



ENGINEERING DATA

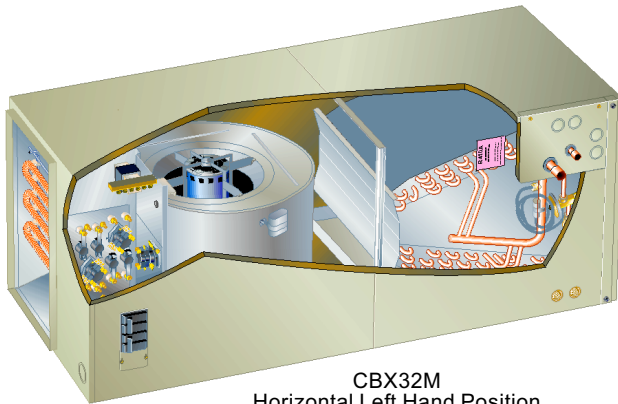
BLOWER COIL UNITS

CBX32M

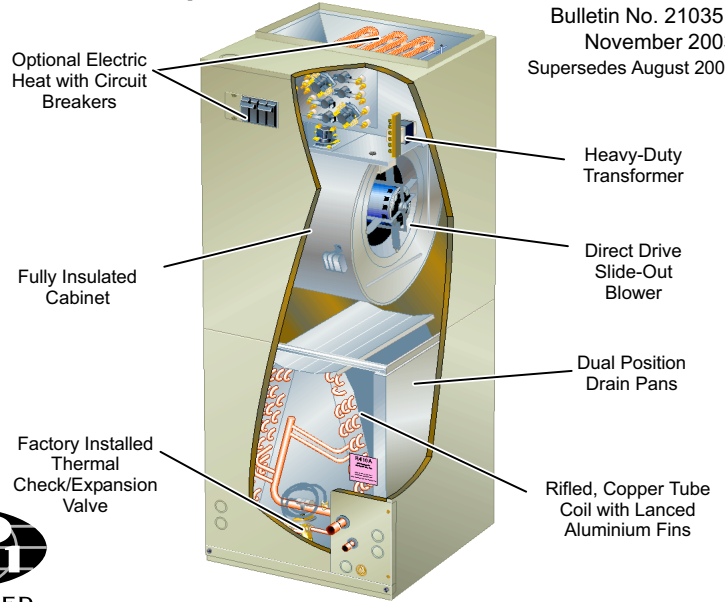
**ELITE® SERIES
Multi-Position**

**Nominal Capacity - 1.5 to 5 Ton
Optional Electric Heat - 2.5 to 30.0 kW**

Bulletin No. 210351
November 2003
Supersedes August 2002



**CBX32M
Horizontal Left Hand Position
(With Optional Electric Heat)**



**CBX32M
Up-flow Position
(With Optional Electric Heat)**



MODEL NUMBER IDENTIFICATION

CB X 32 M - 036 - 230 - 6 - 01

Unit Type
CB = Blower / Evaporator Coil

Refrigerant Type
X = R410A

Series

Configuration
M = Multi-Position

Nominal Cooling Capacity
018/024 = 1.5 to 2 tons (5.3 to 7.0 kW)
030 = 2.5 tons (8.8 kW)
036 = 3 tons (10.6 kW)
042 = 3.5 tons (12.3 kW)
048 = 4 tons (14.1 kW)
060 = 5 tons (17.6 kW)

Voltage
230 = 208/230v-60hz-1ph

Minor Revision Number

Refrigerant Metering Device
2 = Fixed Orifice
3 = TXV - Bleedport (indoor unit)
4 = TXV - Non-bleedport (indoor unit)
5 = TXV - Non-bleedport (outdoor unit)
6 = TXV - R410A Non-bleedport (indoor unit)

FEATURES

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WARRANTY

All covered components - five years in residential applications, one year in non-residential applications.
Refer to Lennox Limited Warranty Certificate included with each unit for additional details.

APPLICATIONS

1.5 to 5 ton (5.3 to 17.6 kW) nominal sizes.
CBX32M Multi-position (up-flow, down-flow or horizontal) applications.
Applicable to expansion valve systems in R-410A cooling applications and check and expansion valve systems in R-410A heat pump applications.
Wide range check and expansion valve factory installed.
See bulletins in section Condensing Units for cooling capacities.
See bulletins in section Heat Pump Outdoor Units for cooling and heating capacities.

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For the latest technical information, www.davenet.com

NOTE - Due to Lennox' ongoing commitment to quality, Specifications, Ratings and Dimensions subject to change without notice and without incurring liability. Improper installation, adjustment, alteration, service or maintenance can cause property damage or personal injury. Installation and service must be performed by a qualified installer and servicing agency.

FEATURES

APPROVALS

Tested with matching condensing and heat pump units in the Lennox Research Laboratory environmental test room in accordance with ARI Standard 210/240.

Optional electric heaters rated in accordance with US Department of Energy (DOE) test procedures and Federal Trade Commission (FTC) labeling regulations.

Blower performance data according to unit tests conducted in Lennox air test chamber.

Blower-coil units are UL Listed to US and Canadian safety standards and components within are bonded for grounding to meet safety standards for servicing required by CEC and NEC. ISO 9001 Registered Manufacturing Quality System.

CABINET

Constructed of heavy gauge galvanized steel.

Completely insulated with thick fiberglass insulation.

Pre-painted steel cabinets have mildly textured enamel finish with primer coat on unpainted side of all panels.

All -048 and -060 units are shipped in one piece but may be disassembled into two separate sections for ease of installation in tight applications. See dimension drawings.

Thick rubber gasket between sections provides air tight seal.

No external screw heads on sides of cabinet for tight installations without damage to walls or woodwork.

Removable panels provide complete service access.

Electrical inlets provided in sides and top of cabinet. See dimension drawings for locations.

Multi-Position Capability

Shipped for up-flow and horizontal right hand discharge.

Quickly converted to down-flow or horizontal left hand air discharge.

Drain Pan

Drain pan designed for up-flow, down-flow or horizontal applications.

Deep, corrosion resistant plastic drain pans have dual pipe drains.

See dimension drawings.

BLOWER

Lennox designed and built direct-drive blower.

Statically and dynamically balanced before installation in unit.

Resiliently mounted multi-speed leadless motor with plug-in connections.

Choice of blower speeds. See blower performance tables.

Speed changes easily accomplished by a simple wiring change.

Blower slides out of cabinet for servicing.

REFRIGERANT SYSTEM

Refrigerant Line Connections

Suction (vapor) and liquid lines have sweat connections.

Extended outside of the cabinet for ease of connection.

See dimension drawings for locations.

Check and Expansion Valve Furnished

For use with R-410A systems.

Wide range valve.

Chatleff style fitting.

Factory installed on all models, internal to cabinet.

Copper Tube/Enhanced Fin Evaporator Coil

Lennox designed and fabricated twin coils.

Assembled in "A" configuration.

Provides extra large surface and contact area, excellent heat transfer and low air resistance for maximum efficiency.

Precise circuiting for uniform refrigerant distribution.

Precisely spaced ripple-edged aluminum fins fitted to durable seamless copper tubes.

Fins are strengthened to resist bending and are equipped with collars that grip tubing for maximum contact area.

Lanced fins provide maximum exposure of fin surface to air stream.

Long life copper tubing easy to service.

Rifled tubing provides superior heat transfer.

Flared shoulder tubing joints and silver soldering provide tight, leakproof joints.

Coil thoroughly factory tested under high pressure to insure leakproof construction.

FILTER

Tool-less access to filter area for quick and easy servicing.

Disposable frame type filter furnished and factory installed in rails in cabinet.

See Specifications tables for sizes.

TRANSFORMER AND BLOWER COOLING RELAY

24 volt transformer with in-line fuse and blower cooling relay furnished as standard.

Factory installed in the unit control box.

Terminal strip furnished.

OPTIONAL ACCESSORIES - MUST BE ORDERED EXTRA

CABINET

Wall Hanging Bracket Kit (Up-Flow Only)

Allows unit to be hung on wall at any height.

