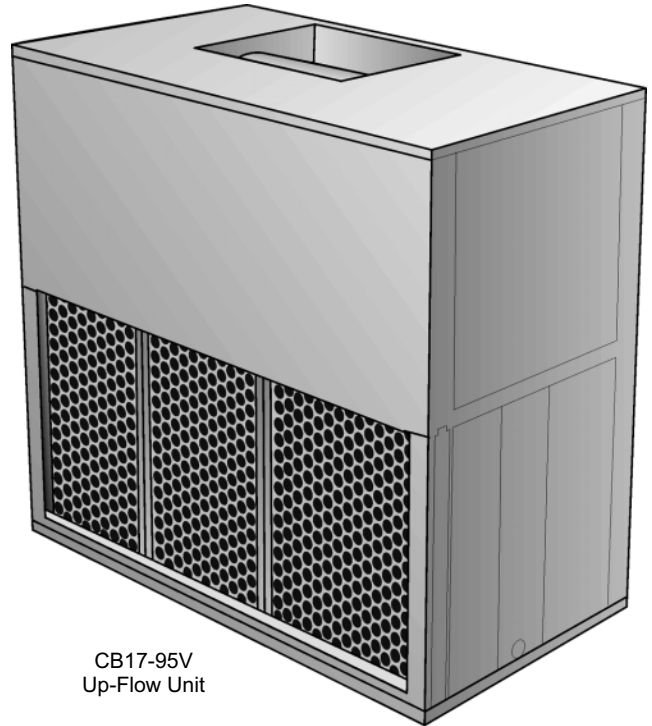


CBH17-95V
Horizontal Unit



CB17-95V
Up-Flow Unit

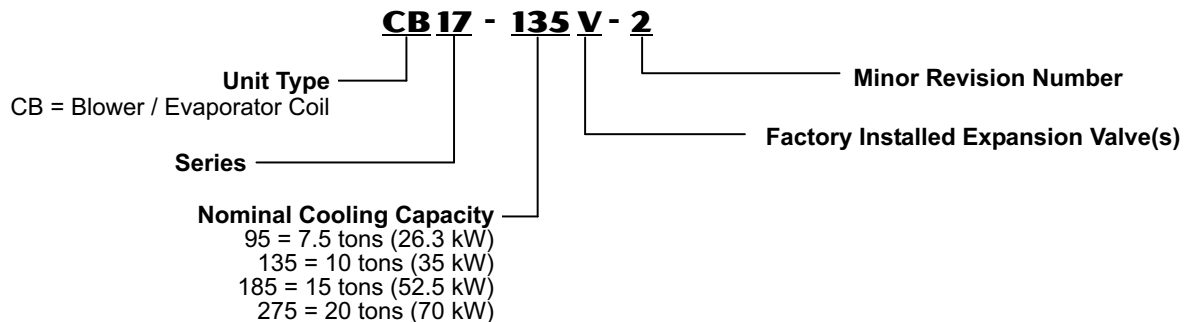


Nominal Capacity - 7.5 to 20 Tons
Optional Hot Water Coil Net Heating Capacity - 120,000 to 500,000 Btuh
Optional Electric Heat - 10 to 60 kW

CONTENTS

Accessory Air Resistance	Page 7	Guide Specifications	Page 19 - 24
Blower Data	Page 6	Hot Water Coil Heating Capacity Curves	Page 17-18
Dimensions	Pages 11-16	Hot Water Coil Pressure Drop	Page 7
Drive Kit Selection	Page 5	Installation Clearances	Page 8
Electric Heat Data	Pages 8-10	Model Number Identification	Page 1
Features	Page 2	Optional Accessories	Pages 2-3
Grille Throw Data	Page 7	Specifications	Page 4

MODEL NUMBER IDENTIFICATION



FEATURES

Application

- Provides installation versatility and maximum efficiency in cooling performance, air handling and filtering in cooling or heat pump applications.
- Available in two model styles, up-flow supply air discharge (CB17) or horizontal supply air discharge (CBH17).
- Equipped with multi-circuit evaporator coils, suitable for application with Lennox 6 to 20 ton HS29 condensing units or 7.5 to 10 ton HP29 heat pump outdoor units.
- Each indoor coil circuit has a separate expansion valve and distribution system for two stage capacity control during cooling cycles.
- Blower coil units are shipped factory assembled ready to install. Blower drives are shipped separately and must be ordered extra.
- See Condensing Unit bulletins in Condensing Units section for cooling capacities.
- See Heat Pump Outdoor Unit Bulletins in Heat Pump Outdoor Units section for cooling and heating capacities.

Approvals

- Tested with matching condensing and heat pump units in the Lennox Research Laboratory environmental test room in accordance with the ULE certification program, which is based on ARI Standard 340/360-2000.
- Blower data is from unit tests conducted in the Lennox Laboratory air test chamber.
- Units and components within are bonded for grounding to meet safety standards for servicing required by CSA, NEC and CEC.
- Units manufactured in accordance with ISO 9002 quality standards.

Equipment Warranty

- All covered components have a limited warranty for one year.

Cabinet

- Cabinet is constructed of heavy-gauge, pre-painted, galvanized steel.
- Cabinet is completely lined with thick fiberglass insulation resulting in quiet and efficient operation due to the excellent sound deadening and insulating qualities of fiberglass.
- Large removable panels provide complete service access.
- Electrical inlets are conveniently located in the cabinet.

Multi-Circuit, Copper Tube Coil

- Extra large surface area of Lennox designed coil provides maximum cooling efficiency, excellent heat transfer and low air resistance.
- Coil is face split with separate circuits, each circuit has its own expansion valve.
- Precise circuiting gives uniform refrigerant distribution.
- Lennox fabricated coil is constructed of precisely spaced lanced aluminum fins fitted to durable seamless, rifled copper tubes.
- Rifled tubing provides superior refrigerant flow resulting in maximum heat transfer.
- Fins are strengthened to resist bending and are equipped with collars that grip tubing for maximum contact area.
- Flared tubing connections and silver soldering provide tight, leakproof joints.
- Long life copper tubing is corrosion-resistant and easy to field service.
- Coil is thoroughly factory tested under high pressure to ensure leakproof construction.

Drain Pan

- Deep, corrosion resistant drain pan is constructed of heavy gauge galvanized steel.
- Equipped with a drain connection on each side of the cabinet for installation versatility.

Belt Drive Blowers

- -95V models are equipped with a single blower wheel, -135V, -185V and -275V models have dual blower wheels.
- Centrifugal belt driven blowers deliver large air volumes quietly and with low power consumption.
- Blower wheels are heavy-duty, with forward curved blades and double inlet.
- Wheels are statically and dynamically balanced to eliminate vibration and designed to give maximum air delivery.
- Bearings are heavy-duty, self-aligning, permanently sealed and lubricated.
- All moving parts (blower wheels, drives and motor) are mounted on a rugged frame, resiliently mounted and isolated from the rest of the cabinet.
- Motor mounting frame allows simple belt adjustment and motor mounting.
- Adjustable motor pulley allows speed adjustments.
- A choice of motor outputs and drives are available and must be ordered extra. See drive kit table.

Expansion Valve

- Factory installed and piped.
- Multi-circuit coils are equipped with one thermal expansion valve per circuit.
- Valves are sized for best performance.

Piping And Drain Connections

- Refrigerant line inlets and drain connections are provided on both sides of the cabinet.
- Refrigerant lines require sweat connections and are made internal to the cabinet.
- Condensate drain outlets extend outside the cabinet for ease of connection.

Air Filters

- 1 inch thick, throwaway fiberglass media filters are furnished as standard.
- Filter rack is adjustable to accommodate up to two inch thick throwaway or cleanable filters (not furnished).
- Filter rack design permits quick and easy removal of filters for servicing.

OPTIONAL ACCESSORIES - MUST BE ORDERED EXTRA

Blower Contactor Kit

- Required for applications without EH17 electric heaters. Kit is not required with EH17 electric heaters.
- Kit requires a separate 20VA (minimum rating) transformer (not furnished).

Commercial Controls Platform Kit

- Allows CB17/CBH17 to be used with economizer and various electronic thermostat control systems with plug-in connections.
- Kit contains control box with relay, terminal strip, and wiring harness.

Continued on Next Page ►

OPTIONAL ACCESSORIES - MUST BE ORDERED EXTRA

Economizer Damper Section - EMD17M

- Factory assembled and wired economizer dampers and controls are available for field installation.
- Heavy-gauge, pre-painted steel cabinet is completely insulated with thick, matte-faced fiberglass insulation.
- Large removable panels on both sides of cabinet provide complete service access.
- Mounting flanges provide ease of connection to blower-coil unit.
- Flanges on outdoor air opening and return air opening permit easy duct connection.
- Economizer has mechanically linked outdoor air and recirculated air dampers.
- Formed dampers rotate smoothly in nylon bearings.
- Outdoor air dampers are reinforced and gasketed for tight seal and quiet operation.
- Damper linkage and shafts are plated.
- The positioning of the dampers is accomplished by a 24V fully-modulating, electronic spring return damper motor with adjustable minimum position potentiometer and controlled by the room thermostat, adjustable mixed air sensor and adjustable enthalpy control.
- The enthalpy control allows 0 to 100% outdoor air to be used for "free cooling" when outdoor temperature and humidity are acceptable.

Differential Enthalpy Control

- A solid-state return air enthalpy sensor is available to be used with the outdoor air enthalpy control to determine which air has the lowest enthalpy. The air with the lowest enthalpy will be selected.
- Return air enthalpy sensor field installs in the economizer damper section.

Electric Heat - EH17

- Furnished in a separate add-on matching cabinet. Bolts, nuts and washers are furnished to secure cabinets together. Holes are pre-punched.
- Cabinet is constructed of heavy-gauge, pre-painted galvanized steel.
- Completely insulated with thick, fiberglass insulation.
- Removable panel permits service access.
- Electrical inlet provides wiring entry.
- Factory installed electric heaters are available in several sizes, see Electric Heat Data table.
- Helix wound, nichrome heating elements are exposed directly in the air stream resulting in instant heat transfer, lower coil temperatures and long service life.
- Elements are accurately located and insulated from the heavy-gauge steel support frame by high quality insulators.
- Time delay relays bring elements on and off line, in sequence and equal increments, with time delay between each.
- Elements are equipped with individual limit controls providing positive protection in case of overheating.
- Certain heaters may be two-stage controlled with each stage being energized only when required. See Electric Heat Tables.
- Sub-fusing, contactors, control relays, 24V transformer, terminal block, and blower motor contactor are furnished.

Empty Spacer Cabinet - "00"

- Matching empty spacer cabinets give additional height required for plenum and grille in up-flow store cooler applications and provides spacing between unit and plenum and grille in horizontal installations not using an electric heat or hot water heat cabinet.
- Constructed of heavy-gauge, pre-painted galvanized steel.
- Completely lined with thick, matte-faced fiberglass insulation.

Heat Pump Check Valve Kit

- Field installed kit contains check valves with connecting tubing.

Hot Water Coil - HW17

- Furnished in a separate add-on matching cabinet. Bolts, nuts and washers are furnished to secure cabinets together. Holes are pre-punched.
- Cabinet is constructed of heavy-gauge, pre-painted galvanized steel.
- Completely insulated with thick, matte-faced fiberglass insulation.
- Removable panel permits service access.
- Piping inlets are furnished in both sides of cabinet.
- Factory installed, Lennox designed and built coil has large face area, excellent heat transfer and low air resistance.
- Constructed of precisely spaced ripple-edged aluminum fins fitted to durable copper tubes.
- Fins are equipped with collars that grip tubing for maximum contact area.
- Flared shoulder tubing connections and silver soldering provide tight, leakproof joints.
- Long life copper tubing is easy to field service.
- Coil is thoroughly factory tested under high pressure to ensure leakproof construction.
- Valves and pumps must be furnished by installer.

Return Air Grille - RG17

- Anodized aluminum grille field installs in return air opening of blower-coil unit.

Supply Air Plenum & Grille - SPG17 and SPGH17

- Constructed of heavy-gauge, pre-painted galvanized steel.
- Completely lined with thick, matte-faced fiberglass insulation.
- Equipped with anodized aluminum grille with double deflection and four-way directional control in vertical and horizontal planes for precise control of discharge air.
- Bolts, nuts and washers are furnished to secure plenum to cabinet.

Suspension Kits (CBH17-95V & CBH17-135V only)

- Provides support of units in suspended horizontal applications.
- Kit consists of 2 angle iron channels with holes at each end.
- Kits are not available for the CBH17-185V & CBH17-275V models and must be field provided.

SPECIFICATIONS

General Data	Model No. - Up-Flow	CB17-95	CB17-135	CB17-185	CB17-275
	Model No. - Horizontal	CBH17-95	CBH17-135	CBH17-185	CBH17-275
	Nominal Tonnage	7.5	10	15	20
Connections	Suction/Vapor line o.d. - in. (mm) sweat	1-3/8 (34.9)	1-3/8 (34.9)	(2) 1-3/8 (34.9)	(2) 1-3/8 (34.9)
	Liquid line o.d. - in. (mm) sweat	(2) 3/8 (9.5)	(2) 3/8 (9.5)	(2) 1/2 (12.7)	(4) 3/8 (9.5)
	Condensate drain (fpt) - in. (mm)	(2) 1-1/4 (31.8)	(2) 1-1/4 (31.8)	(2) 1-1/4 (31.8)	(2) 1-1/4 (31.8)
Evaporator Coil	Net face area - sq. ft. (m ²)	7.98 (0.74)	10.07 (0.94)	17.38 (1.61)	23.16 (2.15)
	Coil Split - 1st stage/2nd stage (%)	60/40	61.9/38.1	53.8/46.2	52.9/47.1
	Tube diameter - in. (mm)	3/8 (9.5)	3/8 (9.5)	1/2 (12.7)	1/2 (12.7)
	Number of rows	4	4	4	4
	Fins per inch (m)	14 (551)	14 (551)	13 (512)	13 (512)
Refrigerant	Not Furnished	HCFC-22	HCFC-22	HCFC-22	HCFC-22
Filter	‡Number and size (throwaway) - in. mm	(2) 16 x 25 x 1 (1) 20 x 25 x 1	(4) 16 x 25 x 1	(6) 16 x 20 x 1 (2) 16 x 25 x 1	(6) 20 x 20 x 1 (2) 20 x 25 x 1
		(2) 406 x 635 x 25 (1) 508 x 635 x 25	(4) 406 x 635 x 25	(6) 406 x 508 x 25 (2) 406 x 635 x 25	(6) 508 x 508 x 25 (2) 508 x 635 x 25
Shipping Data	□CB17 - lbs. (kg)	350 (159)	418 (190)	720 (327)	815 (370)
	□CBH17 - lbs. (kg)	312 (142)	379 (172)	760 (345)	860 (390)
Blower Wheel	Nominal diameter & width - in. mm	(1) 15 x 15 381 x 381	(2) 15 x 9 381 x 229	(2) 15 x 11 381 x 279	(2) 15 x 15 381 x 381

