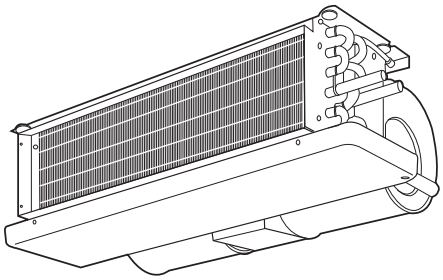
Carrier

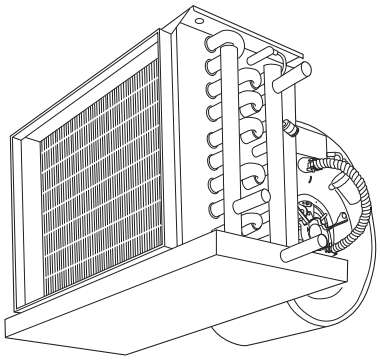
Product Data

42C,D,S,V Series Fan Coil Air Conditioners 50/60 Hz

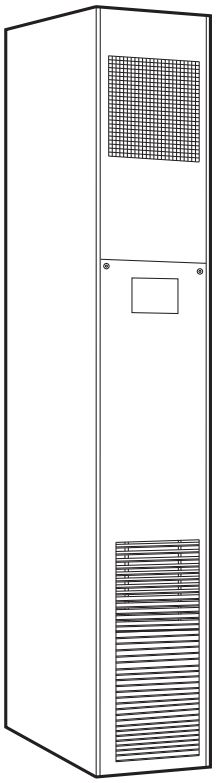
150 to 2000 cfm



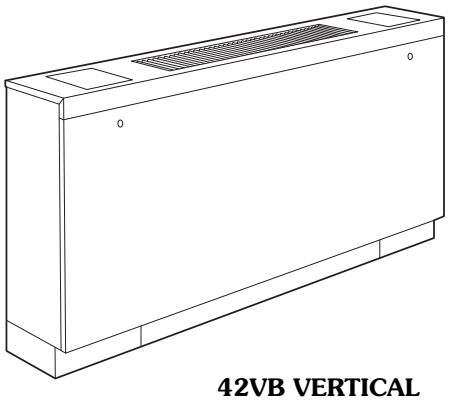
42CA HORIZONTAL



42DA DUCTED



42SH STACK



42VB VERTICAL

Carrier's 42C,D,S,V Series fan coil units offer:

- Design flexibility, occupying minimum space
- Easy, low-cost installation
- Permanent split capacitor motors deliver peak operating efficiency
- High performance, low cost
- Greater zone comfort control

Features/Benefits

Carrier's extensive range of superior fan-coil units combine design flexibility with easy, low-cost installation.

Versatility

With Carrier's 42 Series fan coils, you can select from 6 horizontal, 6 vertical, 5 ducted or 5 stacked models; furred-in or cabinet style, slant top or low silhouette, in 150 through 2000 cfm capacities. Coils are available with 1, 2, 3, 4, or 5 rows (depending on model), to satisfy a variety of application requirements. The units are ideal for installation in motels, apartments, and other multi-room buildings. Many optional control packages are available, including 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. Also offered are manual and automatic changeover controls and several thermostats.

Casings and frame are fabricated from tough, heavy gage galvanized steel. Optional decorative colors allow the unit to blend with any interior design.

Features/Benefits (cont)

Low-cost installation and operation

Each unit is designed to occupy a minimum space. No complex system controls are required for Carrier fan coil units. Piping, drain, and wiring connections are readily accessible and mounting holes and slots are predrilled to save installation time and field labor expense.

42 Series quality reduces service and maintenance expenses

Condensate drain pan is heavy gage galvanized steel with closed-cell, fire retardant foam insulation. Units come standard with Tuf-Skin* II insulation for energy savings, sound absorption and indoor air quality (IAQ) preservation. Water never touches the pan, so corrosion is minimized and long, trouble-free life is assured.

Efficient operation

All units use permanent split capacitor motors for minimum electrical consumption. Blower wheels are centrifugal-type, forward curved, double width, and double inlet sized for maximum efficiency.

Quiet, dependable performance

All units are built to operate unobtrusively with quiet motors and fans. In addition, 1/2-in. thick sound-absorbing, multi-density, matt faced, neoprene-coated fiberglass insulation is used to line the cabinet.

42C Series horizontal, 42V Series vertical units

Carrier room fan coil units operate at exceptionally low sound levels. A generous amount of insulation absorbs operating sound and rugged, rigid construction ensures vibration free operation at all fan speeds.

Economical, three-speed 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. Permanent split capacitor motors deliver peak operating efficiency. By choosing Carrier units, you can match your application with a wide range of custom-designed options and accessories, including electric heat. Filters are cleanable or throwaway type.

Motor bearings are heavy-duty sleeve type, with oversize oil reservoirs to assure long bearing life. All coils are factory leak-tested at 350 psig minimum air pressure.

Carrier room fan-coil units provide unsurpassed year-round comfort, with heating and cooling performance certified in compliance with AHRI (Air Conditioning, Heating and Refrigeration Institute) Standard 440.

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*Registered trademark of Johns Manville.

42D ducted units

A drip lip (removable drain pan extension) is available for field installation on ceiling models 42DA,DC,DE and DF. The drip lip is recommended for all ceiling models when a valve package is installed.

Motor/blower assembly can be easily removed from the unit for ease of service. Removing this assembly provides clear access to the entering air face of the coil, making coil cleaning a relatively simple matter. Removable panels make access to components and connections easy.

42S stacked units

Each Carrier stack unit comes factory equipped with insulated supply, return, and drain risers. The design of the 42S units allows them to be set one on top of the other in a vertical column rising floor to floor up the building. Each riser has a 3-in. belled section at the top, so the riser piping can be connected by only one sweat connection per riser. Field-installed couplings or internal pipe connections are not needed.

Each stack unit is constructed of 18-gage galvanized steel and factory pre-wired with all control, motor, and optional electric heat wiring conveniently terminating in a single, accessible junction box. Each stack unit requires only one field power connection.

Field-mounted accessories, such as the 3-speed switch/thermostat package for furred-in units, are equipped with a pre-wired quick disconnect plug for easy installation.

The riser size for the stack units can be specified to match building requirements so that cutting, sorting, and handling of the risers is not necessary. All units arrive tagged as specified by the customer for efficient delivery to the correct building location.

Units can be loaded onto delivery trucks so that they can be off-loaded in the proper installation sequence.

The 42SG furred-in-stack is a single unit, designed for concealed applications in corners or along room walls. The return-air grille is removable to allow access for servicing major components.

The 42SG is also available in master/slave unit pairs, shipped individually and installed and piped together in the field. The master unit includes risers with stub out for field piping connections to the slave unit which has no risers of its own.

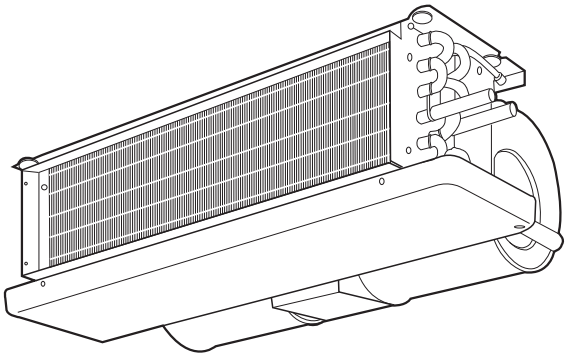
The 42SJ back-to-back furred-in stack is designed for installation in the separation wall between 2 rooms. The unit consists of 2 units piped to a set of common risers. Each unit has its own valves and controls. The return-air grille is removable to allow access for servicing major components.

The 42SH cabinet stack unit is designed for applications where concealed installations are not possible or practical. This model features a double-deflection supply-air grille and an integral return-air grille access panel. Controls are normally mounted on the unit but may also be remote wall mounted.

The 42SU universal furred-in stack is designed for easy field configuration utilizing laser cut knock-outs. Riser, drain, supply, and outside-air knock-outs have been strategically located on the unit for field configuration. Prior to unit installation, all risers are shipped separately from the units for pre-installation and testing purposes.

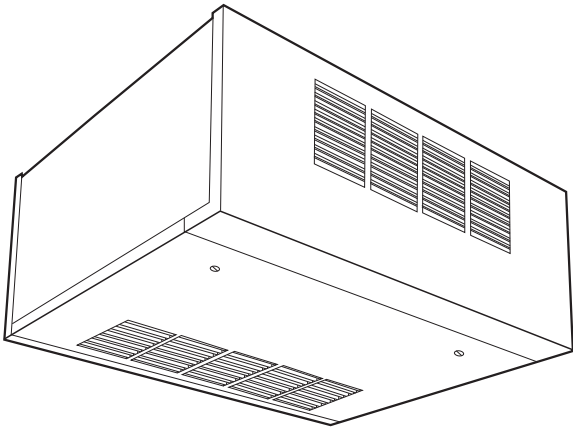
The 42SM mega furred-in stack unit is designed for applications requiring units with increased capacity. The 42SU is designed to deliver 1400 to 2000 CFM at 0.5 in. ESP (external static pressure). Although usually installed in a small mechanical closet, the unit also features an optional decorative return air panel to allow for a classic high-rise type application. The unit's high static capability will easily handle high-efficiency air filters and decorative supply grilles, while the modular design provides quiet operation.

Features/Benefits (cont)



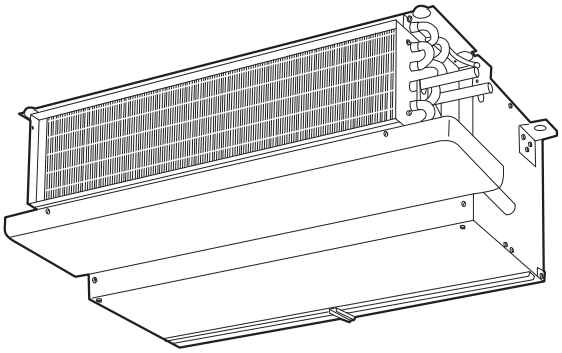
42CA

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



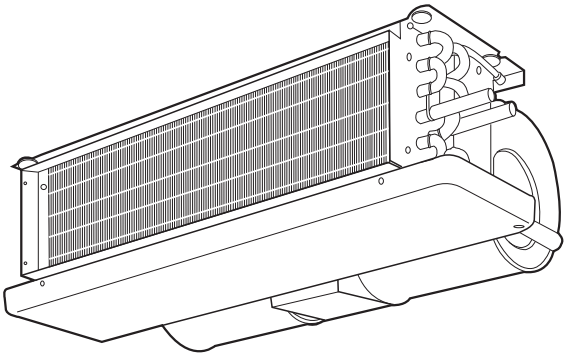
42CG

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



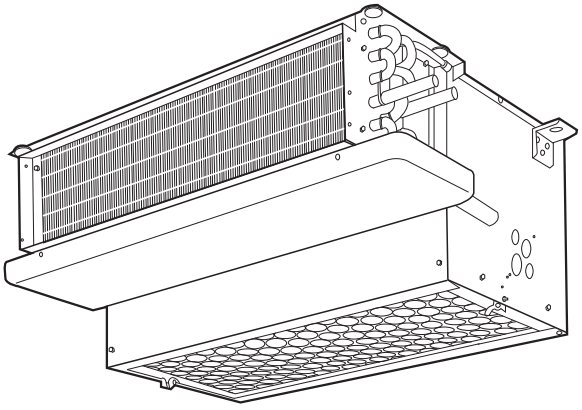
42CE

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



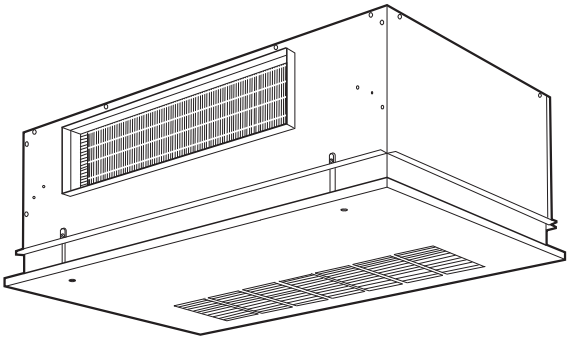
42CH

**High-static, furred-in model.
(400-1000 cfm)**



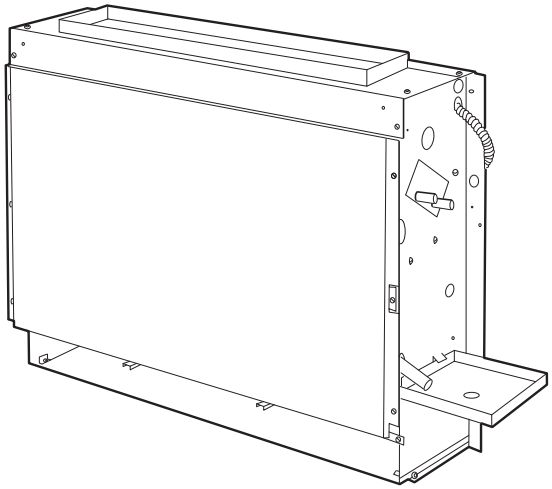
42CF

**High-static, furred-in model with plenum.
(400-1000 cfm)**



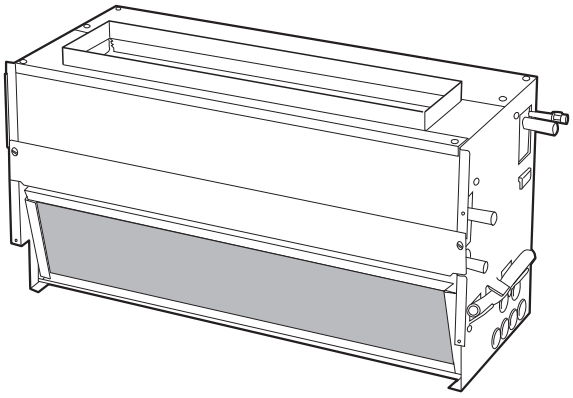
42CK

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



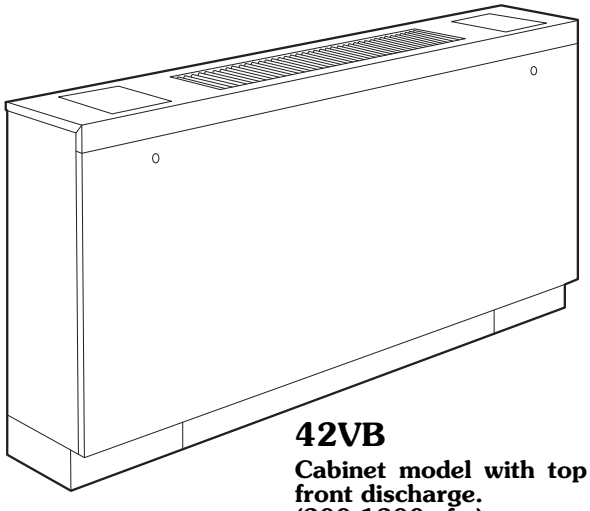
42VA

Furred-in model for under-the-window applications with top or front discharge.
(200-1200 cfm)



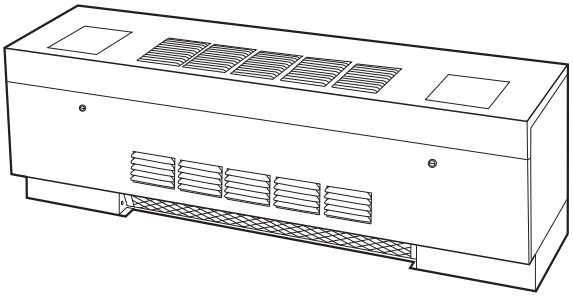
42VC

Furred-in lowboy model for concealed under-the-window applications.
(200-600 cfm)



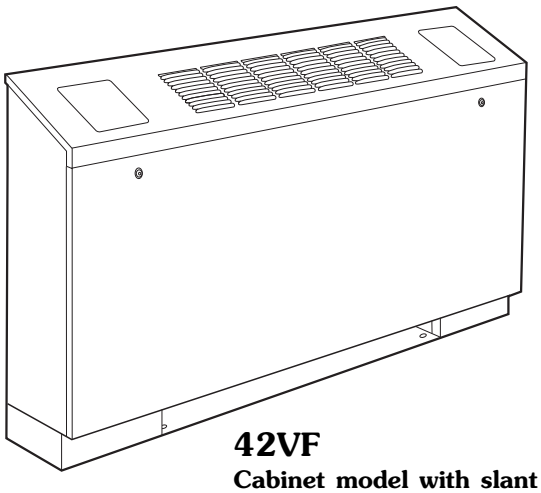
42VB

Cabinet model with top or front discharge.
(200-1200 cfm)



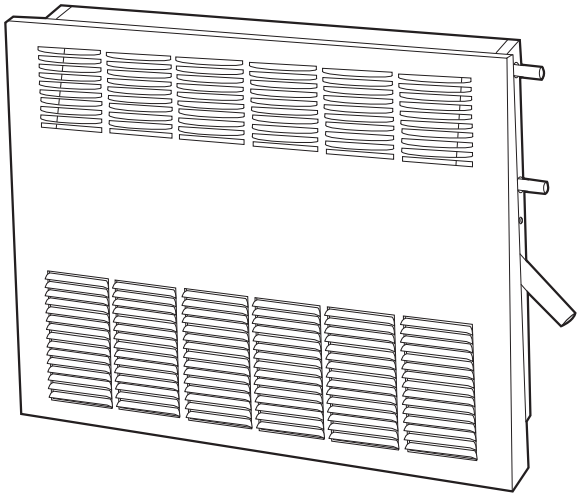
42VE

Cabinet lowboy model with stamped louver discharge grille and 2 control access doors.
(200-600 cfm)



42VF

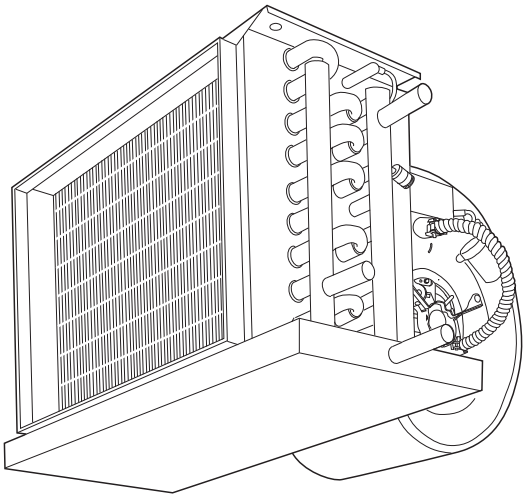
Cabinet model with slant top and top or front discharge.
(200-1200 cfm)



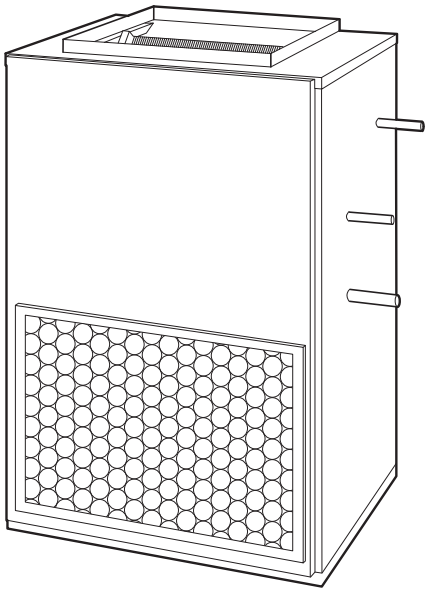
42VG

Furred-in wall model. Available with a 10-in. valve compartment extension.
(150 and 300 cfm)

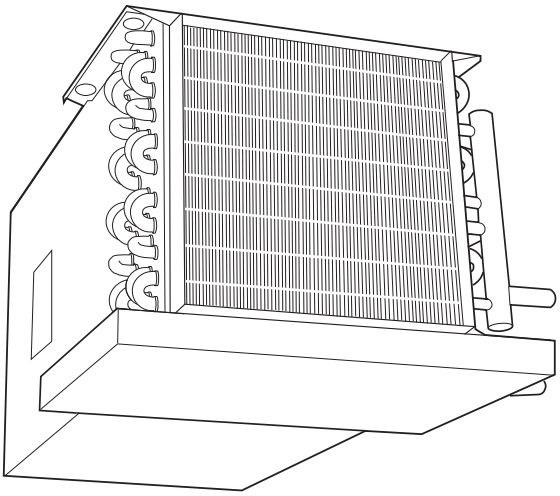
Features/Benefits (cont)



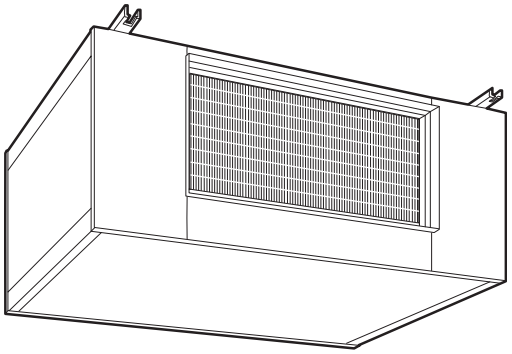
42DA
Furred-in model for installation in the ceiling or over the closet.
(600-2000 cfm)



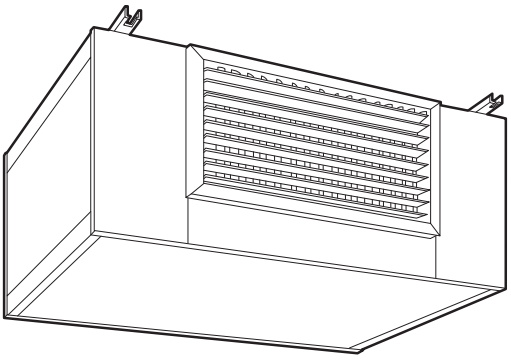
42DD
Vertical model with galvanized casing. Commonly for closet installation.
(600-2000 cfm)



42DC
Furred-in ceiling model with factory-installed insulated plenum.
(600-2000 cfm)

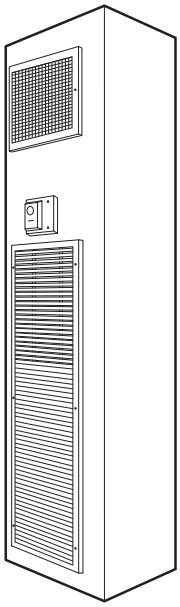


42DE
Ceiling model with galvanized casing.
(600-2000 cfm)

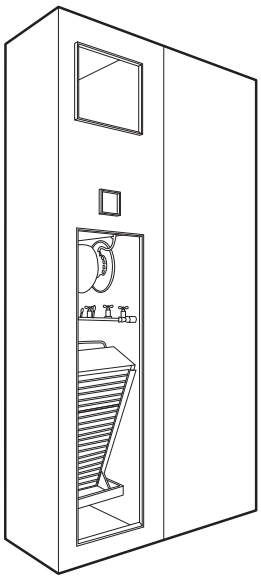


42DF
Exposed-ceiling cabinet model with integral double-deflection discharge grille and a bar-type return-air grille.
(600-2000 cfm)

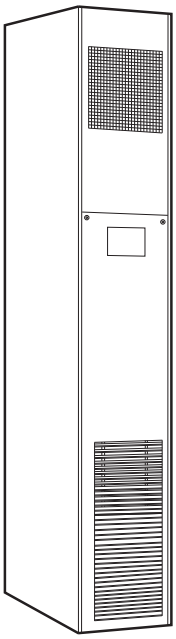
42SG — Furred-in-stack
(300-1200 cfm)



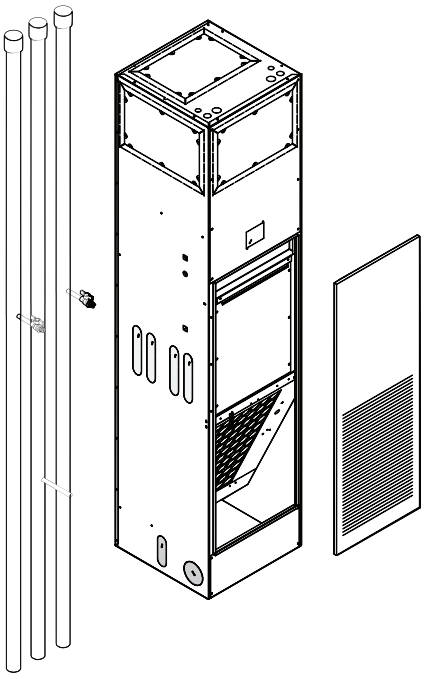
42SJ — Back-to-back furred-in stack
(300-1200 cfm)



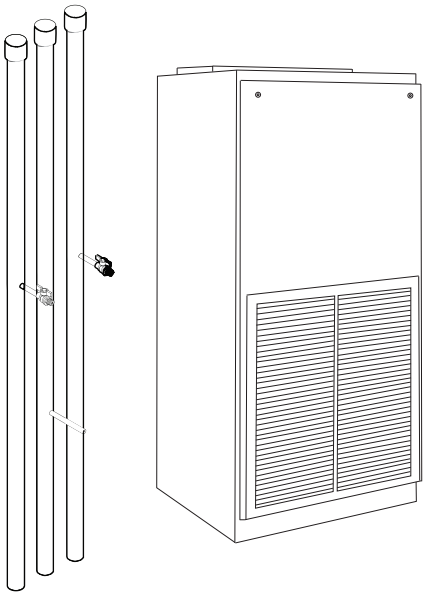
42SH — Cabinet stack
(300-1200 cfm)



42SU — Universal furred-in-stack
(300-1200 cfm)



42SM — Mega furred-in-stack
(1400-2000 cfm)



Options

AVAILABLE OPTIONS

OPTIONS OR STANDARD FEATURES*	UNIT SERIES — 42																					
	Ceiling — Horizontal						Floor — Vertical						Ducted — Horizontal					Stack — Vertical				
	CA	CE	CG	CK	CF	CH	VA	VB	VF	VC	VE	VG	DA	DC	DE	DF	DD	SG	SH	SJ	SU	SM
AIR VENT																						
Automatic Air Vent	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X
Manual Air Vent	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std
CABINET CHANGES																						
Front Panel, 16 Gage								X	X													
Front Panel, 18 Gage	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std
Extended Cabinet Height										X	X											
Valve Compartment Extension, 10 in.												X										
Stamped Toe Space Return Grille								X	X													
COILS																						
2-Row (Cooling Only)	X	X	X	X			X	X	X	Std	Std	Std										
3-Row (2-Row Cooling, 1-Row Heating)										X	X											
3-Row (Cooling/Heating Only)	Std	Std	Std	Std	Std	Std	Std	Std	Std	X	X		X	X	X	X	X	Std	Std	Std	Std	X
4-Row (3-Row Cooling, 1-Row Heating)	X	X	X	X	X	X	X	X	X				X	X	X	X	X	X	X	X	X	X
4-Row (Cooling/Heating Only)	X	X	X	X	X	X	X	X	X				Std	Std	Std	Std	Std	X	X	X	X	Std
5-Row (Cooling/Heating Only)																						X
5-Row (4-Row Cooling, 1-Row Heating)	X	X	X	X	X	X	X	X	X				X	X	X	X	X	X	X	X	X	X
5-Row (3-Row Cooling, 2-Row Heating)	X	X	X	X	X	X	X	X	X				X	X	X	X	X	X	X	X	X	X
6-Row (4-Row Cooling, 2-Row Heating)													X	X	X	X	X					
6-Row (Cooling/Heating Only)													X	X	X	X	X					
7-Row (6-Row Cooling, 1-Row Heating)													X	X	X	X						
8-Row (6-Row Cooling, 2-Row Heating)													X	X	X	X						
DAMPERS																						
25% Manual Damper							X	X	X													
25% Motorized Damper							X	X	X									ETO	ETO	ETO		ETO
25% Remote Damper							X	X	X													
5 x 7 Manual Sliding Damper																		X	X	X		
4 in. Opening Assembly with Sliding Damper																		X	X	X		
6 in. Opening with Manual Sliding Damper																						X
Outside-Air Knockouts																					Std	
Outdoor-Air Connection		ETO	ETO	ETO	ETO					X	X			ETO	ETO	ETO	ETO					
DECORATIVE COLORS																						
See Carrier Paint Selector Guide			X	X				X	X		X	X				X			X			
DISCHARGE GRILLES																						
Stamped Discharge			Std					Std	Std		Std	Std										
Double Deflection, Factory-Installed†			X					X	X		X					Std						
Double Deflection, Shipped Loose†										X								Std	Std	Std	X	X
DRAIN PANS																						
Standard Drain Pan, Closed-Cell Foam on Inside	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std		Std	Std	Std	Std	Std	Std	Std	Std	Std	
Extended Drain Pan	X	X			X	X							X	X								
Stainless Steel Standard Drain Pan	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	Std
Stainless Steel Extended Drain Pan	X	X			X	X							X	X								
Tell-Tale Only	X	X	X	X	X	X							X	X	X	X						
Drip Lip Only	X	X	X	X	X	X							X	X	X	X						
Tell-Tell and Drip Lip	X	X	X	X	X	X							X	X	X	X						

LEGEND

ETO — Engineered to Order
Std — Standard
X — Available as Options

*All options are factory-installed unless noted as shipped loose.
†Standard grille is steel; option is available as steel or aluminum.
**Registered trademark of Johns Manville.
††Registered trademark of Camloc/RAM.