Consists of heavy gauge steel support brackets (one for blower coil unit, one for wall mount).

Screws furnished for fastening one bracket to unit.

Bolts for fastening one bracket to wall are field provided.

Down-Flow Additive Base (Down-Flow Only)

Additive base required for models with electric heat installed in down-flow position on combustible floors.

Side Return Unit Stand (Up-Flow Only)

Raises unit 16 in. (406mm) above floor for side return air duct connection on CBX32M models.

Eliminates need for wooden platform construction.

All aluminum construction.

Two adjustable frames fit all sizes.

SINGLE-POINT POWER SOURCE CONTROL BOX

Control Box may be used with optional electric heat when single power supply is connected to multi-circuit electric heat.

Field installs external to the unit cabinet on either side or top.

Constructed of heavy gauge steel, baked enamel finish, prepunched mounting holes, electrical inlet knockouts, and terminal strip.

Removeable cover provides easy access.

Dimensions (H x W x D) - 7 x 7 x 4 in. (178 x 178 x 102 mm)

HORIZONTAL SUPPORT FRAME KIT

Provides support of unit in horizontal applications.

Consists of (2) 1 x 1-1/2 x 32-5/8 in. (25 x 38 x 829 mm) and (2) 1 x 3 x 53-7/8 in. (25 x 76 x 1368 mm) painted heavy gauge cold rolled steel support channels with assembly and suspending holes.

Bolts and nuts furnished for field assembly.

Suspending rods must be field provided.

OPTIONAL ACCESSORIES - MUST BE ORDERED EXTRA

ELECTRIC HEAT

Field install internal to unit cabinet.
 Available in several voltages and kw sizes.
 See Electric Heat tables.
 Helix wound nichrome heating elements exposed directly in air stream resulting in instant heat transfer, low element temperatures and long service life.
 Each element equipped with accurately located limit control with fixed temperature off setting and automatic reset.
 Supplemental thermal cutoff limit control, provides positive protection in case of excessive temperatures.
 Thermal sequencer relay brings elements on and off line, in sequence and equal increments, with time delay between each.
 Initiates and terminates blower operation.
 Heating control relay(s) furnished as standard.
 Control box and access cover constructed of heavy gauge galvanized steel.
 Factory assembled with controls installed and wired.
 Electric heat low voltage controls plug-in to blower coil unit.

Circuit Breaker Models

ECB29-5CB, -6CB, -8CB, -9CB, -10CB, -12.5CB, -15CB, -20CB, -25CB and -30CB (208/240v-1ph) and ECB29-15CB, -20CB and -25CB (208/240v-3ph) heaters are equipped with circuit breakers for overload and short circuit protection.
 Factory wired and mounted on electric heat unit.
 Current sensitive and temperature actuated.
 Manual reset.
 Circuit breakers qualify as disconnect means at unit in many areas, eliminate the need for field provided disconnect.
 Consult local electrical code in your area.

EvenHeater™ Models

Electric heat is staged to provide supplemental heat to meet desired comfort levels.
 EHC control board stages the heat on and off based on the demand of the provided (field installed) supply plenum thermistor. Temperature set point [85, 100, 115 or 130°F (30, 38, 46 or 54°C)] is selected by use of a jumper pin on the EHC control board.
 ECB29EH-9CB, -12.5CB, -15CB and -20CB heaters are equipped with circuit breakers for overload and short circuit protection.
 Factory provided and field mounted in electric heat unit.
 Current sensitive and temperature actuated.
 Manual reset.
 Circuit breakers qualify as disconnect means at unit in many areas, eliminate the need for field provided disconnect.
 Consult local electrical code in your area.

SPECIFICATIONS

General Data		Model Number	CBX32M-018/024	CBX32M-030	CBX32M-036	CBX32M-042	CBX32M-048	CBX32M-060
Nominal Tonnage			1.5 - 2	2.5	3	3.5	4	5
Refrigerant			R-410A	R-410A	R-410A	R-410A	R-410A	R-410A
Connections	Suction (vapor) line - in. (mm) sweat		5/8 (16)	3/4 (19)	3/4 (19)	7/8 (22.2)	7/8 (22.2)	1-1/8 (28)
	Liquid line - in. (mm) sweat		3/8 (9.5)	3/8 (9.5)	3/8 (9.5)	3/8 (9.5)	3/8 (9.5)	3/8 (9.5)
	Condensate drain - in. (mm) fpt		(2) 3/4 (19)	(2) 3/4 (19)	(2) 3/4 (19)	(2) 3/4 (19)	(2) 3/4 (19)	(2) 3/4 (19)
Evaporator Coil	Net face area - ft. ² (m ²)		3.56 (0.33)	4.44 (0.41)	5.0 (0.46)	5.0 (0.46)	7.22 (0.67)	7.22 (0.67)
	Tube outside diameter - in. (mm)		3/8 (9.5)	3/8 (9.5)	3/8 (9.5)	3/8 (9.5)	3/8 (9.5)	3/8 (9.5)
	Number of rows		3	3	3	3	3	3
	Fins per inch (fins per m)		12 (472)	12 (472)	12 (472)	12 (472)	12 (472)	12 (472)
Blower Data	Wheel nominal diameter x width - in.		10 x 7	10 x 8	11 x 8	11 x 8	11-1/2 x 9	12 x 9
	mm		254 x 178	254 x 203	279 x 203	279 x 203	292 x 229	305 x 229
	Blower motor output - hp (W)		1/5 (149)	1/3 (249)	1/3 (249)	1/3 (249)	1/3 (249)	1/2 (373)
Filters	¹ Number and size - in.		15 x 20 x 1	20 x 20 x 1	20 x 22 x 1	20 x 22 x 1	20 x 24 x 1	20 x 24 x 1
	mm		381 x 508 x 25	508 x 508 x 25	508 x 559 x 25	508 x 559 x 25	508 x 610 x 25	508 x 610 x 25
Shipping Data - 1 Package	lbs. (kg)		136 (62)	157 (71)	177 (80)	181 (82)	206 (93)	206 (93)

ELECTRIAL DATA

Electrical Data (60hz)	Voltage - 1 phase	208/230V	208/230V	208/230V	208/230V	208/230V	208/230V
	² Maximum overcurrent protection (unit only)	15	15	15	15	15	15
	Minimum circuit ampacity (unit only)	2	2	2	3	3	5

OPTIONAL ACCESSORIES - MUST BE ORDERED EXTRA

Down-Flow Combustible Base - Ship. wt. - lbs. (kg)	34J72 - 8 (4)	34J73 - 8 (4)	34J73 - 8 (4)	34J73 - 8 (4)	34J73 - 8 (4)	34J73 - 8 (4)
Electric Heat	2.5 to 20 kW - See Electric Heat Data tables			5 to 30 kW - See Electric Heat Data tables		
Horizontal Support Frame Kit - Ship. Wt. - lbs. (kg)	56J18 - 18 (8)	56J18 - 18 (8)	56J18 - 18 (8)	56J18 - 18 (8)	56J18 - 18 (8)	56J18 - 18 (8)
Side Return Unit Stand (Up-Flow) - Ship. wt. - lbs. (kg)	45K31 - 5 (2)	45K32 - 6 (3)	45K32 - 6 (3)	45K32 - 6 (3)	45K32 - 6 (3)	45K32 - 6 (3)
Single-Point Power Source Control Box - Shipping weight - lbs. (kg)	21H39 - 5 (2)	21H39 - 5 (2)	21H39 - 5 (2)	21H39 - 5 (2)	21H39 - 5 (2)	21H39 - 5 (2)
Wall Hanging Bracket Kit (Up-Flow) - ship. wt. - lbs. (kg)	45K30 - 3 (1)	45K30 - 3 (1)	45K30 - 3 (1)	45K30 - 3 (1)	45K30 - 3 (1)	45K30 - 3 (1)

¹ Disposable frame type filter.

