



Product Data

42C Fan Coil Air Conditioners

200 - 1200 cfm



42CA HORIZONTAL



42C Series
Fan Coil Air Conditioners

The 42C fan coil units design flexibility provides ease of installation for applied systems.

Carrier's 42C Series fan coil units offer:

- design flexibility, occupying minimum space
- easy, low-cost installation
- permanent split capacitor or electronically commutated motors deliver peak operating efficiency
- greater zone comfort control

Versatility

The units are ideal for installation in motels, apartments, and other multi-room buildings. Many optional control packages are available to facilitate the following modes of operation: 2-pipe heating and cooling, 2-pipe heating and cooling with auxiliary electric heat, 2-pipe cooling with total electric heat, and 4-pipe heating and cooling. The control package offering includes 24-v or line voltage thermostats and BACnet®¹ communicating controls.

Condensate drain pans standard construction utilizes galvanized steel, with option to be stainless steel, along with

optional condensate overflow switches complying to the latest building codes.

A variety of insulation types are available for energy savings, sound absorption and indoor air quality (IAQ) preservation.

Casings and frame are fabricated from heavy gauge galvanized steel. Custom decorative colors are available upon request to allow the unit to blend with any interior design.

Ease of installation

Each unit is designed to occupy a minimum space with a flexible controls offering to meet building requirements. Optional unit mounted controls, service switches, and fusing minimize the electrical work required on site. Piping, drain, and wiring connections are readily accessible and mounting holes and slots are pre-drilled to save installation time and field labor expense. Factory assembled valve packages (shipped loose for field mounting) minimize piping work at the job site.

Quality and safety

Every unit is tested and inspected at the factory for trouble free start-up. Carrier's 42C fan coils are ETL and CETL listed. Performance ratings are AHRI certified. All coils are factory leak tested at 350, 400, or 450 psig for an operation pressure of 300, 350, and 400 psig. For testing, coils are submerged in water and the appropriate test air pressure is applied.

Blower wheels are centrifugal-type, forward curved, double width, and double inlet sized for maximum efficiency.

Comfort control

Economical fans deliver just the right amount of conditioned air for your comfort needs at any load, and each unit can be shut off when not in use. Optional electronically commutated motors deliver peak operating efficiency. By choosing Carrier units, you can match your application with a wide range of custom-designed options and accessories. Carrier room fan-coil units provide year-round comfort.

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Features/Benefits (cont)



42CA

Furred-in ceiling model with low silhouette.
(200-1200 cfm)



42CG

Cabinet model for under-ceiling mount with bottom or rear stamped louver return air grille.
(200-1200 cfm)



42CE

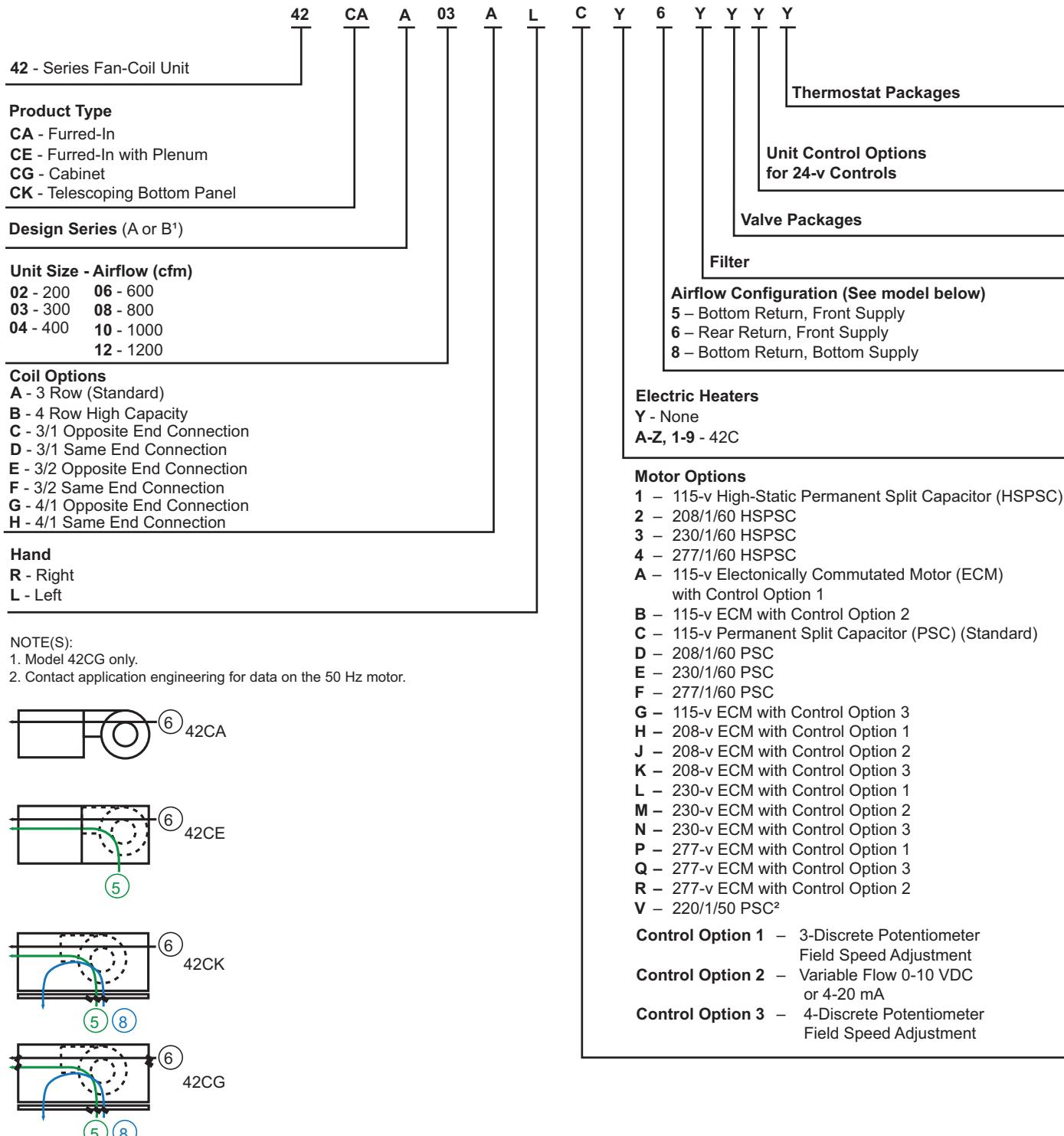
Furred-in ceiling model with factory-installed plenum.
(200-1200 cfm)



42CK

Cabinet model with telescoping flip-down panel and stamped louver bottom return or duct collar rear return.
(200-1200 cfm)

Model number nomenclature



NOTE: Image is for airflow configuration and to differentiate the airflow direction for various air arrangement options. Green=5 (Bottom Return/Front Supply, Blue=8 (Bottom Return/Bottom Supply), Black=6 (Rear Return/Front Supply).

AHRI capacity ratings



The 42C Series fan coil units are certified in compliance with the Air-Conditioning, Heating and Refrigeration Institute (AHRI) Industry Standard 440 for room fan coil units. Approved standard ratings are tabulated below.



Standard Ratings – PSC Motors^{a,b}

MODEL	SIZE	COIL ROWS	AIR FLOW RATING (SCFM)	WATER PRESSURE DROP (ft water)	TOTAL CAP. (btuh)	SENSIBLE CAP. (btuh)	POWER INPUT (watts)
CK CA CE	02	3	200	5.5	6,000	4,400	100
		4	190	12.0	6,900	4,300	100
	03	3	300	10.0	9,000	6,300	155
		4	270	15.0	9,800	6,500	100
	04	3	400	19.3	12,100	8,800	165
		4	400	35.0	13,800	9,800	155
	06	3	600	10.0	17,300	13,000	225
		4	600	17.0	19,600	14,300	180
	08	3	800	15.0	22,000	16,200	265
		4	700	25.0	25,500	18,800	260
	10	3	1,000	15.0	27,500	21,000	315
		4	1,000	25.0	31,000	22,000	310
	12	3	1,200	17.0	32,800	25,000	450
		4	1,200	27.0	37,200	27,700	485
CG	02	3	200	5.0	6,000	4,400	90
		4	190	10.0	6,900	4,300	95
	03	3	300	10.0	9,000	6,300	100
		4	270	15.0	9,800	6,500	100
	04	3	400	19.3	12,100	8,800	165
		4	400	30.0	13,800	9,800	150
	06	3	600	5.7	17,730	13,000	225
		4	550	11.0	19,600	14,300	220
	08	3	725	12.0	21,700	16,000	235
		4	800	17.0	25,500	18,800	235
	10	3	900	7.5	25,400	19,500	305
		4	850	15.0	31,000	22,000	300
	12	3	1,150	12.0	32,800	25,000	385
		4	1,150	24.0	37,200	27,700	425

NOTE(S):

- a. Ratings are based on 80°F DB and 67°F WB EAT, 45°F EWT, 10°F water temperature rise, high fan speed, motor voltage 115/160, and airflow under dry coil conditions.
- b. For additional information, please consult AHRI's website at www.ahrinet.org.

AHRI capacity ratings (cont)



Standard Ratings – EC Motors^{a,b}

MODEL	SIZE	COIL ROWS	AIR FLOW RATING (SCFM)	WATER PRESSURE DROP (ft water)	TOTAL CAP. (btuh)	SENSIBLE CAP. (btuh)	POWER INPUT (watts)
CK CA CE	02	3	200	5.0	6,000	4,400	60
		4	190	12.0	6,900	4,300	87
	03	3	300	10.0	9,000	6,300	85
		4	270	14.0	9,800	6,500	75
	04	3	400	19.3	12,100	8,800	115
		4	400	35.0	13,800	9,800	145
	06	3	600	10.0	17,300	13,000	110
		4	600	17.0	19,600	14,300	115
	08	3	700	11.1	20,600	15,500	150
		4	695	25.0	25,500	18,200	165
	10	3	1,000	15.0	27,500	21,000	225
		4	1,000	25.0	31,000	22,000	265
	12	3	1,200	17.0	32,800	25,000	345
		4	1,200	27.0	37,200	27,700	330
CG	02	3	200	5.0	6,000	4,400	65
		4	190	10.0	6,900	4,300	70
	03	3	300	9.0	9,000	6,300	65
		4	270	15.0	9,800	6,500	85
	04	3	400	19.3	12,100	8,800	165
		4	400	30.0	13,800	9,800	115
	06	3	550	11.0	19,600	14,300	22
		4	600	11.0	19,600	14,300	220
	08	3	730	12.0	21,800	15,800	170
		4	800	17.0	25,500	18,800	235
	10	3	1,000	8.0	27,500	21,000	265
		4	1,000	20.0	31,000	22,000	300
	12	3	1,150	12.0	32,800	25,000	275
		4	1,100	24.0	37,200	27,700	350

NOTE(S):

a. Ratings are based on 80°F DB and 67°F WB EAT, 45°F EWT, 10°F water temperature rise, high fan speed, motor voltage 115/160, and airflow under dry coil conditions.
b. For additional information, please consult AHRI's website at www.ahrinet.org.

Physical data



42C Units — Physical Data

UNIT SIZE 42C	02	03	04	06	08	10	12
NOMINAL AIRFLOW (cfm)	200	300	400	600	800	1000	1200
SHIPPING WEIGHT (lb)^a							
42CA	36	39	49	59	64	95	107
42CE	55	60	70	82	95	135	154
42CG	98	118	126	168	176	215	245
42CK	55	60	70	82	95	135	154
COIL WATER WEIGHT (approx lb per row of coil)							
42CA/CE/CG/CK	0.7	0.8	1.0	1.4	1.7	2.3	2.7
COILS							
FPI				10 fins / in.			
Coil Face Area (sq ft)	0.8	1.1	1.4	1.9	2.3	3.2	3.7
MOTOR (qty)							
42C Series	1	1	1	1	1	2	2
BLOWER (qty)							
42CA/CE/CG/CK	1	1	2	2	2	4	4
FILTERS							
Nominal Size in. (1 in. thick) (mm)							
42CA	NA	NA	NA	NA	NA	NA	NA
42CE ^b	10 x 18 (254 x 457)	10 x 22 (254 x 559)	10 x 28 (254 x 711)	10 x 33 (254 x 838)	10 x 40 (254 x 1,016)	10 x 54 (254 x 1,372)	10 x 62 (254 x 1,575)
42CK							
Bottom Return Stamped	10 x 28 (254 x 711)	10 x 28 (254 x 711)	10 x 33 (254 x 838)	10 x 45 (254 x 1,143)	10 x 45 (254 x 1,143)	10 x 62 (254 x 1,575)	10 x 62 (254 x 1,575)
Rear Return Ducted	7 x 21 (178 x 533)	7 x 21 (178 x 533)	7 x 27 (178 x 686)	7 x 38 (178 x 965)	7 x 38 (178 x 965)	7 x 52 (178 x 1,321)	7 x 52 (178 x 1,321)
42CG							
Bottom Return Stamped	10 x 23-1/2 (254 x 597)	10 x 28 (254 x 711)	10 x 32-1/2 (254 x 826)	10 x 37 (254 x 940)	10 x 41 (254 x 1,041)	10 x 54-1/2 (254 x 1,384)	10 x 63 (254 x 1,600)
Rear Return Stamped	8-3/4 x 23-1/2 (222 x 597)	8-3/4 x 26-1/2 (222 x 673)	8-3/4 x 32-1/2 (222 x 826)	8-3/4 x 37 (222 x 940)	8-3/4 x 41 (222 x 1,041)	8-3/4 x 54-1/2 (222 x 1,384)	8-3/4 x 63 (222 x 1,600)
Rear Return Ducted	8-3/4 x 23-1/2 (222 x 597)	8-3/4 x 26-1/2 (222 x 673)	8-3/4 x 32-1/2 (222 x 826)	8-3/4 x 37 (222 x 940)	8-3/4 x 41 (222 x 1,041)	8-3/4 x 54-1/2 (222 x 1,384)	8-3/4 x 63 (222 x 1,600)
Qty	1	1	1	1	1	1	1
SUPPLY DUCT COLLAR				1 in.			
PIPING CONNECTIONS (Sweat) (in.)							
Coil Outlet and Inlet^c				5/8 OD			
Drain Connection				7/8 OD			
Tell-Tale Drain				5/8 OD			

NOTE(S):

- a. Calculate operating weight of unit: shipping weight + coil water weight x number of coil rows. Electric heating coils add 2 lb.
- b. Filter size if located in return-air plenum.
- c. For hydronic coils.

Options and accessories



Available Options

OPTIONS OR STANDARD FEATURES ^a	UNIT SERIES — 42			
	Ceiling, Horizontal			
	CA	CE	CG	CK
AIR VENT				
Automatic Air Vent	X	X	X	X
Manual Air Vent	Std	Std	Std	Std
COILS				
2-Row Cooling or Heating (2-Pipe)	X	X	X	X
3-Row Cooling or Heating (2-Pipe)	Std	Std	Std	Std
3-Row Cooling, 1-Row Heating (4-Pipe)	X	X	X	X
4-Row Cooling or Heating (2-Pipe)	X	X	X	X
4-Row Cooling, 1-Row Heating (4-Pipe)	X	X	X	X
3-Row Cooling, 2-Row Heating (4-Pipe)	X	X	X	X
Stainless Steel Coil Wrapper	X	X	X	X
OUTSIDE AIR OPTIONS				
Outdoor-Air Connection		ETO	ETO	ETO
DECORATIVE COLORS				
Custom Colors Available Upon Request			ETO	ETO
Arctic White Powder Coat Paint			Std	Std
DISCHARGE OPTIONS				
Stamped Discharge Grille			Std	
Double Deflection Grille (Factory-Installed ^b)			X	
Double Deflection Grille, Shipped Loose ^b				ETO
Discharge Duct Collar	Std	Std		Std
DRAIN PANS				
Galvanized Drain Pan	Std	Std	Std	Std
Extended Drain Pan	X	X		
Stainless Steel Standard Drain Pan	X	X	X	X
Stainless Steel Extended Drain Pan	X	X		
Tell-Tale Only	X	X	X	X
Drip Lip Only	X	X	X	X
Tell-Tell and Drip Lip	X	X	X	X
HEATING OPTIONS				
Electric Heater	X	X	X	X
Hot Water	X	X	X	X
Steam	ETO	ETO	ETO	ETO
FILTERS				
1 in. Permanent Filters		X	X	X
1 in. Throwaway Filters		Std	Std	Std
1 in. MERV 8 Pleated		X	X	X
INSULATION				
Foil Faced Insulation	X	X	X	X
Fiberglass Insulation	Std	Std	Std	Std
Closed Cell Insulation		X	X	X
Premium IAQ Fiberglass	ETO	ETO	ETO	ETO
MOTORS - PSC				
115-1-60, 3-Speed	Std	Std	Std	Std
208-1-60, 3-Speed	X	X	X	X
230-1-60, 3-Speed	X	X	X	X
277-1-60, 3-Speed	X	X	X	X
220-1-50, 3-Speed	X	X	X	X

Available Options (cont)

OPTIONS OR STANDARD FEATURES ^a	UNIT SERIES — 42			
	CA	CE	CG	CK
MOTORS - EC				
115-1-60	X	X	X	X
208-1-60	X	X	X	X
230-1-60	X	X	X	X
277-1-60	X	X	X	X
220-1-50	X	X	X	X
MOTOR QUICK-DISCONNECT PLUG	Std	Std	Std	Std
INTEGRAL THERMAL OVERLOAD PROTECTION	Std	Std	Std	Std
RETURN AIR GRILLE, Shipped Loose			ETO	ETO
Stamped Return Grille			Std	Std
TAMPERPROOF LOCKS				
Access Panels			Std	Std
VALVE PACKAGES	X	X	X	X
WIRING PACKAGES	X	X	X	X

NOTE(S):

- All options are factory-installed unless noted as shipped loose.
- Standard grille is steel; option is available as steel or aluminum.

LEGEND

EC — Electronically Commutated
ETO — Engineered to Order
PSC — Permanent Split Capacitor
Std — Standard
X — Available as Options

Common ETO (Engineered to Order)^a

OPTIONS	UNIT AVAILABILITY
Cabinet Extension	CG
Custom Paint	CG, CK
Cu-Cu Coil	All 42C
Ducted Supply	CG
Install Custom Control Valves	All 42C
Install 3rd Party Controller	All 42C
Outside Air Opening	CE, CG, CK
Remote Control Box with Whip	CE
Side Filter Access for Rear Return	CE
Special Circuited Coil	All 42C
Special Split Coil	All 42C
Steam Coil	All 42C
2 in. Filter Rack for Rear Return	CE
Epoxy Coated Coil	All 42C
Dual Power Controls	CA, CE
Provide Round OA Opening with Duct Collar	All 42C
MERV 13 Filters (42CG/CK 1 in. MERV 13 only)	All 42C

NOTE(S):

- Please contact application team for ETO availability.

Options and accessories (cont)

Factory-installed options

Coils

Choice of a 2-pipe or 4-pipe system with the following chilled/hot water coil configurations:

COIL CONFIGURATION	UNIT
42C	
2-Row Coil	X
3-Row Coil	X
4-Row Coil	X
Opposite End Coil Connections	
3/1	X
3/2	X
4/1	X
Same End Coil Connections	
3/1	X
3/2	X
4/1	X
Cu/Cu Coil Special Option	ETO

LEGEND

X — Available

ETO — Engineer to Order

Condensate overflow switch

This switch shuts down the unit when the water level in the drain pan reaches an unsafe level. Building code changes in many locales now require this type of device.

Decorative colors

Standard color is arctic white. Custom colors may be provided when matched with a provided paint chip. ETO required for custom colors.

Decorative colors may be applied to:

- cabinet of 42CG or 42CK telescoping panel

Electric heaters

Coils are of high grade single-phase, nichrome resistance wire, insulated by ceramic insulators in plated steel brackets. Heater sizes available are shown in the application data section for the respective units. Refer to page 10 for electrical heater data.

Filters

Each unit (except the 42CA units) includes a non-woven synthetic throwaway filter sized for low velocity and maximum efficiency. For optional filters, please refer to available option table on page 8.

Fusing

Incoming power fusing, as well as blower motor and control sub-fusing for units that use electric heat. The blower motor and control sub-fusing (single power source wiring) is required when single source power with electric heat is specified.

Manual air vents

Each standard coil includes a manual air vent to allow venting at the coil if necessary for quick, complete air elimination.

Automatic air vents

Automatic air vents have fiber washers which allow air in the pipes to pass through, automatically bleeding the

system, and eliminating the need to manually remove air from the system. When wet, washers swell and seal the system.

Motors

Three-speed PSC (permanent split capacitor) motors provide the ability to adjust airflow to meet varying load conditions. ECM (electronically commutated) motors offer programmable features, low sound, and increased energy efficiency. Refer to the application data section for more information on ECM control methods.

Return-air grilles

Stamped-type return-air grilles are standard on 42CG,CK units.

Discharge grilles

Two types of double deflection discharge grilles are available for 42CG units; an integral steel grille painted to match the unit or a separate unpainted anodized aluminum grille. The aluminum discharge grilles are suitable for air dry field painting. The discharge grille frame and blades are 6063 extruded aluminum alloy with 200-R1 satin anodized finish. The frame has a typical wall thickness of 0.050 in. and is separated from the blades with injection-molded nylon bushings. This method of assembly minimizes corrosion and vibration. The frame mounting holes are dimpled, allowing for a counter-sunk fastener head appearance. All blades are airfoil in design, individually adjustable and spaced 3/4 in. on center. At the outer edge of the frame is a specifically engineered channel which retains an extruded flexible vinyl bulb gasket that produces a positive air seal at the mounting surface, minimizing smudging. An optional opposed blade damper is screwdriver operated through the face of the unit and has the same extruded aluminum construction and injection-molded nylon bushings. The unit achieves an effective area of 80% with the blades set at a 0 degree pattern, thus eliminating high velocity and pressure drop at the grille face. Wider deflection with reduced throw may be achieved at the 22 and 45 degree blade settings with slightly increased sound levels.

Tell-tale drain pan

A secondary drain connection is located above the primary drain to act as a "tell-tale" in the event that the primary drain becomes obstructed. They can be applied to either the main drain pan or an extended main drain pan. The secondary drain connection is optional on the 42C units.

Outside-air opening

Outside air connections are available to meet ventilation requirements and reduce field labor.

Service switches

Concealed service switches are available for use by maintenance and service personnel to shut off the power while working on the unit.

Single power source connection

Factory-installed junction box allows use of single power source for motor and heater when they are of the same voltage.

Options and accessories (cont)



Electric heat

Electric heaters are available for installation on Carrier fan coil units in the following applications.

Total electric heat

This system provides complete heating during the heating season; no boiler is required. Heating and cooling are now available on an individual basis throughout the year with a 2-pipe system.

Chilled water is used for cooling and the electric heater is used for heating. Individual room controls can be supplied for either manual or automatic changeover.

Auxiliary electric heat

This system is used for heating between seasons or during the cooling season when chilled water is being circulated. Individual room controls are supplied to provide electric heat only when chilled water is being circulated through the system. Water flow through the unit is shut off when the heater is turned on.

During the winter heating season, heating is provided by hot water circulated through the system. A changeover device locks out the electric heat when the hot water is circulated.

Heater construction

Strip heaters are used with Model 42C ceiling units. These heaters consist of coils of high grade resistance wire, insulated by ceramic insulators on plated steel brackets. High limit thermal cutouts protect the unit in the event of airflow loss.

All heaters are positioned on the incoming (preheat) side of the unit coil.

Heater electrical data

1. Load voltage may be 120, 208, 240 or 277 volts. For unit size and kW limitations, refer to the Heater Electrical Data Table.
2. All heaters are single stage and single phase.

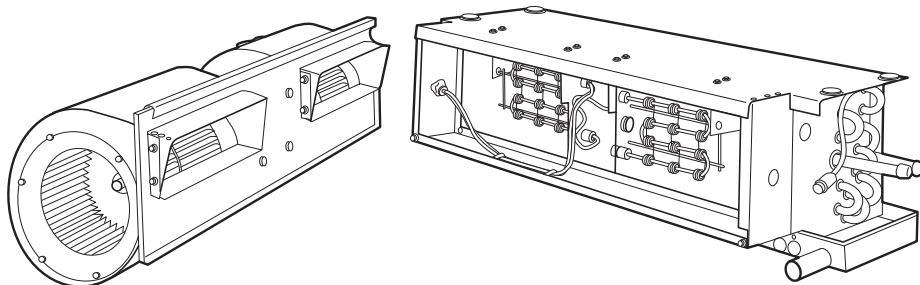
3. With the single power-source option, only one line circuit need be brought into the unit. Fuse protection is added to the motor/control circuit to protect these components. This is separate from the field-furnished total unit overcurrent protection.

Heater Electrical Data - 42C Series a,b,c,d,e

HEATER VOLTAGE	kW	CAPACITY (btuh)	UNIT SIZE							
			02	03	04	06	08	10	12	
120	0.5	1,708	X	X						
	1.0	3,415	X	X	X	X	X			
	1.5	5,123	X	X	X	X	X			
	2.0	6,830	X	X	X	X	X	X	X	
	3.0	10,245		X	X	X	X	X	X	
208	0.5	1,708	X	X						
	1.0	3,415	X	X	X	X	X			
	1.5	5,123	X	X	X	X	X			
	2.0	6,830	X	X	X	X	X	X	X	
	3.0	10,245		X	X	X	X	X	X	
	4.0	13,660				X	X	X	X	
	5.0	17,075				X	X	X	X	
	6.0	20,490				X	X	X	X	
240 277	8.0	27,320						X	X	
	0.5	1,708	X	X						
	1.0	3,415	X	X	X	X	X			
	1.5	5,123	X	X	X	X	X			
	2.0	6,830	X	X	X	X	X	X	X	
	3.0	10,245		X	X	X	X	X	X	
	4.0	13,660				X	X	X	X	
	5.0	17,075				X	X	X	X	
	6.0	20,490				X	X	X	X	
	8.0	27,320						X	X	
	10.0	34,150							X	

NOTE(S):

- All heaters are single stage and single phase.
- Heaters over 48 amps are subdivided and fused.
- Electric heating capacities (btuh) = Heater kW x 3413.
- Consult factory for 50 Hz applications.
- High and medium speed only.



Model 42C Ceiling Unit with Electric Strip Heater

Options and accessories (cont)



Tamperproof fasteners (allen head)

Tamperproof fasteners are installed on the access panels and are available for all cabinet model units.

Thermostat control packages

We offer a variety of control devices to meet the most basic to the most demanding operating logic. All of our control schemes utilize 3-speed fan control to modulate cooling output, maximize the percentage of latent heat removal, and to further reduce the sound level when maximum cooling and heating performance is not required. For thermostat control package options refer to the Controls section.

Field-installed options

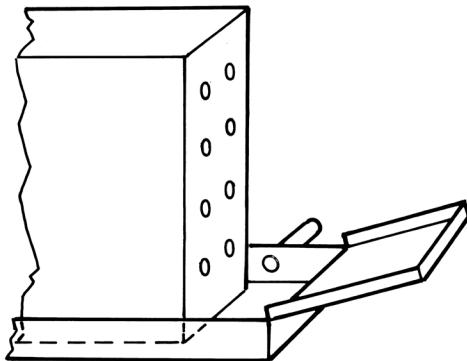
Drip lips (removable drain extension)

Drip lips are frequently used when valves are added after unit installation and space limitations will not permit use of an extended drain pan. The drip lip is placed on the end of the drain pan and is pitched toward the pan to ensure proper drainage. The drip lip gives positive control of condensate from valve packages.

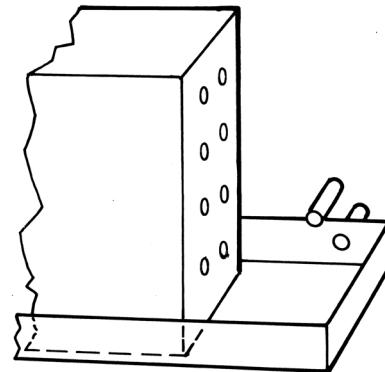
Thermostats control packages

Wall-mounted line voltage and 24-v thermostats are available on the 42 Series fan coil units. For thermostat control packages options refer to the Controls section.

**Drip Lip
(Horizontal Unit)**



**“Tell-Tale” Drain Pan
(Horizontal Unit)**



Options and accessories (cont)



Filter Static Resistance (in. wg)

UNIT DATA			FILTER PRESSURE DROP		
Model	Unit Size	Nominal (cfm)	1 in. Throwaway	1 in. Permanent	1 in. MERV 8
42CEA	02	200	0.038	0.058	0.11
	03	300	0.046	0.078	0.13
	04	400	0.049	0.084	0.14
	06	600	0.060	0.121	0.16
	08	800	0.065	0.141	0.17
	10	1000	0.061	0.125	0.16
	12	1200	0.063	0.134	0.17
42CKA	02	200	0.046	0.078	0.13
	03	300	0.066	0.145	0.18
	04	400	0.068	0.154	0.18
	06	600	0.072	0.171	0.19
	08	800	0.088	0.274	0.30
	10	1000	0.083	0.236	0.25
	12	1200	0.093	0.321	0.37
42CGB	02	200	0.037	0.054	0.11
	03	300	0.046	0.076	0.13
	04	400	0.052	0.094	0.14
	06	600	0.066	0.144	0.17
	08	800	0.076	0.194	0.21
	10	1000	0.073	0.175	0.20
	12	1200	0.075	0.186	0.21

Options and accessories (cont)

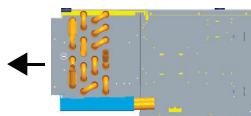


Airflow Arrangements

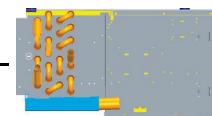


SIDE VIEW

Rear Return, Front Supply

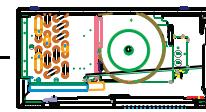


Bottom Return, Front Supply

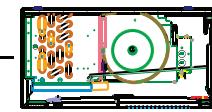


SIDE VIEW

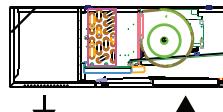
Bottom Return, Front Supply



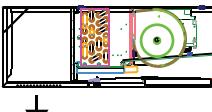
Rear Return, Front Supply



Bottom Return, Bottom Supply



Rear Return, Bottom Supply



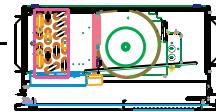
SIDE VIEW

Rear Return, Front Supply

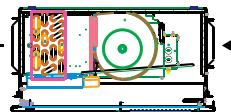


SIDE VIEW

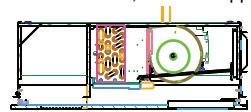
Bottom Return, Front Supply



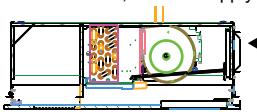
Rear Return, Front Supply



Bottom Return, Bottom Supply



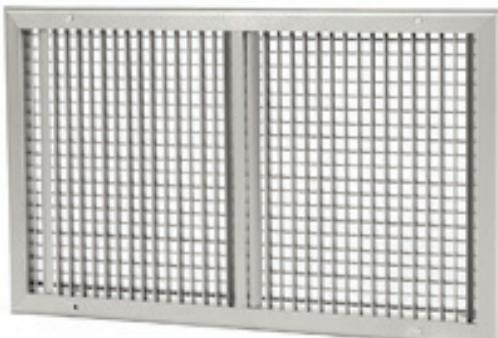
Rear Return, Bottom Supply



Options and accessories (cont)



Airflow Arrangements (cont)



Optional Double Deflection, Aluminum-finish Supply Grille



Special Hinged, Bar-type Aluminum-finish Return Grille
with Throwaway Filter
(ETO request required. Ships separate.)



Optional Double Deflection, Integral Supply Grille
Painted to match Color of Unit

Supply Air Grilles

UNIT SIZE 42C	NOMINAL (cfm)	RECOMMENDED GRILLE SIZE in. (mm)
02	200	16 in. x 6 in. (406 x 152)
03	300	20 in. x 6 in. (508 x 152)
04	400	26 in. x 6 in. (660 x 152)
06	600	30 in. x 6 in. (762 x 152)
08	800	38 in. x 6 in. (965 x 152)
10	1000	52 in. x 6 in. (1320 x 152)
12	1200	60 in. x 6 in. (1524 x 152)

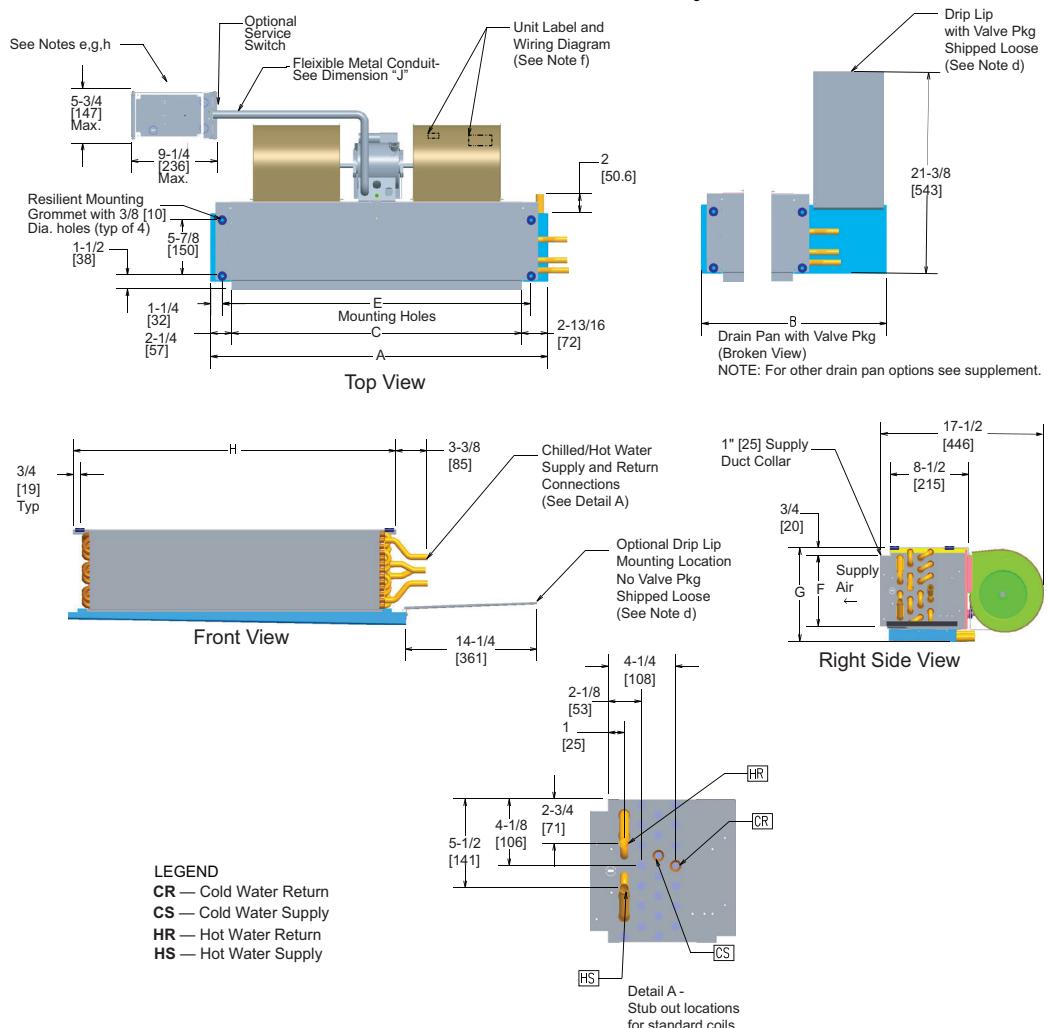
Return Air Filter Grilles

UNIT SIZE 42C	NOMINAL (cfm)	RECOMMENDED GRILLE SIZE in. (mm)
02	200	24 in. x 10 in. (610 x 254)
03	300	28 in. x 10 in. (711 x 254)
04	400	32 in. x 10 in. (813 x 254)
06	600	42 in. x 10 in. (1067 x 254)
08	800	42 in. x 10 in. (1067 x 254)
10	1000	54 in. x 10 in. (1372 x 254)
12	1200	64 in. x 10 in. (1626 x 254)

Base unit dimensions



42CA Horizontal Hideaway



UNIT SIZE 42CA	DIMENSIONS in. [mm] ^{a,b,c,d,e,f,g,h,i,j}								QTY/UNIT		UNIT WEIGHT ^k
	A	B	C	E	F	G	H	J	Blower	Motor	
02	21-1/4 [540]	28-1/2 [724]	16 [406]	18-1/4 [464]	6-1/4 [159]	8-3/4 [222]	19-3/4 [502]	38 [965]	1	1	36
03	25-1/4 [641]	32-1/2 [826]	20 [508]	22-1/4 [565]	6-1/4 [159]	8-3/4 [222]	23-3/4 [603]	38 [965]	1	1	39
04	31-1/4 [794]	38-1/2 [978]	26 [660]	28-1/4 [718]	6-1/4 [159]	8-3/4 [222]	29-3/4 [756]	38 [965]	2	1	49
06	36-1/4 [921]	43-1/5 [1105]	31 [787]	33-1/4 [845]	7-1/2 [191]	10 [254]	34-3/4 [883]	38 [965]	2	1	59
08	43-1/4 [1099]	50-1/2 [1283]	38 [965]	40-1/4 [1022]	7-1/2 [191]	10 [254]	41-3/4 [1060]	38 [965]	2	1	64
10	57-1/4 [1454]	64-1/2 [1638]	52 [1321]	54-1/4 [1378]	7-1/2 [191]	10 [254]	55-3/4 [1416]	60 [1524]	4	2	95
12	65-1/4 [1657]	72-1/2 [1842]	60 [1524]	62-1/4 [1581]	7-1/2 [191]	10 [254]	63-3/4 [1619]	65 [1651]	4	2	107

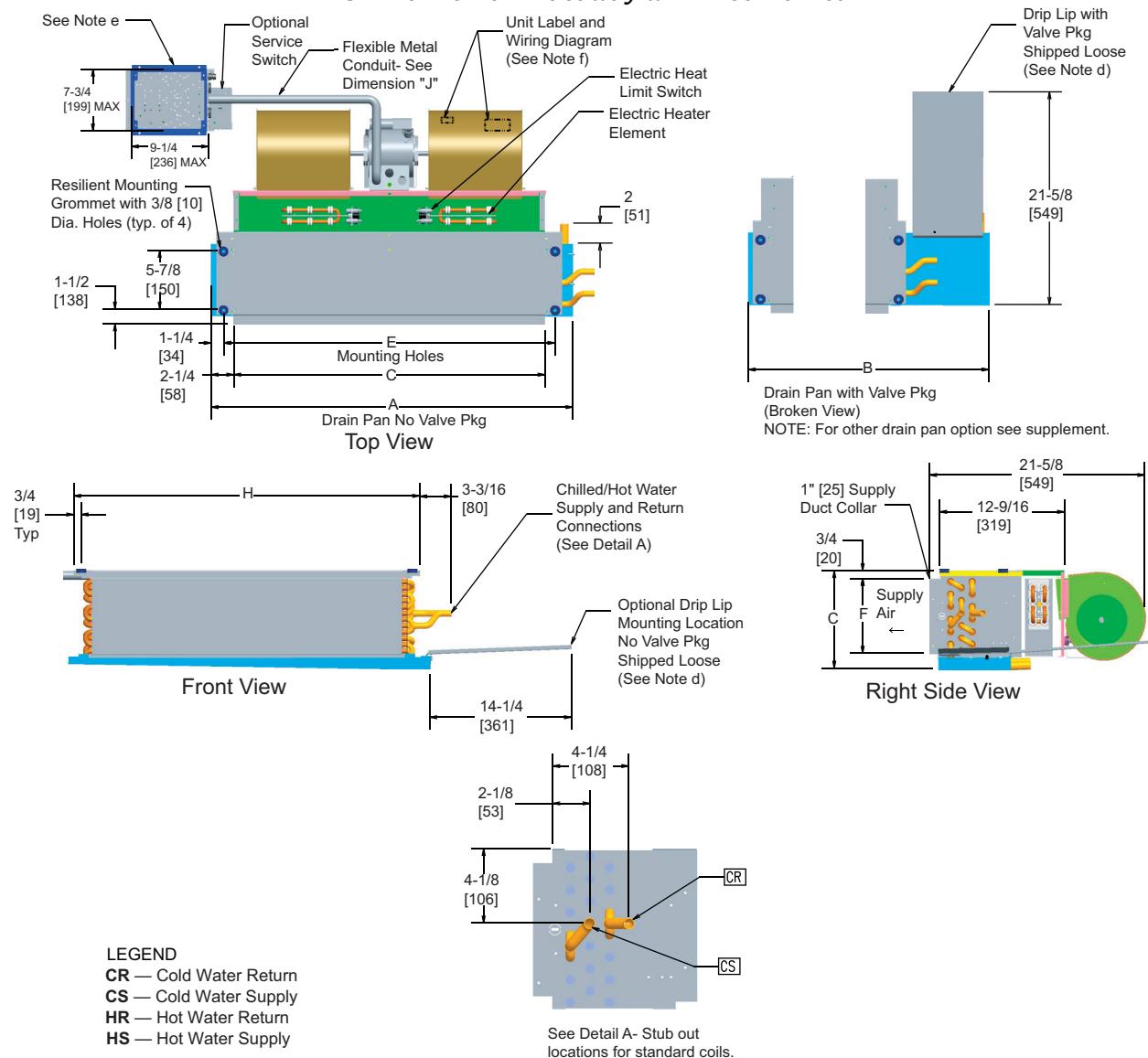
NOTE(S):

- Right-hand units shown, left-hand opposite.
- All dimensions are $\pm .25$ in. [6 mm]. Drawing not to scale.
- Product specifications are subject to change without notice.
- Drip lip recommended. Provided when valve package is ordered
- Control box size and position may vary. Consult factory.
- Position may vary.
- Service entrance is located on the rear of the control box with knockouts.
- Units without service switch use the knockouts on the rear side of the control box
- Typical size 06 unit shown with 1-motor and 2-blower. Refer to table for variation.
- See valve package supplemental for piping termination.
- Unit weights (shown in pounds) are based on dry coils, minimum rows and exclude packaging, valves, or other components.