OPTIONAL ACCESSORIES - MUST BE ORDERED EXTRA

Blower Contactor Kit - LB-51207CB		25G42	25G42	25G42	25G42	
Commercial Controls Platform Kit - LB-63165CA		55H53	55H53	55H53	55H53	
Control Circuit Transformer -115/208/240V-24V		87344	87344	87344	87344	
Differential Enthalpy Control		54G44	54G44	54G44	54G44	
Economizer Dampers	Model Number	EMD17M-95	EMD17M-135	EMD17M-185	EMD17M-275	
	Shipping Weight - lbs. (kg)	145 (66)	185 (84)	395 (179)	542 (246)	
Electric Heat		15 to 60 kW - See Electric Heat Data Tables				
Empty Spacer Cabinet	Model Number	CB17-95-00	CB17-135-00	CB17-185/275-00	CB17-185/275-00	
	Catalog Number	50F06	50F07	27G76	27G76	
	Shipping weight - lbs. (kg)	55 (25)	60 (27)	82 (37)	82 (37)	
Heat Pump Check Valve Kit		53F21 (contains 2 valves)	53F21 (contains 2 valves)	29G19 (contains 2 valves)	29G20 (contains 4 valves)	
Hot Water Coil	Model Number	HW17-95	HW17-135	HW17-185/275	HW17-185/275	
	Catalog Number	41F20	41F21	27G75	27G75	
	Heating capacity range	See Hot Water Heating Capacity Curves Pages 16 - 17				
	Water line connections	Inlet o.d. - in. (mm)	1-3/8 (34.9) sweat	1-3/8 (34.9) sweat	1-5/8 (41.3) sweat	1-5/8 (41.3) sweat
		Outlet o.d. - in. (mm)	1-3/8 (34.9) sweat	1-3/8 (34.9) sweat	1-5/8 (41.3) sweat	1-5/8 (41.3) sweat
	Tube diameter - in. (mm)	1/2 (12.7)	1/2 (12.7)	1/2 (12.7)	1/2 (12.7)	
	Fins per inch - Number of Rows	12 (472) - 2	12 (472) - 2	12 (472) - 2	12 (472) - 2	
	Net Face Area - ft. ² (m ²)	6.4 (0.59)	8.5 (0.79)	15.6 (14.5)	15.6 (14.5)	
	Shipping Weight - lbs. (kg)	95 (43)	104 (47)	160 (73)	160 (73)	
	Overload Kit - for High Efficiency Drive Kits Only	200/230V	Not Available	Not Available	79K83	79K83
460/575V		Not Available	Not Available	79K82	79K82	
Refrigerant Solenoid Valve		37672	37672	Not Available	Not Available	
Refrigerant Solenoid Valve Control Relay		31960	31960	Not Available	Not Available	
Return Air Grille	Model Number	RG17-95	RG17-135	RG17-185	RG17-275	
	Shipping Weight - lbs. (kg)	29 (13)	37 (17)	65 (29)	82 (37)	
	Grille Free Area - sq. ft. (m ²)	7.3 (0.68)	9.0 (0.84)	16.5 (1.53)	21.2 (1.97)	
Supply Air Plenum and Grille	Horizontal	Model Number	SPGH17-95	SPGH17-135	SPGH17-185/275	SPGH17-185/275
		Ship. Weight - lbs. (kg)	41 (19)	50 (23)	86 (39)	86 (39)
		Grille Free Area - sq. ft. (m ²)	4.5 (0.42)	5.6 (0.52)	9.7 (0.90)	9.7 (0.90)
	Up-Flow	Model No.	SPG17-95	SPG17-135	SPG17-185/275	SPG17-185/275
		Ship. weight - lbs. (kg)	124 (56)	148 (67)	242 (110)	242 (110)
		Grille Free Area - sq. ft. (m ²)	4.5 (0.42)	5.6 (0.52)	9.7 (0.90)	9.7 (0.90)
Suspension Kit - Horizontal	Catalog Number	44F93	44F94	Field Fabricate	Field Fabricate	
	Shipping Weight - lbs. (kg)	21 (10)	25 (11)	---	---	
	Length - in. (m)	60 (1.5)	72 (1.8)	---	---	

□ Weight shown is for blower-coil unit only. For total shipping weight, add the weight of the desired drive kit (See Drive Kit Selection Table) to the weight of the blower-coil unit. The blower-coil and the drive kit are shipped separately.

‡ Standard filters are 1 inch (25 mm) thick. Optional 2 inch (51 mm) filters may be used.

Continued on Next Page ►

DRIVE KIT SELECTION

	Model No. - Up-Flow Model No. - Horizontal Nominal Tonnage	CB17-95 CBH17-95 7.5	CB17-135 CBH17-135 10	CB17-185 CBH17-185 15	CB17-275 CBH17-275 20
1.5 HP Blower Motor Drive Kits	Model No. - 115/230V-60hz-1ph	DKB17-95/135-1.5-1	DKB17-95/135-1.5-1	---	---
	208/230/460V-60hz-3ph	DKB17-95/135-1.5-19	DKB17-95/135-1.5-19	---	---
	575V-60hz-3ph	DKB17-95/135-1.5-4	DKB17-95/135-1.5-4	---	---
	Nominal Horsepower (W)	1.5 (1119)	1.5 (1119)	---	---
	③ Maximum Horsepower (W)	1.7 (1268)	1.7 (1268)	---	---
	RPM Range	600-820	600-820	---	---
	Shipping Weight	39 lb. (18 kg)	39 lb. (18 kg)	---	---
	Minimum Circuit Ampacity / Maximum Fuse Size	115/230V-60hz-1ph 208/230V-60hz-3ph 460V-60hz-3ph 575V-60hz-3ph	14 / 20 9 / 15 4 / 15 3 / 15	14 / 20 9 / 15 4 / 15 3 / 15	---
2 HP Blower Motor Drive Kits	Model No. - 208/230/460V-60hz-3ph	DKB17-95/275-2-10	DKB17-95/275-2-10	DKB17-95/275-2-10	DKB17-95/275-2-10
	575V-60hz-3ph	DKB17-95/275-2-11	DKB17-95/275-2-11	DKB17-95/275-2-11	DKB17-95/275-2-11
	Nominal Horsepower (W)	2 (1492)	2 (1492)	2 (1492)	2 (1492)
	③ Maximum Horsepower (W)	2.3 (1716)	2.3 (1716)	2.3 (1716)	2.3 (1716)
	RPM Range	730-950	730-950	520-660	520-660
	Shipping Weight	45 lb. (20 kg)	45 lb. (20 kg)	45 lb. (20 kg)	45 lb. (20 kg)
	Minimum Circuit Ampacity / Maximum Fuse Size	208/230V-60hz-3ph 460V-60hz-3ph 575V-60hz-3ph	10 / 15 5 / 15 4 / 15	10 / 15 5 / 15 4 / 15	10 / 15 5 / 15 4 / 15
3 HP Blower Motor Drive Kits	Model No. - 208/230/460V-60hz-3ph	---	---	DKB17-185/275-3-12	DKB17-185/275-3-12
	575V-60hz-3ph	---	---	DKB17-185/275-3-13	DKB17-185/275-3-13
	Nominal Horsepower (W)	---	---	3 (2238)	3 (2238)
	③ Maximum Horsepower (W)	---	---	3.4 (2536)	3.4 (2536)
	RPM Range	---	---	600-750	600-750
	Shipping Weight	---	---	51 lbs. (23 kg)	51 lbs. (23 kg)
	Minimum Circuit Ampacity / Maximum Fuse Size	208/230V-60hz-3ph 460V-60hz-3ph 575V-60hz-3ph	---	14 / 20 6 / 15 5 / 15	14 / 20 6 / 15 5 / 15
5 HP Blower Motor Drive Kits	Model No. - 208/230/460V-60hz-3ph	---	---	DKB17-185/275-5-14	DKB17-185/275-5-14
	575V-60hz-3ph	---	---	DKB17-185/275-5-15	DKB17-185/275-5-15
	③ Nominal Horsepower (W)	---	---	5 (3730)	5 (3730)
	Maximum Horsepower (W)	---	---	5.7 (4252)	5.7 (4252)
	RPM Range	---	---	690-830	690-830
	Shipping Weight	---	---	70 (32)	70 (32)
	Minimum Circuit Ampacity / Maximum Fuse Size	208/230V-60hz-3ph 460V-60hz-3ph 575V-60hz-3ph	---	21 / 35 10 / 15 8 / 15	21 / 35 10 / 15 8 / 15
④ High Efficiency 5 HP Blower Motor Drive Kits	Model No. - 208/230/460V-60hz-3ph	---	---	DKB17-185/275-5-20	DKB17-185/275-5-20
	575V-60hz-3ph	---	---	DKB17-185/275-5-21	DKB17-185/275-5-21
	③ Nominal Horsepower (W)	---	---	5 (3730)	5 (3730)
	Maximum Horsepower (W)	---	---	5.7 (4252)	5.7 (4252)
	RPM Range	---	---	690-830	690-830
	Shipping Weight	---	---	70 (32)	70 (32)
	Minimum Circuit Ampacity / Maximum Fuse Size	208/230V-60hz-3ph 460V-60hz-3ph 575V-60hz-3ph	---	14.3 / 20 6.7 / 10 5.6 / 10	14.3 / 20 6.7 / 10 5.6 / 10

③ Maximum useable output of motors furnished by Lennox are shown. In Canada, nominal motor output is also maximum usable motor output. If motors of comparable output are used, be sure to keep within the service factor limitations outlined on the motor nameplate.

④ Overload Kit required for high efficiency drive kits. See Specifications Table.

BLOWER DATA

CB17-95V AND CBH17-95V BLOWER PERFORMANCE - All data is measured external to the unit with air filters in place.

Air Volume cfm (L/s)	STATIC PRESSURE EXTERNAL TO UNIT — Inches Water Gauge (Pa)										
	0.2 (50)	0.3 (75)	0.4 (100)	0.5 (125)	0.6 (150)	0.7 (175)	0.8 (200)	0.9 (225)	1.0 (250)	1.25 (310)	1.5 (375)
	RPM hp (W)	RPM hp (W)	RPM hp (W)	RPM hp (W)	RPM hp (W)	RPM hp (W)	RPM hp (W)	RPM hp (W)	RPM hp (W)	RPM hp (W)	RPM hp (W)
2000 (945)	----	----	----	550 0.35 (261)	590 0.50 (373)	630 0.55 (410)	650 0.60 (448)	690 0.70 (522)	720 0.75 (560)	790 1.05 (783)	850 1.30 (970)
2500 (1180)	----	----	560 0.30 (224)	600 0.55 (410)	630 0.65 (485)	670 0.75 (560)	700 0.80 (597)	730 .90 (671)	760 1.00 (746)	830 1.30 (970)	880 1.40 (1044)
3000 (1415)	560 0.60 (448)	590 0.65 (485)	625 0.75 (560)	650 0.85 (634)	690 0.95 (709)	720 1.00 (746)	750 1.15 (858)	775 1.25 (933)	800 1.30 (970)	860 1.55 (1156)	925 1.80 (1343)
3500 (1650)	620 0.95 (709)	650 1.05 (783)	685 1.05 (783)	715 1.15 (858)	740 1.30 (970)	770 1.35 (1007)	800 1.50 (1119)	825 1.60 (1194)	840 1.65 (1231)	910 1.95 (1455)	970 2.20 (1641)
4000 (1890)	700 1.40 (1044)	725 1.50 (1119)	750 1.60 (1194)	775 1.65 (1231)	800 1.75 (1306)	825 1.85 (1380)	850 1.95 (1455)	875 2.05 (1529)	900 2.15 (1604)	----	----

CB17-135V AND CBH17-135V BLOWER PERFORMANCE - All data is measured external to the unit with air filters in place.

Air Volume cfm (L/s)	STATIC PRESSURE EXTERNAL TO UNIT — Inches Water Gauge (Pa)										
	0.2 (50)	0.3 (75)	0.4 (100)	0.5 (125)	0.6 (150)	0.7 (175)	0.8 (200)	0.9 (225)	1.0 (250)	1.25 (310)	1.5 (375)
	RPM hp (W)	RPM hp (W)	RPM hp (W)	RPM hp (W)	RPM hp (W)	RPM hp (W)	RPM hp (W)	RPM hp (W)	RPM hp (W)	RPM hp (W)	RPM hp (W)
3000 (1415)	----	550 0.50 (373)	575 0.60 (448)	610 0.70 (522)	650 0.80 (597)	680 .90 (671)	725 1.05 (783)	750 1.20 (895)	790 1.30 (970)	860 1.55 (1156)	925 1.85 (1380)
3500 (1650)	550 0.60 (448)	575 0.70 (522)	620 0.80 (597)	650 .95 (709)	680 1.05 (793)	725 1.15 (858)	750 1.25 (933)	790 1.40 (1044)	820 1.55 (1156)	900 1.95 (1455)	950 2.10 (1567)
4000 (1890)	595 0.85 (634)	625 0.95 (709)	665 1.10 (821)	700 1.20 (895)	725 1.30 (970)	750 1.40 (1044)	790 1.55 (1156)	820 1.70 (1268)	850 1.90 (1417)	920 2.15 (1604)	----
4500 (2125)	650 1.15 (858)	680 1.30 (970)	715 1.40 (1044)	740 1.55 (1156)	755 1.70 (1268)	810 1.80 (1343)	840 1.95 (1455)	870 2.10 (1567)	890 2.25 (1679)	----	----
5000 (2360)	710 1.55 (1156)	730 1.70 (1268)	760 1.80 (1343)	800 1.95 (1455)	825 2.15 (1604)	850 2.30 (1716)	----	----	----	----	----
5500 (2595)	750 2.00 (1492)	775 2.10 (1567)	815 2.30 (1716)	----	----	----	----	----	----	----	----

CB17-185V AND CBH17-185V BLOWER PERFORMANCE - All data is measured external to the unit with air filters in place.