² HACR type circuit breaker or fuse.

BLOWER DATA

CBX32M-018/024 BLOWER PERFORMANCE (208/230V)

External Static Pressure		Air Volume and Motor Watts at Specific Blower Taps								
in. w.g.	Pa	High			Medium			Low		
		cfm	L/s	Watts	cfm	L/s	Watts	cfm	L/s	Watts
.00	0	1030	485	365	895	425	300	700	330	245
.05	10	1015	480	360	890	420	295	695	330	245
.10	25	1000	470	355	875	415	290	690	325	240
.15	35	980	465	345	860	405	285	680	320	235
.20	50	960	455	340	845	400	280	665	315	230
.25	60	935	440	335	825	390	275	650	310	220
.30	75	910	430	325	800	380	265	635	300	215
.40	100	850	400	310	745	355	250	590	280	205
.50	125	780	370	295	685	320	235	535	255	190
.60	150	705	330	280	605	285	220	470	220	175
.70	175	615	290	265	520	245	200	395	185	165
.75	185	565	265	255	475	225	195	350	165	155

NOTE - All air data is measured external to unit with air filter in place with bottom return air. Electric heaters have no appreciable air resistance.

CBX32M-030 BLOWER PERFORMANCE (208/230V)

External Static Pressure		Air Volume and Motor Watts at Specific Blower Taps								
in. w.g.	Pa	High			Medium			Low		
		cfm	L/s	Watts	cfm	L/s	Watts	cfm	L/s	Watts
.00	0	1290	610	385	1175	555	335	1045	490	315
.05	10	1295	610	380	1190	560	330	1075	505	310
.10	25	1290	610	375	1190	560	325	1085	515	300
.15	35	1265	600	370	1175	555	320	1085	510	295
.20	50	1230	580	360	1145	540	310	1065	505	285
.25	60	1180	555	350	1105	520	295	1030	485	270
.30	75	1115	525	335	1045	495	280	980	460	255
.40	100	945	445	305	890	420	250	830	390	220
.50	125	720	340	275	675	320	215	615	290	190
.60	150	440	205	240	405	190	185	335	155	160

CBX32M-036 BLOWER PERFORMANCE (208/230V)

External Static Pressure		Air Volume and Motor Watts at Specific Blower Taps								
in. w.g.	Pa	High			Medium			Low		
		cfm	L/s	Watts	cfm	L/s	Watts	cfm	L/s	Watts
.00	0	1525	720	505	1120	530	390	915	430	335
.05	10	1520	720	495	1150	540	385	965	455	330
.10	25	1510	715	480	1170	550	380	1005	475	325
.15	35	1495	705	470	1180	560	375	1035	490	320
.20	50	1475	695	455	1190	560	370	1055	495	320
.25	60	1450	685	440	1185	560	360	1060	500	310
.30	75	1415	670	430	1175	555	350	1050	495	300
.40	100	1335	630	400	1135	535	325	1005	475	290
.50	125	1230	580	375	1060	500	300	915	430	255
.60	150	1100	520	345	960	455	280	775	365	230
.70	175	950	450	320	830	390	255	590	280	205
.75	185	870	410	305	750	355	245	485	230	195

NOTE - All air data is measured external to unit with air filter in place with bottom return air. Electric heaters have no appreciable air resistance.

CBX32M-042 BLOWER PERFORMANCE (208/230V)

External Static Pressure		Air Volume and Motor Watts at Specific Blower Taps								
in. w.g.	Pa	High			Medium			Low		
		cfm	L/s	Watts	cfm	L/s	Watts	cfm	L/s	Watts
.00	0	1825	860	565	1600	755	455	1325	625	370
.05	10	1790	845	555	1585	750	455	1335	630	370
.10	25	1750	825	540	1565	740	450	1335	630	370
.15	35	1710	805	530	1540	725	440	1330	630	365
.20	50	1660	785	520	1505	710	435	1320	620	360
.25	60	1610	760	505	1470	695	425	1300	615	355
.30	75	1555	735	495	1425	675	415	1270	600	350
.40	100	1430	675	465	1320	625	390	1195	565	330
.50	125	1290	610	440	1195	565	365	1090	515	310
.60	150	1135	535	415	1050	495	335	955	450	285
.70	175	965	455	385	875	415	310	795	375	260
.75	185	875	415	370	780	370	295	700	330	250

CBX32M-048 BLOWER PERFORMANCE (208/230V)

External Static Pressure		Air Volume and Motor Watts at Specific Blower Taps								
in. w.g.	Pa	High			Medium			Low		
		cfm	L/s	Watts	cfm	L/s	Watts	cfm	L/s	Watts
.00	0	1910	900	590	1785	845	520	1475	695	430
.05	10	1895	895	585	1770	835	515	1480	700	430
.10	25	1870	880	580	1750	825	510	1475	695	425
.15	35	1840	865	570	1720	810	500	1465	690	420
.20	50	1800	850	565	1685	795	490	1445	680	410
.25	60	1755	830	550	1645	775	480	1415	670	405
.30	75	1700	805	540	1600	755	465	1380	650	395
.40	100	1580	745	515	1485	700	440	1290	610	370
.50	125	1425	675	485	1350	635	410	1170	550	345
.60	150	1250	590	450	1190	560	380	1020	480	320
.70	175	1045	495	415	1000	470	350	840	395	295
.75	185	930	440	400	900	425	335	740	350	280

NOTE - All air data is measured external to unit with air filter in place with bottom return air. Electric heaters have no appreciable air resistance.

CBX32M-060 BLOWER PERFORMANCE (208/230V)

External Static Pressure		Air Volume and Motor Watts at Specific Blower Taps								
in. w.g.	Pa	High			Medium			Low		
		cfm	L/s	Watts	cfm	L/s	Watts	cfm	L/s	Watts
.00	0	2115	995	780	2025	955	670	1775	835	585
.05	10	2100	990	770	2010	950	665	1775	835	590
.10	25	2085	985	765	1995	940	655	1770	835	580
.15	35	2060	970	750	1975	930	645	1760	830	570
.20	50	2030	960	740	1950	920	635	1745	825	560
.25	60	2000	945	730	1915	905	625	1725	815	550
.30	75	1960	925	715	1880	885	610	1695	800	535
.40	100	1870	880	685	1795	845	580	1630	770	505
.50	125	1755	830	655	1690	795	545	1540	725	475
.60	150	1620	765	625	1560	735	515	1425	675	440
.70	175	1465	690	590	1415	670	480	1295	610	410
.80	200	1290	610	560	1250	590	445	1140	535	375
.85	210	1195	565	545	1160	550	425	1050	495	360

INSTALLATION CLEARANCES

Cabinet	0 inch (0 mm)
Plenum and Outlet duct on blower/coil units	1 inch (25 mm)
Plenum and Warm air duct within 3 feet (914mm) of cabinet	1 inch (25 mm)
Floor	¹ Combustible

¹ When unit is installed in the down-flow position with electric heat on a combustible floor, an optional down flow base is required.