Base unit dimensions (cont)



42CA Horizontal Hideaway with Electric Heat



UNIT SIZE 42CA	DIMENSIONS in. [mm] ^{a,b,c,d,e,f,g,h,i,j}								QTY/UNIT		UNIT WEIGHTS ^k
	A	B	C	E	F	G	H	J	Blower	Motor	
02	21-1/4 [540]	28-1/2 [724]	16 [406]	18-1/4 [464]	6-1/4 [159]	8-3/4 [222]	19-3/4 [502]	38 [965]	1	1	38
03	25-1/4 [641]	32-1/2 [826]	20 [508]	22-1/4 [565]	6-1/4 [159]	8-3/4 [222]	23-3/4 [603]	38 [965]	1	1	41
04	31-1/4 [794]	38-1/2 [978]	26 [660]	28-1/4 [718]	6-1/4 [159]	8-3/4 [222]	29-3/4 [756]	38 [965]	2	1	51
06	36-1/4 [921]	43-1/5 [1105]	31 [787]	33-1/4 [845]	7-1/2 [191]	10 [254]	34-3/4 [883]	38 [965]	2	1	61
08	43-1/4 [1099]	50-1/2 [1283]	38 [965]	40-1/4 [1022]	7-1/2 [191]	10 [254]	41-3/4 [1060]	38 [965]	2	1	66
10	57-1/4 [1454]	64-1/2 [1638]	52 [1321]	54-1/4 [1378]	7-1/2 [191]	10 [254]	55-3/4 [1416]	60 [1524]	4	2	97
12	65-1/4 [1657]	72-1/2 [1842]	60 [1524]	62-1/4 [1581]	7-1/2 [191]	10 [254]	63-3/4 [1619]	65 [1651]	4	2	109

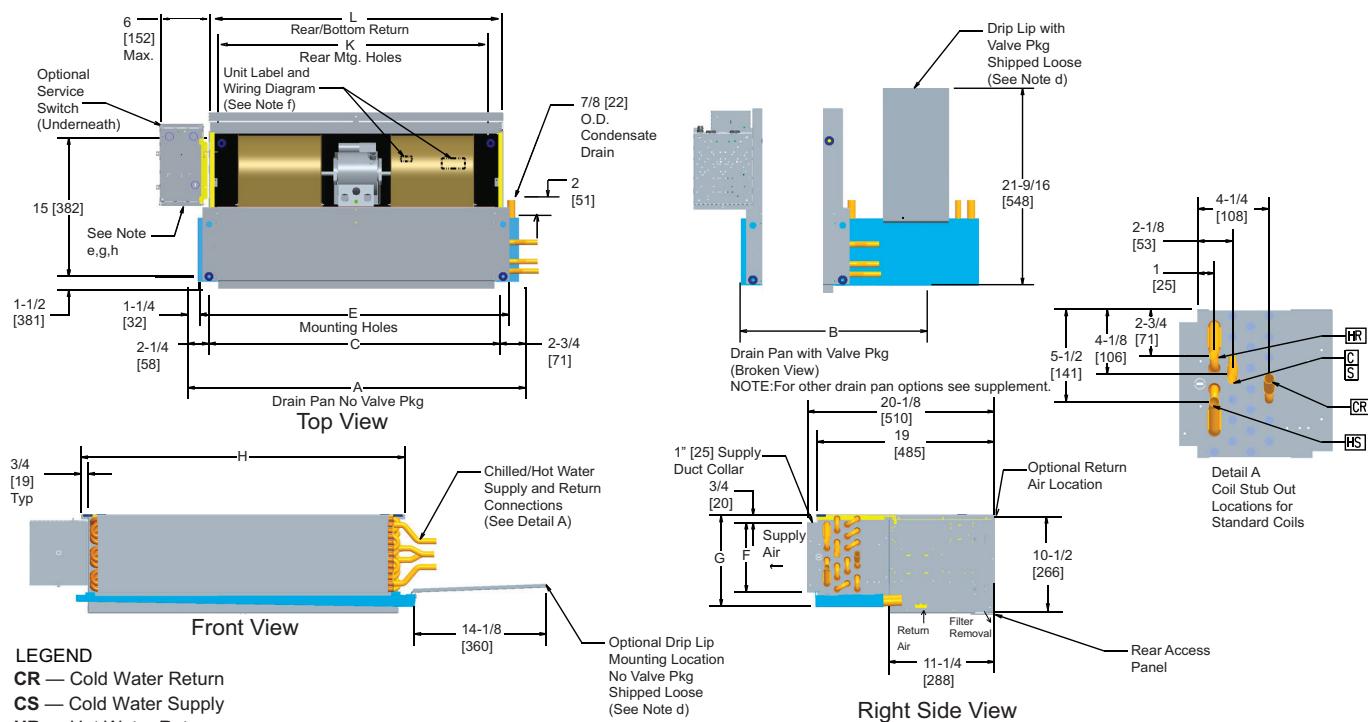
NOTE(S):

- Right-hand units shown, left-hand opposite.
- All dimensions are $\pm .25$ in. [6 mm]. Drawing not to scale.
- Product specifications are subject to change without notice.
- Drip lip recommended. Provided when valve package is ordered.
- Control box size and position may vary. Consult factory.
- Position may vary.
- Service entrance is located on the rear of the control box with knockouts.
- Units without service switch use the knockouts on the rear side of the control box.
- Typical size 06 unit shown with 1-motor and 2-blower. Refer to table for variation.
- See valve package supplemental for piping termination.
- Unit weights (shown in pounds) are based on dry coils, minimum rows and exclude packaging, valves, or other components.

Base unit dimensions (cont)



42CE Horizontal Furred-in with Plenum



LEGEND
CR — Cold Water Return
CS — Cold Water Supply
HR — Hot Water Return
HS — Hot Water Supply

UNIT SIZE 42CE	DIMENSIONS in. [mm] ^{a,b,c,d,e,f,g,h,i,j}									QTY/UNIT		UNIT WEIGHT ^k
	A	B	C	E	F	G	H	K	L	Blower	Motor	
02	21-1/4 [540]	28-1/2 [724]	16 [406]	18-1/4 [464]	6-1/4 [159]	8-3/4 [222]	19-3/4 [502]	15-3/8 [391]	18-1/4 [464]	1	1	55
03	25-1/4 [641]	32-1/2 [826]	20 [508]	22-1/4 [565]	6-1/4 [159]	8-3/4 [222]	23-3/4 [603]	19-3/8 [493]	22-1/4 [565]	1	1	60
04	31-1/4 [794]	38-1/2 [978]	26 [660]	28-1/4 [718]	6-1/4 [159]	8-3/4 [222]	29-3/4 [756]	25-3/8 [654]	28-1/4 [718]	2	1	70
06	36-1/4 [921]	43-1/2 [1105]	31 [787]	33-1/4 [845]	7-1/2 [191]	10 [254]	34-3/4 [883]	30-3/8 [772]	33-1/4 [845]	2	1	82
08	43-1/4 [1099]	50-1/2 [1283]	38 [965]	40-1/4 [1022]	7-1/2 [191]	10 [254]	41-3/4 [1060]	37-3/8 [950]	40-1/4 [1022]	2	1	95
10	57-1/4 [1454]	64-1/2 [1638]	52 [1321]	54-1/4 [1378]	7-1/2 [191]	10 [254]	55-3/4 [1416]	51-3/8 [1306]	54-1/4 [1378]	4	2	135
12	65-1/4 [1657]	72-1/2 [1842]	60 [1524]	62-1/4 [1581]	7-1/2 [191]	10 [254]	63-3/4 [1619]	59-3/8 [1509]	62-1/4 [1581]	4	2	154

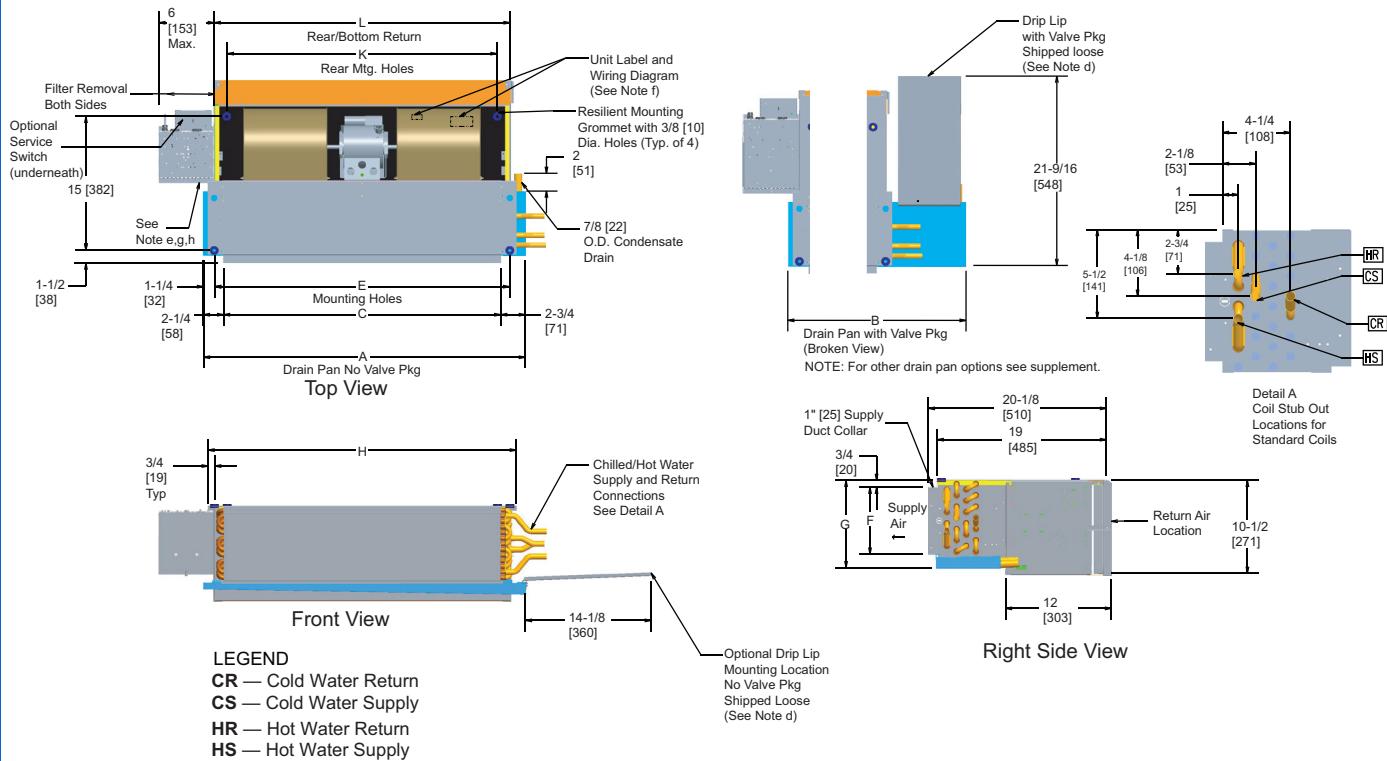
NOTE(S):

- a. Right-hand units shown, left-hand opposite.
- b. All dimensions are $\pm .25$ in. [6 mm]. Drawing not to scale.
- c. Product specifications are subject to change without notice.
- d. Drip lip recommended. Provided when valve package is ordered.
- e. Control box size and position may vary. Consult factory.
- f. Position may vary.
- g. Service entrance is located on the rear of the control box with knockouts.
- h. Units without service switch use the knockouts on the rear side of the control box.
- i. Typical size 06 unit shown with 1-motor and 2-blower. Refer to table for variation.
- j. See valve package supplemental for piping termination.
- k. Unit weights (shown in pounds) are based on dry coils, minimum rows and exclude packaging, valves, or other components.

Base unit dimensions (cont)



42CE Horizontal Furred-in with Plenum and Side Filter Access Unit



UNIT SIZE 42CE	DIMENSIONS in. [mm] ^{a,b,c,d,e,f,g,h,i,j}									QTY/UNIT		UNIT WEIGHT ^k
	A	B	C	E	F	G	H	K	L	Blower	Motor	
02	21-1/4 [540]	28-1/2 [724]	16 [406]	18-1/4 [464]	6-1/4 [159]	8-3/4 [222]	19-3/4 [502]	15-3/8 [391]	18-1/4 [464]	1	1	57
03	25-1/4 [641]	32-1/2 [826]	20 [508]	22-1/4 [565]	6-1/4 [159]	8-3/4 [222]	23-3/4 [603]	19-3/8 [493]	22-1/4 [565]	1	1	62
04	31-1/4 [794]	38-1/2 [978]	26 [660]	28-1/4 [718]	6-1/4 [159]	8-3/4 [222]	29-3/4 [756]	25-3/8 [654]	28-1/4 [718]	2	1	72
06	36-1/4 [921]	43-1/2 [1105]	31 [787]	33-1/4 [845]	7-1/2 [191]	10 [254]	34-3/4 [883]	30-3/8 [772]	33-1/4 [845]	2	1	84
08	43-1/4 [1099]	50-1/2 [1283]	38 [965]	40-1/4 [1022]	7-1/2 [191]	10 [254]	41-3/4 [1060]	37-3/8 [950]	40-1/4 [1022]	2	1	97
10	57-1/4 [1454]	64-1/2 [1638]	52 [1321]	54-1/4 [1378]	7-1/2 [191]	10 [254]	55-3/4 [1416]	51-3/8 [1306]	54-1/4 [1378]	4	2	137
12	65-1/4 [1657]	72-1/2 [1842]	60 [1524]	62-1/4 [1581]	7-1/2 [191]	10 [254]	63-3/4 [1619]	59-3/8 [1509]	62-1/4 [1581]	4	2	156

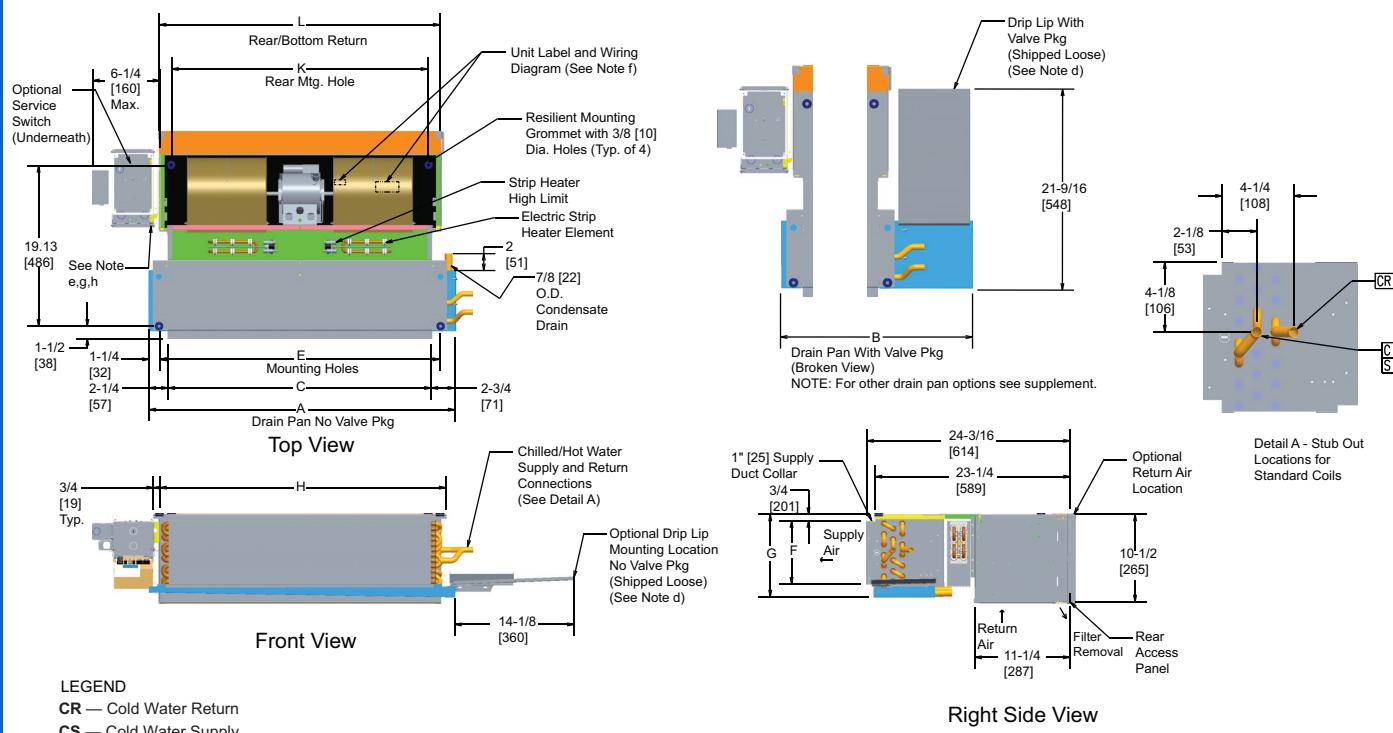
NOTE(S):

- Right-hand units shown, left-hand opposite.
- All dimensions are ± 0.25 in. [6 mm]. Drawing not to scale.
- Product specifications are subject to change without notice.
- Drip lip recommended. Provided when valve package is ordered.
- Control box size and position may vary. Consult factory.
- Position may vary.
- Service entrance is located on the rear of the control box with knockouts.
- Units without service switch use the knockouts on the rear side of the control box.
- Typical size 06 unit shown with 1-motor and 2-blower. Refer to table for variation.
- See valve package supplemental for piping termination.
- Unit weights (shown in pounds) are based on dry coils, minimum rows and exclude packaging, valves, or other components.

Base unit dimensions (cont)



42CE Horizontal Furred-in with Plenum with Electric Heat



LEGEND

- CR — Cold Water Return
- CS — Cold Water Supply
- HR — Hot Water Return
- HS — Hot Water Supply

UNIT SIZE 42CE	DIMENSIONS in. [mm] ^{a,b,c,d,e,f,g,h,i,j}									QTY/UNIT		UNIT WEIGHTS ^k
	A	B	C	E	F	G	H	K	L	Blower	Motor	
02	21-1/4 [540]	28-1/2 [724]	16 [406]	18-1/4 [464]	6-1/4 [159]	8-3/4 [222]	19-3/4 [502]	15-3/8 [391]	18-1/4 [464]	1	1	57
03	25-1/4 [641]	32-1/2 [826]	20 [508]	22-1/4 [565]	6-1/4 [159]	8-3/4 [222]	23-3/4 [603]	19-3/8 [493]	22-1/4 [565]	1	1	62
04	31-1/4 [794]	38-1/2 [978]	26 [660]	28-1/4 [718]	6-1/4 [159]	8-3/4 [222]	29-3/4 [756]	25-3/8 [654]	28-1/4 [718]	2	1	72
06	36-1/4 [921]	43-1/2 [1105]	31 [787]	33-1/4 [845]	7-1/2 [191]	10 [254]	34-3/4 [883]	30-3/8 [772]	33-1/4 [845]	2	1	84
08	43-1/4 [1099]	50-1/2 [1283]	38 [965]	40-1/4 [1022]	7-1/2 [191]	10 [254]	41-3/4 [1060]	37-3/8 [950]	40-1/4 [1022]	2	1	97
10	57-1/4 [1454]	64-1/2 [1638]	52 [1321]	54-1/4 [1378]	7-1/2 [191]	10 [254]	55-3/4 [1416]	51-3/8 [1306]	54-1/4 [1378]	4	2	137
12	65-1/4 [1657]	72-1/2 [1842]	60 [1524]	62-1/4 [1581]	7-1/2 [191]	10 [254]	63-3/4 [1619]	59-3/8 [1509]	62-1/4 [1581]	4	2	156

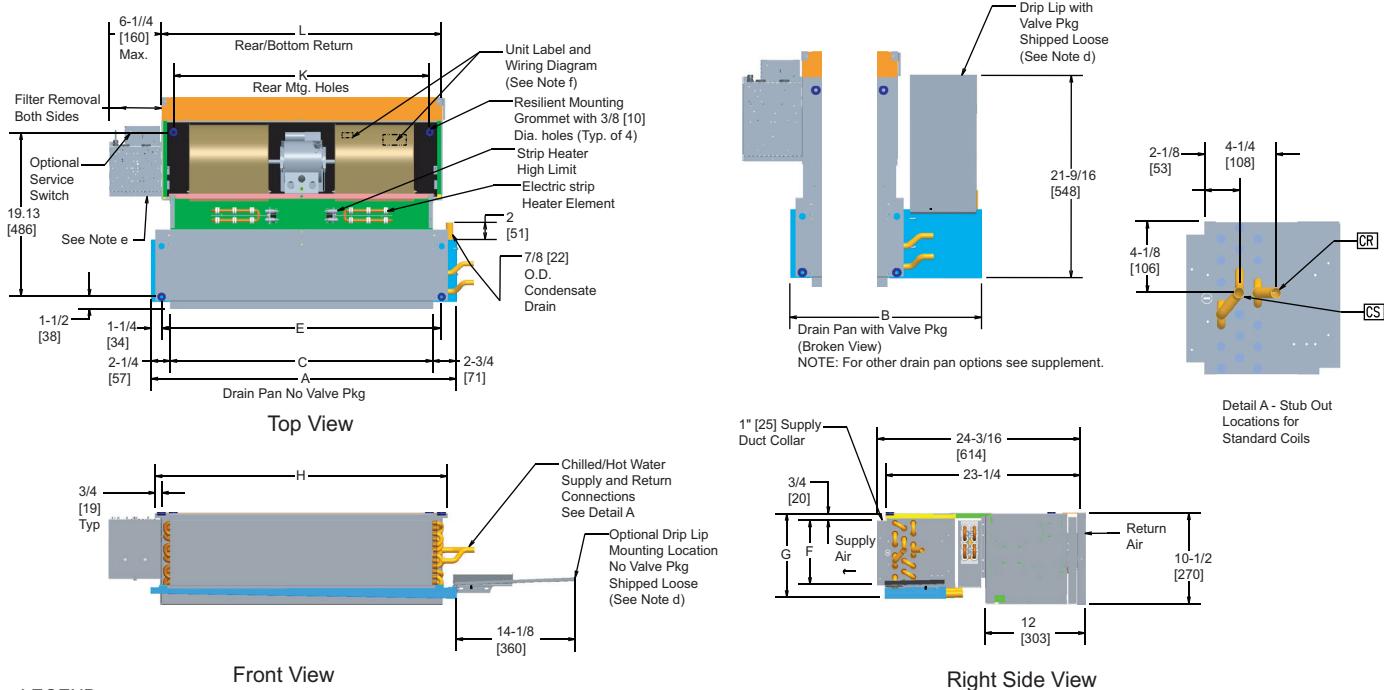
NOTE(S):

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- b. All dimensions are $\pm .25$ in. [6 mm]. Drawing not to scale.
- c. Product specifications are subject to change without notice.
- d. Drip lip recommended. Provided when valve package is ordered.
- e. Control box size and position may vary. Consult factory.
- f. Position may vary.
- g. Service entrance is located on the rear of the control box with knockouts.
- h. Units without service switch use the knockouts on the rear side of the control box.
- i. Typical size 06 unit shown with 1-motor and 2-blower. Refer to table for variation.
- j. See valve package supplemental for piping termination.
- k. Unit weights (shown in pounds) are based on dry coils, minimum rows and exclude packaging, valves, or other components.

Base unit dimensions (cont)



42CE Furred-in Horizontal Unit with Plenum, Side Filter Access, and Electric Heat



LEGEND

CR — Cold Water Return

CS — Cold Water Supply

HR — Hot Water Return

HS — Hot Water Supply

UNIT SIZE 42CE	DIMENSIONS in. [mm] ^{a,b,c,d,e,f,g,h,i,j}									QTY/UNIT		UNIT WEIGHTS ^k
	A	B	C	E	F	G	H	K	L	Blower	Motor	
02	21-1/4 [540]	28-1/2 [724]	16 [406]	18-1/4 [464]	6-1/4 [159]	8-3/4 [222]	19-3/4 [502]	15-3/8 [391]	18-1/4 [464]	1	1	57
03	25-1/4 [641]	32-1/2 [826]	20 [508]	22-1/4 [565]	6-1/4 [159]	8-3/4 [222]	23-3/4 [603]	19-3/8 [493]	22-1/4 [565]	1	1	62
04	31-1/4 [794]	38-1/2 [978]	26 [660]	28-1/4 [718]	6-1/4 [159]	8-3/4 [222]	29-3/4 [756]	25-3/8 [654]	28-1/4 [718]	2	1	72
06	36-1/4 [921]	43-1/2 [1105]	31 [787]	33-1/4 [845]	7-1/2 [191]	10 [254]	34-3/4 [883]	30-3/8 [772]	33-1/4 [845]	2	1	84
08	43-1/4 [1099]	50-1/2 [1283]	38 [965]	40-1/4 [1022]	7-1/2 [191]	10 [254]	41-3/4 [1060]	37-3/8 [950]	40-1/4 [1022]	2	1	97
10	57-1/4 [1454]	64-1/2 [1638]	52 [1321]	54-1/4 [1378]	7-1/2 [191]	10 [254]	55-3/4 [1416]	51-3/8 [1306]	54-1/4 [1378]	4	2	137
12	65-1/4 [1657]	72-1/2 [1842]	60 [1524]	62-1/4 [1581]	7-1/2 [191]	10 [254]	63-3/4 [1619]	59-3/8 [1509]	62-1/4 [1581]	4	2	156

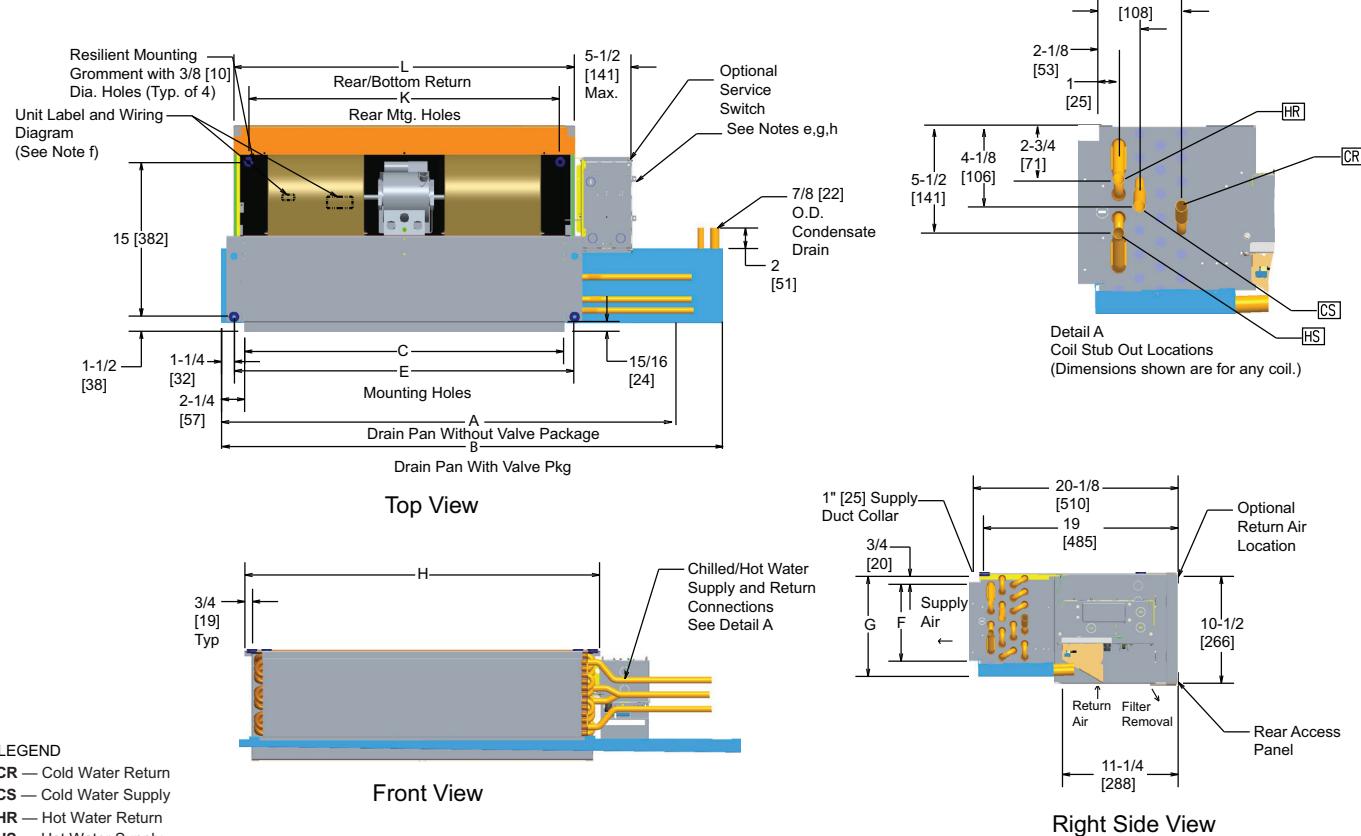
NOTE(S):

- Right-hand units shown, left-hand opposite.
- All dimensions are ± 0.25 in. [6 mm]. Drawing not to scale.
- Product specifications are subject to change without notice.
- Drip lip recommended. Provided when valve package is ordered.
- Control box size and position may vary. Consult factory.
- Position may vary.
- Service entrance is located on the rear of the control box with knockouts.
- Units without service switch use the knockouts on the rear side of the control box.
- Typical size 06 unit shown with 1-motor and 2-blower. Refer to table for variation.
- See valve package supplemental for piping termination.
- Unit weights (shown in pounds) are based on dry coils, minimum rows and exclude packaging, valves, or other components.

Base unit dimensions (cont)



42CE - Horizontal Furred-in with Plenum, Same Side Piping (ETO)



UNIT SIZE 42CE	DIMENSIONS in. [mm] ^{a,b,c,d,e,f,g,h,i,j}									QTY/UNIT		UNIT WEIGHTS ^k
	A	B	C	E	F	G	H	K	L	Blower	Motor	
02	21-1/4 [540]	28-1/2 [724]	16 [406]	18-1/4 [464]	6-1/4 [159]	8-3/4 [222]	19-3/4 [502]	15-3/8 [391]	18-1/4 [464]	1	1	57
03	25-1/4 [641]	32-1/2 [826]	20 [508]	22-1/4 [565]	6-1/4 [159]	8-3/4 [222]	23-3/4 [603]	19-3/8 [493]	22-1/4 [565]	1	1	62
04	31-1/4 [794]	38-1/2 [978]	26 [660]	28-1/4 [718]	6-1/4 [159]	8-3/4 [222]	29-3/4 [756]	25-3/8 [654]	28-1/4 [718]	2	1	72
06	36-1/4 [921]	43-1/2 [1105]	31 [787]	33-1/4 [845]	7-1/2 [191]	10 [254]	34-3/4 [883]	30-3/8 [772]	33-1/4 [845]	2	1	84
08	43-1/4 [1099]	50-1/2 [1283]	38 [965]	40-1/4 [1022]	7-1/2 [191]	10 [254]	41-3/4 [1060]	37-3/8 [950]	40-1/4 [1022]	2	1	97
10	57-1/4 [1454]	64-1/2 [1638]	52 [1321]	54-1/4 [1378]	7-1/2 [191]	10 [254]	55-3/4 [1416]	51-3/8 [1306]	54-1/4 [1378]	4	2	137
12	65-1/4 [1657]	72-1/2 [1842]	60 [1524]	62-1/4 [1581]	7-1/2 [191]	10 [254]	63-3/4 [1619]	59-3/8 [1509]	62-1/4 [1581]	4	2	156

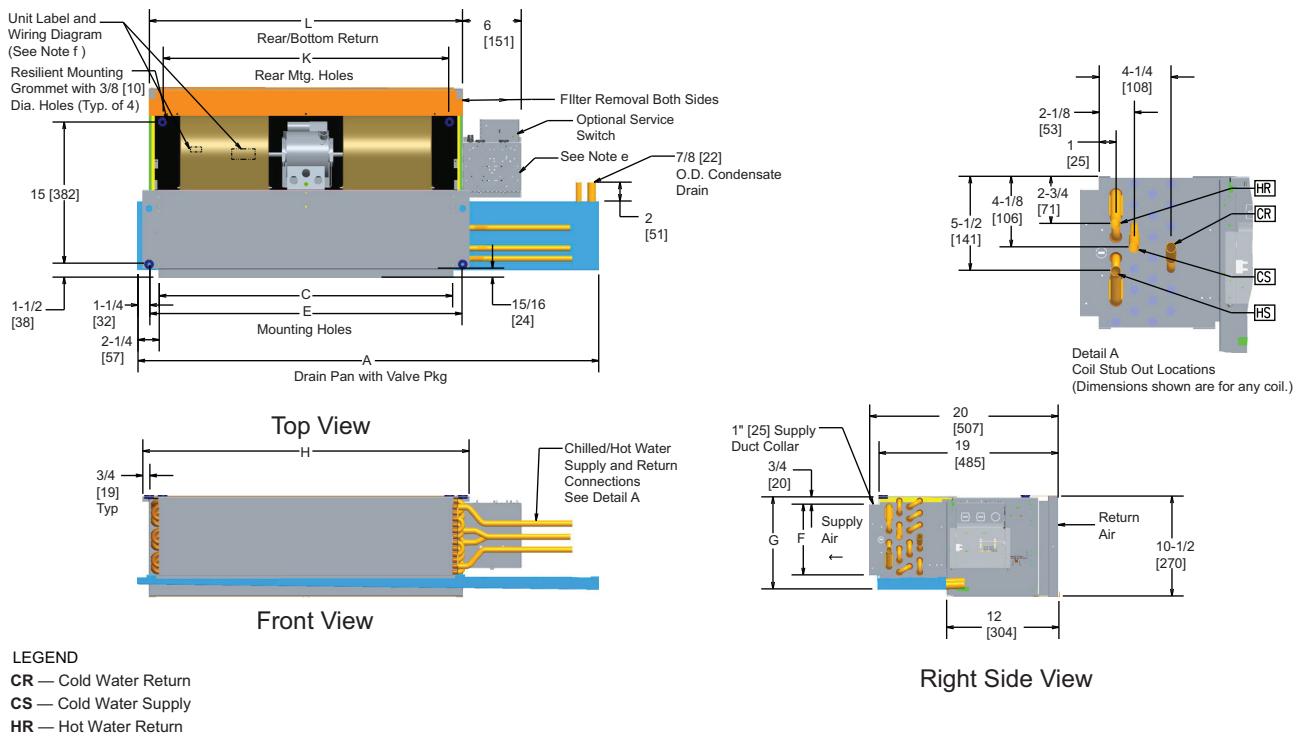
NOTE(S):

- a. Right-hand units shown, left-hand opposite.
- b. All dimensions are ± 0.25 in. [6 mm]. Drawing not to scale.
- c. Product specifications are subject to change without notice.
- d. Drip lip recommended. Provided when valve package is ordered.
- e. Control box size and position may vary. Consult factory.
- f. Position may vary.
- g. Service entrance is located on the rear of the control box with knockouts.
- h. Units without service switch use the knockouts on the rear side of the control box.
- i. Typical size 06 unit shown with 1-motor and 2-blower. Refer to table for variation.
- j. See valve package supplemental for piping termination.
- k. Unit weights (shown in pounds) are based on dry coils, minimum rows and exclude packaging, valves, or other components.

Base unit dimensions (cont)



42CE - Horizontal Furred-in with Plenum and Side Filter Access, with Same Side Piping and Controls (ETO)



LEGEND

CR — Cold Water Return
CS — Cold Water Supply
HR — Hot Water Return
HS — Hot Water Supply

UNIT SIZE 42CE	DIMENSIONS in. [mm] ^{a,b,c,d,e,f,g,h,i,j}									QTY/UNIT		UNIT WEIGHTS ^k
	A	C	E	F	G	H	K	L	Blower	Motor		
02	34 [864]	16 [406]	18-1/4 [464]	6-1/4 [159]	8-3/4 [222]	19-3/4 [502]	15-3/8 [391]	18-1/4 [464]	1	1	57	
03	38 [965]	20 [508]	22-1/4 [565]	6-1/4 [159]	8-3/4 [222]	23-3/4 [603]	19-3/8 [493]	22-1/4 [565]	1	1	62	
04	44 [1118]	26 [660]	28-1/4 [718]	6-1/4 [159]	8-3/4 [222]	29-3/4 [756]	25-3/8 [654]	28-1/4 [718]	2	1	72	
06	49 [1245]	31 [787]	33-1/4 [845]	7-1/2 [191]	10 [254]	34-3/4 [883]	30-3/8 [772]	33-1/4 [845]	2	1	84	
08	56 [1422]	38 [965]	40-1/4 [1022]	7-1/2 [191]	10 [254]	41-3/4 [1060]	37-3/8 [950]	40-1/4 [1022]	2	1	97	
10	70 [1778]	52 [1321]	54-1/4 [1378]	7-1/2 [191]	10 [254]	55-3/4 [1416]	51-3/8 [1306]	54-1/4 [1378]	4	2	137	
12	78 [1981]	60 [1524]	62-1/4 [1581]	7-1/2 [191]	10 [254]	63-3/4 [1619]	59-3/8 [1509]	62-1/4 [1581]	4	2	156	

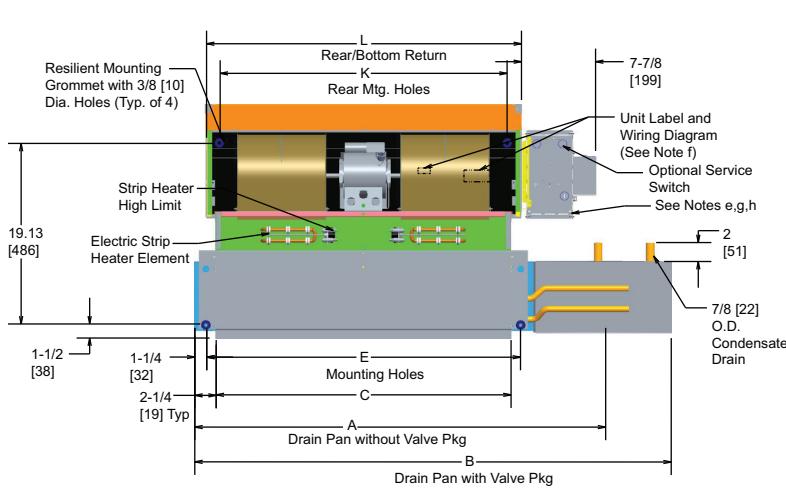
NOTE(S):

- Right-hand units shown, left-hand opposite.
- All dimensions are ± 0.25 in. [6 mm]. Drawing not to scale.
- Product specifications are subject to change without notice.
- Drip lip recommended. Provided when valve package is ordered.
- Control box size and position may vary. Consult factory.
- Position may vary.
- Service entrance is located on the rear of the control box with knockouts.
- Units without service switch use the knockouts on the rear side of the control box.
- Typical size 06 unit shown with 1-motor and 2-blower. Refer to table for variation.
- See valve package supplemental for piping termination.
- Unit weights (shown in pounds) are based on dry coils, minimum rows and exclude packaging, valves, or other components.

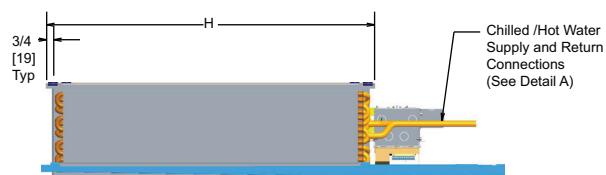
Base unit dimensions (cont)



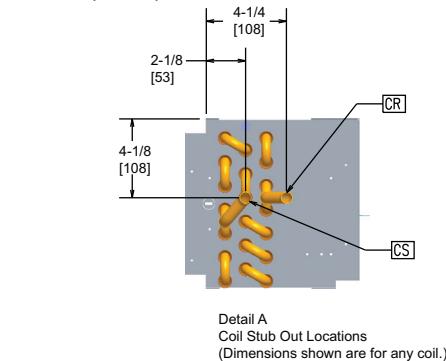
42CE - Horizontal Furred-in with Plenum with Same Side Piping and Controls with Electric Heat (ETO)



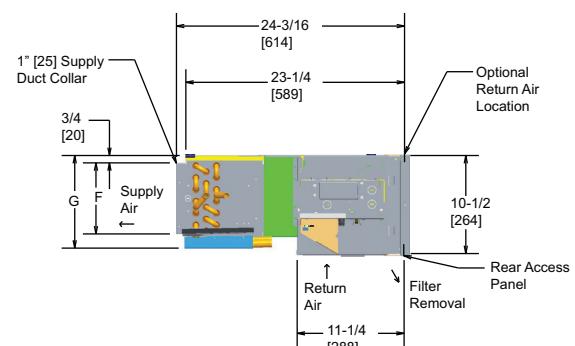
Top View



Front View



Detail A
Coil Stub Out Locations
(Dimensions shown are for any coil.)



