

Soffit Mount Compact Ceiling Mount Air Handlers Electric Heat



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Nomenclature

	C	P	18	01C	H	H	P	03	1	
Series C = Ceiling mount (uncased)										Voltage 1 = 208/240V, 60 Hz, 1 ph
Blower Motor Type P = PSC E = ECM Constant Torque										Heat 00 = No heat 03 = 3 kW (18-24) 05 = 5 kW (all sizes) 06 = 6 kW (all sizes) 08 = 8 kW (all sizes) 10 = 10 kW (24-30)
Unit Size (Nominal MBTUH) 18, 23, 24, 29, 30										Line Connection S = Stripped Wire (No heat models only) P = Pull Disconnect
Slab No. 01C, 02C, 03C, 04C, etc.										
Metering Device A = Piston (R-410A) w / Access Port H = Non-bleed HP TXV (R-410A) C = Bleed HP TXV (R-410A)										Airflow Configuration H = Horizontal only

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Product Features

General Features

- Designed for drop ceiling or Fur-Down application.
- Constructed of heavy-gauge, corrosion-resistant galvanized steel.
- Left hand refrigerant connections.
- Condensate drain connections on left and right side of air handler.
- Decorative panel available as accessory.
- Air pressure leak tested.
- Suitable for free air-return installation (non-ducted return).

Coil Features

- AC or HP applications; R-22 & R-410A compatible.
- Field or factory installed threaded expansion valve.
- Drain pans are constructed of aluminum to resist corrosion.
- Lanced fin design.
- Rifled copper tubing.

Electrical Features

- ECM Constant Torque motor or PSC motor available.
- Easy to service electric heat section.
- Pull disconnect line voltage connection standard on all factory-installed heat models.
- Patented condensate drain pan safety float switch available as accessory.
- Includes thermostat connections, time delay, & motor speed settings (PSC motor uses control board; functions are built into the ECM Constant Torque motor).

Physical Data

		Unit Size								
		CP18	CE18	CP23	CE23	CP24	CE24	CP29	CP30	CE30
Available Voltages		208/240 V, 60 Hz, 1 Phase								
Maximum Elec. Heat available (kW)		8	8	8	8	10	10	10	10	10
Transformer Size and Type		40VA, Class 2								
Blower Data: 2-Speed PSC Motor	Motor H.P.	1/8	--	1/3	--	1/3	--	1/3	1/3	--
	F.L.A. @ 240 V	1.25	--	1.9	--	1.9	--	1.9	1.9	--
Blower Data: ECM Constant Torque	Motor H.P.	--	1/4	--	1/4	--	1/4	--	--	1/4
	F.L.A. @ 240 V	--	2	--	2	--	2	--	--	2
Nominal CFM		600	600	800	800	800	800	1000	1000	1000
Refrigerant Conn. (IDS) Suction		3/4"								
Refrigerant Conn. (IDS) Liquid		3/8"								
R-410A Piston Size (in)		0.049	0.049	0.053	0.053	0.053	0.053	0.059	0.059	0.059
Pallet Quantity (min order per model)		8								
Max Unit Weight (lbs)		60	63	63	63	65	68	68	70	73
Max Shipping Weight (lbs)		63	66	66	66	68	71	71	73	76

Blower Performance

2-Speed PSC Motor

Unit Size	Blower Speed Setting	Airflow (CFM) vs. External Static Pressure (inches W.C.) ***				
		0.1	0.2	0.3	0.4	0.5
18	Low - Red	610	536	468	392	316
	* ^ High -Black	680	607	532	456	368
23	Low - Red	846	777	702	627	546
	* ^ High -Black	902	830	755	667	589
24, 29	Low - Red	833	781	725	658	580
	* ^ High -Black	1039	976	903	825	728
30	Low - Red	839	771	706	644	553
	* ^ High -Black	1050	975	901	820	744

* Factory setting for cooling.

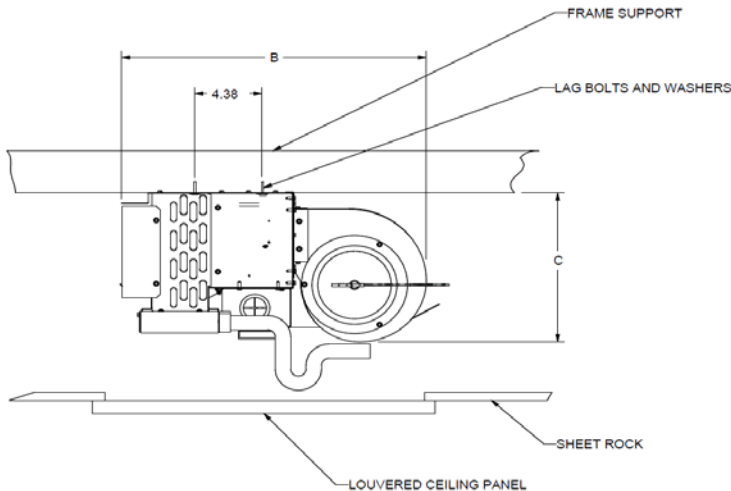
^ Factory setting for heating.

*** All airflow data is with a dry coil & electric heat.

- Heating speeds should not be reduced below factory setting.
- Different speeds can be set for cooling mode; see installation instructions.
- When matched with heat pump, and the room thermostat calls for second stage heat (electric heat strips), the first stage (heat pump) operation must be locked out. See parts sheet for Heat Pump Relay Kit - Part #76701444.

