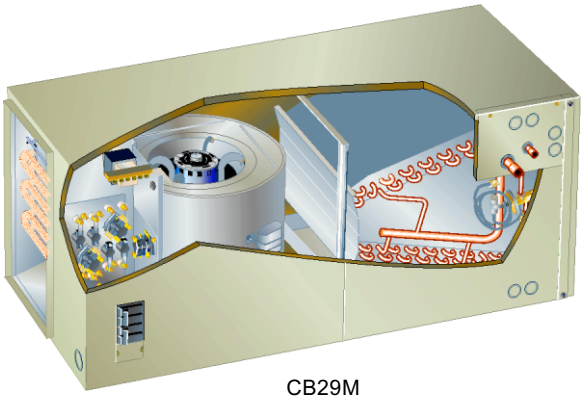
LENNOX

ENGINEERING DATA

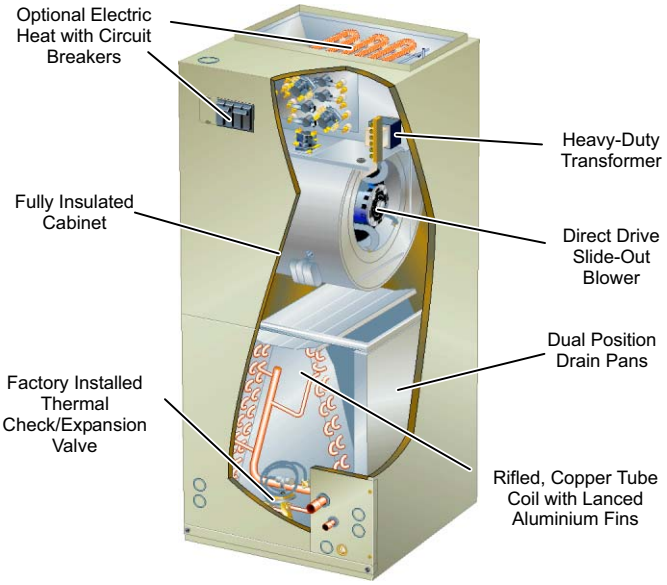
CB29M

Multi-Position
Nominal Capacity - 5.3 to 17.6 kW
Optional Electric Heat - 2.5 to 30 kW

Bulletin No. 490071
January 2004
Supersedes February 1996



CB29M
Horizontal Left Hand Position
(With Optional Electric Heat)



CB29M
Up-flow Position
(With Optional Electric Heat)

ISO 9001 REGISTERED QUALITY SYSTEMS

MODEL NUMBER IDENTIFICATION

CB 29 M - 51 - 1 T

Unit Type
CB = Blower / Evaporator Coil

Series

Configuration
M = Multi-Position

Nominal Cooling Capacity
21/26 = 5.3 to 7.0 kW (1.5 to 2 tons)
31/41 = 8.8 to 10.6 kW (2.5 to 3 tons)
51 = 14.1 kW (4 tons)
65 = 17.6 kW (5 tons)

Minor Revision Number

Voltage
T = 220/240v-1 phase-50hz

FEATURES

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APPLICATIONS

Multi-position (up-flow, down-flow or horizontal) applications.
Applicable to expansion valve systems in cooling applications and check and expansion valve systems in heat pump applications.
Wide range check and expansion valve factory installed.
See Condensing Unit bulletins in section Cooling Units - Condensing Units for cooling capacities.
See Heat Pump Outdoor Unit Bulletins in section Heat Pump Units for cooling and heating capacities.
Optional field installed electric heaters available in several sizes for additive heating capacity.
Optional additive base available for models with electric heat installed in down-flow position on combustible floors.

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FEATURES

COMPLETELY TESTED

Tested with matching condensing and heat pump units in the Lennox Research Laboratory environmental test room which meets American Society of Heating, Refrigeration and Air-Conditioning Engineers (ASHRAE) Standard 37 requirements.
Rating test conditions are those included in Air Conditioning and Refrigeration Institute (ARI) Standard 210/240 test conditions while operating at rated voltages and air volumes.
Blower performance data according to unit tests conducted in Lennox air test chamber.
Blower-coil units components within are bonded for grounding to meet safety standards for servicing required by the International Electrotechnical Commission (I.E.C.).
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.
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.

Dual Position Drain Pans
Drain pans 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.

REFRIGERATION 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
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 refrigerant flow with Maximum 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

Down-Flow Additive Base
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 406 mm (16 inches) above floor for side return air duct connection.
Eliminates need for wooden platform construction.
All aluminum construction.
Two adjustable frames fit all sizes.

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.

SINGLE-POINT POWER SOURCE CONTROL BOX

May be used with optional electric heat when two or three circuits (if required by code) are specified.
Field installs external to the unit cabinet on either side or top.
Constructed of heavy gauge steel, baked enamel finish, pre-punched mounting holes, electrical inlet knockouts, and terminal strip.
Removeable cover provides easy access.
178 x 178 x 102 mm (7 x 7 x 4 inch), shipping weight - 2 kg (5 lbs.).