AVAILABLE OPTIONS (cont)

OPTIONS OR STANDARD FEATURES*	UNIT SERIES — 42																					
	Ceiling — Horizontal						Floor — Vertical						Ducted — Horizontal					Stack — Vertical				
	CA	CE	CG	CK	CF	CH	VA	VB	VF	VC	VE	VG	DA	DC	DE	DF	DD	SG	SH	SJ	SU	SM
DUCT COLLAR																						
Discharge	Std	Std		Std	Std	Std	Std			Std			Std	Std	Std		Std	Std	Std	Std		Std
Discharge Knockouts																					Std	
ELECTRIC HEATERS																						
Nichrome Wire Strip Heater	X	X	X	X	X	X							X	X	X	X	X	X	X	X	X	X
Sheath Type Heater							X	X	X	X	X											
FAN SWITCH																						
Unit-Mounted and Factory Wired								Std	Std		Std							X	X	X		
Wall-Mounted with Plate, Shipped Loose	Std	Std	Std	Std	Std	Std	Std			Std		Std	Std	Std	Std	Std	Std					
FILTERS																						
Permanent Filter		X	X	X	X		X	X	X	X	X			X	X		X	X	X	X		
Throwaway Filter		Std	Std	Std	Std		Std	Std	Std	Std	Std	Std		Std	Std	Std	Std	Std	Std	Std	Std	Std
LEVELING LEGS							X	X	X	X	X						X					
INSULATION																						
Foil Faced Insulation	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X
Tuf-Skin II Insulation**	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std
Exact-O-Kote Insulation**	ETO	ETO	ETO	ETO	ETO	ETO	ETO	ETO	ETO	ETO	ETO	ETO	ETO	ETO	ETO	ETO	ETO	ETO	ETO	ETO		ETO
Closed Cell Insulation	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X
MOTORS																						
120-1-60, 3-Speed	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std
208-1-60, 3-Speed	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	X	X
230-1-60, 3-Speed	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	X	X
277-1-60, 3-Speed	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	X	X
220-1-50, 3-Speed	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X		
MOTOR QUICK-DISCONNECT PLUG	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std		Std	Std	Std	Std	Std	Std	Std	Std	Std	Std
OUTSIDE-AIR WALL BOX, Shipped Loose							X	X	X													
RETURN AIR GRILLE, Shipped Loose																						
Stamped Return Grille			Std	Std				X	X		Std	Std						Std	Std	Std	Std	X
Hinged Panel																Std						
TAMPERPROOF LOCKS (Camloc††)																						
Access Panels			Std	Std				Std	Std		Std				Std	Std		Std	Std	Std	Std	Std
Control Access Doors								X	X		X											
VALVE PACKAGES	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
WALL PANELS (for Recessed Unit), Shipped Loose							X															
WIRING PACKAGES	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

LEGEND

ETO — Engineered to Order
Std — Standard
X — Available as Options

*All options are factory-installed unless noted as shipped loose.
†Standard grille is steel; option is available as steel or aluminum.
**Registered trademark of Johns Manville.
††Registered trademark of Camloc/RAM.

Options (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	42D	42S	42V
2-Row Coil	42CA,CE, CG,CK only	—	—	•
3-Row Coil	•	•	•	42VA,VB, VC,VE,VF only
4-Row Coil	•	•	•	42VA,VB, VF only
5-Row Coil			42SM only	
6-Row Coil	—	•	—	—
Opposite End Coil Connections				
3/1	•	•	•	42VA,VB, VF only
3/2	•	•	•	42VA,VB, VF only
4/1	•	•	•	42VA,VB, VF only
4/2	—	•	—	—
6/1	—	42DA,DC, DE,DF only	—	—
6/2	—	42DA,DC, DE,DF only	—	—
Same End Coil Connections				
2/1	—	—	—	42VC,VE only
3/1	•	•	•	42VA,VB, VF only
3/2	•	•	•	42VA,VB, VF only
4/1	•	•	•	42VA,VB, VF only
4/2	—	•	—	—
6/1	—	42DA,DC, DE,DF only	—	—
6/2	—	42DA,DC, DE,DF only	—	—
Cu/Cu Coil Special Option*	•	•	•	•

LEGEND

• — Available

*Needs quote control.

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 — A wide variety of colors (Champagne Beige, Toffee Brown, Ermine Grey, and Polar White) are available to match any interior décor. Select a desired color from a paint chip chart, Catalog number 842-011, or provide paint chip for matching. Standard color is now Arctic White; the other colors require a special quote. Optional or custom colors will only be quoted by the factory if the volume is significant enough to use the minimum quantity of paint required by the painting vendor. Therefore, the optional or custom color will not be available on small quantities of units. As an alternative, units can be coated with primer by the factory to allow for field painting. Decorative colors may be applied to:

- Cabinet of 42VB, VF, VE, VG
- Cabinet of 42CG
- Panels of 42SH
- Bottom panels of 42CK
- Wall panels of 42VA
- Cabinet of 42DF

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. Not available on 42VG units.

Filters — Each unit (except the 42CA, CH, DA units) includes a non-woven synthetic throwaway filter sized for low velocity and maximum efficiency. The standard option will filter both return and outside air. Optional permanent aluminum filters with cleanable, non-aluminum filter media are available for all 42C Series except 42CA, CH; 42DC, DD, DE; all 42V Series except 42VG; and all 42S Series except 42SU, SM units.

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 is available (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.

Motors — Three-speed PSC (permanent split capacitor) motors are offered as standard, providing the ability to adjust airflow to meet varying load conditions. High static PSC motors are available with a special quote for applications requiring higher external static capability. ECM (electronically commutated) motors are optional on 42SM and 42SU, and are available with a special quote on all other models. ECM motors offer programmable features, low sound, and increased energy efficiency. Refer to the application data section for more information on ECM control methods.

Outside-air opening/damper — Damper is adjustable from 0 to 25% and provides ventilation air to unit. (Manual/motorized damper available on 42VA, VB, VF and 42SG, SH, SJ, SM units.)

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.

Stainless steel construction options — On the 42VA, VB and VF units, stainless steel outer cabinets and stainless steel internal chassis are available. Stainless steel's properties of corrosion and impact resistance make this option ideal for damp, humid environments like locker rooms, restrooms, dormitory rooms, corrosive work areas, kitchens, food processing areas, etc. Its high-end appearance makes the option ideal for upscale applications.

Stamped toe space return-air grille — The return-air grille is available as a factory-installed option for 42VB and 42VF units.

Tamperproof Camloc fasteners (Allen head) — Camloc 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. The standard thermostat control option is line voltage except on 42SU and 42SM, which include a low voltage control package as standard. Unit-mounted line voltage and 24-v thermostats are available on the 42V Series units. For thermostat control package options refer to pages 13-16.

Field-installed accessories

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.

Decorative wall panels — Wall panels are available for use with fully recessed 42VA units.

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 valves and controls.

Panels, frames, and grilles — Panels, frames, and grilles on the 42S Series units can be chosen in a wide variety of combinations to suit room decorating requirements and allow access to the unit for maintenance. Discharge grilles are double deflection type, aluminum finish or painted. Return-air access panels containing return-air grilles are available in five different types as illustrated on pages 110 and 111.

PANELS, FRAMES AND GRILLES

PANEL NO.	DESCRIPTION
1	Standard, 18-gage galvanized steel. Coated with baked-on Arctic White enamel finish. Attached to unit with 1/4 turn fasteners.
2	18-gage galvanized steel. Coated with baked-on Arctic White enamel finish. Includes access door for concealed unit-mounted controls.
3	Bar-type extruded aluminum with frame matching double deflection supply grille. Fastens to wall and unit with 1 1/2 in. long screws.
4 and 5	18-gage galvanized steel. Coated with baked-on Arctic White enamel finish. Frame mounted on sheetrock with screws. Panel mounted in frame with 1/4 turn fasteners.
All	Each panel provides access to all internal components.

Return-air grilles — Stamped-type return-air grilles are standard on 42CG,CK,VE,VG,SG,SH,SJ,SU units and optional on 42VB,VF,SM units. Anodized aluminum hinged bar-type grilles are installed on 42DF units.

Risers — The 42S Series units can accommodate 3/4-in. (supply and return) and 1-in. (drain) to 2 1/2-in. riser sizes in 2-pipe systems. For other applications, such as reverse return risers or 4-pipe systems, it may be necessary to accommodate the additional risers.

Condensate drains are available in sizes down to 1-in. for greater cost economy. Riser size-reducers are factory-installed on 42SG, SJ, and SH. For risers of over 119-in. length, extension pieces can be furnished for field installation.

NOTE: Risers for the 42SU,SM units are shipped separately for field installation and testing before the unit is installed.

Riser expansion — The 42S Series units are built to accommodate modest expansion of the external riser. This only allows for expansion between the unit and the riser. This allowance for movement within the unit is not intended to replace necessary riser expansion compensation devices that the consulting engineer may deem advisable for the external riser system. External riser expansion/contraction compensation and anchoring are the responsibility of the consulting engineer and the installing contractor.

Risers material and insulation — The 42S Series unit supply, return, and drain risers can be furnished in type M or L copper. All factory-furnished risers are insulated with flexible closed foam insulation in 1/2-in. or 3/4-in. thickness.

Discharge grilles — Two types of double deflection discharge grilles are available for 42CG, VB, VF, VE units; an integral steel grille painted to match the unit or a separate unpainted anodized aluminum grille. Optional discharge air grilles for 42S Series units are suitable for sidewall application, and available in clear anodized aluminum or Arctic White finish. 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.

Options (cont)

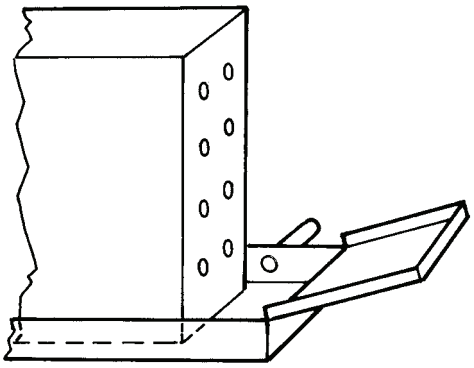
Tell-tale drain pan — A secondary drain connection is located above the primary drain to act as a "tell-tale" in the event that the primary drain becomes obstructed. They can be applied to either the main drain pan or an extended main drain pan. This option only available on the 42C and 42DA, DC, DE, DF units.

Thermostats control packages — The standard thermostat control option is line voltage except for 42SU and 42SM units. Wall-mounted line voltage and 24-v thermostats are available on the 42 Series fan coil units. For thermostat control packages options refer to pages 13-16.

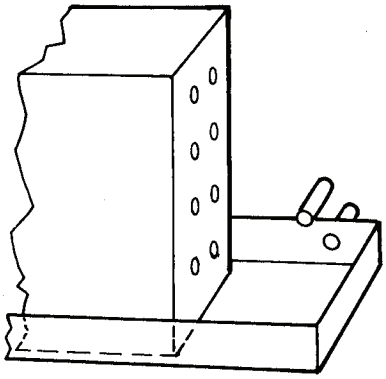
Trim strips — Strips are available for use with partially recessed vertical 42VA units and 42S series units only.

Wall boxes — Wall boxes are all aluminum with insect screen behind louvers. The wall boxes are available on all 42V Series units except the 42VG units.

DRIP LIP
(Horizontal Unit)



"TELL-TALE" DRAIN PAN
(Horizontal Unit)



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	CHANGEOVER ON SUPPLY PIPE	VALVE	FAN SWITCH	NOTES
2-PIPE HEATING-COOLING*	**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.
		Thermostat cycles valve open or closed. Mode automatically switched by changeover sensing water temp.	Wall or unit mounted. Heating/cooling Thermostat	Yes	Motorized (N.C.) 3-way or 2-way	Thermostat has integral 3-speed switch	
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. Two Required.	Motorized 3-way or 2-way	Thermostat has integral 3-speed switch	Valve packages with belled end(s) for field soldering to coil.
	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.

LEGEND

N.C.— Normally Closed

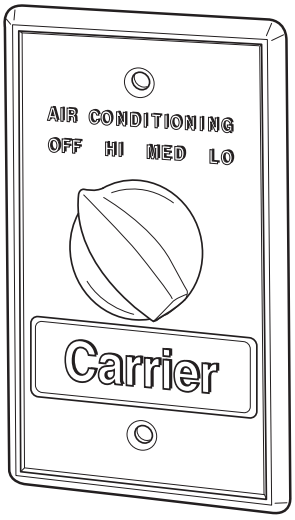
*If system is HEATING-ONLY or COOLING-ONLY, no changeover or bypass is required.

NOTE: Unit-mounted thermostats are not recommended with either fan-cycle control or applications with outside-air dampers.

Controls (cont)

Remote-mounted controls

3-SPEED SWITCH



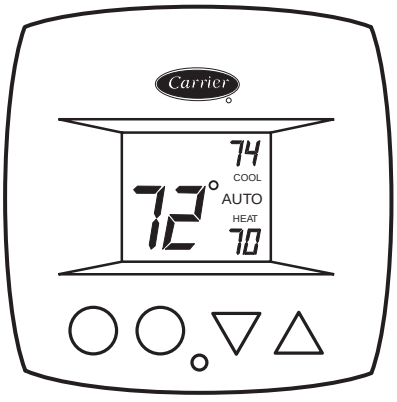
Wall mounted 3-speed switch — This switch has 4 positions: OFF, HIGH, MEDIUM, and LOW. Switch has auxiliary contact that is energized when switch is in HIGH, MEDIUM or LOW position.

Some of the options common with the 3-speed switch are:

1. Unit-mounted switch on furred-in vertical model. (Available as special order on horizontal models.)
2. Switch without OFF position.
3. Key-operated switch.

Optional remote-mounted thermostat or unit-mounted 24-v thermostat

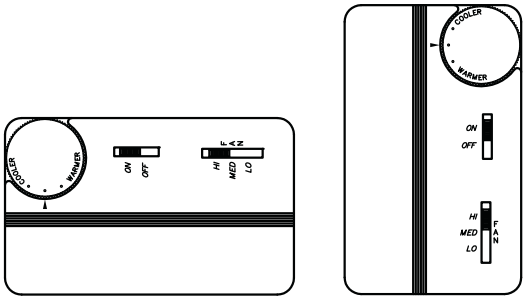
24-V DEBONAIR® THERMOSTAT



24-V Debonair thermostat — Features large Thermoglow™ display, Neverlost™ memory, ExactFit locking cover, Smart Fan™ dynamic fan speed control, 4-pipe, 2-pipe automatic changeover applications with adjustable dead band. Programmable and non-programmable models available.

Optional remote-mounted line-voltage thermostat

LINE VOLTAGE T155 THERMOSTAT



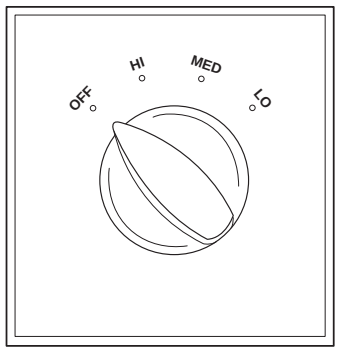
Line voltage T155 thermostat — Features 50 to 90 F temperature range, manual 3-speed fan control, mount is a standard 2 x 4 in. box, 4-pipe, 2-pipe and autochangeover applications. Available in vertical or horizontal styles.

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.

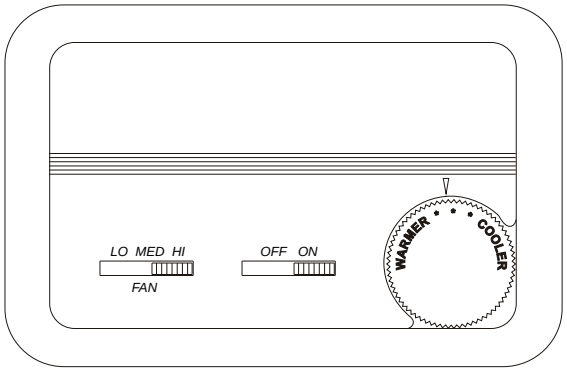
24-V controls by others — Unit supplied with factory installed 24-V transformer, 3-speed relay board, and aquastat (as required) for use with field-installed low voltage controls.

3-SPEED SWITCH



Unit-mounted 3-speed switch — Switch has OFF, HIGH, MED and LOW positions. Switch is also equipped with auxiliary connection energized when switch is in HIGH, MED or LOW position.

T156 THERMOSTAT

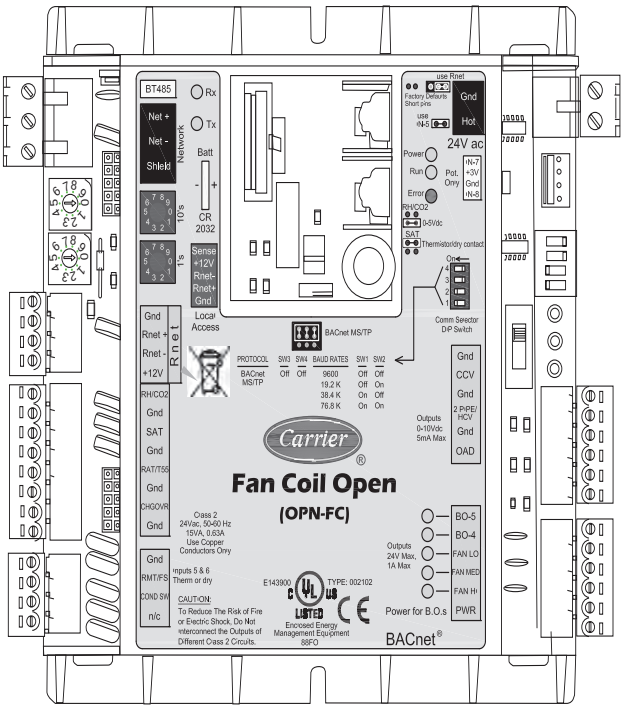


Line voltage T156 thermostat — Includes thermostat for 2-pipe or 4-pipe system and manual 3-speed fan control. The special combination allows for the fan coil unit to have control for the valve cycle only. This thermostat is only available for unit mounted line voltage applications.

Integrated Direct Digital Controls (DDC)

FC Open controller — The factory-mounted controller continuously monitors and regulates the fan coil operation with reliability and precision. This advance controller features a sophisticated, factory engineered control program that provides 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 compatability with i-Vu control system tenant billing for tracking tenants after hours energy usage. Hardware features include on-board hardware clock, remote occupancy input, and support for space temperature thermistor sensor for stand alone operation.

FAN COIL OPEN CONTROLLER



* Sponsored by ASHRAE (American Society of Heating, Refrigerating, and Air Conditioning Engineers).

Controls (cont)

Automatic changeover (Summer-Winter switch) — The automatic-changeover thermostat sensor is a 10 kilo-ohm thermister (33ZCSENCHG) in a moistureproof 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.

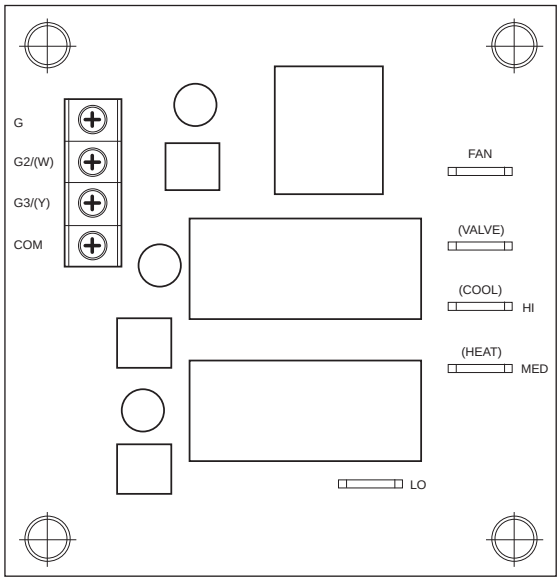
The set point temperatures are factory set. When water temperature rises above 80 F (approximately), the sensor switches to the winter cycle. When water temperature drops below approximately 70 F, the sensor switches to the summer cycle. Switch reset is automatic.

Fan coil control relay board — The fan coil relay board is used in conjunction with the Debonair thermostat or a controller or the FC Open controller to regulate a single-speed or multispeed fan. The fan coil relay board can also be used to connect the fan coil controller to a line voltage valve actuator.

The fan coil relay board is factory shipped as a PC board with four $^1/_2$-in. stand-offs attached for field mounting.

NOTE: One fan coil relay board is used for each application. Fan coils with two or more fan motors use a fan coil relay board for each fan motor. A maximum of three fan coil relay boards can be wired to one fan coil control.

FAN COIL CONTROL RELAY BOARD



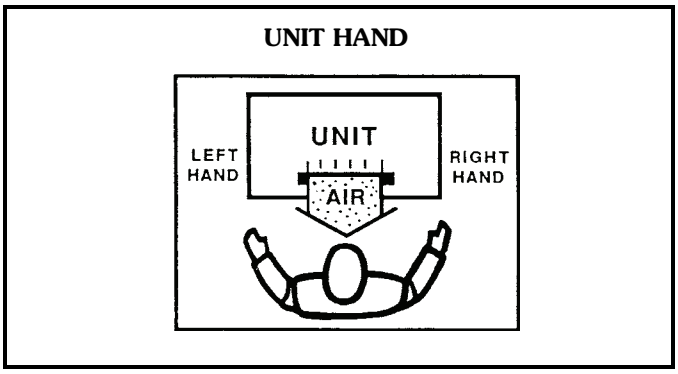
Selection procedure

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

Application data

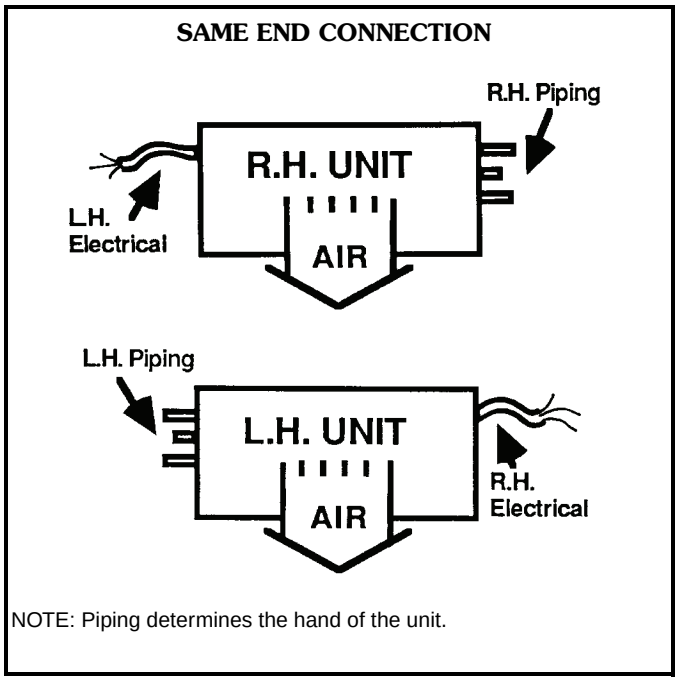
Basic definitions

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.

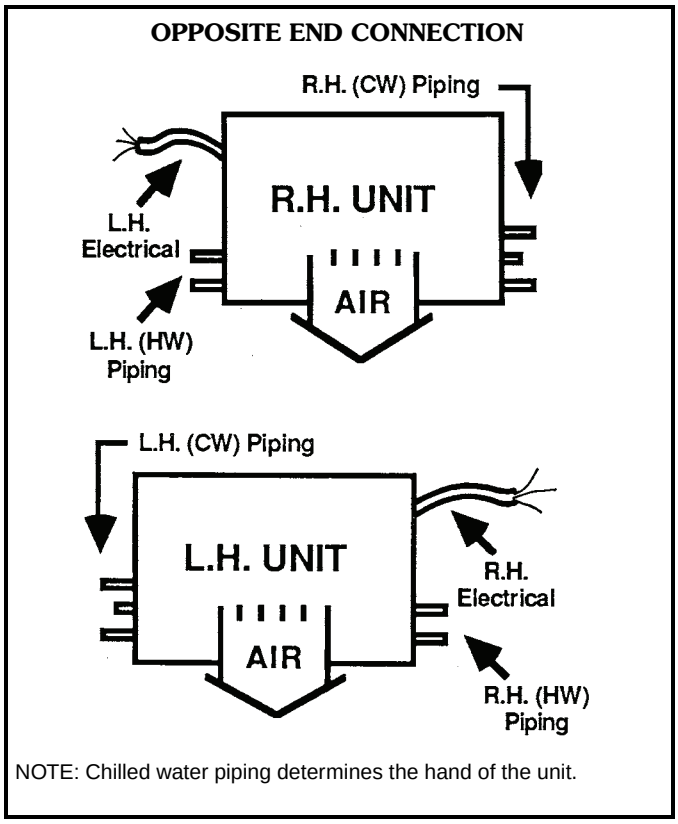


Same end connection (2 pipe or 4 pipe) — All piping connections are on the same end (side) of the unit. Controls and electrical connection will be on the end (side) opposite the piping connection.

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



Opposite end connection (4-pipe option) — Hot water (HW) piping connections and electrical will be on the end (side) opposite the chilled water (CW) and drain connections.



Application data (cont)

System piping

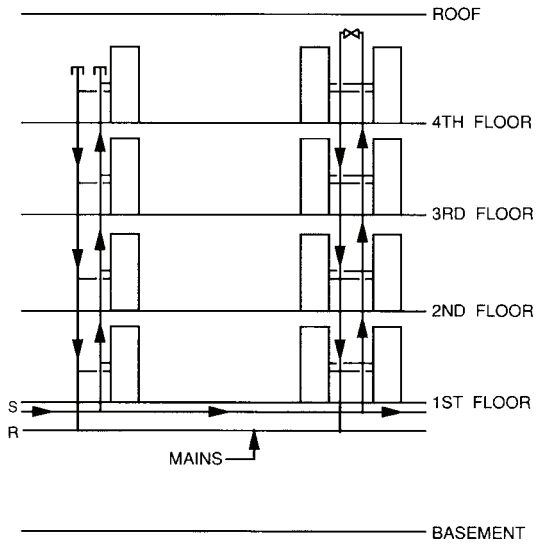
The following diagrams show some common methods used to pipe the 42S Series units. Only the 2-pipe systems are shown; however, the methods would be the same for 4-pipe systems.