Air Volume cfm (L/s)	STATIC PRESSURE EXTERNAL TO UNIT — Inches Water Gauge (Pa)										
	0.1 (25)	0.2 (50)	0.3 (75)	0.4 (100)	0.5 (125)	0.6 (150)	0.7 (175)	0.8 (200)	0.9 (225)	1.0 (250)	1.25 (310)
	RPM hp (W)	RPM hp (W)	RPM hp (W)	RPM hp (W)	RPM hp (W)	RPM hp (W)	RPM hp (W)	RPM hp (W)	RPM hp (W)	RPM hp (W)	RPM hp (W)
5000 (2360)	----	----	500 1.00 (746)	530 1.05 (783)	560 1.20 (895)	630 1.50 (1119)	640 1.55 (1156)	660 1.65 (1231)	685 1.75 (1306)	720 1.90 (1417)	800 2.25 (1679)
5500 (2595)	----	495 1.05 (783)	525 1.20 (895)	555 1.35 (1007)	585 1.50 (1119)	635 1.65 (1231)	650 1.70 (1268)	680 1.85 (1380)	710 2.05 (1529)	740 2.20 (1641)	825 2.55 (1902)
6000 (2830)	490 1.20 (895)	520 1.30 (970)	550 1.45 (1082)	580 1.60 (1194)	610 1.75 (1306)	640 1.90 (1417)	675 2.10 (1567)	705 2.20 (1641)	730 2.35 (1753)	760 2.50 (1865)	840 2.90 (2163)
6500 (3065)	515 1.45 (1082)	550 1.60 (1194)	575 1.75 (1306)	610 1.90 (1417)	635 2.05 (1529)	670 2.25 (1679)	700 2.35 (1753)	725 2.50 (1865)	750 2.65 (1977)	780 2.75 (2052)	870 3.30 (2462)
7000 (3305)	550 1.75 (1306)	575 1.90 (1417)	605 2.05 (1529)	635 2.25 (1679)	665 2.35 (1753)	690 2.55 (1902)	720 2.65 (1977)	745 2.85 (2126)	775 3.00 (2238)	810 3.20 (2387)	----
7500 (3540)	575 2.05 (1529)	605 2.25 (1679)	635 2.55 (1828)	660 2.45 (1902)	690 2.75 (2052)	720 2.90 (2163)	740 3.05 (2275)	775 3.25 (2425)	800 3.40 (2536)	835 3.55 (2648)	----
8000 (3775)	605 2.40 (1790)	635 2.60 (1940)	660 2.80 (2089)	690 2.95 (2201)	720 3.15 (2350)	740 3.30 (2462)	775 3.50 (2611)	800 3.65 (2723)	835 3.85 (2872)	870 4.10 (3059)	----

CB17-275V AND CBH17-275V BLOWER PERFORMANCE - All data is measured external to the unit with air filters in place.

Air Volume cfm (L/s)	STATIC PRESSURE EXTERNAL TO UNIT — Inches Water Gauge (Pa)										
	0.1 (25)	0.2 (50)	0.3 (75)	0.4 (100)	0.5 (125)	0.6 (150)	0.7 (175)	0.8 (200)	0.9 (225)	1.0 (250)	1.25 (310)
	RPM hp (W)	RPM hp (W)	RPM hp (W)	RPM hp (W)	RPM hp (W)	RPM hp (W)	RPM hp (W)	RPM hp (W)	RPM hp (W)	RPM hp (W)	RPM hp (W)
6500 (3065)	515 1.35 (1007)	535 1.45 (1082)	570 1.70 (1268)	585 1.80 (1343)	615 1.90 (1417)	635 2.00 (1492)	670 2.25 (1679)	690 2.30 (1716)	720 2.45 (1828)	740 2.50 (1865)	805 2.95 (2201)
7000 (3305)	525 1.55 (1156)	545 1.70 (1268)	575 1.85 (1380)	600 2.00 (1492)	625 2.15 (1604)	650 2.30 (1716)	680 2.45 (1828)	705 2.55 (1902)	730 2.70 (2014)	755 2.80 (2089)	820 3.25 (2425)
7500 (3540)	530 1.70 (1268)	555 1.85 (1380)	585 2.05 (1529)	615 2.25 (1679)	630 2.30 (1716)	665 2.55 (1902)	685 2.65 (1977)	720 2.80 (2089)	740 2.90 (2163)	770 3.15 (2350)	825 3.60 (2686)
8000 (3775)	540 1.90 (1417)	565 2.15 (1604)	590 2.25 (1679)	625 2.45 (1828)	650 2.65 (1977)	675 2.80 (2089)	705 2.95 (2201)	730 3.05 (2275)	760 3.35 (2499)	785 3.40 (2536)	840 3.95 (2947)
8500 (4010)	555 2.15 (1604)	580 2.30 (1714)	610 2.55 (1902)	630 2.70 (2014)	665 2.90 (2163)	690 3.10 (2313)	720 3.20 (2387)	745 3.35 (2499)	775 3.60 (2686)	805 3.80 (2835)	855 4.40 (3282)
9000 (4245)	565 2.35 (1753)	595 2.60 (1940)	630 2.85 (2126)	655 3.05 (2275)	680 3.20 (2387)	710 3.40 (2536)	735 3.55 (2648)	760 3.75 (2798)	795 4.00 (2894)	820 4.20 (3133)	870 4.70 (3506)
9500 (4485)	585 2.65 (1977)	620 2.95 (2201)	640 3.15 (2350)	670 3.05 (2275)	700 3.55 (2648)	730 3.75 (2798)	755 3.90 (2909)	785 4.15 (3096)	815 4.40 (3282)	840 4.65 (3469)	890 5.15 (3842)
10,000 (4720)	610 3.05 (2275)	635 3.30 (2462)	660 3.45 (2574)	690 3.30 (2462)	720 3.90 (2909)	750 4.10 (3059)	775 4.35 (3245)	805 4.55 (3394)	835 4.85 (3618)	860 5.15 (3842)	----
10,500 (4955)	625 3.35 (2499)	655 3.55 (2648)	685 3.80 (2835)	715 4.05 (3021)	745 4.30 (3208)	775 4.60 (3432)	800 4.75 (3544)	830 5.05 (3767)	860 5.40 (4028)	880 5.70 (4252)	----

BLOWER DATA

ACCESSORY AIR RESISTANCE — Electric heat section, plenum and grilles have no appreciable air resistance.

Air Volume		Total Resistance													
		HW17 Hot Water Coil						EMD17 Economizer Dampers							
		HW17-95		HW17-135		HW17-185/275		EMD17M-95		EMD17M-135		EMD17M-185		EMD17M-275	
cfm	L/s	in. w.g.	Pa	in. w.g.	Pa	in. w.g.	Pa	in. w.g.	Pa	in. w.g.	Pa	in. w.g.	Pa	in. w.g.	Pa
2000	945	0.13	32	---	---	---	---	0.02	5	---	---	---	---	---	---
2500	1180	0.16	40	---	---	---	---	0.04	10	---	---	---	---	---	---
3000	1415	0.18	45	0.14	35	---	---	0.07	17	0.03	7	---	---	---	---
3500	1650	0.20	50	0.17	42	---	---	0.09	22	0.05	12	---	---	---	---
4000	1890	0.24	60	0.18	45	---	---	0.12	30	0.07	17	---	---	---	---
4500	2125	---	---	0.20	50	---	---	---	---	0.09	22	---	---	---	---
5000	2360	---	---	0.24	60	0.08	20	---	---	0.11	27	0.04	10	---	---
5500	2595	---	---	0.27	67	0.10	25	---	---	0.13	32	0.05	12	---	---
6000	2830	---	---	---	---	0.11	27	---	---	---	---	0.06	15	---	---
6500	3070	---	---	---	---	0.13	32	---	---	---	---	0.07	17	0.04	10
7000	3305	---	---	---	---	0.15	37	---	---	---	---	0.08	20	0.05	12
7500	3540	---	---	---	---	0.17	42	---	---	---	---	0.09	22	0.06	15
8000	3775	---	---	---	---	0.18	45	---	---	---	---	0.10	25	0.07	17
8500	4010	---	---	---	---	0.21	52	---	---	---	---	---	---	0.08	20
9000	4250	---	---	---	---	0.23	57	---	---	---	---	---	---	0.08	20
9500	4485	---	---	---	---	0.25	62	---	---	---	---	---	---	0.09	22
10,000	4720	---	---	---	---	0.27	67	---	---	---	---	---	---	0.10	25
10,500	4955	---	---	---	---	0.30	75	---	---	---	---	---	---	0.11	27

SUPPLY AIR PLENUM AND GRILLE AIR THROW DATA

Blower Coil and Supply Plenum and Grille Model Number	Air Volume		*Effective Throw — ft. (m)	
	cfm	L/s	†10 ft. (3.0 m) Ceiling	
			Front of Unit	45° From Unit
†CB17-95V With SPG17-95 or CBH17-95V With SPGH17-95	2000	945	40 (12.2)	31 (9.4)
	2500	1180	46 (14.0)	36 (11.0)
	3000	1415	53 (16.2)	41 (12.5)
	3500	1650	56 (17.1)	45 (13.7)
	4000	1890	63 (19.2)	50 (15.2)
†CB17-135V With SPG17-135 or CBH17-135V With SPGH17-135	3000	1415	50 (15.2)	35 (10.7)
	3500	1650	55 (16.8)	40 (12.2)
	4000	1890	61 (18.6)	44 (13.4)
	4500	2125	67 (20.4)	50 (15.2)
	5000	2360	71 (21.6)	56 (17.1)
5500	2595	74 (22.6)	61 (18.6)	
†CB17-185V With SPG17-185/275 or CBH17-185V With SPGH17-185/275	5000	2360	30 (9.1)	19 (5.8)
	5500	2595	31 (9.4)	19 (5.8)
	6000	2830	35 (10.7)	22 (6.7)
	6500	3070	36 (11.0)	22 (6.7)
	7000	3305	36 (11.0)	22 (6.7)
7500	3540	39 (11.9)	24 (7.3)	
8000	3775	41 (12.5)	26 (7.9)	
†CB17-275V With SPG17-185/275 or CBH17-275V With SPGH17-185/275	6500	3070	36 (11.0)	22 (6.7)
	7000	3305	36 (11.0)	22 (6.7)
	7500	3540	39 (11.9)	24 (7.3)
	8000	3775	41 (12.5)	26 (7.9)
	8500	4010	43 (13.1)	27 (8.2)
	9000	4250	46 (14.0)	29 (8.8)
	9500	4485	49 (14.9)	30 (9.1)
10,000	4720	53 (16.2)	33 (10.1)	
10,500	4955	55 (16.8)	34 (10.4)	

*Effective throw is terminated at a point where conditioned air reaches a level of 3 feet (1 m) above the floor or where velocity has decreased to 50 feet per minute (0.25 m/s).

†Ceiling height not applicable to CB17 Up-Flow models.

HOT WATER COIL PRESSURE DROP

Flow Rate		Pressure Drop — feet of water (kPa)		
gpm	L/s	HW17-95	HW17-135	HW17-185/275
15	0.95	0.93 (2.8)	1.18 (3.5)	----
20	1.25	1.56 (4.7)	1.99 (5.9)	0.55 (1.6)
25	1.60	2.33 (7.0)	2.97 (8.9)	0.82 (2.4)
30	1.90	3.24 (9.7)	4.13 (12.3)	1.14 (3.4)
35	2.20	4.27 (12.7)	5.44 (16.2)	1.50 (4.5)
40	2.50	5.44 (16.2)	6.92 (20.6)	1.91 (5.7)
45	2.85	6.72 (20.1)	8.56 (25.5)	2.36 (7.0)
50	3.15	-----	-----	2.86 (8.5)
55	3.45	-----	-----	3.39 (10.1)
60	3.80	-----	-----	3.97 (11.8)
65	4.10	-----	-----	4.58 (13.7)
70	4.40	-----	-----	5.23 (15.6)

INSTALLATION CLEARANCES

Model No. - Up-Flow Model No. - Horizontal	CB17-95V CBH17-95V	CB17-135V CBH17-135V	CB17-185V CBH17-185V	CB17-275V CBH17-275V
Cabinet	0 inch (0 mm)	0 inch (0 mm)	0 inch (0 mm)	0 inch (0 mm)
Plenum	1 inch (25 mm)	1 inch (25 mm)	1 inch (25 mm)	1 inch (25 mm)
Duct	*1 inch (*25 mm)	**1 inch (**25 mm)	*1 inch (*25 mm)	*1 inch (*25 mm)

*Within 3 feet (1 m) of the unit.

**Within 4 feet (1.2 m) of the unit.

CB17-95V/CBH17-95V OPTIONAL ELECTRIC HEAT DATA

Electric Heat Model No. & Net Weight	No. of Steps	Volts Input	kW Input	① Btuh Output	③ Total Unit + Electric Heat Minimum circuit Ampacity		Total Unit + Electric Heat Maximum Fuse Size	
					1.5 hp (1.1 kW)	2 hp (1.5 kW)	1.5 hp (1.1 kW)	2 hp (1.5 kW)
15 kW EH17-95-15 200/230V-3ph 63F18 460V - 3 ph 63F22 575V - 3 ph 63F26 170 lbs. (77 kg)	1	208	10.4	35,500	54	55	60	60
	1	220	12.6	43,000	54	55	60	60
	1	230	13.8	47,100	54	55	60	60
	1	240	15.0	51,200	54	55	60	60
	1	440	12.6	43,000	27	27	30	30
	1	460	13.8	47,100	27	27	30	30
	1	480	15.0	51,200	27	27	30	30
	1	550	12.6	43,000	21	22	25	25
	1	575	13.8	47,100	21	22	25	25
	1	600	15.0	51,200	21	22	25	25
30 kW EH17-95-30 200/230V-3ph 63F19 460V - 3 ph 63F23 575V - 3 ph 63F27 176 lbs. (80 kg)	②1	208	20.8	71,000	99	100	100	100
	②1	220	25.2	86,000	99	100	100	100
	②1	230	27.5	93,900	99	100	100	100
	②1	240	30.0	102,400	99	100	100	100
	1	440	25.2	86,000	49	50	50	50
	1	460	27.5	93,900	49	50	50	50
	1	480	30.0	102,400	49	50	50	50
	1	550	25.2	86,000	40	40	40	40
	1	575	27.5	93,900	40	40	40	40
	1	600	30.0	102,400	40	40	40	40
45 kW EH17-95-45 200/230V-3ph 63F20 460V - 3 ph 63F24 575V - 3 ph 63F28 182 lbs. (83 kg)	②1	208	31.3	106,800	144	145	150	150
	②1	220	37.8	129,000	144	145	150	150
	②1	230	41.3	141,000	144	145	150	150
	②1	240	45.0	153,600	144	145	150	150
	②1	440	37.8	129,000	72	72	80	80
	②1	460	41.3	141,000	72	72	80	80
	②1	480	45.0	153,600	72	72	80	80
	②1	550	37.8	129,000	58	58	60	60
	②1	575	41.3	141,000	58	58	60	60
	②1	600	45.0	153,600	58	58	60	60

① Electric heater capacity only — does not include additional blower motor heat capacity.

② May be used with two stage control (field provided).

③ Refer to National or Canadian Electrical Code manual to determine wire, fuse and disconnect size requirements. Use wires suitable for at least 167°F (75°C).

