controller located in the mixed air stream. Units will also be provided with a minimum position potentiometer for minimum outside air damper position. When the unit is off the motor will drive the outside air dampers full closed and the return air dampers full open.

(f) Modulating motor with spring return and interlocked outside and return air dampers will be provided. The motor will modulate the position of the outside and return air dampers in response to a thermostatic controller located in the mixed air stream. When the unit is off the motor will drive the outside air dampers full closed and the return air dampers full open.

(h) Modulating motor with spring return and interlocked outside and return air dampers will be provided. The motor will position the outside and return air dampers in response to a manually set potentiometer. When the unit is off the motor will drive the outside air dampers full closed and the return air dampers full open.

(j) Modulating motor with spring return and interlocked outside and return air dampers will be provided. The motor will modulate the position of the outside and return air dampers in response to a thermostatic controller and dry bulb located in the mixed air stream. Units will also be provided with a minimum position potentiometer for minimum outside air damper position. When the unit is off the motor will drive the outside air dampers full closed and the return air dampers full open.

(k) Modulating motor with spring return and interlocked outside and return air dampers will be provided. The motor will modulate the position of the outside and return air dampers in response to an enthalpy controlled economizer. When the unit is off the motor will drive the outside air dampers full closed and the return air dampers full open.

(l) Modulating motor with interlocked outside and return air dampers will be provided. The motor will modulate the position of the outside and return air dampers in response to a pressure sensor located in the building. When the unit is off the motor will drive the outside air dampers full closed and the return air dampers full open.

(m) Modulating motor with interlocked outside and return air dampers will be provided. The motor will modulate the position of the outside and return air dampers in response to a carbon monoxide monitor located in the return air duct. When the unit is off the motor will drive the outside air dampers full closed and the return air dampers full open.

(n) Modulating motor with spring return and inter-locked outside and return air dampers will be provided. The motor will modulate the position of the outside and return air dampers in response to a solid state mixed air sensor and S-350 proportional controller. When the unit is off the motor will drive the outside air dampers full closed and the return air dampers full open.

(o) Modulating motor with interlocked outside and return air dampers will be provided. The motor will modulate the position of the outside and return air dampers in response to a 4-20 mA or 0-10 VDC analog signal supplied by an external DDC controller.

(p) Modulating motor with spring return and interlocked outside and return air dampers will be provided. The motor will modulate the position of the outside and return air dampers in response to a 4-20 mA or 0-10 VDC analog signal supplied by an external DDC controller. When the unit is off the motor will drive the outside air dampers full closed and the return air dampers full open.

(q) Two position spring return motor with interlocked outside and return air dampers will be provided. The motor will power the outside air damper full open after a warm up period determined by a minimum supply air temperature sensor when the unit is on, and full closed when the unit is off (ASHRAE Cycle I).

(r) Modulating motor with spring return and interlocked outside and return air dampers will be provided. The motor will modulate the position of the outside and return air dampers in response to a thermostatic controller located in the mixed air stream after a warm up period determined by a minimum supply air temperature sensor. Units will also be provided with a minimum position potentiometer for minimum outside air damper position (ASHRAE Cycle II).

(s) Modulating motor with spring return and interlocked outside and return air dampers will be provided. The motor will modulate the position of the outside and return air dampers in response to a thermostatic controller located in the mixed air stream after a warm up period determined by a minimum supply air temperature sensor. Units will also be provided with a minimum position potentiometer for minimum outside air damper position. When the unit is off the motor will drive the outside air dampers full closed and the return air dampers full open (ASHRAE Cycle III).

(t) Manual outside and return air dampers with manual quadrant will be provided.

J. Accessories

(a) Moisture Eliminators
Moisture eliminators will be provided by the manufacturer to eliminate the possibility of moisture carryover entering the unit through the outside air hood. A differential pressure switch and indicator light will be provided in case of blockage.

(b) Horizontal Rear Return
Return air will be located horizontally on the rear of the unit under the outside air inlet. Moisture eliminators will be provided by the manufacturer for the outside air hood.

(c) Low Leak Dampers
Low leak dampers with vinyl blade edge seams and neoprene nylon bushings will be provided by the manufacturer. Dampers will be of the galvanized steel opposed blade type.