CBX32M-018/024 AND CBX32M-030 - ELECTRIC HEAT DATA

SINGLE PHASE ELECTRIC HEAT

Model Number	No. of Steps	Input			CBX32M-018/024			CBX32M-030				
		Volts	kW	¹ Btuh	² Blower Motor Full Load Amps	³ Minimum Circuit Ampacity	⁵ Maximum Overcurrent Protection	² Blower Motor Full Load Amps	³ Minimum Circuit Ampacity		⁵ Maximum Overcurrent Protection	
									Circuit 1	Circuit 2	Circuit 1	Circuit 2
2.5 kW 4 lbs. ECB29-2.5 (28K30)	1	208	1.9	6,400	1.5	13	15	Not Available				
		220	2.1	7,200	1.5	15	15					
		230	2.3	7,800	1.5	15	15					
		240	2.5	8,500	1.5	15	15					
5 kW 4 lbs. ECB29-5 (28K31) Terminal Block ECB29-5CB (28K32) 30A Circuit breaker	1	208	3.8	12,800	1.5	24	4 25	1.73	25	---	4 25	---
		220	4.2	14,300	1.5	28	30	1.73	28	---	30	---
		230	4.6	15,700	1.5	28	30	1.73	28	---	30	---
		240	5.0	17,100	1.5	28	30	1.73	28	---	30	---
6 kW 4 lbs. ECB29-6 (47L22) Terminal Block ECB29-6CB (47L23) 35A Circuit breaker	1	208	4.5	15,400	1.5	29	4 30	1.73	30	---	4 30	---
		220	5.0	17,100	1.5	33	35	1.73	33	---	35	---
		230	5.5	18,800	1.5	33	35	1.73	33	---	35	---
		240	6.0	20,500	1.5	33	35	1.73	33	---	35	---
8 kW 5 lbs. ECB29-8 (28K33) Terminal Block ECB29-8CB (28K34) 45A Circuit breaker	2	208	6.0	20,500	1.5	38	4 40	1.73	38	---	4 40	---
		220	6.7	22,900	1.5	44	45	1.73	44	---	45	---
		230	7.3	25,100	1.5	44	45	1.73	44	---	45	---
		240	8.0	27,300	1.5	44	45	1.73	44	---	45	---
9 kW 5 lbs. ECB29-9CB (10L11) 50A Circuit breaker ECB29EH-9CB (91K67) 50A Circuit breaker	2	208	6.8	23,100	1.5	42	4 45	1.73	43	---	4 45	---
		220	7.6	25,800	1.5	49	50	1.73	49	---	50	---
		230	8.3	28,200	1.5	49	50	1.73	49	---	50	---
		240	9.0	30,700	1.5	49	50	1.73	49	---	50	---
10 kW 6 lbs. ECB29-10 (28K35) Terminal Block ECB29-10CB (28K36) 60A Circuit breaker	2	208	7.5	25,600	1.5	47	4 50	1.73	47	---	4 50	---
		220	8.4	28,700	1.5	54	60	1.73	54	---	60	---
		230	9.2	31,400	1.5	54	60	1.73	54	---	60	---
		240	10.0	34,100	1.5	54	60	1.73	54	---	60	---
12.5 kW 10 lbs. ECB29-12.5CB (28K37) (1) 25A & (1) 50A Circuit breaker ECB29EH-12.5CB (91K68) (1) 25A & (1) 50A Circuit breaker	3	208	7.5	25,600	Not Available			1.73	21	31	25	4 45
		220	8.4	28,700				1.73	24	35	25	50
		230	9.2	31,400				1.73	24	35	25	50
		240	10.0	34,100				1.73	24	35	25	50
15 kW 12 lbs. ECB29-15CB (28K38) (1) 30A & (1) 60A Circuit breaker ECB29EH-15CB (91K69) (1) 30A & (1) 60A Circuit breaker	3	208	11.3	38,400	Not Available			1.73	24	37	4 25	4 50
		220	12.6	43,000				1.73	28	42	30	60
		230	13.8	47,000				1.73	28	42	30	60
		240	15.0	51,200				1.73	28	42	30	60

NOTE - Circuit 1 Minimum Circuit Ampacity includes the Blower Motor Full Load Amps.

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

² Amps shown are for blower motor only.

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 **Bold text indicates that the circuit breaker on "CB" circuit breaker models must be replaced with size noted.**

⁵ HACR type circuit breaker or fuse.

CBX32M-036 AND CBX32M-042 ELECTRIC HEAT DATA

SINGLE PHASE ELECTRIC HEAT

						CBX32M-036				CBX32M-042				
						² Blower Motor Full Load Amps		³ Minimum Circuit Ampacity Circuit		⁵ Maximum Overcurrent Protection Circuit		² Blower Motor Full Load Amps		³ Minimum Circuit Ampacity Circuit
Model Number	No. of Steps	Volts	Input		1 Btuh	1	2	1	2	1	2	1	2	
			kW	1 Btuh										
5 kW 4 lbs. ECB29-5 (28K31) Terminal Block ECB29-5CB (28K32) 30A Circuit breaker	1	208	3.8	12,800	1.72	25	---	⁴ 25	---	2.4	26	---	30	---
		220	4.2	14,300	1.72	28	---	30	---	2.4	29	---	30	---
		230	4.6	15,700	1.72	28	---	30	---	2.4	29	---	30	---
		240	5.0	17,100	1.72	28	---	30	---	2.4	29	---	30	---
6 kW 4 lbs. ECB29-6 (47L22) Terminal Block ECB29-6CB (47L23) 35A Circuit breaker	1	208	4.5	15,400	1.72	30	---	⁴ 30	---	2.4	30	---	⁴ 30	---
		220	5.0	17,100	1.72	33	---	35	---	2.4	34	---	35	---
		230	5.5	18,800	1.72	33	---	35	---	2.4	34	---	35	---
		240	6.0	20,500	1.72	33	---	35	---	2.4	34	---	35	---
8 kW 5 lbs. ECB29-8 (28K33) Terminal Block ECB29-8CB (28K34) 45A Circuit breaker	2	208	6.0	20,500	1.72	38	---	⁴ 40	---	2.4	40	---	⁴ 40	---
		220	6.7	22,900	1.72	44	---	45	---	2.4	45	---	45	---
		230	7.3	25,100	1.72	44	---	45	---	2.4	45	---	45	---
		240	8.0	27,300	1.72	44	---	45	---	2.4	45	---	45	---
9 kW 5 lbs. ECB29-9CB (10L11) 50A Circuit breaker ECB29EH-9CB (91K67) 50A Circuit breaker	2	208	6.8	25,600	1.72	43	---	⁴ 45	---	2.4	44	---	⁴ 45	---
		220	7.6	28,700	1.72	49	---	50	---	2.4	50	---	50	---
		230	8.3	31,400	1.72	49	---	50	---	2.4	50	---	50	---
		240	9.0	34,100	1.7	49	---	50	---	2.4	50	---	50	---
10 kW 6 lbs. ECB29-10 (28K35) Terminal Block ECB29-10CB (28K36) 60A Circuit breaker	2	208	7.5	25,600	1.72	47	---	⁴ 50	---	2.4	48	---	⁴ 50	---
		220	8.4	28,700	1.72	54	---	60	---	2.4	55	---	60	---
		230	9.2	31,400	1.72	54	---	60	---	2.4	55	---	60	---
		240	10.0	34,100	1.72	54	---	60	---	2.4	55	---	60	---
12.5 kW 10 lbs. ECB29-12.5CB (28K37) (1) 25A & (1) 50A Circuit breaker ECB29EH-12.5CB (91K68) (1) 25A & (1) 50A Circuit breaker	3	208	9.4	32,000	1.72	21	31	25	⁴ 45	2.4	22	31	25	⁴ 45
		220	10.5	35,800	1.72	24	35	25	50	2.4	25	35	25	50
		230	11.5	39,200	1.72	24	35	25	50	2.4	25	35	25	50
		240	12.5	42,600	1.72	24	35	25	50	2.4	25	35	25	50
15 kW 12 lbs. ECB29-15CB (28K38) (1) 30A & (1) 60A Circuit Breaker ECB29EH-15CB (91K69) (1) 30A & (1) 60A Circuit Breaker	3	208	11.3	38,400	1.72	24	37	⁴ 25	⁴ 50	2.4	26	37	30	⁴ 50
		220	12.6	43,000	1.72	28	42	30	60	2.4	29	42	30	60
		230	13.8	47,000	1.72	28	42	30	60	2.4	29	42	30	60
		240	15.0	51,200	1.72	28	42	30	60	2.4	29	42	30	60
20 kW 19 lbs. ECB29-20CB (11L31) (1) 50A & (1) 60A Circuit Breaker ECB29EH-20CB (91K70) (1) 50A & (1) 60A Circuit Breaker	4	208	15.0	51,200	1.72	44	41	⁴ 45	60	2.4	45	41	⁴ 45	60
		220	16.8	57,300	1.72	49	46	50	60	2.4	50	46	50	60
		230	18.4	62,700	1.72	49	46	50	60	2.4	50	46	50	60
		240	20.0	68,200	1.72	49	46	50	60	2.4	50	46	50	60