HORIZONTAL SUPPORT FRAME KIT

Provides support of unit in horizontal applications.
Consists of (2) 25 x 38 x 829 mm (1 x 1-1/2 x 32-5/8 inchea) and (2) 25 x 76 x 1368 mm (1 x 3 x 53-7/8 inchea) 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 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 (220/240V-1ph) 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.

SPECIFICATIONS

General Data	Model Number	CB29M-21/26	CB29M-31/41	CB29M-51	CB29M-65
	Nominal capacity - kW (tons)	5.3 - 7.0 (1.5 - 2)	8.8 - 10.6 (2.5 - 3)	14.1 (4)	17.6 (5)
	Refrigerant	HCFC-22	HCFC-22	HCFC-22	HCFC-22
Connections	Suction (vapor) line (o.d.) - mm (inches) sweat	16 (5/8)	19 (3/4)	22.2 (7/8)	28 (1-1/8)
	Liquid line (o.d.) - mm (inches) sweat	9.5 (3/8)	9.5 (3/8)	9.5 (3/8)	9.5 (3/8)
	Condensate - mm (inches) female pipe taper	(2) 19 (3/4)	(2) 19 (3/4)	(2) 19 (3/4)	(2) 19 (3/4)
Evaporator Coil	Net face area - m^2 ($ft.^2$)	0.29 (3.11)	0.41 (4.44)	0.46 (5.0)	0.46 (5.0)
	Tube outside diameter - mm (inches)	9.5 (3/8)	9.5 (3/8)	9.5 (3/8)	9.5 (3/8)
	Number of rows	2	2	3	3
	Fins per m (fins per inch)	551 (14)	551 (14)	472 (12)	472 (12)
Blower	Wheel nominal diameter x width - mm	254 x 178	254 x 203	292 x 229	292 x 229
	inches	10 x 7	10 x 8	11-1/2 x 9	11-1/2 x 9
	Blower motor output - W (hp)	249 (1/3)	249 (1/3)	373 (1/2)	746 (1)
[1] **Filters**	Size of filter - mm	(1) 381 x 508 x 25	(1) 508 x 508 x 25	(1) 508 x 508 x 25	(1) 508 x 508 x 25
	in.	(1) 15 x 20 x 1	(1) 20 x 20 x 1	(1) 20 x 20 x 1	(1) 20 x 20 x 1
Electrical Charateristics		220/240 - 50 hertz - 1 phase			
Shipping Data -1 package - kg (lbs.)		55 (121)	71 (156)	83 (181)	83 (182)

ELECTRICAL DATA

Electrical Data (50hz)	Voltage - phase	220/240 - 1	220/240 - 1	220/240 - 1	220/240 - 1
	[2] Maximum overcurrent protection (unit only)	15	15	15	15
	Minimum circuit ampacity (unit only)	4	4	5	10

OPTIONAL ACCESSORIES - MUST BE ORDERED EXTRA

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

[1] Disposable frame type filter.
[2] HACR (heating, air conditioning and refrigeration) type circuit breaker or fuse.

BLOWER DATA

CB29M-21/26 BLOWER PERFORMANCE

External Static Pressure		Air Volume and Motor Watts at Specific Blower Taps								
		High			Medium			Low		
Pa	in. w.g.	L/s	cfm	Watts	L/s	cfm	Watts	L/s	cfm	Watts
.00	0	555	1175	425	460	970	335	340	715	260
.05	10	545	1160	420	455	960	335	335	710	255
.10	25	540	1140	415	445	945	330	330	695	250
.15	35	520	1105	400	430	910	320	315	675	245
.20	50	515	1090	395	420	895	315	310	660	240
.25	60	505	1070	390	405	865	310	300	635	230
.30	75	490	1040	375	400	850	305	295	625	225
.40	100	455	970	350	370	785	285	275	580	210
.50	125	430	910	330	345	730	265	255	535	190

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

CB29M-31/41 BLOWER PERFORMANCE

External Static Pressure		Air Volume and Motor Watts at Specific Blower Taps								
		High			Medium			Low		
in. w.g.	Pa	L/s	cfm	Watts	L/s	cfm	Watts	L/s	cfm	Watts
.00	0	690	1460	530	585	1245	450	450	950	345
.05	10	680	1440	520	575	1220	440	440	930	335
.10	25	665	1410	510	560	1190	425	430	905	325
.15	35	650	1375	495	545	1155	415	415	880	315
.20	50	630	1340	485	530	1120	405	400	850	305
.25	60	610	1295	470	510	1075	390	385	815	295
.30	75	585	1245	455	485	1030	380	370	780	285
.40	100	530	1125	430	435	925	355	330	700	265
.50	125	465	985	400	380	805	325	285	605	245
.60	150	390	825	370	315	665	300	235	500	225