CB17-135V/CBH17-135V OPTIONAL ELECTRIC HEAT DATA

Electric Heat Model No. & Net Weight	No. of Steps	Volts Input	kW Input	① Btuh Output	③ Total Unit + Electric Heat Minimum circuit Ampacity		Total Unit + Electric Heat Maximum Fuse Size	
					1.5 hp (1.1 kW)	2 hp (1.5 kW)	1.5 hp (1.1 kW)	2 hp (1.5 kW)
15 kW EH17-135-15 200/230V-3ph 63F30 460V - 3 ph 63F34 575V - 3 ph 63F38 193 lbs. (88 kg)	1	208	10.4	35,500	54	55	60	60
	1	220	12.6	43,000	54	55	60	60
	1	230	13.8	47,100	54	55	60	60
	1	240	15.0	51,200	54	55	60	60
	1	440	12.6	43,000	27	27	30	30
	1	460	13.8	47,100	27	27	30	30
	1	480	15.0	51,200	27	27	30	30
	1	550	12.6	43,000	21	22	25	25
	1	575	13.8	47,100	21	22	25	25
	1	600	15.0	51,200	21	22	25	25
30 kW EH17-135-30 200/230V-3ph 63F31 460V - 3 ph 63F35 575V - 3 ph 63F39 200 lbs. (91 kg)	②1	208	20.8	71,000	99	100	100	100
	②1	220	25.2	86,000	99	100	100	100
	②1	230	27.5	93,900	99	100	100	100
	②1	240	30.0	102,400	99	100	100	100
	1	440	25.2	86,000	49	50	50	50
	1	460	27.5	93,900	49	50	50	50
	1	480	30.0	102,400	49	50	50	50
	1	550	25.2	86,000	40	40	40	40
	1	575	27.5	93,900	40	40	40	40
	1	600	30.0	102,400	40	40	40	40
45 kW EH17-135-45 200/230V-3ph 63F32 460V - 3 ph 63F36 575V - 3 ph 63F40 207 lbs. (94 kg)	②1	208	31.3	106,800	144	145	150	150
	②1	220	37.8	129,000	144	145	150	150
	②1	230	41.3	141,000	144	145	150	150
	②1	240	45.0	153,600	144	145	150	150
	②1	440	37.8	129,000	72	72	80	80
	②1	460	41.3	141,000	72	72	80	80
	②1	480	45.0	153,600	72	72	80	80
	②1	550	37.8	129,000	58	58	60	60
	②1	575	41.3	141,000	58	58	60	60
	②1	600	45.0	153,600	58	58	60	60
60 kW EH17-135-60 200/230V-3ph 63F33 460V - 3 ph 63F37 575V - 3 ph 63F41 214 lbs. (97 kg)	②1	208	41.7	143,400	153	154	175	175
	②1	220	50.4	172,000	153	154	175	175
	②1	230	55.1	188,100	153	154	175	175
	②1	240	60.0	204,800	153	154	175	175
	②1	440	50.4	172,000	76	77	80	80
	②1	460	55.1	188,100	76	77	80	80
	②1	480	60.0	204,800	76	77	80	80
	②1	550	50.4	172,000	61	62	70	70
	②1	575	55.1	188,100	61	62	70	70
	②1	600	60.0	204,800	61	62	70	70

① Electric heater capacity only — does not include additional blower motor heat capacity.

② May be used with two stage control (field provided).

③ Refer to National or Canadian Electrical Code manual to determine wire, fuse and disconnect size requirements. Use wires suitable for at least 167°F (75°C).

CB17-185V/CBH17-185V AND CB17-275V/CBH17-275V OPTIONAL ELECTRIC HEAT DATA

Electric Heat Model No. & Net Weight	No. of Steps	Volts Input	kW Input	Btuh Output	Total Unit + Electric Heat Minimum Circuit Ampacity			Total Unit + Electric Heat Maximum Fuse Size		
					2 hp (1.5 kW)	3 hp (2.2 kW)	5 hp (3.7 kW)	2 hp (1.5 kW)	3 hp (2.2 kW)	5 hp (3.7 kW)
15 kW EH17-185/275-15 200/230V-3ph 26G97 460V - 3 ph 27G01 191 lbs. (87 kg)	1	208	10.4	35,500	55	59	66	60	60	70
	1	220	12.6	43,000	55	59	66	60	60	70
	1	230	13.8	47,100	55	59	66	60	60	70
	1	240	15.0	51,200	55	59	66	60	60	70
	1	440	12.6	43,000	27	29	32	30	30	35
	1	460	13.8	47,100	27	29	32	30	30	35
	1	480	15.0	51,200	27	29	32	30	30	35
30 kW EH17-185/275-30 200/230V-3ph 26G98 460V - 3 ph 27G02 575V - 3 ph 27G10 195 lbs. (88 kg)	1	208	20.8	71,000	100	104	112	100	110	125
	1	220	25.2	86,000	100	104	112	100	110	125
	1	230	27.5	93,900	100	104	112	100	110	125
	1	240	30.0	102,400	100	104	112	100	110	125
	1	440	25.2	86,000	50	52	55	50	60	60
	1	460	27.5	93,900	50	52	55	50	60	60
	1	480	30.0	102,400	50	52	55	50	60	60
	1	550	25.2	86,000	40	41	44	40	45	45
	1	575	27.5	93,900	40	41	44	40	45	45
	1	600	30.0	102,400	40	41	44	40	45	45
	45 kW EH17-185/275-45 200/230V-3ph 26G99 460V - 3 ph 27G03 575V - 3 ph 27G11 205 lbs. (93 kg)	1	208	31.3	106,800	145	149	157	150	150
1		220	37.8	129,000	145	149	157	150	150	175
1		230	41.3	141,000	145	149	157	150	150	175
1		240	45.0	153,600	145	149	157	150	150	175
1		440	37.8	129,000	72	74	78	80	80	80
1		460	41.3	141,000	72	74	78	80	80	80
1		480	45.0	153,600	72	74	78	80	80	80
1		550	37.8	129,000	58	59	62	60	60	70
1		575	41.3	141,000	58	59	62	60	60	70
1		600	45.0	153,600	58	59	62	60	60	70
60 kW EH17-185/275-60 200/230V-3ph 27G00 460V - 3 ph 27G04 575V - 3 ph 27G12 209 lbs. (95 kg)		1	208	41.7	143,400	154	158	166	175	175
	1	220	50.4	172,000	154	158	166	175	175	175
	1	230	55.1	188,100	154	158	166	175	175	175
	1	240	60.0	204,800	154	158	166	175	175	175
	1	440	50.4	172,000	77	79	82	80	80	90
	1	460	55.1	188,100	77	79	82	80	80	90
	1	480	60.0	204,800	77	79	82	80	80	90
	1	550	50.4	172,000	62	63	66	70	70	70
	1	575	55.1	188,100	62	63	66	70	70	70
	1	600	60.0	204,800	62	63	66	70	70	70

① Electric heater capacity only — does not include additional blower motor heat capacity.

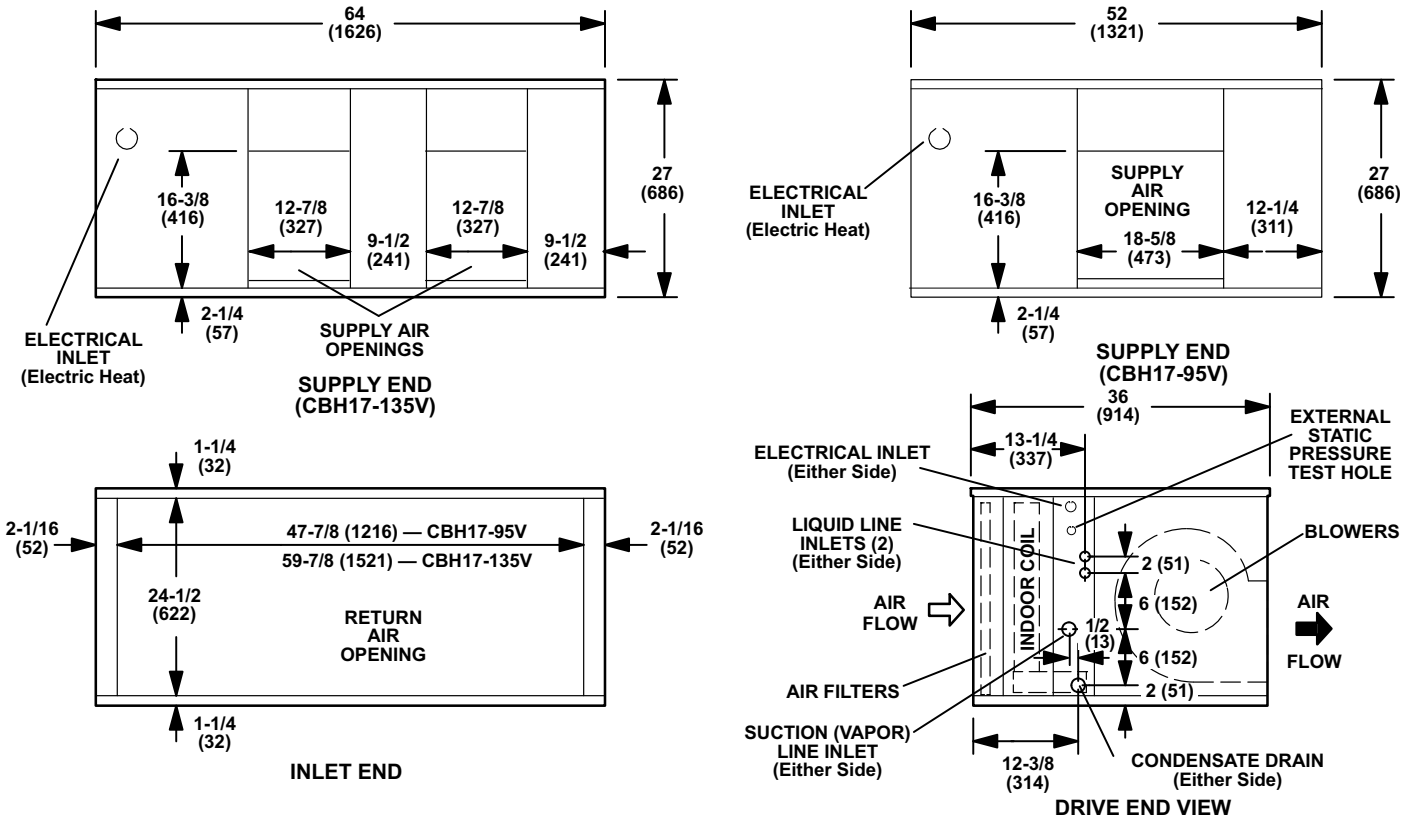
② May be used with two stage control (field provided).

③ Refer to National or Canadian Electrical Code manual to determine wire, fuse and disconnect size requirements. Use wires suitable for at least 167°F (75°C).

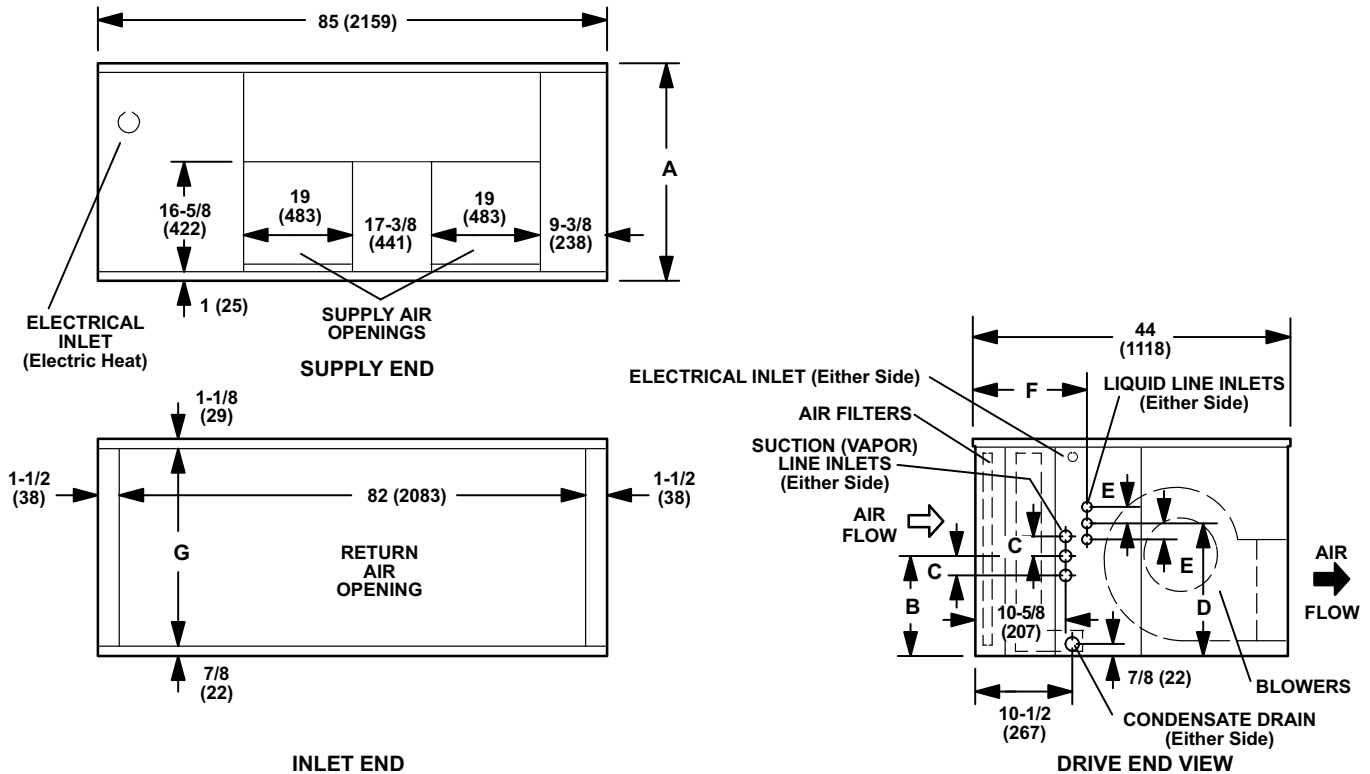
④ Values listed are for both Standard and High Efficiency drive kits.