Right Side View

LEGEND
CR — Cold Water Return
CS — Cold Water Supply
HR — Hot Water Return
HS — Hot Water Supply

UNIT SIZE 42CE	DIMENSIONS (in.) mm ^{a,b,c,d,e,f,g,h,i,j}									QTY/UNIT		UNIT WEIGHTS ^k
	A	B	C	E	F	G	H	K	L	Blower	Motor	
02	28-1/2 [724]	34 [864]	16 [406]	18-1/4 [464]	6-1/4 [159]	8-3/4 [222]	19-3/4 [502]	15-3/8 [391]	18-1/4 [464]	1	1	57
03	32-1/2 [826]	38 [965]	20 [508]	22-1/4 [565]	6-1/4 [159]	8-3/4 [222]	23-3/4 [603]	19-3/8 [493]	22-1/4 [565]	1	1	62
04	38-1/2 [978]	44 [1118]	26 [660]	28-1/4 [718]	6-1/4 [159]	8-3/4 [222]	29-3/4 [756]	25-3/8 [654]	28-1/4 [718]	2	1	72
06	43-1/2 [1105]	49 [1245]	31 [787]	33-1/4 [845]	7-1/2 [191]	10 [254]	34-3/4 [883]	30-3/8 [772]	33-1/4 [845]	2	1	84
08	50-1/2 [1283]	56 [1422]	38 [965]	40-1/4 [1022]	7-1/2 [191]	10 [254]	41-3/4 [1060]	37-3/8 [950]	40-1/4 [1022]	2	1	97
10	64-1/2 [1638]	70 [1778]	52 [1321]	54-1/4 [1378]	7-1/2 [191]	10 [254]	55-3/4 [1416]	51-3/8 [1306]	54-1/4 [1378]	4	2	137
12	72-1/2 [1842]	78 [1981]	60 [1524]	62-1/4 [1581]	7-1/2 [191]	10 [254]	63-3/4 [1619]	59-3/8 [1509]	62-1/4 [1581]	4	2	156

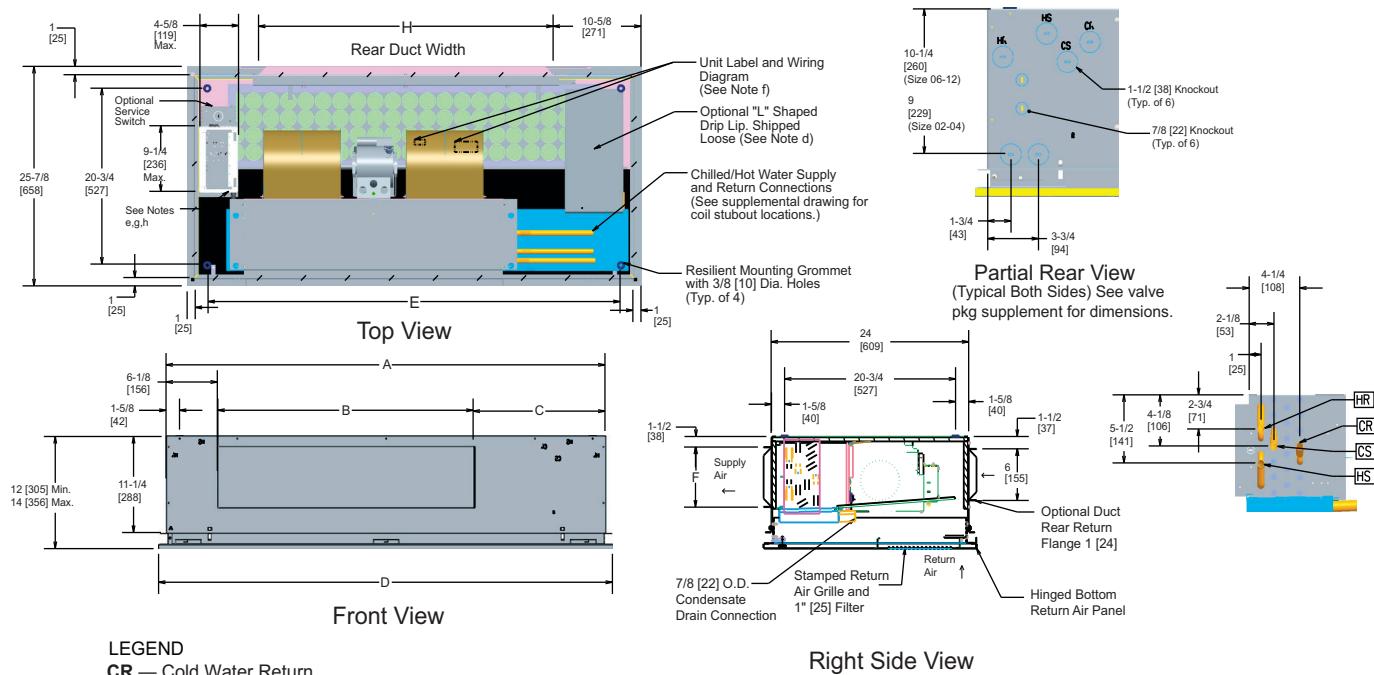
NOTE(S):

- a. Right-hand units shown, left-hand opposite.
- b. All dimensions are ± 0.25 in. [6 mm]. Drawing not to scale.
- c. Product specifications are subject to change without notice.
- d. Drip lip recommended. Provided when valve package is ordered.
- e. Control box size and position may vary. Consult factory.
- f. Position may vary.
- g. Service entrance is located on the rear of the control box with knockouts.
- h. Units without service switch use the knockouts on the rear side of the control box.
- i. Typical size 06 unit shown with 1-motor and 2-blower. Refer to table for variation.
- j. See valve package supplemental for piping termination.
- k. Unit weights (shown in pounds) are based on dry coils, minimum rows and exclude packaging, valves, or other components.

Base unit dimensions (cont)



42CK - Horizontal Telescoping Hideaway



LEGEND

CR — Cold Water Return
 CS — Cold Water Supply
 HR — Hot Water Return
 HS — Hot Water Supply

UNIT SIZE 42CK	DIMENSIONS in. [mm] ^{a,b,c,d,e,f,g,h,i,j,k}							QTY/UNIT		Unit Weights ^l
	A	B	C	D	E	F	H	Blower	Motor	
02	35 [889]	16 [406]	12-3/4 [324]	37 [940]	32 [813]	6 [152]	18-3/4 [476]	1	1	55
03	35 [889]	20 [508]	8-3/4 [225]	37 [940]	32 [813]	6 [152]	18-3/4 [476]	1	1	60
04	41 [1041]	26 [660]	8-3/4 [225]	43 [1092]	38 [965]	6 [152]	24-3/4 [629]	2	1	70
06	53 [1346]	31 [787]	15-3/4 [400]	55 [1397]	50 [1270]	7 [179]	35-3/4 [908]	2	1	82
08	53 [1346]	38 [965]	8-3/4 [225]	55 [1397]	50 [1270]	7 [179]	35-3/4 [908]	2	1	95
10	75 [1905]	52 [1321]	16-3/4 [425]	77 [1956]	72 [1829]	7 [179]	49-3/4 [1264]	4	2	135
12	75 [1905]	60 [1524]	8-3/4 [225]	77 [1956]	72 [1829]	7 [179]	49-3/4 [1264]	4	2	154

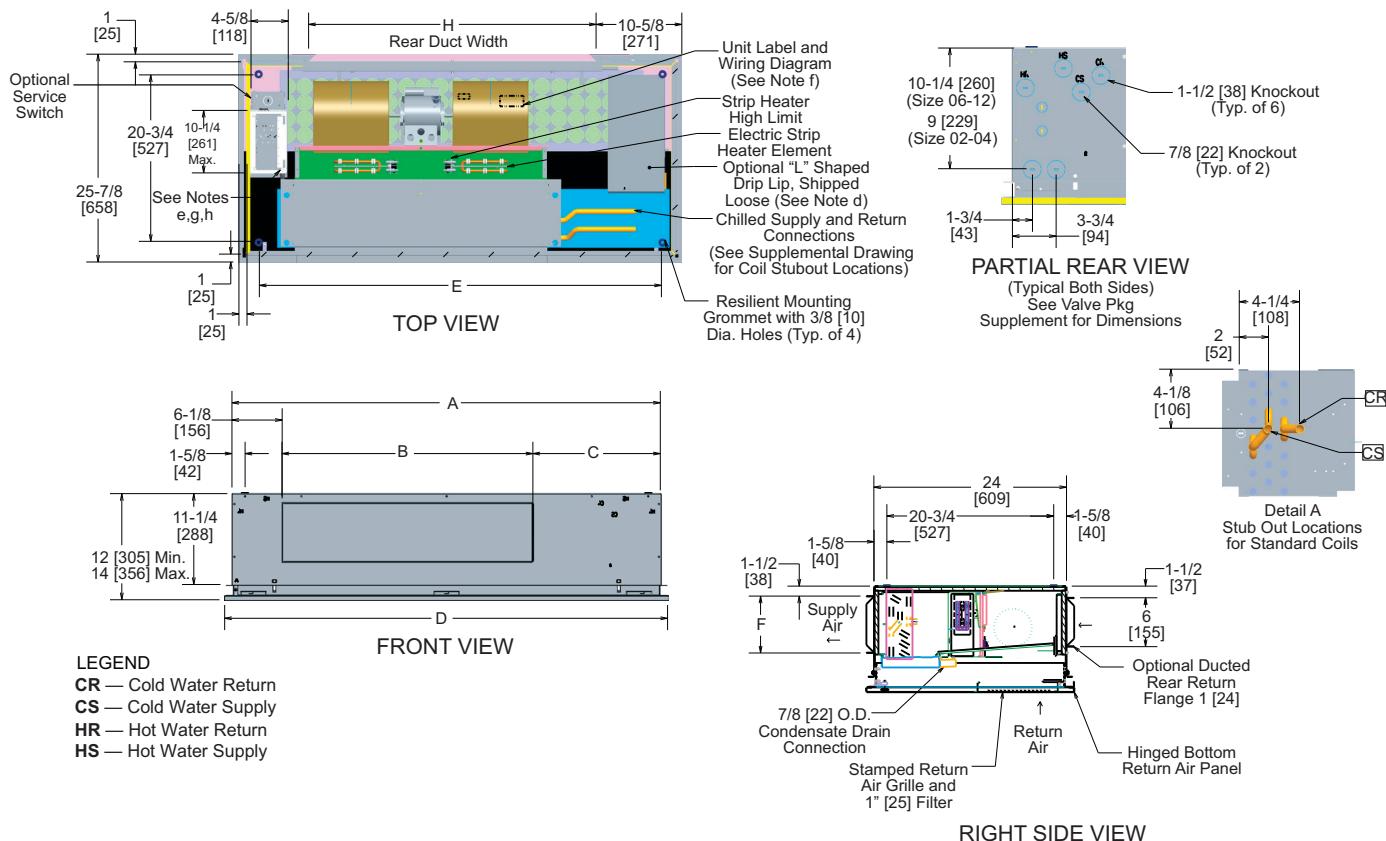
NOTE(S):

- Right-hand units shown, left-hand opposite.
- All dimensions are ± 0.25 in. [6 mm]. Drawing not to scale.
- Product specifications are subject to change without notice.
- Drip lip recommended. Provided when valve package is ordered.
- Control box size and position may vary. Consult factory.
- Position may vary.
- Service entrance is located on the front of the control box.
- Knockouts are available on the bottom and side of the control box for incoming power connections.
- Typical size 06 unit shown with 1-motor and 2-blower. Refer to table for variation.
- See valve package supplemental for piping termination.
- Field connection pipes will be shipped loose with valve packages.
- Unit weights (shown in pounds) are based on dry coils, minimum rows and exclude packaging, valves, or other components.

Base unit dimensions (cont)



42CK - Horizontal Telescoping Hideaway with Electric Heat



UNIT SIZE 42CK	DIMENSIONS in. [mm] ^{a,b,c,d,e,f,g,h,i,j,k}							QTY/UNIT		UNIT WEIGHTS ^l
	A	B	C	D	E	F	H	Blower	Motor	
02	35 [889]	16 [406]	12-3/4 [324]	37 [940]	32 [813]	6 [152]	18-3/4 [476]	1	1	55
03	35 [889]	20 [508]	8-3/4 [225]	37 [940]	32 [813]	6 [152]	18-3/4 [476]	1	1	60
04	41 [1041]	26 [660]	8-3/4 [225]	43 [1092]	38 [965]	6 [152]	24-3/4 [629]	2	1	70
06	53 [1346]	31 [787]	15-3/4 [400]	55 [1397]	50 [1270]	7 [179]	35-3/4 [908]	2	1	82
08	53 [1346]	38 [965]	8-3/4 [225]	55 [1397]	50 [1270]	7 [179]	35-3/4 [908]	2	1	95
10	75 [1905]	52 [1321]	16-3/4 [425]	77 [1956]	72 [1829]	7 [179]	49-3/4 [1264]	4	2	135
12	75 [1905]	60 [1524]	8-3/4 [225]	77 [1956]	72 [1829]	7 [179]	49-3/4 [1264]	4	2	154

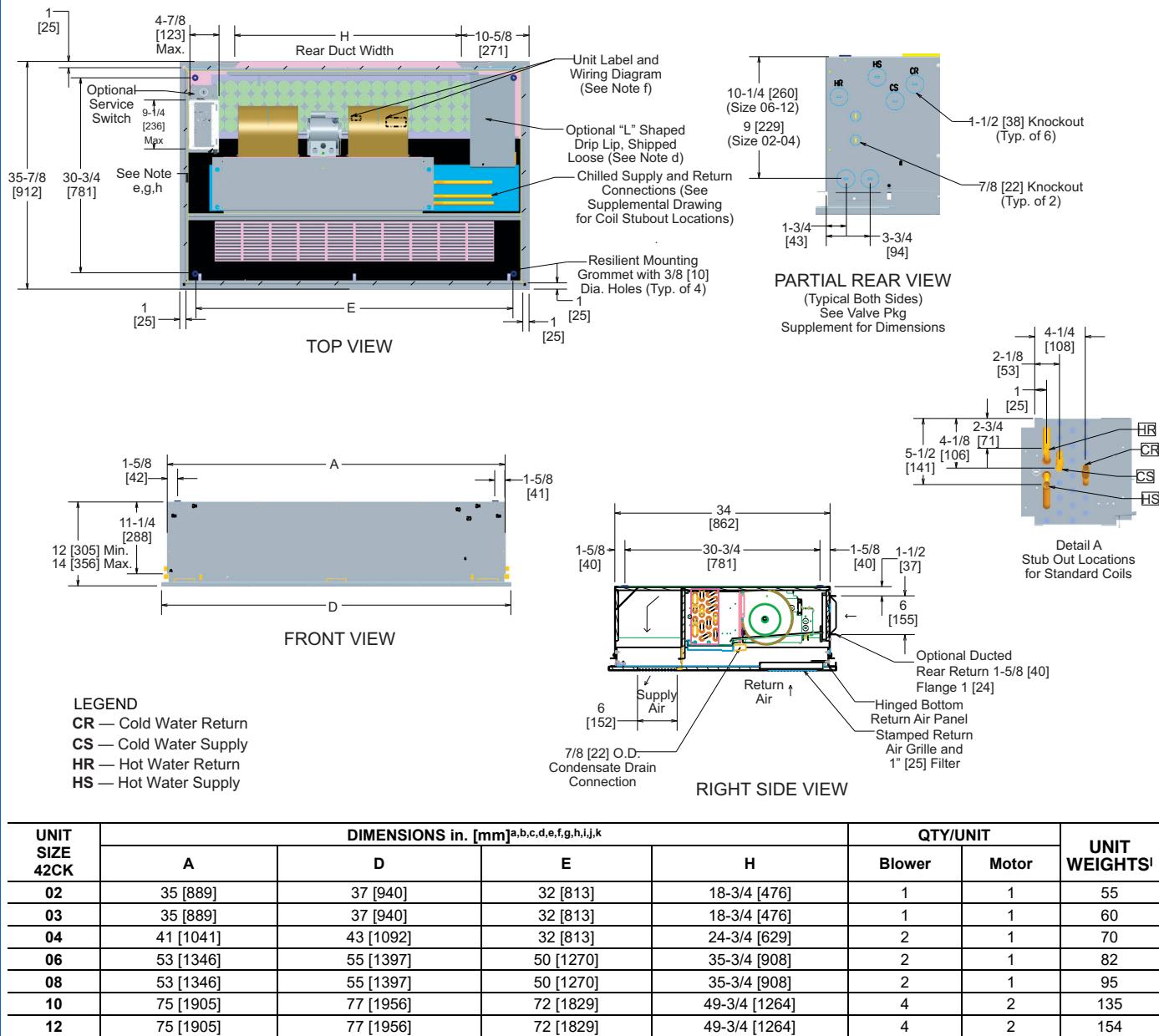
NOTE(S):

- a. Right-hand units shown, left-hand opposite.
- b. All dimensions are ± 0.25 in. [6 mm]. Drawing not to scale.
- c. Product specifications are subject to change without notice.
- d. Drip lip recommended. Provided when valve package is ordered.
- e. Control box size and position may vary. Consult factory.
- f. Position may vary.
- g. Service access is located on the front of the control box.
- h. Knockouts are available on the bottom and side of the control box for incoming power connections.
- i. Typical size 06 unit shown with 1-motor and 2-blower. Refer to table for variation.
- j. See valve package supplemental for piping termination.
- k. Field connection pipes will be shipped loose with valve packages.
- l. Unit weights (shown in pounds) are based on dry coils, minimum rows and exclude packaging, valves, or other components.

Base unit dimensions (cont)



42CK - Horizontal Telescoping Hideaway with Bottom Supply



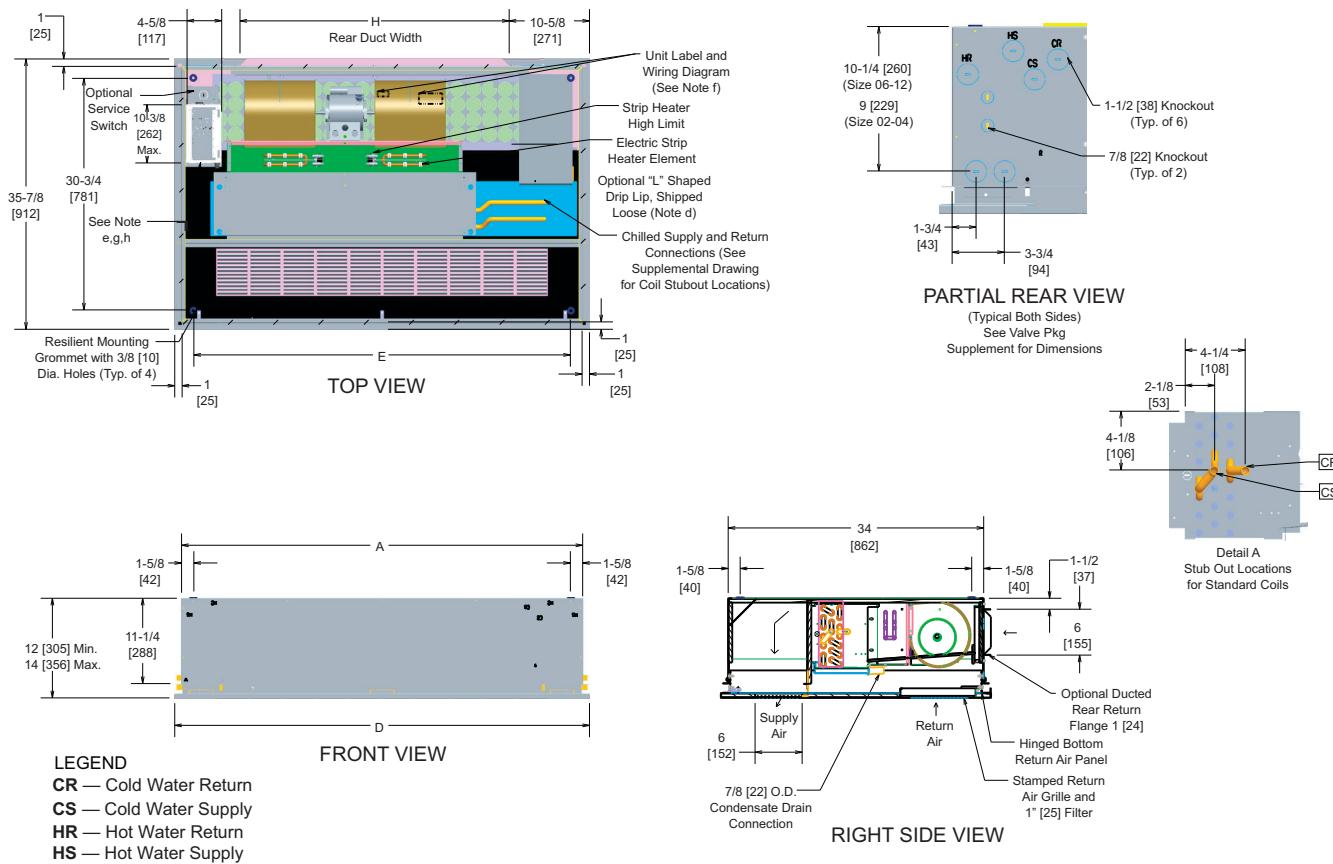
NOTE(S):

- Right-hand units shown, left-hand opposite.
- All dimensions are ± 0.25 in. [6 mm]. Drawing not to scale.
- Product specifications are subject to change without notice.
- Drip lip recommended. Provided when valve package is ordered.
- Control box size and position may vary. Consult factory.
- Position may vary.
- Service access is located on the front of the control box.
- Knockouts are available on the bottom and side of the control box for incoming power connections.
- Typical size 06 unit shown with 1-motor and 2-blower. Refer to table for variation.
- See valve package supplemental for piping termination.
- Field connection pipes will be shipped loose with valve packages.
- Unit weights (shown in pounds) are based on dry coils, minimum rows and exclude packaging, valves, or other components.

Base unit dimensions (cont)



42CK - Horizontal Telescoping Hideaway with Bottom Supply with Electric Heat



UNIT SIZE 42CK	DIMENSIONS in. [mm] ^{a,b,c,d,e,f,g,h,i,j,k}					QTY/UNIT		UNIT WEIGHTS ^l
	A	D	E	H	Blower	Motor		
02	35 [889]	37 [940]	32 [813]	18-3/4 [476]	1	1	117	
03	35 [889]	37 [940]	32 [813]	18-3/4 [476]	1	1	122	
04	41 [1041]	43 [1092]	32 [813]	24-3/4 [629]	2	1	137	
06	53 [1346]	55 [1397]	50 [1270]	35-3/4 [908]	2	1	152	
08	53 [1346]	55 [1397]	50 [1270]	35-3/4 [908]	2	1	157	
10	75 [1905]	77 [1956]	72 [1829]	49-3/4 [1264]	4	2	229	
12	75 [1905]	77 [1956]	72 [1829]	49-3/4 [1264]	4	2	243	

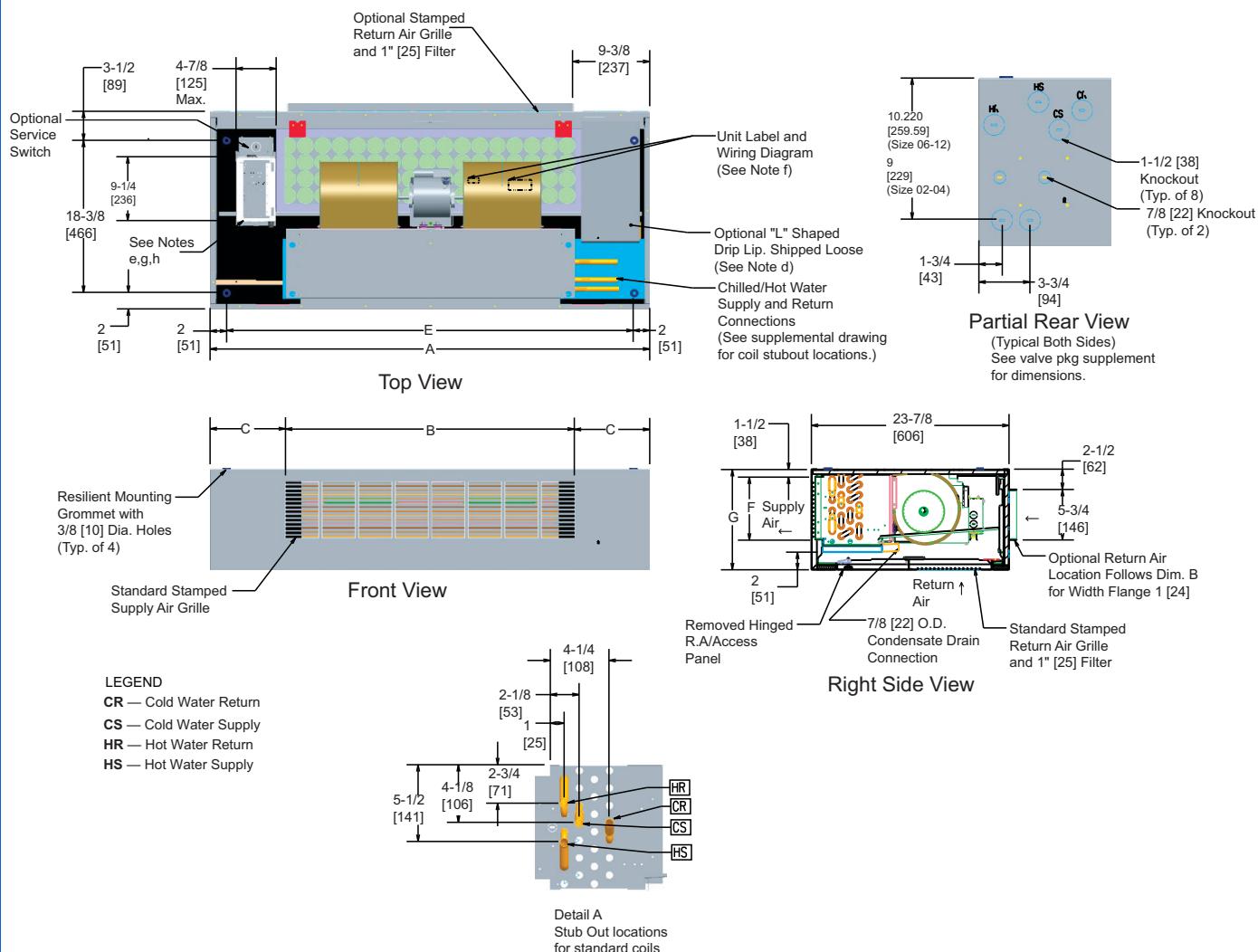
NOTE(S):

- Right-hand units shown, left-hand opposite.
- All dimensions are ± 0.25 in. [6 mm]. Drawing not to scale.
- Product specifications are subject to change without notice.
- Drip lip recommended. Provided when valve package is ordered.
- Control box size and position may vary. Consult factory.
- Position may vary.
- Service access is located on the front of the control box.
- Knockouts are available on the bottom and side of the control box for incoming power connections.
- Typical size 06 unit shown with 1-motor and 2-blower. Refer to table for variation.
- See valve package supplemental for piping termination.
- Field connection pipes will be shipped loose with valve packages.
- Unit weights (shown in pounds) are based on dry coils, minimum rows and exclude packaging, valves, or other components.

Base unit dimensions (cont)



42CG Horizontal Cabinet



UNIT SIZE 42CG	DIMENSIONS in. [mm] ^{a,b,c,d,e,f,g,h,i,j,k}						QTY/UNIT		UNIT WEIGHTS ^l
	A	B	C	E	F	G	Blower	Motor	
02	38 [965]	17-1/8 [435]	10-7/16 [265]	34 [864]	5-3/4 [146]	11 [279]	1	1	98
03	42 [1067]	21-1/2 [546]	10-1/4 [260]	38 [965]	5-3/4 [146]	11 [279]	1	1	118
04	48 [1219]	25-7/8 [657]	11-1/16 [281]	44 [1118]	5-3/4 [146]	11 [279]	2	1	126
06	53 [1346]	34-5/8 [879]	9-3/16 [233]	49 [1245]	6-3/4 [171]	12 [305]	2	1	168
08	60 [1524]	39 [991]	10-1/2 [267]	56 [1422]	6-3/4 [171]	12 [305]	2	1	176
10	74 [1880]	52-1/8 [1324]	10-15/16 [262]	70 [1778]	6-3/4 [171]	12 [305]	4	2	215
12	82 [2083]	60-7/8 [1546]	10-9/16 [268]	78 [1981]	6-3/4 [171]	12 [305]	4	2	245

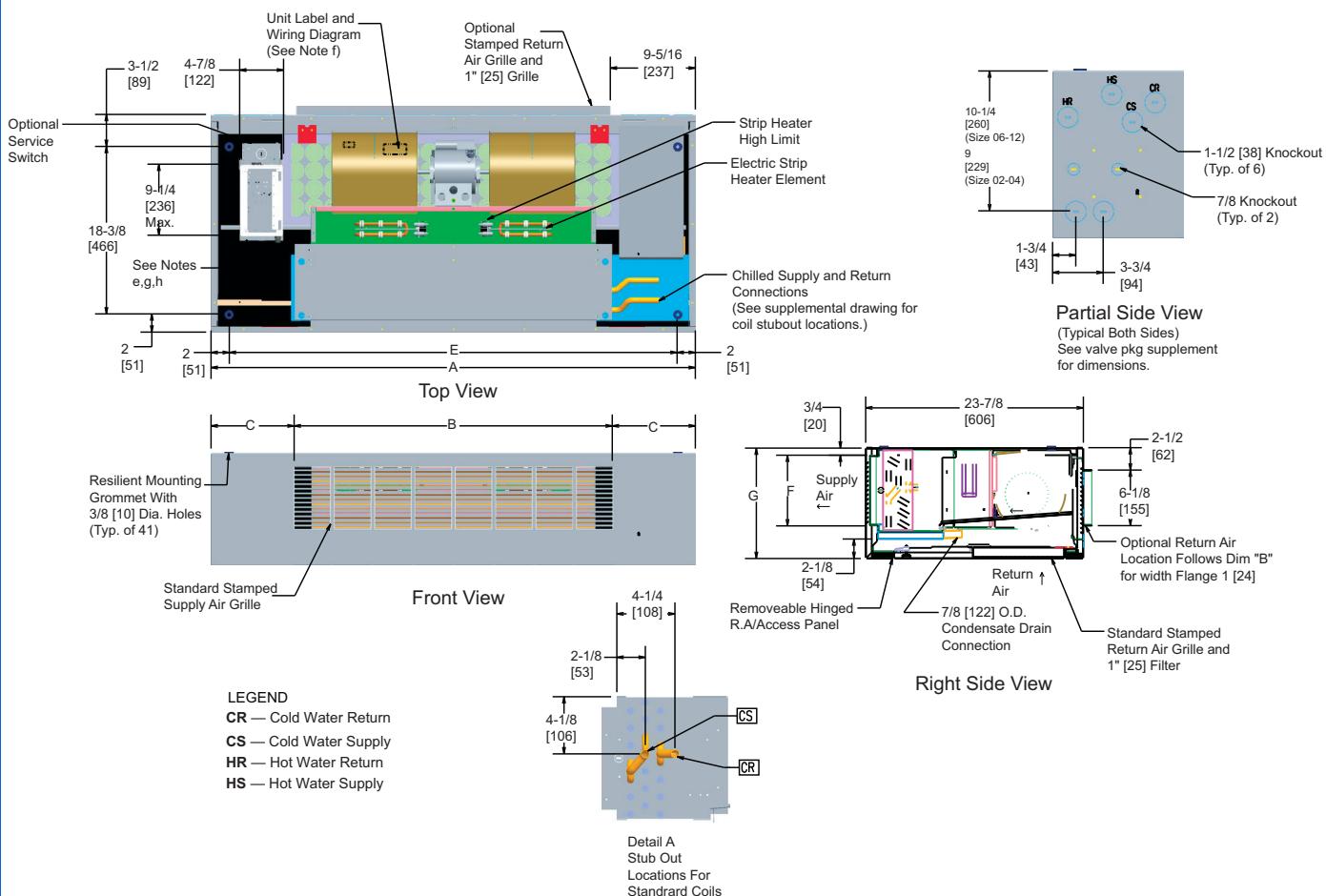
NOTE(S):

- Right hand unit shown; left hand unit opposite.
- All dimensions are ± 0.25 in. [6 mm]. Drawing is not to scale.
- Product specifications are subject to change without notice.
- Drip lip recommended. Provided when valve package is ordered.
- Control box size and position may vary (consult factory).
- Position may vary.
- Service access is located on the front of the control box.
- Knockouts are available on the bottom and side of the control box for incoming power connections.
- Typical size 06 unit shown with 1-Motor and 2-Blower. Refer to table for variation.
- See valve package supplement for piping termination.
- Field connection pipes will be shipped loose with valve packages.
- Unit weights (shown in pounds) are based on dry coils, minimum rows and exclude packaging, valves, or other components.

Base unit dimensions (cont)



42CG Horizontal Cabinet with Electric Heat



UNIT SIZE 42CG	DIMENSIONS in. [mm] ^{a,b,c,d,e,f,g,h,i,j,k}						QTY/UNIT		UNIT WEIGHTS ^l
	A	B	C	E	F	G	Blower	Motor	
02	38 [965]	17-1/8 [435]	10-7/16 [265]	34 [864]	5-3/4 [146]	11 [279]	1	1	100
03	42 [1067]	21-1/2 [546]	10-1/4 [260]	38 [965]	5-3/4 [146]	11 [279]	1	1	120
04	48 [1219]	25-7/8 [657]	11-1/16 [281]	44 [1118]	5-3/4 [146]	11 [279]	2	1	128
06	53 [1346]	34-5/8 [879]	9-3/16 [233]	49 [1245]	6-3/4 [171]	12 [305]	2	1	170
08	60 [1524]	39 [991]	10-1/2 [267]	56 [1422]	6-3/4 [171]	12 [305]	2	1	178
10	74 [1880]	52-1/8 [1324]	10-15/16 [262]	70 [1778]	6-3/4 [171]	12 [305]	4	2	217
12	82 [2083]	60-7/8 [1546]	10-9/16 [268]	78 [1981]	6-3/4 [171]	12 [305]	4	2	247

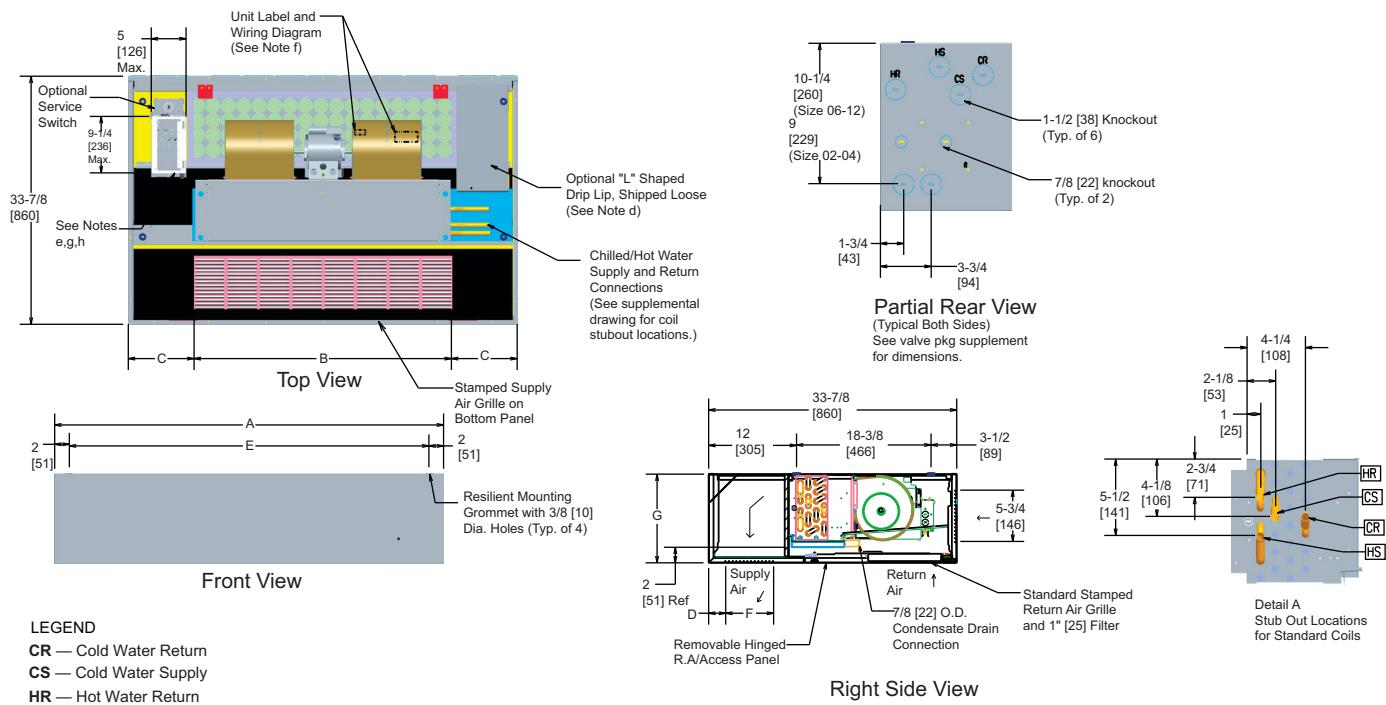
NOTE(S):

- Right hand unit shown; left hand unit opposite.
- All dimensions are ± 0.25 in. [6 mm]. Drawing is not to scale.
- Product specifications are subject to change without notice.
- Drip lip recommended. Provided when valve package is ordered.
- Control box size and position may vary (consult factory).
- Position may vary.
- Service access is located on the front of the control box.
- Knockouts are available on the bottom and side of the control box for incoming power connections.
- Typical size 06 unit shown with 1-Motor and 2-Blower. Refer to table for variation.
- See valve package supplement for piping termination.
- Field connection pipes will be shipped loose with valve packages.
- Unit weights (shown in pounds) are based on dry coils, minimum rows and exclude packaging, valves, or other components.

Base unit dimensions (cont)



42CG Horizontal Cabinet with Bottom Supply



LEGEND

CR — Cold Water Return
CS — Cold Water Supply
HR — Hot Water Return
HS — Hot Water Supply

UNIT SIZE 42CG	DIMENSIONS in. [mm] ^{a,b,c,d,e,f,g,h,i,j,k}							QTY/UNIT		UNIT WEIGHTS ^l
	A	B	C	D	E	F	G	Blower	Motor	
02	38 [965]	17-1/8 [435]	10-7/16 [265]	3-1/4 [83]	34 [864]	5-3/4 [146]	11 [279]	1	1	98
03	42 [1067]	21-1/2 [546]	10-1/4 [260]	3-1/4 [83]	38 [965]	5-3/4 [146]	11 [279]	1	1	118
04	48 [1219]	25-7/8 [657]	11-1/16 [281]	3-1/2 [89]	44 [1118]	5-3/4 [146]	11 [279]	2	1	126
06	53 [1346]	34-5/8 [879]	9-3/16 [233]	2-1/4 [57]	49 [1245]	6-3/4 [171]	12 [305]	2	1	168
08	60 [1524]	39 [991]	10-1/2 [267]	2-1/4 [57]	56 [1422]	6-3/4 [171]	12 [305]	2	1	176
10	74 [1880]	52-1/8 [1324]	10-15/16 [267]	2-1/2 [64]	70 [1778]	6-3/4 [171]	12 [305]	4	2	215
12	82 [2083]	60-7/8 [1546]	10-9/16 [268]	2-1/2 [64]	78 [1981]	6-3/4 [171]	12 [305]	4	2	245

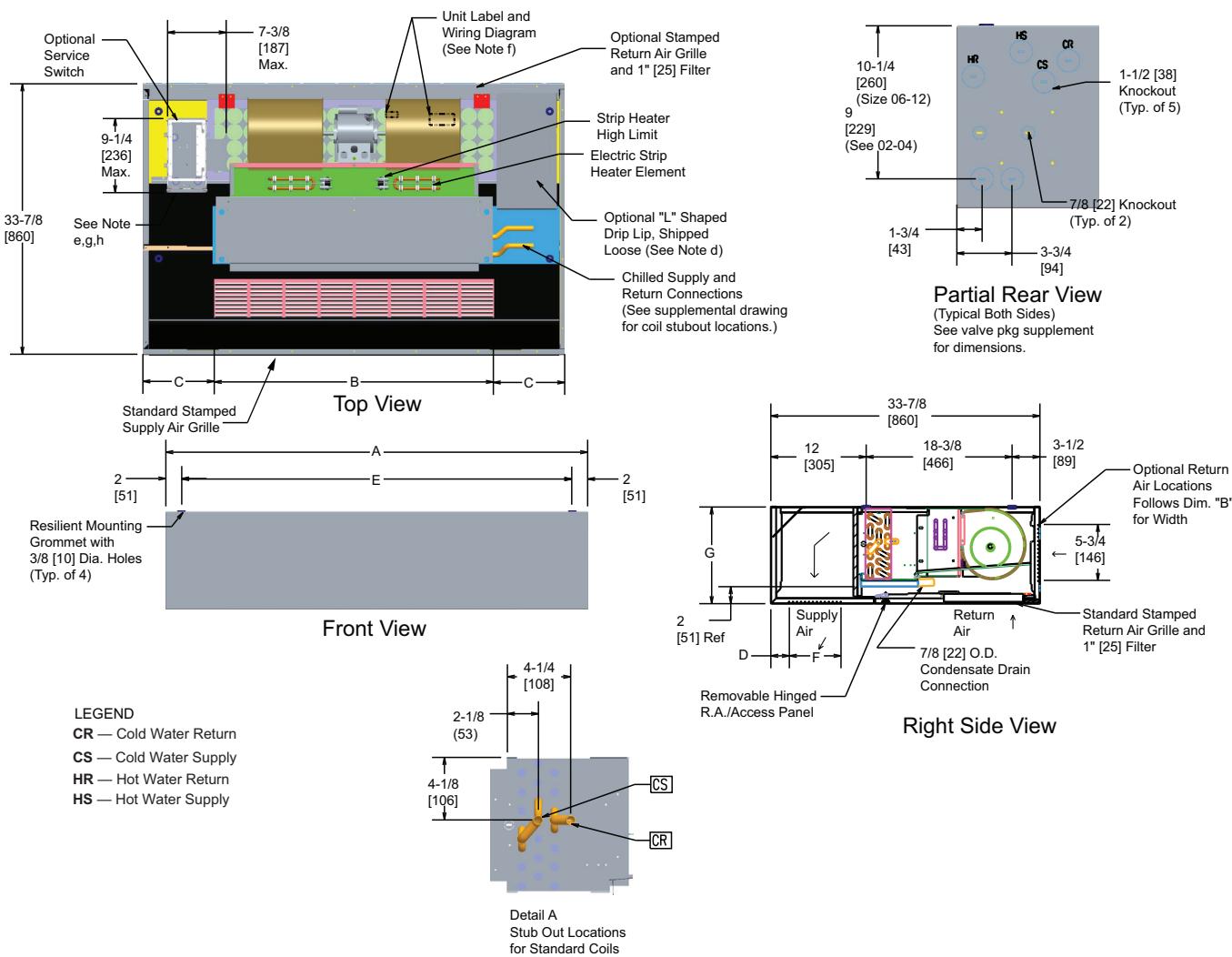
NOTE(S):

- a. Right hand unit shown; left hand unit opposite.
- b. All dimensions are $\pm .25$ in. [6 mm]. Drawing is not to scale.
- c. Product specifications are subject to change without notice.
- d. Drip lip recommended. Provided when valve package is ordered.
- e. Control box size and position may vary (consult factory).
- f. Position may vary.
- g. Service access is located on the front of the control box.
- h. Knockouts are available on the bottom and side of the control box for incoming power connections.
- i. Typical size 06 unit shown with 1-Motor and 2-Blower. Refer to table for variation.
- j. See valve package supplement for piping termination.
- k. Field connection pipes will be shipped loose with valve packages.
- l. Unit weights (shown in pounds) are based on dry coils, minimum rows and exclude packaging, valves, or other components.