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

CB29M-51 BLOWER PERFORMANCE

External Static Pressure		Air Volume and Motor Watts at Specific Blower Taps								
		High			Medium			Low		
in. w.g.	Pa	L/s	cfm	Watts	L/s	cfm	Watts	L/s	cfm	Watts
.00	0	905	1920	770	715	1515	585	580	1235	450
.05	10	900	1905	760	710	1505	580	575	1215	445
.10	25	875	1855	730	690	1460	560	565	1195	435
.15	35	865	1830	720	675	1435	550	555	1170	425
.20	50	840	1775	695	665	1410	545	540	1150	420
.25	60	815	1725	675	645	1365	525	520	1105	400
.30	75	790	1675	655	635	1340	515	510	1080	395
.40	100	740	1570	625	590	1250	480	480	1015	370
.50	125	690	1465	595	545	1155	445	415	880	320
.60	150	615	1310	550	480	1015	390	350	745	275
.70	175	530	1125	485	390	825	320	265	565	205

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

CB29M-65 BLOWER PERFORMANCE

External Static Pressure		Air Volume and Motor Watts at Specific Blower Taps								
		High			Medium			Low		
in. w.g.	Pa	L/s	cfm	Watts	L/s	cfm	Watts	L/s	cfm	Watts
.00	0	1085	2295	1405	975	2070	1200	865	1835	975
.05	10	1075	2280	1400	970	2050	1190	860	1820	975
.10	25	1065	2260	1390	960	2030	1180	850	1800	970
.15	35	1055	2240	1385	950	2010	1170	840	1780	965
.20	50	1045	2215	1375	940	1990	1160	830	1760	960
.25	60	1035	2190	1365	925	1965	1150	825	1745	955
.30	75	1025	2170	1360	915	1935	1140	815	1725	950
.40	100	1005	2125	1345	895	1895	1125	790	1680	940
.50	125	980	2075	1330	870	1845	1105	775	1640	930
.60	150	955	2025	1315	845	1795	1090	750	1595	920
.70	175	935	1980	1300	825	1745	1080	730	1545	905

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

INSTALLATION CLEARANCES

Cabinet	0 mm (0 inch)
Plenum and Outlet duct on blower/coil units	25 mm (1 inch)
Plenum and Warm air duct within 0.9 m (3 feet) of cabinet	25 mm (1 inch)
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.

CB29M-21/26 AND CB29M-31/41 - ELECTRIC HEAT DATA

SINGLE PHASE ELECTRIC HEAT						CB29M-21/26			CB29M-31/41				
	Model Number	No. Steps	Input Volt	Input kW	Input [1] Btuh	[2] Blower Motor Full Load Amps	[3] Minimum Circuit Ampacity	[4] Maximum Overcurrent Protection	[2] Blower Motor Full Load Amps	[3] Minimum Circuit Ampacity Circuit 1	[3] Minimum Circuit Ampacity Circuit 2	[4] Maximum Overcurrent Protection Circuit 1	[4] Maximum Overcurrent Protection Circuit 2
2 kW 2 kg (4 lbs.)	ECB29-2.5 **(28K30)** Terminal block	1	220	2.1	7 200	2.6	17	20	Not Available				
			230	2.3	7 800	2.6	17	20					
			240	2.5	8 500	2.6	17	20					
4 kW 2 kg (4 lbs.)	ECB29-5 **(28K31)** Terminal block ECB29-5CB **(28K32)** 30 amp circuit breaker	1	220	4.2	14 300	2.6	30	30	2.6	30	- - -	30	- - -
			230	4.6	15 700	2.6	30	30	2.6	30	- - -	30	- - -
			240	5.0	17 100	2.6	30	30	2.6	30	- - -	30	- - -
5 kW 2 kg (4 lbs.)	ECB29-6 **(47L22)** Terminal block ECB29-6CB **(47L23)** 35 amp circuit breaker	1	220	5.0	17 100	2.6	35	35	2.6	35	- - -	35	- - -
			230	5.5	18 800	2.6	35	35	2.6	35	- - -	35	- - -
			240	6.0	20 500	2.6	35	35	2.6	35	- - -	35	- - -
6.5 kW 2 kg (5 lbs.)	ECB29-8 **(28K33)** Terminal block ECB29-8CB **(28K34)** 45 amp circuit breaker	2	220	6.7	22 900	2.6	45	45	2.6	45	- - -	45	- - -
			230	7.3	25 100	2.6	45	45	2.6	45	- - -	45	- - -
			240	8.0	27 300	2.6	45	45	2.6	45	- - -	45	- - -
7.5 kW 2 kg (5 lbs.)	ECB29-9CB **(10L11)** 50 amp circuit breaker	2	220	7.6	25 800	2.6	51	60	2.6	51	- - -	60	- - -
			230	8.3	28 200	2.6	51	60	2.6	51	- - -	60	- - -
			240	9.0	30 700	2.6	51	60	2.6	51	- - -	60	- - -
8 kW 3 kg (6 lbs.)	ECB29-10 **(28K35)** Terminal block ECB29-10CB **(28K36)** 60 amp circuit breaker	2	220	8.4	28 700	2.6	56	60	2.6	56	- - -	60	- - -
			230	9.2	31 400	2.6	56	60	2.6	56	- - -	60	- - -
			240	10.0	34 100	2.6	56	60	2.6	56	- - -	60	- - -
10.5 kW 5 kg (10 lbs.)	ECB29-12.5CB **(28K37)** (1) 25 amp and (1) 50 amp circuit breaker	3	220	10.5	35 800	Not Available			2.6	24	44	30	45
			230	11.5	39 200				2.6	24	44	30	45
			240	12.5	42 600				2.6	24	44	30	45
12.5 kW 5 kg (12 lbs)	ECB29-15CB **(28K38)** (1) 30 amp and (1) 60 amp circuit breaker	3	220	12.6	43 000	Not Available			2.6	30	52	30	60
			230	13.5	47 000				2.6	30	52	30	60
			240	15.0	51 200				2.6	30	52	30	60
16.5 kW 5 kg (12 lbs)	ECB29-20CB (**11L31**) (1) 50 amp and (1) 60 amp circuit breaker	3	220	16.8	53 700	Not Available			2.6	56	52	60	60
			230	18.4	62 700				2.6	56	52	60	60
			240	20.0	68 200				2.6	56	52	60	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 local electrical codes to determine wire, fuse and disconnect size requirements. Use wires suitable for at least 75°C (167°F).