THREE PHASE ELECTRIC HEAT

						CBX32M-036				CBX32M-042				
8 kW 5 lbs. ECB29-8 (28K42) Terminal Block	3	208	6.0	20,500	1.72	23	---	25	---	2.4	24	---	25	---
		220	6.7	22,900	1.72	26	---	30	---	2.4	27	---	30	---
		230	7.3	25,100	1.72	26	---	30	---	2.4	27	---	30	---
		240	8.0	27,300	1.72	26	---	30	---	2.4	27	---	30	---
10 kW 6 lbs. ECB29-10 (28K43) Terminal Block	3	208	7.5	25,600	1.72	28	---	30	---	2.4	29	---	30	---
		220	8.4	28,700	1.72	32	---	35	---	2.4	33	---	35	---
		230	9.2	31,400	1.72	32	---	35	---	2.4	33	---	35	---
		240	10.0	34,100	1.72	32	---	35	---	2.4	33	---	35	---
15 kW 12 lbs. ECB29-15CB (28K44) (1) 50A Circuit breaker	3	208	11.3	38,400	1.72	41	---	⁴ 45	---	2.4	42	---	⁴ 45	---
		220	12.6	43,000	1.72	47	---	50	---	2.4	48	---	50	---
		230	13.5	47,000	1.72	47	---	50	---	2.4	48	---	50	---
		240	15.0	51,200	1.72	47	---	50	---	2.4	48	---	50	---
20 kW 19 lbs. ECB29-20CB (28K45) (2) 35A Circuit breaker	6	208	15.0	51,200	1.72	28	21	⁴ 30	⁴ 30	2.4	29	21	⁴ 30	⁴ 30
		220	16.8	57,300	1.72	32	24	35	35	2.4	33	24	35	35
		230	18.4	62,700	1.72	32	24	35	35	2.4	33	24	35	35
		240	20.0	68,200	1.72	32	24	35	35	2.4	33	24	35	35

NOTE - Circuit 1 Minimum Circuit Ampacity includes the Blower Motor Full Load Amps.

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

² Amps shown are for blower motor only.

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 Bold text indicates that the circuit breaker on "CB" circuit breaker models must be replaced with size noted.

⁵ HACR type circuit breaker or fuse.

CBX32M-048 AND CBX32M-060 ELECTRIC HEAT DATA

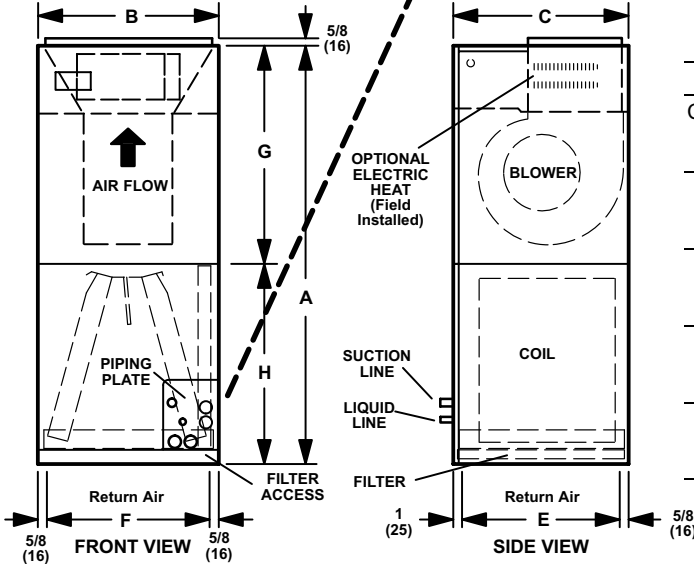
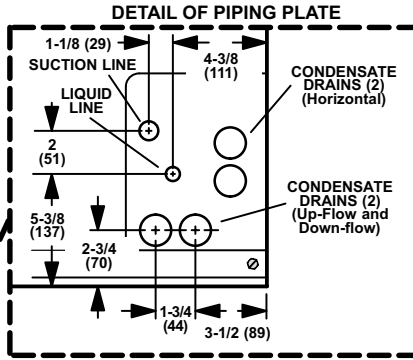
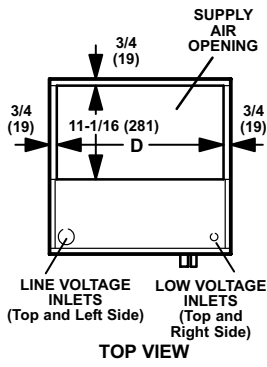
SINGLE PHASE ELECTRIC HEAT						CBX32M-048						CBX32M-060							
Model Number	No. of Steps	Volts	Input			² Blower Motor Full Load Amps	³ Minimum Circuit Ampacity Circuit			⁵ Maximum Overcurrent Protection Circuit			² Blower Motor Full Load Amps	³ Minimum Circuit Ampacity Circuit			⁵ Maximum Overcurrent Protection Circuit		
			kW	1 Btuh			1	2	3	1	2	3		1	2	3	1	2	3
5 kW 4 lbs.	ECB29-5 (28K31) Terminal Block ECB29-5CB (28K32) 30A Circuit breaker	1	208	3.8	12,800	2.4	26	---	---	30	---	---	3.9	27	---	---	30	---	---
			220	4.2	14,300	2.4	29	---	---	30	---	---	3.9	31	---	---	35	---	---
			230	4.6	15,700	2.4	29	---	---	30	---	---	3.9	31	---	---	35	---	---
			240	5.0	17,100	2.4	29	---	---	30	---	---	3.9	31	---	---	35	---	---
6 kW 4 lbs.	ECB29-6 (47L22) Terminal Block ECB29-6CB (47L23) 35A Circuit breaker	1	208	4.5	15,400	2.4	30	---	---	⁴ 30	---	---	3.9	31	---	---	35	---	---
			220	5.0	17,100	2.4	34	---	---	35	---	---	3.9	36	---	---	40	---	---
			230	5.5	18,800	2.4	34	---	---	35	---	---	3.9	36	---	---	40	---	---
			240	6.0	20,500	2.4	34	---	---	35	---	---	3.9	36	---	---	40	---	---
8 kW 5 lbs.	ECB29-8 (28K33) Terminal Block ECB29-8CB (28K34) 45A Circuit breaker	2	208	6.0	20,500	2.4	40	---	---	⁴ 40	---	---	3.9	40	---	---	⁴ 40	---	---
			220	6.7	22,900	2.4	45	---	---	45	---	---	3.9	47	---	---	50	---	---
			230	7.3	25,100	2.4	45	---	---	45	---	---	3.9	47	---	---	50	---	---
			240	8.0	27,300	2.4	45	---	---	45	---	---	3.9	47	---	---	50	---	---
9 kW 5 lbs.	ECB29-9CB (10L11) 50A Circuit breaker ECB29EH-9CB (91K67) 50A Circuit breaker	2	208	6.8	25,600	2.4	44	---	---	⁴ 45	---	---	3.9	45	---	---	⁴ 45	---	---
			220	7.6	28,700	2.4	50	---	---	50	---	---	3.9	52	---	---	60	---	---
			230	8.3	31,400	2.4	50	---	---	50	---	---	3.9	52	---	---	60	---	---
			240	9.0	34,100	2.4	50	---	---	50	---	---	3.9	52	---	---	60	---	---
10 kW 6 lbs.	ECB29-10 (28K35) Terminal Block ECB29-10CB (28K36) 60A Circuit breaker	2	208	7.5	25,600	2.4	48	---	---	⁴ 50	---	---	3.9	51	---	---	60	---	---
			220	8.4	28,700	2.4	55	---	---	60	---	---	3.9	57	---	---	60	---	---
			230	9.2	31,400	2.4	55	---	---	60	---	---	3.9	57	---	---	60	---	---
			240	10.0	34,100	2.4	55	---	---	60	---	---	3.9	57	---	---	60	---	---
12.5 kW 10 lbs.	ECB29-12.5CB (28K37) (1) 25A & (1) 50A Circuit breaker ECB29EH-12.5CB (91K68) (1) 25A & (1) 50A Circuit breaker	3	208	9.4	32,000	2.4	22	31	---	25	⁴ 45	---	3.9	23	31	---	25	⁴ 45	---
			220	10.5	35,800	2.4	25	35	---	25	50	---	3.9	27	35	---	30	50	---
			230	11.5	39,200	2.4	25	35	---	25	50	---	3.9	27	35	---	30	50	---
			240	12.5	42,600	2.4	25	35	---	25	50	---	3.9	27	35	---	30	50	---
15 kW 12 lbs.	ECB29-15CB (28K38) (1) 30A & (1) 60A Circuit breaker ECB29EH-15CB (91K69) (1) 30A & (1) 60A Circuit breaker	3	208	11.3	38,400	2.4	26	37	---	30	⁴ 50	---	3.9	27	37	---	30	⁴ 50	---
			220	12.6	43,000	2.4	29	42	---	30	60	---	3.9	31	42	---	35	60	---
			230	13.5	47,000	2.4	29	42	---	30	60	---	3.9	31	42	---	35	60	---
			240	15.0	51,200	2.4	29	42	---	30	60	---	3.9	31	42	---	35	60	---
20 kW 19 lbs.	ECB29-20CB (11L31) (1) 50A & (1) 60A Circuit breaker ECB29EH-20CB (91K70) (1) 50A & (1) 60A Circuit breaker	4	208	15.0	51,200	2.4	45	41	---	⁴ 45	60	---	3.9	46	41	---	50	60	---
			220	16.8	57,300	2.4	50	46	---	50	60	---	3.9	52	46	---	60	60	---
			230	18.4	62,700	2.4	50	46	---	50	60	---	3.9	52	46	---	60	60	---
			240	20.0	68,200	2.4	50	46	---	50	60	---	3.9	52	46	---	60	60	---
25 kW 19 lbs.	ECB29-25CB (28K40) (3) 50A Circuit breakers	5	208	18.8	64,100	2.4	40	31	31	⁴ 40	⁴ 45	⁴ 45	3.9	42	31	31	⁴ 45	⁴ 45	⁴ 45
			220	21.0	71,700	2.4	47	35	35	50	50	50	3.9	48	35	35	50	50	50
			230	23.0	78,300	2.4	47	35	35	50	50	50	3.9	48	35	35	50	50	50
			240	25.0	85,300	2.4	47	35	35	50	50	50	3.9	48	35	35	50	50	50
30 kW 19 lbs.	ECB29-30CB (28K41) (3) 60A Circuit breakers	6	208	22.5	76,900		Not Available						3.9	51	37	37	60	⁴ 50	⁴ 50
			220	25.2	86,000		Not Available						3.9	56	42	42	60	60	60
			230	27.5	94,000		Not Available						3.9	56	42	42	60	60	60
			240	30.0	102,400		Not Available						3.9	56	42	42	60	60	60