DIMENSIONS - INCHES (MM)

CBH17-95V AND CBH17-135V HORIZONTAL MODELS



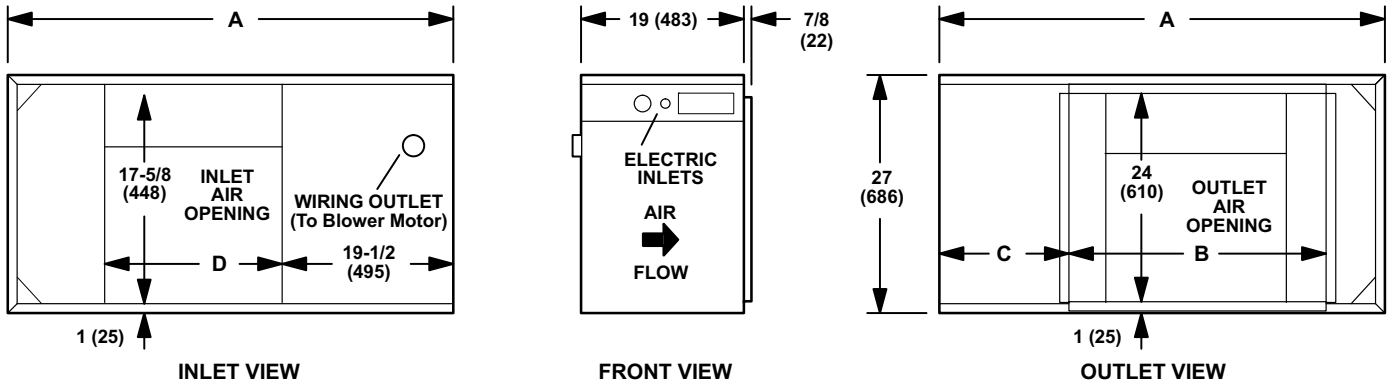
CBH17-185V AND CBH17-275V HORIZONTAL MODELS



Model No.	A		B		C		D		E		F		G	
	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm
CBH17-185V	35	889	18-3/8	467	2-1/4	57	22-5/8	575	1-1/4	32	13-1/8	333	33	838
CBH17-275V	44	1118	22-11/16	576	2-5/8	67	22-7/16	570	4-7/8	124	14-7/8	378	42	1067

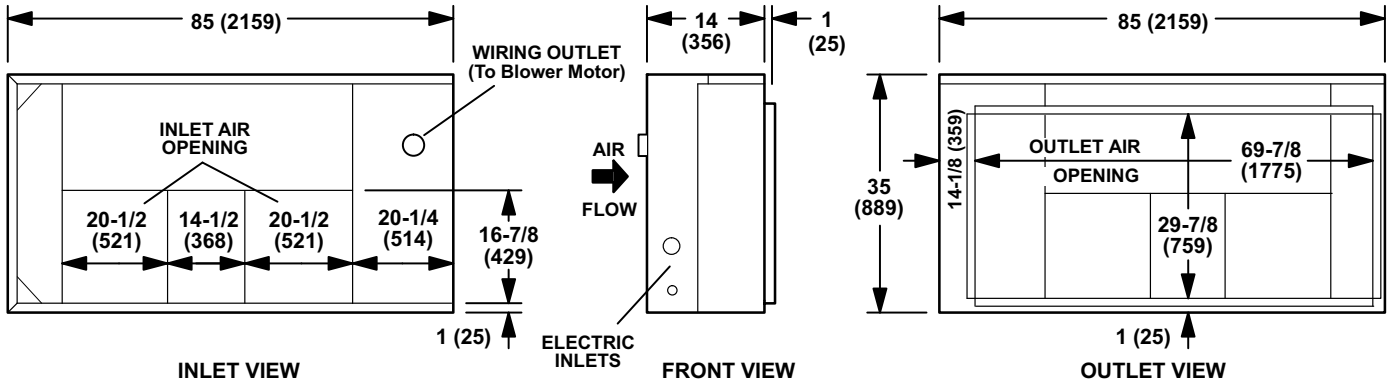
ACCESSORY DIMENSIONS - INCHES (MM)

EH17-95 AND EH17-135 ELECTRIC HEAT SECTION

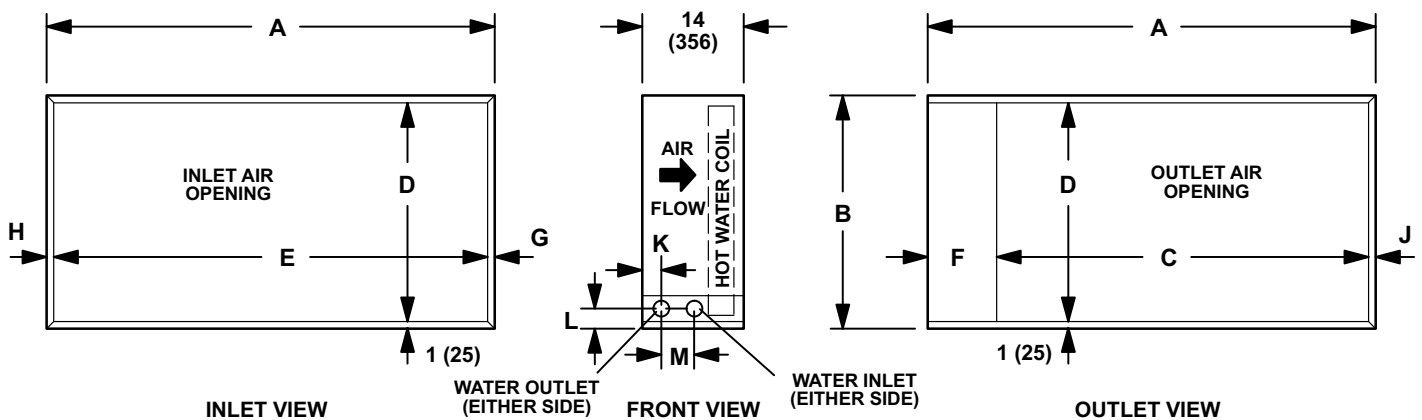


Model No.	A		B		C		D	
	in.	mm	in.	mm	in.	mm	in.	mm
EH17-95	52	1321	29-7/8	759	14-9/16	370	21-1/16	535
EH17-135	64	1626	39-7/8	1013	18-1/8	470	37-15/16	948

EH17-185/275 ELECTRIC HEAT SECTION



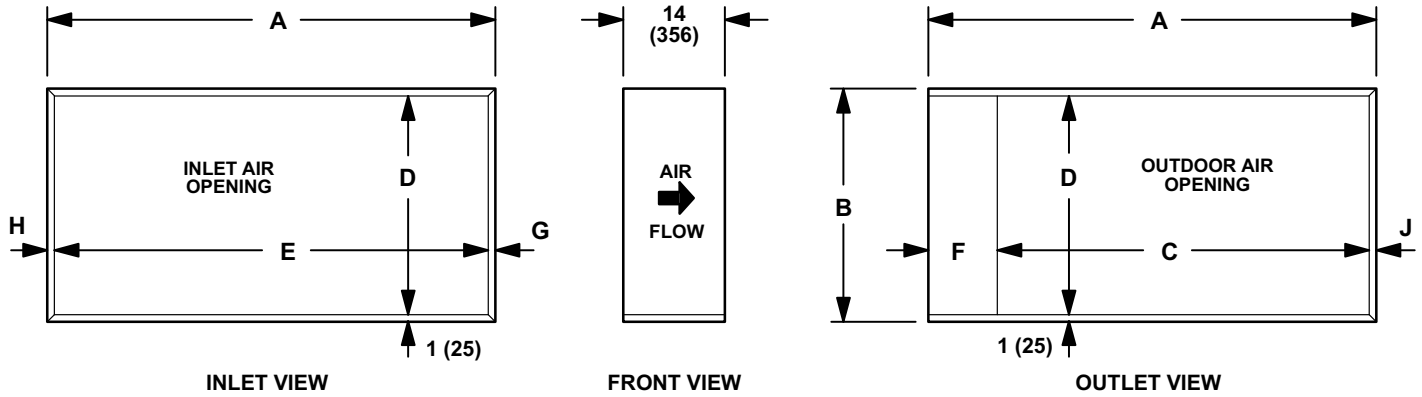
HW17 SERIES HOT WATER HEAT SECTION



Model No.	A	B	C	D	E	F	G	H	J	K	L	M	
HW17-95	in.	52	27	41-1/2	25	50	9-1/2	1	1	1	3	2-3/8	4
	mm	1321	686	1054	635	1270	241	25	25	25	76	60	102
HW17-135	in.	64	27	53-1/2	25	62	9-1/2	1	1	1	3	2-3/8	4
	mm	1626	686	1359	635	1575	241	25	25	25	76	60	102
HW17-185/275	in.	85	35	69	33	70	13	13	2	3	2-1/4	2	2-3/4
	mm	2159	889	1753	838	1778	330	330	51	76	57	51	70

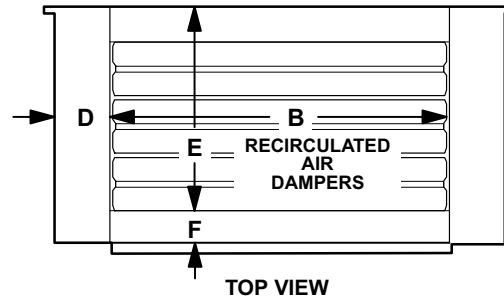
ACCESSORY DIMENSIONS - INCHES (MM)

CB17-00 SERIES EMPTY SPACER CABINETS

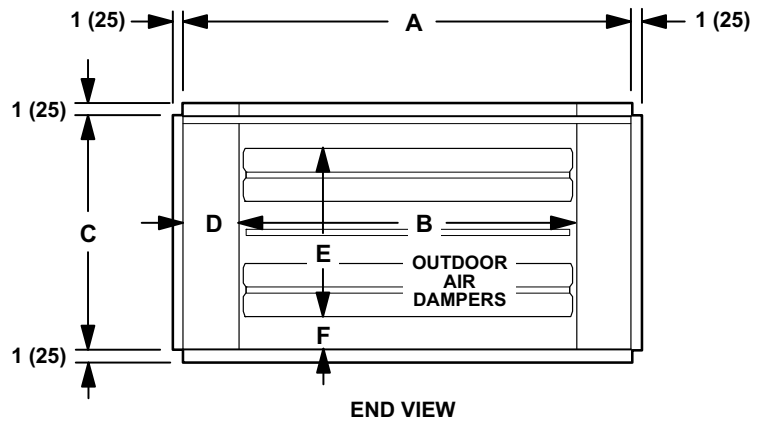
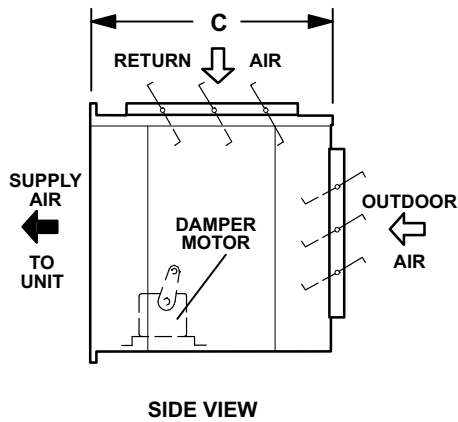


Model No.	A		B		C		D		E		F		G		H		J	
	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm
CB17-95-00	52	1321	27	686	41-1/2	1054	25	635	50	1270	9-1/2	241	1	25	1	25	1	25
CB17-135-00	64	1626	27	686	53-1/2	1359	25	635	62	1575	9-1/2	241	1	25	1	25	1	25
CB17-185/275-00	85	2159	35	889	69	1753	33	838	70	1778	13	330	13	330	2	51	3	76

EMD17 SERIES ECONOMIZER DAMPERS



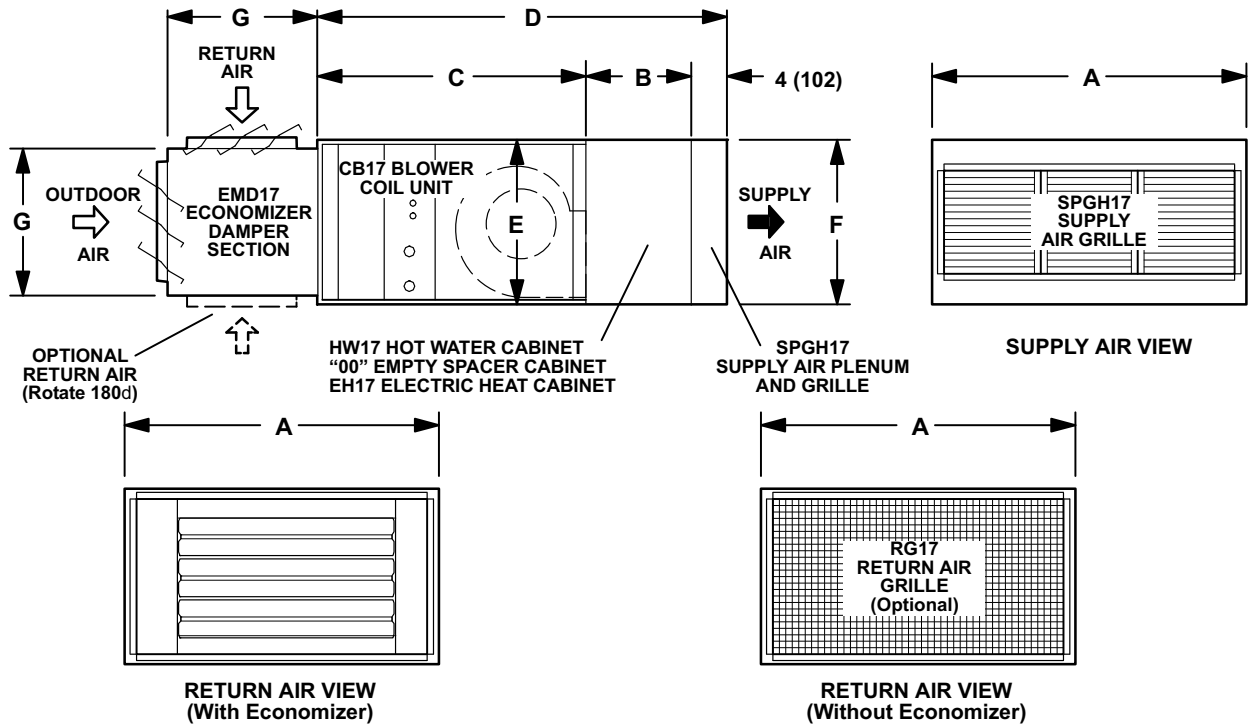
NOTE — Economizer section may be rotated 180° for bottom return air connection.