[4] HACR (heating, air conditioning, and refrigeration) type circuit breaker or fuse.

CB29M-51 AND CB29M-65 - ELECTRIC HEAT DATA

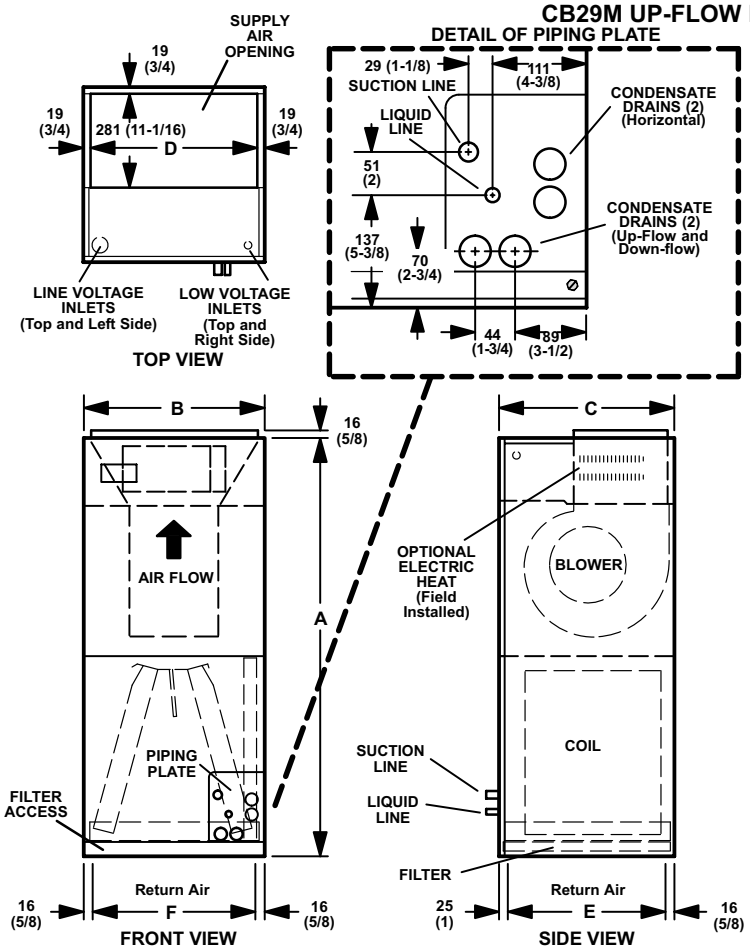
SINGLE PHASE ELECTRIC HEAT

	Model Number	No. of Steps	Input Volts	Input kW	Input [1] Btuh	CB29M-51 [2] Blower Motor Full Load Amps	CB29M-51 [3] Minimum Circuit Ampacity Circuit 1	CB29M-51 [3] Minimum Circuit Ampacity Circuit 2	CB29M-51 [3] Minimum Circuit Ampacity Circuit 3	CB29M-51 [4] Maximum Overcurrent Protection Circuit 1	CB29M-51 [4] Maximum Overcurrent Protection Circuit 2	CB29M-51 [4] Maximum Overcurrent Protection Circuit 3	CB29M-65 [2] Blower Motor Full Load Amps	CB29M-65 [3] Minimum Circuit Ampacity Circuit 1	CB29M-65 [3] Minimum Circuit Ampacity Circuit 2	CB29M-65 [3] Minimum Circuit Ampacity Circuit 3	CB29M-65 [4] Maximum Overcurrent Protection Circuit 1	CB29M-65 [4] Maximum Overcurrent Protection Circuit 2	CB29M-65 [4] Maximum Overcurrent Protection Circuit 3
4 kW 2 kg (4 lbs.)	ECB29-5 **(28K31)** Terminal Block ECB29-5CB **(28K32)** 30 amp circuit breaker	1	220	4.2	14 300	3.4	31	---	---	35	---	---	Not Available						
			230	4.6	15 700	3.4	31	---	---	35	---	---							
			240	5.0	17 100	3.4	31	---	---	35	---	---							
5 kW 2 kg (4 lbs.)	ECB29-6 **(47L22)** Terminal Block ECB29-6CB **(47L23)** 35 amp circuit breaker	1	220	5.0	17 100	3.4	36	---	---	40	---	---	7.4	41	---	---	45	---	---
			230	5.5	18 800	3.4	36	---	---	40	---	---	7.4	41	---	---	45	---	---
			240	6.0	20 500	3.4	36	---	---	40	---	---	7.4	41	---	---	45	---	---
6.5 kW 2 kg (5 lbs.)	ECB29-8 **(28K33)** Terminal Block ECB29-8CB **(28K34)** 45 amp circuit breaker	2	220	6.7	22 900	3.4	46	---	---	50	---	---	7.4	51	---	---	60	---	---
			230	7.3	25 100	3.4	46	---	---	50	---	---	7.4	51	---	---	60	---	---
			240	8.0	27 300	3.4	46	---	---	50	---	---	7.4	51	---	---	60	---	---
7.5 kW 2 kg (5 lbs.)	ECB29-9CB **(10L11)** 50 amp circuit breaker	2	220	7.6	25 800	3.4	52	---	---	60	---	---	7.4	57	---	---	60	---	---
			230	8.3	28 200	3.4	52	---	---	60	---	---	7.4	57	---	---	60	---	---
			240	9.0	30 700	3.4	52	---	---	60	---	---	7.4	57	---	---	60	---	---
8 kW 3 kg (6 lbs.)	ECB29-10 **(28K35)** Terminal Block ECB29-10CB **(28K36)** 60 amp circuit breaker	2	220	8.4	28 700	3.4	57	---	---	60	---	---	7.4	62	---	---	70	---	---
			230	9.2	31 400	3.4	57	---	---	60	---	---	7.4	62	---	---	70	---	---
			240	10.0	34 100	3.4	57	---	---	60	---	---	7.4	62	---	---	70	---	---
10.5 kW 5 kg (10 lbs.)	ECB29-12.5CB **(28K37)** (1) 25 amp and (1) 50 amp circuit Breaker	3	220	10.5	35 800	3.4	26	44	---	30	45	---	7.4	31	44	---	35	45	---
			230	11.5	39 200	3.4	26	44	---	30	45	---	7.4	31	44	---	35	45	---
			240	12.5	42 600	3.4	26	44	---	30	45	---	7.4	31	44	---	35	45	---
12.5 kW 5 kg (12 lbs)	ECB29-15CB **(28K38)** (1) 30 amp and (1) 60 amp circuit breaker	3	220	12.6	43 000	3.4	31	52	---	40	60	---	7.4	36	52	---	40	60	---
			230	13.5	47 000	3.4	31	52	---	40	60	---	7.4	36	52	---	40	60	---
			240	15.0	51 200	3.4	31	52	---	40	60	---	7.4	36	52	---	40	60	---
16.5 kW 9 kg (19 lbs.)	ECB29-20CB **(11L31)** (1) 50 amp and (1) 60 amp circuit breaker	4	220	16.8	57 300	3.4	57	52	---	60	60	---	7.4	62	52	---	70	60	---
			230	18.4	62 700	3.4	57	52	---	60	60	---	7.4	62	52	---	70	60	---
			240	20.0	68 200	3.4	57	52	---	60	60	---	7.4	62	52	---	70	60	---
21 kW 9 kg (19 lbs.)	ECB29-25CB **(28K40)** (3) 50 amp circuit breaker	6	220	21.0	71 700	3.4	48	44	44	50	45	45	7.4	53	44	44	60	45	45
			230	23.0	78 300	3.4	48	44	44	50	45	45	7.4	53	44	44	60	45	45
			240	25.0	85 300	3.4	48	44	44	50	45	45	7.4	53	44	44	60	45	45
25 kW 9 kg (19 lbs.)	ECB29-30CB **(28K41)** (3) 60 amp circuit breaker	6	220	25.2	86 000	Not Available							7.4	62	52	52	70	60	60
			230	27.5	94 000								7.4	62	52	52	70	60	60
			240	30.0	102 400								7.4	62	52	52	70	60	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 local electrical code to determine wire, fuse and disconnect size requirements. Use wires suitable for at least 75°C (167°F).
[4] HACR (heating, air conditioning, and refrigeration) type circuit breaker or fuse.