THREE PHASE ELECTRIC HEAT						CBX32M-048						CBX32M-060							
8 kW 5 lbs.	ECB29-8 (28K42) Terminal block	3	208	6.0	20,500	2.4	24	---	---	25	---	---	3.9	25	---	---	25	---	---
			220	6.7	22,900	2.4	27	---	---	30	---	---	3.9	29	---	---	30	---	---
			230	7.3	25,100	2.4	27	---	---	30	---	---	3.9	29	---	---	30	---	---
			240	8.0	27,300	2.4	27	---	---	30	---	---	3.9	29	---	---	30	---	---
10 kW 6 lbs.	ECB29-10 (28K43) Terminal Block	3	208	7.5	25,600	2.4	29	---	---	30	---	---	3.9	30	---	---	30	---	---
			220	8.4	28,700	2.4	33	---	---	35	---	---	3.9	35	---	---	35	---	---
			230	9.2	31,400	2.4	33	---	---	35	---	---	3.9	35	---	---	35	---	---
			240	10.0	34,100	2.4	33	---	---	35	---	---	3.9	35	---	---	35	---	---
15 kW 12 lbs.	ECB29-15CB (28K44) 50A Circuit breaker	3	208	11.3	38,400	2.4	42	---	---	⁴ 45	---	---	3.9	43	---	---	⁴ 45	---	---
			220	12.6	43,000	2.4	48	---	---	50	---	---	3.9	50	---	---	50	---	---
			230	13.5	47,000	2.4	48	---	---	50	---	---	3.9	50	---	---	50	---	---
			240	15.0	51,200	2.4	48	---	---	50	---	---	3.9	50	---	---	50	---	---
20 kW 19 lbs.	ECB29-20CB (28K45) (2) 35A Circuit breaker	6	208	15.0	51,200	2.4	29	21	---	⁴ 30	⁴ 30	---	3.9	30	21	---	⁴ 30	⁴ 30	---
			220	16.8	57,300	2.4	33	24	---	35	35	---	3.9	35	24	---	35	35	---
			230	18.4	62,700	2.4	33	24	---	35	35	---	3.9	35	24	---	35	35	---
			240	20.0	68,200	2.4	33	24	---	35	35	---	3.9	35	24	---	35	35	---
25 kW 19 lbs.	ECB29-25CB (28K46) (2) 45A Circuit breaker	6	208	18.8	64,100	2.4	35	27	---	⁴ 40	⁴ 40	---	3.9	37	27	---	⁴ 40	⁴ 40	---
			220	21.0	71,700	2.4	41	30	---	45	45	---	3.9	43	30	---	45	45	---
			230	23.0	78,300	2.4	41	30	---	45	45	---	3.9	43	30	---	45	45	---
			240	25.0	85,300	2.4	41	30	---	45	45	---	3.9	43	30	---	45	45	---

NOTE - Circuit 1 Minimum Circuit Ampacity includes the Blower Motor Full Load Amps.
¹ Electric heater capacity only — does not include additional blower motor heat capacity.
² Amps shown are for blower motor only.
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 Bold text indicates that the circuit breaker on "CB" circuit breaker models must be replaced with size noted.
⁵ HACR type circuit breaker or fuse.

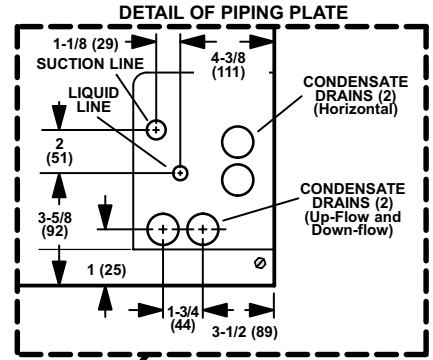
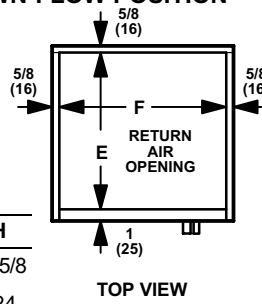
DIMENSIONS - INCHES (MM)