Model No.	A		B		C		D		E		F	
	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm
EMD17-95	48	1219	36	914	25	635	6	152	18	457	3-1/2	89
EMD17-135	60	1524	48	1219	25	635	6	152	18	457	3-1/2	89
EMD17-185	83	2108	60	1524	33	838	11-1/2	292	24	610	4-1/2	114
EMD17-275	83	2108	60	1524	42	1067	11-1/2	292	30	762	6	152

ACCESSORY DIMENSIONS - INCHES (MM)

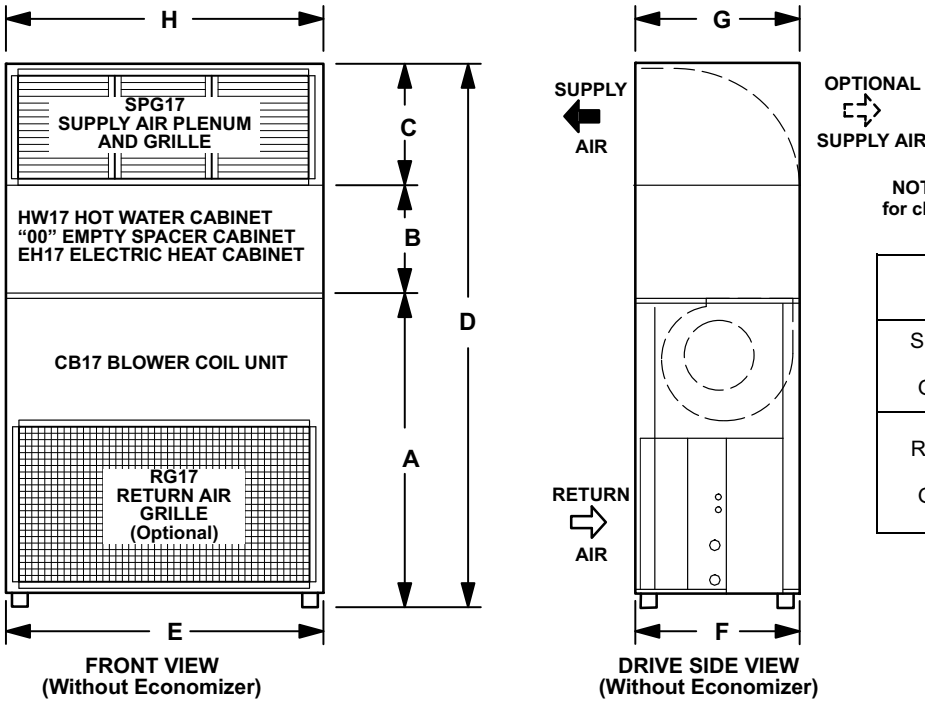
CBH17 HORIZONTAL MODELS WITH OPTIONAL ACCESSORY SECTIONS



	Model No.	A		B		C		D		E		F		G	
		in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm
Basic Unit	CBH17-95V	52	1321	---	---	36	914	---	---	27	686	---	---	---	---
	CBH17-135V	64	1626	---	---	36	914	---	---	27	686	---	---	---	---
	CBH17-185V	85	2159	---	---	44	1118	---	---	35	889	---	---	---	---
	CBH17-275V	85	2159	---	---	44	1118	---	---	44	1118	---	---	---	---
Electric Heat Section	EH17-95	52	1321	19	483	---	---	59	1499	---	---	27	686	---	---
	EH17-135	64	1626	19	483	---	---	59	1499	---	---	27	686	---	---
	EH17-185/275	85	2159	14	356	---	---	62	1575	---	---	35	889	---	---
Hot Water Coil	HW17-95	52	1321	14	356	---	---	54	1375	---	---	27	686	---	---
	HW17-135	64	1626	14	356	---	---	54	1375	---	---	27	686	---	---
	HW17-185/275	85	2159	14	356	---	---	62	1575	---	---	35	889	---	---
Spacer Cabinet	CBH17-95-00	52	1321	14	356	---	---	54	1375	---	---	27	686	---	---
	CBH17-135-00	64	1626	14	356	---	---	54	1375	---	---	27	686	---	---
	CBH17-185/275-00	85	2159	14	356	---	---	62	1575	---	---	35	889	---	---
Supply Air Ple-num and Grill	SPGH17-95	52	1321	---	---	---	---	---	---	---	---	27	686	---	---
	SPGH17-135	64	1626	---	---	---	---	---	---	---	---	27	686	---	---
	SPGH17-185/275	85	2159	---	---	---	---	---	---	---	---	35	889	---	---
Economizer Dampers	EMD17-95 or EMD17-135	---	---	---	---	---	---	---	---	---	---	---	---	25	635
	EMD17-95 or EMD17-135	---	---	---	---	---	---	---	---	---	---	---	---	25	635
	EMD17-185	---	---	---	---	---	---	---	---	---	---	---	---	33	838
	EMD17-275	---	---	---	---	---	---	---	---	---	---	---	---	42	1067

DIMENSIONS - INCHES (MM)

CB17 UP-FLOW MODELS WITH OPTIONAL ACCESSORY SECTIONS

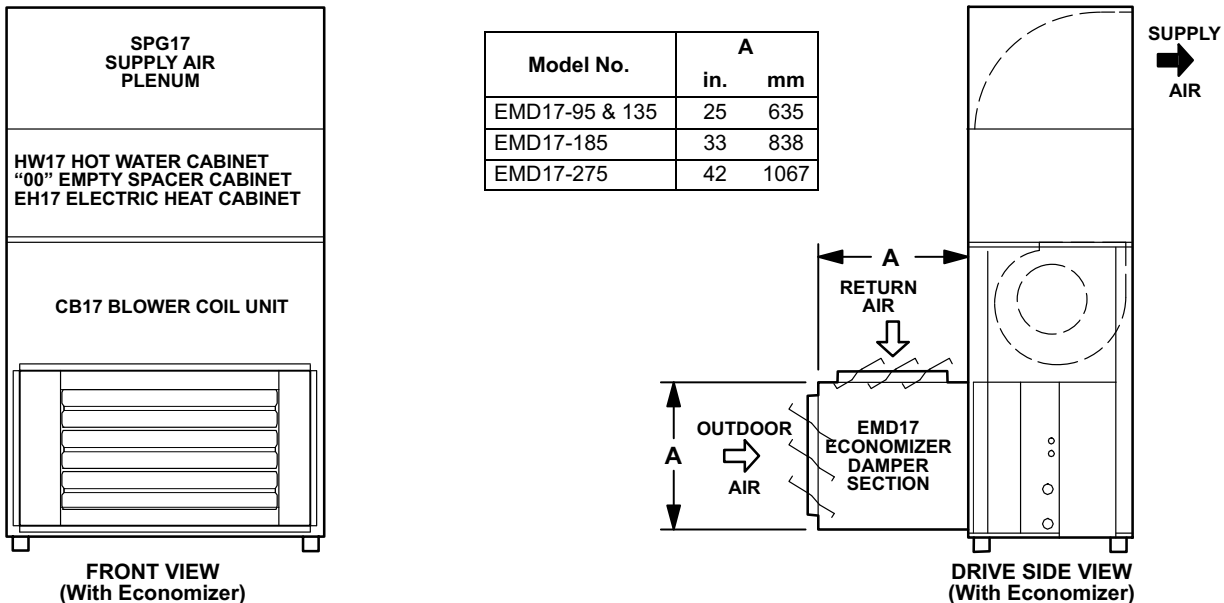


NOTE — Plenum may be rotated 180° for change in direction of discharge air.

Model No.		Grille Free Area	
		sq. ft.	m ²
Supply Air Grille	SPG17-95	4.5	0.42
	SPG17-135	5.6	0.52
	SG17-185/275	9.7	0.90
Return Air Grille	RG17-95	7.3	0.68
	RG17-135	9.0	0.84
	RG17-185	16.5	1.53
	RG17-275	21.2	1.97

Model No.		A		B		C		D		E		F		G		H	
		in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm
Basic Unit	CB17-95V	51-1/2	1308	---	---	---	---	---	---	52	1321	27	686	---	---	---	---
	CB17-135V	51-1/2	1308	---	---	---	---	---	---	64	1626	27	686	---	---	---	---
	CB17-185V	47	1194	---	---	---	---	---	---	85	2159	35	889	---	---	---	---
	CB17-275V	47	1194	---	---	---	---	---	---	85	2159	44	1118	---	---	---	---
Electric Heat Section	EH17-95	---	---	19	483	---	---	94-1/2	2400	---	---	---	---	27	686	52	1321
	EH17-135	---	---	19	483	---	---	94-1/2	2400	---	---	---	---	27	686	64	1626
	EH17-185/275	---	---	14	356	---	---	91	2311	---	---	---	---	35	889	85	2159
Hot Water Coil Section	HW17-95	---	---	14	356	---	---	89-1/2	2273	---	---	---	---	27	686	52	1321
	HW17-135	---	---	14	356	---	---	89-1/2	2273	---	---	---	---	27	686	64	1626
	HW17-185/275	---	---	14	356	---	---	91	2311	---	---	---	---	35	889	85	2159
Empty Spacer Cabinet	CB17-95-00	---	---	14	356	---	---	89-1/2	2273	---	---	---	---	27	686	52	1321
	CB17-135-00	---	---	14	356	---	---	89-1/2	2273	---	---	---	---	27	686	64	1626
	CB17-185/275-00	---	---	14	356	---	---	91	2311	---	---	---	---	35	889	85	2159
Supply Air Plenum & Grille	SPG17-95	---	---	---	---	24	610	---	---	---	---	---	---	27	686	52	1321
	SPG17-135	---	---	---	---	24	610	---	---	---	---	---	---	27	686	64	1626
	SPG17-185/275	---	---	---	---	30	762	91	2311	---	---	---	---	35	889	85	2159

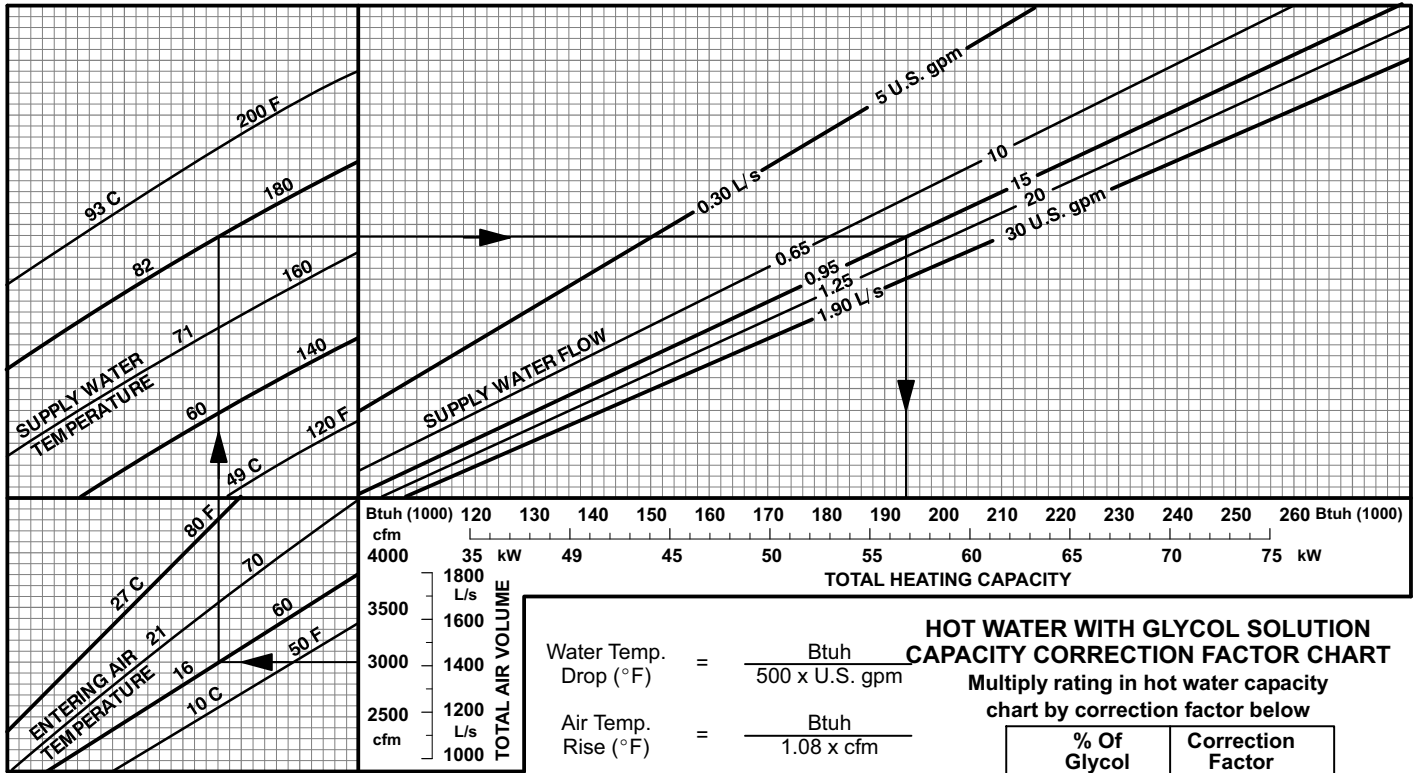
CB17 UP-FLOW MODELS WITH ECONOMIZER DAMPER SECTION



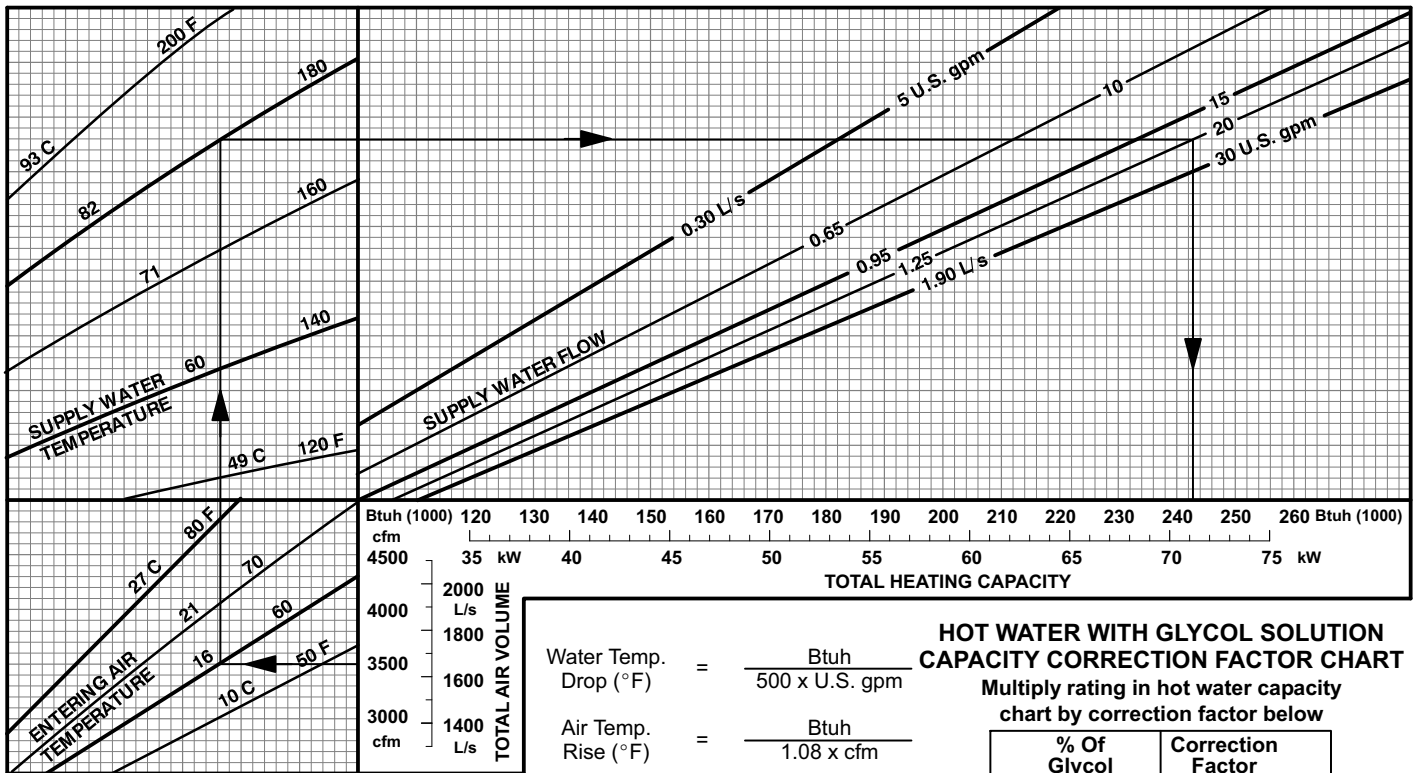
Model No.	A	
	in.	mm
EMD17-95 & 135	25	635
EMD17-185	33	838
EMD17-275	42	1067