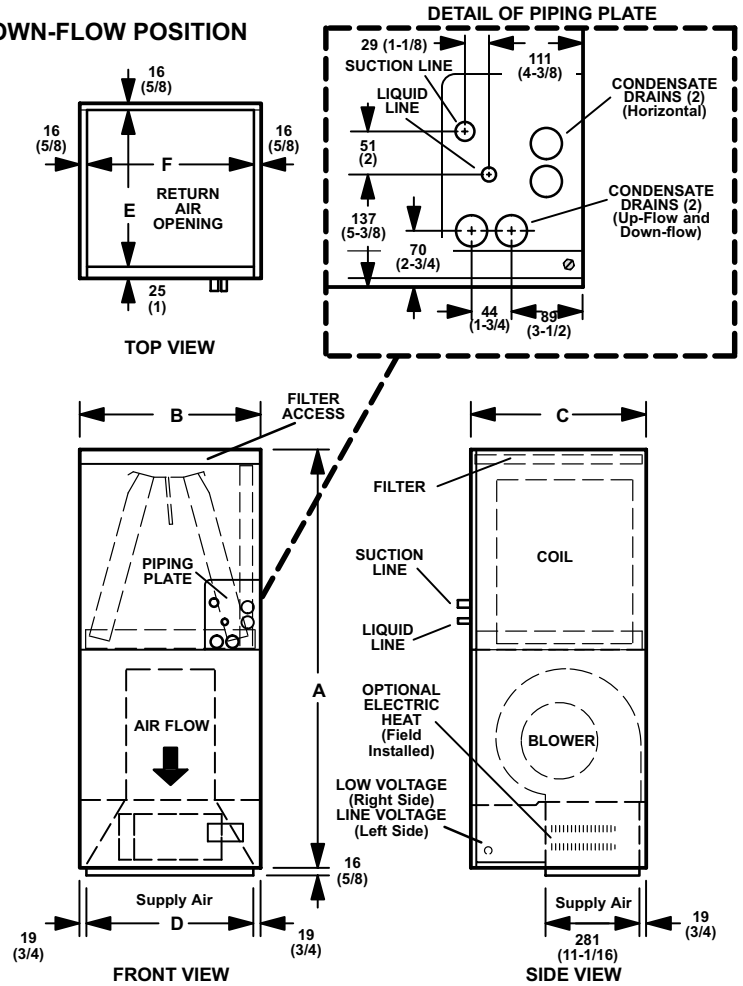
DIMENSIONS - MM (INCHES)

CB29M UP-FLOW POSITION



Model No.	CB29M-21/26		CB29M-31/41		CB29M-51 CB29M-65	
	mm	inch	mm	inch	mm	inch
A	1149	45-1/4	1251	49-1/4	1334	52-1/2
B	413	16-1/4	540	21-1/4	540	21-1/4
C	524	20-5/8	524	20-5/8	575	22-5/8
D	375	14-3/4	502	19-3/4	502	19-3/4
E	483	19	483	19	533	21
F	381	15	508	20	508	20