System 1, the "direct return" system, is the most common. It is economical to install since it supplies and returns the water for a riser column from the same location, at the top or the bottom of a building. This type of riser arrangement does require more attention to individual unit water flow balancing. The risers are normally capped at the end as shown in the diagrams.

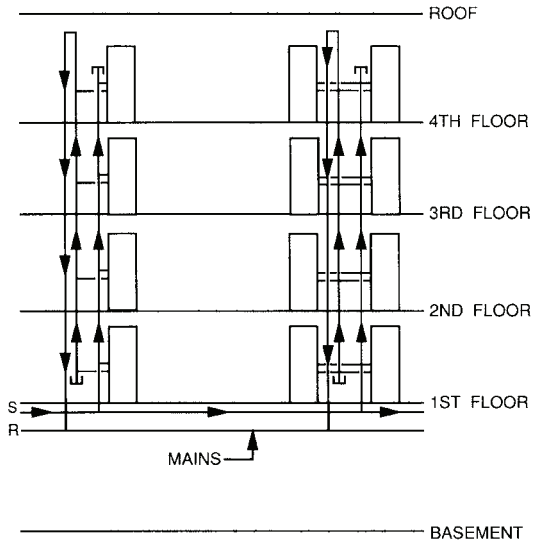
System 2, the "reverse return" system, is used to minimize the requirement for individual unit balancing. This system is usually referred to as the self-balancing system. The arrangement of the risers allows the water flow for each unit in a column to be equalized. In the reverse return system both the supply and return mains are located at the top or the bottom of a building requiring an additional return riser to be furnished in the units.

System 3, the "common reverse return" system, typically has the supply and return mains located remotely from each other — such as one at the top and one at the bottom of a building. This eliminates the need for a reverse return riser in the units.

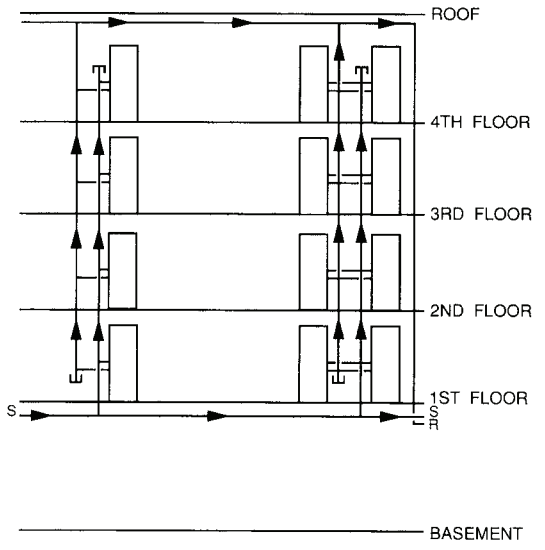
SYSTEM 1 — DIRECT RETURN



SYSTEM 2 — REVERSE RETURN



SYSTEM 3 — COMMON REVERSE RETURN



Risers (42S units)

Riser diameter is an important consideration in the design of stack series systems. Standard units can accommodate $^3/_4$-in. to $2^1/_2$-in. riser sizes in 2-pipe systems. For other applications, such as reverse return risers or 4-pipe systems, it may be necessary to accommodate the additional risers.

Riser size is based on the water flow needed for a given tier of units. Unit risers are sized according to the diameter and length requirements as specified by the customer. To determine riser size, water velocity should be limited to 5 to 8 ft per second. Thus, if 10 units are to be stacked vertically with each unit requiring 3 gpm, the maximum flow in the risers is 30 gpm. Through $1^1/_4$ in. risers, this is a velocity of 7.5 ft per second. The maximum flow rate of 30 gpm occurs only at the supply and return points. As the water moves upward, the flow in the supply riser is reduced by 3 gpm per floor, so that after 3 floors, the total flow is 21 gpm and riser size can be reduced to one inch. See chart on page 118.

Condensate drains are available in sizes down to 1 in. for greater first cost economy.

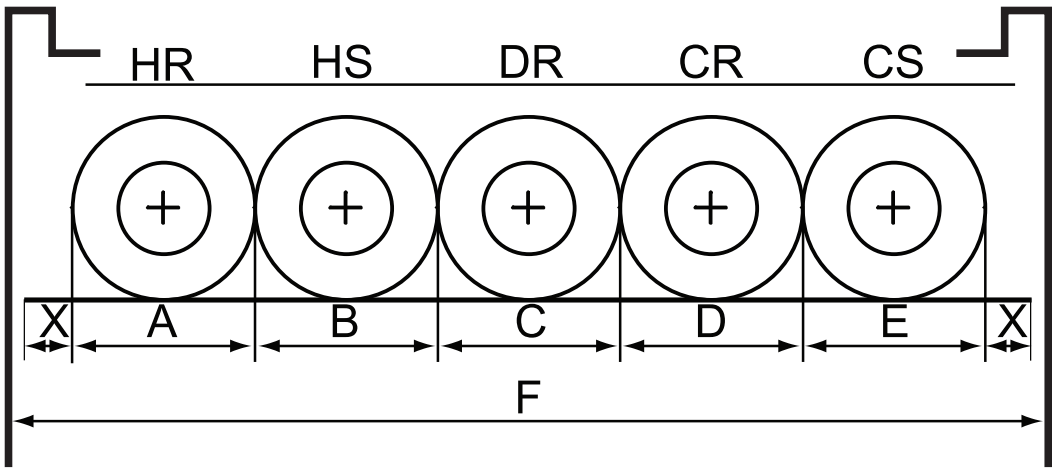
Riser size-reducers are factory installed and caps are provided at customer request except for 42SU units.

For risers of over 119 in. length, extension pieces can be furnished for field installation.

Typical arrangements

Typical arrangement applications for each model type are shown on page 18. The fan coil units feature almost an unlimited number of arrangements to meet the needs of new construction, renovation, or reconstruction. Consult the factory for the arrangement (standard or special) to meet your particular need.

MAXIMUM RISER DIAMETER DIAGRAM



UNIT SIZE	F DIMENSION
03,04	17 in.
06,08	20 in.
10,12	24 in.

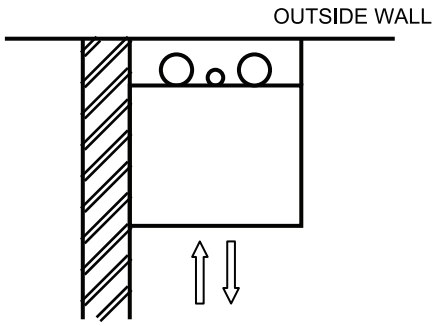
LEGEND

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

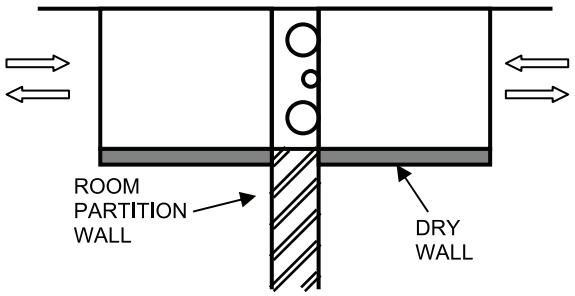
NOTES:
1. The F dimension is determined by the following formula: X + A + B + C + D + E + X = F (where X = $^7/_{16}$ in.)
2. The largest diameter riser in each tier must be able to fit in the smallest size cabinet and not exceed the F dimension.
3. For unit sizes 14-20, contact application engineering.

Application data (cont)

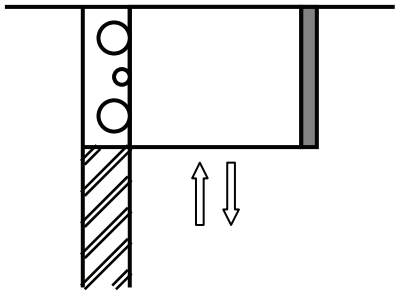
TYPICAL ARRANGEMENT APPLICATIONS



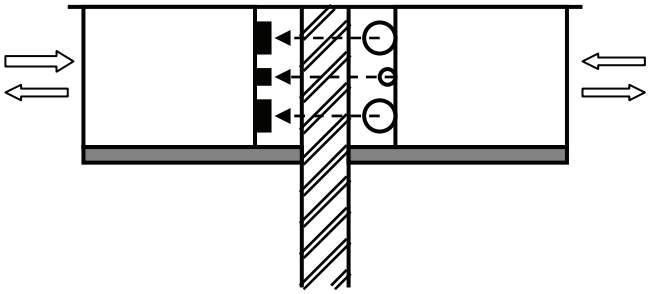
42SH – EXPOSED CABINET



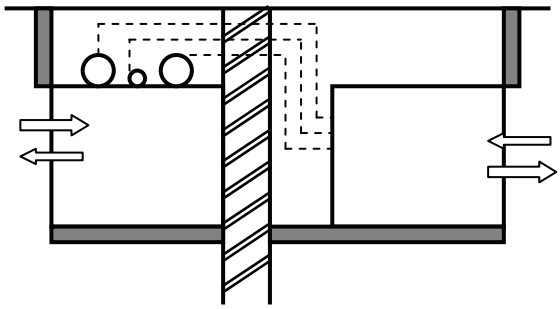
42SJ – BACK-TO-BACK FURRED-IN STACK



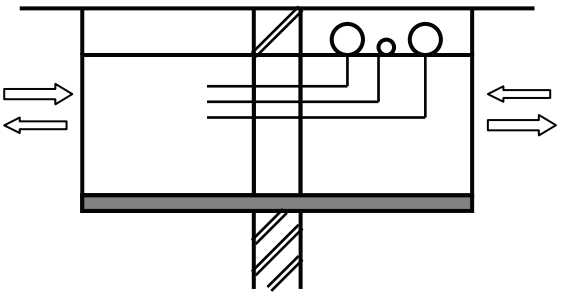
42SG – FURRED-IN STACK



42SG – FURRED-IN STACK MASTER/SLAVE



42SG – FURRED-IN-STACK X-MASTER



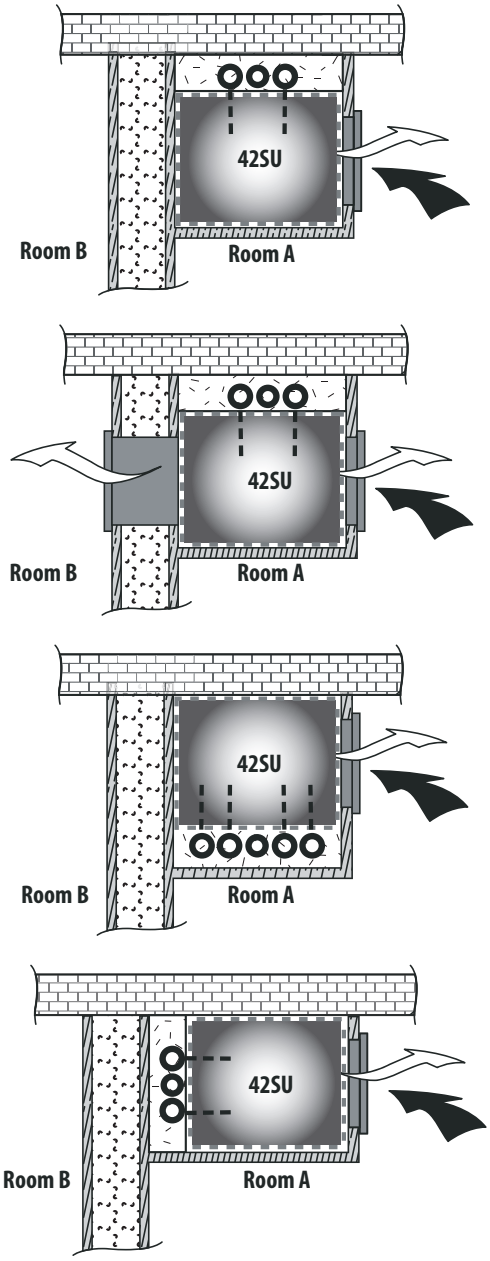
42SG – FURRED-IN-STACK SIAMESE

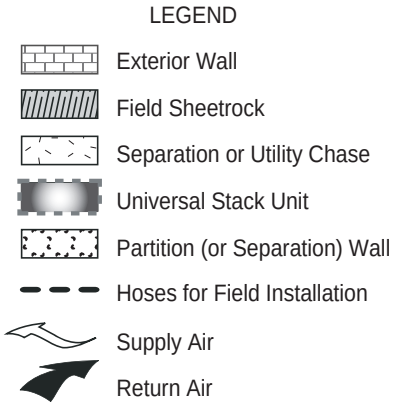
42SU ARRANGEMENT OPTIONS

One of the unique traits of the Universal Stack (42SU) is the variety of possible unit arrangements. The best unit design configuration can be selected by choosing from numerous unit arrangement options that utilize knock-out designs while conserving floor space and reducing installation costs.

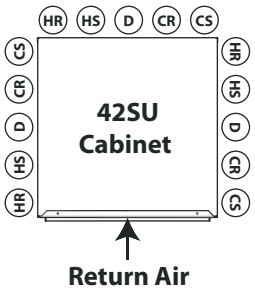
Below are just a few pictorials of the many arrangement possibilities of the 42SU fan coil system.

NOTE: Risers ship separately. Units are field connected to risers using factory furnished flex hoses.



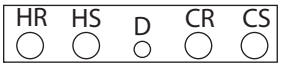


The Supply, Return, and Drain risers (2-pipe or 4-pipe applications) can be oriented on any of three sides of the unit.



R = Return
D = Drain
S = Supply

2-pipe



HR = Hot Water Return
HS = Hot Water Supply
D = Drain
CR = Cold Water Return
CS = Cold Water Supply

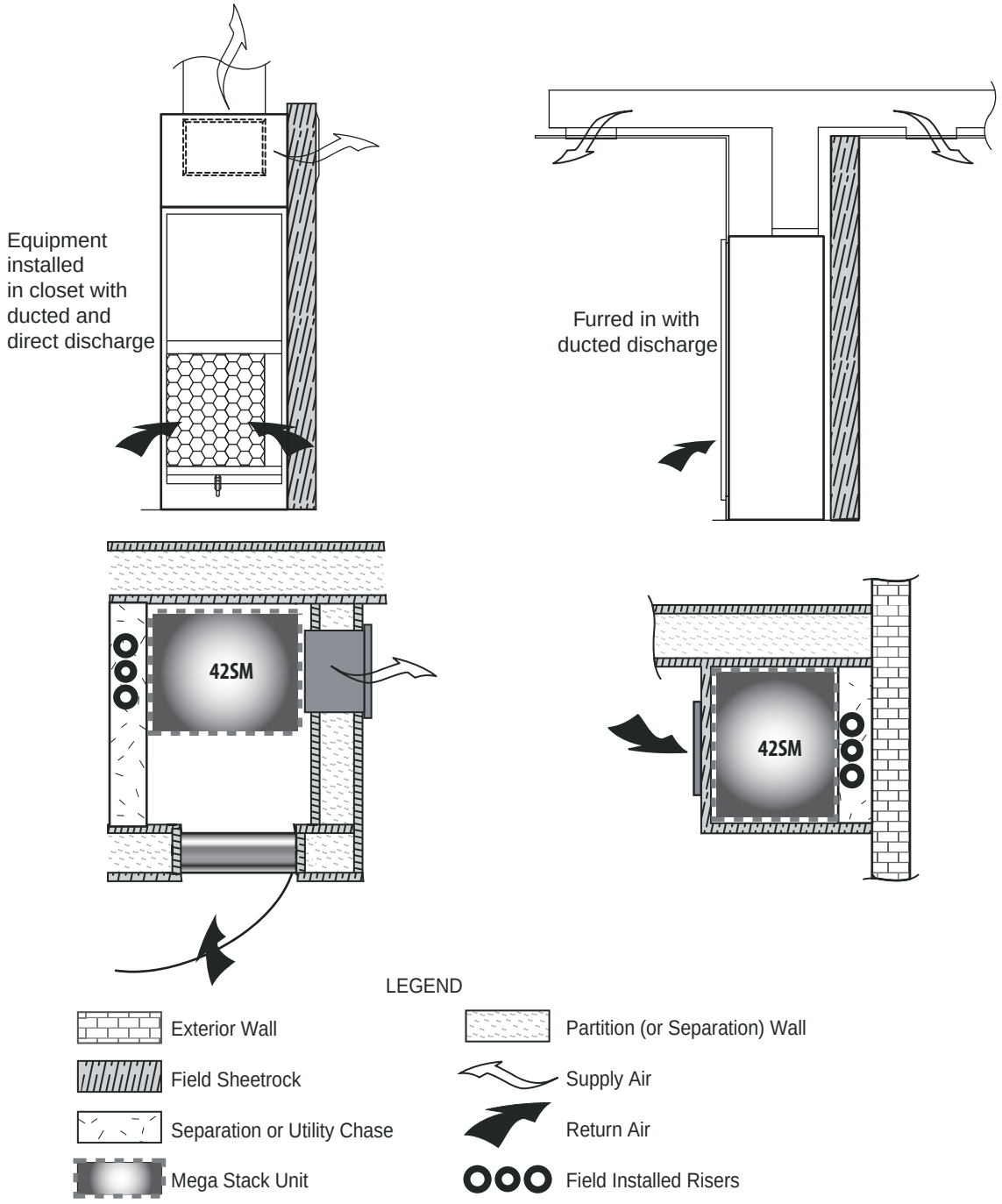
4-pipe

42SM UNIT CONFIGURATION OPTIONS

Mega Stack units (42SM) are designed to be installed either in a small mechanical closet or furred in with drywall adhered directly to the cabinet. One of the unique traits of the 42SM unit is its optional discharge plenum. The discharge plenum is a factory-installed option that adds 22-in. to the unit height and provides multiple air duct or supply air grille connections.

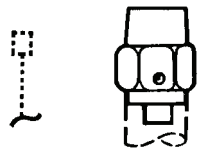
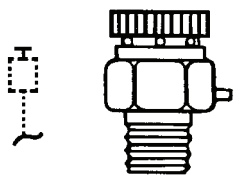
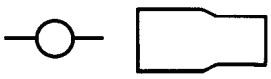
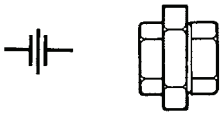
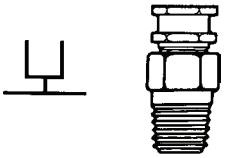
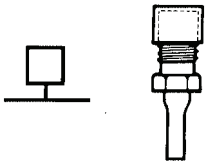
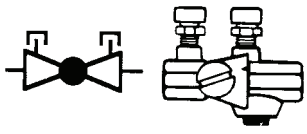
The designer is afforded the luxury of specifying a single unit, which can duct to multiple spaces, direct discharge to a single space, or provide a combination of the two. If necessary, the plenum can be added or removed in the field to accommodate design changes.

Below are a few of the many arrangement possibilities of the 42SM fan coil system.



NOTE: Risers ship separately. Units should be field connected using factory furnished flex hoses.

PIPING COMPONENTS

SYMBOL/SKETCH	DESCRIPTION	C_V FACTOR		RATING*		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 (not used on steam or DX 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 ball-check 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.	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
	**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.	2.12	3.9	300	250	NO

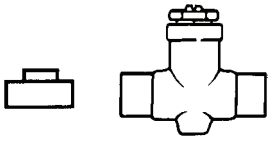
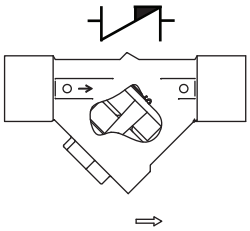
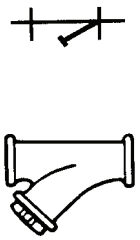
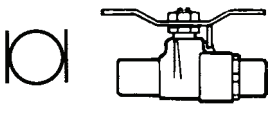
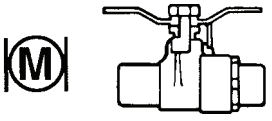
LEGEND

Cv — Coefficient of Velocity
DX — Direct Expansion
ETO— Engineering to Order

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

Application data (cont)

PIPING COMPONENTS (cont)

SYMBOL/SKETCH	DESCRIPTION	C_V FACTOR		RATING		STEAM USE
		1/2	3/4	PSI	F	
	**BALANCE VALVE:** Variable water flow manual balancing valve with screwdriver slot adjustment screw. Application — Often used in conjunction with test port fittings for water flow balancing. Balance by temperature differential or coil pressure drop (check specifications for service fittings required if balancing by pressure drop). May be used in 3-way valve bypass line to permit equal flow balancing.	4	14	300	250	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.	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 (±10%).		600	220	NO
	**STRAINER:** Y-type body 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 blow-down not provided).	9.0 Clean	19.0 Clean	400	150	N/A
	**BALL VALVE:** Manual balance and shut-off valve. Application — Used for unit isolation and water flow balancing. Without memory stop feature water balance point must be marked by installer (if necessary). Check specifications for service fittings required when used for water balancing.	14.2	28.6	600	350	YES
	**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.	14.2	28.6	600	350	N/A

LEGEND

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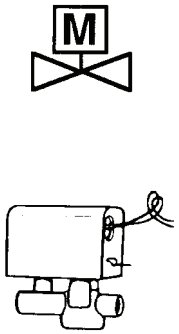
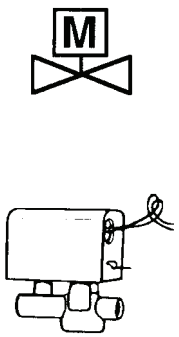
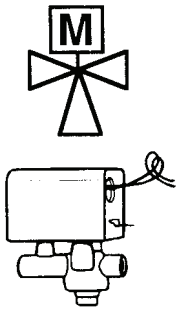
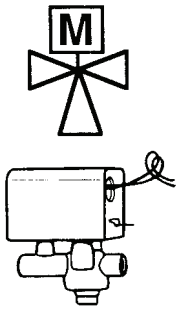
PIPING COMPONENTS (cont)

SYMBOL/SKETCH	DESCRIPTION	C_V FACTOR		RATING		STEAM USE
		1/2	3/4	PSI	F	
	**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 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.**	4.9	10.3	300	240	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
	**3-WAY MOTORIZED VALVE (150 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).	4.9	4.9	300	240	N/A

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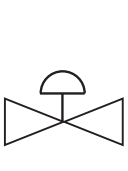
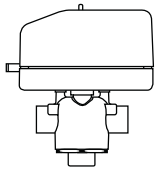
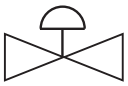
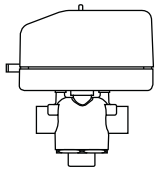
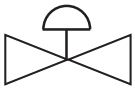
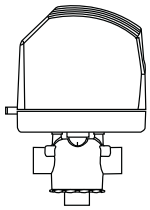
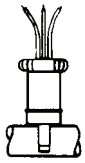
*Check all system component pressure ratings (coils, values, pumps, etc.) with manufacturer and any applicable local or national piping codes prior to specifying system pressure rating.

Application data (cont)

PIPING COMPONENTS (cont)

SYMBOL/SKETCH	DESCRIPTION	C_V FACTOR		RATING		STEAM USE
		1/2	3/4	PSI	F	
 	**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. On the 42DD,SG,SJ,SH commercial fan coil models, the factory provided modulating valve has application restrictions. In these models, the valve packages are located in the airstream, downstream of the coil. Due to the ambient temperature limitations of the modulating valves, the valves can only be used in the units listed above with 2-pipe cooling only systems.	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. On the 42DD,SG,SJ,SH commercial fan coil models, the factory provided modulating valve has application restrictions. In these models, the valve packages are located in the airstream, downstream of the coil. Due to the ambient temperature limitations of the modulating valves, the valves can only be used in the units listed above with 2-pipe cooling only systems.	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
 	**AQUASTAT:** Water temperature sensing electrical switch. 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.					

LEGEND

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Valve packages

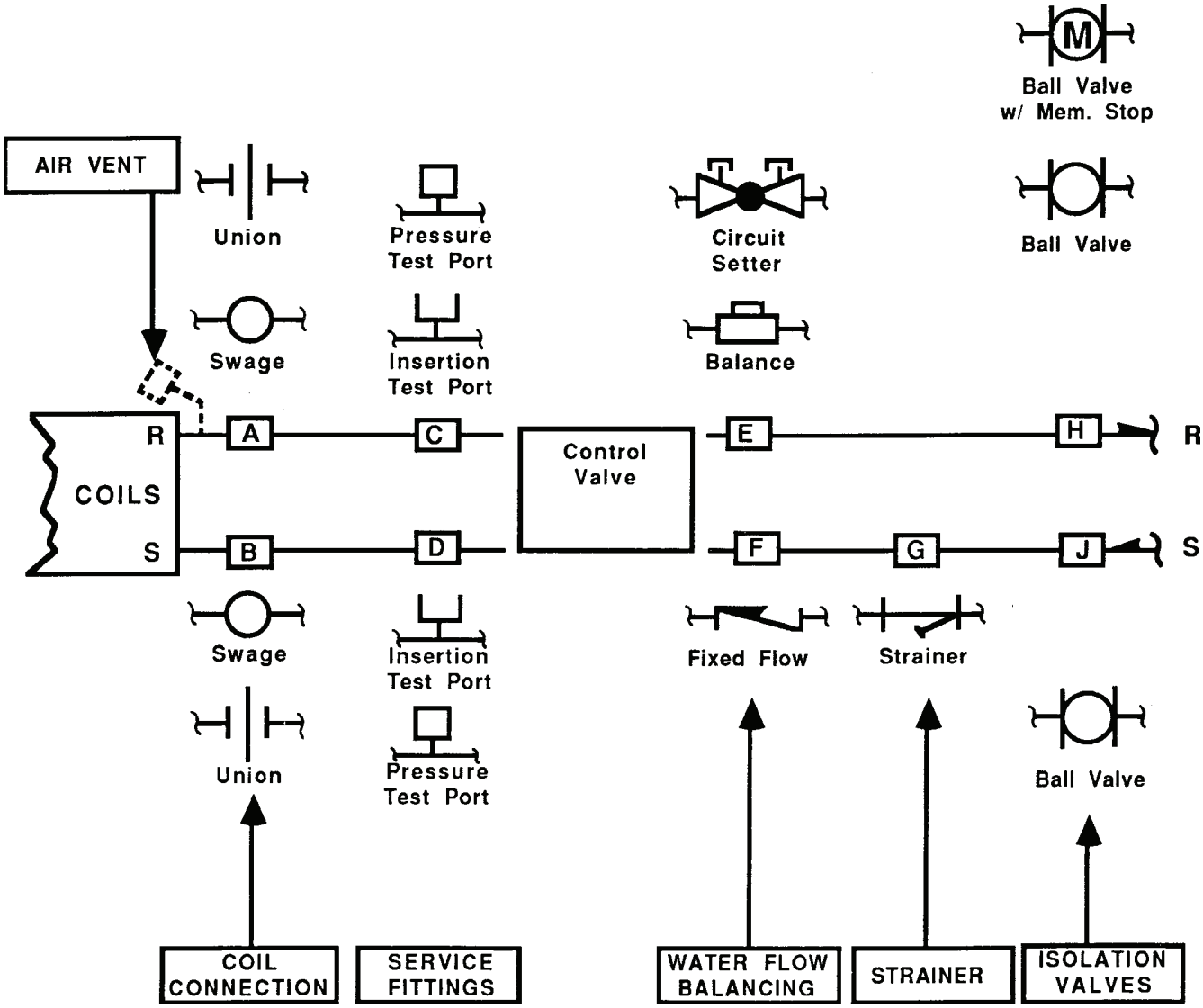
There are limitations on physical size of pneumatic valves, quantity and type of matching components, and required control interface. See Symbols and Placement of Valves diagram.