HOT WATER HEATING CAPACITY

HW17-95 HOT WATER HEATING CAPACITY

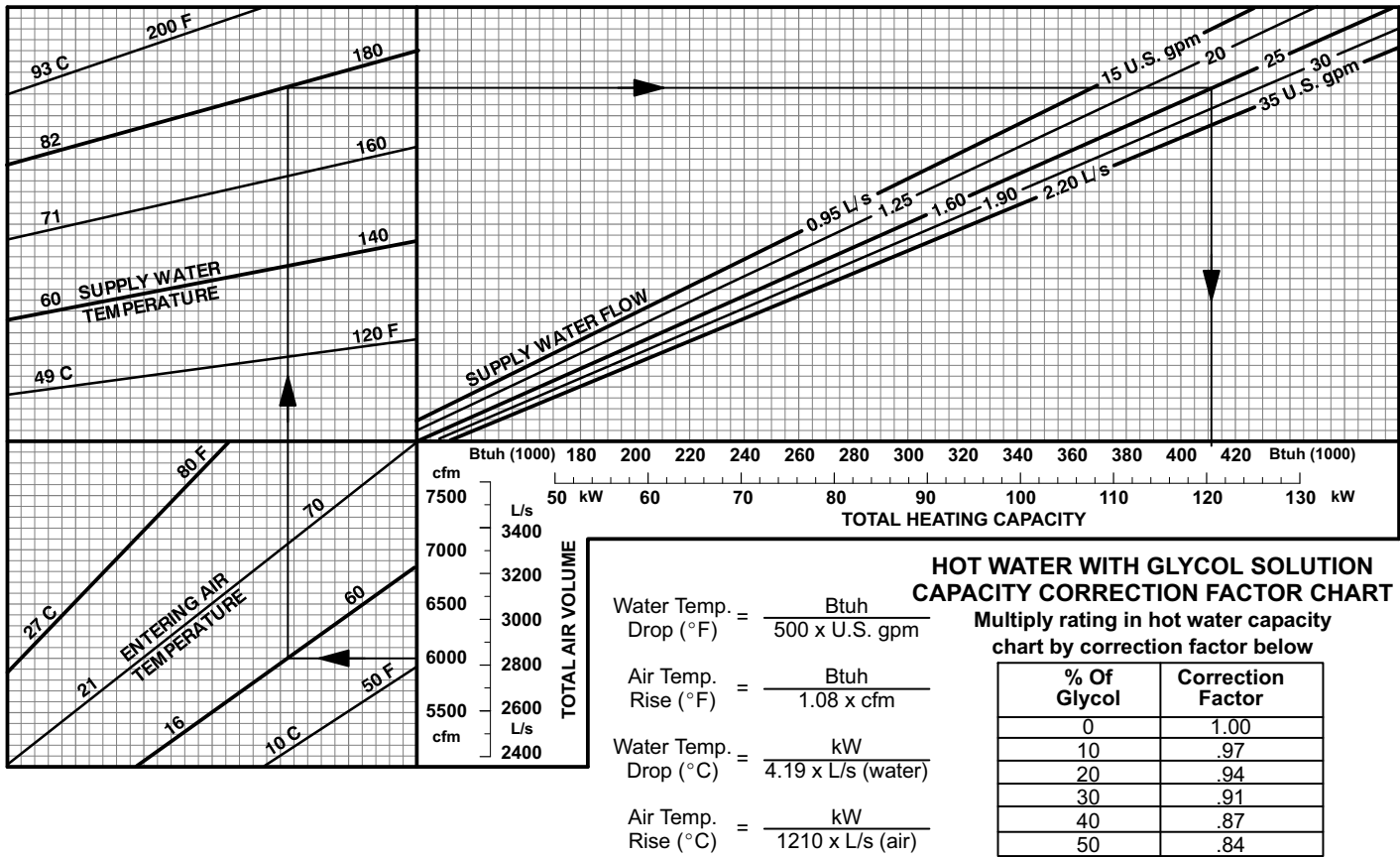


HW17-135 HOT WATER HEATING CAPACITY

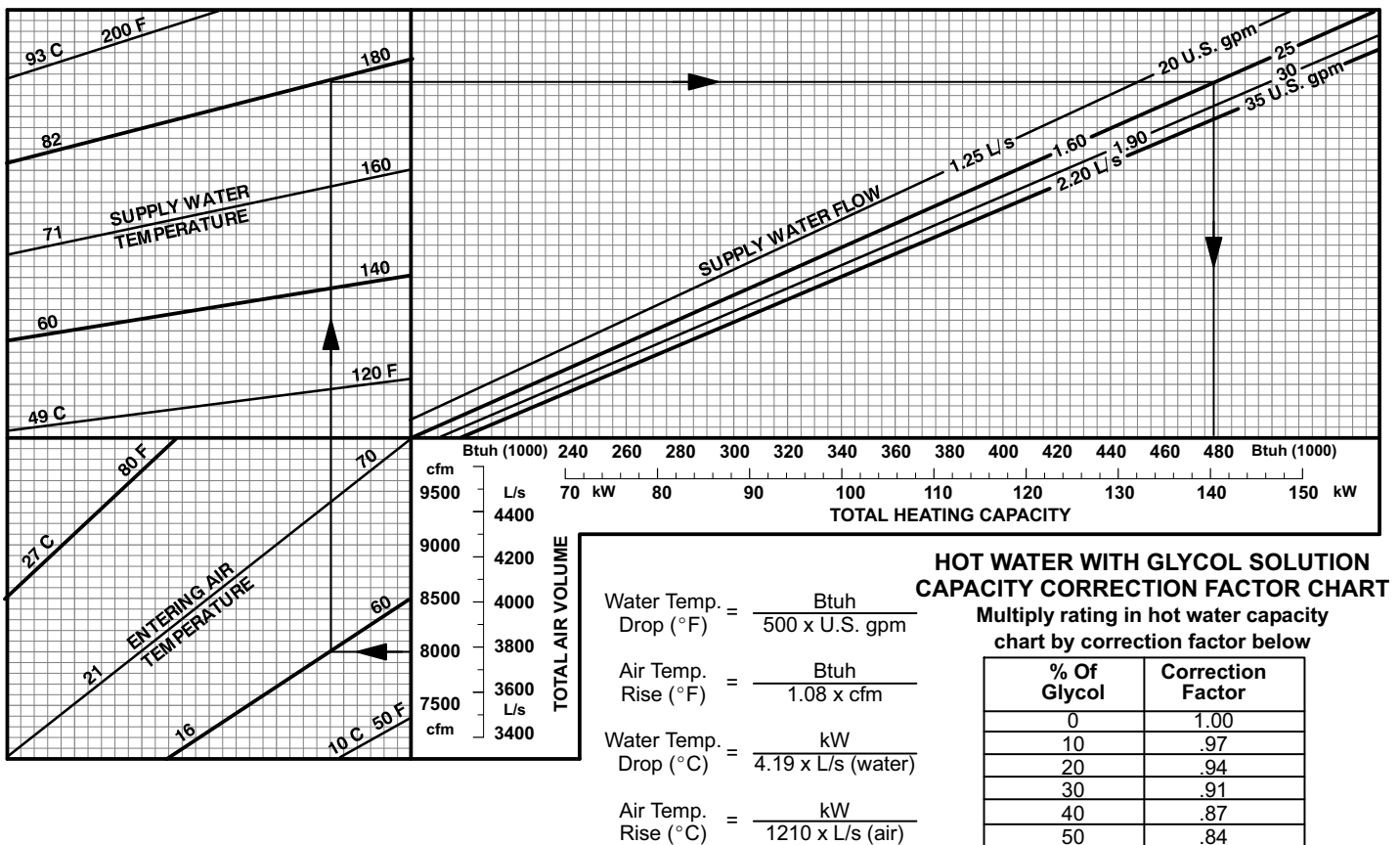


HOT WATER HEATING CAPACITY

HW17-185/275 HOT WATER HEATING CAPACITY with CB17/CBH17-185V



HW17-185/275 HOT WATER HEATING CAPACITY with CB17/CBH17-275V



GUIDE SPECIFICATIONS

This specification specifies [**Lennox Industries CB Series**] Air Handlers. Revise specification section number and title below to suit project requirements, specification practices and section content. Refer to CSI *MasterFormat* for other section numbers and titles.

Optional text and text that requires a decision are indicated by **bold brackets []**, and proprietary information is indicated by **bold italic brackets []**; delete text that is not needed in final copy of specification. Specifier Notes typically precede specification text; delete notes in final copy of specification. Trade/brand names with appropriate symbols typically are used in Specifier Notes; symbols are not used in specification text. Metric conversion, where used, is soft metric conversion.

SECTION 23 82 19 FAN COIL UNITS

PART 1 GENERAL

1.1 SUMMARY

- A. Section Includes: Multi-Position/Up-Flow/Horizontal Blower Coil Units.

Specifier Note: Revise paragraph below to suit project requirements. Add section numbers and titles per CSI *MasterFormat* and specifier's practice.

- B. Related Sections:

Specifier Note: Article below may be omitted when specifying manufacturer's proprietary products and recommended installation. Retain Reference Article when specifying products and installation by an industry reference standard. If retained, list standard(s) referenced in this section. Indicate issuing authority name, acronym, standard designation and title. Establish policy for indicating edition date of standard referenced. Conditions of the Contract or Division 1 References Section may establish the edition date of standards. This article does not require compliance with standard, but is merely a listing of references used. Article below should list only those industry standards referenced in this section. Retain only those reference standards to be used within the text of this Section. Add and delete as required for specific project.

1.02 REFERENCES

- A. Air-Conditioning and Refrigeration Institute (ARI):
1. ARI 210/240 Unitary Air-Conditioning and Air-Source Heat Pump Equipment.
 2. ARI 340/360 Commercial and Industrial Unitary Air-Conditioning and Heat Pump Equipment.
- B. Servicing Safety Standards:
1. National Electric Code (NEC).
 2. Canadian Electric Code (CEC).
 3. Canadian Standards Association (CSA)
- C. ISO 9001, units manufactured to quality standard.
- D. Underwriters Laboratories (UL).
- E. Underwriters Laboratories Canada (ULC)

Specifier Note: DOE rating is for units with optional electric heater.

- F. [Department of Energy (DOE), rated in accordance to test procedures]

Specifier Note: FTCLabeling regulations are for units with optional electric heater.

- G. [Federal Trade Commission (FTC), labeling regulations]

Specifier Note: Article below should be restricted to statements describing design or performance requirements and functional (not dimensional) tolerances of a complete system. Limit descriptions to composite and operational properties required to link components of a system together and to interface with other systems.

1.03 SYSTEM DESCRIPTION

- A. Electrical Requirements:
1. 60 Hz.

Specifier Note:

Model No.	CB17	CBH17	CB26UH	CBX26UH	CB27UH	CBX27UH	CB29M	CB30M	CBX32M	CBX32MV
115/230V 1 Ø	Some Models	Some Models								
208/230V 1 Ø									All Models	All Models
208/230V 3 Ø	Some Models	Some Models		All Models	All Models	All Models	All Models	All Models		
208/240V 3 Ø			All Models							
460V 3 Ø	Some Models	Some Models					All Models	All Models		
575V 3 Ø	Some Models	Some Models					All Models	All Models		

GUIDE SPECIFICATIONS

2. [115/230 V, 1-phase] [208/230 V, 1-phase] [208/230 V, 3-phase] [208/240 V, 3-phase] [460 V, 3-phase] [460 V, 3-phase] [575 V, 3-phase]

Specifier Note: Article below includes submittal of relevant data to be furnished by Contractor before, during or after construction. Coordinate this article with Architect's and Contractor's duties and responsibilities in Conditions of the Contract and Division 1 Submittal Procedures Section.

1.04 SUBMITTALS

- A. General: Submit listed submittals in accordance with Conditions of the Contract and Division 1 Submittal Procedures.
- B. Product Data: Submit product data for specified products.
- C. Shop Drawings:
 1. Submit shop drawings in accordance with Section [01330 - Submittal Procedures].
 2. Indicate:
 - a. Equipment, piping and connections, together with valves, strainers, control assemblies, thermostatic controls, auxiliaries and hardware and recommended ancillaries which are mounted, wired and piped ready for final connection to building system, its size and recommended bypass connections.
 - b. Piping, valves and fittings shipped loose showing final location in assembly.
 - c. Control equipment shipped loose, showing final location in assembly.
 - d. Field wiring diagrams.
 - e. Dimensions, internal and external construction details, installation clearances, recommended method of installation, sizes and location of mounting bolt holes.
 - f. Detailed composite wiring diagrams for control systems showing factory installed wiring and equipment on packaged equipment or required for controlling devices or ancillaries, accessories, controllers.
- D. Quality Assurance:
 1. Test Reports: Certified test reports showing compliance with specified performance characteristics and physical properties.
 2. Certificates: Product certificates signed by manufacturer certifying materials comply with specified performance characteristics and criteria and physical requirements.
 3. Manufacturer's Instructions: Manufacturer's installation instructions.

Specifier Note: Coordinate paragraph below with Part 3 Field Quality Requirements Article herein. Retain or delete as applicable.

- E. Manufacturer's Field Reports: Manufacturer's field reports specified herein.
- F. Closeout Submittals: Submit the following:
 1. Warranty: Warranty documents specified herein.
 2. Operation and Maintenance Data: Operation and maintenance data for installed products in accordance with Division 1 Closeout Submittals (Maintenance Data and Operation Data) Section. Include methods for maintaining installed products and precautions against cleaning materials and methods detrimental to finishes and performance. Include names and addresses of spare part suppliers.
 3. Provide brief description of unit, with details of function, operation, control and component service.
 4. Commissioning Report: Submit commissioning reports, report forms and schematics in accordance with Section 01810 - Commissioning.

1.05 QUALITY ASSURANCE

- A. Qualifications:
 1. Installer experienced in performing work of this section who has specialized in installation of work similar to that required for this project.

1.06 DELIVERY, STORAGE & HANDLING

- A. General: Comply with Division 1 Product Requirements.
- B. Ordering: Comply with manufacturer's ordering instructions and lead time requirements to avoid construction delays.
- C. Packing, Shipping, Handling and Delivery:
 1. Deliver materials in manufacturer's original, unopened, undamaged containers with identification labels intact.
 2. Ship, handle and unload units according to manufacturer's instructions.
- D. Storage and Protection:
 1. Store materials protected from exposure to harmful weather conditions.
 2. Factory shipping covers to remain in place until installation.

Specifier Note: Coordinate article below with Conditions of the Contract and Division 1 Closeout Submittals (Warranty).

1.07 WARRANTY

- A. Project Warranty: Refer to Conditions of the Contract for project warranty provisions.
- B. Manufacturer's Warranty: Submit, for Owner's acceptance, manufacturer's standard warranty document executed by authorized company official. Manufacturer's warranty is in addition to, and not a limitation of, other rights Owner may have under Contract Documents.