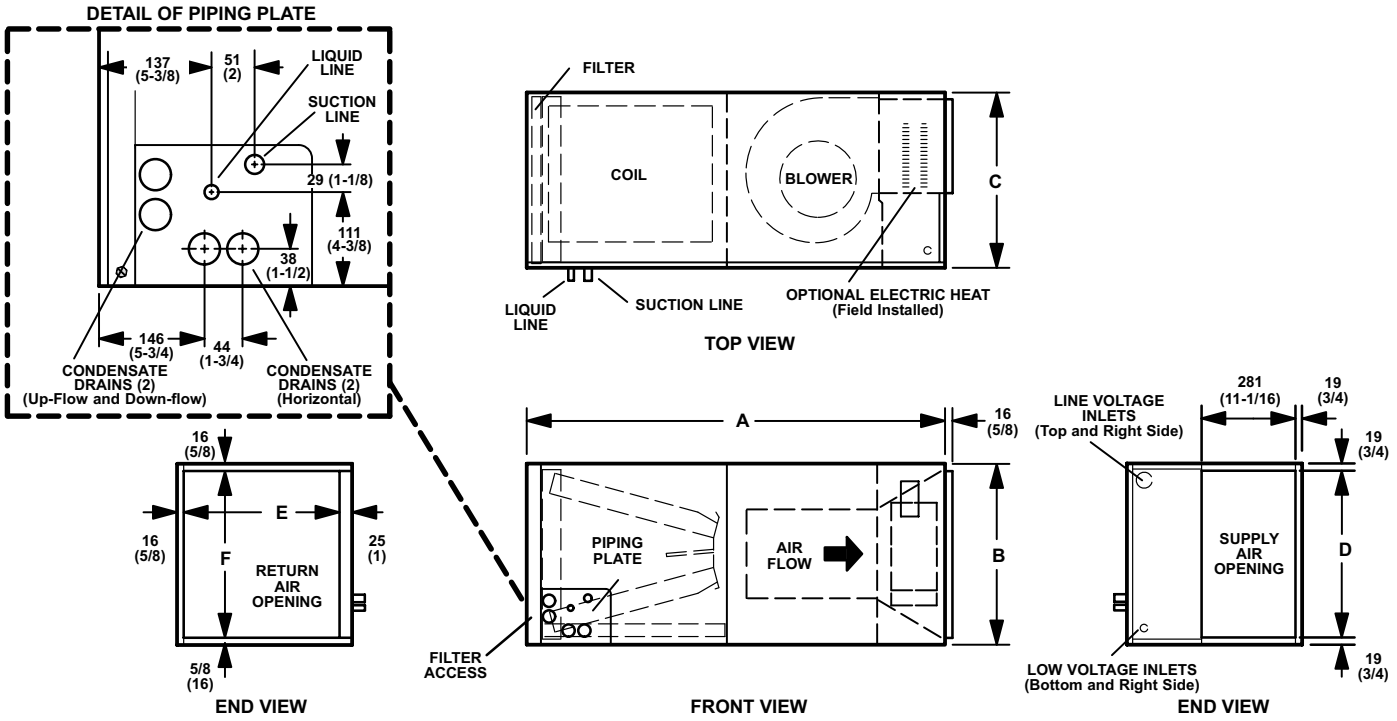
CB29M DOWN-FLOW POSITION



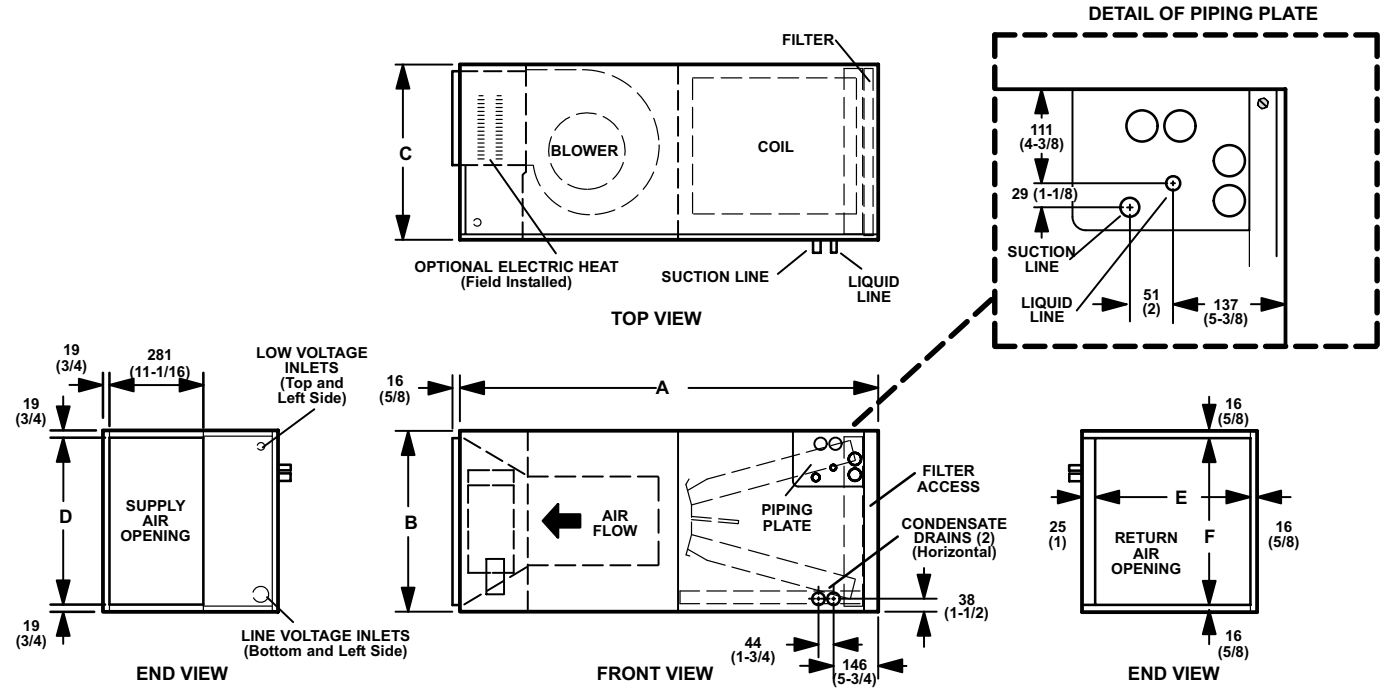
Model No.	CB29M-21/26		CB29M-31/41		CB29M-51 CB29M-65	
	mm	inch	mm	inch	mm	inch
A	1149	45-1/4	1251	49-1/4	1334	52-1/2
B	413	16-1/4	540	21-1/4	540	21-1/4