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.

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



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).

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.

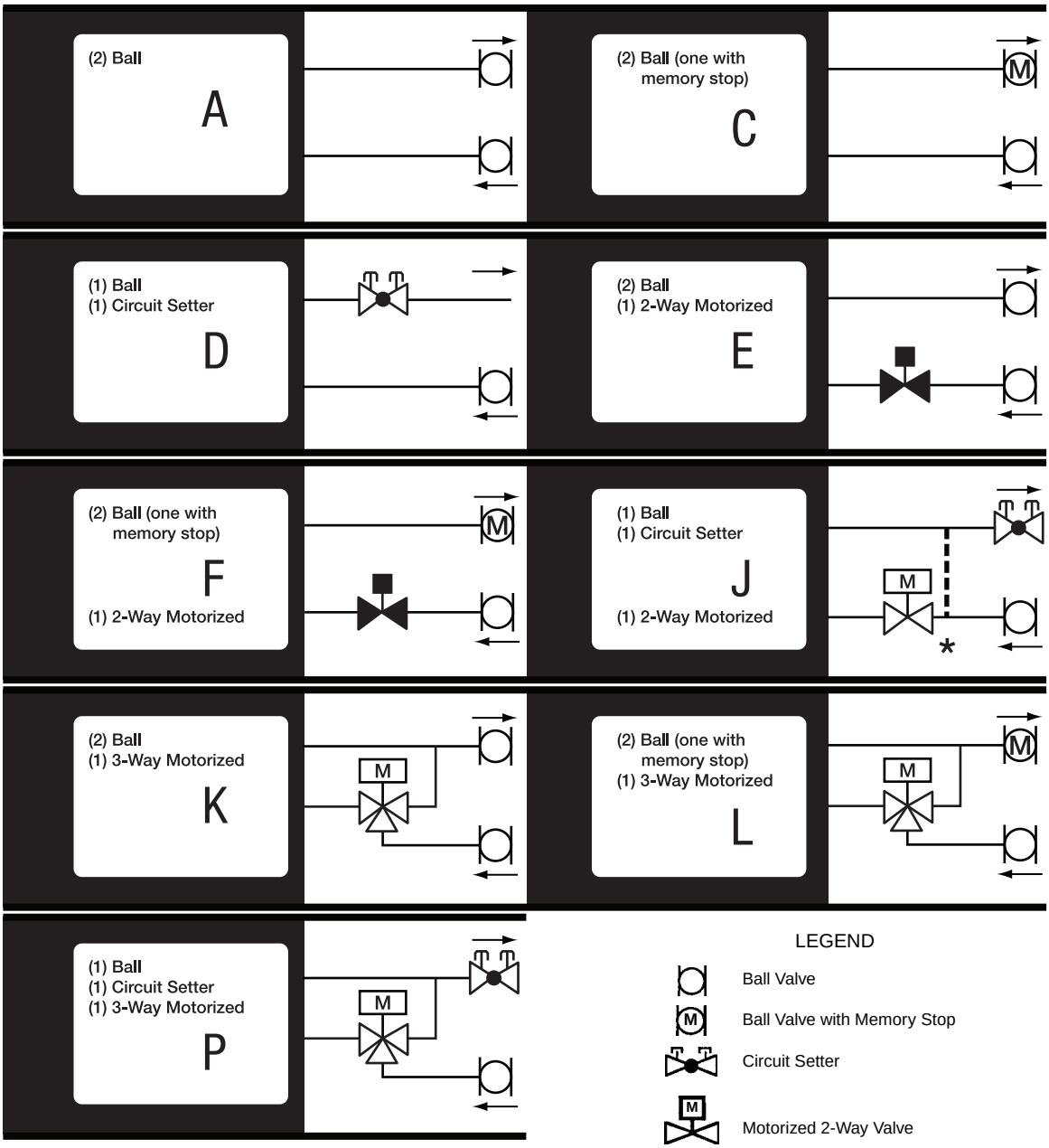
Water Flow Balancing (Positions E, F, & H) — Only one device per total valve package to be used for balancing water flow through the coil. When isolation valve (ball valve or ball valve with memory stop at position **H**) is used for water flow balancing, do not specify additional balancing device at position **E** or **F**. When balancing device is specified at position **E** or **F**, isolation valve does not require balancing feature at position **H** (with a 3-way motorized valve, a bypass balancing valve may be specified in the bypass line to permit equal flow balancing).

Strainer (Position G) — Does not include blow down fitting and should not be used in lieu of main piping strainers.

Isolation Valves (Positions H & J) — Normally requires one each on supply and return line (see exception under circuit setter). When position **H** is used for balancing (ball valve or ball valve with memory stop), check specifications for service valve requirements.

Application data (cont)

VALVE PACKAGE ARRANGEMENTS



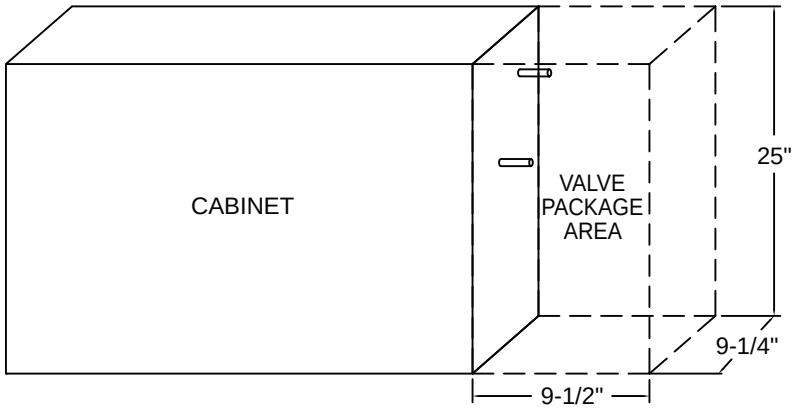
LEGEND

- Ball Valve
- Ball Valve with Memory Stop
- Circuit Setter
- Motorized 2-Way Valve
- Motorized 3-Way Valve

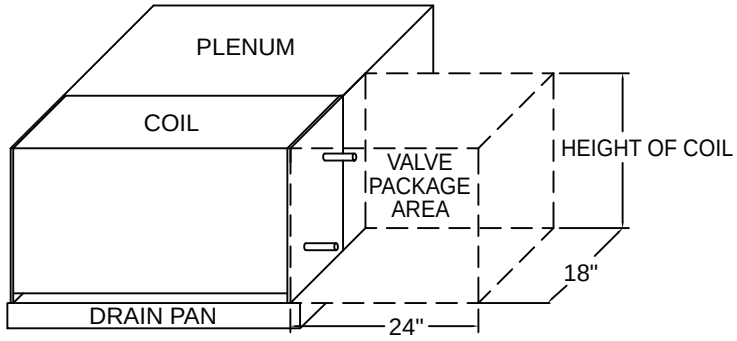
*When aquastat is used for automatic changeover, bypass is required as indicated by dashed line.

NOTES:
1. Packages factory furnished and field installed (except 42S units).
2. Valves are $^{5}/_{8}$-in. ODS unless otherwise specified.
3. If an automatic flow control valve is added, it will be located on supply line between shutoff valve and coil (or motorized control valve, if supplied).
4. Packages 17-A,C,D,E,F,J,K,L, and P are listed on current price pages.
5. Modulating control valve is installed in return line (not shown).

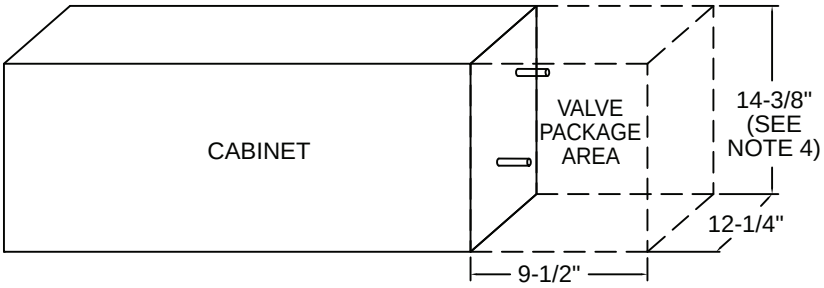
VALVE PACKAGE SPACING RECOMMENDATIONS



42VAA (SEE NOTE 3)



42CEA, CFA, DCA (SEE NOTES 1, 2)

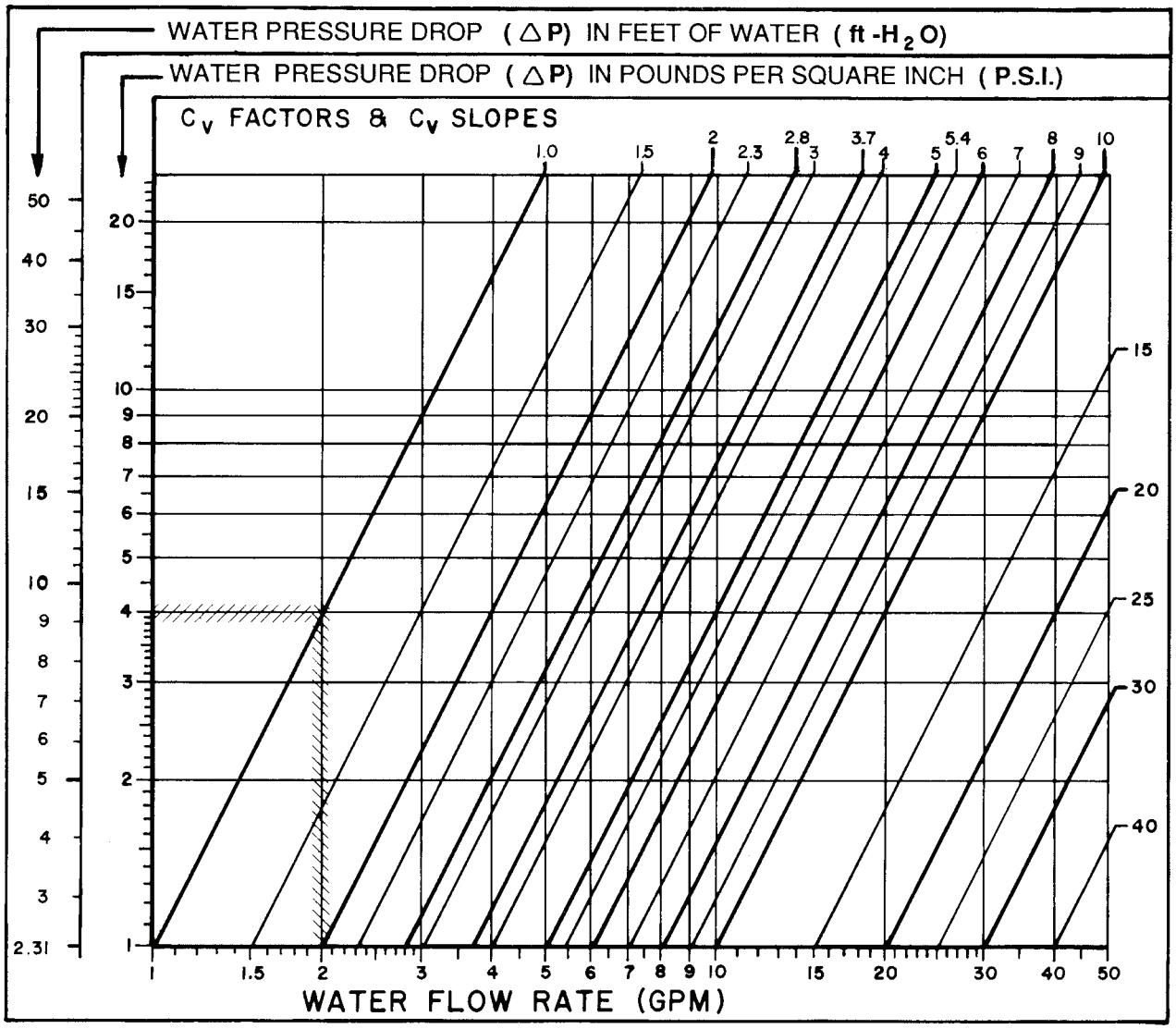


42VCA (SEE NOTES 3, 4)

NOTES:
1. Valve package dimensions on ceiling models are based on a 4-pipe unit with (1) 3-way control valve, (1) ball valve, and (1) circuit setter.
2. Coil height dimensions on 42CEA, 42CFA, and 42DCA are provided in the physical data section of the product data.
3. Valve package dimensions on floor units are based on the valve package space provided on the exposed floor models.
4. Height of the 42VCA is 16 $^{3}/_{8}$ in. depending on coil and electric heat selection.

Application data (cont)

Cv 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).

Pressure drop (ft-H_2O) = 2.31 x psi (pressure drop)

GRAPH EXAMPLE:

ΔP for 2.0 gpm through a component with a C_V of 1.0 is 4.0 psi x 2.31 = 9.24 ft-H_2O

FORMULA EXAMPLE:

$$\Delta P \text{ (ft-}H_2O) = \frac{(gpm)^2}{(C_v)^2} \times 2.31 = \frac{(2.0)^2}{(1.0)^2} \times 2.31 = 9.24 \text{ ft-}H_2O$$

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

ENTHALPY AT SATURATION

TEMPERATURE (F)	ENTHALPY AT SATURATION (Btu per lb of dry air)
40	15.230
41	15.697
42	16.172
43	16.657
44	17.149
45	17.650
46	18.161
47	18.680
48	19.211
49	19.751
50	20.301
51	20.862
52	21.436
53	22.020
54	22.615
55	23.22
56	23.84
57	24.48
58	25.12
59	25.78

TEMPERATURE (F)	ENTHALPY AT SATURATION (Btu per lb of dry air)
60	26.46
61	27.15
62	27.85
63	28.57
64	29.31
65	30.06
66	30.83
67	31.62
68	32.42
69	33.25
70	34.09
71	34.95
72	35.83
73	36.74
74	37.66
75	38.61
76	39.57
77	40.57
78	41.58
79	42.62
80	43.69

ALTITUDE COOLING CORRECTION FACTORS

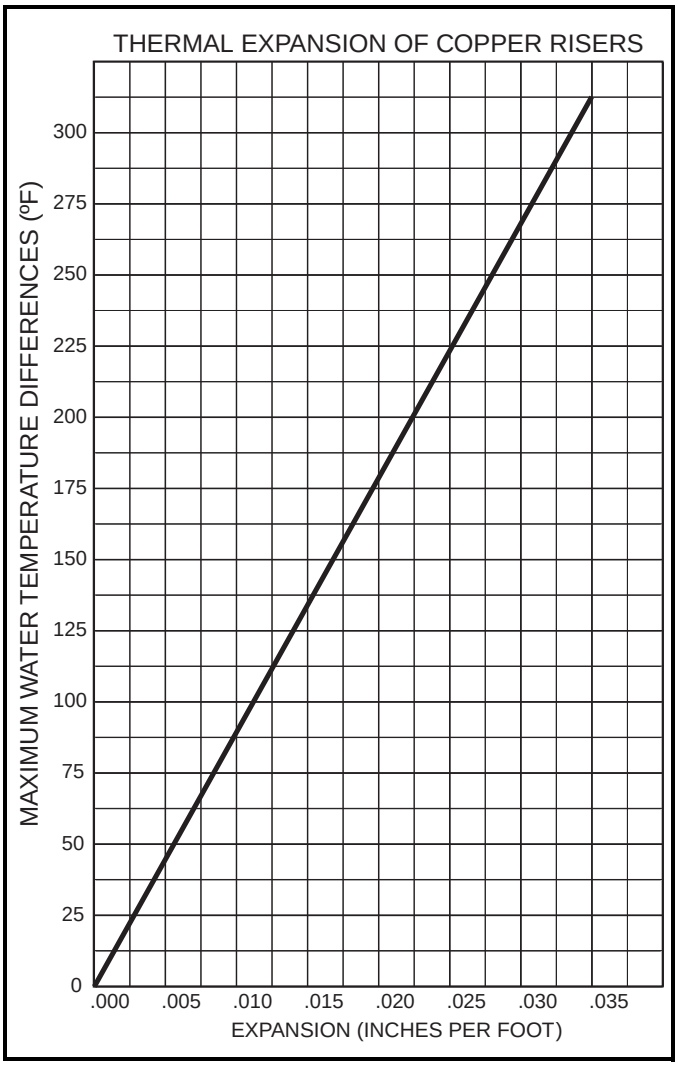
ELEVATION (ft)	TOTAL HEAT	SENSIBLE HEAT
Sea Level	1.00	1.00
1000	.990	.960
2000	.980	.930
3000	.970	.896
4000	.960	.864
5000	.940	.830
6000	.930	.800
7000	.920	.770
8000	.910	.750
9000	.900	.730

AIRFLOW CORRECTION FACTORS

CFM RATIO (Actual/Base)	TOTAL (Ct)	SENSIBLE (Cs)
1.40	1.25	1.26
1.35	1.22	1.23
1.30	1.19	1.20
1.25	1.16	1.17
1.20	1.13	1.14
1.15	1.10	1.11
1.10	1.07	1.08
1.05	1.04	1.04
1.00	1.00	1.00
0.95	0.97	0.97
0.90	0.94	0.93
0.85	0.90	0.89
0.80	0.86	0.85
0.75	0.82	0.81
0.70	0.78	0.77
0.65	0.74	0.72
0.60	0.70	0.67
0.55	0.66	0.62
0.50	0.62	0.57
0.45	0.58	0.52
0.40	0.53	0.47
0.35	0.48	0.42
0.30	0.43	0.38
0.25	0.38	0.33

LEGEND

CFM — Cubic Feet per Minute
Cs — Sensible Airflow Correction Factor
Ct — Total Airflow Correction Factor



Application data (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, Model 42D ducted units and Model 42S stack units.

These heaters consist of coils of the highest grade resistance wire, insulated by ceramic insulators on plated steel brackets. High limit thermal cutouts protect the unit in the event of airflow loss.

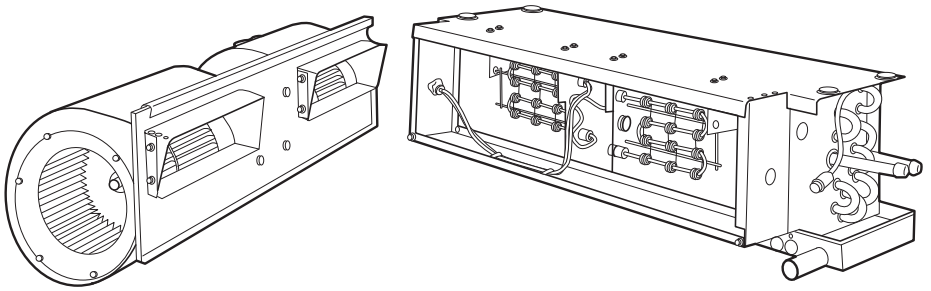
All heaters except those used in 42S stack units are positioned on the incoming (preheat) side of the unit coil. On 42S stack units, the strip heater is located in the fan discharge on the leaving side of the coil.

Sheath heaters are used with Model 42V vertical units. These heaters consist of the highest grade resistance wire, centered in a $^1/_2$-in. diameter copper-plated steel sheath. The wire is insulated from the sheath by magnesium oxide powder packed around it. To increase the heater surface exposed to air, a $1^1/_4$-in. OD fin of copper-plated steel is wound around the sheath in a continuous spiral that makes 5 turns per lineal inch. Sheath and fin are permanently bonded together by copper brazing.

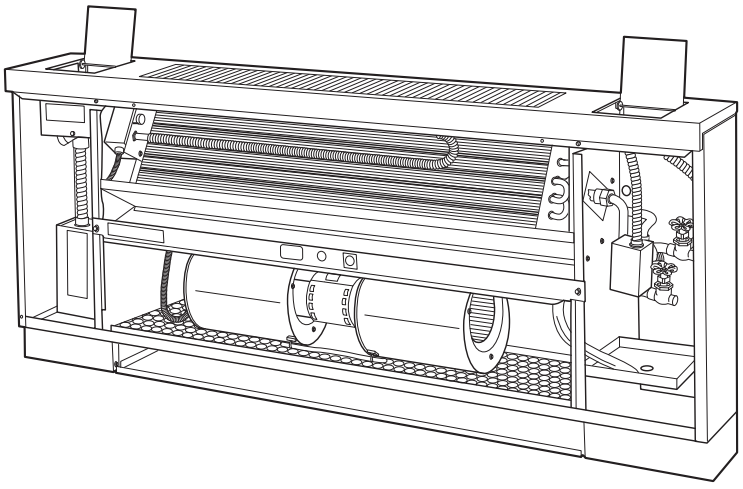
The heaters are positioned on the leaving (reheat) side of the unit coil. On special units with high-efficiency motors, a strip heater will be installed in the fan discharge on the incoming (preheat) side of the unit coil.

Heater electrical data

1. Load voltage may be 120, 208, 240 or 277 volts. For unit size and kW limitations, refer to the specific unit catalogs.
2. All heaters are single stage and single phase except for 42SM, which offers 2-stage electric heaters.
3. Unless a single power-source option is selected, the electric heat units require 2 separate power sources. 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.



MODEL 42C CEILING UNIT WITH ELECTRIC STRIP HEATER



MODEL 42V VERTICAL UNIT WITH ELECTRIC SHEATH HEATER

HEATER ELECTRICAL DATA

42C SERIES

HEATER VOLTAGE	kW	CAPACITY (Btuh)	UNIT SIZE						
			02	03	04	06	08	10	12
120	0.5	1,708	*	*					
	1.0	3,415	*	*	*				
	1.5	5,123	*	*	*				
	2.0	6,830	*	*	*	*	*	*	*
	3.0	10,245		*	*	*	*	*	*
208	0.5	1,708	*	*					
	1.0	3,415	*	*	*				
	1.5	5,123	*	*	*				
	2.0	6,830	*	*	*	*	*	*	*
	3.0	10,245		*	*	*	*	*	*
	4.0	13,660				*	*	*	*
	5.0	17,075				*	*		
	6.0	20,490					*		
	7.0	23,905					*		
	8.0	27,320						*	*
	10.0	34,150							*
240,277	0.5	1,708	*	*					
	1.0	3,415	*	*	*				
	1.5	5,123	*	*	*				
	2.0	6,830	*	*	*	*	*	*	*
	3.0	10,245		*	*	*	*	*	*
	4.0	13,660				*	*	*	*
	5.0	17,075				*	*		
	6.0	20,490				*	*	*	*
	7.0	23,905					*		
	8.0	27,320						*	*
	10.0	34,150							*

42V SERIES

HEATER VOLTAGE	kW	CAPACITY (Btuh)	UNIT SIZE						
			02	03	04	06	08	10	12
120	1.0	3,415	*	*	*	*			
	1.5	5,123		*	*	*			
	2.0	6,830			*	*	*		
	3.0	10,245				*	*	*	*
208, 240, 277	1.0	3,415	*	*	*	*			
	1.5	5,123		*	*	*			
	2.0	6,830			*	*	*		
	3.0	10,245				*	*	*	*
	4.0	13,660					*	*	*
	5.0	17,075						*	*
240,277	6.0	20,490							*

NOTE: All heaters are single-stage and single-phase. Contact your Carrier representative for heater availability for 220-1-50 units.

42D SERIES

HEATER VOLTAGE	kW	CAPACITY (Btuh)	UNIT SIZE							
			06	08	10	12	14	16	18	20
120	2.0	6,830	*	*	*					
	3.0	10,245	*	*	*					
208, 240, 277	2.0	6,830	*	*	*					
	3.0	10,245	*	*	*					
	4.0	13,660	*	*	*	*	*	*	*	*
	5.0	17,075		*	*	*	*	*	*	*
	6.0	20,490		*	*	*	*	*	*	*
	7.0	23,905			*	*	*	*	*	*
	8.0	27,320				*	*	*	*	*
	9.0	30,735				*	*	*	*	*
	10.0	34,150					*	*	*	*
	12.0	40,980						*	*	*
	14.0	47,810								*

NOTE: All heaters are single-stage and single-phase.

42S SERIES

HEATER VOLTAGE	kW	UNIT SIZE								
		03	04	06	08	10	12	14	16	20
120	1.0	*	*	*	*	*	*			
	1.5	*	*	*	*	*	*			
	2.0	*	*	*	*	*	*			
	3.0	*	*	*	*	*	*			
208	1.0	*	*	*	*	*	*			
	1.5	*	*	*	*	*	*			
	2.0	*	*	*	*	*	*			
	3.0	*	*	*	*	*	*			
	4.0		*	*	*	*	*	*	*	*
	5.0			*	*	*	*			
	6.0			*	*	*	*	*	*	*
	8.0				*	*	*	*	*	*
240, 277	1.0	*	*	*	*	*	*			
	1.5	*	*	*	*	*	*			
	2.0	*	*	*	*	*	*			
	3.0	*	*	*	*	*	*			
	4.0		*	*	*	*	*	*	*	*
	5.0			*	*	*	*			
	6.0			*	*	*	*	*	*	*
	8.0				*	*	*	*	*	*
	10.0					*	*	*	*	*
	12.0							*	*	*

NOTES:
1. Contact your Carrier representative for heater availability on 42SU unit quick ship program.
2. 12 kW heater only available with 277V heater voltage.

Application data (cont)

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.

Control method no. 1 — ECM 3-speed — This method uses the ECM with jumper field adjustment. The relay board will have three main circuits for HI, MEDIUM, and LOW speed. Each of these speeds will have four additional ports labeled A, B, C, and D. Each of these ports will offer a different percentage of airflow according to the chart below. This will allow the customization of air flow on each speed of the fan coil unit to better suit any requirements.

ECM JUMPER FIELD SPEED CONTROL

PORT	AIRFLOW PERCENTAGE ON FAN SPEEDS		
	HI	MEDIUM	LOW
A	110	80	60
B	100	75	55
C	95	70	50
D	90	65	45

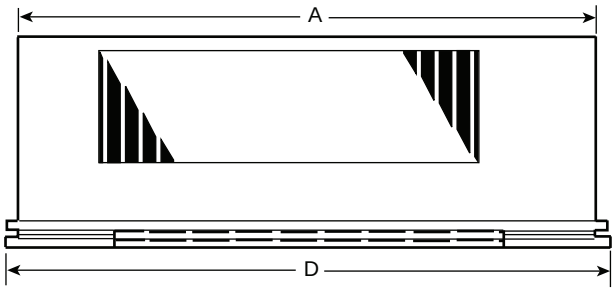
Control method no. 2 — ECM 3 discreet speeds — This method uses Rheostat Field Speed Adjustment. Method no. 2 is a 4 discrete speed control option labeled F101 through F104. However, instead of having four different ports for each fan speed, it has "Rheostat" knobs for each fan speed. These knobs allow the customer to adjust the fan speed with more precision than the predetermined fan speed percentage in control method no. 1. Customer can connect a voltmeter to the rheostat knobs and adjust the voltage output of each fan speed to slow down or speed up the airflow as required. This control method offers the best options for discrete speed control.

Control method no. 3 — 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.

42C cabinet unit with electronically commutated motor (ECM)

When a 42C cabinet unit (42CK or 42CG) is ordered with rear return arrangement and electronically commutated motor (ECM), a cabinet extension (6-in.) is required on the controls side. The extension requirement is not due to manufacturing difficulties but due to serviceability limitations. Extending the cabinet creates more room in the unit, making it easy to access coil and drain pan during service. The control side of the unit is opposite the cooling coil hand side. The supply and return will not be in the panel with this cabinet change.