(d) Filters will consist of:

d.1 1"Washable (Standard)

d.2 2"Washable (Optional)

d.3 2"Throwaway (Optional)

d.4 1"30% Pleated (Optional)

d.5 2"30% Pleated (Optional)

(e) Evaporative Cooler Accessories include:

e.1 Fill and Drain Kit
Will consist of a 3 way valve and relay for automatic fill and drain operation of the Evaporative Cooler.

e.2 12" Celdek® Media High Efficiency
12" Celdek Media will be utilized in the Evaporative cooler.

e.3 Freezestat
An automatic reset freezestat will be provided by the manufacturer to control the operation of the fill and drain kit.

e.4 8" Glasdek®
Will be provided by the manufacture to conform with UL900 Class II fire rating requirements

e.5 12" Glasdek®
Will be provided by the manufacture to conform with UL900 Class II fire rating requirements

(f) 7 Day Time Clock
A 7 day time clock will be provided by the manufacturer and offer SPDT relay output and a maximum of 6 set points per day.

(g) 24 Hour Time Clock
A 24 hour time clock will be provided by the manufacturer and offer SPDT relay output and a maximum of 12 set points per day.

(h) Clogged Filter Switch
A factory installed clogged filter switch with indicator light located in the main electrical cabinet or remote control panel (when specified) will be provided by the manufacturer.

(i) Convenience Outlet
A GFI with manual reset convenience outlet in a weather proof enclosure will be provided by the manufacturer for field installation requiring separate 115 volt service.

(j) Remote Control Panel
A wall mounted Trane design control panel will be provided by the manufacturer. The panel will consist of a non metallic enclosure and 6 LED status lamps. The lamps will indicate System on/off, Fan on/off, Heat on/off, Cool on/off, Auxiliary on/off (Evaporative cooler on/off or Exhaust fan operation) and modulating damper control (when specified)

(k) Manual Blower Switch A factory installed manual blower switch located in the electrical cabinet will be provided by the manufacturer.

(l) Duct Thermostats

l.1 Single stage duct thermostat with an operating range of 55-175°F and SPDT operation will be provided by the manufacturer.

l.2 Two stage duct thermostat with an operating range of 55-175°F and SPDT operation will be provided by the manufacturer.

(m) Room Thermostats (All Mercury Free)

m.1 T87K Honeywell Thermostat w/Subbase
A single stage heating and subbase for fan on operation will be provided by the manufacturer.

m.2 T87K Honeywell Thermostat w/Subbase and Guard
A single stage heating thermostat including a subbase for fan operation and tamper proof guard will be provided by the manufacturer.

m.3 T834N Thermostat with Subbase
A single stage heating thermostat with fan switch with a 50-90°F operating range will be provided by the manufacturer.

m.4 TB8220U Programmable Commercial Thermostat
The manufacturer will provide a 7 day programmable thermostat capable of two stages of heating and two stages of cooling.

m.5 TH5220D Two Stage Thermostat
The manufacturer will provide a two stage heating and two stage cooling thermostat with system and fan switching and built in 10°F heating /cooling differential.

m.6 TG511 Locking Thermostat Cover
A Universal locking thermostat cover will be provided by the manufacturer.

(n) Return Firestat
A return firestat with a set point range of 130° - 270°F and SPDT switching capabilities will be provided by the manufacturer.

(o) Supply Firestat
A supply firestat with a setpoint range of 130° - 270°F and SPDT switching capabilities will be provided by the manufacturer.

(p) Time Delay Freezestat
A SPDT time delay freeze-stat with a set point range of 30° - 58°F and a 1 to 5 minute adjustable time delay will be provided by the manufacturer.

(q) Ambient Lockout
A factory mounted ambient lockout control for application specific control based on intake air temperature will be provided by the manufacturer.

(r) Interlock Relays

r.1 24 Volt DPDT Relay
A 24 volt type 2 Form C relay with 24 volt coil and DPDT 10 amp contacts will be provided by the manufacturer. The relay will be capable of plugging into the main connection PC board and will be utilized as an exhaust fan interlock.

r.2 24/115 Volt SPDT Relay
A relay with selectable coils voltages of 24 or 115 and SPDT 10 amp contacts will be provided by the manufacturer.

r.3 24/115/230Volt DPDT Relay
A relay with selectable coils voltages of 24, 115 or 230 and DPDT 10 amp contacts will be provided by the manufacturer.

r.4 24 Volt 4PDT Relay
A relay with a coil voltage of 24 and 4PDT 10 amp contacts will be provided by the manufacturer.