C	524	20-5/8	524	20-5/8	575	22-5/8
D	375	14-3/4	502	19-3/4	502	19-3/4
E	483	19	483	19	533	21
F	381	15	508	20	508	20

DIMENSIONS - INCHES (MM)

CB29M HORIZONTAL POSITION (RIGHT-HAND AIR DISCHARGE)



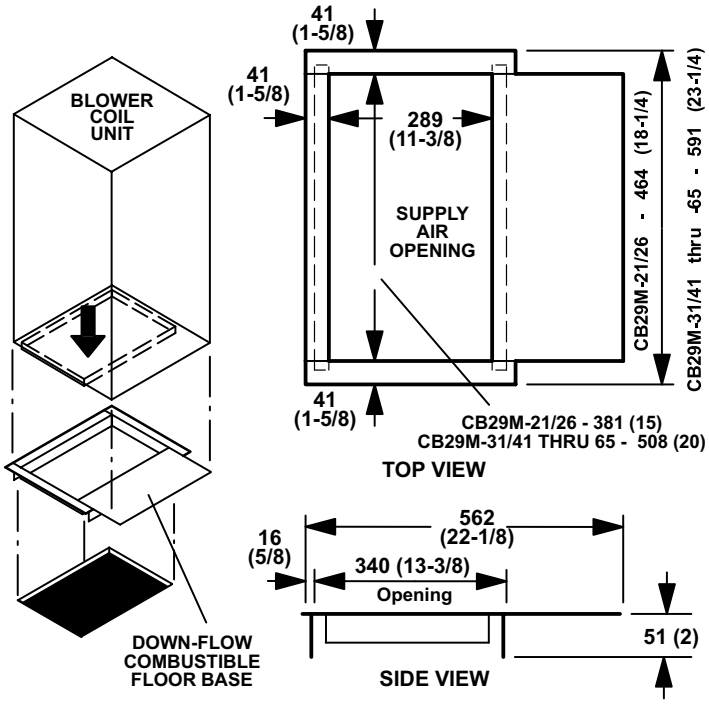
CB29M HORIZONTAL POSITION (LEFT-HAND AIR DISCHARGE)