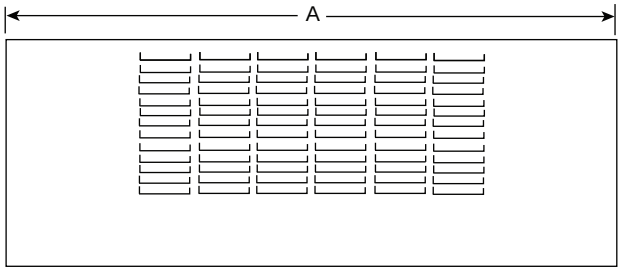
42CK



Front View

42CK	WITH PSC MOTOR		WITH ECM	
	A (in.)	D (in.)	A (in.)	D (in.)
02	35	37	41	43
03	35	37	41	43
04	41	43	47	49
06	53	55	59	61
08	53	55	59	61
10	75	77	81	83
12	75	77	81	83

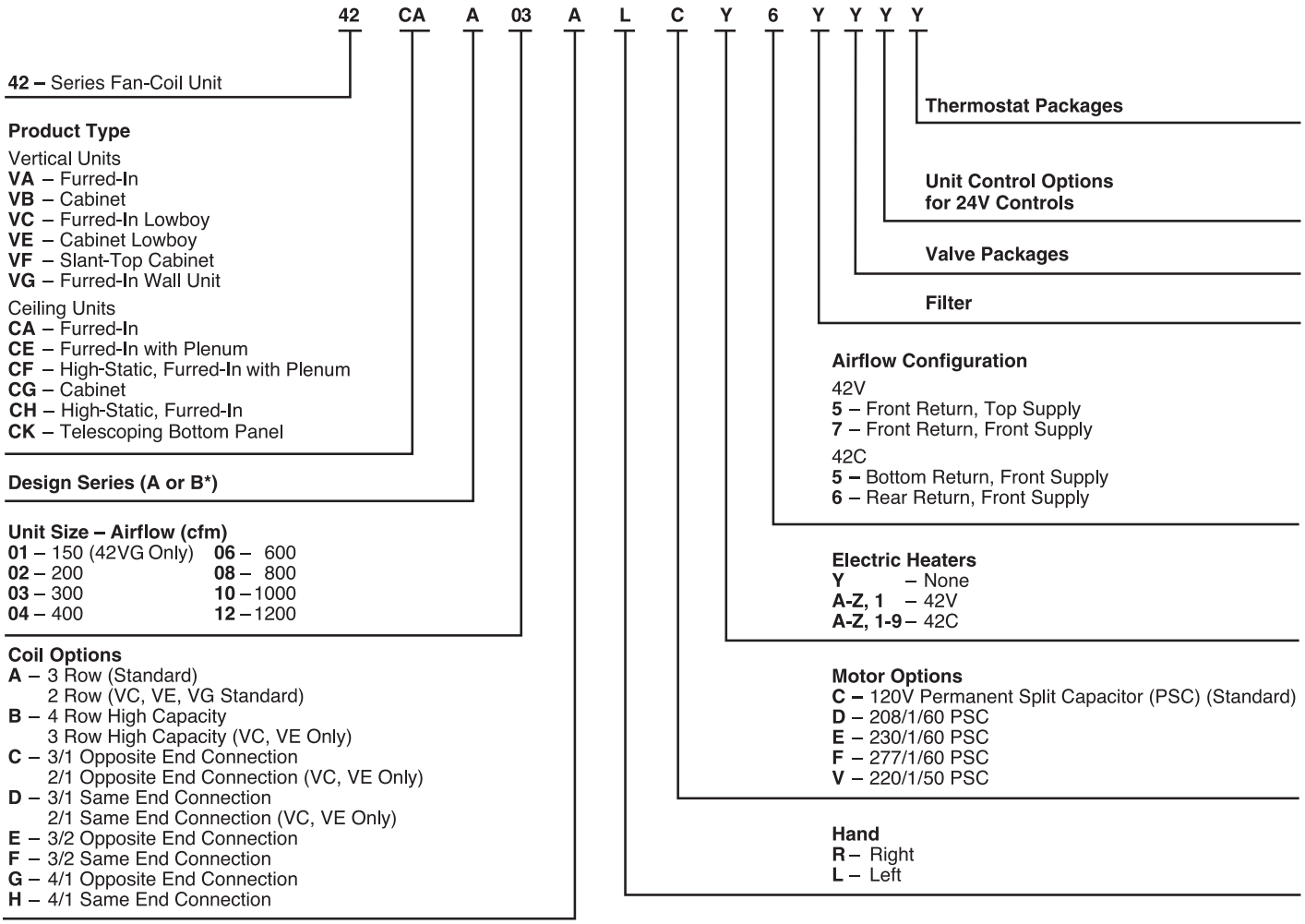
42CG



Front View

42CG	WITH PSC MOTOR	WITH ECM
	A (in.)	A (in.)
02	38	44
03	42	48
04	48	54
06	53	59
08	60	66
10	74	80
12	82	88

Model number nomenclature



*Model 42CG only.

AHRI capacity ratings

The 42C,V 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:

AHRI CERTIFIED™
www.ahridirectory.org
Room Fan-Coils
AHRI Standard 440

AHRI APPROVED STANDARD RATINGS*

UNIT	UNIT SIZE	COIL ROWS	NOMINAL CFM	GPM	COOLING CAPACITY		POWER INPUT (WATTS)†
					Total MBtuh	Sensible MBtuh	
42CA,CE,CG,CK	02	3	200	1.2	6.0	4.4	87
	03		300	1.8	9.0	6.3	85
	04		400	2.5	12.1	8.8	165
	06		600	3.6	17.3	13.0	225
	08		800	4.6	22.6	16.2	235
	10		1000	5.5	27.5	21.0	305
	12		1200	6.6	32.8	25.0	435
	02	4	200	1.4	6.9	4.3	87
	03		300	2.1	9.8	6.5	85
	04		400	2.8	13.8	9.8	145
	06		600	4.0	19.6	14.3	220
	08		800	5.1	25.5	18.8	235
	10		1000	6.2	31.0	22.0	300
	12		1200	7.5	37.2	27.7	425
42CF,CH	04	4	400	3.2	16.0	11.6	170
	06		600	4.4	21.8	16.0	205
	08		800	5.3	26.5	19.6	225
	10		1000	7.5	37.2	27.6	355
42VA,VB,VF	02	3	200	1.0	4.8	3.5	80
	03		300	1.5	7.2	5.3	80
	04		400	2.4	11.2	7.9	130
	06		600	3.0	13.9	10.4	200
	08		800	4.0	18.5	13.5	210
	10		1000	4.8	22.0	16.8	250
	12		1200	5.3	26.3	20.0	370
	02	4	200	1.4	6.6	4.1	80
	03		300	2.0	8.6	5.7	80
	04		400	2.7	13.1	8.6	130
	06		600	3.8	18.6	13.6	196
	08		800	4.2	20.6	14.1	195
	10		1000	5.9	29.5	19.6	240
	12		1200	7.8	35.3	26.3	370
42VG	01	2	150	0.6	2.1	1.6	135**
	03		300	1.5	5.2	4.7	270**
42VC,VE	02	2	200	1.2	5.1	3.6	68
	03		300	2.0	8.6	6.7	135
	04		400	2.6	12.3	8.3	150
	06		600	3.6	18.3	13.2	260
	02	3	200	1.3	5.5	3.8	68
	03		300	2.4	10.9	7.1	130
	04		400	3.0	13.4	8.8	145
	06		600	4.1	21.1	14.6	250

LEGEND

GPM — Gallons per minute
MBtuh — Capacity (Btuh in thousands)

*Ratings based on motor at high fan speed, standard air and dry coil operation, 10° F water temperature rise; entering-air temperature 67 F wb; 80 F db; entering water temperature 45 F.
†Motor type permanent split capacitor operating at 115-1-60 voltage.
**Shaded pole motor.

SOUND POWER DATA

42CA,CE,CK SOUND RATINGS — OCTAVE BAND POWER LEVEL RATINGS* (dB)

SIZE	RATING	FAN SPEED	CFM	SOUND POWER LEVEL, L_W (dB one reference pico watt) — Hz							A-wgt (dBA)
				125	250	500	1000	2000	4000	8000	
02	CASING RADIATED	High	220	62	56	56	53	47	46	45	58
		Medium	195	57	52	52	47	37	39	40	53
		Low	175	48	47	48	43	38	34	33	49
	DISCHARGE	High	220	61	55	55	52	48	46	45	57
		Medium	195	56	51	51	46	38	39	40	52
		Low	175	47	46	47	42	39	34	33	48
03	CASING RADIATED	High	330	57	59	58	53	47	42	38	59
		Medium	295	51	53	52	45	38	34	35	52
		Low	250	47	47	46	38	30	29	34	46
	DISCHARGE	High	330	55	56	56	52	48	43	38	57
		Medium	295	50	50	50	44	39	34	34	50
		Low	250	48	44	44	36	31	29	34	44
04	CASING RADIATED	High	510	63	62	62	60	52	45	40	64
		Medium	360	58	55	56	49	41	34	35	56
		Low	220	51	46	48	39	31	31	35	47
	DISCHARGE	High	510	59	60	61	59	53	46	39	63
		Medium	360	55	50	53	48	40	33	34	53
		Low	220	51	41	43	36	29	29	33	44
06	CASING RADIATED	High	760	66	60	60	56	51	50	47	62
		Medium	540	58	52	51	47	42	38	33	52
		Low	330	54	48	46	40	31	29	33	47
	DISCHARGE	High	760	65	59	59	55	52	50	47	61
		Medium	540	57	51	50	46	43	38	33	52
		Low	330	53	47	45	39	32	29	33	46
08	CASING RADIATED	High	870	69	64	64	60	55	55	52	66
		Medium	590	62	54	56	51	42	39	36	56
		Low	335	54	49	47	42	33	29	33	48
	DISCHARGE	High	870	68	63	63	59	56	55	52	65
		Medium	590	61	53	55	50	43	39	36	55
		Low	335	53	48	46	41	34	29	33	47
10	CASING RADIATED	High	1100	76	68	68	64	59	59	57	70
		Medium	665	65	58	58	53	46	45	45	59
		Low	495	59	54	54	48	41	37	33	54
	DISCHARGE	High	1100	75	67	67	63	60	59	57	69
		Medium	665	64	57	57	52	47	45	45	58
		Low	495	58	53	53	47	42	37	33	53
12	CASING RADIATED	High	1425	81	73	73	69	63	64	62	75
		Medium	950	71	65	65	60	54	53	53	66
		Low	705	62	58	57	52	45	40	36	58
	DISCHARGE	High	1425	80	72	72	68	64	64	62	74
		Medium	950	70	64	64	59	55	53	53	65
		Low	705	61	57	56	51	46	40	36	57

*Rated in accordance with AHRI 260, sound rating of duct air moving and conditioning equipment.

AHRI capacity ratings (cont)

SOUND POWER DATA

42CG SOUND RATINGS — OCTAVE BAND POWER LEVEL RATINGS* (dB)

SIZE	RATING	FAN SPEED	CFM	SOUND POWER LEVEL, L_W (dB one reference pico watt) — Hz							A-wgt (dBA)
				125	250	500	1000	2000	4000	8000	
02	CASING RADIATED	High	220	57	59	61	58	51	45	46	62
		Medium	195	52	55	57	52	41	38	41	57
		Low	175	47	50	53	48	42	33	34	53
03	CASING RADIATED	High	330	55	60	61	57	52	47	41	62
		Medium	295	50	54	55	50	44	37	36	55
		Low	250	47	49	49	42	35	31	34	49
04	CASING RADIATED	High	510	60	65	66	64	58	51	43	68
		Medium	360	52	57	59	54	46	37	36	59
		Low	220	48	47	51	42	34	32	35	49
06	CASING RADIATED	High	760	61	63	65	61	55	49	48	66
		Medium	540	53	55	56	52	46	37	34	57
		Low	330	49	51	51	45	35	31	34	51
08	CASING RADIATED	High	870	64	67	69	65	59	54	53	70
		Medium	590	57	57	61	56	46	38	37	61
		Low	335	49	52	52	47	37	31	34	52
10	CASING RADIATED	High	1100	71	71	73	69	63	58	58	74
		Medium	665	60	61	63	58	50	44	46	63
		Low	495	54	57	59	53	45	36	34	59
12	CASING RADIATED	High	1425	76	76	78	74	67	63	63	79
		Medium	950	66	68	70	65	58	52	54	70
		Low	705	57	61	62	57	49	39	37	62

*Rated in accordance with AHRI 350, sound rating of duct air moving and conditioning equipment.

42CF,CH SOUND RATINGS — OCTAVE BAND POWER LEVEL RATINGS* (dB)

SIZE	RATING	FAN SPEED	CFM	SOUND POWER LEVEL, L_W (dB one reference pico watt) — Hz							A-wgt (dBA)
				125	250	500	1000	2000	4000	8000	
04	CASING RADIATED	High	630	65	63	62	59	53	51	46	64
		Medium	570	63	60	59	56	51	48	42	61
		Low	480	60	57	56	52	46	43	36	57
	DISCHARGE	High	630	64	62	61	58	54	51	46	63
		Medium	570	62	59	58	55	52	48	42	60
		Low	480	59	56	55	51	47	43	36	56
06	CASING RADIATED	High	780	65	63	62	59	53	51	46	64
		Medium	655	63	60	59	56	51	48	42	61
		Low	485	60	57	56	52	46	43	36	57
	DISCHARGE	High	780	64	62	61	58	54	51	46	63
		Medium	655	62	59	58	55	52	48	42	60
		Low	485	59	56	55	51	47	43	36	56
08	CASING RADIATED	High	870	65	63	62	59	53	51	46	64
		Medium	655	63	60	59	56	51	48	42	61
		Low	570	60	57	56	52	46	43	36	57
	DISCHARGE	High	870	64	62	61	58	54	51	46	63
		Medium	655	62	59	58	55	52	48	42	60
		Low	570	59	56	55	51	47	43	36	56
10	CASING RADIATED	High	1360	65	63	62	59	53	51	46	64
		Medium	1265	63	60	59	56	51	48	42	61
		Low	1125	60	57	56	52	46	43	36	57
	DISCHARGE	High	1360	64	62	61	58	54	51	46	63
		Medium	1265	62	59	58	55	52	48	42	60
		Low	1125	59	56	55	51	47	43	36	56

*Rated in accordance with AHRI 260, sound rating of duct air moving and conditioning equipment.

SOUND POWER DATA (cont)

42VA,VB,VF SOUND RATINGS — OCTAVE BAND SOUND POWER LEVEL RATINGS* (dB)

SIZE	RATING	FAN SPEED	CFM	SOUND POWER LEVEL, L_W (dB one reference pico watt) — Hz							A-wgt (dBA)
				125	250	500	1000	2000	4000	8000	
02	CASING RADIATED	High	258	60	65	59	55	48	43	37	61
		Medium	207	55	58	53	48	41	35	34	54
		Low	167	52	51	48	42	34	30	35	49
03	CASING RADIATED	High	295	62	64	58	55	48	43	37	60
		Medium	250	57	56	52	47	40	34	34	53
		Low	205	54	50	46	40	32	30	34	47
04	CASING RADIATED	High	420	66	67	64	58	50	45	39	64
		Medium	303	58	60	53	47	40	32	0	55
		Low	202	52	55	47	40	33	0	0	49
06	CASING RADIATED	High	477	67	68	65	59	53	48	42	66
		Medium	431	61	62	56	52	46	40	0	58
		Low	310	54	56	48	41	34	0	0	50
08	CASING RADIATED	High	700	68	68	65	60	55	51	44	66
		Medium	575	63	64	59	54	50	45	36	61
		Low	360	55	56	49	43	37	28	0	51
10	CASING RADIATED	High	915	68	69	65	61	54	49	44	67
		Medium	675	66	66	60	56	50	45	38	62
		Low	490	58	58	52	46	38	31	0	54
12	CASING RADIATED	High	1100	70	71	67	63	56	51	46	69
		Medium	935	69	69	63	59	53	48	42	65
		Low	580	60	61	54	48	41	34	0	56

*Rated in accordance with AHRI 350, sound rating of duct air moving and conditioning equipment.

42VC,VE SOUND RATINGS — OCTAVE BAND SOUND POWER LEVEL RATINGS* (dB)

SIZE	RATING	FAN SPEED	CFM	SOUND POWER LEVEL, L_W (dB one reference pico watt) — Hz							A-wgt (dBA)
				125	250	500	1000	2000	4000	8000	
02	CASING RADIATED	High	230	60	63	60	56	53	50	47	62
		Medium	155	53	53	51	46	43	38	32	52
		Low	115	50	48	43	38	33	29	—	45
03	CASING RADIATED	High	345	64	67	63	60	56	54	50	66
		Medium	265	56	58	53	50	47	43	37	56
		Low	185	49	51	47	41	36	29	—	48
04	CASING RADIATED	High	460	65	68	64	61	57	55	51	67
		Medium	335	57	59	54	51	48	44	38	57
		Low	230	50	52	48	42	37	30	—	49
06	CASING RADIATED	High	670	66	67	63	61	56	53	50	66
		Medium	510	58	58	55	53	48	43	37	58
		Low	355	51	50	47	44	38	30	—	49

*Rated in accordance with AHRI 350, sound rating of duct air moving and conditioning equipment.

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)*							
42CA	36	39	49	59	64	95	107
42CE	55	60	70	82	95	135	154
42CF	—	—	84	97	110	163	—
42CG	98	118	126	168	176	215	245
42CH	—	—	62	73	82	128	—
42CK	115	120	135	150	155	227	241
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
42CF, CH	—	—	1.02	1.42	1.71	2.32	—
COILS							
FPI				10 fins/inch			
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
42CF, CH	—	—	2	2	2	4	—
FILTERS							
Nominal Size (in.) (1-in. thick)							
42CA**	10 x 24	10 x 28	10 x 32	10 x 42	10 x 42	10 x 54	10 x 64
42CE††	10 x 18	10 x 22	10 x 28	10 x 33	10 x 40	10 x 54	10 x 62
42CF††* **	—	—	12 3/4 x 28	12 3/4 x 33	12 3/4 x 40	12 3/4 x 54	—
42CH†††	—	—	10 x 32	10 x 42	10 x 42	10 x 54	—
42CG							
Bottom Return	10 x 23 1/2	10 x 28	10 x 32 1/2	10 x 37	10 x 41	10 x 54 1/2	10 x 63
Rear Return	8 x 23 1/2	8 x 28	8 x 32 1/2	8 x 37	8 x 41	8 x 54 1/2	8 x 63
42CK							
Bottom Return	10 x 28	10 x 28	10 x 33	10 x 45	10 x 45	10 x 62	10 x 62
Rear Return	7 x 21	7 x 21	7 x 27	7 x 38	7 x 38	7 x 52	7 x 52
Rear Return with Duct Collar	6 x 18 3/4	6 x 18 3/4	6 x 24 3/4	6 x 35 3/4	6 x 35 3/4	6 x 49 3/4	6 x 49 3/4
Qty	1	1	1	1	1	1	1
SUPPLY DUCT COLLAR	1-in.						
PIPING CONNECTIONS (Sweat) (in.)							
Coil Outlet and Inlet	5/8 OD						
Drain Connection	7/8 OD						
Tell-Tale Drain	5/8 OD						

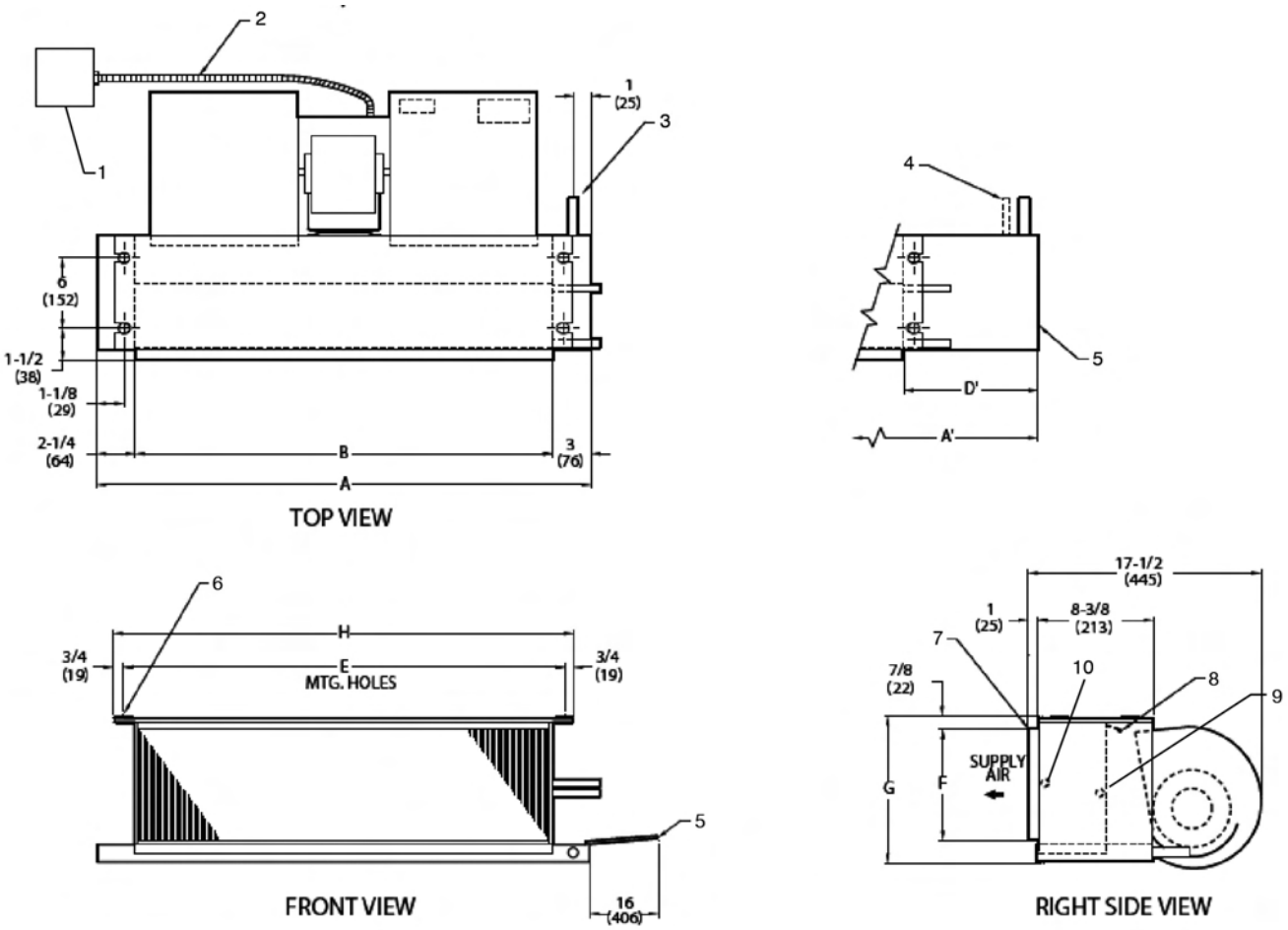
*Calculate operating weight of unit: shipping weight + coil water weight x number of coil rows.
†42CF,CH applies to sizes 04 to 10.
**Filter size for return-air grille location.
††Filter size if located in return-air plenum.
***With electric heater and bottom return, the 42CF unit filter width increases from 12 3/4 to 16 3/4.
†††Recommended filter size for remote air grille location.

UNIT SIZE 42V	01	02	03	04	06	08	10	12
NOMINAL AIRFLOW (cfm)	150	200	300	400	600	800	1000	1200
SHIPPING WEIGHT (lb)*								
42VA	—	65	80	90	112	115	140	170
42VB	—	89	95	116	134	137	169	192
42VC	—	50	60	72	110	—	—	—
42VE	—	72	100	108	154	—	—	—
42VF	—	92	98	122	141	144	178	205
42VG	40	—	74	—	—	—	—	—
COIL WATER WEIGHT (Approx lb per row of coil)								
42VA, VB, VC†, VF	—	0.7	0.8	1.0	1.4	1.7	2.3	2.7
42VE	—	0.9	1.2	1.6	2.3	—	—	—
42VG	0.4	—	1.0	—	—	—	—	—
COILS								
FPI				12 fins/inch				
Coil Face Area (sq ft)	0.8	0.8	1.1	1.4	1.9	2.3	3.2	3.7
MOTOR (qty)								
42VA, VB, VF	—	1	1	1	1	1	2	2
42VC, VE	—	1	1	1	2	—	—	—
42VG	1	—	2	—	—	—	—	—
BLOWER (qty)								
42VA, VB, VF	—	1	1	2	2	2	4	4
42VC, VE	—	2	2	2	4	—	—	—
42VG	1	—	2	—	—	—	—	—
FILTERS								
Nominal Size (in.) (1-in. thick)								
42VA, VB, VF	—	7 3/4 x 21 3/4	7 3/4 x 25 3/4	7 3/4 x 31 3/4	7 3/4 x 41 3/4	7 3/4 x 43 3/4	7 3/4 x 57 3/4	7 3/4 x 65 3/4
42VC, VE	—	7 x 21 3/4	7 x 26 3/4	7 x 34 3/4	7 x 48 3/4	—	—	—
42VG	10 x 14 1/2	—	10 x 28	—	—	—	—	—
Qty	1	1	1	1	1	1	1	1
SUPPLY DUCT COLLAR	1-in.							
PIPING CONNECTIONS (Sweat) (in.)								
Coil Outlet and Inlet	5/8 OD							
Drain Connection	3/4 MPT							

*Calculate operating weight of unit: shipping weight + coil water weight x number of coil rows.
†Available in sizes 02-06.

Base unit dimensions

42CA FURRED-IN HORIZONTAL UNIT



LEGEND

1 — Junction Box (remote mount)
2 — Flex ble Metal Conduit
3 — Drain Conn, $^{7}/_{8}$-in. OD
4 — Tell-Tale Drain Conn, $^{5}/_{8}$-in. OD (optional)
5 — Drip Lip (optional)
6 — Hanger Slots (4), Rubber Grommet has $^{3}/_{8}$-in. Diameter Hole
7 — Supply Duct Collar, 1-in.
8 — Air Vent, $^{1}/_{8}$-in. MPT
9 — Return Conn, $^{5}/_{8}$-in. OD
10 — Supply Conn, $^{5}/_{8}$-in. OD

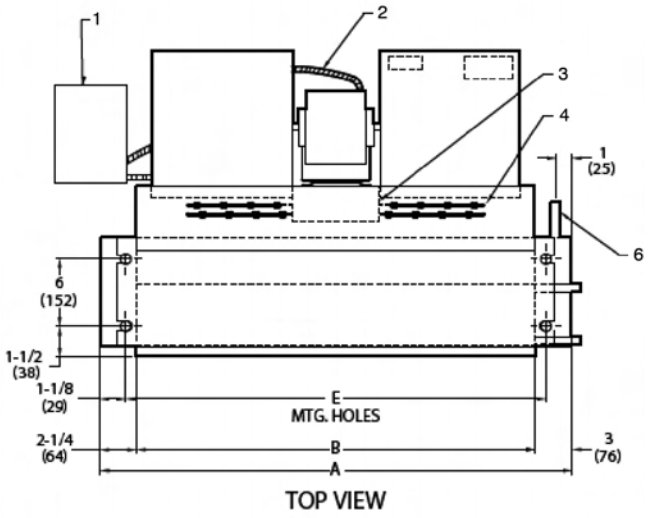
NOTES:
1. Right hand unit shown; left hand unit opposite. Coil connection locations are $\pm^{5}/_{8}$-inches.
2. Unit sizes 02 and 03 have one motor, one blower; sizes 04 through 08 have one motor, 2 blowers; sizes 10 and 12 have 2 motors, 4 blowers.
3. Standard 3-row coil shown.
4. Overall unit dimension increases by 4 in. with optional electric heat.
5. Not shown: 3-speed fan switch; wall plate, closed cell foam on main drain pan.
6. Units have galvanized finish.
7. See 42CA-203-1 for optional coil connections.
8. Dimensions shown in inches (mm).