Base unit dimensions (cont)



42CG Horizontal Cabinet with Bottom Supply with Electric Heat



UNIT SIZE 42CG	DIMENSIONS in. [mm] ^{a,b,c,d,e,f,g,h,i,j,k}							QTY/UNIT		UNIT WEIGHTS ^l
	A	B	C	D	E	F	G	Blower	Motor	
02	38 [965]	17-1/8 [435]	10-7/16 [265]	3-1/4 [83]	34 [864]	5-3/4 [146]	11 [279]	1	1	100
03	42 [1067]	21-1/2 [546]	10-1/4 [260]	3-1/4 [83]	38 [965]	5-3/4 [146]	11 [279]	1	1	120
04	48 [1219]	25-7/8 [657]	11-1/16 [281]	3-1/2 [89]	44 [1118]	5-3/4 [146]	11 [279]	2	1	128
06	53 [1346]	34-5/8 [879]	9-3/16 [233]	2-1/4 [57]	49 [1245]	6-3/4 [171]	12 [305]	2	1	170
08	60 [1524]	39 [991]	10-1/2 [267]	2-1/4 [57]	56 [1422]	6-3/4 [171]	12 [305]	2	1	178
10	74 [1880]	52-1/8 [1324]	10-15/16 [267]	2-1/2 [64]	70 [1778]	6-3/4 [171]	12 [305]	4	2	217
12	82 [2083]	60-7/8 [1546]	10-9/16 [268]	2-1/2 [64]	78 [1981]	6-3/4 [171]	12 [305]	4	2	247

NOTE(S):

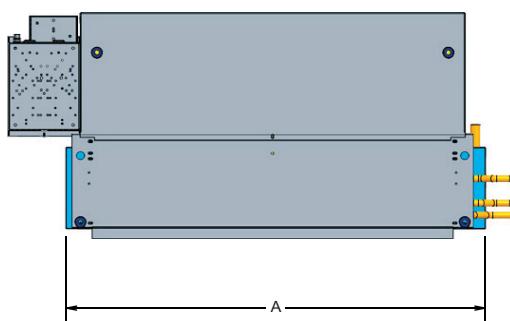
- Right hand unit shown; left hand unit opposite.
- All dimensions are ± 0.25 in. (6 mm). Drawing is not to scale.
- Product specifications are subject to change without notice.
- Drip lip recommended. Provided when valve package is ordered.
- Control box size and position may vary. Consult factory.
- Position may vary.
- Service access is located on the front of the control box.
- Knockouts are available on the bottom and side of the control box for incoming power connections.
- Typical size 06 unit shown with 1-Motor and 2-Blower. Refer to table for variation.
- See valve package supplement for piping termination.
- Field connection pipes will be shipped loose with valve packages.
- Unit weights (shown in pounds) are based on dry coils, minimum rows and exclude packaging, valves, or other components.

Base unit dimensions (cont)

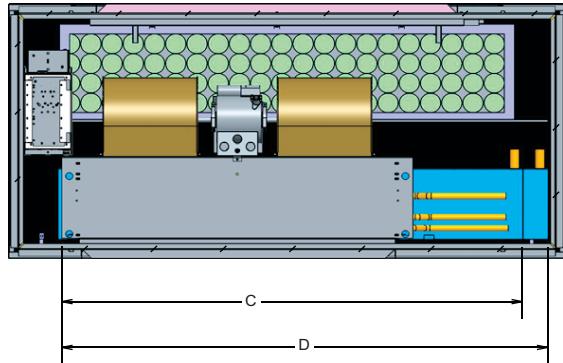


42C Drain Pan Supplement

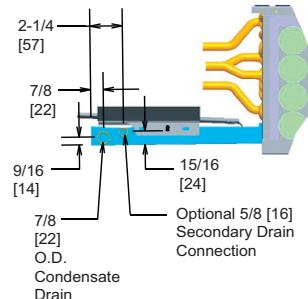
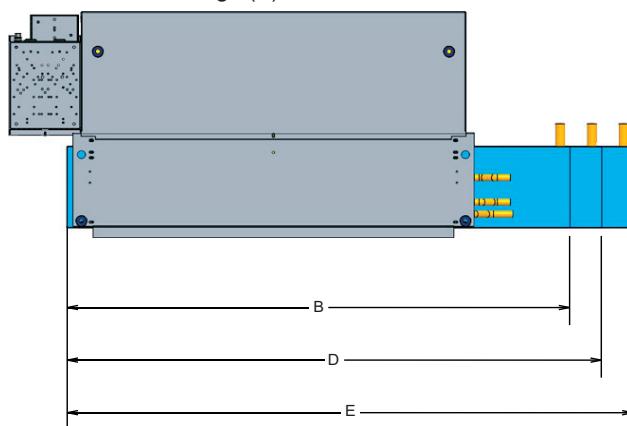
Standard 42CA/42CE



Standard 42CK/42CG



Extended 42CA/42CE (B)
 42CE with Valve Package (D)
 42CE with Same Side Piping and Controls with
 Valve Package (E)



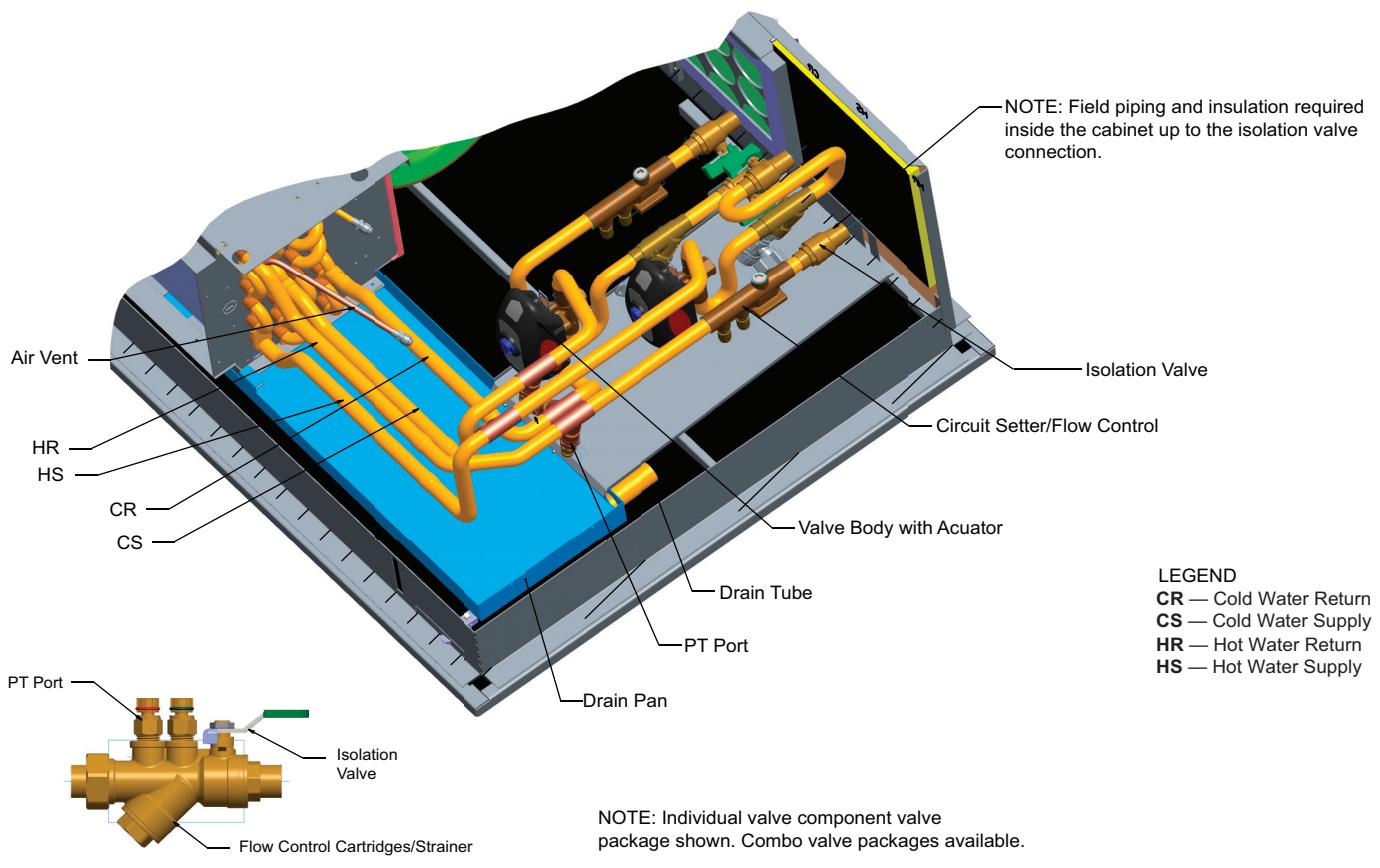
NOTE: Drain and optional secondary drain location are on drain pan.

UNIT SIZE 42C	DIMENSIONS in. [mm]				
	STANDARD 42CAA/42CEA	EXTENDED 42CAA/42CEA (+7.25 in.)	STANDARD 42CKA	STANDARD 42CGB (+10 in.) STANDARD 42CE WITH VALVE PACKAGE	42CEA SAME SIDE PIPING/ CONTROL WITH VALVE PACKAGE (+12.75 in.)
	A	B	C	D	E
02	21-1/4 [540]	28-1/2 [724]	30-1/2 [775]	31-1/4 [794]	34 [864]
03	25-1/4 [641]	32-1/2 [826]	30-1/2 [775]	35-1/4 [895]	38 [965]
04	31-1/4 [794]	38-1/2 [978]	36-1/2 [927]	41-1/4 [1048]	44 [1118]
06	36-1/4 [921]	43-1/2 [1105]	48-1/2 [1232]	46-1/4 [1175]	49 [1245]
08	43-1/4 [1099]	50-1/2 [1283]	48-1/2 [1232]	53-1/4 [1353]	56 [1422]
10	57-1/4 [1454]	64-1/2 [1638]	70-1/2 [1790]	67-1/4 [1708]	70 [1778]
12	65-1/4 [1657]	72-1/2 [1842]	70-1/2 [1790]	75-1/4 [1911]	78 [1981]

Valve package options



42CK/CG Valve Package Components

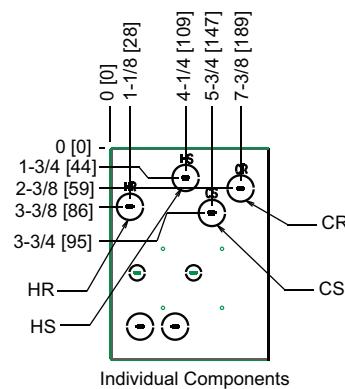


Valve package options (cont)



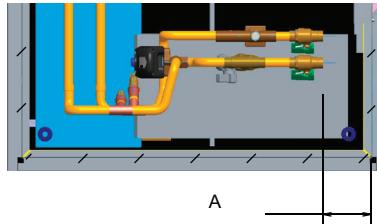
42CK/CG Valve Package Components (Top View)

PARTIAL REAR VIEW OF 42CK/CG UNITS

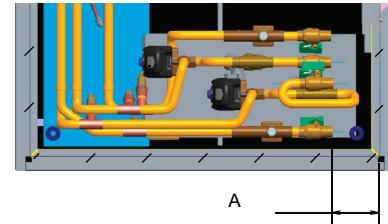


Top View Without Combo Valve

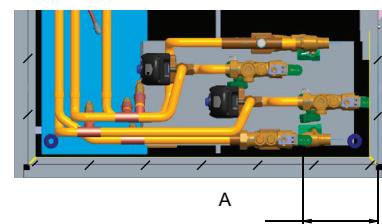
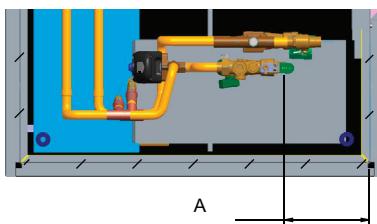
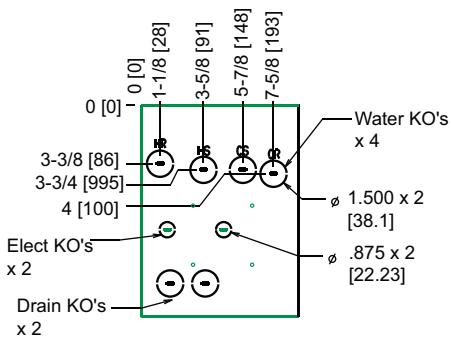
2 Pipe Heating/Cooling



4 Pipe Heating/Cooling



With Combo Valve



With Combo Valve

NOTE: Left hand side shown. Right hand opposite.

DIMENSIONS in. [mm]^a

A		
NO COMBO VALVES	SUPPLY	RETURN
3-Way 2-Position Cool	3-5/16 [84]	3-5/16 [84]
3-Way 2-Position Heat	3-3/16 [81]	3-3/16 [81]
3-Way Modulating Cool	3-5/16 [84]	3-5/16 [84]
3-Way Modulating Heat	3-1/8 [79]	1-5/8 [41]
2-Way 2-Position Cool	3-1/4 [83]	3-1/4 [83]
2-Way 2-Position Heat	3-1/4 [83]	3-1/4 [83]
2-Way Modulating Cool	3-3/8 [86]	3-3/8 [86]
2-Way Modulating Heat	3-3/16 [81]	1-1/4 [32]
COMBO VALVES		
3-Way 2-Position Cool	5-1/8 [130]	6-1/4 [159]
3-Way 2-Position Heat	1-1/2 [38]	3-3/16 [81]
3-Way Modulating Cool	3-1/4 [83]	4-7/16 [113]
3-Way Modulating Heat	1-9/16 [40]	1-9/16 [40]
2-Way 2-position Cool	4-1/8 [105]	5-3/4 [146]
2-Way 2-position Heat	13/16 [21]	5-1/8 [130]
2-Way Modulating Cool	4-3/8 [111]	3-1/4 [83]
2-Way Modulating Heat	6 [152]	3-5/8 [92]

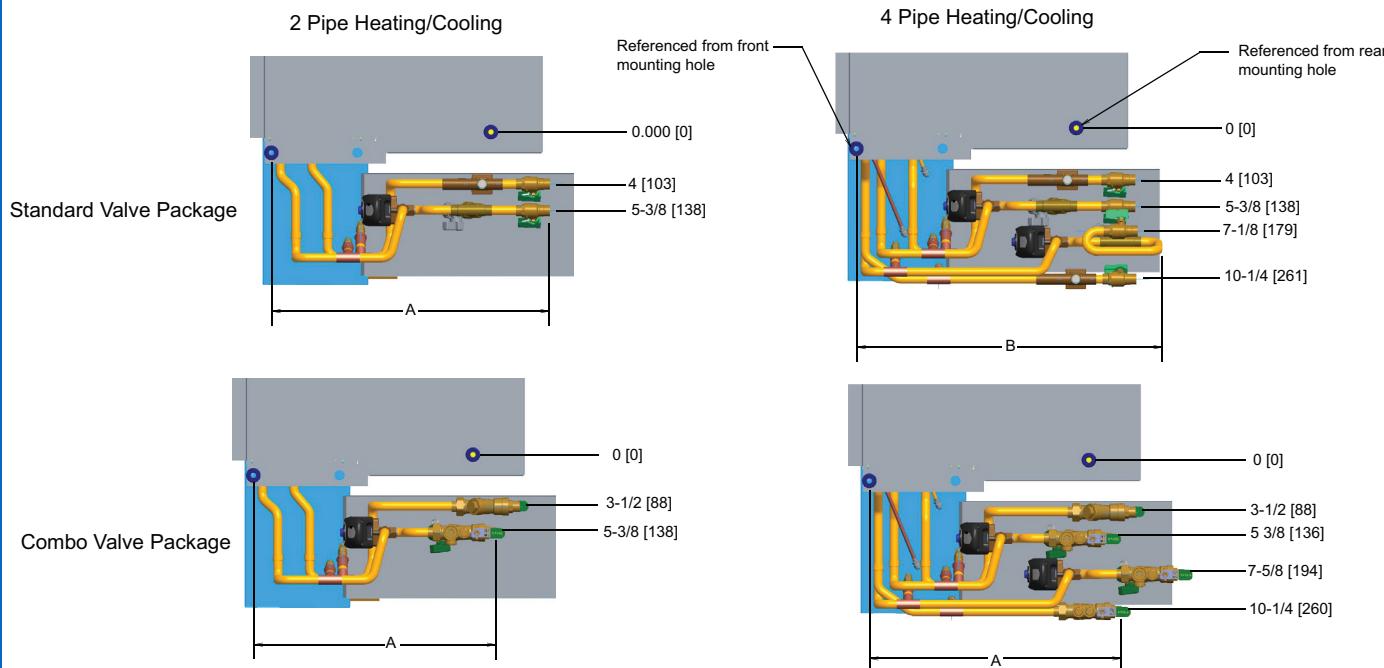
NOTE(S):

a. All dimensions are $\pm 1/4$ in. [6.3 mm].

Valve package options (cont)



42CA/CE Valve Package Supplement



Partial Top View of 42CA/CE Units

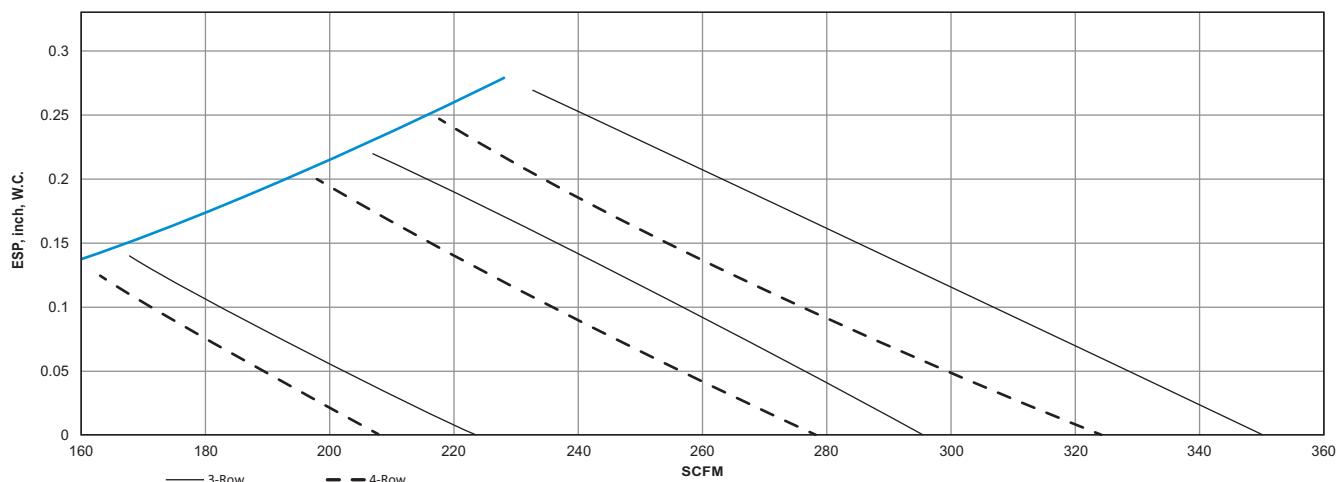
DIMENSIONS in. [mm] ^{a,b,c,d,e}		
	A	B
NO COMBO VALVES		
3-Way 2-Position Cool	19-1/8 [486]	—
3-Way 2-Position Heat	19-1/4 [489]	21-1/8 [537]
3-Way Modulating Cool	19-1/8 [486]	—
3-Way Modulating Heat	19-1/4 [489]	21-9/16 (548)
2-Way 2-Position Cool	19-1/8 [486]	—
2-Way 2-Position Heat	19-1/4 [489]	21-1/8 [537]
2-Way Modulating Cool	19-1/8 [486]	—
2-Way Modulating Heat	19 -1/4 [489]	21-9/16 [548]
COMBO VALVES		
SUPPLY/RETURN		
3-Way 2-Position Cool	17-5/15 [440] / 19-1/4 [489]	N/A
3-Way 2-Position Heat	20-7/8 [530] / 19-1/4 [489]	combo valve connection does not exceed distance "A".
3-Way Modulating Cool	19-1/8 [486] / 18-1/6 [459]	
3-Way Modulating Heat	20-7/8 [530] / 20-7/8 [530]	
2-Way 2-Position Cool	18-1/4 [464] / 16-5/8 [422]	
2-Way 2-Position Heat	21-5/8 [549] / 17-3/8 [441]	
2-Way Modulating Cool	19-3/16 [487] / 16-5/8 [422]	
2-Way Modulating Heat	19-7/16 [494] / 18-13/16 [477]	

NOTE(S):

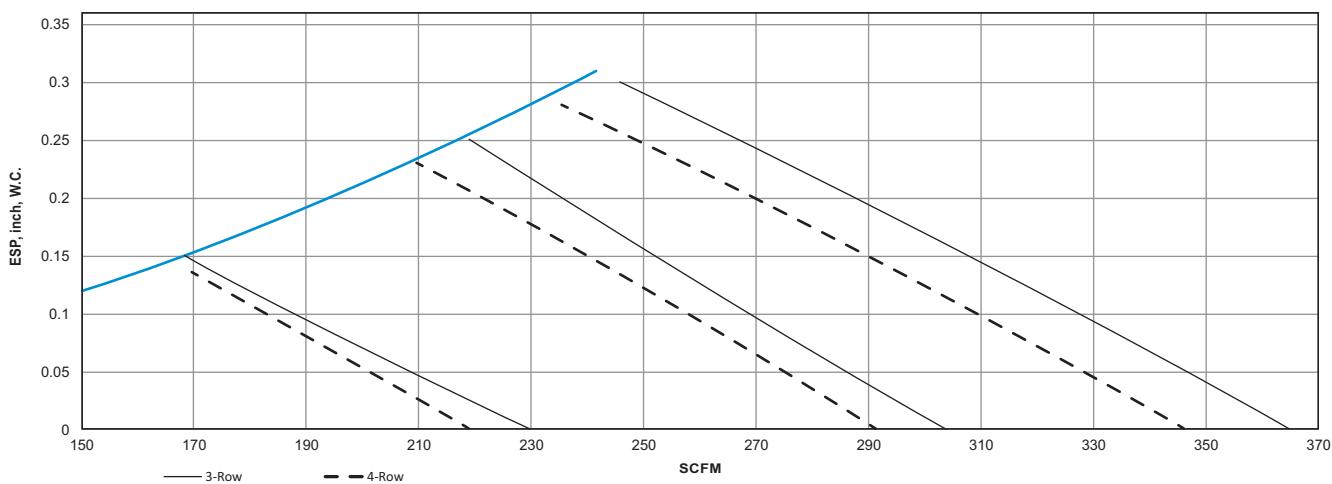
- a. All dimensions are $\pm 1/4$ in. [6.3 mm].
- b. 150 psi valves shown for reference only.
- c. Component location and access may vary.
- d. Coil stubout length may vary depending on unit size.
- e. Combo valve connection does not exceed the distance listed in column A.

PSC Fan Air Delivery Curves

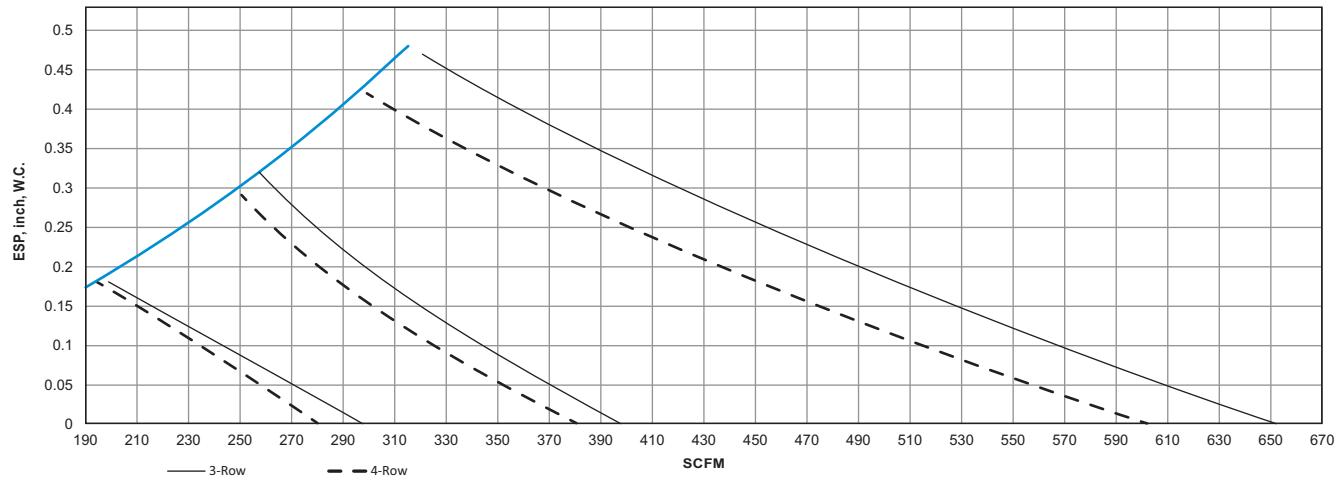
42CAA Series — 02 Unit Size, 115-v, PSC



42CAA Series — 03 Unit Size, 115-v, PSC



42CAA Series — 04 Unit Size, 115-v, PSC



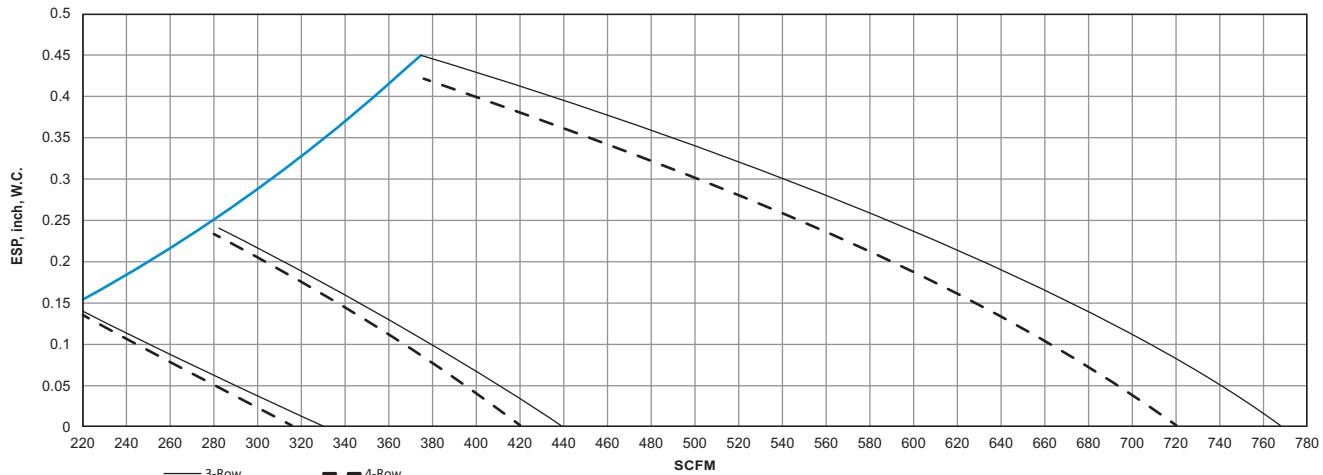
NOTE: Static pressure losses for factory-installed throwaway air filter and supply/return air grilles (where applicable) are included in all performance curves for all sizes.

Performance data (cont)

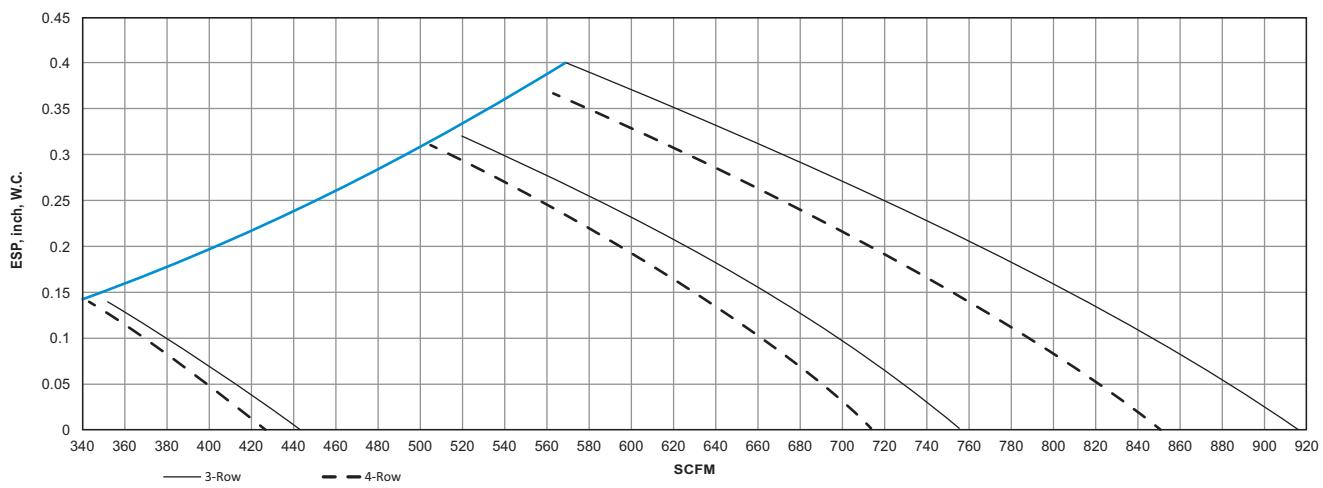


PSC Fan Air Delivery Curves (cont)

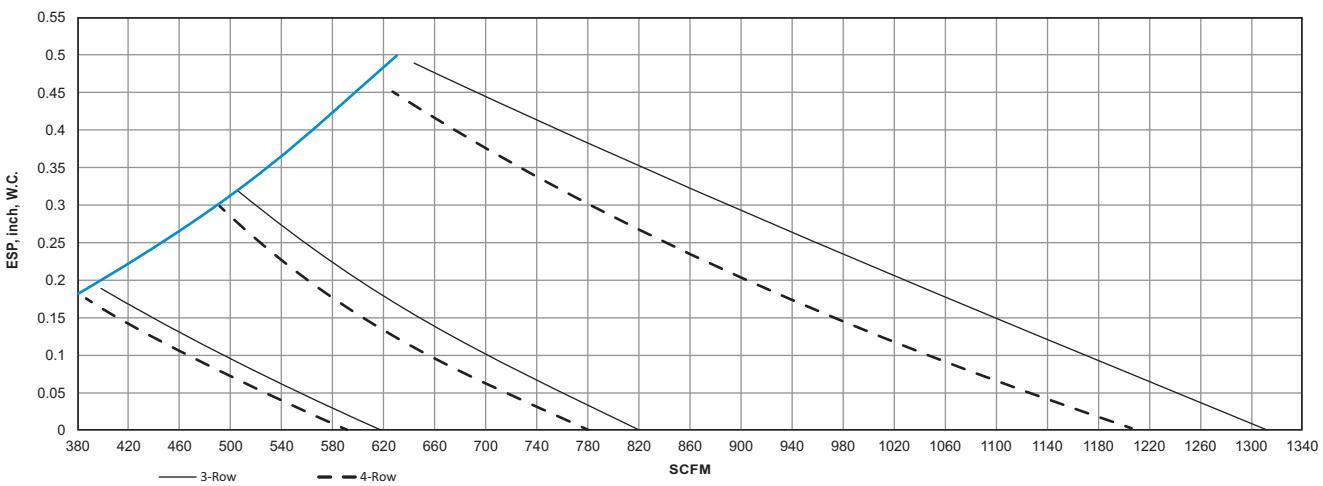
42CAA Series — 06 Unit Size, 115-v, PSC



42CAA Series — 08 Unit Size, 115-v, PSC



42CAA Series — 10 Unit Size, 115-v, PSC



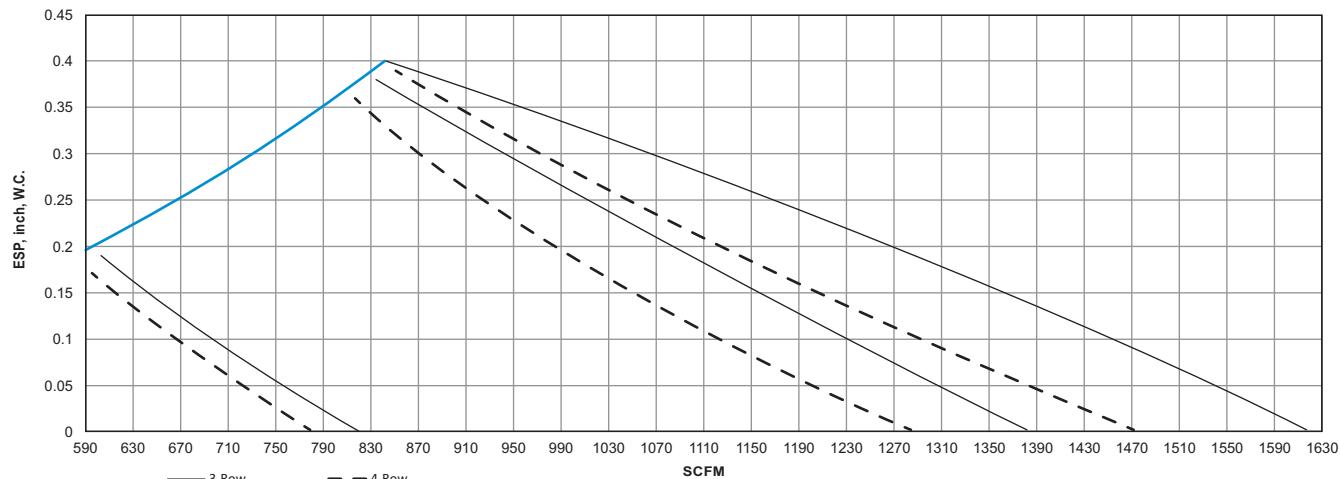
NOTE: Static pressure losses for factory-installed throwaway air filter and supply/return air grilles (where applicable) are included in all performance curves for all sizes.

Performance data (cont)

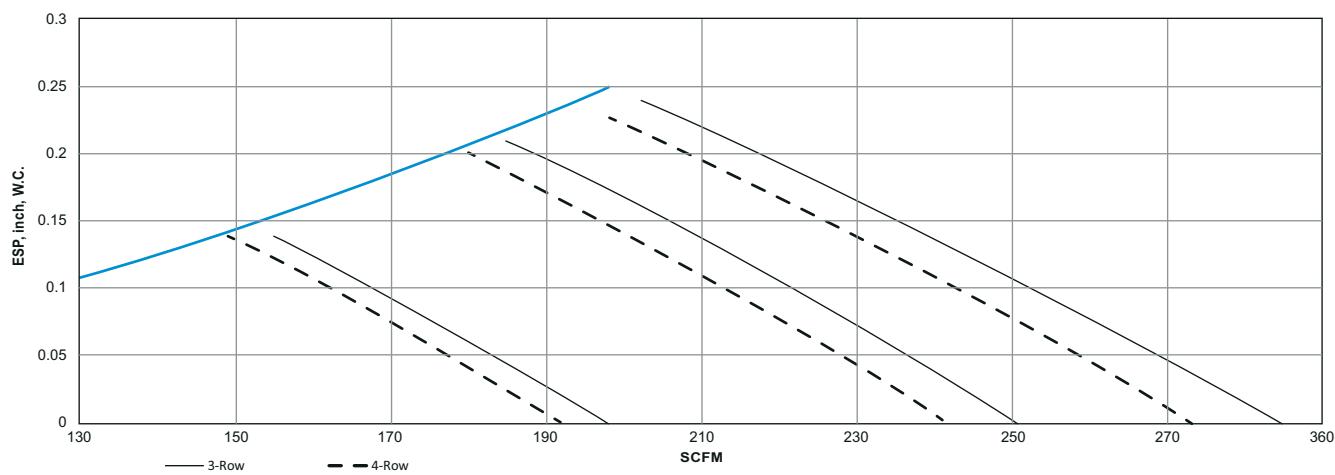


PSC Fan Air Delivery Curves (cont)

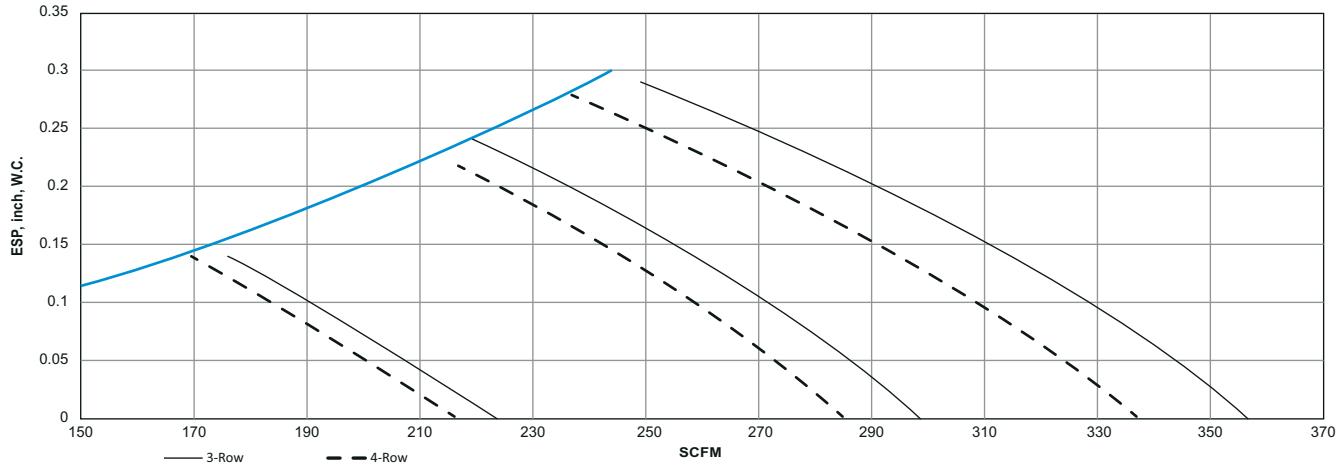
42CAA Series — 12 Unit Size, 115-v, PSC



42CEA Series — 02 Unit Size, 115-v, PSC



42CEA Series — 03 Unit Size, 115-v, PSC



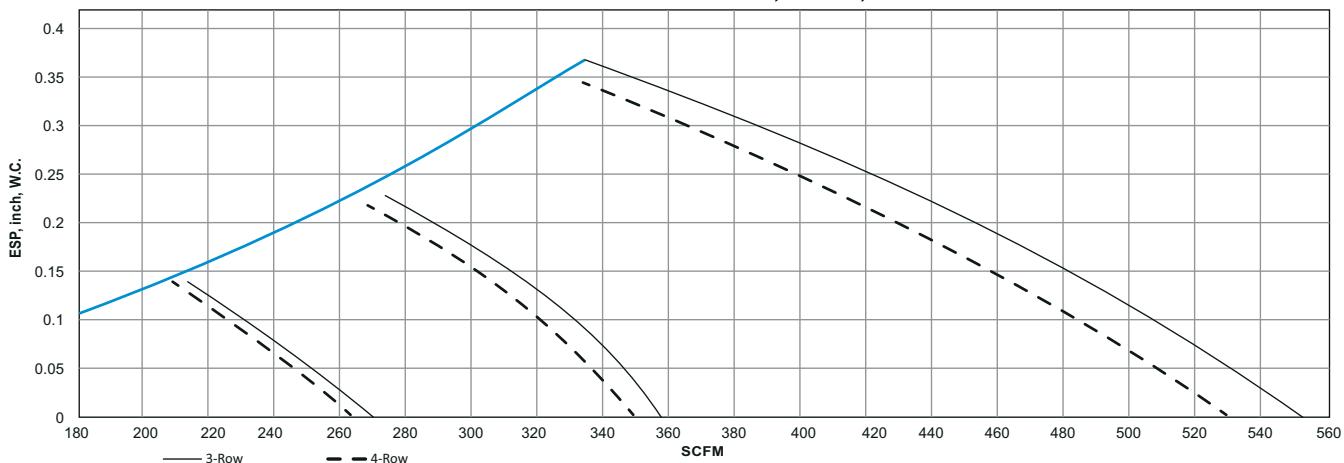
NOTE: Static pressure losses for factory-installed throwaway air filter and supply/return air grilles (where applicable) are included in all performance curves for all sizes.