(s) Status Lamps
Long life factory installed LED lamps will be provided in the electrical cabinet by the manufacturer to aid in troubleshooting and equipment setup. Power on, Fan on, Heating energized at furnace one, two or three and cooling energized will be provided when applicable.

(t) Air Flow Prove Switch
Will be provided by the manufacturer to verify airflow through the unit. The switch will be a Dwyer 1910-0 pressure switch suitable for duct mounting with a range of .15 – .50" W.C.

(u) Field Installed Disconnect Switches

u.1 30amp Fused Disconnect Switch will be provided by the manufacturer to be field mounted.

u.2 30amp Non Fused Disconnect Switch will be provided by the manufacturer to be field mounted.

u.3 60amp Fused Disconnect Switch will be provided by the manufacturer to be field mounted.

u.4 60amp Non Fused Disconnect Switch will be provided by the manufacturer to be field mounted.

(v) Variable Frequency Drive Options

v.1 Field Installed VFD
Will be provided by manufacturer to provide overload protection and soft start operation. VFD to be UL approved manufactured with a NEMA 1 plenum rated enclosure.

v.2 Factory Installed VFD
Will be provided by manufacturer to provide overload protection and soft start operation manufactured with a NEMA 1 plenum rated enclosure. VFD to be factory mounted in the unit blower cabinet and factory wired with a remote programming keypad located in the electrical cabinet.

v.3 Remote Keypad
Will be provided by manufacturer for field installation up to 100 ft. (30 Meters) from the drive. The remote keypad will duplicate the functionality of the drive's local keypad.

v.4 CO_2 Sensor 100% Outside Air
Will be provided by manufacturer for field installation. CO_2 monitor range 0 to 2,000 ppm, adjustable, for mounting in occupied space. Upon rise in CO_2 above field programmed set point, 0-10VDC or 4-20 mA signal will be sent from CO_2 sensor to VFD to modulate air flow between minimum set point and maximum CFM.

v.5 CO_2 Mixed Air
Will be provided by manufacturer for field installation. CO_2 monitor range 0 to 2,000 ppm, adjustable, for mounting in return air duct. Upon rise in CO_2 above field programmed set point, signal will drive return air damper to 100% closed and outside air damper to 100% open. 0-10VDC or 4-20 mA signal will be sent from CO_2 sensor to VFD to modulate air flow between minimum set point and maximum CFM.

v.6 Pressure Sensor
Will be provided by manufacturer for field installation. Pressure control range - 0.1 to +0.1" W.C. VFD will modulate motor speed based on 4-20 mA signal from pressure control sensor mounted in space to maintain field programmed set point.

v.7 2-Speed VFD Relays
Factory installed DPDT relays provided to energize second speed setting. Relay coil will accept 24V, 115V and 230V.

v.8 3-Speed VFD Relays
Factory installed DPDT relays provided to energize second and third speed settings. Relay coil will accept 24V, 115V and 230V.

v.9 VFD Enclosure
A factory installed NEMA-3R enclosure will be provided to protect the factory installed VFD in outdoor applications. Enclosure will include a small electric heater and vent fan to protect the VFD in ambient temperatures of -30 - 115°F (-34 - 46°C).

(w) Through – The – Base Utility Penetrations
Will be provided by the manufacturer. Electric and coil connections will enter the unit in the blower cabinet.

(x) Service Convenience Package
Will be factory installed by the manufacturer. The service convenience package will consist of a factory mounted switch type disconnect and GFI convenience outlet mounted on the hinged access door. Utility connections will be through–the–base. Through–the–base utility penetrations for the electric and coil connections will enter the unit in the blower cabinet.

(y) Double Wall Cabinet Construction
Will be factory installed and in accordance with the ASHRAE standard no. 62-1989. Double wall construction will be utilized in the Blower, Filtration, Coil and Down Discharge Plenum sections of the unit were applicable. 1" fiber material will be used between the cabinet walls for insulation purposes.