UNIT SIZE	NOM AIRFLOW (Cfm)	DIMENSIONS (in.)								QTY/UNIT		FACE AREA (sq ft)	UNIT WEIGHT* (lb)
		A	A'	B	D'	E	F	G	H	Blower	Motor		
02	200	$21^{1}/_{4}$	$31^{1}/_{4}$	16	13	$18^{1}/_{4}$	$6^{1}/_{4}$	$8^{3}/_{4}$	$19^{3}/_{4}$	1	1	0.83	36
03	300	$25^{1}/_{4}$	$36^{1}/_{4}$	20	14	$22^{1}/_{4}$	$6^{1}/_{4}$	$8^{3}/_{4}$	$23^{3}/_{4}$	1	1	1.08	39
04	400	$31^{1}/_{4}$	$43^{1}/_{4}$	26	15	$28^{1}/_{4}$	$6^{1}/_{4}$	$8^{3}/_{4}$	$29^{3}/_{4}$	2	1	1.35	49
06	600	$36^{1}/_{4}$	$43^{1}/_{4}$	31	10	$33^{1}/_{4}$	$7^{1}/_{2}$	10	$34^{3}/_{4}$	2	1	1.88	59
08	800	$43^{1}/_{4}$	$57^{1}/_{4}$	38	17	$40^{1}/_{4}$	$7^{1}/_{2}$	10	$41^{3}/_{4}$	2	1	2.31	64
10	1000	$57^{1}/_{4}$	$65^{1}/_{4}$	52	11	$54^{1}/_{4}$	$7^{1}/_{2}$	10	$55^{3}/_{4}$	4	2	3.16	95
12	1200	$65^{1}/_{4}$	$75^{1}/_{4}$	60	13	$62^{1}/_{4}$	$7^{1}/_{2}$	10	$63^{3}/_{4}$	4	2	3.65	107

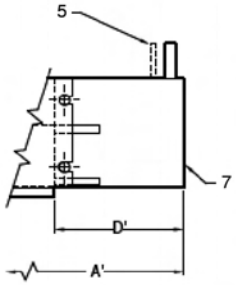
*Unit weights are based on dry coils and minimum rows. Weights exclude packaging, valves, and other components.

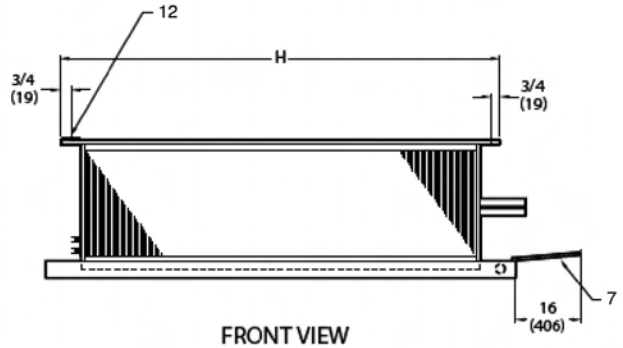
Base unit dimensions (cont)

42CA FURRED-IN HORIZONTAL UNIT WITH ELECTRIC HEAT

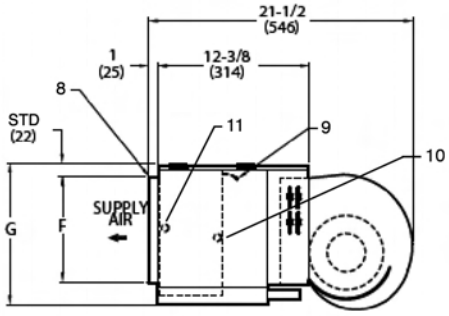


TOP VIEW





FRONT VIEW



RIGHT SIDE VIEW

LEGEND

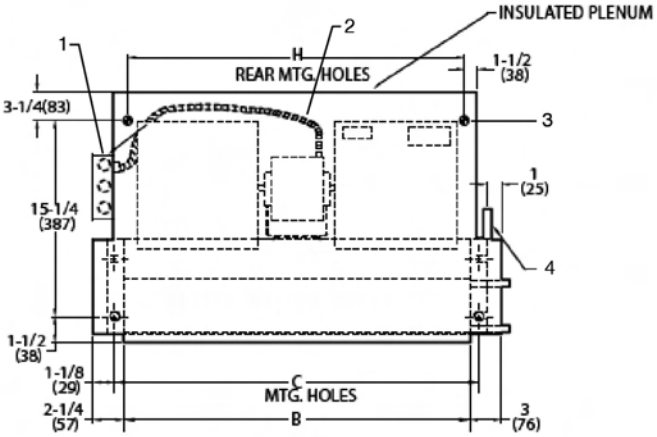
1 — Junction Box (remote mount)
2 — Flex ble Metal Conduit
3 — Strip Heater High Limit
4 — Electric Strip Heater Element
5 — Tell-Tale Drain Conn, $^5/_8$-in. OD (optional)
6 — Drain Conn, $^7/_8$-in. OD
7 — Drip Lip (optional)
8 — Supply Duct Collar, 1-in.
9 — Air Vent, $^1/_8$-in. MPT
10 — Return Conn, $^5/_8$-in. OD
11 — Supply Conn, $^5/_8$-in. OD
12 — Hanger Slots (4), Rubber Grommet has $^3/_8$-in. Diameter Hole

NOTES:
1. Right hand unit shown; left hand unit opposite. Coil connection locations are $\pm^5/_8$-inches.
2. Unit sizes 02 and 03 have one motor, one blower; sizes 04 through 08 have one motor, 2 blowers; sizes 10 and 12 have 2 motors, 4 blowers.
3. Standard 3-row coil shown.
4. Overall unit dimension increases by 4 in. with optional electric heat.
5. Not shown: 3-speed fan switch; wall plate, closed cell foam on main drain pan.
6. Units have galvanized finish.
7. See 42CA-203-1 for optional coil connections.
8. Dimensions shown in inches (mm).

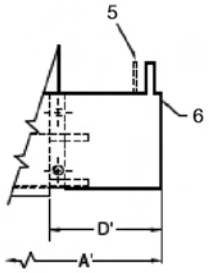
UNIT SIZE	NOM AIRFLOW (Cfm)	DIMENSIONS (in.)								QTY/UNIT		FACE AREA (sq ft)	UNIT WEIGHT* (lb)
		A	A'	B	D'	E	F	G	H	Blower	Motor		
02	200	$21^1/_4$	$31^1/_4$	16	13	$18^1/_4$	$6^1/_4$	$8^3/_4$	$19^3/_4$	1	1	0.83	38
03	300	$25^1/_4$	$36^1/_4$	20	14	$22^1/_4$	$6^1/_4$	$8^3/_4$	$23^3/_4$	1	1	1.08	41
04	400	$31^1/_4$	$43^1/_4$	26	15	$28^1/_4$	$6^1/_4$	$8^3/_4$	$29^3/_4$	2	1	1.35	51
06	600	$36^1/_4$	$43^1/_4$	31	10	$33^1/_4$	$7^1/_2$	10	$34^3/_4$	2	1	1.88	61
08	800	$43^1/_4$	$57^1/_4$	38	17	$40^1/_4$	$7^1/_2$	10	$41^3/_4$	2	1	2.31	66
10	1000	$57^1/_4$	$65^1/_4$	52	11	$54^1/_4$	$7^1/_2$	10	$55^3/_4$	4	2	3.16	97
12	1200	$65^1/_4$	$75^1/_4$	60	13	$62^1/_4$	$7^1/_2$	10	$63^3/_4$	4	2	3.65	109

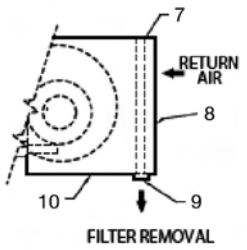
*Unit weights are based on dry coils and minimum rows. Weights exclude packaging, valves, and other components.

42CE FURRED-IN HORIZONTAL UNIT WITH PLENUM

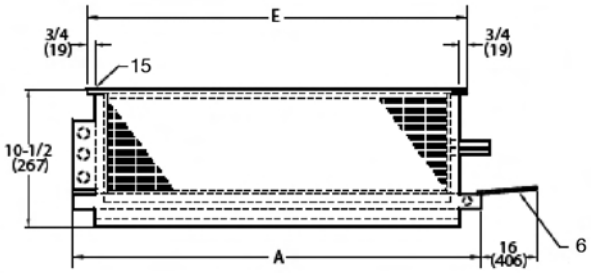


TOP VIEW

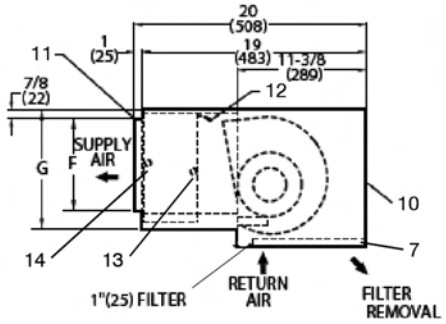




OPTIONAL REAR RETURN



FRONT VIEW



RIGHT SIDE VIEW

LEGEND

1 — Junction Box, 4 in. x 4 in.
2 — Flexible Metal Conduit
3 — Mounting Bracket
4 — Drain Conn, $^{7}/_{8}$-in. OD
5 — Tell-Tale Drain Conn, $^{5}/_{8}$-in. OD (optional)
6 — Drip Lip (optional, shipped loose)
7 — Filter
8 — Return Duct Collar, 1-in.
9 — Filter Access Panel
10 — Access Panel
11 — Supply Duct Collar, 1-in.
12 — Air Vent, $^{1}/_{8}$-in. MPT
13 — Return Conn, $^{5}/_{8}$-in. OD
14 — Supply Conn, $^{5}/_{8}$-in. OD
15 — Hanger Slots (4), Rubber Grommet has $^{3}/_{8}$-in. Diameter Hole

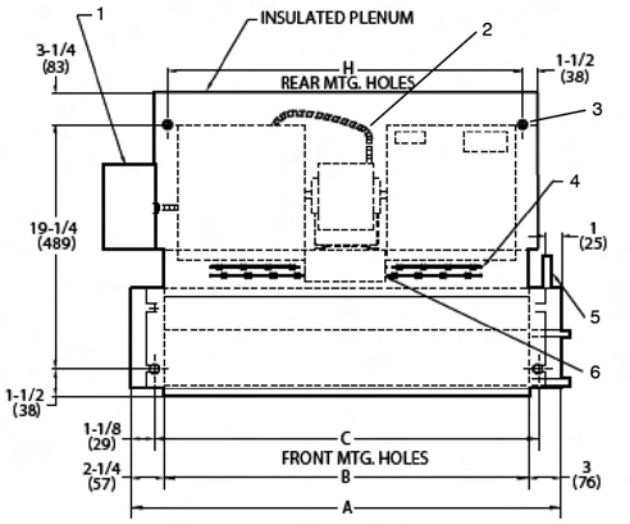
NOTES:
1. Right hand unit with standard 3-row coil shown; left hand unit opposite. Coil connection locations are $\pm^{5}/_{8}$-inches.
2. Unit sizes 02 and 03 have one motor, one blower; sizes 04 through 08 have one motor, 2 blowers; sizes 10 and 12 have 2 motors, 4 blowers.
3. Standard 3-row coil shown.
4. Unit available with bottom or rear return air.
5. Dimension increases by 4 in. with optional electric heat.
6. Not shown: 3-speed fan switch; wall plate, $^{1}/_{2}$-in. fiberglass insulation on inside of plenum, closed cell foam on main drain pan.
7. Units have galvanized finish.
8. See 42CA-203-1 for optional coil connections.
9. Dimensions shown in inches (mm).

UNIT SIZE	NOM AIRFLOW (Cfm)	DIMENSIONS (in.)									QTY/UNIT		FACE AREA (sq ft)	UNIT WEIGHT* (lb)	RETURN AIR DUCT
		A	A'	B	C	D'	E	F	G	H	Blower	Motor			
02	200	21 1/4	31 1/4	16	18 1/4	13	19 3/4	6 1/4	8 3/4	15 3/8	1	1	0.83	55	10.5 x 18 25
03	300	25 1/4	36 1/4	20	22 1/4	14	23 3/4	6 1/4	8 3/4	19 3/8	1	1	1.08	60	10.5 x 22 25
04	400	31 1/4	43 1/4	26	28 1/4	15	29 3/4	6 1/4	8 3/4	25 3/8	2	1	1.35	70	10.5 x 28 25
06	600	36 1/4	43 1/4	31	33 1/4	10	34 3/4	7 1/2	10	30 3/8	2	1	1.88	82	10.5 x 33 25
08	800	43 1/4	57 1/4	38	40 1/4	17	41 3/4	7 1/2	10	37 3/8	2	1	2.31	95	10.5 x 40 25
10	1000	57 1/4	65 1/4	52	54 1/4	11	55 3/4	7 1/2	10	51 3/8	4	2	3.16	135	10.5 x 54 25
12	1200	65 1/4	75 1/4	60	62 1/4	13	63 3/4	7 1/2	10	59 3/8	4	2	3.65	154	10.5 x 62 25

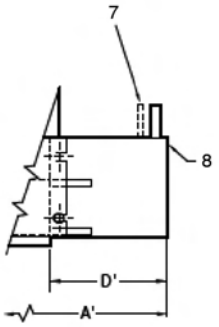
*Unit weights are based on dry coils and minimum rows. Weights exclude packaging, valves, and other components.

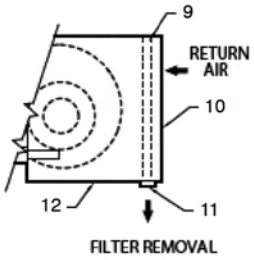
Base unit dimensions (cont)

42CE FURRED-IN HORIZONTAL UNIT WITH PLENUM AND ELECTRIC HEAT

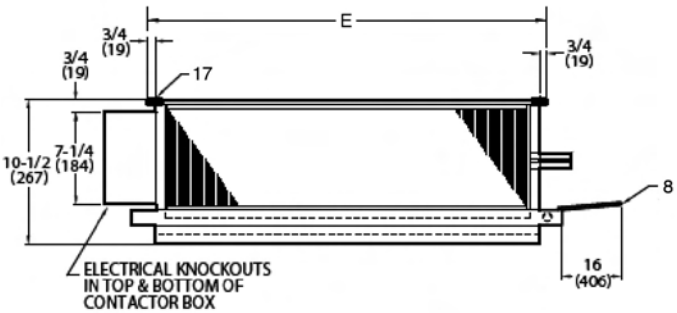


TOP VIEW

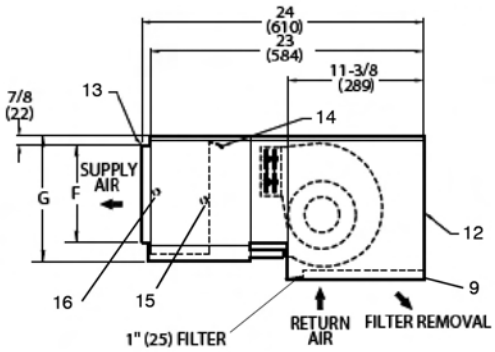




OPTIONAL REAR RETURN



FRONT VIEW



RIGHT SIDE VIEW

LEGEND

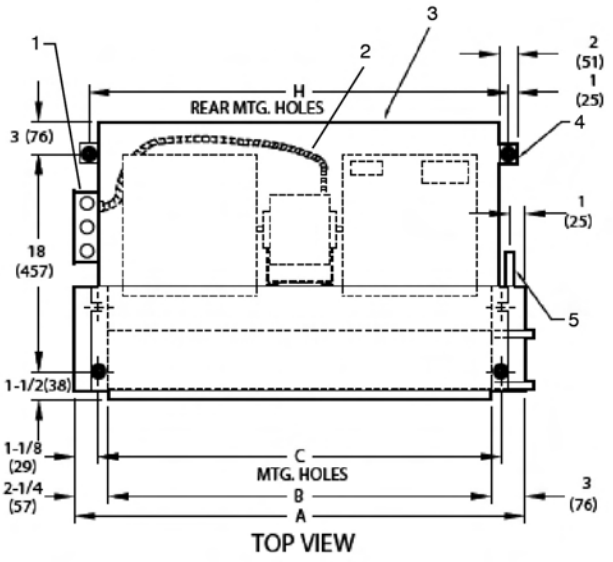
1 — Junction Box, 4 in. x 4 in.
2 — Flexible Metal Conduit
3 — Mounting Bracket
4 — Electric Strip Heater Element
5 — Drain Conn, $^{7}/_{8}$-in. OD
6 — Strip Heater High Limit
7 — Tell-Tale Drain Conn, $^{5}/_{8}$-in. OD (optional)
8 — Drip Lip (optional, shipped loose)
9 — Filter
10 — Return Duct Collar, 1-in.
11 — Filter Access Panel
12 — Access Panel
13 — Supply Duct Collar, 1-in.
14 — Air Vent, $^{1}/_{8}$-in. MPT
15 — Return Conn, $^{5}/_{8}$-in. OD
16 — Supply Conn, $^{5}/_{8}$-in. OD
17 — Hanger Slots (4), Rubber Grommet has $^{3}/_{8}$-in. Diameter Hole

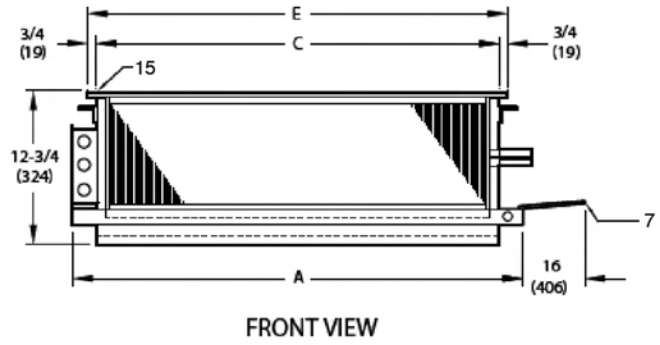
NOTES:
1. Right hand unit with standard 3-row coil shown; left hand unit opposite. Coil connection locations are $\pm^{5}/_{8}$-inches.
2. Unit sizes 02 and 03 have one motor, one blower; sizes 04 through 08 have one motor, 2 blowers; sizes 10 and 12 have 2 motors, 4 blowers.
3. Standard 3-row coil shown.
4. Unit available with bottom or rear return air.
5. Dimension increases by 4 in. with optional electric heat.
6. Not shown: 3-speed fan switch; wall plate, $^{1}/_{2}$-in. fiberglass insulation on inside of plenum, closed cell foam on main drain pan.
7. Units have galvanized finish.
8. See 42CA-203-1 for optional coil connections.
9. Dimensions shown in inches (mm).

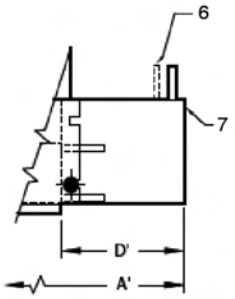
UNIT SIZE	NOM AIRFLOW (Cfm)	DIMENSIONS (in.)									QTY/UNIT		FACE AREA (sq ft)	UNIT WEIGHT* (lb)	RETURN AIR DUCT
		A	A'	B	C	D'	E	F	G	H	Blower	Motor			
02	200	21 1/4	31 1/4	16	18 1/4	13	19 3/4	6 1/4	8 3/4	15 3/8	1	1	0.83	57	10.5 X 18.25
03	300	25 1/4	36 1/4	20	22 1/4	14	23 3/4	6 1/4	8 3/4	19 3/8	1	1	1.08	62	10.5 X 22.25
04	400	31 1/4	43 1/4	26	28 1/4	15	29 3/4	6 1/4	8 3/4	25 3/8	2	1	1.35	72	10.5 X 28.25
06	600	36 1/4	43 1/4	31	33 1/4	10	34 3/4	7 1/2	10	30 3/8	2	1	1.88	84	10.5 X 33.25
08	800	43 1/4	57 1/4	38	40 1/4	17	41 3/4	7 1/2	10	37 3/8	2	1	2.31	97	10.5 X 40.25
10	1000	57 1/4	65 1/4	52	54 1/4	11	55 3/4	7 1/2	10	51 3/8	4	2	3.16	137	10.5 X 54.25
12	1200	65 1/4	75 1/4	60	62 1/4	13	63 3/4	7 1/2	10	59 3/8	4	2	3.65	156	10.5 X 62.25

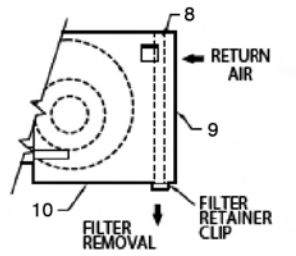
*Unit weights are based on dry coils and minimum rows. Weights exclude packaging, valves, and other components.

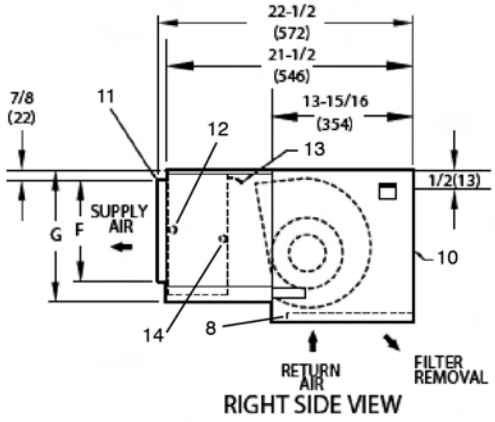
42CF FURRED-IN HIGH-STATIC HORIZONTAL UNIT WITH PLENUM











LEGEND

1 — Junction Box, Installed with Plenum
2 — Flexible Metal Conduit
3 — Insulated Plenum
4 — Mounting Bracket
5 — Drain Conn, $^{7}/_{8}$-in. OD
6 — Tell-Tale Drain Conn, $^{5}/_{8}$-in. OD (optional)
7 — Drip Lip (optional, shipped loose)
8 — Filter
9 — Return Duct Collar, 1-in.
10 — Access Panel
11 — Supply Duct Collar, 1-in.
12 — Supply Conn, $^{5}/_{8}$-in. OD
13 — Air Vent, $^{1}/_{8}$-in. MPT
14 — Return Conn, $^{5}/_{8}$-in. OD
15 — Hanger Slots (4), Rubber Grommet has $^{3}/_{8}$-in. Diameter Hole

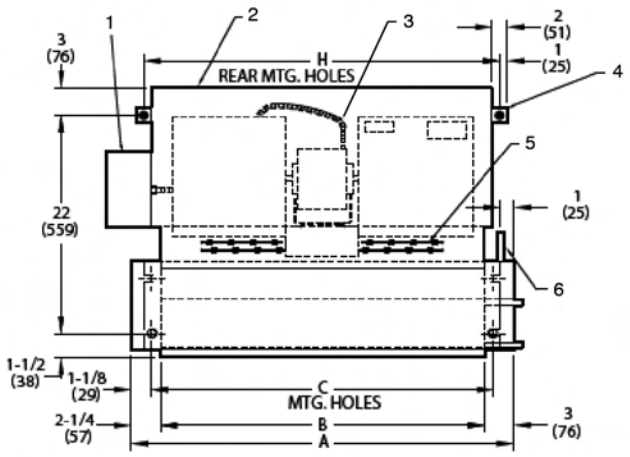
NOTES:
1. Right hand unit shown; left hand unit opposite. Coil connection locations are $\pm^{5}/_{8}$-inches.
2. Unit sizes 04 thru 08 have one motor, 2 blowers; size 10 has 2 motors, 4 blowers.
3. Refer to above figure for configuration of filter and track if installed in optional plenum.
4. Dimension increases by 4 in. with optional electric heat.
5. Not shown: 3-speed fan switch; wall plate, $^{1}/_{2}$-in. fiberglass insulation on inside of plenum (when installed), closed cell insulation on main drain pan.
6. Units have galvanized finish.
7. See 42CA-203-1 for optional coil connections.
8. Dimensions shown in inches (mm).

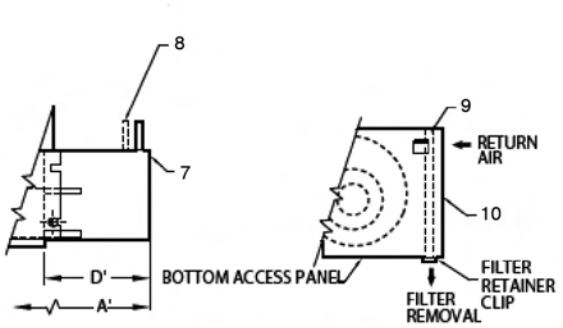
UNIT SIZE	NOM AIRFLOW (Cfm)	DIMENSIONS (in.)									QTY/UNIT		FACE AREA (sq ft)	UNIT WEIGHT* (lb)
		A	A'	B	C	D'	E	F	G	H	Blower	Motor		
04	400	$31^{1}/_{4}$	$43^{1}/_{4}$	26	$28^{1}/_{4}$	15	$29^{3}/_{4}$	$6^{1}/_{4}$	$8^{3}/_{4}$	$30^{1}/_{4}$	2	1	1.35	84
06	600	$36^{1}/_{4}$	$43^{1}/_{4}$	34	$33^{1}/_{4}$	10	$34^{3}/_{4}$	$7^{1}/_{2}$	10	$35^{1}/_{4}$	2	1	1.88	97
08	800	$43^{1}/_{4}$	$57^{1}/_{4}$	38	$40^{1}/_{4}$	17	$41^{3}/_{4}$	$7^{1}/_{2}$	10	$42^{1}/_{4}$	2	1	2.31	110
10	1000	$57^{1}/_{4}$	$65^{1}/_{4}$	52	$54^{1}/_{4}$	11	$55^{3}/_{4}$	$7^{1}/_{2}$	10	$56^{1}/_{4}$	4	2	3.16	163

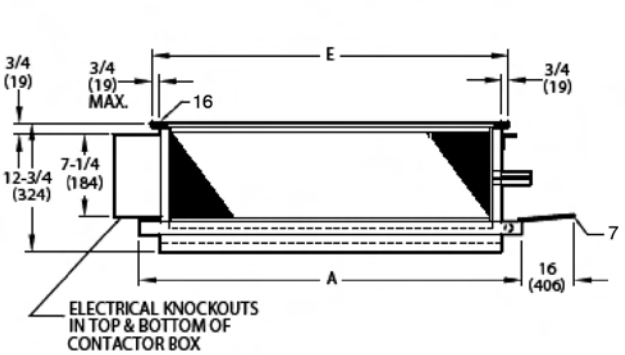
*Unit weights are based on dry coils and minimum rows. Weights exclude packaging, valves, and other components.