UP-FLOW POSITION

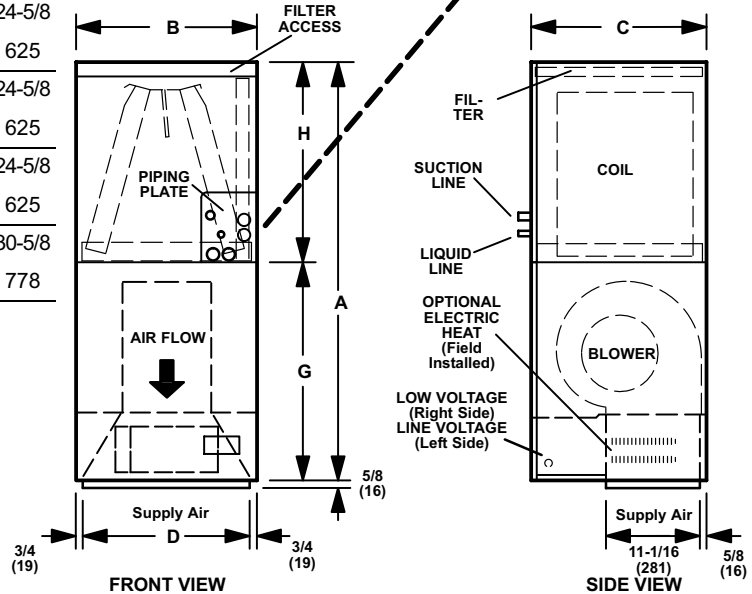


Model No.		A	B	C	D	E	F	G	H
CBX32M-018/024	in.	45-1/4	16-1/4	20-5/8	14-3/4	19	15	24-5/8	20-5/8
	mm	1149	413	524	375	483	381	625	524
CBX32M-030	in.	49-1/4	21-1/4	20-5/8	19-3/4	19	20	24-5/8	24-5/8
	mm	1251	540	524	502	483	508	625	625
CBX32M-036	in.	51	21-1/4	22-5/8	19-3/4	21	20	26-3/8	24-5/8
	mm	1295	540	575	502	533	508	670	625
CBX32M-042	in.	52-1/2	21-1/4	22-5/8	19-3/4	21	20	27-7/8	24-5/8
	mm	1334	540	575	502	533	508	708	625
CBX32M-048 CBX32M-060	in.	58-1/2	21-1/4	24-5/8	19-3/4	23	20	27-7/8	30-5/8
	mm	1486	540	625	502	584	508	708	778

CBX32M DOWN-FLOW POSITION

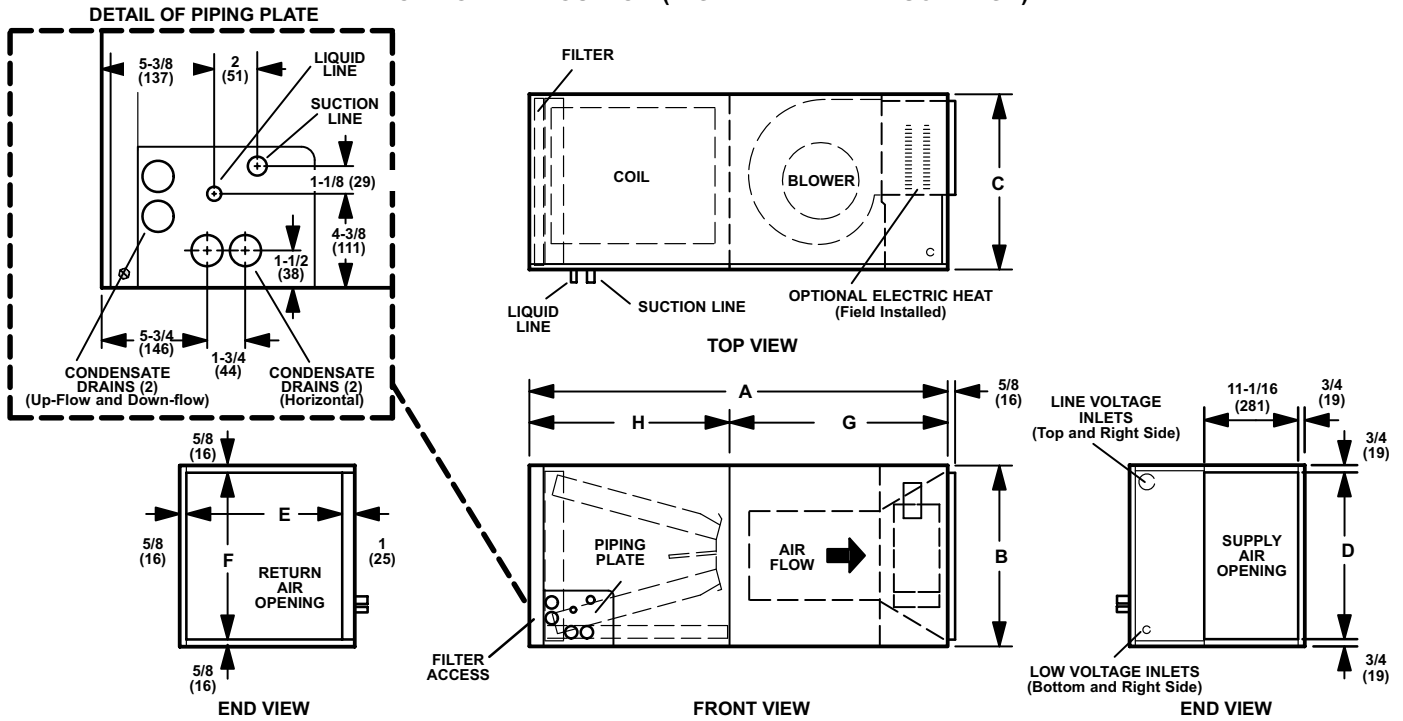


Model No.		A	B	C	D	E	F	G	H
CBX32M-018/024	in.	45-1/4	16-1/4	20-5/8	14-3/4	19	15	24-5/8	20-5/8
	mm	1149	413	524	375	483	381	625	524
CBX32M-030	in.	49-1/4	21-1/4	20-5/8	19-3/4	19	20	24-5/8	24-5/8
	mm	1251	540	524	502	483	508	625	625
CBX32M-036	in.	51	21-1/4	22-5/8	19-3/4	21	20	26-3/8	24-5/8
	mm	1295	540	575	502	533	508	670	625
CBX32M-042	in.	52-1/2	21-1/4	22-5/8	19-3/4	21	20	27-7/8	24-5/8
	mm	1334	540	575	502	533	508	708	625
CBX32M-048 CBX32M-060	in.	58-1/2	21-1/4	24-5/8	19-3/4	23	20	27-7/8	30-5/8
	mm	1486	540	625	502	584	508	708	778