Approximate Unit Net and Ship Weights

Air Handler Arrangements

Table 15. Air handler arrangements

AIR HANDLER ARRANGEMENT "B"

Unit Size	NET WT.	SHIP.WT.
20	403	616
40	513	744

AIR HANDLER ARRANGEMENT "C"

Unit Size	NET WT.	SHIP.WT.
20	529	705
40	665	855

AIR HANDLER ARRANGEMENT "D"

Unit Size	NET WT.	SHIP.WT.
20	609	822
40	769	1000

AIR HANDLER ARRANGEMENT "E"

Unit Size	NET WT.	SHIP.WT
20	735	959
40	921	1161

AIR HANDLER ARRANGEMENT "G"

Unit Size	NET WT.	SHIP.WT.
20	635	847
40	793	1023

AIR HANDLER ARRANGEMENT "J"

Unit Size	NET WT.	SHIP.WT
20	788	1012
40	967	1207

AIR HANDLER ARRANGEMENT "K"

Unit Size	NET WT.	SHIP.WT
20	797	1021
40	987	1227

AIR HANDLER ARRANGEMENT "L"

Unit Size	NET WT.	SHIP.WT.
20	936	1198
40	1152	1432

Note: *All unit weights are expressed in lbs. and are less motor, outside air hood, and cooling coils with drain pan.*

Table 16. Outside air hood with bird screen weight adder

Capacity (CA)	Weight
20	51
40	63

Cooling Coil Weight Adder

Refer to the Coil Weights Options tables.

Double Wall Construction Adder

For units with double wall construction, add an additional 10% of the base unit weight.

Approximate Motor Shipping Weights

	A - (115/1/60)				B - (208/1/60)				C - (230/1/60)			
	1	2	3	4	1	2	3	4	1	2	3	4
	ODP	TE	PEODP	PETE	ODP	TE	PEODP	PETE	ODP	TE	PEODP	PETE
1/2 HP	20	24	32	30	21	24	32		21	24	32	30
3/4 HP	23	30	30	41	23	30	30		25	30	30	41
1 HP	32	32	40	44	32	32			32	32	40	44
1-1/2 HP	40	41	47	57	40	41			40	41	47	57
2 HP	42	67	65	64	50	67			42	48	65	64
3 HP	78	86			78	86			78	86		90
5 HP					87				87	99	95	
7-1/2 HP					134	138			134	138		
10 HP					165				140	161		
15 HP												
	D- (208/3/60)				E - (230/3/60)				F - (460/3/60)			
	1	2	3	4	1	2	3	4	1	2	3	4
	ODP	TE	PEODP	PETE	ODP	TE	PEODP	PETE	ODP	TE	PEODP	PETE
1/2 HP	19	18	22	22	19	18	22	22	19	18	22	22
3/4 HP	27	26	27		27	22	27	31	27	22	27	31
1 HP	24	26	36	37	24	26	36	37	24	26	36	37
1-1/2 HP	28	34	40	42	28	34	40	42	28	34	40	42
2 HP	35		46	49	35		46	49	35		46	49
3 HP	48		69	69	48		69	69	48		69	69
5 HP			76	77			76	77			76	77
7-1/2 HP			117	136			117	136			117	136
10 HP			128	158			128	158			128	158
15 HP			217	255			217	255			217	255

	G - (575/3/60)			
	1	2	3	4
	ODP	TE	PEODP	PETE
1/2 HP	22	18		
3/4 HP	20	22		
1 HP	28	26	33	38
1-1/2 HP			40	42
2 HP			46	48
3 HP			66	69
5 HP			74	91
7-1/2 HP			114	143
10 HP			145	153
15 HP			234	302

Motor Type (MT) Legend:
ODP - Open Drip Proof
TE - Totally Enclosed
PEODP - Premium Efficiency Open Drip Proof
PETE - Premium Efficiency Totally Enclosed