Performance data (cont)

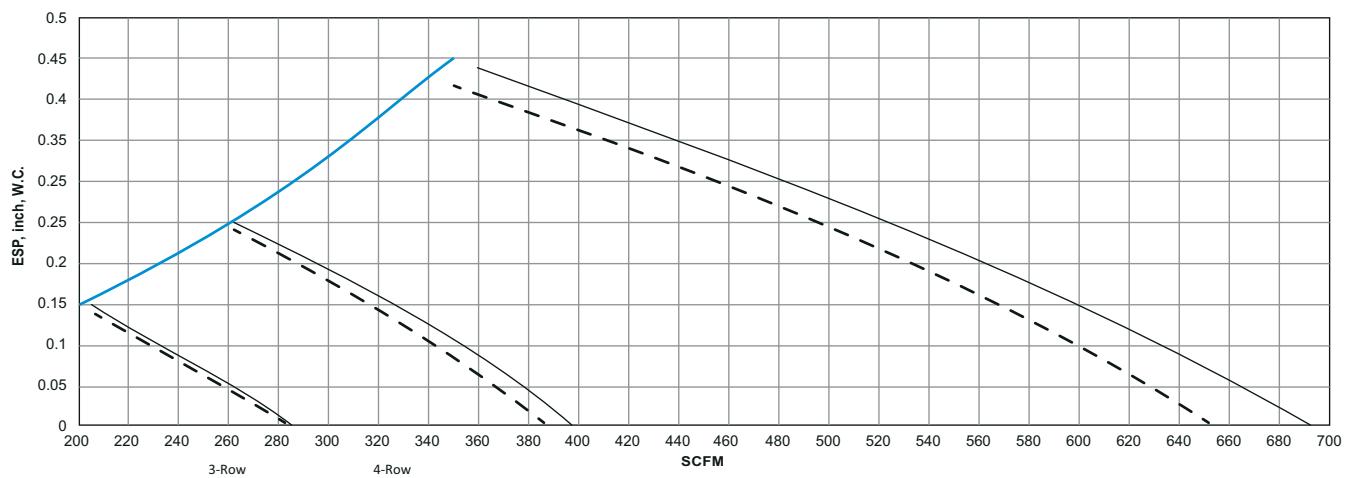


PSC Fan Air Delivery Curves (cont)

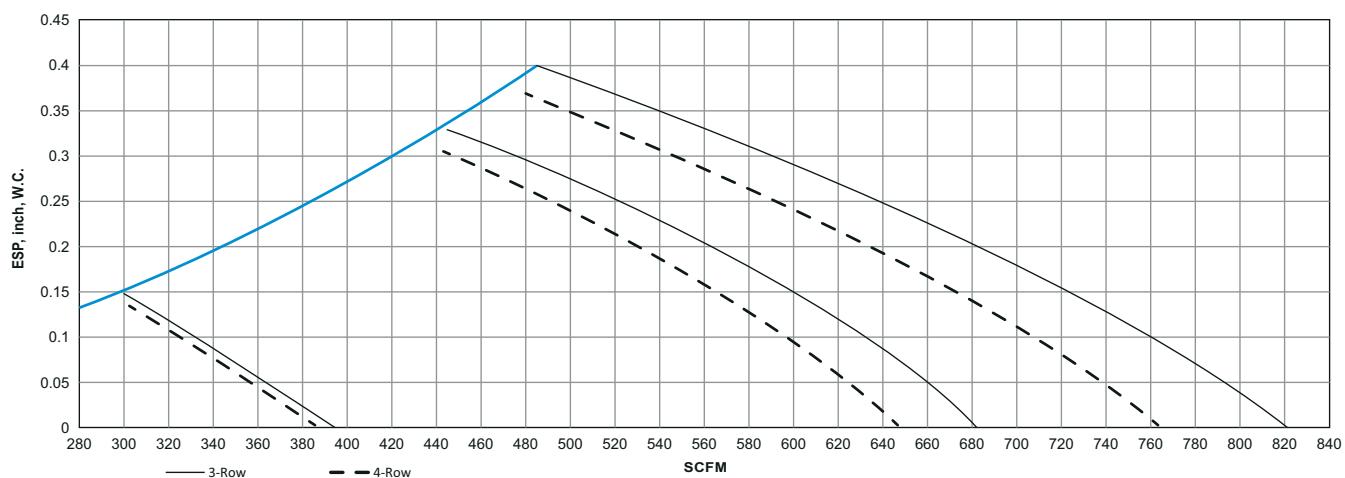
42CEA Series — 04 Unit Size, 115-v, PSC



42CEA Series — 06 Unit Size, 115-v, PSC



42CEA Series — 08 Unit Size, 115-v, PSC



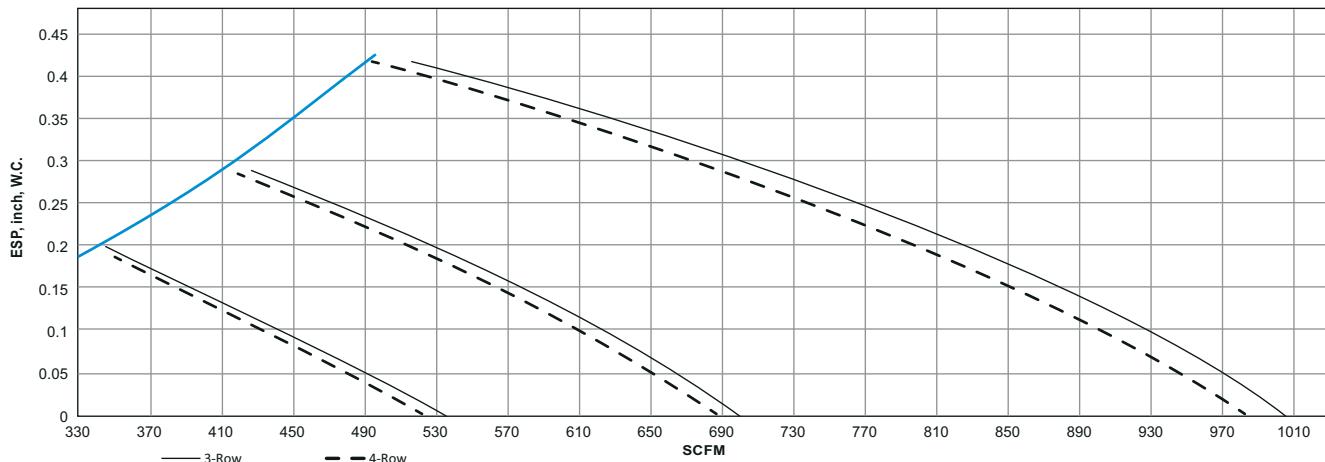
NOTE: Static pressure losses for factory-installed throwaway air filter and supply/return air grilles (where applicable) are included in all performance curves for all sizes.

Performance data (cont)

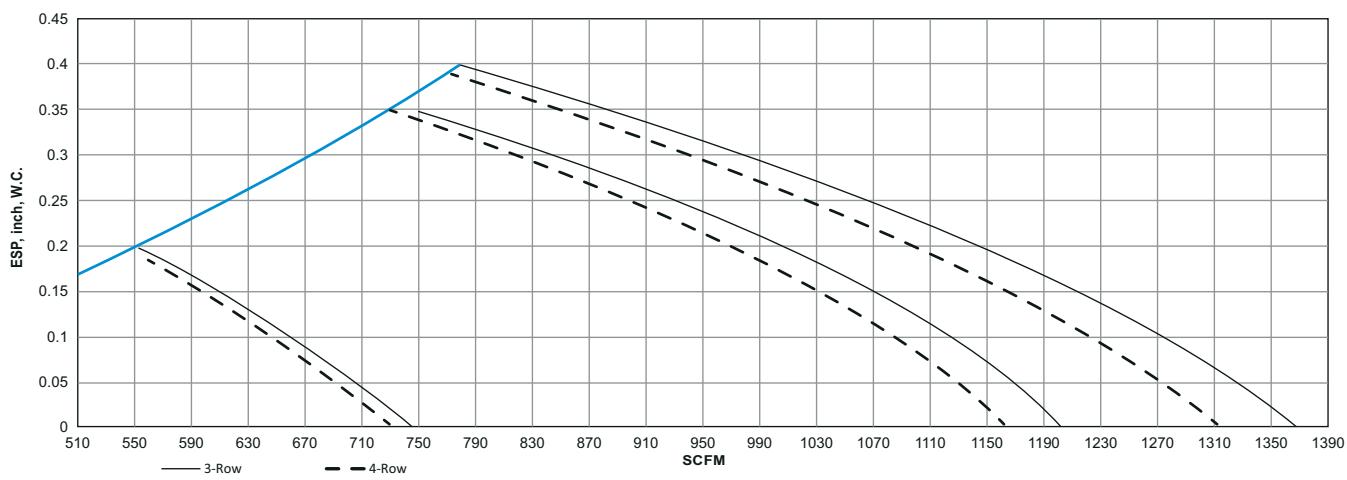


PSC Fan Air Delivery Curves (cont)

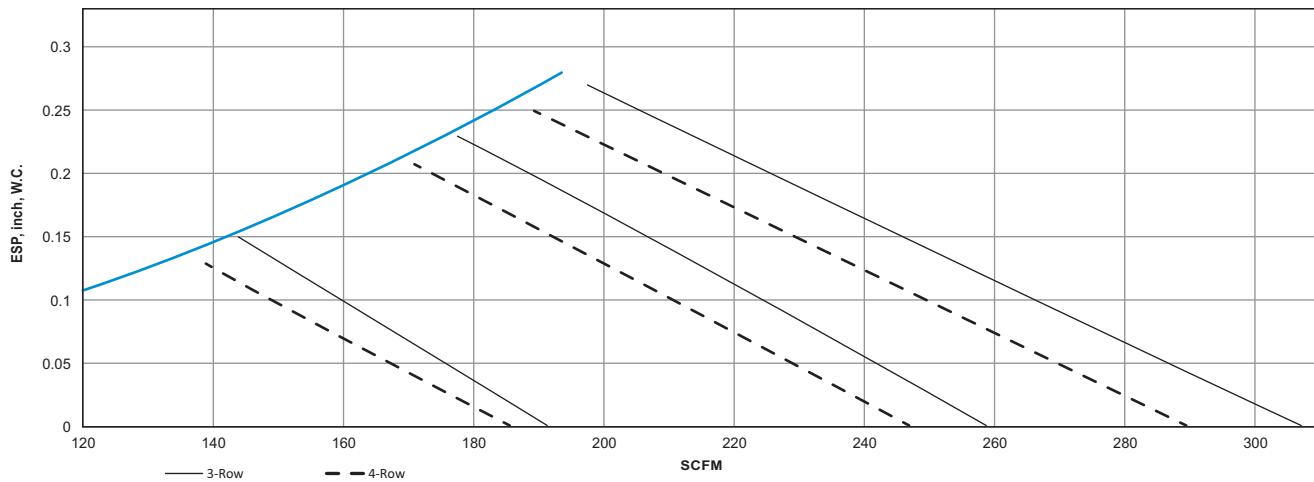
42CEA Series — 10 Unit Size, 115-v, PSC



42CEA Series — 12 Unit Size, 115-v, PSC



42CKA Series — 02 Unit Size, 115-v, PSC



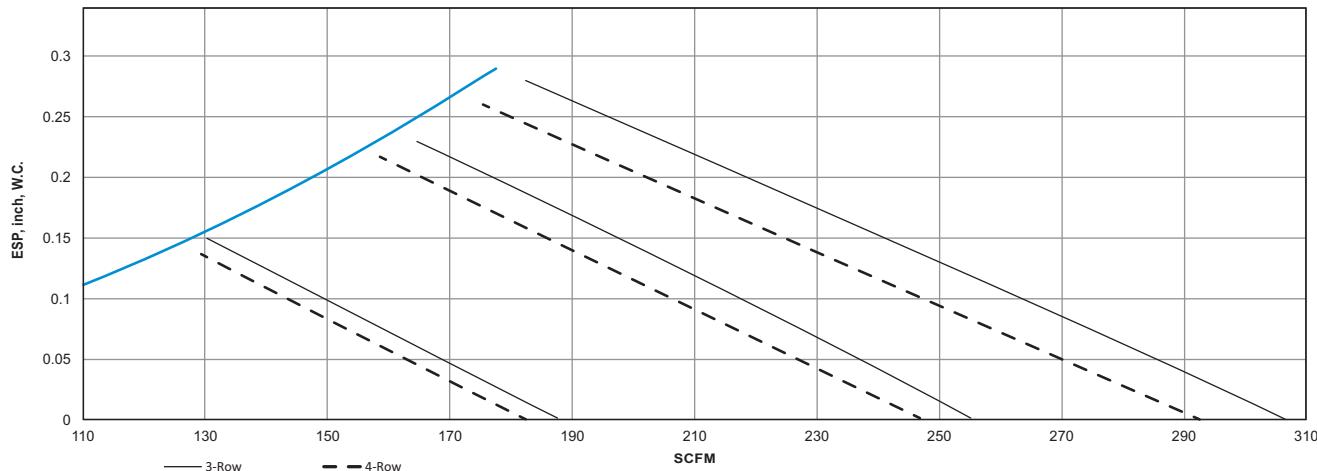
NOTE: Static pressure losses for factory-installed throwaway air filter and supply/return air grilles (where applicable) are included in all performance curves for all sizes.

Performance data (cont)

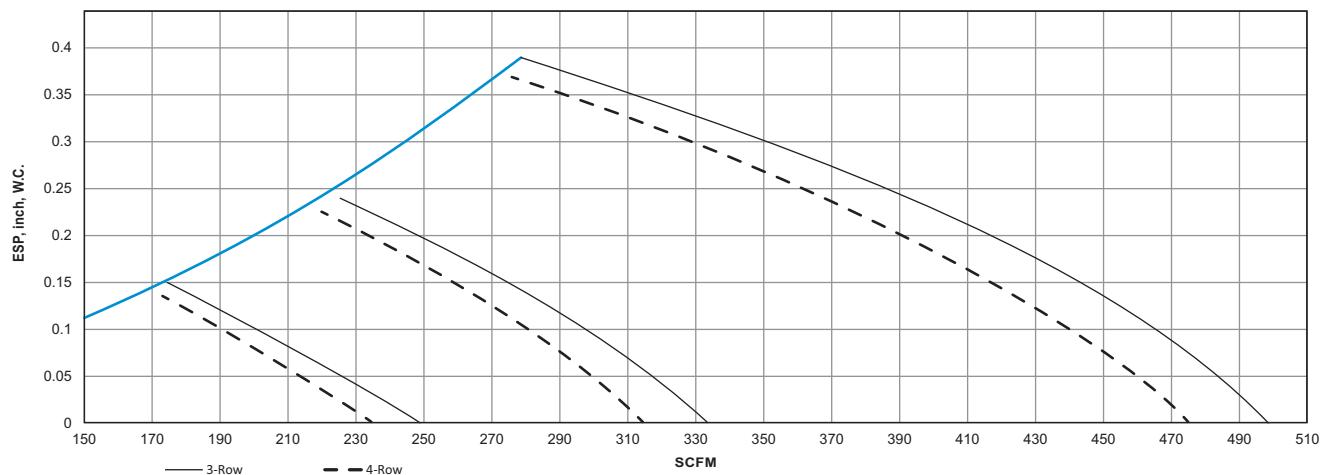


PSC Fan Air Delivery Curves (cont)

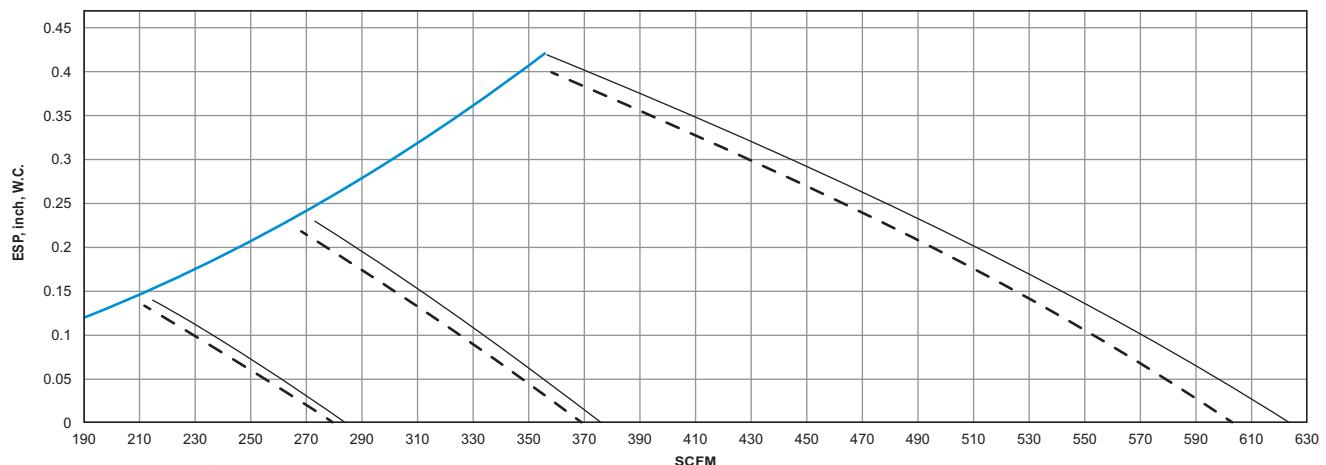
42CKA Series — 03 Unit Size, 115-v, PSC



42CKA Series — 04 Unit Size, 115-v, PSC



42CKA Series — 06 Unit Size, 115-v, PSC



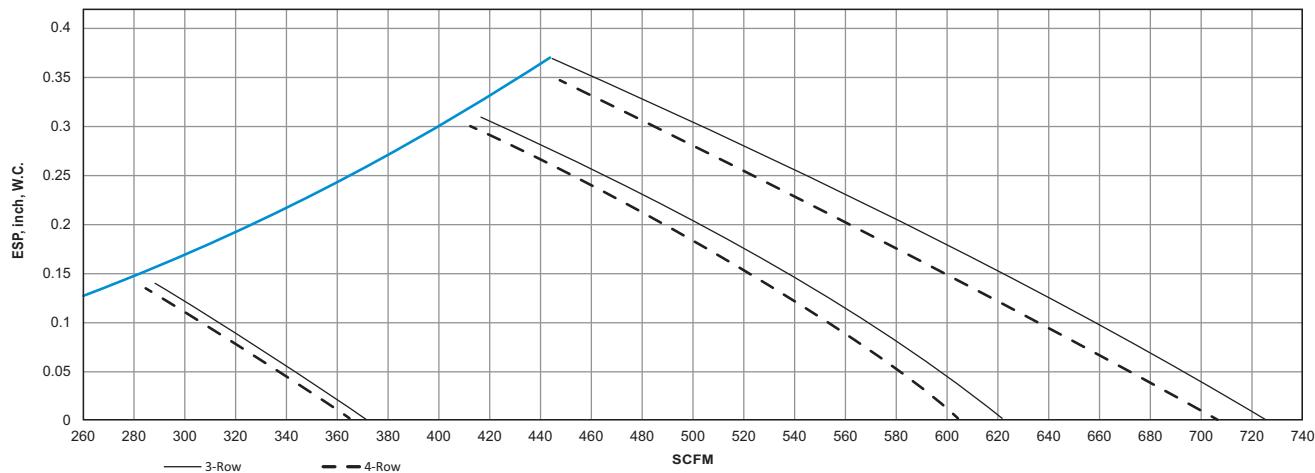
NOTE: Static pressure losses for factory-installed throwaway air filter and supply/return air grilles (where applicable) are included in all performance curves for all sizes.

Performance data (cont)

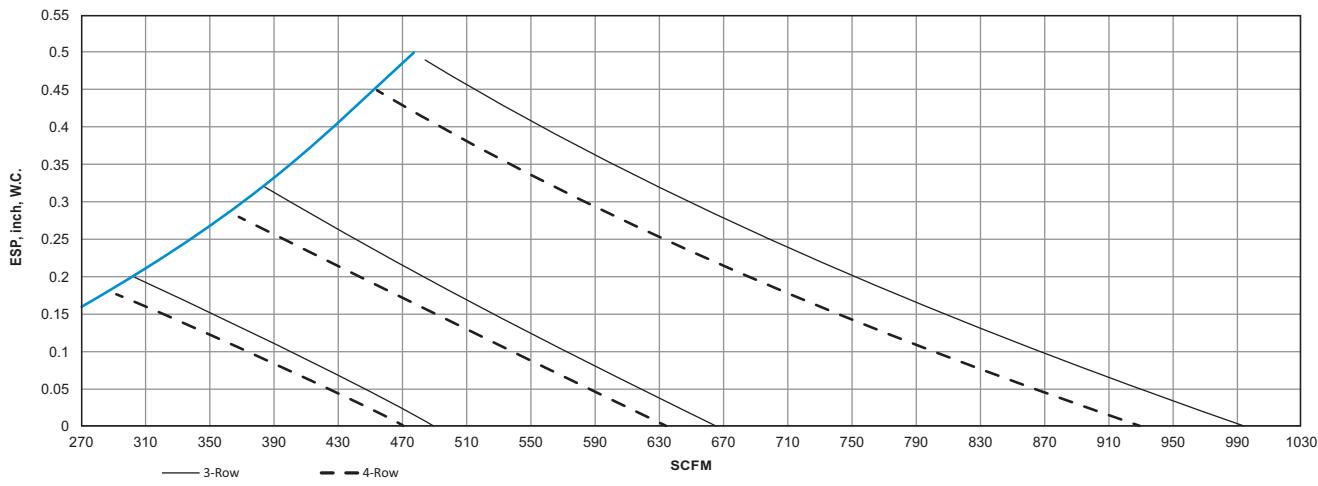


PSC Fan Air Delivery Curves (cont)

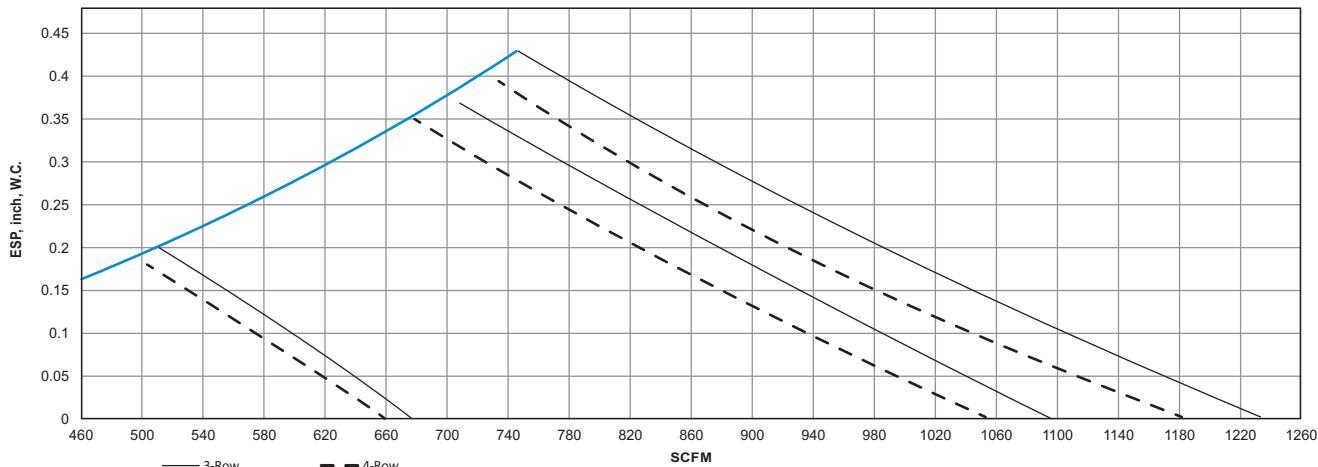
42CKA Series — 08 Unit Size, 115-v, PSC



42CKA Series — 10 Unit Size, 115-v, PSC



42CKA Series — 12 Unit Size, 115-v, PSC



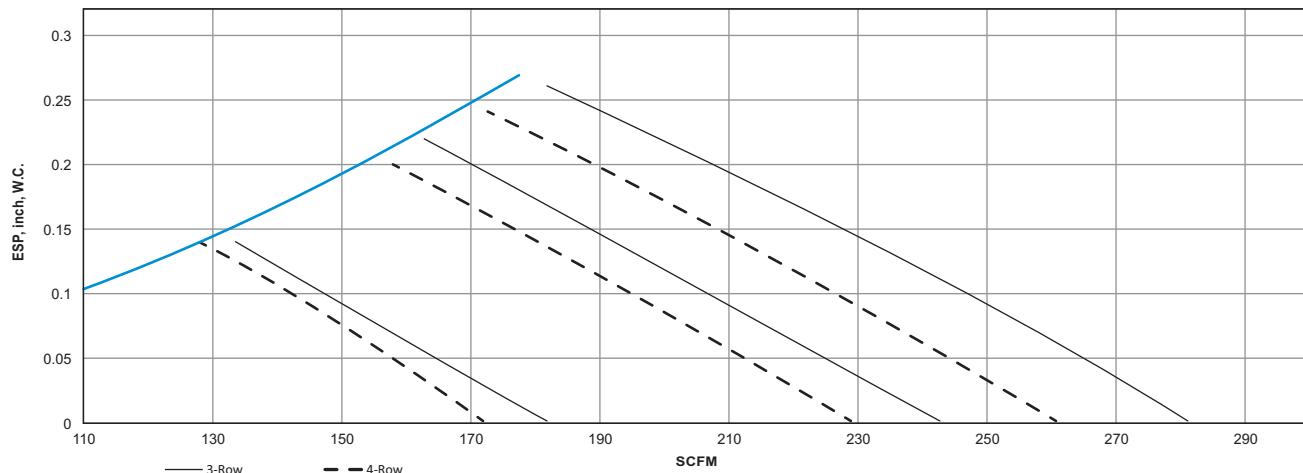
NOTE: Static pressure losses for factory-installed throwaway air filter and supply/return air grilles (where applicable) are included in all performance curves for all sizes.

Performance data (cont)

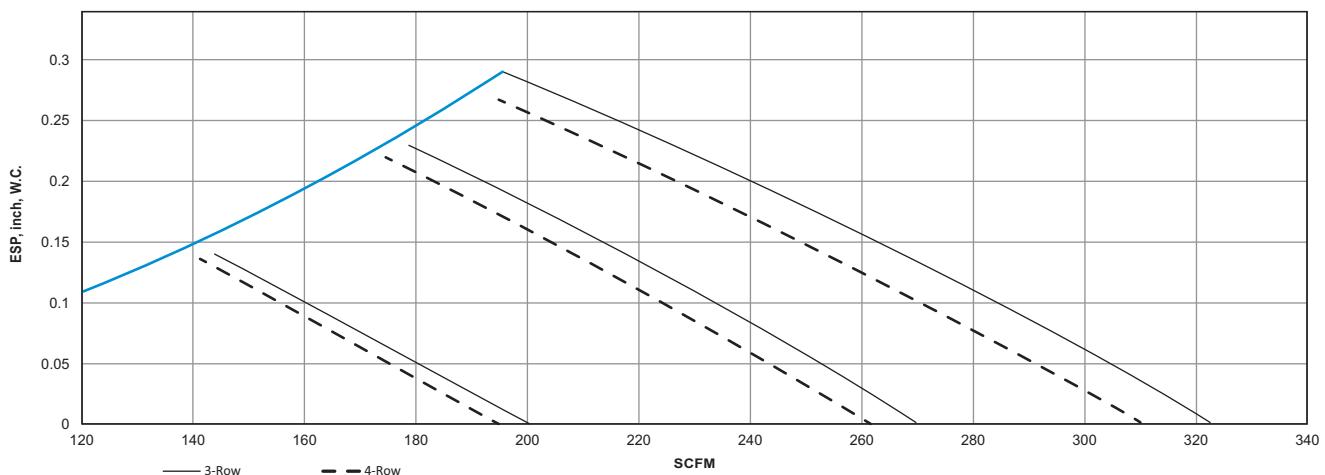


PSC Fan Air Delivery Curves (cont)

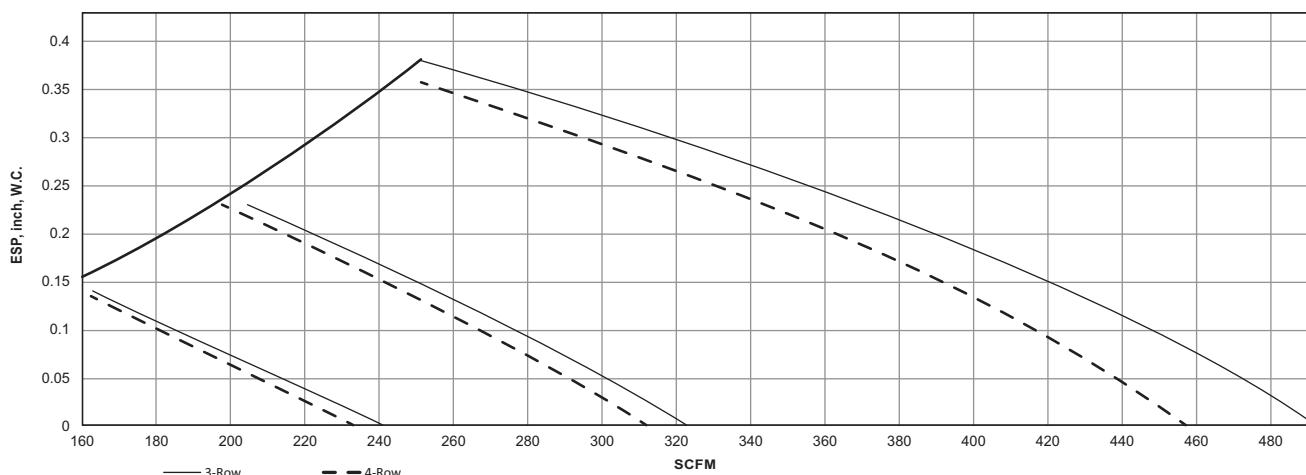
42CGB Series — 02 Unit Size, 115-v, PSC



42CGB Series — 03 Unit Size, 115-v, PSC



42CGB Series — 04 Unit Size, 115-v, PSC



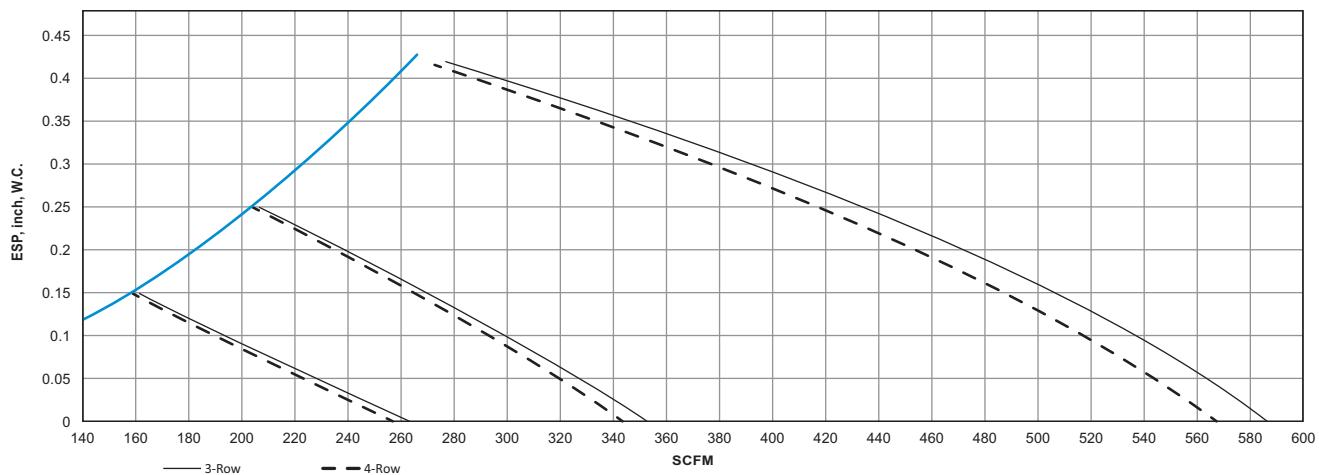
NOTE: Static pressure losses for factory-installed throwaway air filter and supply/return air grilles (where applicable) are included in all performance curves for all sizes.

Performance data (cont)

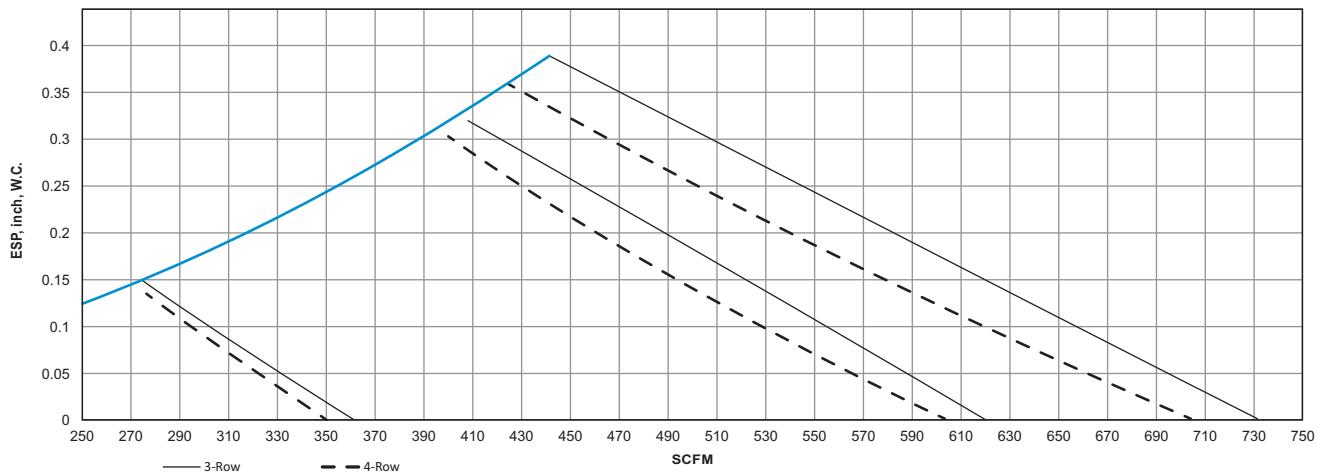


PSC Fan Air Delivery Curves (cont)

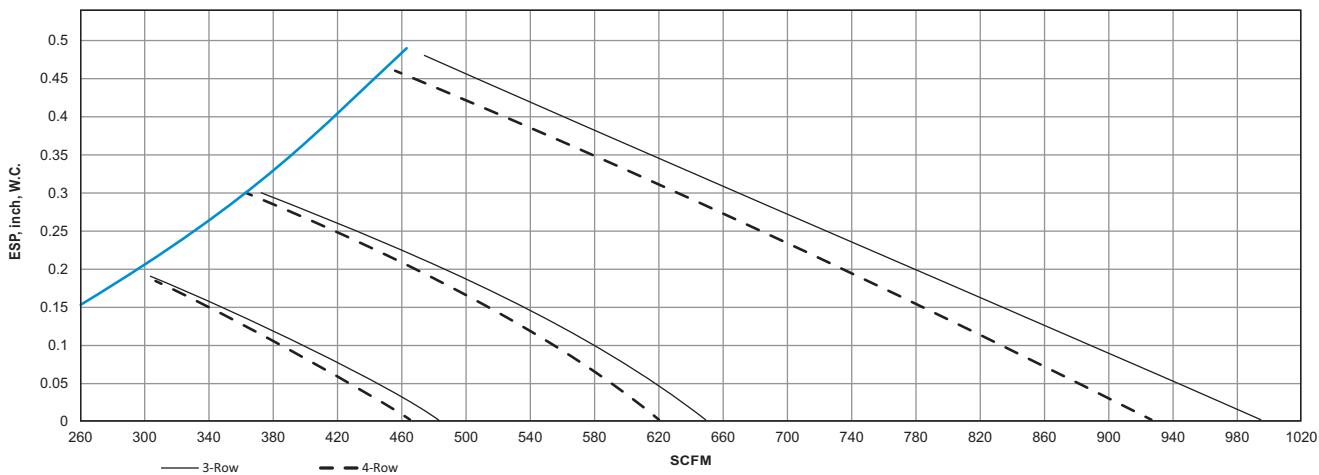
42CGB Series — 06 Unit Size, 115-v, PSC



42CGB Series — 08 Unit Size, 115-v, PSC



42CGB Series — 10 Unit Size, 115-v, PSC



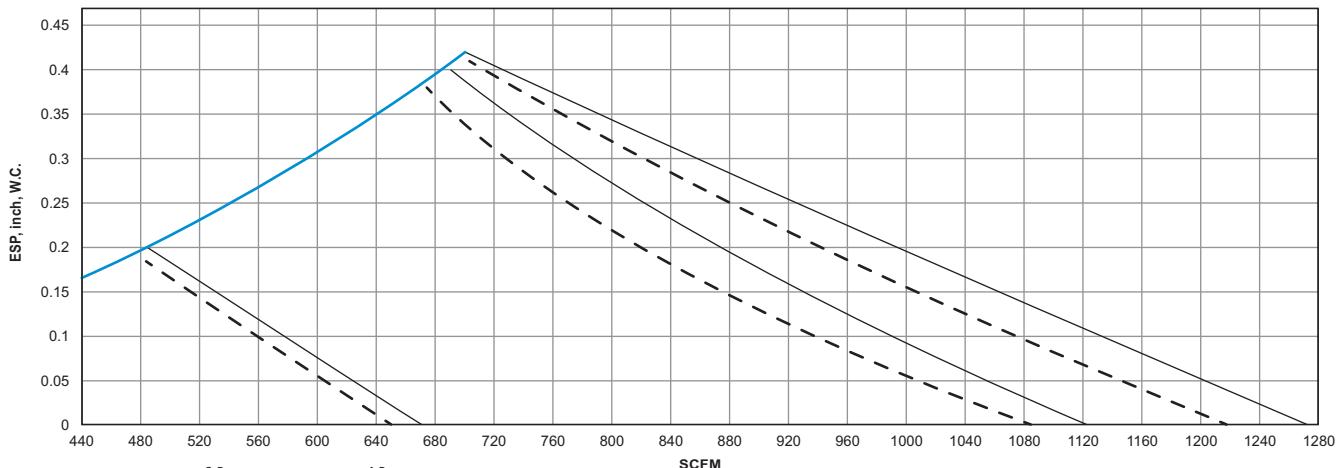
NOTE: Static pressure losses for factory-installed throwaway air filter and supply/return air grilles (where applicable) are included in all performance curves for all sizes.

Performance data (cont)



PSC Fan Air Delivery Curves (cont)

42CGB Series — 12 Unit Size, 115-v, PSC



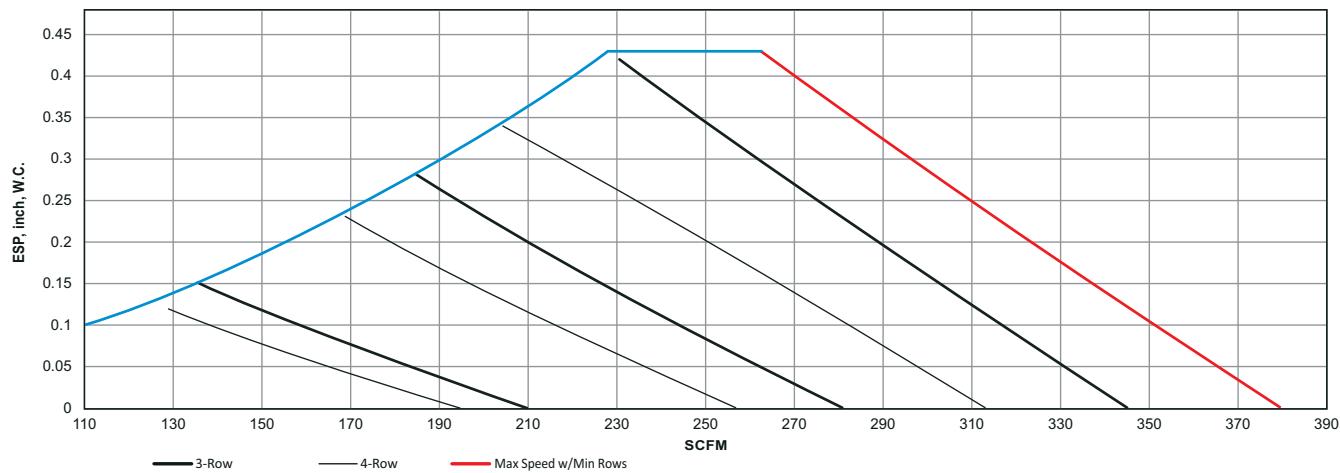
NOTE: Static pressure losses for factory-installed throwaway air filter and supply/return air grilles (where applicable) are included in all performance curves for all sizes.