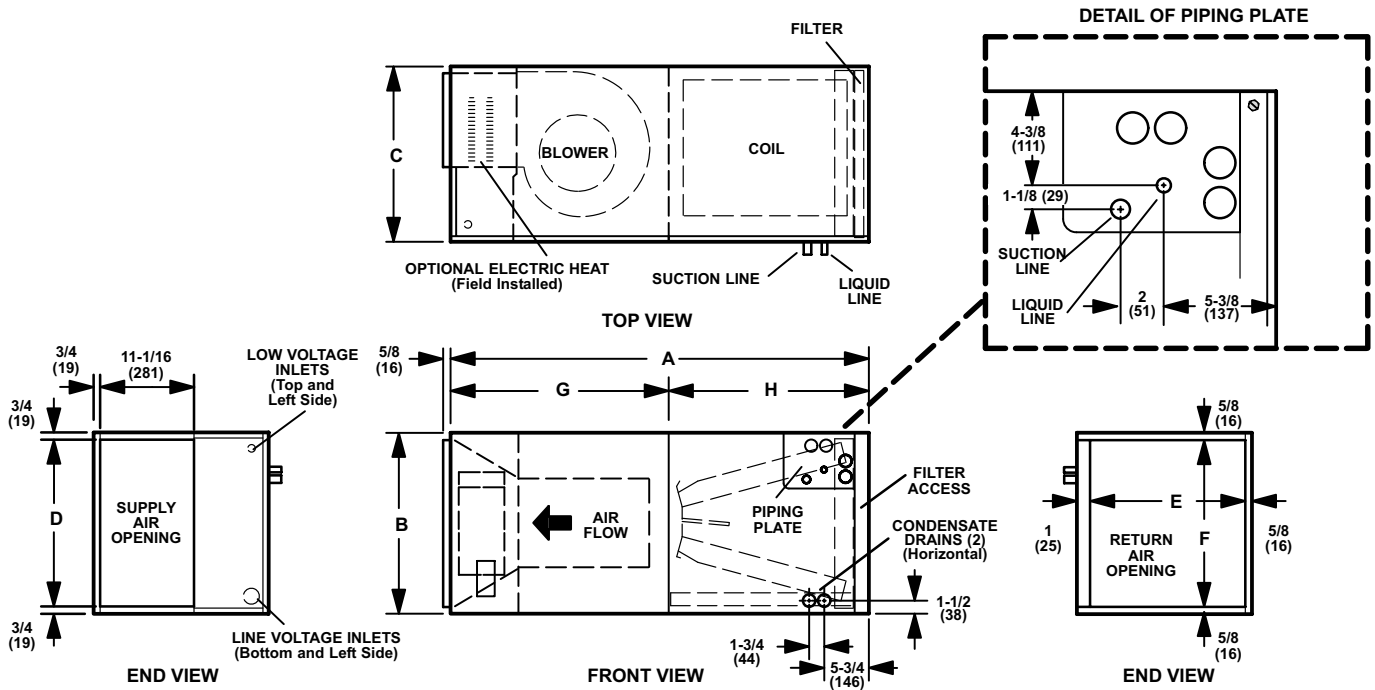


DIMENSIONS - INCHES (MM)

HORIZONTAL POSITION (RIGHT-HAND AIR DISCHARGE)



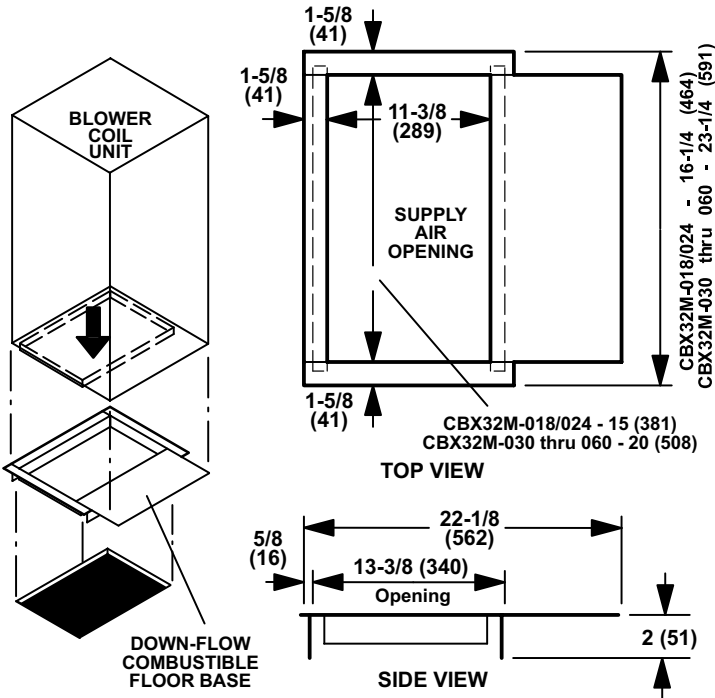
HORIZONTAL POSITION (LEFT-HAND AIR DISCHARGE)



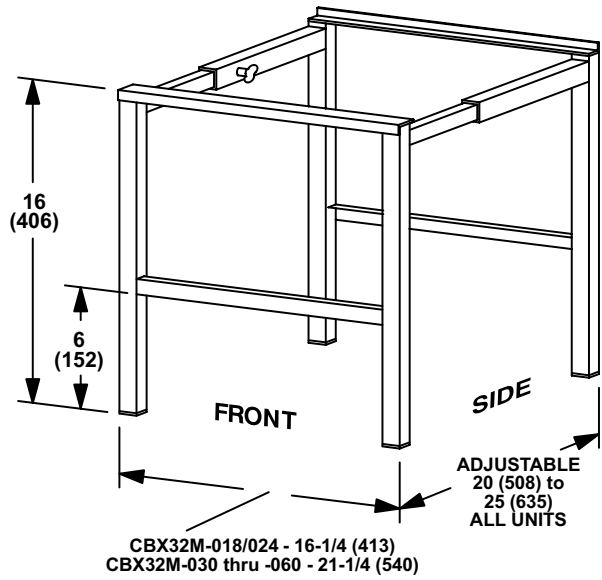
Model No.	A		B		C		D		E		F		G		H	
	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm
CBX32M-018/024	45-1/4	1149	16-1/4	413	20-5/8	524	14-3/4	375	19	483	15	381	24-5/8	625	20-5/8	524
CBX32M-030	49-1/4	1251	21-1/4	540	20-5/8	524	19-3/4	502	19	483	20	508	24-5/8	625	24-5/8	625
CBX32M-036	51	1295	21-1/4	540	22-5/8	575	19-3/4	502	21	533	20	508	26-3/8	670	24-5/8	625
CBX32M-042	52-1/2	1334	21-1/4	540	22-5/8	575	19-3/4	502	21	533	20	508	27-7/8	708	24-5/8	625
CBX32M-048	58-1/2	1486	21-1/4	540	24-5/8	625	19-3/4	502	23	584	20	508	27-7/8	708	30-5/8	778
CBX32M-060																

DIMENSIONS - INCHES (MM)

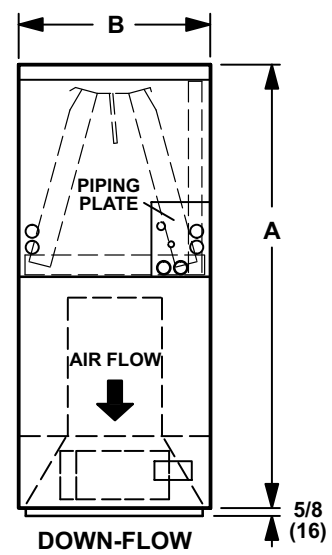
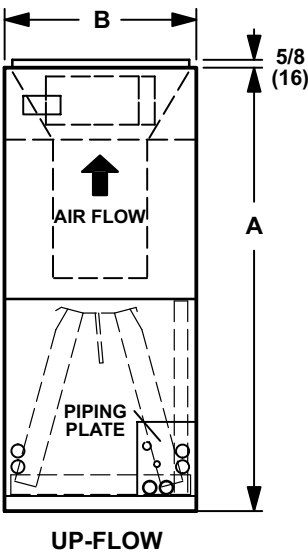
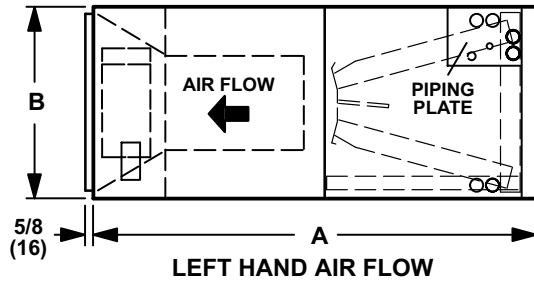
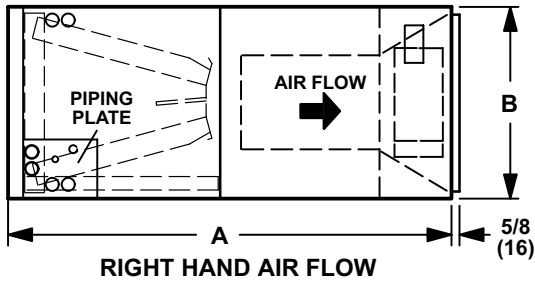
DOWN-FLOW COMBUSTIBLE FLOOR BASE



SIDE RETURN UNIT STAND (Up-Flow Only)



AIR FLOW



Model No.	A		B	
	in.	mm	in.	mm
CBX32M-018/024	45-1/4	1149	16-1/4	413
CBX32M-030	49-1/4	1251	21-1/4	540
CBX32M-036	51	1295	21-1/4	540
CBX32M-042	52-1/2	1334	21-1/4	540
CBX32M-048 CBX32M-060	58-1/2	1486	21-1/4	540