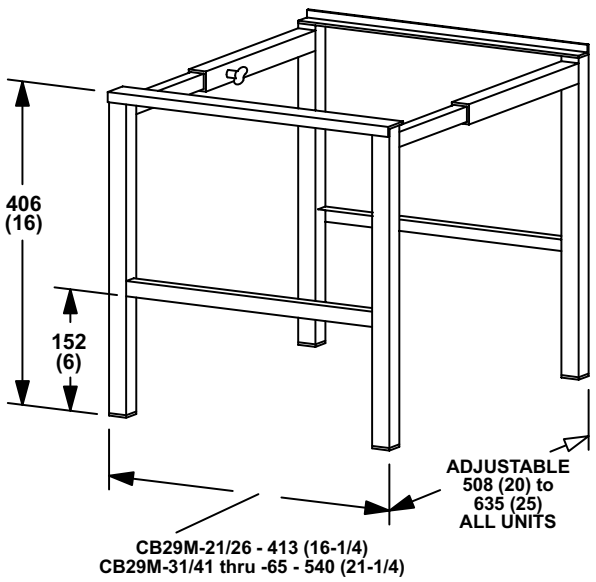
Model No.	A		B		C		D		E		F	
	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch
CB29M-21/26	1149	45-1/4	413	16-1/4	524	20-5/8	375	14-3/4	483	19	381	15
CB29M-31/41	1251	49-1/4	540	21-1/4	524	20-5/8	502	19-3/4	483	19	508	20
CB29M-51 CB29M-65	1334	52-1/2	540	21-1/4	575	22-5/8	502	19-3/4	533	21	508	20

DIMENSIONS - MM (INCHES)

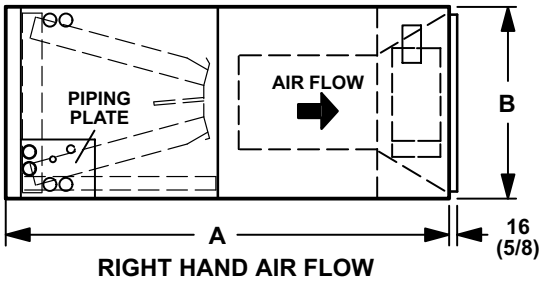
DOWN-FLOW COMBUSTIBLE FLOOR BASE



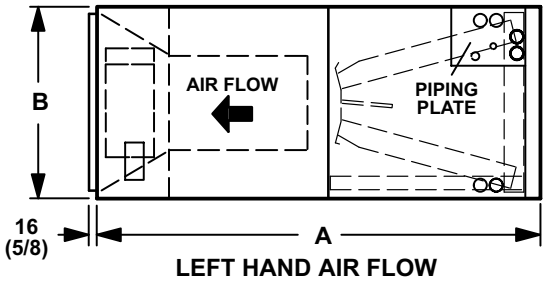
SIDE RETURN UNIT STAND
(Up-Flow Only)



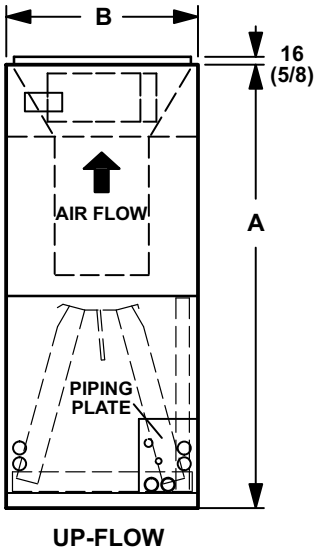
AIR FLOW



RIGHT HAND AIR FLOW

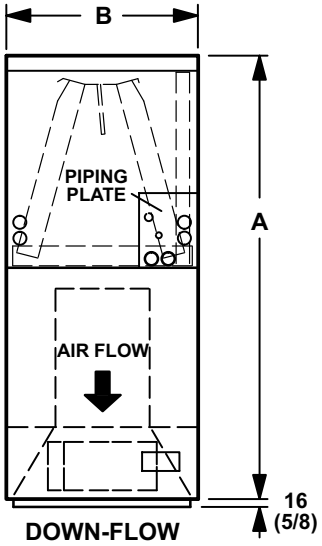


LEFT HAND AIR FLOW



UP-FLOW

Blower Coil Model No.	A		B	
	mm	inches	mm	inches
CB29M-21/26	1149	45-1/4	413	16-1/4
CB29M-31/41	1251	49-1/4	540	21-1/4
CB29M-51 CB29M-65	1334	52-1/2	540	21-1/4



DOWN-FLOW