Performance data (cont)

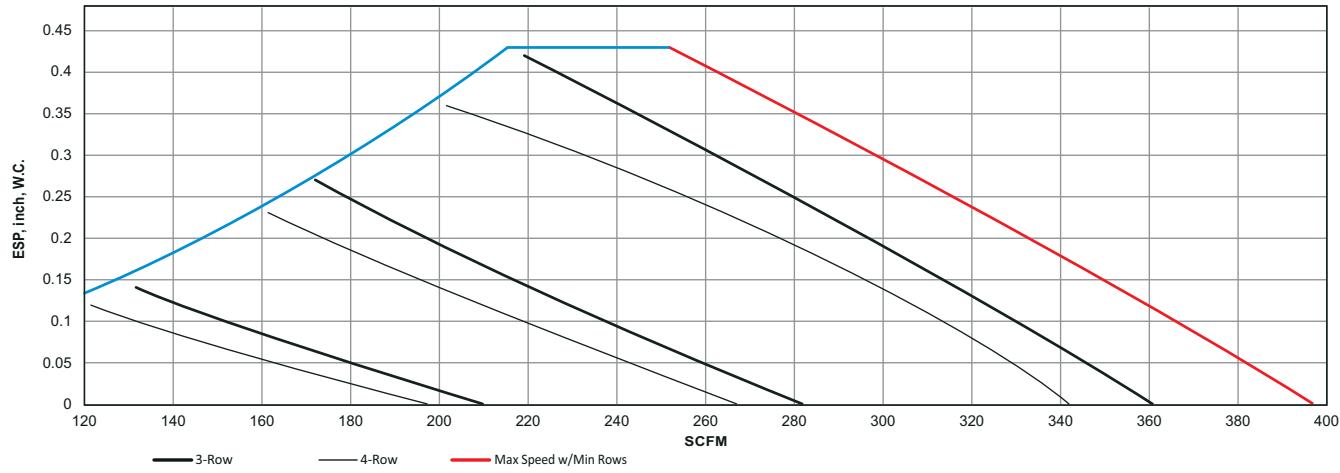


ECM Fan Air Delivery Curves

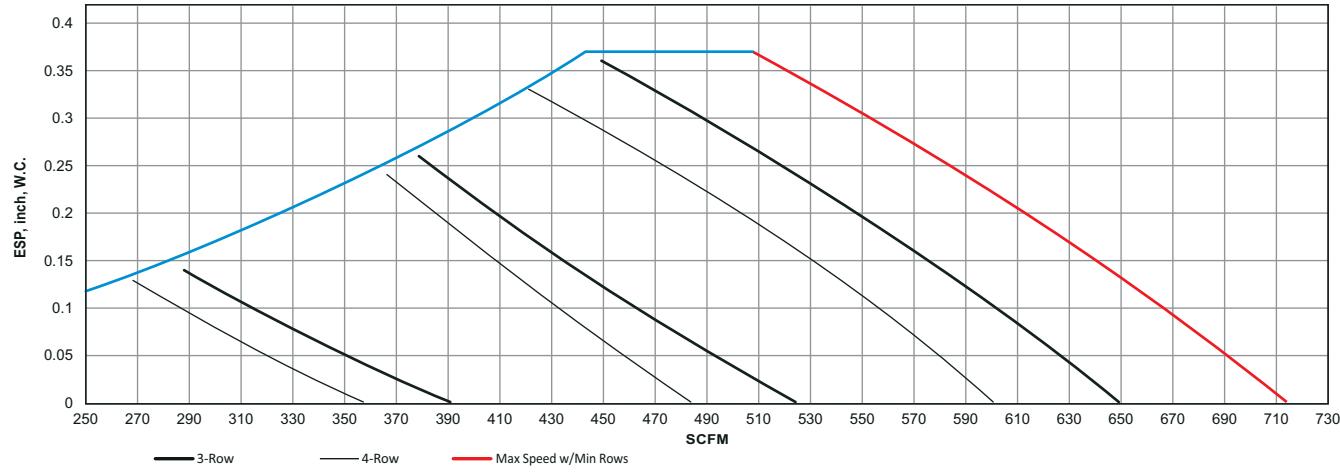
42CAA Series — 02 Unit Size, 115-v, ECM



42CAA Series — 03 Unit Size, 115-v, ECM



42CAA Series — 04 Unit Size, 115-v, ECM



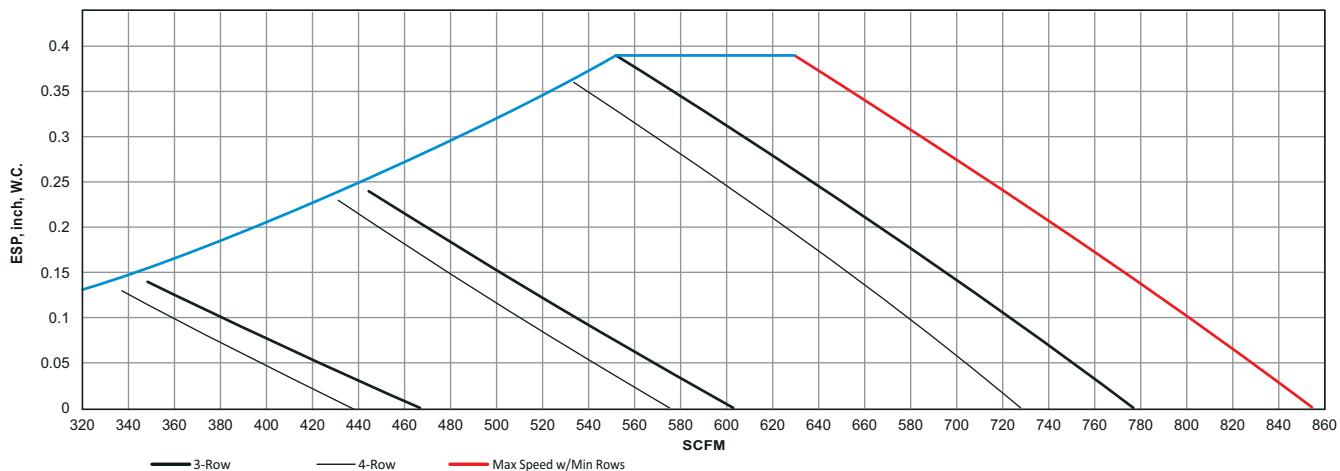
NOTE: Static pressure losses for factory-installed throwaway air filter and supply/return air grilles (where applicable) are included in all performance curves for all sizes.

Performance data (cont)

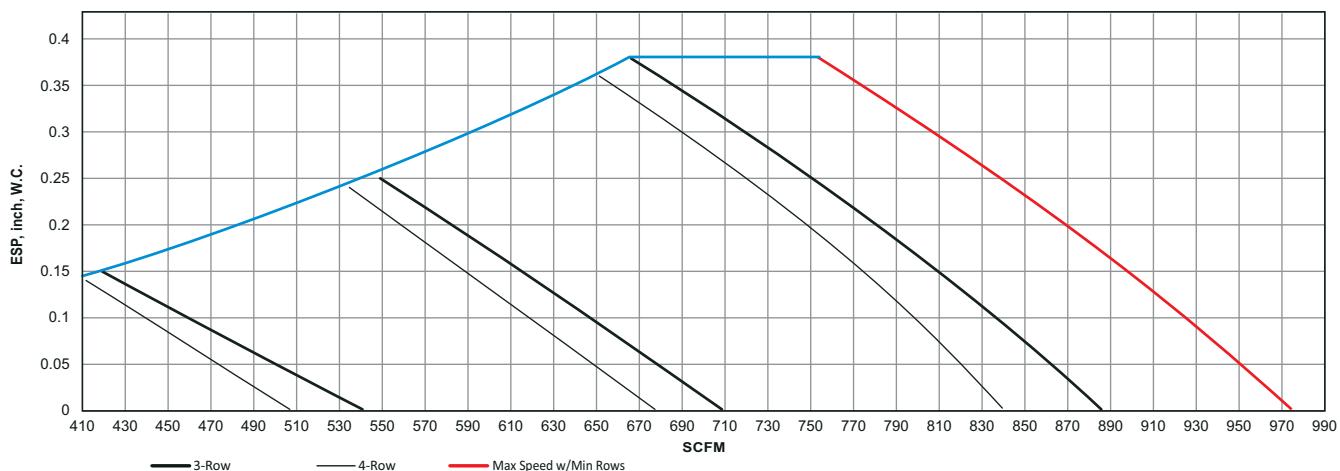


ECM Fan Air Delivery Curves (cont)

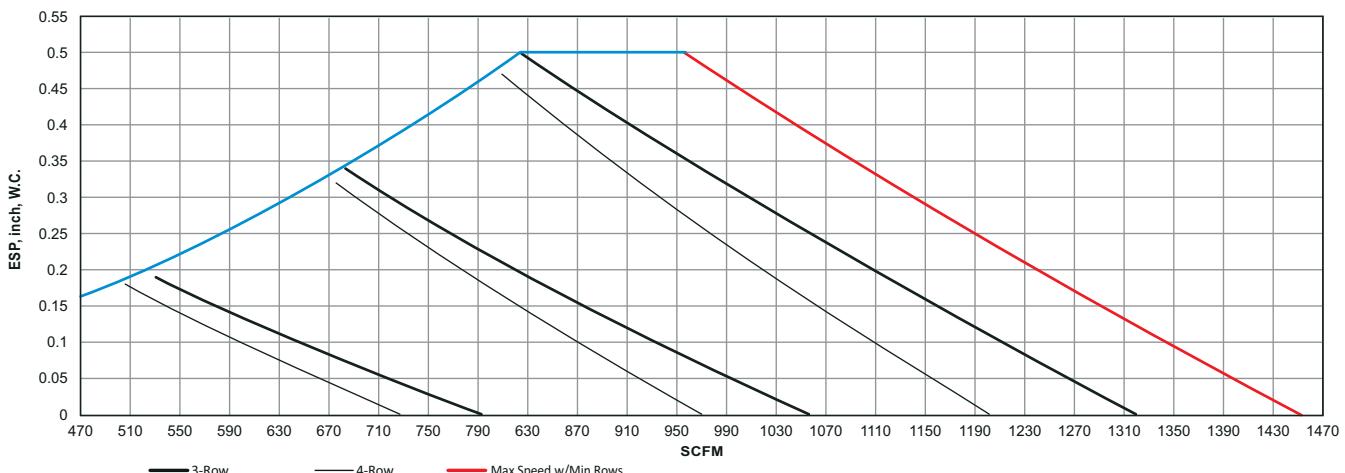
42CAA Series — 06 Unit Size, 115-v, ECM



42CAA Series — 08 Unit Size, 115-v, ECM



42CAA Series — 10 Unit Size, 115-v, ECM



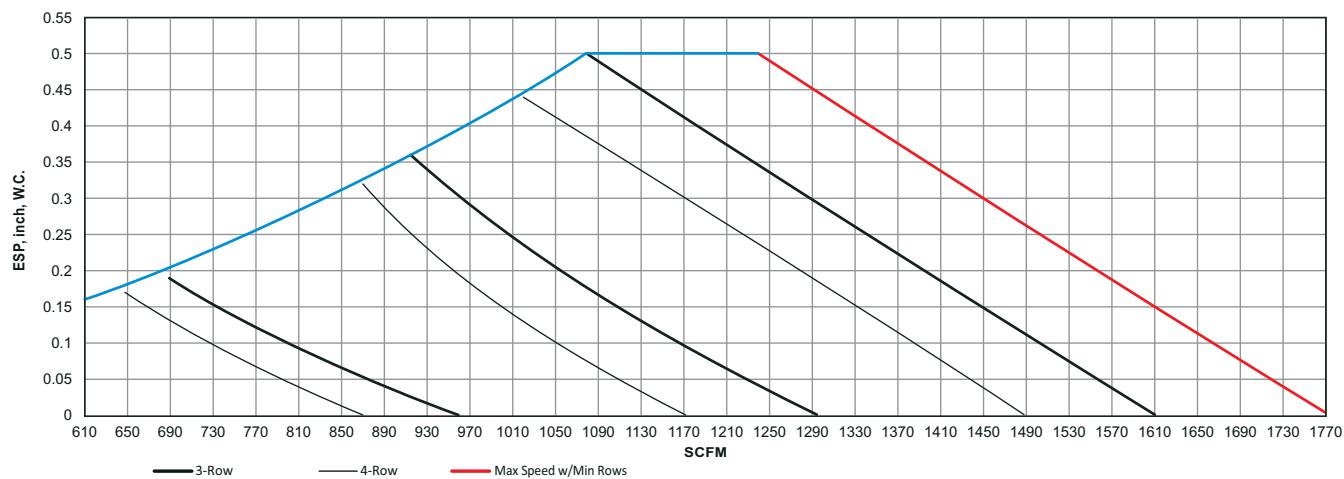
NOTE: Static pressure losses for factory-installed throwaway air filter and supply/return air grilles (where applicable) are included in all performance curves for all sizes.

Performance data (cont)

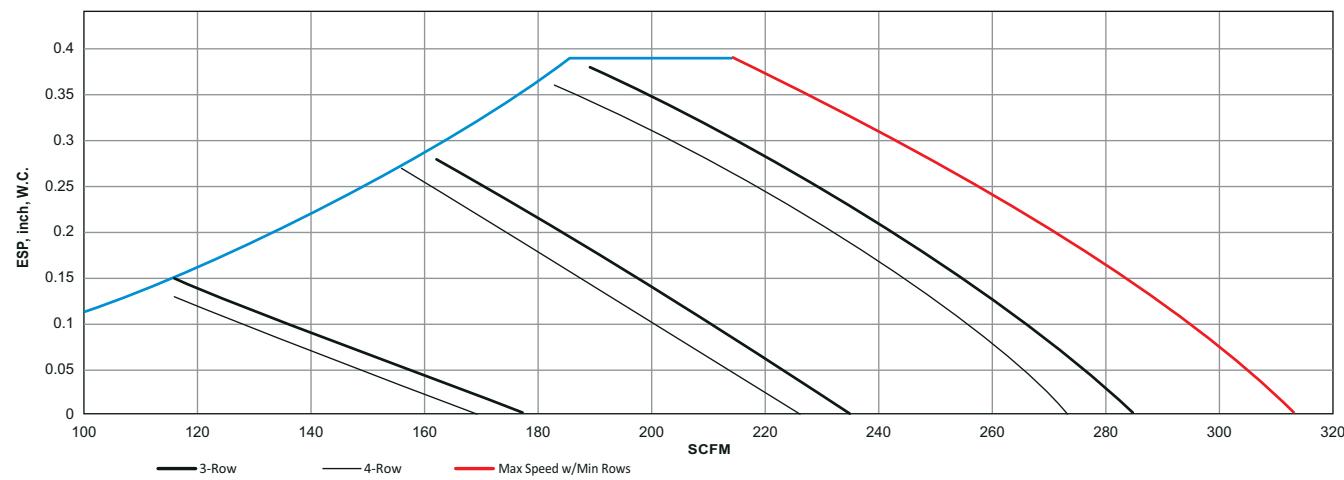


ECM Fan Air Delivery Curves (cont)

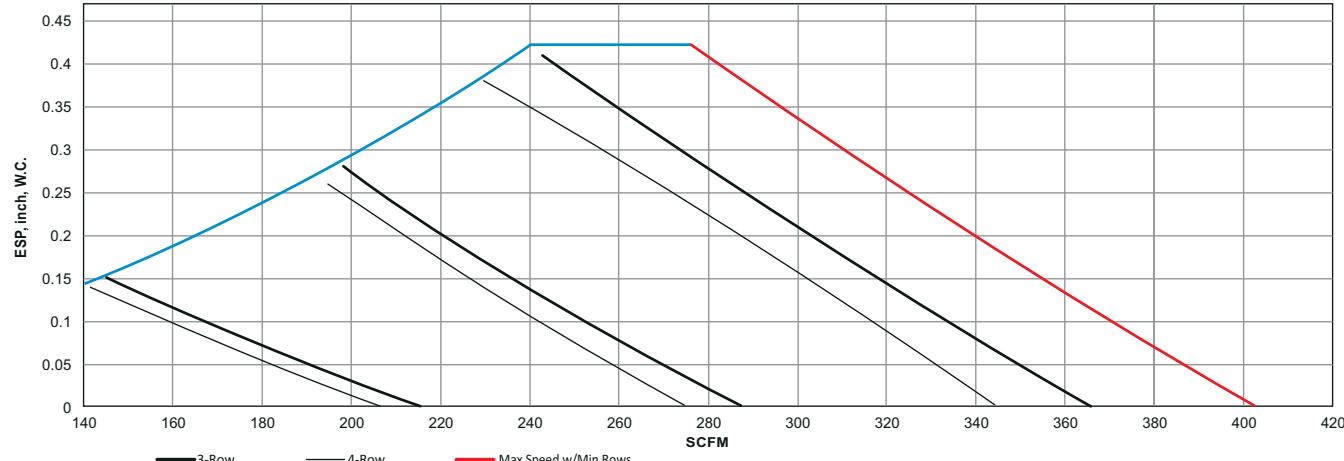
42CAA Series — 12 Unit Size, 115-v, ECM



42CEA Series — 02 Unit Size, 115-v, ECM



42CEA Series — 03 Unit Size, 115-v, ECM



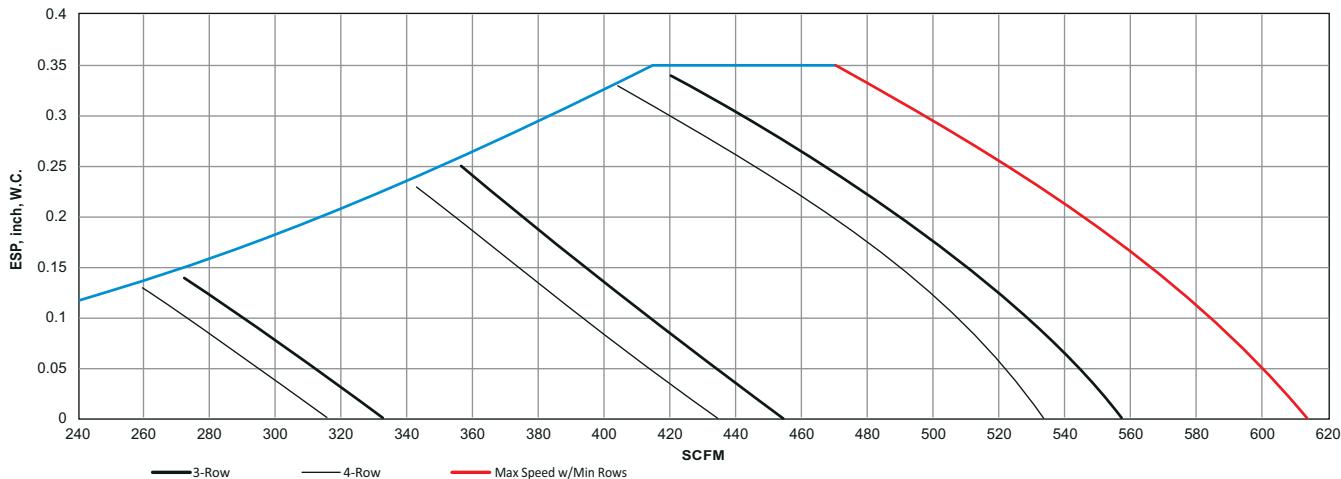
NOTE: Static pressure losses for factory-installed throwaway air filter and supply/return air grilles (where applicable) are included in all performance curves for all sizes.

Performance data (cont)

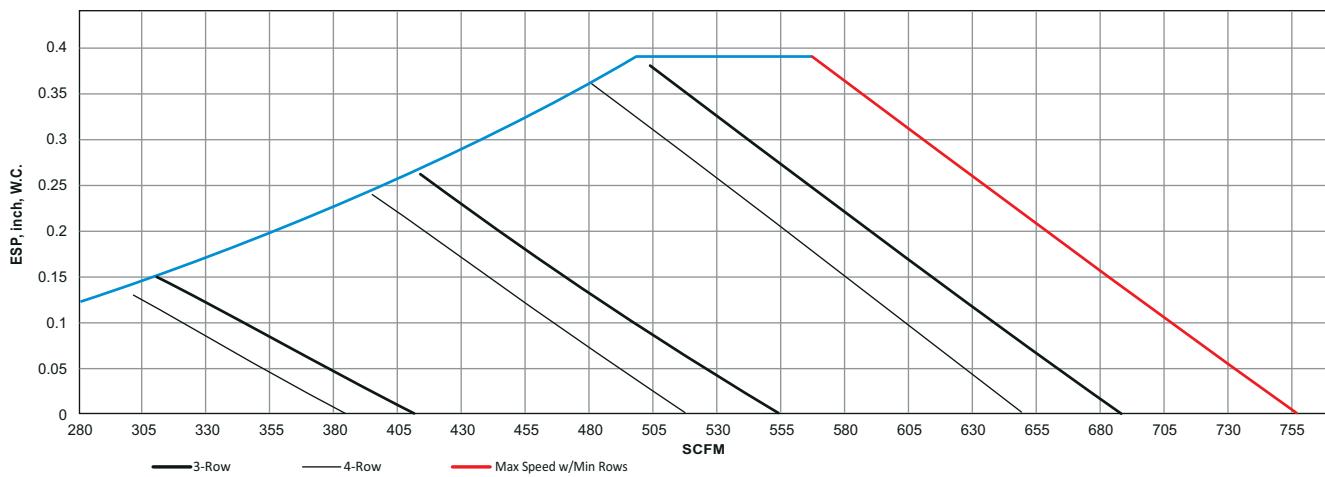


ECM Fan Air Delivery Curves (cont)

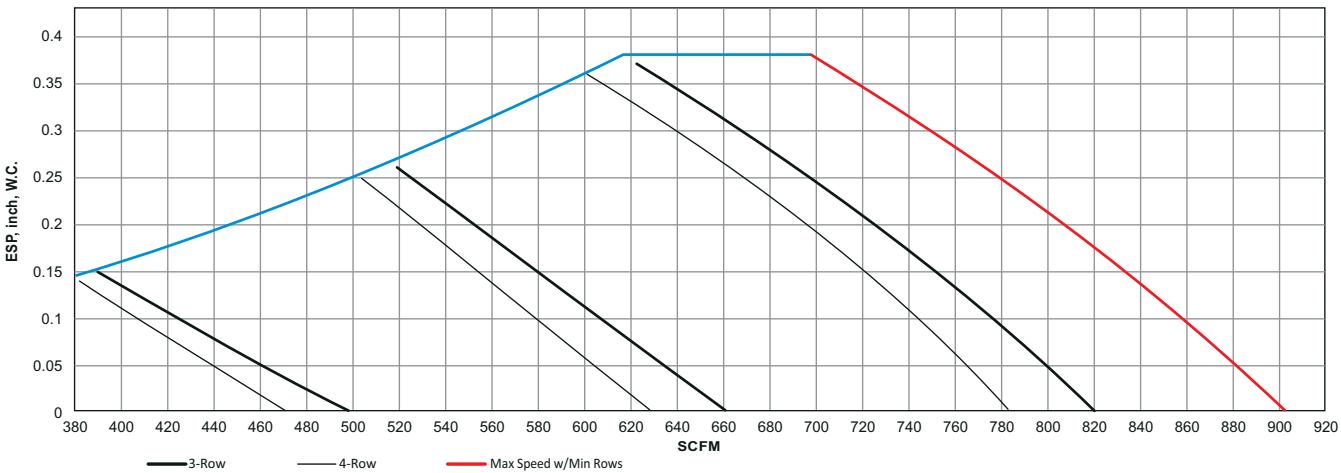
42CEA Series — 04 Unit Size, 115-v, ECM



42CEA Series — 06 Unit Size, 115-v, ECM



42CEA Series — 08 Unit Size, 115-v, ECM



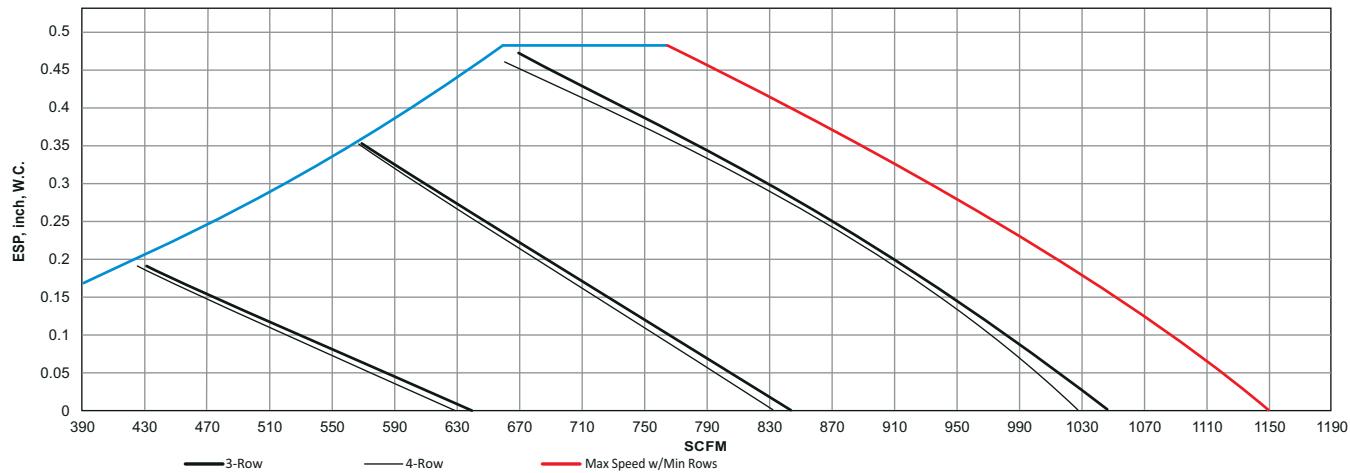
NOTE: Static pressure losses for factory-installed throwaway air filter and supply/return air grilles (where applicable) are included in all performance curves for all sizes.

Performance data (cont)

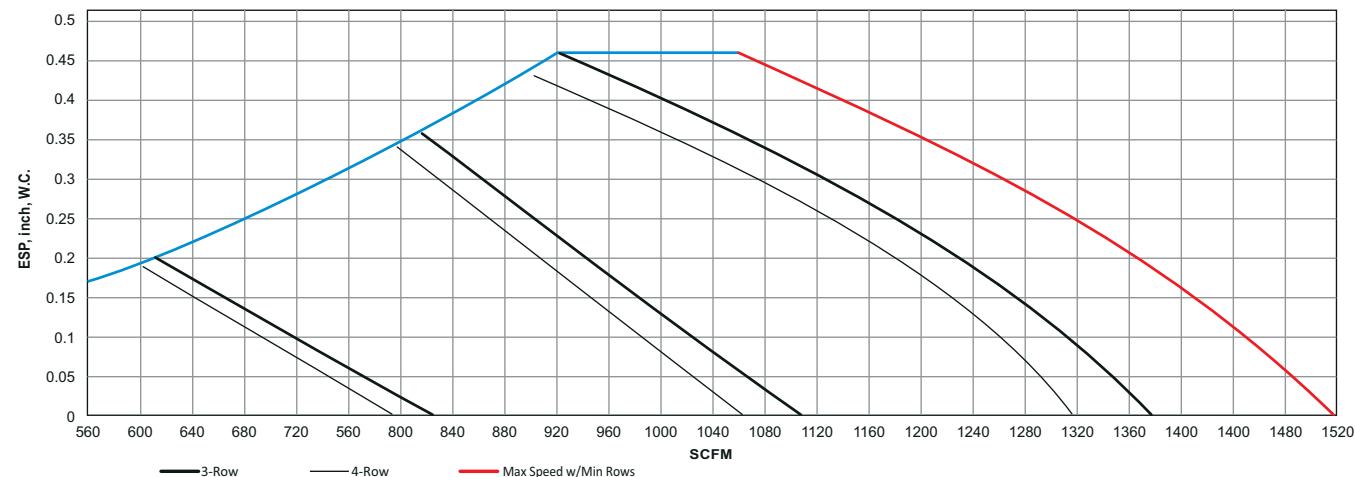


ECM Fan Air Delivery Curves (cont)

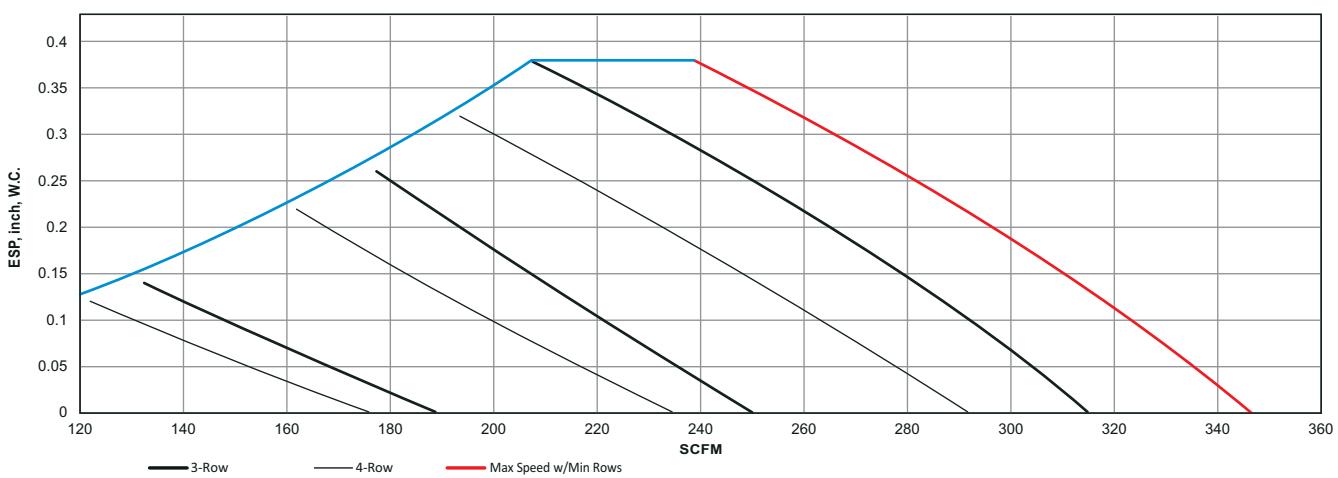
42CEA Series — 10 Unit Size, 115-v, ECM



42CEA Series — 12 Unit Size, 115-v, ECM



42CKA Series — 02 Unit Size, 115-v, ECM



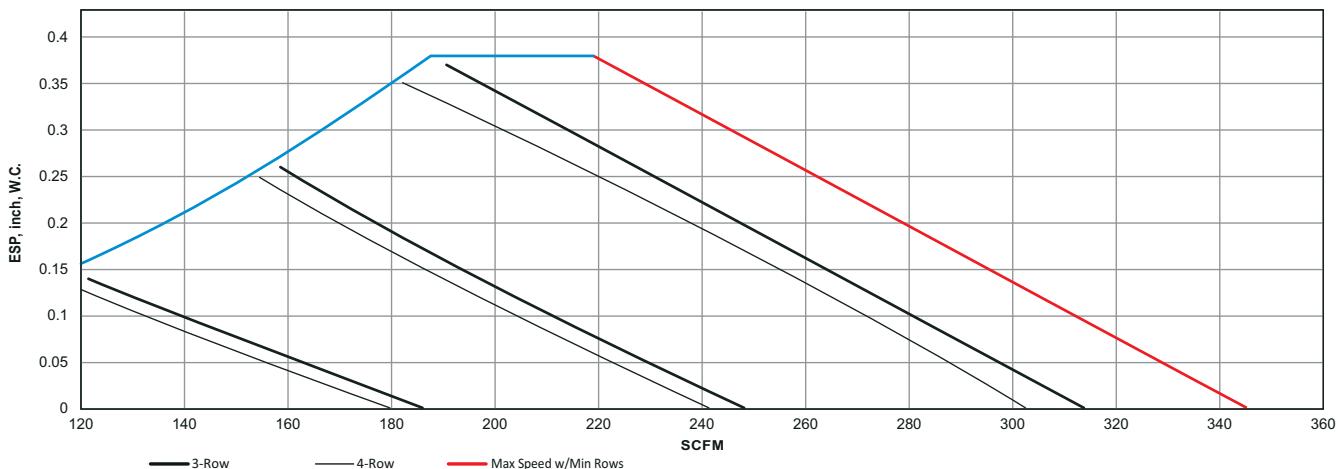
NOTE: Static pressure losses for factory-installed throwaway air filter and supply/return air grilles (where applicable) are included in all performance curves for all sizes.

Performance data (cont)

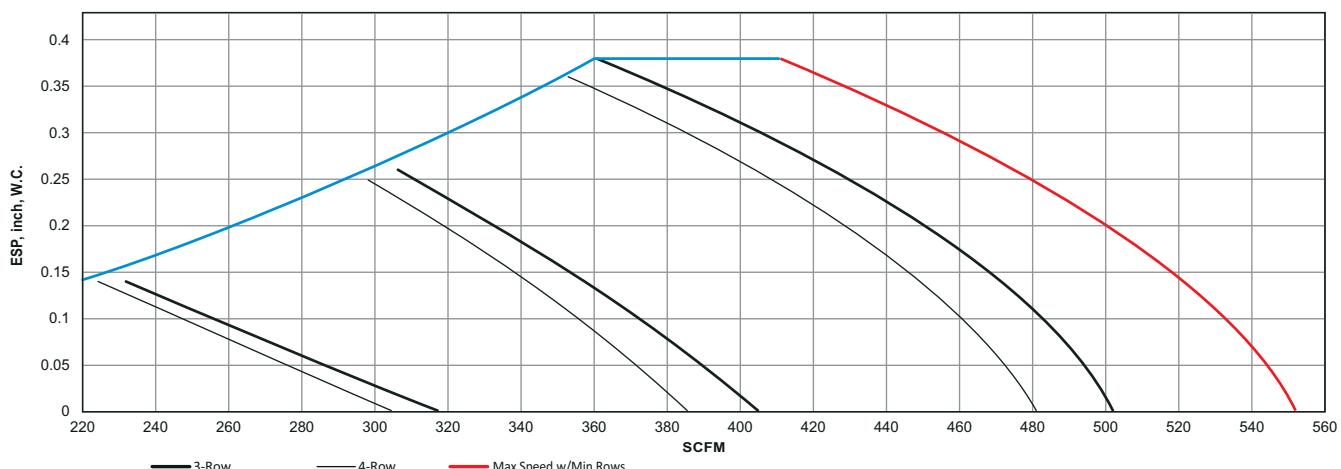


ECM Fan Air Delivery Curves (cont)

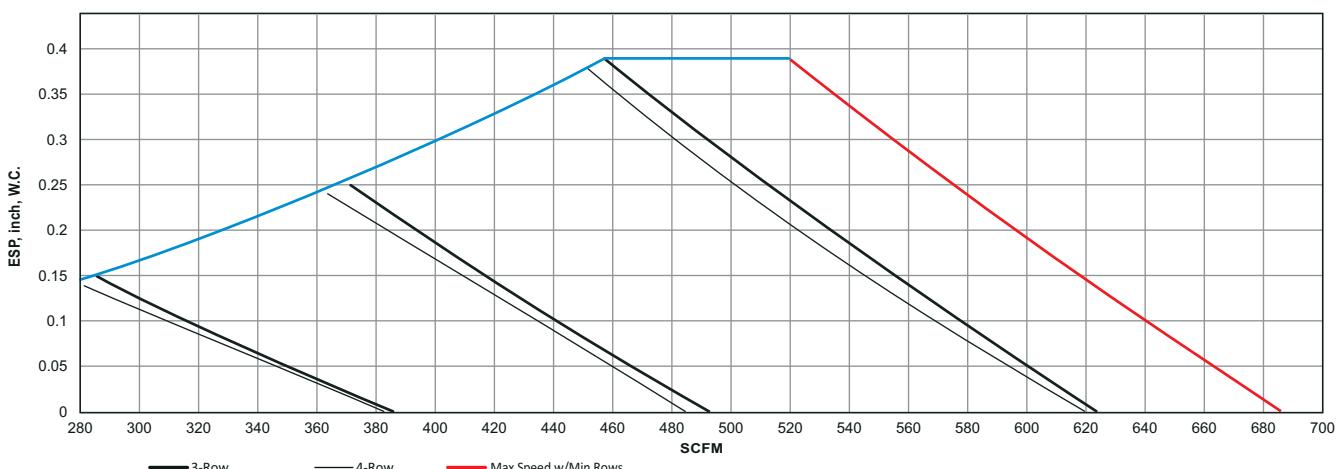
42CKA Series — 02 Unit Size, 115-v, ECM



42CKA Series — 04 Unit Size, 115-v, ECM



42CKA Series — 06 Unit Size, 115-v, ECM



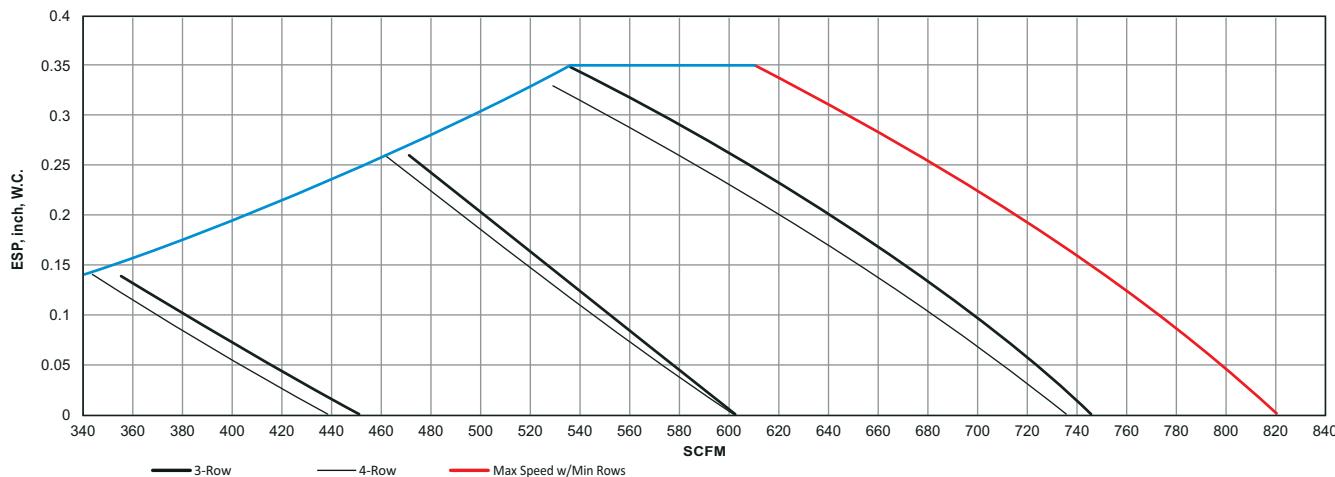
NOTE: Static pressure losses for factory-installed throwaway air filter and supply/return air grilles (where applicable) are included in all performance curves for all sizes.

Performance data (cont)

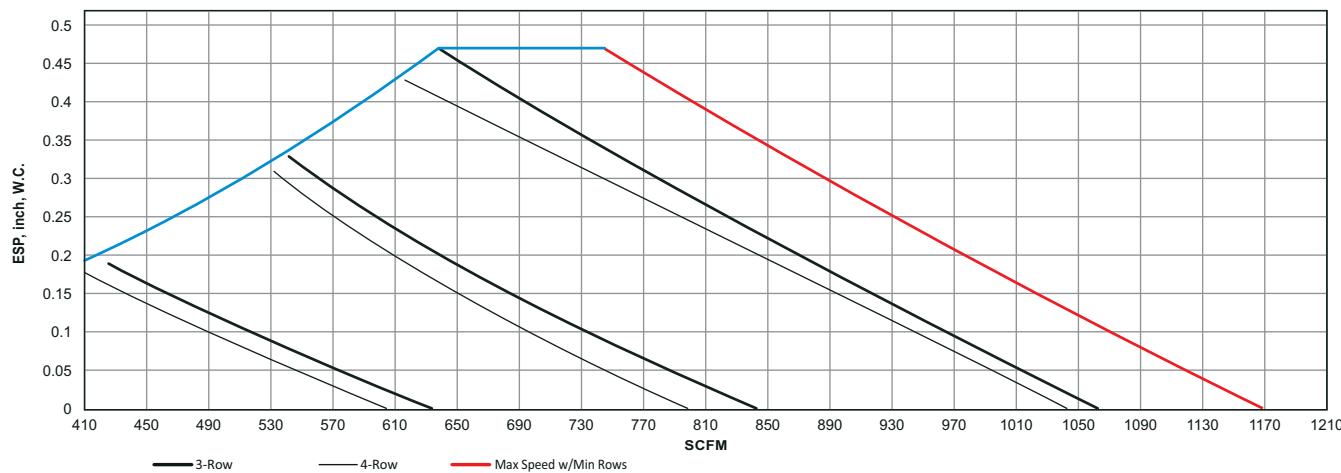


ECM Fan Air Delivery Curves (cont)

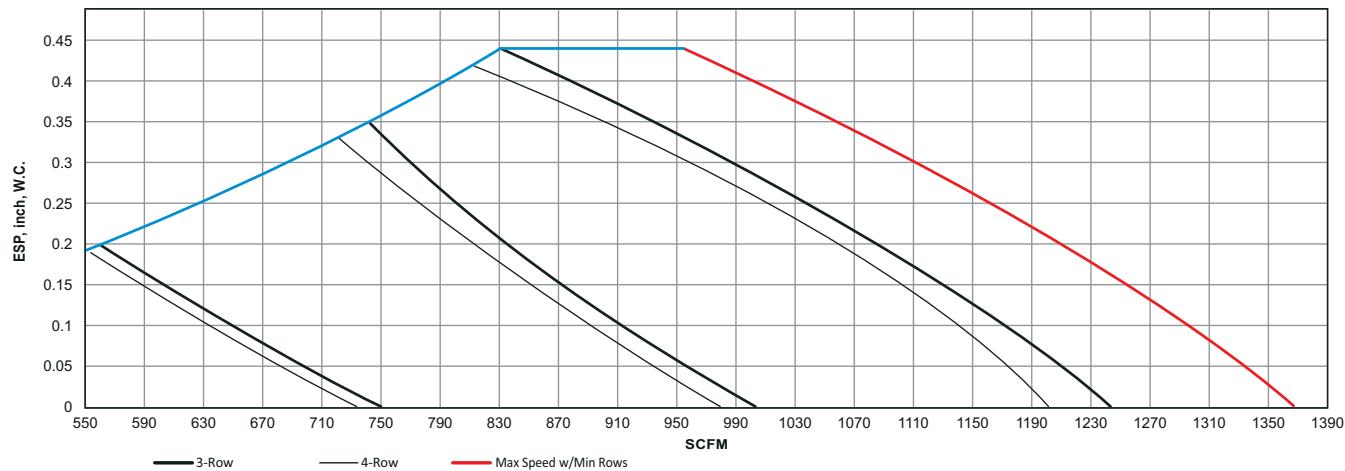
42CKA Series — 08 Unit Size, 115-v, ECM



42CKA Series — 10 Unit Size, 115-v, ECM



42CKA Series — 12 Unit Size, 115-v, ECM



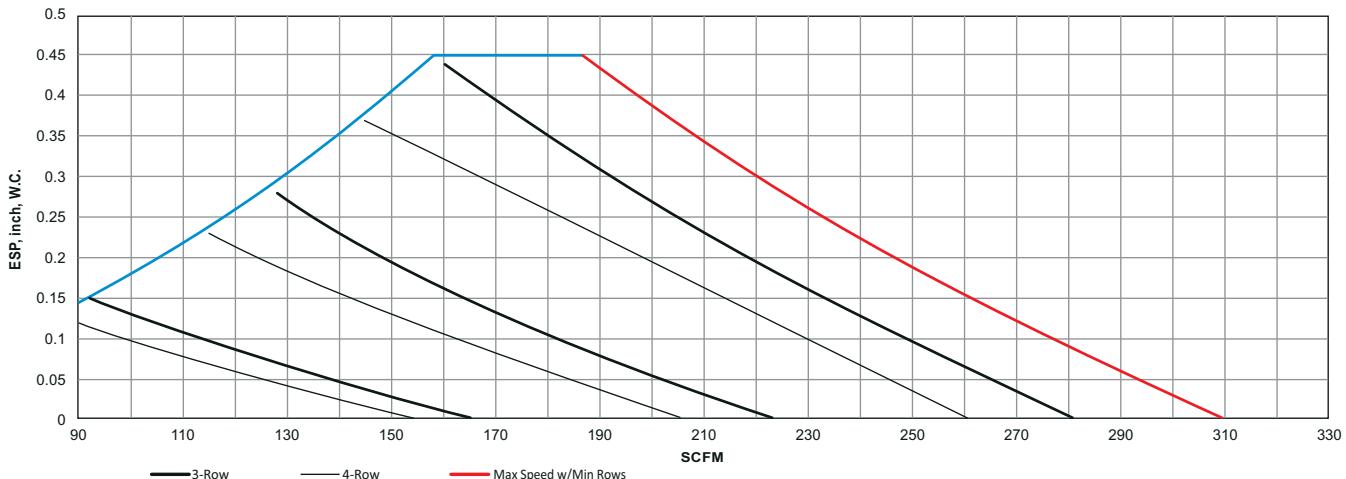
NOTE: Static pressure losses for factory-installed throwaway air filter and supply/return air grilles (where applicable) are included in all performance curves for all sizes.