Dimensions

Air Handler Size	A (in)	B (in)	C (in)
18, 23	37	19.5	10.5
24, 29	43	20.5	10.5
30	49	20.5	10.5

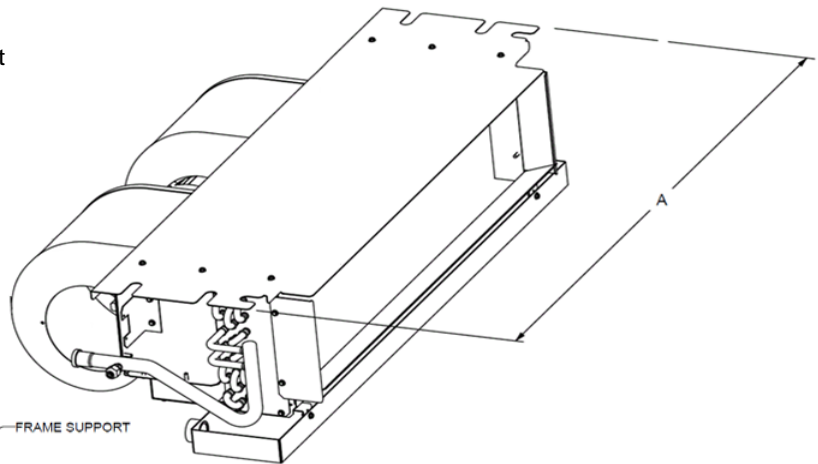


ECM Constant Torque Motor

Unit Size	Blower Speed Setting	Airflow (CFM) vs. External Static Pressure (inches W.C.) ***				
		0.1	0.2	0.3	0.4	0.5
18, 23	Tap 1 (G)	604	514	453	437	301
	Tap 2 (DS)	604	514	453	437	301
	Tap 3 (Y1)	735	651	577	506	444
	Tap 4 (Y2)	890	826	764	700	605
	^ Tap 5 (W1)	890	826	764	700	605
24	Tap 1 (G)	618	547	464	344	270
	Tap 2 (DS)	617	547	469	351	273
	Tap 3 (Y1)	779	720	633	549	441
	Tap 4 (Y2)	940	876	812	750	675
30	^ Tap 5 (W1)	937	875	812	750	674
	Tap 1 (G)	630	557	485	380	277
	Tap 2 (DS)	630	556	483	378	277
	Tap 3 (Y1)	803	719	640	576	521
	Tap 4 (Y2)	981	909	833	766	705
30	^ Tap 5 (W1)	984	909	837	769	709

^ Factory setting for heating.

*** All airflow data is with a dry coil & electric heat.



Electrical Data

Unit Size (All have electric heat)	Heating Capacity		Blower Amps			
	kW	BTUH	PSC		ECM	
	240 V ^[1]	240 V ^[1]	208 V	240 V	208 V	240 V
18	3.0	10,236	1.25	1.25	2.00	2.00
	5.0	17,060	1.25	1.25	2.00	2.00
	6.0	20,472	1.25	1.25	2.00	2.00
	8.0	27,296	1.25	1.25	2.00	2.00
23, 24, 29	3.0	10,236	1.90	1.90	2.00	2.00
	5.0	17,060	1.90	1.90	2.00	2.00
	6.0	20,472	1.90	1.90	2.00	2.00
	8.0	27,296	1.90	1.90	2.00	2.00
	10 ^[2]	34,120	1.90	1.90	2.00	2.00
30	5.0	17,060	1.90	1.90	2.00	2.00
	6.0	20,472	1.90	1.90	2.00	2.00
	8.0	27,296	1.90	1.90	2.00	2.00
	10.0	34,120	1.90	1.90	2.00	2.00

[1] For 208 Volts use .751 correction factor for kW & MBTUH.

[2] 10kW not available in -23 model

Unit Size (All have electric heat)	Heat Capacity	Minimum Circuit Ampacity				Pull Disconnect Amps Per Stage
	kW	PSC		ECM		
	240 V ^[1]	208 V	240 V	208 V	240 V	
18	3.0	15.1	17.2	16.0	18.1	30
	5.0	23.2	26.6	24.1	27.5	30
	6.0	28.6	32.8	29.5	33.8	45
	8.0	37.6	43.2	38.5	44.2	45
23, 24	3.0	15.9	18.0	16.0	18.1	30
	5.0	24.0	27.4	24.1	27.5	30
	6.0	29.4	33.6	29.5	33.8	45
	8.0	38.4	44.0	38.5	44.2	45
	10 ^[2]	41.4	54.4	41.6	54.5	60
30	5.0	24.0	27.4	24.1	27.5	30
	6.0	29.4	33.6	29.5	33.8	45
	8.0	38.4	44.0	38.5	44.2	45
	10.0	41.4	54.4	41.6	54.5	60

[1] For 208 Volts use .751 correction factor for kW & MBTUH.

[2] 10kW not available in -23 model

Electrical Connections

- Determine the number of circuits needed to supply the heater with electrical power (1 or 2 circuits). See the air handler Accessory Kit label for number of circuits and ratings.
- Disconnect all power supplies.
- Remove the control panel.
- Using the pre-punched wiring holes, install UL listed wires and fittings.
- Connect appropriate size wire to the pull disconnect terminals.
- Connect green ground wire(s) (1 or 2) to the ground terminal(s) (1 or 2) marked "GND".
- Install conduit-opening plugs in any unused openings.
- Reinstall the air handler control panel.
- Reconnect power.
- Dispose of all remaining parts.