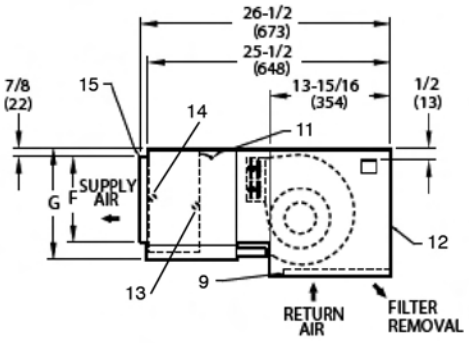
Base unit dimensions (cont)

42CF FURRED-IN HIGH-STATIC HORIZONTAL UNIT WITH PLENUM AND ELECTRIC HEAT









LEGEND

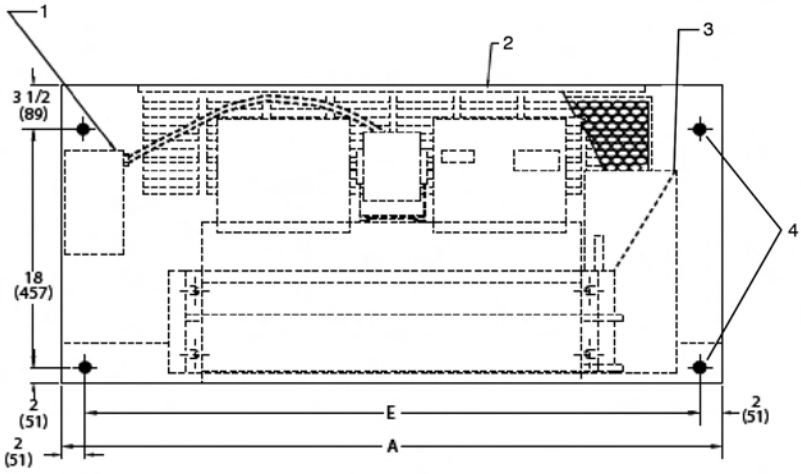
1 — Junction Box, Installed with Plenum
2 — Plenum
3 — Flex ble Metal Conduit
4 — Mounting Bracket
5 — Electric Strip Heater Element
6 — Drain Conn, $^{7}/_{8}$-in. OD
7 — Drip Lip (optional, shipped loose)
8 — Tell-Tale Drain Conn, $^{5}/_{8}$-in. OD (optional)
9 — Filter
10 — Return Duct Collar, 1-in.
11 — Air Vent, $^{1}/_{8}$-in. MPT
12 — Access Panel
13 — Return Conn, $^{5}/_{8}$-in. OD
14 — Supply Conn, $^{5}/_{8}$-in. OD
15 — Supply Duct Collar, 1-in.
16 — Hanger Slots (4), Rubber Grommet has $^{3}/_{8}$-in. Diameter Hole

NOTES:
1. Right hand unit shown; left hand unit opposite. Coil connection locations are $\pm^{5}/_{8}$-inches.
2. Unit sizes 04 thru 08 have one motor, 2 blowers; size 10 has 2 motors, 4 blowers.
3. Refer to above figure for configuration of filter and track if installed in optional plenum.
4. Dimension increases by 4 in. with optional electric heat.
5. Not shown: 3-speed fan switch; wall plate, $^{1}/_{2}$-in. fiberglass insulation on inside of plenum (when installed), closed cell insulation on main drain pan.
6. Units have galvanized finish.
7. See 42CA-203-1 for optional coil connections.
8. Dimensions shown in inches (mm).

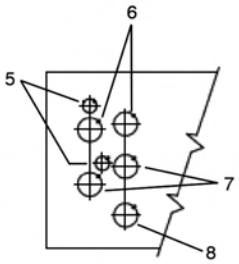
UNIT SIZE	NOM AIRFLOW (Cfm)	DIMENSIONS (in.)									QTY/UNIT		FACE AREA (sq ft)	UNIT WEIGHT* (lb)
		A	A'	B	C	D'	E	F	G	H	Blower	Motor		
04	400	31 1/4	43 1/4	26	28 1/4	15	29 3/4	6 1/4	8 3/4	30 1/4	2	1	1.35	84
06	600	36 1/4	43 1/4	34	33 1/4	10	34 3/4	7 1/2	10	35 1/4	2	1	1.88	97
08	800	43 1/4	57 1/4	38	40 1/4	17	41 3/4	7 1/2	10	42 1/4	2	1	2.31	110
10	1000	57 1/4	65 1/4	52	54 1/4	11	55 3/4	7 1/2	10	56 1/4	4	2	3.16	163

*Unit weights are based on dry coils and minimum rows. Weights exclude packaging, valves, and other components.

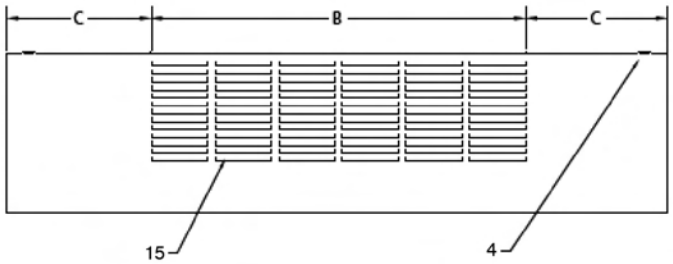
42CG HORIZONTAL CABINET UNIT



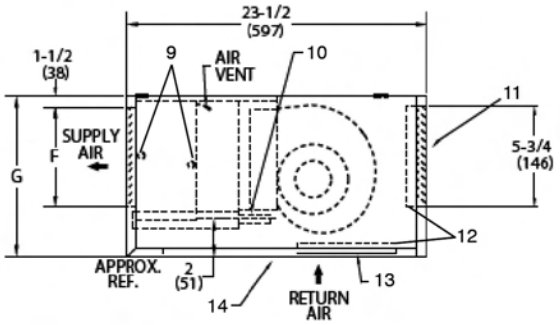
TOP VIEW



PARTIAL REAR VIEW
(TYPICAL BOTH SIDES)



FRONT VIEW



RIGHT SIDE VIEW

LEGEND

1 — Junction Box, 4 in. x 4 in.
2 — Optional Return Air Location
3 — Optional Drip Lip, shipped loose
4 — Mounting Holes (4), Rubber Grommets have $^3/_8$-in. Diameter Hole
5 — Electrical KO, $^7/_8$-in. Diameter
6 — Return KO, 1-in. Diameter
7 — Supply KO, $1^1/_2$-in. Diameter
8 — Drain KO, $1^1/_2$-in. Diameter
9 — Supply, Return Connections, $^5/_8$-in. OD
10 — Drain Connection, $^7/_8$-in. OD
11 — Optional Valve Package (inside cabinet)
12 — Filter
13 — Standard Stamped-Return Air Grille
14 — Removeable Hinged Access Panel
15 — Supply Grille, Stamped, Standard

NOTES:

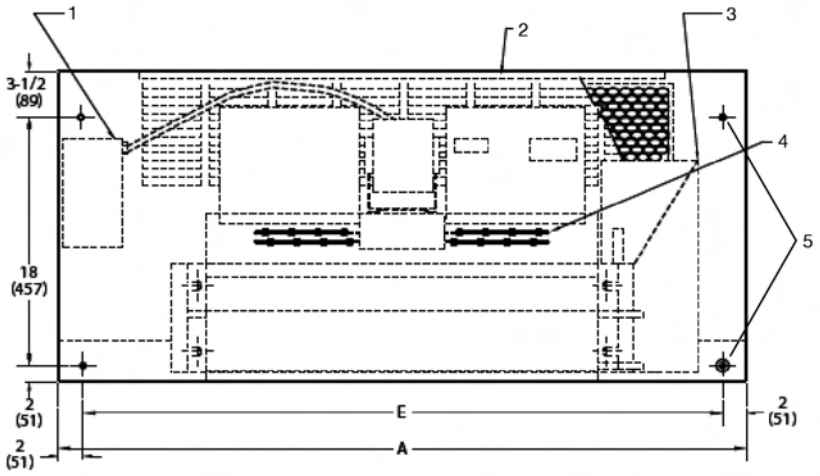
1. Right hand unit shown; left hand unit opposite. Coil connection locations are $\pm^5/_8$-inches.
2. Unit sizes 02 and 03 have one motor, one blower; sizes 04 through 08 have one motor, 2 blowers; sizes 10 and 12 have 2 motors, 4 blowers.
3. Cabinet has an Arctic White baked finish.
4. Refer to supply and return connections above for coil stub-out locations.
5. Not shown: optional drip lip, 3-speed fan switch; wall plate, $^1/_2$-in. f berglass insulation on inside of casing, closed cell foam on main drain pan.
6. See 42CA-203-1 for optional coil connections.
7. Valve package is factory-installed inside the cabinet when ordered with the unit (based on component size).
8. Dimensions shown in inches (mm).

UNIT SIZE	NOM AIRFLOW (Cfm)	DIMENSIONS (in.)						QTY/UNIT		FACE AREA (sq ft)	UNIT WEIGHT* (lb)
		A	B	C	E	F	G	Blower	Motor		
02	200	38	$17^1/_8$	$10^7/_{16}$	34	$5^3/_4$	11	1	1	0.83	98
03	300	42	$21^1/_2$	$10^1/_4$	38	$5^3/_4$	11	1	1	1.08	118
04	400	48	$25^7/_8$	$11^1/_{16}$	44	$5^3/_4$	11	2	1	1.35	126
06	600	53	$34^5/_8$	$9^3/_{16}$	49	$6^3/_4$	12	2	1	1.88	168
08	800	60	39	$10^1/_2$	56	$6^3/_4$	12	2	1	2.31	176
10	1000	74	$52^1/_8$	$10^{15}/_{16}$	70	$6^3/_4$	12	4	2	3.16	215
12	1200	82	$60^7/_8$	$10^9/_{16}$	78	$6^3/_4$	12	4	2	3.65	245

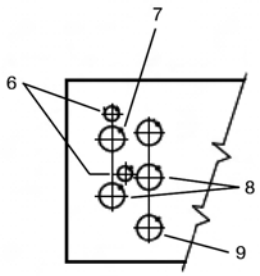
*Unit weights are based on dry coils and minimum rows. Weights exclude packaging, valves, and other components.

Base unit dimensions (cont)

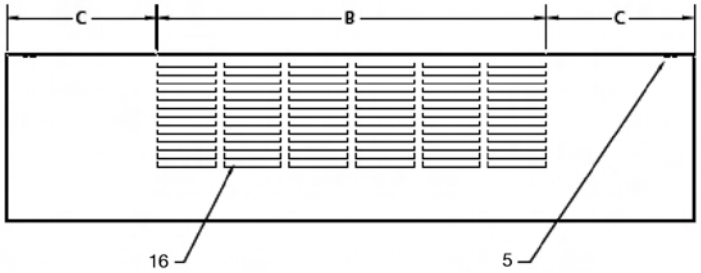
42CG HORIZONTAL CABINET WITH ELECTRIC HEAT



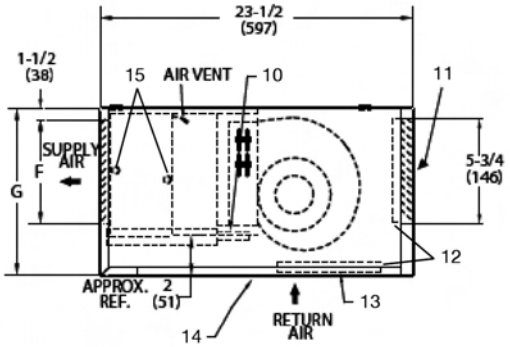
TOP VIEW



PARTIAL REAR VIEW
(TYPICAL BOTH SIDES)



FRONT VIEW



RIGHT SIDE VIEW

LEGEND

1 — Junction Box, 4 in. x 4 in.
2 — Optional Stamped Rear Return Grille
3 — Optional Drip Lip, shipped loose
4 — Electric Strip Heater Element
5 — Mounting Holes (4), Rubber Grommets have $^{3}/_{8}$-in. Diameter Hole
6 — Electrical KO, $^{7}/_{8}$-in. Diameter
7 — Return KO, 1-in. Diameter
8 — Supply KO, $1^{1}/_{2}$-in. Diameter
9 — Drain KO, $1^{1}/_{2}$-in. Diameter
10 — Drain Connection, $^{7}/_{8}$-in. OD
11 — Optional Valve Package (inside cabinet)
12 — Filter
13 — Standard Stamped-Return Air Grille
14 — Removeable Hinged Access Panel
15 — Supply, Return Connections, $^{5}/_{8}$-in. OD
16 — Supply Grille, Stamped, Standard

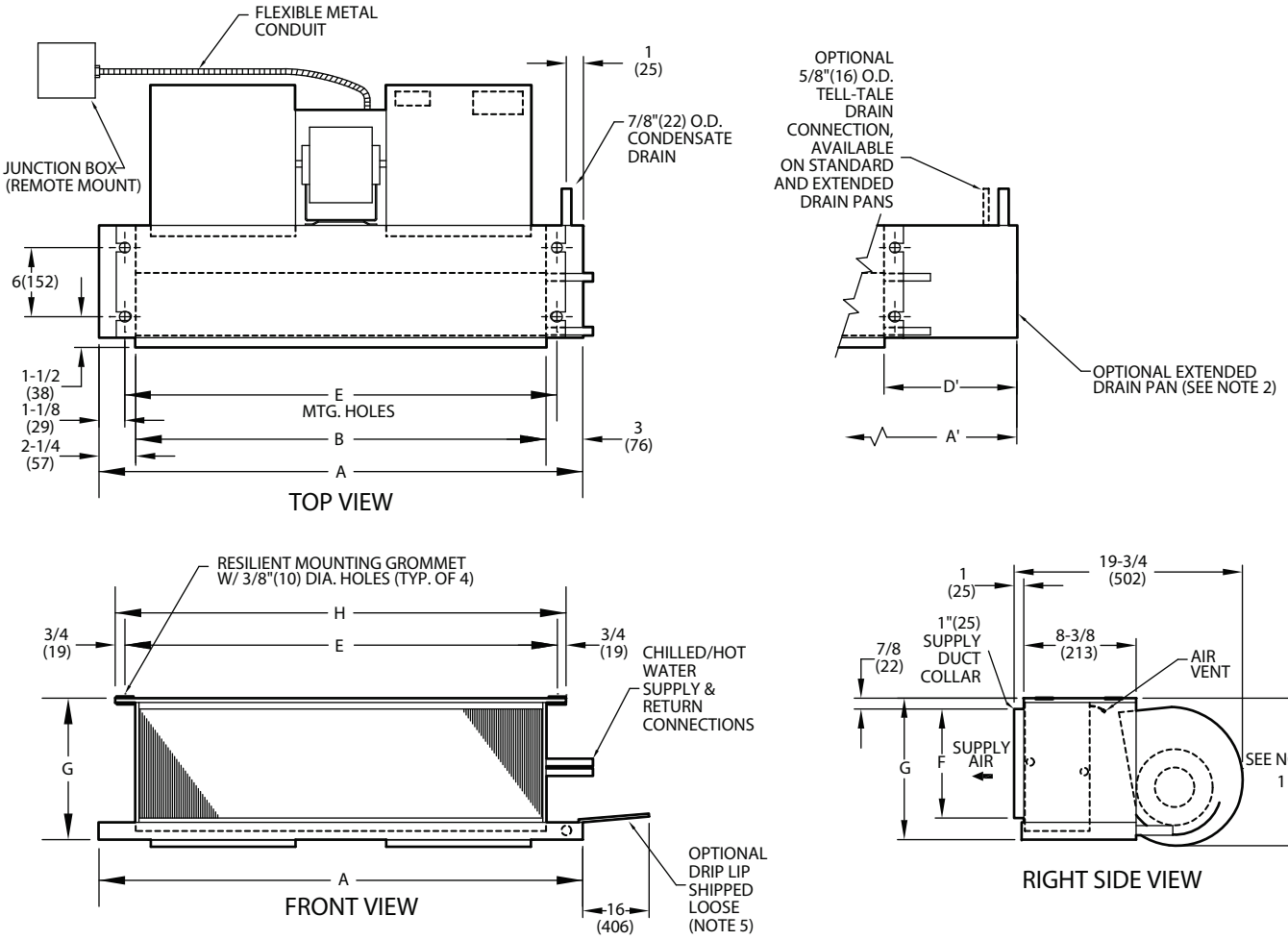
NOTES:

1. Right hand unit shown; left hand unit opposite. Coil connection locations are $\pm^{5}/_{8}$-inches.
2. Unit sizes 02 and 03 have one motor, one blower; sizes 04 through 08 have one motor, 2 blowers; sizes 10 and 12 have 2 motors, 4 blowers.
3. Cabinet has an Arctic White baked finish.
4. Refer to supply and return connections above for coil stub-out locations.
5. Not shown: optional drip lip, 3-speed fan switch; wall plate, $^{1}/_{2}$-in. fiberglass insulation on inside of casing, closed cell foam on main drain pan.
6. See 42CA-203-1 for optional coil connections.
7. Valve package is factory-installed inside the cabinet when ordered with the unit (based on component size).
8. Dimensions shown in inches (mm).

UNIT SIZE	NOM AIRFLOW (Cfm)	DIMENSIONS (in.)						QTY/UNIT		FACE AREA (sq ft)	UNIT WEIGHT* (lb)
		A	B	C	E	F	G	Blower	Motor		
02	200	38	$17^{1}/_{8}$	$10^{7}/_{16}$	34	$5^{3}/_{4}$	11	1	1	0.83	98
03	300	42	$21^{1}/_{2}$	$10^{1}/_{4}$	38	$5^{3}/_{4}$	11	1	1	1.08	118
04	400	48	$25^{7}/_{8}$	$11^{1}/_{16}$	44	$5^{3}/_{4}$	11	2	1	1.35	126
06	600	53	$34^{5}/_{8}$	$9^{3}/_{16}$	49	$6^{3}/_{4}$	12	2	1	1.88	168
08	800	60	39	$10^{1}/_{2}$	56	$6^{3}/_{4}$	12	2	1	2.31	176
10	1000	74	$52^{1}/_{8}$	$10^{15}/_{16}$	70	$6^{3}/_{4}$	12	4	2	3.16	215
12	1200	82	$60^{7}/_{8}$	$10^{9}/_{16}$	78	$6^{3}/_{4}$	12	4	2	3.65	245

*Unit weights are based on dry coils and minimum rows. Weights exclude packaging, valves, and other components.

42CH FURRED-IN HIGH-STATIC HORIZONTAL UNIT



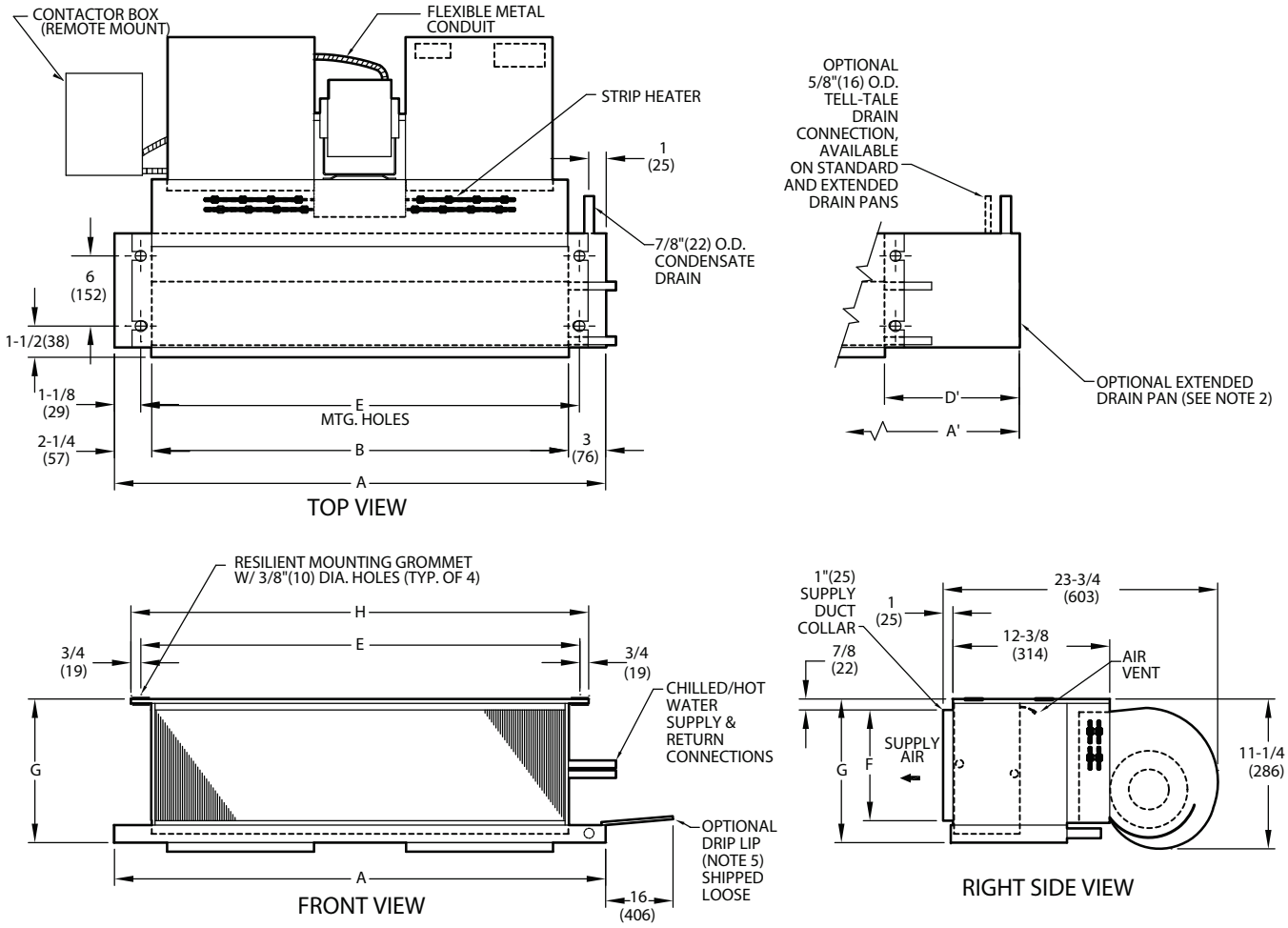
UNIT SIZE	NOM AIRFLOW (Cfm)	DIMENSIONS (in.)								QTY/UNIT		FACE AREA (sq ft)	UNIT WEIGHT* (lb)
		A	A'	B	D'	E	F	G	H	Blower	Motor		
04	400	31 1/4	43 1/4	26	15	28 1/4	6 1/4	8 3/4	29 3/4	2	1	1.35	62
06	600	36 1/4	43 1/4	31	10	33 1/4	7 1/2	10	34 3/4	2	1	1.88	73
08	800	43 1/4	57 1/4	38	17	40 1/4	7 1/2	10	41 3/4	2	1	2.31	82
10	1000	57 1/4	65 1/4	52	11	54 1/4	7 1/2	10	55 3/4	4	2	3.16	128

*Unit weights are based on dry coils and minimum rows. Weights exclude packaging, valves, and other components.

NOTES:
1. Right hand unit shown, left hand unit opposite.
2. Optional drip lip not required with optional extended drain pan.
3. All dimensions are ± 1/4 inch.
4. Product specifications are subject to change without notice.
5. Drip lip recommended.
6. Threaded fittings must be field tightened and leak tested.

Base unit dimensions (cont)

42CH FURRED-IN HIGH-STATIC HORIZONTAL UNIT WITH ELECTRIC HEAT

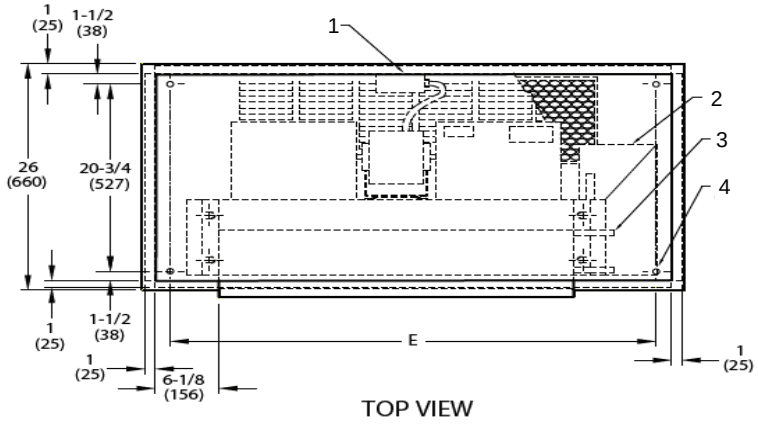


UNIT SIZE	NOM AIRFLOW (Cfm)	DIMENSIONS (in.)								QTY/UNIT		FACE AREA (sq ft)	UNIT WEIGHT* (lb)
		A	A'	B	D'	E	F	G	H	Blower	Motor		
04	400	31 1/4	43 1/4	26	15	28 1/4	6 1/4	8 3/4	29 3/4	2	1	1.35	62
06	600	36 1/4	43 1/4	31	10	33 1/4	7 1/2	10	34 3/4	2	1	1.88	73
08	800	43 1/4	57 1/4	38	17	40 1/4	7 1/2	10	41 3/4	2	1	2.31	82
10	1000	57 1/4	65 1/4	52	11	54 1/4	7 1/2	10	55 3/4	4	2	3.16	128

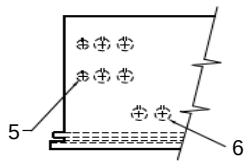
*Unit weights are based on dry coils and minimum rows. Weights exclude packaging, valves, and other components.

NOTES:
1. Right hand unit shown, left hand unit opposite.
2. Optional drip lip not required with optional extended drain pan.
3. All dimensions are ± 1/4 inch.
4. Product specifications are subject to change without notice.
5. Drip lip recommended.
6. Threaded fittings must be field tightened and leak tested.

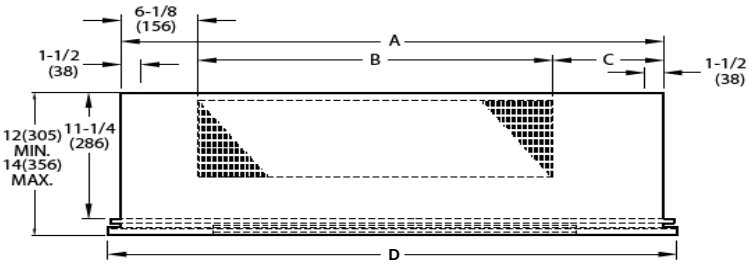
42CK HORIZONTAL CABINET UNIT WITH TELESCOPIC ACCESS PANEL, FRONT SUPPLY, AND BOTTOM RETURN



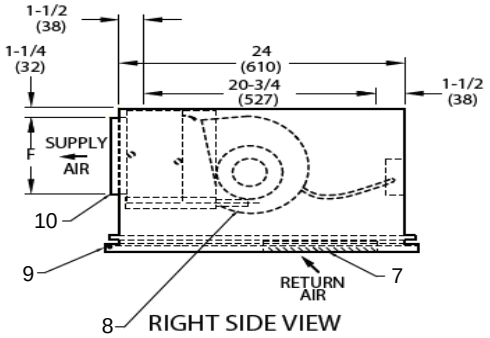
TOP VIEW



PARTIAL REAR VIEW
(TYPICAL BOTH SIDES)



FRONT VIEW



RIGHT SIDE VIEW

LEGEND

1 — Junction Box
2 — Optimal L-shape Drip Lip, shipped loose
3 — Chilled/Hot Water Supply and Return Connection
4 — Resilient Mounting Grommets with $^3/_8$-in. Diameter Hole (typically 4)
5 — Electrical KO, $^7/_8$-in. Diameter
6 — Drain KO, $1^1/_2$-in. Diameter
7 — Stamped Return Air Grille and 1-in. Filter
8 — Condensate Drain Connection, $^7/_8$-in. OD
9 — Hinged Bottom Return Air Panel
10 — Supply Duct Collar, 1-in. OD

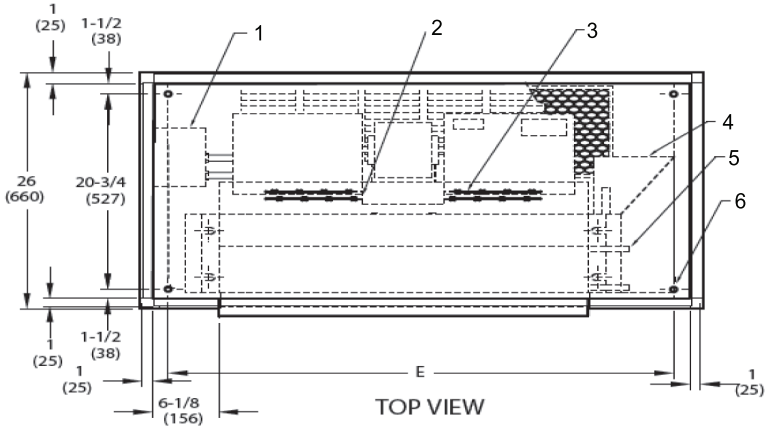
NOTES:
1. Right hand unit shown; left hand unit opposite.
2. Internal factory valve package and drains may not align with cabinet knockouts.
3. Dimensions shown in inches (mm). All dimensions are $\pm^1/_4$ inches.
4. Bottom panel is Arctic White polyester powder coat paint.