Performance data (cont)

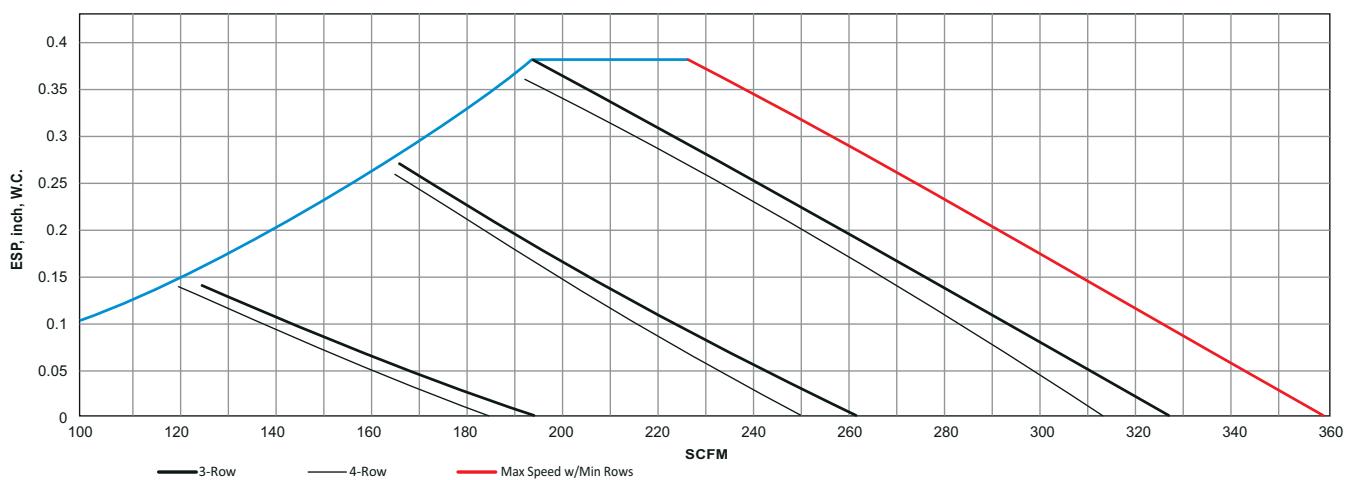


ECM Fan Air Delivery Curves (cont)

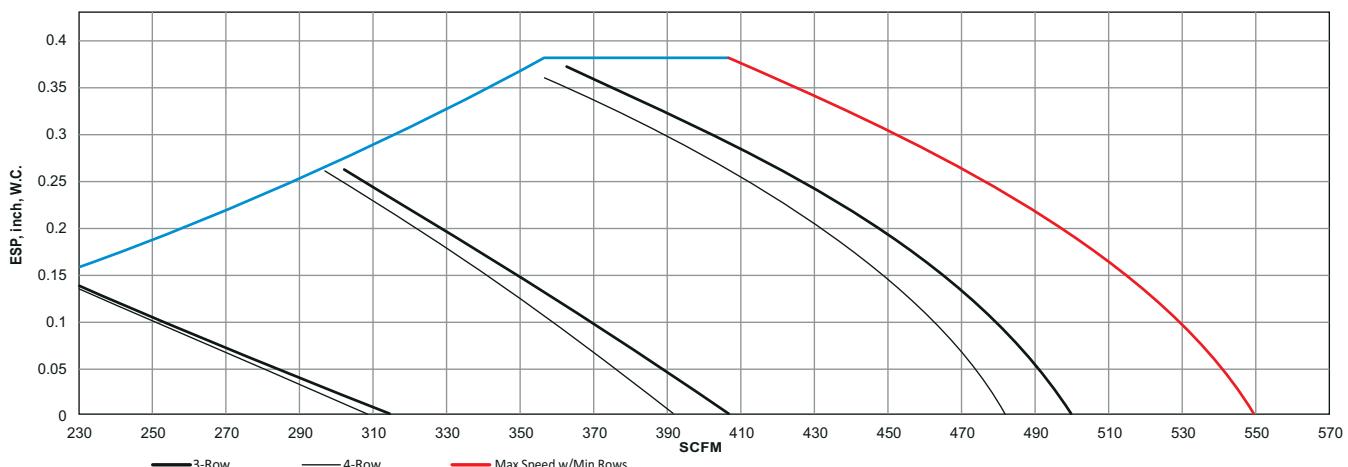
42CGB Series — 02 Unit Size, 115-v, ECM



42CGB Series — 03 Unit Size, 115-v, ECM



42CGB Series — 04 Unit Size, 115-v, ECM



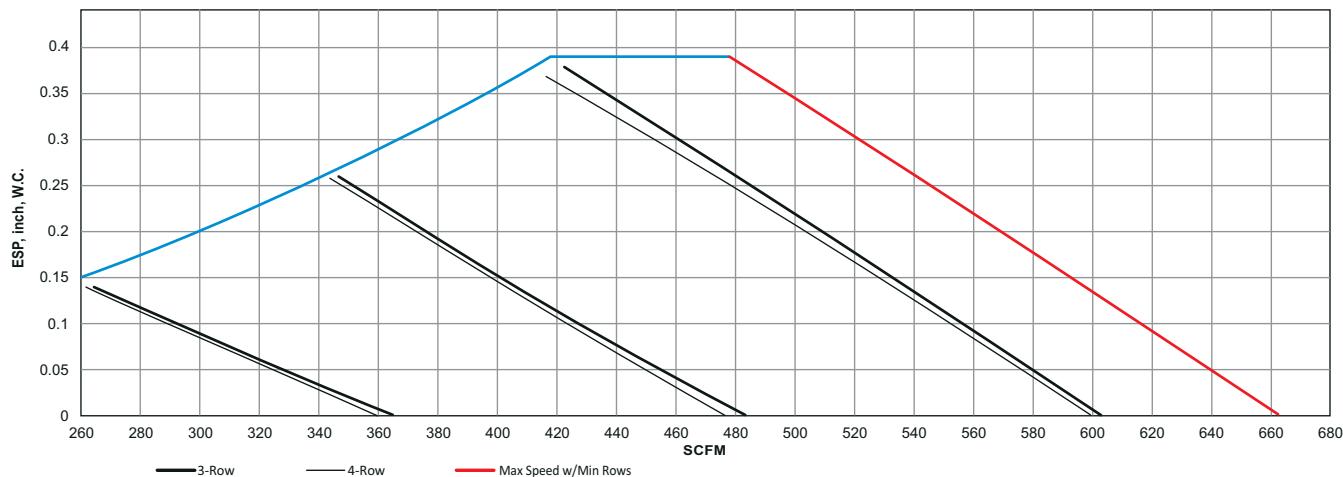
NOTE: Static pressure losses for factory-installed throwaway air filter and supply/return air grilles (where applicable) are included in all performance curves for all sizes.

Performance data (cont)

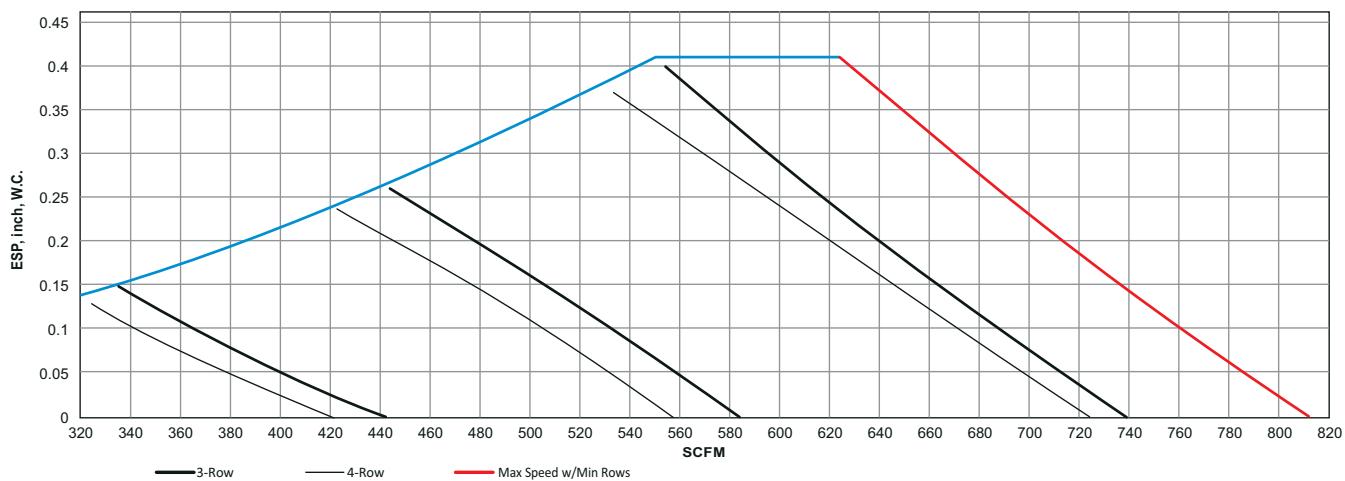


ECM Fan Air Delivery Curves (cont)

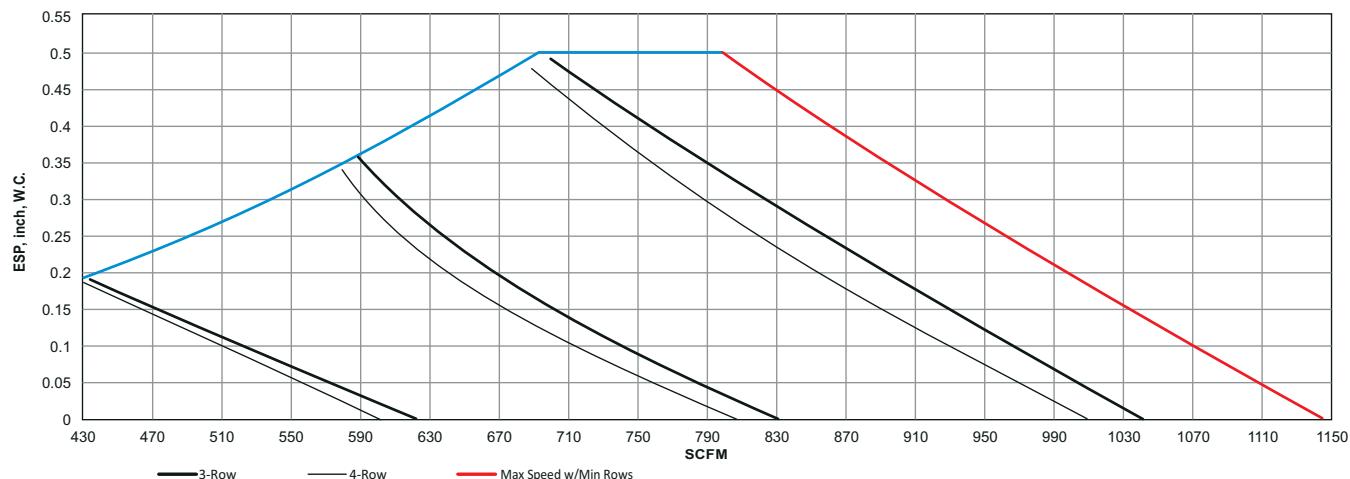
42CGB Series — 06 Unit Size, 115-v, ECM



42CGB Series — 08 Unit Size, 115-v, ECM



42CGB Series — 10 Unit Size, 115-v, ECM



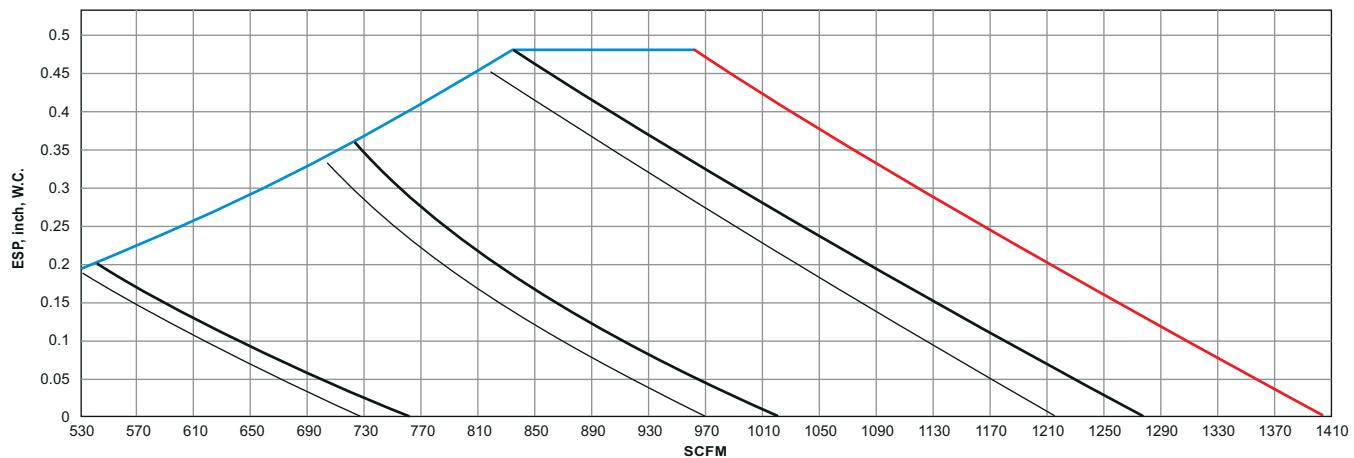
NOTE: Static pressure losses for factory-installed throwaway air filter and supply/return air grilles (where applicable) are included in all performance curves for all sizes.

Performance data (cont)



ECM Fan Air Delivery Curves (cont)

42CGB Series — 12 Unit Size, 115-v, ECM



NOTE: Static pressure losses for factory-installed throwaway air filter and supply/return air grilles (where applicable) are included in all performance curves for all sizes.

Performance data (cont)



Air Delivery — PSC (60 Hz)^{a,b,c}

MODEL42	COIL	UNIT SIZE	CFM AT 0.0 ESP FOR PSC FAN SPEED			PSC HIGH SPEED CFM AT ESP INDICATED						
			Low	Med	High	0.05	0.10	0.15	0.20	0.25	0.30	0.35
CAA	3 Row	02	224	295	350	329	307	285	263	241	—	—
		03	231	304	365	347	328	308	288	267	246	—
		04	298	399	653	610	571	535	502	473	447	425
		06	331	440	768	741	709	673	633	589	541	489
		08	444	756	917	884	847	808	766	721	673	622
		10	620	823	1,315	1,242	1,170	1,099	1,029	960	892	825
	4 Row	02	822	1,385	1,620	1,540	1,455	1,365	1,270	1,171	1,066	957
		03	208	278	324	299	276	254	235	217	—	—
		04	220	291	346	328	310	290	270	248	—	—
		06	281	382	603	559	519	484	454	428	406	390
		08	317	421	722	694	663	628	590	547	502	452
		10	594	782	1,209	1,128	1,052	982	919	861	810	764
CEA	3 Row	02	198	250	285	269	253	236	217	198	—	—
		03	223	298	356	343	328	311	291	269	244	—
		04	270	357	552	531	508	482	453	421	387	350
		06	287	398	693	664	632	598	562	524	484	441
		08	394	682	822	793	760	724	684	640	592	540
		10	537	701	1,008	973	931	884	829	769	702	629
	4 Row	02	747	1,202	1,367	1,325	1,274	1,214	1,145	1,066	979	883
		03	192	242	273	258	242	226	208	189	—	—
		04	216	285	337	323	308	291	271	250	—	—
		06	264	349	530	508	484	458	429	398	365	330
		08	284	386	653	628	599	568	533	496	456	412
		10	525	689	985	947	904	855	801	741	675	604
CKA	3 Row	02	191	259	307	287	266	246	226	206	—	—
		03	188	256	307	286	264	242	219	196	—	—
		04	250	334	499	484	466	443	417	386	351	313
		06	284	376	624	598	571	542	511	478	444	409
		08	372	623	726	693	659	622	584	545	504	461
		10	491	667	997	932	869	810	753	700	649	602
	4 Row	02	678	1,098	1,237	1,171	1,108	1,047	988	931	877	825
		03	186	247	290	270	250	229	209	189	—	—
		04	183	247	293	270	248	225	202	180	—	—
		06	235	315	476	460	440	417	391	361	328	292
		08	280	369	604	579	553	525	495	463	430	395
		10	366	605	707	672	636	599	561	523	484	445
CGB	3 Row	02	472	636	932	866	805	748	695	647	603	563
		03	660	1,056	1,184	1,113	1,046	983	924	869	818	771
		04	162	243	281	265	247	228	208	186	—	—
		06	201	270	323	305	284	263	240	216	—	—
		08	242	324	492	472	448	420	389	355	318	277
		10	265	354	587	564	537	507	473	435	393	347
	4 Row	02	363	621	733	696	658	620	583	546	508	471
		03	486	651	998	943	888	834	779	724	670	615
		04	672	1,125	1,275	1,203	1,133	1,063	994	926	858	792
		06	172	229	261	244	227	208	189	169	—	—
		08	195	262	311	291	271	249	227	203	—	—
		10	234	313	458	439	417	391	363	331	296	257

NOTE(S):

- Tabled values are standard cfm at sea level, 70°F with dry coil.
- Rating include factory-installed filter and/or grille, where applicable.
- Consult factory for 50 Hz applications.

Performance data (cont)



Air Delivery — ECM (60 Hz)^{a,b,c}

MODEL#2	COIL	UNIT SIZE	CFM AT 0.0 ESP FOR PSC FAN SPEED			PSC HIGH SPEED CFM AT ESP INDICATED					
			Low	Med	High	0.05	0.10	0.15	0.20	0.25	0.30
CAA	3 Row	02	210	281	345	331	317	303	289	275	262
		03	210	282	361	346	330	314	297	280	263
		04	392	525	650	627	602	576	548	519	488
		06	467	604	778	751	724	696	667	638	608
		08	542	709	886	862	837	810	781	751	719
		10	795	1,058	1,322	1,267	1,213	1,160	1,108	1,058	1,008
		12	961	1,296	1,612	1,557	1,503	1,449	1,395	1,342	1,289
	4 Row	02	195	257	313	298	282	267	251	234	218
		03	198	268	342	329	314	297	277	256	233
		04	358	484	600	580	556	531	503	473	442
		06	438	576	728	704	679	653	626	598	570
		08	508	678	840	820	798	774	748	720	690
		10	729	970	1,203	1,155	1,110	1,068	1,028	990	956
		12	870	1,173	1,490	1,438	1,386	1,333	1,280	1,226	1,173
CEA	3 Row	02	178	235	285	276	266	255	242	229	214
		03	216	288	366	350	334	318	303	288	273
		04	333	455	558	544	528	510	490	467	442
		06	412	555	689	664	639	615	590	566	542
		08	498	662	821	799	776	751	725	697	667
		10	641	845	1,046	1,015	982	946	908	869	827
		12	828	1,109	1,379	1,349	1,314	1,274	1,229	1,180	1,126
	4 Row	02	169	226	273	265	256	244	232	218	203
		03	207	275	345	331	317	302	287	272	256
		04	316	434	534	522	507	489	469	446	420
		06	385	519	650	627	603	580	557	533	509
		08	472	629	783	765	744	721	696	668	638
		10	629	833	1,028	1,002	973	939	902	861	816
		12	797	1,065	1,319	1,293	1,262	1,224	1,181	1,131	1,076
CKA	3 Row	02	189	250	315	304	292	279	265	250	234
		03	187	249	314	298	281	264	247	231	214
		04	318	405	502	494	483	468	450	429	405
		06	387	494	624	601	578	556	534	513	493
		08	452	603	746	724	699	671	641	609	574
		10	636	845	1,065	1,015	965	917	871	825	781
		12	751	1,004	1,244	1,210	1,172	1,131	1,087	1,040	989
	4 Row	02	176	235	292	278	263	248	233	217	200
		03	180	242	303	288	272	255	238	220	201
		04	305	386	481	472	461	446	428	408	385
		06	386	485	620	594	569	546	523	502	481
		08	439	605	736	710	682	652	621	587	551
		10	606	800	1,044	993	941	888	833	776	718
		12	735	980	1,202	1,173	1,137	1,094	1,044	987	923
CGB	3 Row	02	166	224	281	265	248	233	219	205	192
		03	195	262	327	310	293	276	258	241	223
		04	315	407	500	491	479	464	446	425	401
		06	365	484	603	580	557	533	510	486	462
		08	443	584	739	713	688	664	640	617	595
		10	622	833	1,042	1,004	967	930	894	859	824
		12	761	1,019	1,277	1,227	1,179	1,131	1,084	1,037	991
	4 Row	02	156	206	262	246	230	214	198	183	167
		03	186	250	313	298	283	266	250	232	214
		04	309	392	482	474	463	449	431	411	388
		06	361	477	600	577	553	528	504	478	453
		08	421	557	724	698	672	646	621	595	569
		10	602	809	1,011	968	928	890	854	820	788
		12	727	969	1,217	1,170	1,124	1,078	1,033	989	945

NOTE(S):

- a. Tabled values are standard cfm at sea level, 70°F with dry coil.
- b. Rating include factory-installed filter and/or grille, where applicable.
- c. Consult factory for 50 Hz applications.

Performance data (cont)



Thermal overload protection and ETL listing

All permanently lubricated split-capacitor motors furnished by Carrier contain internal thermal-overload protection. The overload automatically resets when the temperature

returns to a safe limit. Electronics Testing Laboratories, Inc. approves the motor and thermal overload combination at locked rotor conditions only. Refer to PSC and ECM Motor Data tables on page 62.

42CK Sound Power Data^{a,b,c}

UNIT SIZE	RATING	FAN SPEED	CFM	SOUND POWER LEVEL, L _w (dB reference one picowatt)							
				125 Hz	250 Hz	500 Hz	1K Hz	2K Hz	4K Hz	8K Hz	A-wgt (dBA)
02	Casing Radiated	H	270	60	54	51	48	43	38	37	53
		M	170	55	51	44	39	35	31	34	47
		L	135	53	49	39	34	29	29	34	44
	Ducted Discharge	H	270	52	52	53	47	46	40	37	54
		M	170	47	45	45	39	37	31	34	46
		L	135	46	43	40	33	31	29	34	42
03	Casing Radiated	H	290	63	54	52	49	44	40	38	54
		M	205	59	47	44	40	35	31	34	47
		L	155	55	42	39	34	29	29	34	43
	Ducted Discharge	H	290	59	54	54	51	47	41	38	56
		M	205	55	46	47	41	37	31	34	48
		L	155	51	42	42	35	31	29	34	43
04	Casing Radiated	H	540	70	58	55	52	48	43	39	58
		M	360	62	49	46	42	37	32	34	50
		L	250	54	42	38	32	30	30	34	42
	Ducted Discharge	H	540	64	57	59	55	50	44	39	60
		M	360	55	49	51	52	46	36	36	50
		L	250	48	42	43	35	30	28	33	43
06	Casing Radiated	H	680	65	59	57	52	48	45	42	59
		M	445	57	50	47	41	37	33	34	49
		L	330	52	43	40	34	29	29	34	43
	Ducted Discharge	H	680	63	58	59	56	50	46	42	60
		M	445	57	49	50	45	39	33	34	50
		L	330	53	43	42	37	30	29	34	44
08	Casing Radiated	H	765	65	61	58	54	51	48	45	60
		M	670	63	58	55	51	47	44	41	57
		L	410	55	47	44	38	34	31	34	46
	Ducted Discharge	H	765	63	61	61	58	53	50	46	63
		M	670	60	58	58	54	50	46	42	59
		L	410	52	47	47	41	36	32	35	48
10	Casing Radiated	H	1105	68	64	59	55	52	48	45	62
		M	730	64	55	51	45	41	37	35	54
		L	490	59	48	43	36	31	30	34	47
	Ducted Discharge	H	1105	65	62	64	60	55	50	46	65
		M	730	63	54	56	50	44	38	36	56
		L	490	58	46	47	40	33	30	34	48
12	Casing Radiated	H	1225	68	65	61	57	53	50	45	63
		M	1140	67	63	59	54	51	47	42	61
		L	745	59	54	50	44	40	35	34	52
	Ducted Discharge	H	1225	65	63	65	60	57	52	47	66
		M	1140	63	61	63	58	54	50	44	64
		L	745	56	54	55	48	43	37	35	54

NOTE(S):

- Unit Test Configuration: Bottom Return/ Front Supply, 3-Row 10 FPI coil, 0.0 in. ESP at High Speed, 115 Vac PSC Motor, 1/2 in. Dual Density Fiberglass Insulation.
- Casing radiated tested in accordance with AHRI 260-2001: 4.2.2.3 Casing Radiated with Free Inlet, Sound Rating of Ducted Air Moving and Conditioning Equipment.
- Sound power data is expressed in decibels, dB RE: 1 x 10-12 w (picowatts).

Performance data (cont)



42CA Sound Power Data^{a,b,c,d}

UNIT SIZE	RATING	FAN SPEED	CFM	SOUND POWER LEVEL, Lw (dB reference one picowatt)							
				125 Hz	250 Hz	500 Hz	1K Hz	2K Hz	4K Hz	8K Hz	A-wgt (dBA)
02	Casing Radiated	H	280	58	56	57	56	52	48	43	60
		M	200	52	50	51	49	44	38	37	53
		L	165	48	45	45	43	37	33	37	47
	Ducted Discharge	H	280	56	53	52	48	45	38	38	54
		M	200	51	47	46	41	37	32	36	47
		L	165	48	43	41	35	31	30	36	43
03	Casing Radiated	H	300	58	55	58	57	54	49	44	61
		M	210	52	47	49	47	42	37	37	51
		L	165	50	43	43	41	36	32	36	46
	Ducted Discharge	H	300	55	52	53	50	47	40	38	55
		M	210	50	46	47	42	38	32	35	48
		L	165	48	42	41	36	32	30	35	43
04	Casing Radiated	H	625	64	62	63	62	60	56	52	67
		M	415	58	53	54	52	47	42	39	56
		L	315	53	46	47	44	38	33	37	48
	Ducted Discharge	H	625	67	57	59	57	52	46	43	61
		M	415	62	48	49	45	40	33	36	51
		L	315	57	43	42	37	31	30	36	45
06	Casing Radiated	H	750	67	63	63	62	59	55	52	66
		M	460	59	51	52	49	45	40	38	54
		L	350	54	44	43	41	36	32	36	46
	Ducted Discharge	H	750	67	63	63	62	59	55	52	66
		M	460	59	51	52	49	45	40	38	54
		L	350	54	44	43	41	36	32	36	46
08	Casing Radiated	H	875	65	66	67	66	63	60	57	71
		M	720	62	61	62	61	57	54	50	65
		L	425	53	48	49	46	41	36	36	51
	Ducted Discharge	H	875	73	62	63	62	57	54	51	66
		M	720	72	59	59	57	52	48	45	62
		L	425	63	45	46	41	35	32	35	50
10	Casing Radiated	H	1220	67	67	67	67	63	60	56	71
		M	840	62	57	59	56	51	47	42	60
		L	645	58	51	52	48	42	37	36	53
	Ducted Discharge	H	1220	68	62	64	62	56	52	49	66
		M	840	65	54	55	51	44	39	37	56
		L	645	62	47	48	43	36	31	34	50
12	Casing Radiated	H	1525	68	68	69	69	65	62	59	73
		M	1330	65	65	66	65	61	57	54	69
		L	820	56	53	55	51	46	41	38	56
	Ducted Discharge	H	1525	68	64	66	64	59	56	52	68
		M	1330	65	61	63	60	55	51	48	65
		L	820	56	49	52	46	40	35	35	52

NOTE(S):

- a. Unit Test Configuration: Bottom Return/ Front Supply, 3-Row 10 FPI Coil, 0.0 in. ESP at High Speed, 115 Vac PSC Motor, 1/2 in. Dual Density Fiberglass Insulation.
- b. Casing Radiated Tested in Accordance with AHRI 260-2001: 4.2.2.3 Casing Radiated with Free Inlet, Sound Rating of Ducted Air Moving and Conditioning Equipment.
- c. Ducted Discharge Tested in Accordance with AHRI 260-2001: 4.2.2.1 Ducted Discharge, Sound Rating of Ducted Air Moving and Conditioning Equipment.
- d. Sound power data is expressed in decibels, dB RE: 1 x 10-12 w (picowatts).

Performance data (cont)



42CE Sound Power Data^{a,b,c,d}

UNIT SIZE	RATING	FAN SPEED	CFM	SOUND POWER LEVEL, Lw (dB reference one picowatt)							
				125 Hz	250 Hz	500 Hz	1K Hz	2K Hz	4K Hz	8K Hz	A-wgt (dBA)
02	Casing Radiated	H	250	59	57	57	51	46	40	38	57
		M	170	57	53	52	45	40	35	37	52
		L	135	55	49	48	40	34	31	36	48
	Ducted Discharge	H	250	60	53	53	48	45	39	37	54
		M	170	57	48	48	43	40	33	36	49
		L	135	54	44	43	37	34	30	36	45
03	Casing Radiated	H	285	57	58	58	50	47	43	39	58
		M	195	50	50	50	41	37	33	36	49
		L	140	46	45	44	35	30	31	36	44
	Ducted Discharge	H	285	56	51	52	49	46	40	37	54
		M	195	52	46	46	42	39	33	35	48
		L	140	49	41	41	37	32	30	35	43
04	Casing Radiated	H	510	65	64	63	58	53	48	44	64
		M	360	62	57	56	50	44	38	37	56
		L	265	59	50	49	43	36	32	37	50
	Ducted Discharge	H	510	68	59	61	58	54	47	43	63
		M	360	64	51	53	49	44	37	37	55
		L	265	60	45	47	42	36	31	36	49
06	Casing Radiated	H	660	65	64	62	57	52	48	44	63
		M	410	58	53	53	45	39	34	36	53
		L	310	53	47	45	37	31	31	36	46
	Ducted Discharge	H	660	66	59	60	57	52	48	44	62
		M	410	58	48	49	45	39	34	36	51
		L	310	53	42	42	37	30	30	36	44
08	Casing Radiated	H	770	66	68	65	59	56	53	50	66
		M	650	64	65	62	55	51	48	44	63
		L	390	57	51	50	42	36	32	35	50
	Ducted Discharge	H	770	68	63	63	62	57	54	50	66
		M	650	67	59	59	57	52	49	44	62
		L	390	61	46	46	42	36	32	35	49
10	Casing Radiated	H	995	67	70	66	61	56	51	46	67
		M	700	65	61	59	52	46	41	37	59
		L	540	62	53	53	44	38	32	35	53
	Ducted Discharge	H	995	70	63	64	62	56	52	47	66
		M	700	71	55	57	53	47	41	36	59
		L	540	68	49	51	45	39	33	34	54
12	Casing Radiated	H	1305	67	70	69	63	58	55	51	69
		M	1145	65	68	66	60	55	52	47	66
		L	700	56	55	55	47	41	36	36	55
	Ducted Discharge	H	1305	67	65	66	64	59	56	51	68
		M	1145	64	62	63	61	56	52	47	65
		L	700	55	50	53	48	42	36	35	53

NOTE(S):

- a. Unit Test Configuration: Bottom Return/ Front Supply, 3 Row 10 FPI Coil, 0.0 in. ESP at High Speed, 115 Vac PSC Motor, 1/2 in. Dual Density Fiberglass Insulation.
- b. Casing Radiated Tested in Accordance with AHRI 260-2001: 4.2.2.3 Casing Radiated with Free Inlet, Sound Rating of Ducted Air Moving and Conditioning Equipment.
- c. Ducted Discharge Tested in Accordance with AHRI 260-2001: 4.2.2.1 Ducted Discharge, Sound Rating of Ducted Air Moving and Conditioning Equipment.
- d. Sound power data is expressed in decibels, dB RE: 1 x 10-12 w (picowatts).

Performance data (cont)



42CG Sound Power Data^{a,b,c}

UNIT SIZE	RATING	FAN SPEED	CFM	SOUND POWER LEVEL, Lw (dB reference one picowatt)							
				125 Hz	250 Hz	500 Hz	1K Hz	2K Hz	4K Hz	8K Hz	A-wgt (dBA)
02	Casing Radiated	H	220	60	58	56	54	49	44	39	59
		M	160	54	51	49	45	39	33	31	50
		L	130	50	46	44	39	33	26	31	45
03	Casing Radiated	H	265	61	58	57	54	49	45	41	59
		M	185	54	50	49	44	40	33	32	50
		L	135	52	45	44	39	33	27	31	45
04	Casing Radiated	H	480	68	63	63	60	55	50	44	65
		M	310	64	53	54	48	42	35	32	55
		L	205	58	46	45	38	31	26	31	47
06	Casing Radiated	H	605	67	64	63	59	54	51	45	64
		M	385	59	54	53	46	41	34	32	53
		L	280	55	48	46	39	31	26	31	47
08	Casing Radiated	H	690	67	67	66	62	58	55	51	67
		M	600	66	64	62	58	54	50	46	64
		L	355	57	52	51	45	39	33	32	51
10	Casing Radiated	H	925	69	68	68	66	60	55	50	70
		M	620	64	58	60	55	48	42	34	60
		L	415	59	51	52	44	37	29	31	52
12	Casing Radiated	H	1180	70	70	69	66	61	58	53	71
		M	1060	70	68	67	63	58	54	49	68
		L	665	64	57	57	50	44	38	32	57

NOTE(S):

- a. Unit Test Configuration: Bottom Return/ Front Supply, 3-Row 10 FPI Coil, 0.0 in. ESP at High Speed, 115 Vac PSC Motor, 1/2 in. Dual Density Fiberglass Insulation.
- b. Casing Radiated Tested in Accordance with AHRI 260-2001: 4.2.2.3 Casing Radiated with Free Inlet, Sound Rating of Ducted Air Moving and Conditioning Equipment.
- c. Sound power data is expressed in decibels, dB RE: 1 x 10-12 w (picowatts).

Performance data (cont)



Electric Heater Data^a

HEATER VOLTAGE	HEATER kW									
	0.5	1.0	1.5	2.0	3.0	4.0	5.0	6.0	8.0	10.0
	FLA									
115	4.2	8.3	12.5	16.7	25.0	—	—	—	—	—
208	2.4	4.8	7.2	9.6	14.4	19.2	24.0	28.8	38.5	—
230	2.1	4.2	6.3	8.3	12.5	16.7	20.8	25.0	33.3	41.7
277	1.8	3.6	5.4	7.2	10.8	14.4	18.1	21.7	28.9	36.1

NOTE(S):

a. All heaters are single-stage and single-phase.

LEGEND

FLA — Full Load Amps

42CA,CE,CG and CK PSC Motor Data^{a,b,c}

V-Ph-Hz	FAN SPEED	UNIT SIZE													
		02		03		04		06		08		10			
		Nominal Hp				1/12				1/6					
		Watts	Amps	Watts	Amps	Watts	Amps	Watts	Amps	Watts	Amps	Watts	Amps		
115-1-60 1-Phase	High	78	0.53	89	0.83	144	1.40	151	1.40	223	2.50	286	2.80	399	5.00
208-1-60 1-Phase	High	98	0.48	99	0.48	120	0.69	132	0.69	189	1.30	245	1.38	325	2.60
230-1-60 1-Phase	High	114	0.48	112	0.48	137	0.69	150	0.69	206	1.30	281	1.38	356	2.60
277-1-60 1-Phase	High	104	0.35	112	0.35	143	0.69	155	0.69	245	0.91	288	1.38	426	1.82

NOTE(S):

a. Motor nameplate amps may vary.

b. Fan coil units comply with ETL, Canadian Standards Association (CSA), and ETL of Canada standards.

c. Total motor amps and watts shown for units with 2 motors.



42C ECM Motor Data

VOLTAGE	FAN SPEED	UNIT SIZE						
		02	03	04	06	08	10	12
		Nominal Hp						
		1/7			1/6		(2) 1/6	
120-v	Rated Motor FLA	2.3			2.4		(2) 2.4	(2) 2.4
	Max Program Current	1.3	1.5	2.1	1.9	2.4	2.0, 2.0	2.4, 2.4
208-240-v	Rated Motor FLA	1.4			1.6		1.6, 1.6	
	Max Program Current	0.8	0.9	1.4	1.3	1.6	1.3, 1.3	1.6, 1.6
2770-v	Rated Motor FLA	1.2			1.3		1.3, 1.3	
	Max Program Current	0.7	0.8	1.1	1.0	1.3	1.1, 1.1	1.3, 1.3

Selection procedure



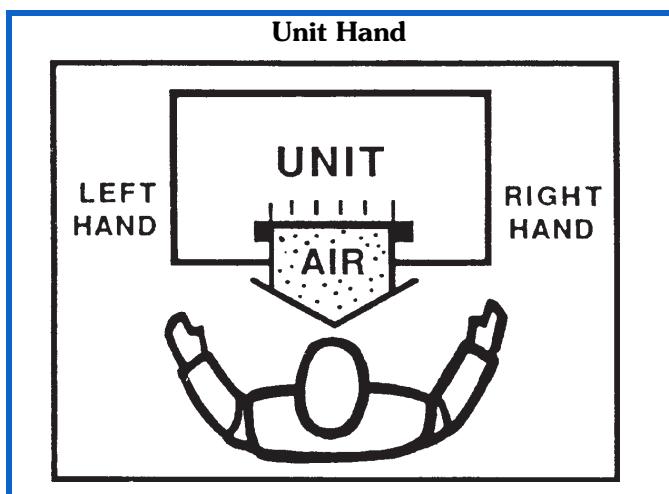
Refer to the Carrier Electronic Selection Program for information to determine unit sizing for your needs.

Application data

Basic definitions

Unit hand

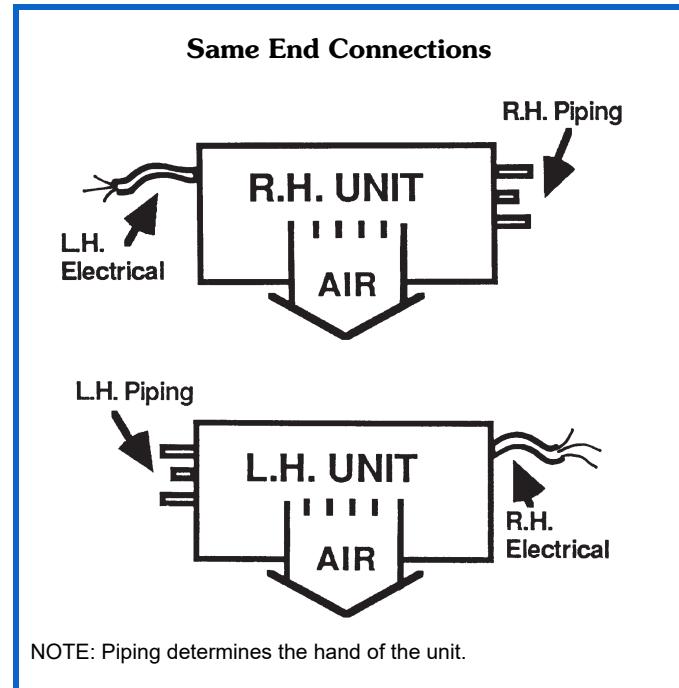
When facing the supply air outlet from the front of the unit (air blowing in your face), your right hand will be the right hand side of the unit and your left hand the left hand side of the unit. Chilled water piping determines the hand of the unit.



Same end connection (2-pipe or 4-pipe)

All piping connections (water and condensate drain) are on the same end (side) of the unit. Controls and electrical connection will be on the end (side) opposite the piping connection. The controls and electrical connections can be located on the same end as the cooling coil connections via ETO request.

Standard 2-pipe units will be the same end connection.