Specifier Note: Coordinate paragraph below with manufacturer's warranty requirements.

- C. Warranty: Commencing on Date of Installation.

GUIDE SPECIFICATIONS

Specifier Note: Refer to Lennox Equipment Limited Warranty certificate included with equipment for details.

1. All Covered Components: 1 year limited (nonresidential applications).

PART 2 PRODUCTS

Specifier Note: Retain article below for proprietary method specification. Add product attributes, performance characteristics, material standards and descriptions as applicable. Use of such phrases as “or equal” or “or approved equal” or similar phrases may cause ambiguity in specifications. Such phrases require verification (procedural, legal and regulatory) and assignment of responsibility for determining “or equal” products.

2.01 UP-FLOW/HORIZONTAL/MULTI-POSITION AIR HANDLER UNITS

A. Manufacturer: **[Lennox Industries]**

1. Contact: **[2100 Lake Park Blvd., Richardson, TX 75080; Telephone: (800) 453-6669; Web site: www.lennox.com]**

B. General:

Specifier Note: The CB17 is up-flow only.

Specifier Note: The CBH17 is a horizontal flow model only.

Specifier Note: The CB29M, CB30M, CBX32M and CBX32MV models are multi-position.

Specifier Note: The CB26UH, CB26XUH, CB27UH and CBX27UH models are up-flow/horizontal.

1. Air-Flow

- a. [Up-Flow] [Horizontal] [Up-flow/horizontal] [Multi-position].

Specifier Note: The CB17 and CBH17 nominal capacities are 7.5, 10, 15 and 20 tons.

Specifier Note: The CB26UH, CBX26UH, CB27UH and CBX27UH nominal capacities are 1.5, 2, 2.5, 3, 3.5, 4 and 5 tons.

Specifier Note: The CB29M nominal capacities are 3, 3.5, 4 and 5 tons.

Specifier Note: The CB30M nominal capacities are 1.5 - 2, 2.5, 3 - 3.5, 4 and 5 tons.

Specifier Note: The CBX32M nominal capacities are 1.5 - 2, 2.5, 3, 3.5, 4 and 5 tons.

Specifier Note: The CBX32MV nominal capacities are 1.5 - 2, 2 - 2.5, 3, 4, 5 and 5+ tons.

2. [1.5] [1.5 - 2] [2] [2 - 2.5] [2.5] [3] [3 - 3.5] [3.5] [4] [5] [5+] [7.5] [10] [15] [20] nominal tonnage.

C. Proprietary Products/Systems:

1. Cabinet:

- a. Pre-painted
- b. Heavy gauge galvanized steel
- c. Insulated with thick fiberglass insulation or foil faced insulation
- d. Prime coated on unpainted sides
- e. Shipped in one piece

Specifier Note: The following “Filter access door” feature applies to CB29M, CB26UH, CBX26UH, CB30M and CBX32M models.

- f. Filter access door

Specifier Note: The following “Drain Pan” feature applies to CB27UH, CBX27UH, CB29M, CB30M, CBX32M and CBX32MV models.

g. Drain Pans:

1. Corrosion resistant plastic
2. Dual pipe drains
3. Designed for up-flow, down-flow, and horizontal applications

Specifier Note: The following “Drain Pan/Anti-Microbial Coating” feature applies to CB26UH and CBX26UH models.

4. Anti-microbial coating

Specifier Note: The following “Drain Pan” feature applies to CB17 and CBH17 models.

h. Drain Pan:

1. Painted
2. Galvanized steel

- i. Removable service access panels
- j. Electrical inlets in sides and/or top of cabinet

Specifier Note: The “Rubber Gasketing” statement below is applicable to the following models: CB27UH, CBX27UH, CB30M, CBX32M and CBX32MV.

- k. Rubber gasketing between cabinet pieces

2. Refrigerant System:

Specifier Note: R-22 refrigerant comes on models CB17, CBH17, CB26UH, CB27UH, CB29M, and CB30M.

Specifier Note: R-410a refrigerant comes on models CBX26UH, CBX27UH, CBX32M, CBX32MV.

GUIDE SPECIFICATIONS

- a. Refrigerant: **[R-22] [R-410a]**
- b. Refrigerant Line Connections: Suction (vapor) and liquid lines extend outside cabinet with sweat connections.
- c. Copper Tube/Enhanced Fin Evaporator Coil:

Specifier Note: CB26UH, CBX26UH, CB27UH, CBX27UH, CB29M, CB30M, CBX32M and CBX32MV models are assembled in “A” configuration and CB17 and CBH17 models have a split face coil with separate circuits.

1. **[Twin coils in “A”] [Split face]** configuration
 2. Lanced, ripple-edged aluminum fins
 3. Seamless copper tubing
 4. Rifled copper tubing
 5. Flared shoulder tubing joints and silver soldering
 6. Factory leak tested under high pressure.
- d. Check and Expansion Valve:
 1. Factory installed internal to cabinet
 2. Chatleff style fitting, wide range valve

Specifier Note: Models CB26UH, CBX26UH, CB27UH, CBX27UH, CB29M, CB30M, CBX32M and CBX32MV are equipped with direct drive blowers.

3. Direct Drive Blower:
 - a. Statically and dynamically balanced before installation

Specifier Note: Models CB26UH, CBX26UH, CB29M, CB30M and CBX32M are equipped with “multispeed” motors and models CB27UH, CBX27UH, and CBX32MV are equipped with an “Electronically Commutated Motor (ECM)”. “Multispeed” motors require a wiring change to switch speeds, and an ECM maintains specified air volume throughout the external static range.

- b. Resiliently mounted
- c. Motor: **[multi-speed] [Electronically Commutated Motor (ECM)]**
- d. Leadless motor with plug-in connections
- e. Selectable speeds
- f. Slides out for servicing

Specifier Note: Models CB26UH and CBX26UH are equipped with a “Time delay blower relay” as standard.

- g. Time delay blower relay.

Specifier Note: Models CB17 and CBH17 are equipped with belt drive blowers.

4. Belt Drive Blower:
 - a. Single or dual blower wheels.
 - b. Heavy-duty blower wheel.
 - c. Statically and dynamically balanced blower wheels.
 - d. Forward curved blades and double inlet.
 - e. Heavy-duty, self-aligning, permanently sealed and lubricated bearings.
 - f. Moving parts resiliently mounted on rugged frame and isolated from rest of cabinet.
 - g. Adjustable speeds and choice of motor outputs and drives.

Specifier Note: The following “Transformer and Blower Cooling Relay” is a standard feature on models CB26UH, CBX26UH, CB27UH, CBX27UH, CB29M, CB30M, CBX32M and CBX32MV, but it is an accessory on CB17 and CBH17.

5. Transformer and Blower Cooling Relay:
 - a. 24 V transformer with inline fuse and blower cooling relay.
 - b. Factory installed in unit control box.
 - c. Terminal strip furnished.

6. Filter:

Specifier Note: Filters will be factory installed in the CB27UH, CBX27UH, CB29M, CB30M, CBX32M and CBX32MV models and field installed in the CB17, CBH17, CB26UH and CBX26UH models.

- a. Rails furnished in cabinet
- b. **[Factory installed] [Field furnished]**
- c. 1-inch (25.4 mm)] thick

Specifier Note: The following sentence applies to model CB17 and CBH17.

- d. Thickness adjustable filter rack, up to a 2” (50.8 mm) thick filter

7. **[Optional Accessories]:**

Specifier Note: The following accessory is specific to CB27UH, CBX27UH, CB29M, CB30M (down-flow only), CBX32M (down-flow only) and CBX32MV (down-flow only) units with electric heat installed in down-flow position on combustible floors.

- a. **[Down-Flow Additive Base]**

GUIDE SPECIFICATIONS

Specifier Note: The following accessory is specific to CB26UH, CBX26UH, CB27UH, and CBX27UH.

b. [Down-Flow Conversion Kit]

Specifier Note: The following accessory is specific to CB26UH (up-flow only), CBX26UH (up-flow only), CB27UH, CBX27UH, CB29M (up-flow only), CB30M (up-flow only) and CBX32MV (up-flow only) units with side return air duct connections.

c. [Side Return Unit Stand: Two adjustable, all aluminum frames]

Specifier Note: The following accessory is specific to CB26UH, CBX26UH, CB27UH, CBX27UH, CB30M (up-flow only), CBX32M and CBX32MV, all up-flow models only.

d. [Wall Hanging Bracket Kit:

1. Two heavy gauge steel support brackets (one for blower coil unit, one for wall mount)
2. Screws for fastening bracket to unit and bolts for fastening bracket to wall]

Specifier Note: The following accessory is specific to CB17, CBH17, CB26UH, CBX26UH, CB27UH, CBX27UH, CB29M, CB30M, CBX32M and CBX32MV models in horizontal applications.

e. [Horizontal Support Frame Kit:]

Specifier Note: The following accessory can be used with optional electric heat when single power supply is connected to multi-circuit electric heat on all CB series models EXCEPT CB17 and CBH17.

f. [Single-Point Power Source Control Box:

1. Heavy gauge steel, baked enamel finish
2. Prepunched mounting holes
3. Electrical inlet knockouts
4. Terminal strip
5. Field installed, on [Top] [Side] of cabinet exterior]

g. [Electric Heat:

Specifier Note: CB Series models CB26UH, CBX26UH are available in circuit breaker models only, and only available for field install internal to cabinet.

Specifier Note: CB Series models CB27UH, CBX27UH, CB29M, CB30M, CBX32M and CBX32MV are available in circuit breaker or EvenHeater™ models, and only available for field install internal to cabinet.

Specifier Note: CB Series models CB17 and CBH17 are only available in a separate add-on external matching cabinet. These electric heaters can be field or factory installed.

1. [External matching add-on cabinet electric heater] [[Circuit Breaker] [EvenHeater™] Model internally installed]
2. [Factory] [Field] installed
3. Helix wound nichrome heating elements
4. Limit control with fixed temperature off setting and automatic reset
5. Supplemental thermal cutoff limit control
6. Thermal sequencer relay
7. Heating control relay(s)
8. Heavy gauge galvanized steel control box and access cover
9. Factory assembled with controls installed and wired
10. Electric heat low voltage controls plug-in to blower coil unit]

Specifier Note: The following accessory is for Models CB29M, and CB30M, and is specific to 575 V applications and will enable 460V-3 phase units to be used in 575V applications.

h. [Step-Down Transformer: Shipped with 575V electric heaters]

Specifier Note: The following accessory is optional for CB29M models and may replace factory installed circuit breaker in certain applications.

i. [Circuit Breakers: Field installed in electric heat section]

Specifier Note: The following accessory is optional for CB29M models and requires the EBR1 Blower Relay Kit.

j. [CCB1 EfficiencyPlus Humidity Control:

1. Electronic, indoor humidity controller
2. Indicates demand imposed on system equipment]

Specifier Note: The following accessory is available for CB29M models and allows CCB1 to be used with CB29M blower coil units.

k. [EBR1 Blower Relay Kit]

Specifier Note: The following optional accessories are specific to Models CB17 and CBH17: blower contactor kit, commercial controls platform kit, economizer damper section, differential enthalpy control, electric heat EH17, empty spacer cabinet, heat pump check valve, hot water coil, return air grille, supply air plenum and grille, and suspension kits.

Specifier Note: The following accessory is for applications without EH17 electric heaters.

l. [Blower Contactor Kit]

Specifier Note: The commercial controls platform kit allows CB17/CBH17 to be used with economizer and various electronic thermostat control systems with plug-in connections.

m. [Commercial Controls Platform Kit: Contains control box with relay, terminal strip and wiring harness]

GUIDE SPECIFICATIONS

n. [Economizer Damper Section:

1. Factory assembled and wired dampers and controls for field installation
2. Heavy-gauge, pre-painted steel cabinet with thick, matte-faced fiberglass insulation
3. Removable access panels
4. Mounting flanges for blower-coil unit connection
5. Outdoor air opening and return air opening flanges for duct connection
6. Mechanically linked outdoor air and recirculated air dampers
7. Outdoor air dampers reinforced and gasketed
8. Plated damper linkage and shafts
9. 24 V fully modulating, electronic spring return damper motor with adjustable minimum position potentiometer, controlled by room thermostat, adjustable mixed air sensor and adjustable enthalpy control
10. Free cooling capability (100% fresh air)]

o. [Differential Enthalpy Control: Solid state return air enthalpy sensor field installable in economizer damper section]

p. [Electric Heat - EH17:

1. In separate add-on, heavy gauge, pre-painted galvanized steel matching cabinet with pre-punched holes, bolts, nuts and washers
2. Thick fiberglass insulation
3. Removable access panels
4. Electrical Wiring Inlet
5. Helix wound, nichrome heating elements insulated from heavy-gauge steel support frame
6. Time delay relay elements with individual limit controls
7. Sub-fusing, contactors, control relays, 24 V transformer, terminal block and blower motor contactor furnished]

q. [Empty Spacer Cabinet - "00": Heavy-gauge, pre-painted galvanized steel lined with thick, matte-faced fiberglass insulation]

r. [Heat Pump Check Valve Kit: Field installed with check valves and connecting tubing]

s. [Hot Water Coil - HW17:

1. In separate add-on, heavy gauge, pre-painted galvanized steel matching cabinet with pre-punched holes, bolts, nuts and washers
2. Thick fiberglass insulation
3. Removable access panels
4. Piping inlets on both cabinet sides
5. Ripple-edged aluminum fins with collars fitted to durable copper tubes
6. Flared shoulder tubing connections and silver soldering
7. High pressure factory tested]

t. [Return Air Grille: Anodized aluminum, field installable in return air opening of blower-coil unit]

u. [Supply Air Plenum and Grille - SPG17 and SPGH17: 1) Heavy gauge, pre-painted galvanized steel, lined with thick matte-faced fiberglass insulation. 2) Anodized aluminum grille with double deflection and 4-way directional control in vertical and horizontal planes]

v. [Thermostat]

Specifier Note: The Dehumidification Relay Kit is only available on the CB27UH and the CBX27UH.

w. [Dehumidification relay kit]

Specifier Note: Edit Article below to suit project requirements. If substitutions are permitted, edit text below. Add text to refer to Division 1 Project Requirements (Product Substitutions Procedures) Section.

2.02 PRODUCT SUBSTITUTIONS

- A. Substitutions: No substitutions permitted.

PART 3 EXECUTION

3.01 MANUFACTURER'S INSTRUCTIONS

Specifier Note: Article below is an addition to the CSI *SectionFormat*. Revise article below to suit project requirements and specifier's practice.

- A. Compliance: Comply with manufacturer's written data, including product technical bulletins, product catalog installation instructions and product carton installation instructions.

3.02 EXAMINATION

- A. Site Verification of Conditions: Verify substrate conditions, which have been previously installed under other sections, are acceptable for product installation in accordance with manufacturer's instructions.

3.03 INSTALLATION

- A. Install CB series Blower Coil Units in accordance with manufacture's instructions and regulations of authorities having jurisdiction.

END OF SECTION