Approximate Roof Curb Kits Ship Weight

Table 17. Approximate roof curb kits ship weight

Air Handler Arrangement	Unit Size	Trane P/N	Approx. Shipping Weight (lbs)
B	20	0134-0214-01	85
B	40	0134-0214-02	112
C	20	0134-0214-03	133
C	40	0134-0214-04	161
D	20	0134-0214-05	115
D	40	0134-0214-06	142
E	20	0134-0214-07	163
E	40	0134-0214-08	191
G	20	0134-0214-09	140
G	40	0134-0214-10	168
J	20	0134-0214-11	179
J	40	0134-0214-12	207
K	20	0134-0214-13	179

Table 17. Approximate roof curb kits ship weight (continued)

Air Handler Arrangement	Unit Size	Trane P/N	Approx. Shipping Weight (lbs)
K	40	0134-0214-14	207
L	20	0134-0214-15	210
L	40	0134-0214-16	238

Note: *Approximate Shipping Weights listed apply to both insulated and uninsulated roof curb types. Roof curb kit part numbers listed are the insulated roof curb type; contact customer service for uninsulated part numbers.*

Motor Electrical Data

FULL LOAD CURRENT IN AMPERES

	A - (115/1/60)				B - (208/1/60)				C - (230/1/60)			
	1 ODP	2 TE	3 PEODP	4 PETE	1 ODP	2 TE	3 PEODP	4 PETE	1 ODP	2 TE	3 PEODP	4 PETE
1/2 HP	7.2	8.6	4.6	4.6	3.7		2.8		3.8	4.3	2.3	2.3
3/4 HP	11.6	11.0	6.5	6.3	5.3	5.4	3.4		5.3	5.5	3.3	3.2
1 HP	13.0	13.4	8.6	8.5	6.6	6.8			6.5	6.7	4.3	4.3
1 1/2 HP	18.2	18.0	12.5	12.6	9.1	8.4			9.1	8.0	6.3	6.3
2 HP	21.0	23.0	17.6	17.6	11.3	11.5			10.5	8.1	8.8	8.8
3 HP	33.5	28.0			17.4	14.6			16.8	14.0		11.8
5 HP					23.5				21.0	23.0	19.1	
7 1/2 HP					33.0	31.0			31.0	29.0		
10 HP										38.0		
15 HP												

	D - (208/3/60)				E - (230/3/60)				F - (460/3/60)			
	1 ODP	2 TE	3 PEODP	4 PETE	1 ODP	2 TE	3 PEODP	4 PETE	1 ODP	2 TE	3 PEODP	4 PETE
1/2 HP	2.2	2.0	1.8	1.7	2.2	2.5	1.8	2.0	1.1	1.0	0.9	1.0
3/4 HP	3.4	3.2	2.5		3.4	3.0	2.4	2.8	1.7	1.5	1.2	1.4
1 HP	3.4	3.7	3.1	3.1	3.4	3.4	3.0	3.1	1.7	1.7	1.5	1.5
1 1/2 HP	5.1	5.0	4.5	4.5	5.2	4.6	4.4	4.4	2.6	2.3	2.2	2.2
2 HP	6.2		5.8	6.0	6.0		5.8	5.8	3.0		2.9	2.9
3 HP	9.2		8.5	9.0	8.6		8.4	8.4	4.3		4.2	4.2
5 HP			12.8	11.8			12.0	11.8			6.0	5.9
7 1/2 HP			20.4	21.0			19.4	18.8			9.7	9.4
10 HP			26.0	27.0			25.0	25.0			12.5	12.5
15 HP			37.4	38.9			35.4	37.0			17.7	18.5

	G - (575/3/60)			
	1 ODP	2 TE	3 PEODP	4 PETE
1/2 HP	0.8	0.9		
3/4 HP	1.0	1.1		
1 HP	1.3	1.5	1.2	1.1
1 1/2 HP			1.8	1.8
2 HP			2.3	2.4
3 HP			3.4	3.2
5 HP			5.3	5.3
7 1/2 HP			7.8	7.6
10 HP			10.0	9.6
15 HP			14.1	15.0

Motor Type (MT) Legend:

ODP - Open Drip Proof

TE - Totally Enclosed

PEODP - Premium Efficiency Open Drip Proof

PETE - Premium Efficiency Totally Enclosed

Notes

Trane - by Trane Technologies (NYSE: TT), a global innovator - creates comfortable, energy efficient indoor environments for commercial and residential applications. For more information, please visit trane.com or tranetechnologies.com.

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