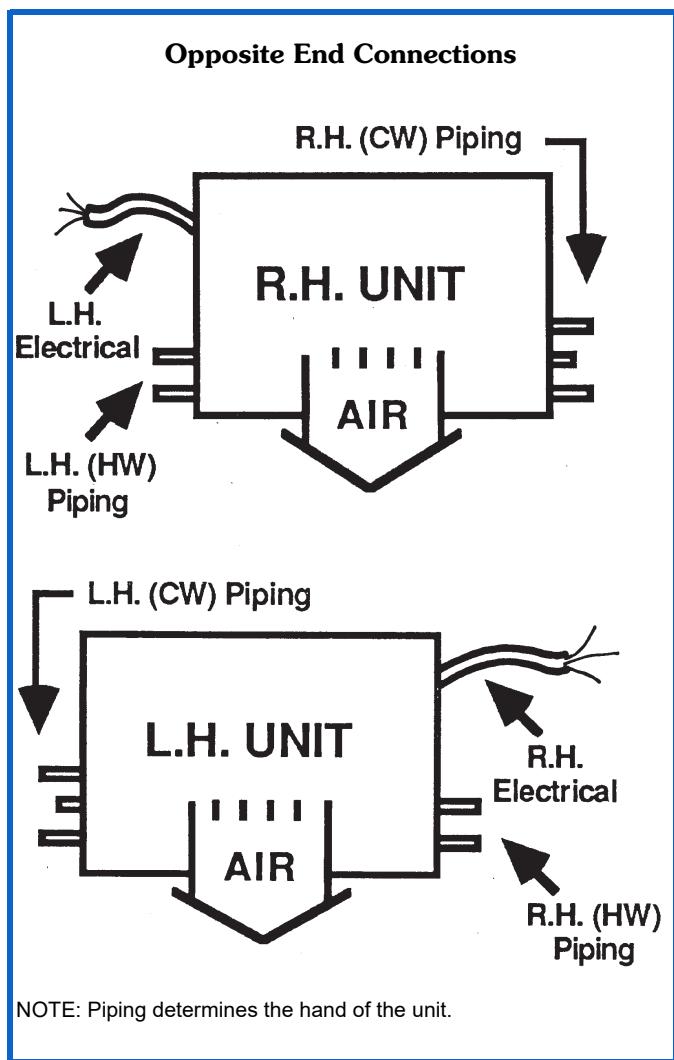


Opposite end connection (4-pipe option)

Chilled water piping determines the hand of the unit. Hot water (HW) piping connections and electrical will be on the end (side) opposite the chilled water (CW) and drain connections.

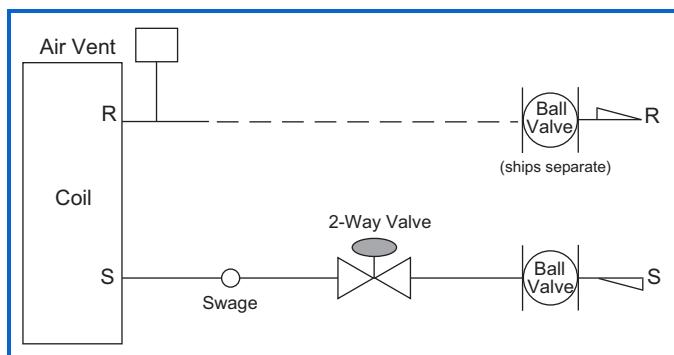
4-Pipe coil arrangement

For 4-pipe coil combination chilled water/hot water coils, the hot water coil is in the reheat position. The opposite hot water coil position is available through ETO. The 42 Series fan coil units are not recommended for dehumidification applications.



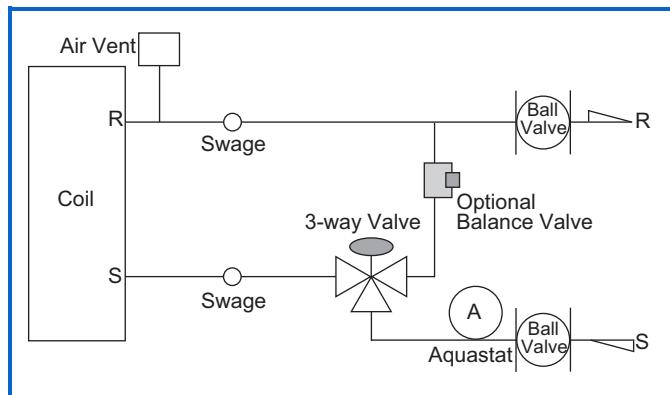
2-way motorized control valve

In a 2-way motorized control valve package, the motor drives the valve open, and a spring returns the valve to a normally closed position. No water flows with the unit off. The standard supply connection from the coil will accept a swaged copper fitting for field brazing. As an option, this connection may be factory furnished with a union. When a swage is necessary, it becomes part of the valve package. The isolation, or ball, valve in the return piping is shipped loose for field installation.



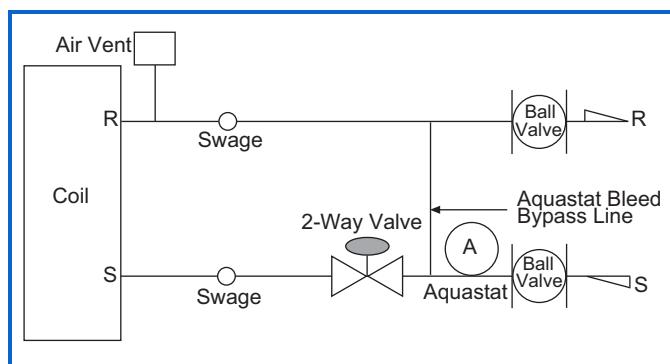
3-way motorized control valve

In a 3-way motorized control valve package, a diverting valve controls water flow to the coil. When the unit is off, water bypasses the coil and flows directly to the system return. A balancing valve may be specified in the bypass line to permit equal flow balancing.



2-way motorized control valve with changeover

In a 2-way motorized changeover control valve package, the motor drives the valve open, and a spring returns the valve to a normally closed position. No water flows through the coil with the unit off. The aquastat bypass line allows a small amount of water flow from the supply to the return piping when the control valve is closed. The strap-on aquastat senses whether the flowing water is cold or hot and switches a contact closed to provide automatic summer/winter changeover (ACO) for the system.



NOTES:

1. Please note that project specifications for system pressure, pressure drop limitations, and flow rate should be checked prior to selecting specific components or the valve package size.
2. The supply and return piping connections of the factory-provided valve package are either swaged for field brazing (standard) or union fitted (optional) for field connection to the coil.
3. Factory-provided valve packages are assembled, brazed, wired electrically, and dry-fit to the coil connections before shipping. Field brazing to the coil completes the installation. Some applications dictate shipping isolation valves loose.

Application data (cont)



Piping Components

SYMBOL/SKETCH	DESCRIPTION	C _v FACTOR	RATING ^a		STEAM USE	
		1/2	3/4	PSI	F	
	MANUAL AIR VENT: Threaded brass needle valve with screwdriver slot for adjustment. Application — Body brazed into high point of heating and cooling coils for bleeding air from coil. Standard item on all hydronic coils. Should not be used in lieu of main system air vents.	N/A	N/A	400	100	No
	AUTOMATIC AIR VENT: Nickel plated brass valve, fiber-disc type, with positive shut-off ballcheck and quick vent feature via knurled vent screw. Application — Optional replacement for manual air vent. Automatically passes minute quantities of air through the fiber discs which expand upon contact with water, completely sealing the valve. As air accumulates, the fiber discs dry and shrink, repeating the cycle. Not recommended for removing large quantities of air encountered during initial start-up or subsequent draining and refilling. Should not be used in lieu of main system air vents. NOTE: Not recommended for use in systems with glycol.	N/A	N/A	125	240	No
	SWAGE: Copper tube end expanded to accept a copper tube of the same size for factory or field brazing. Application — Used where possible for all tubing joints for best joint integrity.	N/A	N/A	300	200	Yes
	UNION: Combination wrought copper/cast brass union assembly, solder by solder. Application — Used for quick connect (and disconnect) of valve package components to minimize field labor and facilitate servicing of unit.	N/A	N/A	300	200	Yes
	INSERTION TEST PORT: Brass body valve for acceptance of test probe (up to 1/8 in. diameter). Application — Installed on one (or both) sides of the coil to allow for temperature or pressure sensing. Used for close tolerance water balancing and service analysis.	N/A	N/A	250	250	No
	PRESSURE TEST PORT: Brass body 1/4 service access fitting with removable depressor type core. Application — Installed on both sides of the coil to allow for pressure sensing. Attach pressure gages to facilitate close tolerance water balancing.	N/A	N/A	400	210	No

NOTE(S):

- Check all system component pressure ratings (coils, valves, pumps, etc.) with manufacturer and any applicable local or national piping codes prior to specifying system pressure rating.

LEGEND

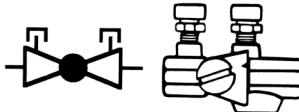
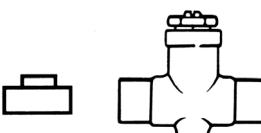
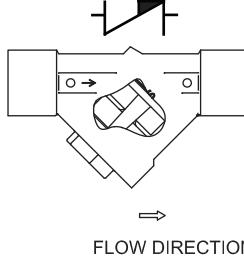
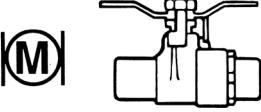
C_v — Coefficient of Velocity

ETO — Engineering to Order

Application data (cont)



Piping Components (cont)

SYMBOL/SKETCH	DESCRIPTION	C _v FACTOR		RATING ^a		STEAM USE
		1/2	3/4	PSI	F	
	CIRCUIT SETTER: Variable water flow balancing valve with manual adjustment knob, pointer, percent-open scale, memory stop and integral pressure read-out ports. Application — Used for close tolerance water flow balancing. Positive shut-off ball valve feature allows usage as combination balancing and shut-off valve.	With Pressure Ports Only				
		2.12	3.9	300	250	NO
		With Pressure and Temperature Ports				
	BALANCE VALVE: Variable water flow manual balancing valve with screwdriver slot adjustment screw. Application — May be used in 3-way valve bypass line to permit equal flow balancing.	1.60	3.40	200	250	NO
		3	8.9	150	200	NO
	FIXED FLOW VALVE: Flexible orifice type (non-adjustable). Application — Used for water flow balancing. Valve automatically adjusts the flow to within 10% of set point. Operating Range: 2-80 PSID	Valve orifice size determines C _v factor. The orifice of these fixed flow valves changes as flow is regulated. As the water pressure increases, the orifice size decreases, thereby automatically limiting the flow rate to the specified gpm ($\pm 10\%$).		600	220	NO
	STRAINER: Y-type body (optional with blowdown) with 20 mesh stainless steel screen. Application — Used for removal of small particles from system water during normal system operation. Should not be used in lieu of main system strainers. Strainer screen may have to be removed during initial high pressure system flushing during start-up. Screen should be removed and cleaned per normal maintenance schedule (provisions for strainer blowdown not provided).	5.5	9.0	600	325	N/A
	BALL VALVE WITH MEMORY STOP: Manual balance and shut-off valve. Application — Used for unit isolation and water flow balancing. The adjustable memory stop feature allows return to the balance point after shut-off. Check specifications for service fittings required when used for water balancing.	Full Port	Full Port	600	325	N/A

NOTE(S):

- Check all system component pressure ratings (coils, valves, pumps, etc.) with manufacturer and any applicable local or national piping codes prior to specifying system pressure rating.

LEGEND

C_v — Coefficient of Velocity
ETO — Engineering to Order

Application data (cont)



Piping Components (cont)

SYMBOL/SKETCH	DESCRIPTION	C _v FACTOR		RATING ^a		STEAM USE
		1/2	3/4	PSI	F	
	RETURN COMBO VALVE: A combination automatic flow control valve, ball valve, and union end. Valve comes standard with two pressure and temperature test plugs. Application — Instead of adding individual components, utilize the combination valve to save cost. Fixed flow used for water flow balancing.			600	220	N/A
	2-WAY MOTORIZED VALVE (25 PSI close off differential pressure): Electric 2-position flow control valve (open/closed). Normally closed body with manual override lever. Installed in supply line to unit. Application — All standard control and valve packages are based upon normally closed valves (valve electrically powered open and closed by spring return when electric power removed). Manual override lever allows valve to be placed in the open position for secondary (unit) flushing, constant water flow prior to start-up, etc. Manual override is automatically disengaged when valve is electrically activated. Consult factory for normally open valve applications.	3.5	3.5	300	200	YES 15 PSI MAX.
	2-WAY MOTORIZED VALVE (150 PSI close off differential pressure): Electric 2-position flow control valve (open/closed). Normally closed body with manual override lever. Installed in supply line to unit. Application — All standard control and valve packages are based upon normally closed valves (valve electrically powered open and closed by spring return when electric power removed). Manual override knob allows valve to be placed in the open position for secondary (unit) flushing, constant water flow prior to start-up, etc. Manual override is automatically disengaged when valve is electrically activated. Consult factory for normally open valve applications.	4.9	10.3	300	220	NO
	3-WAY MOTORIZED VALVE (25 PSI close off differential pressure): Electric 2-position flow control valve (closed to coil/open to bypass or open to coil/closed to bypass). Normally closed with manual override lever. Installed in supply line to unit. Application — Same comments as 2-way motorized valve except with manual override lever engaged the valve is open to both ports and water flow will take the path of least resistance through the valve package (not necessarily 100% through the coil).	4.0	4.0	300	200	N/A

NOTE(S):

a. Check all system component pressure ratings (coils, valves, pumps, etc.) with manufacturer and any applicable local or national piping codes prior to specifying system pressure rating.

LEGEND

C_v — Coefficient of Velocity
ETO — Engineering to Order

Application data (cont)



Piping Components (cont)

SYMBOL/SKETCH	DESCRIPTION	C _v FACTOR		RATING ^a		STEAM USE
		1/2	3/4	PSI	F	
	3-WAY MOTORIZED VALVE (150 PSI close off differential pressure): Electric 2-position flow control valve (closed to coil/open to bypass for normally closed operation.) Normally closed with manual override lever. Installed in supply line to unit. Application — Same comments as 2-way motorized valve except with manual override lever engaged the valve is open to both ports and water flow will take the path of least resistance through the valve package (not necessarily 100% through the coil). Consult factory for normally open valves.	4.9	3.3	300	220	N/A
	MODULATING VALVE (Optional) (Non-Spring Return, Floating Point Actuator): Modulating valves are designed to control the flow in the circuit by making incremental adjustments to the flow path within the valve. Application — To control fluid flow in fan coil units.	4.0		300	200	N/A
	MODULATING VALVE (Optional) (Non-Spring Return, Proportional Type Actuator): Modulating valves are designed to control the flow in the circuit by making incremental adjustments to the flow path within the valve. Application — To control fluid flow in fan coil units.	4.0		300	200	N/A
	MODULATING VALVE (Requires ETO) (Spring Return): Modulating valves are designed to control the flow in the circuit by making incremental adjustments to the flow path within the valve. Application — Same comments as non-spring return except when powered, the actuator moves to the desired position, at the same time tensing the spring return system. When power is removed for more than two minutes the spring returns the actuator to the normal position.	4.0		300	200	N/A

NOTE(S):

- Check all system component pressure ratings (coils, valves, pumps, etc.) with manufacturer and any applicable local or national piping codes prior to specifying system pressure rating.

LEGEND

C_v — Coefficient of Velocity
ETO — Engineering to Order

Application data (cont)



Piping Components (cont)

SYMBOL/SKETCH	DESCRIPTION	C _v FACTOR		RATING ^a		STEAM USE
		1/2	3/4	PSI	F	
	AQUASTAT: Water temperature sensing electrical switch. (Line Voltage Controls) Application — Clips directly on nominal size 1/2 in. or 3/4 in. copper tubing for water temperature sensing. Must be correctly located for proper control operation.					N/A
	CHANGEOVER SENSOR: Water temperature sensor thermistor. Application — Sensor shall clamp on the outside diameter of the pipe. Sensor plate shall bend to allow its radius to be adjusted to fit the pipe. Sensor shall be secured to the pipe with mounting clamp. Insulate the mounting location of sensor on the pipe.					N/A

NOTE(S):

- Check all system component pressure ratings (coils, valves, pumps, etc.) with manufacturer and any applicable local or national piping codes prior to specifying system pressure rating.

LEGEND

C_v — Coefficient of Velocity

ETO — Engineering to Order

Application data (cont)



Valve packages

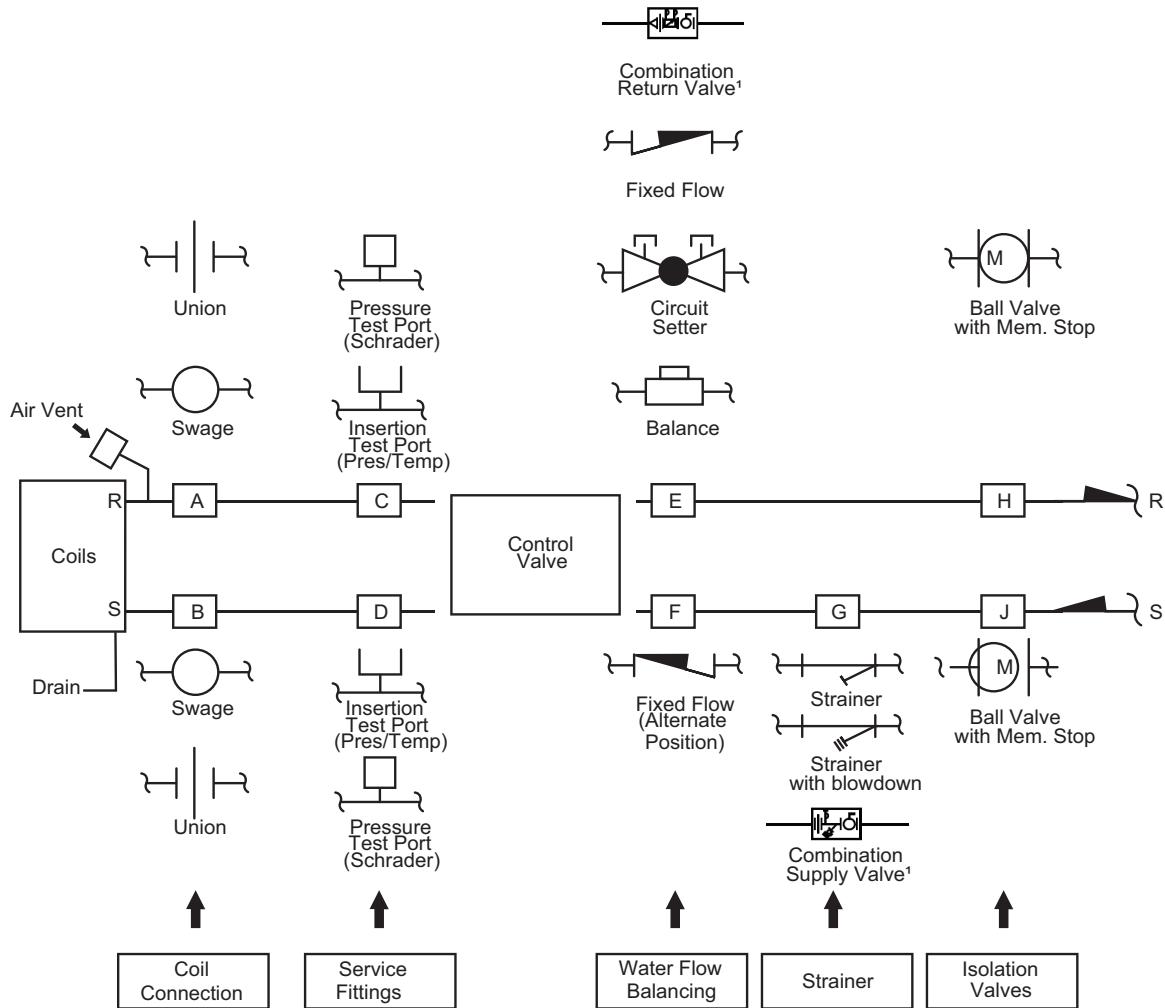
The following are typical valve package applications. Check your job specifications for system static pressure, close-off differential pressure drop limitations, and flow rates prior to selecting valve package components or valve package size for your application.

Consult factory before ordering any special valve package components that are not covered in this book.

Valve packages are shipped with the units or in unit cartons. Valve packages include belled ends for field soldering to coil connections. Valve packages are 'dry fit' to the matching coil prior to packaging.

All factory-furnished cooling valve packages are arranged to position as much of the package as possible over an auxiliary drain pan or drip lip. This helps minimize field piping insulation requirements.

Symbols and Placement of Valves



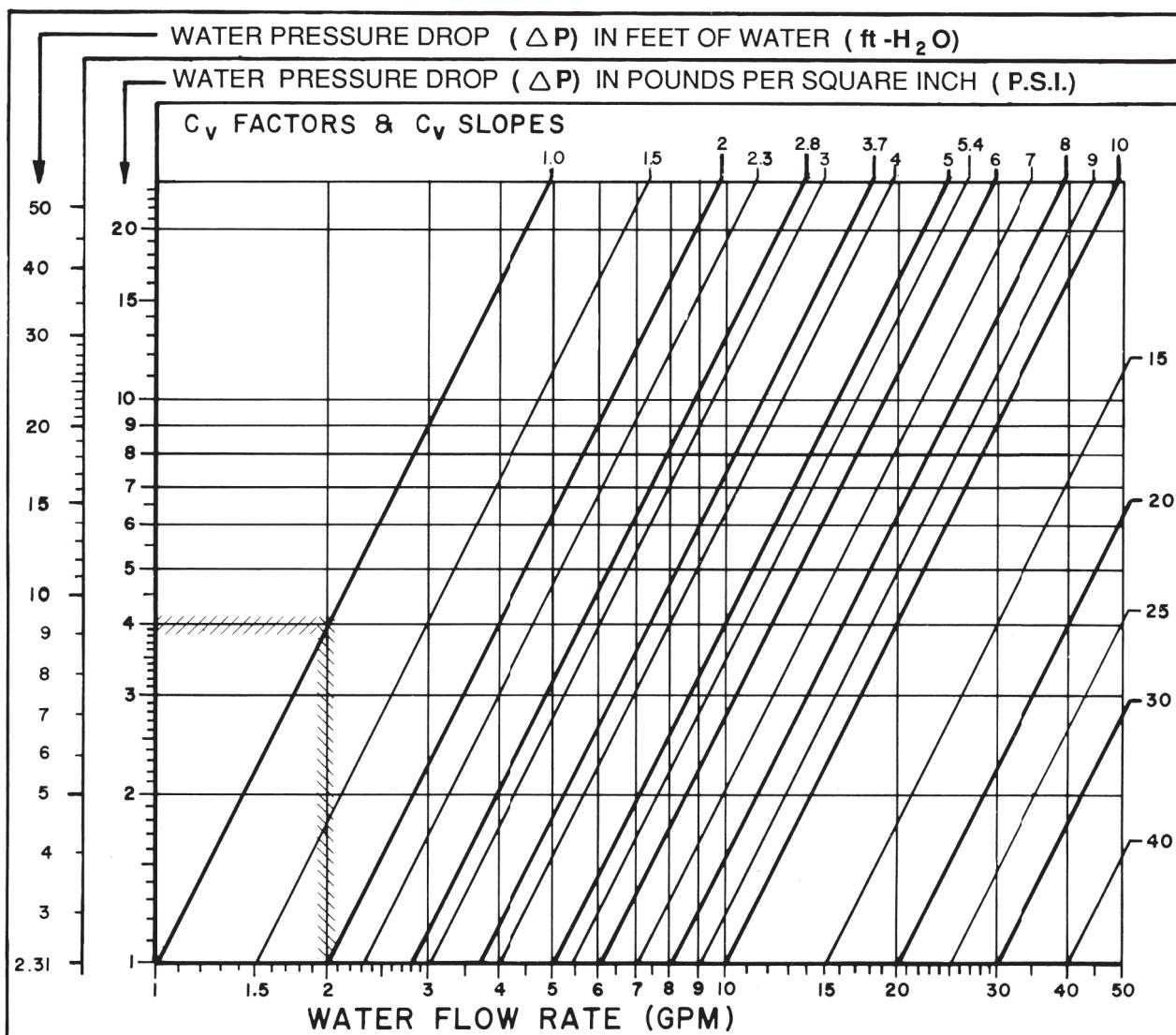
NOTE(S):

1. Available for Horizontal Ceiling Valve Packages. For application in other units, contact factory. Combination valves will also take the place of the ball valve because they include an isolation shut off valve.
2. Coil Connections (Positions A & B) — When isolation valve only is added to supply or return line, the isolation valve will be factory brazed to the coil stub-out. Addition of any other component or connection to the supply or return line will change the respective coil connection(s).
3. Service Fittings (Positions C & D) — Optional fittings for attaching pressure/temperature sensing devices to obtain pressure drop or temperature differential across coil. Used with ball valve or balance valve where extremely accurate water flow balancing is required.
4. Water Flow Balancing (Positions E, F, & H) — Only one device per total valve package to be used for balancing water flow through the coil
5. Strainer (Position G) — Should not be used in lieu of main piping strainers.
6. Isolation Valves (Positions H & J) — Normally requires one each on supply and return line except when combination valves are used. When position H is used for balancing (ball valve or ball valve with memory stop), check specifications for service valve requirements.

Application data (cont)



C_v Factor vs Water Pressure Drop



C_v FACTOR:

The flow rate in gallons per minute (gpm) through a piping component when the pressure drop (ΔP) in pounds per square inch (psi) across the component is 1.0 (psi).

$$\text{Pressure drop (ft-H}_2\text{O)} = 2.31 \times \text{psi (pressure drop)}$$

GRAPH EXAMPLE:

$$\Delta P \text{ for } 2.0 \text{ gpm through a component with a } C_v \text{ of } 1.0 \text{ is } 4.0 \text{ psi} \times 2.31 = 9.24 \text{ ft-H}_2\text{O}$$

FORMULA EXAMPLE:

$$\Delta P \text{ (ft-H}_2\text{O)} = \frac{(\text{gpm})^2}{(C_v)^2} \times 2.31 = \frac{(2.0)^2}{(1.0)^2} \times 2.31 = 9.24 \text{ ft-H}_2\text{O}$$

TOTAL PRESSURE DROP is the **Sum** of the pressure drop of all piping and components in the water flow path.

Controls



Use the Control Selection Guide table to make sure that all necessary components are provided for and that the components are compatible with the required control system.

NOTE: When thermostatic fan control is selected or when unit outside-air dampers are used, unit-mounted thermostats are not recommended as their use will result in poor room temperature sensing.

Control Selection Guide

SYSTEM		DESCRIPTION	THERMOSTAT ^a	CHANGEOVER ON SUPPLY PIPE	VALVE	FAN SWITCH	NOTES
2-pipe Heating-cooling ^b	Fan Control (2-pipe)	Fan manually cycled	None	None	None	3-Speed switch	Not recommended for high humidity application
	Two-Position Electric Valves (2-pipe)	Thermostat cycles valve open or closed.	Wall or unit mounted includes heat-cool switch.	None	Motorized (N.C.) 3-way or 2-way, no bypass required.	Thermostat has integral 3-speed switch	Valve packages with belled end(s) for field soldering to coil.
Electric Heat	Two-Position Electric Valve with Auxiliary Electric Heat (2-pipe)	Thermostat cycles valve open or closed. Thermostat activates electric heater. Heater cannot turn on if hot water is in coil.	Wall or unit mounted. Sequenced heating and cooling.	Yes.	Motorized 3-way or 2-way	Thermostat has integral 3-speed switch	Valve packages with belled end(s) for field soldering to coil.
Electric Heat	Two-Position Electric Valve with Total Electric Heat (2-pipe)	Thermostat cycles valve open or closed. Thermostat activates electric heater.	Wall or unit mounted. Sequenced heating and cooling.	None	Motorized (N.C.) 3-way or 2-way, no bypass required	Thermostat has integral 3-speed switch	Valve packages with belled end(s) for field soldering to coil.
4-pipe	Two-Position Electric Valves (4-pipe)	Thermostat cycles cooling valve open or closed. Thermostat cycles heating valve open or closed.	Wall or unit mounted. Sequenced heating and cooling.	None	Motorized (N.C.) 3-way or 2-way (requires 2 valves)	Thermostat has integral 3-speed switch	Valve packages with belled end(s) for field soldering to coil.

NOTE(S):

- Unit-mounted thermostats are not recommended with either fan-cycle control or applications with outside-air dampers.
- If system is HEATING-ONLY or COOLING-ONLY, no changeover or bypass is required.

LEGEND

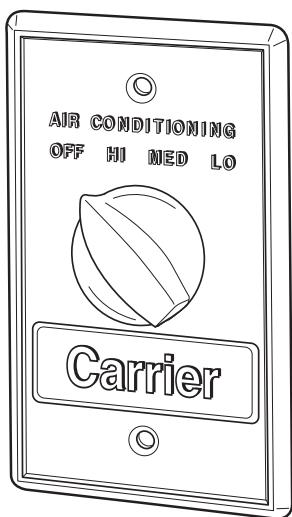
N.C. — Normally Closed

Controls (cont)



Remote-Mounted Control Options

3-Speed Switch



Wall Mounted 3-Speed Switch

This switch has 4 positions: OFF, HIGH, MEDIUM, and LOW. Switch has auxiliary contact that is energized when switch is in HIGH, MEDIUM or LOW position.

ETO requests common with the 3-speed switch include:

- Switch without OFF position.

Remote-Mounted 24-v Thermostat



24-v Debonair Thermostat

Features large Thermoglow™¹ display, Neverlost^{®1} memory, Smart Fan™ dynamic fan speed control, 4-pipe, 2-pipe automatic changeover applications with adjustable dead band. Programmable and non-programmable models available.

24-v Proportional Thermostat

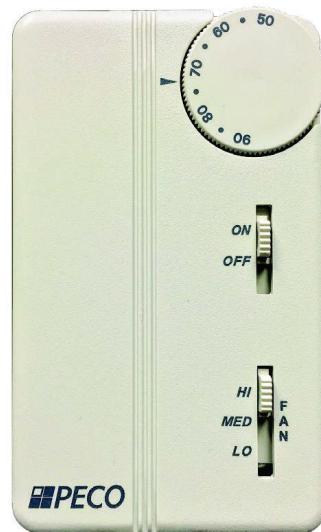
Features large LCD screen with backlight, 3-speed and analog fan speed control, 4-pipe, 2-pipe automatic

changeover applications. Programmable and BACnet compatible models available.



Remote-Mounted Line-Voltage Thermostat

Line Voltage T155 Thermostat



Line voltage T155 thermostat

Features 50°F to 90°F temperature range, manual 3-speed fan control, mount is a standard 2 x 4 in. box, 4-pipe, 2-pipe and auto changeover applications. Available in vertical or horizontal styles. Horizontal orientation (not shown) is available via ETO request.

Unit-Mounted Controls

Line voltage controls by others

Unit supplied with wiring for valve cycle operation, including changeover sensors (as required) for use with field-installed line voltage thermostats.

24-v controls by others

Unit supplied with factory-installed 24-v transformer, 3-speed relay board, and aquastat (as required) for use with field-installed low voltage controls.

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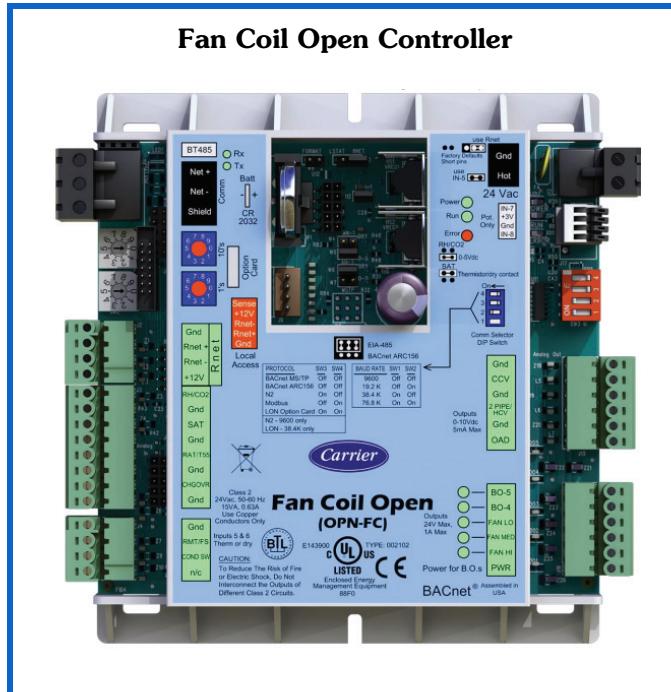
Controls (cont)



Integrated Direct Digital Controls (DDC)

Fan coil open controller

The factory-mounted controller continuously monitors and regulates the fan coil operation with reliability and precision. This advanced controller features a sophisticated, factory engineered control program that helps provide optimum performance and energy efficiency. The fan coil open controller also features plug-and-play connectively to Carrier's i-Vu® Open control system. For added flexibility, the fan coil controller is capable of stand alone operation, or can be integrated with any Building Automation System (BAS) utilizing BACnet® protocol. Application features include built-in advance control routines for zone level humidity control, zone level demand ventilation (ASHRAE 62) and automatic fan speed control based on demand. System benefits include demand limiting for maximum energy saving, and compatibility with i-Vu control system tenant billing for tracking tenants after hours energy usage. Hardware features include onboard hardware clock, remote occupancy input, and support for space temperature thermistor sensor for stand alone operation.



Automatic changeover (summer-winter switch)

The automatic-changeover thermostat sensor is a 10,000 ohm thermistor (33ZCSENCHG) in a moisture-proof and dust-proof enclosure. Cable and temperature sensing element are hermetically sealed in a polypropylene enclosure with epoxy resin. Device clamps on coil supply pipe with end snap-on clip.

The set point temperatures are factory set. When water temperature rises above 80°F (approximately), the sensor switches to the winter cycle. When water temperature drops below approximately 70°F, the sensor switches to the summer cycle. Switch reset is automatic.

ECM motor control methods

There are three main control methods to control the speed of electronically commutated motor (ECM) for desirable airflow for a given application.

3-discrete speed input, potentiometer field speed adjustment

This method uses the ECM with potentiometer field adjustment. The relay board will have three main circuits for HI, MEDIUM, and LOW speed. Each of these speeds can be adjusted by potentiometer to any value in the motor's operating range. This will allow the customization of air flow on each speed of the fan coil unit to better suit any requirements.

4-discrete speed input, potentiometer field speed adjustment, solid state (only with 24-v controls by other option)

This is the same as 3-discrete speed input but with additional fourth speed. All 4 speeds can be adjusted by potentiometer to any value in the motor's operating range.

ECM variable speed (only with 24-v controls by other option)

This method requires 0 to 10-v signal for fan speed. It has no predetermined fan speeds and will ramp the motor fan speed according to the controller used on the fan coil unit. All ECM motor packages use a constant torque operating mode. An ETO request is required for pricing and availability of constant airflow operation.

Guide specifications



Fan Coil Unit — Horizontal Models

HVAC Guide Specifications — 42C

Size Range: **200 to 1200 Nominal cfm**

Carrier Model Numbers:

42CA (Furred-in)

42CE (Furred-in with Plenum)

42CG (Cabinet)

42CK (Furred-in, Telescoping Panel)

Part 1 — General

1.01 SYSTEM DESCRIPTION

Horizontal, 2-pipe or 4-pipe (or electric heat), room fan coil unit with furred-in, above ceiling cabinet for ducting, or with cabinet for exposed ceiling installations.

1.02 QUALITY ASSURANCE

Units shall be tested and certified in accordance with AHRI (Air-Conditioning, Heating, and Refrigeration Institute) standard 440, latest edition. All base or standard units shall have C-ETL-US listing signifying the units have been examined by ETL and are in compliance with both the US and Canadian applicable standards. Each coil shall be factory tested for leakage at either 350, 400 or 450 psig air pressure with coil submerged in water; this will be selectable in Builder. Insulation and adhesive shall meet NFPA (National Fire Protection Association) 90A requirements for flame spread and smoke generation. All Adhesive shall be certified according to the GREENGUARD Indoor Air Quality (IAQ) Certification for Low Emitting Products. Drain pans shall comply with ASHRAE 62.1.

1.03 DELIVERY, STORAGE AND HANDLING

Each unit shall be individually packaged from point of manufacture. Unit shall be handled and stored in accordance with the manufacturer's instructions.

Part 2 — Products

2.01 EQUIPMENT

A. General:

Factory-assembled, horizontal, blow-thru type fan coil for furred-in, exposed ceiling or ducted installations. Unit shall be complete with water coil(s), fan(s), motor(s), drain pan, and all required wiring, piping, controls and special features. Standard insulation shall be dual density fiberglass insulation.

B. Furred-in Base Unit (42CA):

1. Casing is heavy gauge galvanized steel, lined on the inside with 1/2 in. thick fiberglass insulation, with a 1 in. long collar for supply duct connection. NO filter installed in base unit.
2. The drain pan shall be constructed of galvanized steel extending the entire length and width of the coil(s) and shall be pitched for drainage. The inside surface of the drain pan

shall be coated with a 2-part closed cell foam insulation.

C. Furred-in Units with Plenum (42CE):

Base unit with factory-installed plenum section and 1 in. fiberglass throwaway filter as shown on equipment drawings. The plenum shall be bottom or rear air return, shall enclose the fan/motor assemblies, and shall be lined with 1/2 in. fiberglass insulation. Unit shall have a removable panel to provide access to fan/motor assemblies and unit identification label.

D. Cabinet Units (42CG):

Base unit with stamped discharge grille, removable bottom access panel with stamped return-air grille, filter rack and 1 in. fiberglass throwaway filter. The panel shall be fastened with tamper proof quarter-turn fasteners. The cabinet shall be coated with an Arctic White powder-coat finish.

E. Ceiling, Furred-in with 2 in. Telescoping Ceiling Panel (42CK):

Base unit with full galvanized upper casing, adjustable height, hinged return-air ceiling panel, and 1-in. fiberglass throwaway filter. Panel shall be coated with an Arctic White powder-coat.

F. Fans:

Direct-driven, double-width fan wheels with forward-curved blades shall be statically and dynamically balanced. Scrolls shall be constructed of galvanized steel. Fan wheels shall be constructed of galvanized steel.

G. Coils:

Standard base unit shall be equipped with a 3-row or 4-row coil for installation in a 2-pipe system. Additional coil depth and circuiting shall be provided for installation in a 4-pipe system as described in the Special Features section. All coils shall have 1/2 in. copper tubes and aluminum fins (10 fins per inch) spacing. Coil fins are mechanical bonded to tube joints. The copper tubes comply with the ASTM (American Society for Testing and Materials) B-75. The fin thickness is 0.0045 in. and tube thickness is 0.016 in. All coils shall be leak tested with air at either 350, 400, or 450 psig under water.

H. Controls and Safeties:

The fan motor(s) shall be equipped with integral automatic temperature reset for motor protection.

I. Operating Characteristics:

1. A one-coil unit installed in a 2-pipe system shall be capable of providing heating or cooling as determined by the operating mode of the central water supply system.
2. A double-circuit coil unit installed in a 4-pipe system shall be capable of providing sequenced heating and cooling.

J. Electrical Requirements:

All internal wiring shall be in flexible conduit.

Guide specifications (cont)

K. Motor(s):

Motor selection options vary for permanent split capacitor (PSC), ECM with 3 or 4 discrete speeds, and a ECM with variable air flow (0 to 10 vdc).

L. Special Features:

Certain standard features are not applicable when the features designated by * are specified. See your local Carrier Sales Offices for amending specifications.

- * 1. Unit coil(s) shall be equipped with automatic air vents.
- * 2. Fan motor shall be permanent split-capacitor type, 208, 220, 230, or 277-v, single-phase, 50 or 60 Hz as specified on the equipment schedule.
- * 3. Fan motor shall be constant torque electrically commutated type, 115, 208, 220, 230, or 277-v, single phase, 50 or 60 Hz as specified on the equipment schedule. The operating sequence shall be one of the following, as specified:
 - a. 3 Discrete Speed Input, Potentiometer Field Speed Adjustment. For use with a 3-speed thermostat.
 - b. 4 Discrete Speed Input, Potentiometer Field Speed Adjustment. For use with a 3-speed thermostat.
 - c. Variable Airflow for 0 to 10 vdc / 4 to 20 mA Input. Requires a 0 to 10 vdc input signal and is not compatible with a 3-speed thermostat.
- * 4. Unit shall be equipped with electric strip heaters mounted on the entering air side of the water coil. Heaters shall include high limit cutout with auto reset and contactor. Capacity and voltage shall be as shown on the equipment schedule. When fan motor and electric heater are selected at the same voltage and connected to a single power source, a junction box and fuse shall be factory furnished and installed to protect the motor and control circuit.
- * 5. Filter track and cleanable filter shall be installed in the plenum.
- * 6. Drain pan shall include a second drain connection located above the main drain connection to act as an indicator that the main drain is plugged.
- * 7. Discharge-air grille with double deflection, aluminum construction shall be factory-installed as shown on the equipment schedule. Aluminum grilles shall have a natural anodized finish (42CG only).
- * 8. Double-deflection discharge-air grille with steel core assembly shall be factory installed as shown on equipment schedule. Grille shall be painted to match cabinet (42CG only).
- 9. Manual stop, balancing, combination balance and stop, ball type, and flow control valves shall be factory furnished.
- 10. Motorized 2-way and 3-way valves shall be factory wired and assembled with tubes terminating in belled ends or unions for field attachment to the coil. Valves shall be packaged within unit to prevent shipping damage.
- 11. Heating and/or cooling wall thermostat shall be factory furnished for field installation.
- 12. Automatic changeover device(s) shall be factory wired for field installation on the supply piping.
- 13. Sequenced heating and cooling wall thermostat shall be factory furnished for field installation.
- 14. Unit shall operate on 115, 208, 220, 230, or 277-v, single-phase, 50 or 60 Hz electrical power as specified on the equipment schedule. All wiring shall be in flexible metal conduit.
- 15. Cabinet of 42CG unit or bottom panels of 42CK unit shall be painted with the color specified on the equipment schedule.
- 16. A stainless steel drain pan shall be available for factory installation.
- 17. Factory-installed insulation options shall include foil faced fiberglass or closed cell insulation.
- 18. Control Options:
 - a. 3-speed, 4-position manual fan switch on a wall plate for field-mounting.
 - b. Factory-installed 24-v transformer and relay board for use, with 24-v controls by others.
 - c. Carrier's Debonair 24-v digital display programmable or non-programmable thermostat, including factory-installed 24-v transformer, relay board, and changeover sensors, as required. Provides automatic fan speed control based on demand.
 - d. Factory-Installed Carrier Fan Coil Open Controller: BACnet®¹ based communicating controller with pre-programmed control algorithms; including factory-installed 24-v transformer, relay board, supply air sensor, return air sensor and changeover sensor (as required). Provides automatic fan speed control based on demand.

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