UNIT SIZE	NOM AIRFLOW (Cfm)	DIMENSIONS (in.)						QTY/UNIT		BOTTOM RETURN FILTER SIZE (in.)	UNIT WEIGHT* (lb)
		A	B	C	D	E	F	Blower	Motor		
02	200	35	16	$12^3/_4$	37	32	6	1	1	10 x $23^1/_2$	115
03	300	35	20	$8^3/_4$	37	32	6	1	1	10 x 28	120
04	400	41	26	$8^3/_4$	43	38	6	2	1	10 x $32^1/_2$	135
06	600	53	31	$15^3/_4$	55	50	7	2	1	10 x 37	150
08	800	53	38	$8^3/_4$	55	50	7	2	1	10 x 41	155
10	1000	75	52	$16^3/_4$	77	72	7	4	2	10 x $54^1/_2$	227
12	1200	75	60	$8^3/_4$	77	72	7	4	2	10 x 63	241

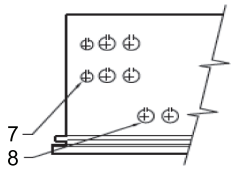
*Unit weights are based on dry coils and minimum rows. Weights exclude packaging, valves, and other components.

Base unit dimensions (cont)

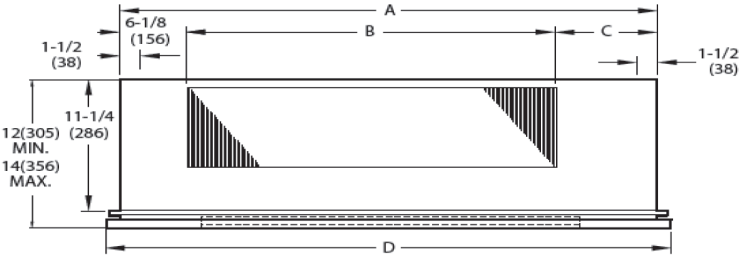
42CK HORIZONTAL CABINET UNIT WITH TELESCOPIC ACCESS PANEL, FRONT SUPPLY, BOTTOM RETURN, AND HEATER



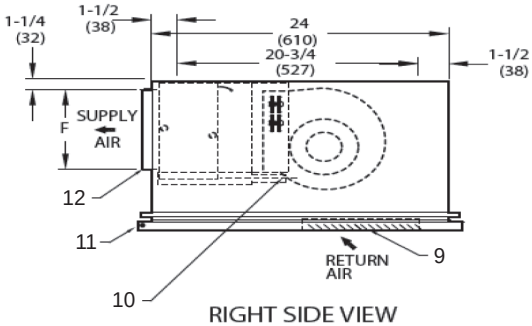
TOP VIEW



PARTIAL REAR VIEW
(TYPICAL BOTH SIDES)



FRONT VIEW



RIGHT SIDE VIEW

LEGEND

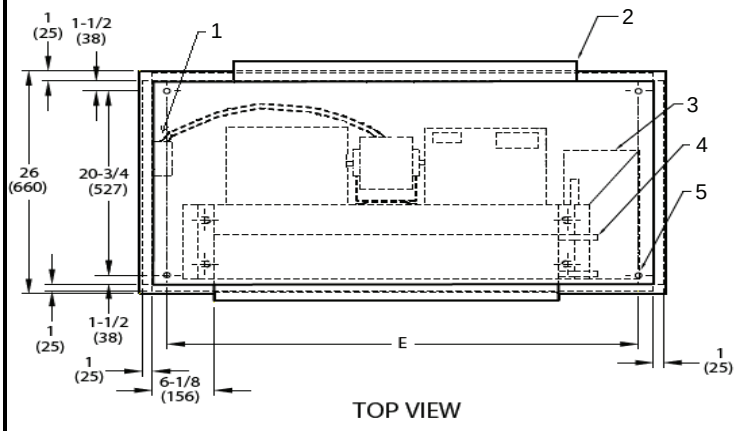
1 — Contactor Box
2 — Strip Heater High Limit
3 — Electric Strip Heater Element
4 — Optimal L-shape Drip Lip, shipped loose
5 — Chilled/Hot Water Supply and Return Connection
6 — Resilient Mounting Grommets with $^3/_8$-in. Diameter Hole (typically 4)
7 — Electrical KO, $^7/_8$-in. Diameter
8 — Drain KO, $1^1/_2$-in. Diameter
9 — Stamped Return Air Grille and 1-in. Filter
10 — Condensate Drain Connection, $^7/_8$-in. OD
11 — Hinged Bottom Return Air Panel
12 — Supply Duct Collar, 1-in. OD

NOTES:
1. Right hand unit shown; left hand unit opposite.
2. Internal factory valve package and drains may not align with cabinet knockouts.
3. Dimensions shown in inches (mm). All dimensions are $\pm^1/_4$ inches.
4. Bottom panel is Arctic White polyester powder coat paint.

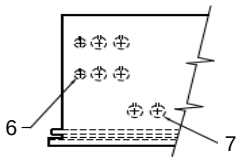
UNIT SIZE	NOM AIRFLOW (Cfm)	DIMENSIONS (in.)						QTY/UNIT		BOTTOM RETURN FILTER SIZE (in.)	UNIT WEIGHT* (lb)
		A	B	C	D	E	F	Blower	Motor		
02	200	35	16	$12^3/_4$	37	32	6	1	1	$10 \times 23^1/_2$	117
03	300	35	20	$8^3/_4$	37	32	6	1	1	10 x 28	122
04	400	41	26	$8^3/_4$	43	38	6	2	1	$10 \times 32^1/_2$	137
06	600	53	31	$15^3/_4$	55	50	7	2	1	10 x 37	152
08	800	53	38	$8^3/_4$	55	50	7	2	1	10 x 41	157
10	1000	75	52	$16^3/_4$	77	72	7	4	2	$10 \times 54^1/_2$	229
12	1200	75	60	$8^3/_4$	77	72	7	4	2	10 x 63	243

*Unit weights are based on dry coils and minimum rows. Weights exclude packaging, valves, and other components.

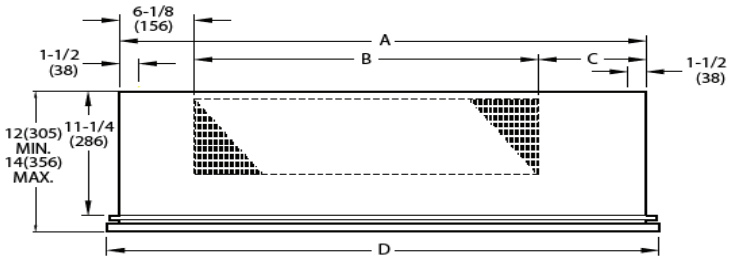
42CK HORIZONTAL CABINET UNIT WITH TELESCOPIC ACCESS PANEL, FRONT SUPPLY, AND REAR RETURN



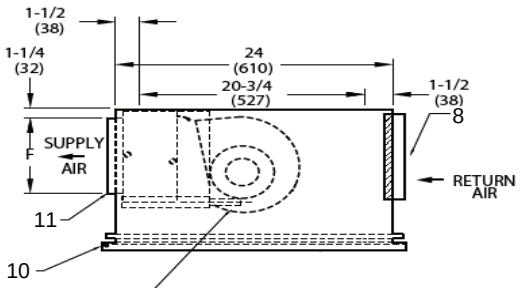
TOP VIEW



PARTIAL REAR VIEW
(TYPICAL BOTH SIDES)



FRONT VIEW



RIGHT SIDE VIEW

LEGEND

1 — Junction Box
2 — 1-in. Ducted Rear Return and 1-in. Filter
3 — Optimal L-shape Drip Lip, shipped loose
4 — Chilled/Hot Water Supply and Return Connection
5 — Resilient Mounting Grommets with 3/8-in. Diameter Hole (typically 4)
6 — Electrical KO, 7/8-in. Diameter
7 — Drain KO, 1 1/2-in. Diameter
8 — 1-in. Ducted Rear Return and 1-in. Filter
9 — Condensate Drain Connection, 7/8-in. OD
10 — Hinged Bottom Return Air Panel
11 — Supply Duct Collar, 1-in. OD

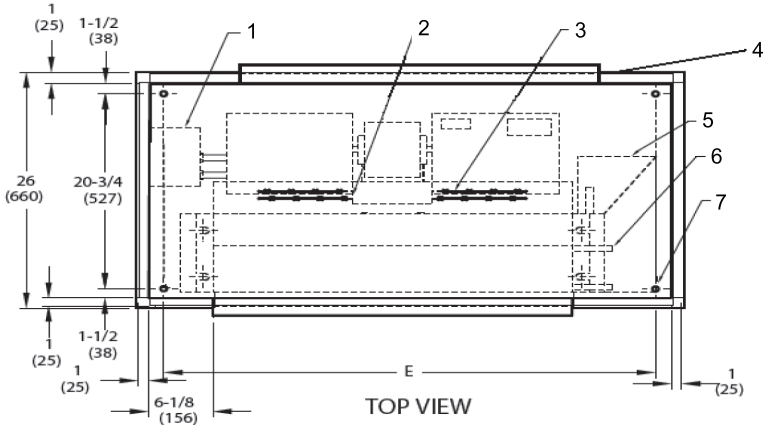
NOTES:
1. Right hand unit shown; left hand unit opposite.
2. Internal factory valve package and drains may not align with cabinet knockouts.
3. Dimensions shown in inches (mm). All dimensions are ±1/4 inches.
4. Bottom panel is Arctic White polyester powder coat paint.

UNIT SIZE	NOM AIRFLOW (Cfm)	DIMENSIONS (in.)						QTY/UNIT		REAR RETURN FILTER SIZE (in.)	UNIT WEIGHT* (lb)
		A	B	C	D	E	F	Blower	Motor		
02	200	35	16	12 3/4	37	32	6	1	1	7 x 21	115
03	300	35	20	8 3/4	37	32	6	1	1	7 x 21	120
04	400	41	26	8 3/4	43	38	6	2	1	7 x 27	135
06	600	53	31	15 3/4	55	50	7	2	1	7 x 38	150
08	800	53	38	8 3/4	55	50	7	2	1	7 x 38	155
10	1000	75	52	16 3/4	77	72	7	4	2	7 x 52	227
12	1200	75	60	8 3/4	77	72	7	4	2	7 x 52	241

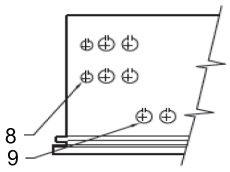
*Unit weights are based on dry coils and minimum rows. Weights exclude packaging, valves, and other components.

Base unit dimensions (cont)

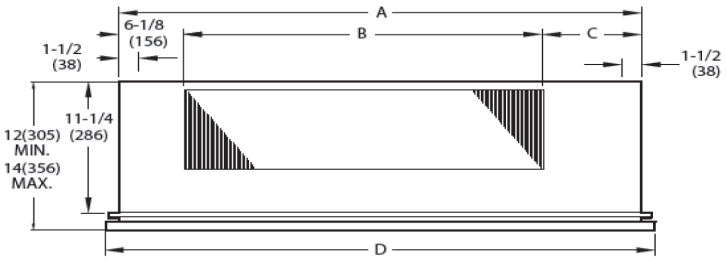
42CK HORIZONTAL CABINET UNIT WITH TELESCOPIC ACCESS PANEL, FRONT SUPPLY, REAR RETURN, AND HEATER



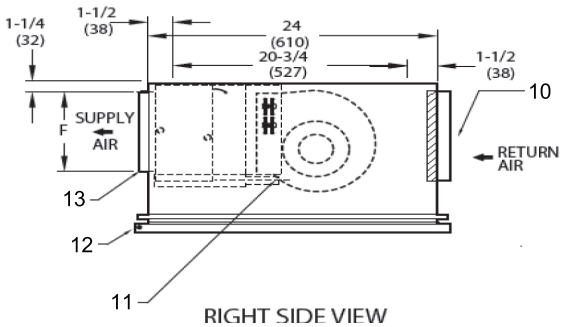
TOP VIEW



PARTIAL REAR VIEW
(TYPICAL BOTH SIDES)



FRONT VIEW



RIGHT SIDE VIEW

LEGEND

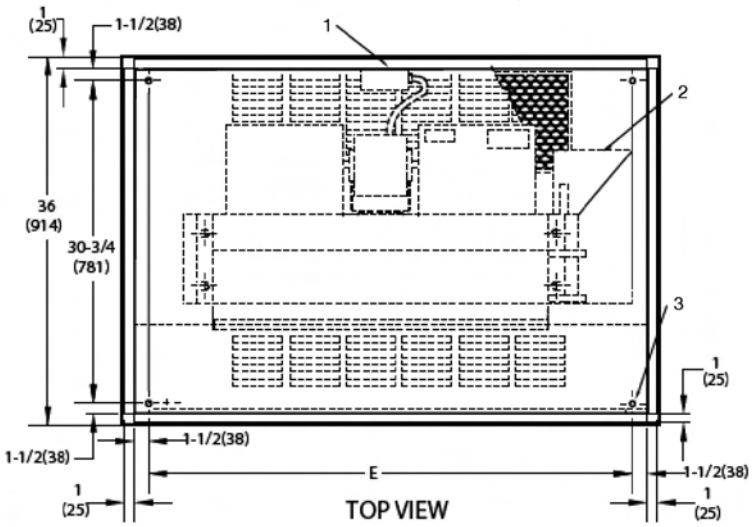
1 — Contactor Box
2 — Strip Heater High Limit
3 — Electric Strip Heater Element
4 — 1-in. Ducted Rear Return and 1-in. Filter
5 — Optimal L-shape Drip Lip, shipped loose
6 — Chilled/Hot Water Supply and Return Connection
7 — Resilient Mounting Grommets with $^3/_8$-in. Diameter Hole (typically 4)
8 — Electrical KO, $^7/_8$-in. Diameter
9 — Drain KO,$1^1/_2$-in. Diameter
10 — 1-in. Ducted Rear Return and 1-in. Filter
11 — Condensate Drain Connection, $^7/_8$-in. OD
12 — Hinged Bottom Return Air Panel
13 — Supply Duct Collar, 1-in. OD

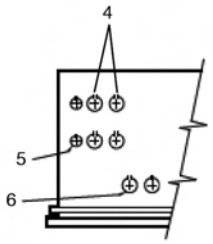
NOTES:
1. Right hand unit shown; left hand unit opposite.
2. Internal factory valve package and drains may not align with cabinet knockouts.
3. Dimensions shown in inches (mm). All dimensions are $\pm^1/_4$ inches.
4. Bottom panel is Arctic White polyester powder coat paint.

UNIT SIZE	NOM AIRFLOW (Cfm)	DIMENSIONS (in.)						QTY/UNIT		REAR RETURN FILTER SIZE (in.)	UNIT WEIGHT* (lb)
		A	B	C	D	E	F	Blower	Motor		
02	200	35	16	$12^3/_4$	37	32	6	1	1	7 x 21	117
03	300	35	20	$8^3/_4$	37	32	6	1	1	7 x 21	122
04	400	41	26	$8^3/_4$	43	38	6	2	1	7 x 27	137
06	600	53	31	$15^3/_4$	55	50	7	2	1	7 x 38	152
08	800	53	38	$8^3/_4$	55	50	7	2	1	7 x 38	157
10	1000	75	52	$16^3/_4$	77	72	7	4	2	7 x 52	229
12	1200	75	60	$8^3/_4$	77	72	7	4	2	7 x 52	243

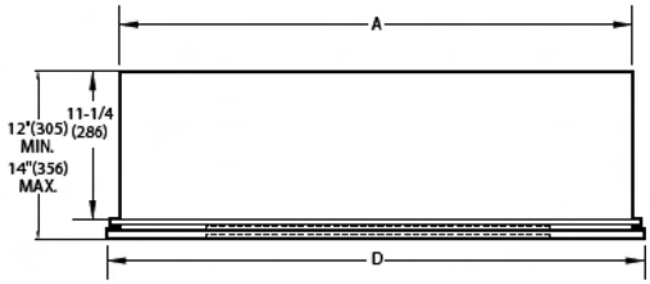
*Unit weights are based on dry coils and minimum rows. Weights exclude packaging, valves, and other components.

42CK HORIZONTAL CABINET UNIT WITH TELESCOPIC ACCESS PANEL, BOTTOM SUPPLY, BOTTOM RETURN*

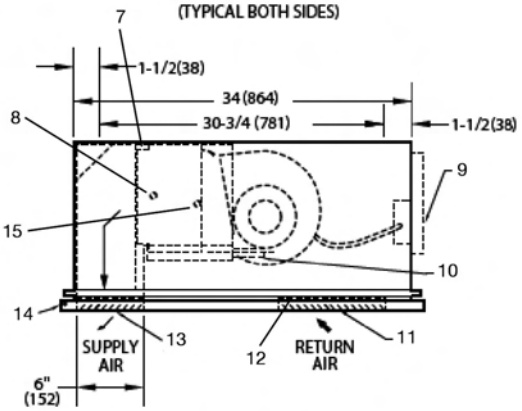




PARTIAL REAR VIEW
(TYPICAL BOTH SIDES)



FRONT VIEW



RIGHT SIDE VIEW

LEGEND

1 — Junction Box, 4 in. x 4 in.
2 — Optional Drip Lip, shipped loose
3 — Mounting Holes (4), Rubber Grommets have $^3/_8$-in. Diameter Hole
4 — Piping KO, $1^1/_2$-in. Diameter
5 — Electrical KO, $^7/_8$-in. Diameter
6 — Drain KO, $1^1/_2$-in. Diameter
7 — Supply Duct Collar
8 — Return Connection, $^5/_8$-in. OD.
9 — Optional Rear Return. Consult factory for collar dimensions.
10 — Drain, $^7/_8$-in. OD.
11 — Stamped Bottom Return Air Grille
12 — Filter
13 — Stamped Air Supply Grille
14 — Hinged Bottom Access Panel
15 — Supply Connection, $^5/_8$-in. OD.

* ETO — Engineered to Order.

NOTES:

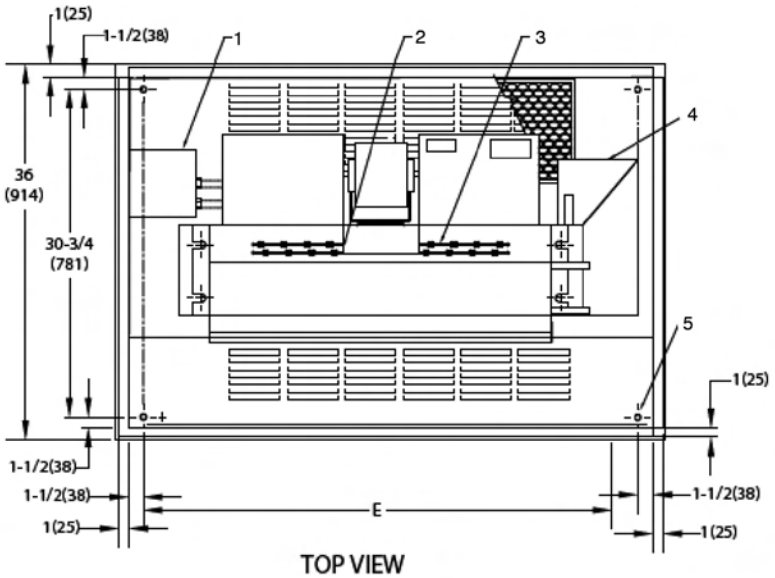
1. Right hand unit shown; left hand unit opposite. Coil connection locations are $\pm^5/_8$-inches.
2. Unit sizes 02 and 03 have one motor, one blower; sizes 04 through 08 have one motor, 2 blowers; sizes 10 and 12 have 2 motors, 4 blowers.
3. Bottom access panel has an Arctic White baked finish.
4. Refer to supply and return connections above for coil stub-out locations.
5. Not shown: optional drip lip, 3-speed fan switch; wall plate, $^1/_2$-in. fiberglass insulation on inside of casing, closed cell foam on main drain pan.
6. See 42CA-203-1 for optional coil connections.
7. Valve package is factory-installed inside the cabinet when ordered with the unit (based on component size).
8. Bottom return or bottom supply is an ETO (engineering to order) request.
9. Dimensions shown in inches (mm).

UNIT SIZE	NOM AIRFLOW (Cfm)	DIMENSIONS (in.)			QTY/UNIT		FACE AREA (sq ft)	UNIT WEIGHT† (lb)
		A	D	E	Blower	Motor		
02	200	35	37	32	1	1	0.83	115
03	300	35	37	32	1	1	1.08	120
04	400	41	43	38	2	1	1.35	135
06	600	53	55	50	2	1	1.88	150
08	800	53	55	50	2	1	2.31	155
10	1000	75	77	72	4	2	3.16	227
12	1200	75	77	72	4	2	3.65	241

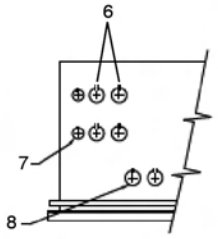
†Unit weights are based on dry coils and minimum rows. Weights exclude packaging, valves, and other components.

Base unit dimensions (cont)

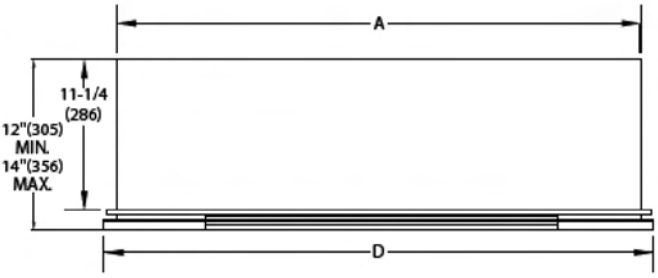
42CK HORIZONTAL CABINET WITH TELESCOPIC ACCESS PANEL BOTTOM SUPPLY, BOTTOM RETURN, AND ELECTRIC HEAT*



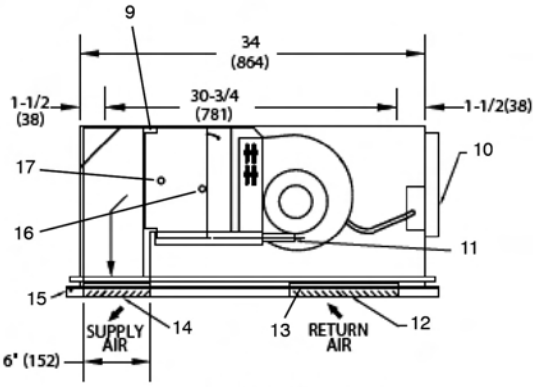
TOP VIEW



PARTIAL REAR VIEW
(TYPICAL BOTH SIDES)



FRONT VIEW



RIGHT SIDE VIEW

LEGEND

1 — Junction Box, 4 in. x 4 in.
2 — Strip Heater High Limit
3 — Electric Strip Heater Element
4 — Optional Drip Lip, shipped loose
5 — Mounting Holes (4), Rubber Grommets have $^3/_8$-in. Diameter Hole
6 — Piping KO, $1^1/_2$-in. Diameter
7 — Electrical KO, $^7/_8$-in. Diameter
8 — Drain KO, $1^1/_2$-in. Diameter
9 — Supply Duct Collar
10 — Optional Rear Return. Consult factory for collar dimensions.
11 — Drain, $^7/_8$-in. OD.
12 — Stamped Bottom Return Air Grille
13 — Filter
14 — Stamped Air Supply Grille
15 — Hinged Bottom Access Panel
16 — Supply Connection, $^5/_8$-in. OD.
17 — Return Connection, $^5/_8$-in. OD.

* ETO — Engineered to Order.

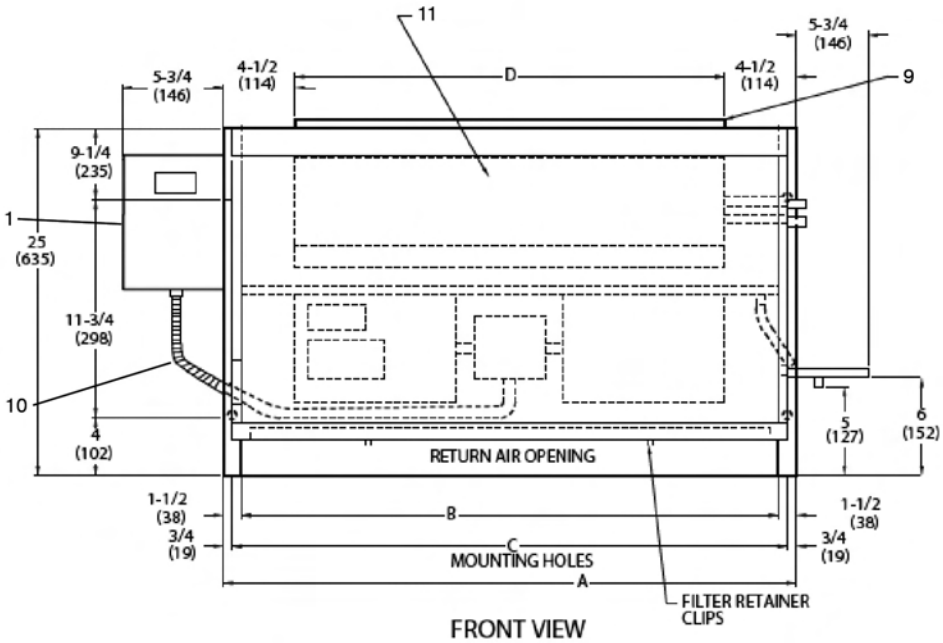
NOTES:
1. Right hand unit shown; left hand unit opposite. Coil connection locations are $\pm^5/_8$-inches.
2. Unit sizes 02 and 03 have one motor, one blower; sizes 04 through 08 have one motor, 2 blowers; sizes 10 and 12 have 2 motors, 4 blowers.
3. Bottom access panel has an Arctic White baked finish.
4. Refer to supply and return connections above for coil stub-out locations.
5. Not shown: optional drip lip, 3-speed fan switch; wall plate, $^1/_2$-in. fiberglass insulation on inside of casing, closed cell foam on main drain pan.
6. See 42CA-203-1 for optional coil connections.
7. Valve package is factory-installed inside the cabinet when ordered with the unit (based on component size).
8. Bottom return or bottom supply is an ETO (engineering to order) request.
9. Dimensions shown in inches (mm).

UNIT SIZE	NOM AIRFLOW (Cfm)	DIMENSIONS (in.)			QTY/UNIT		FACE AREA (sq ft)	UNIT WEIGHT† (lb)
		A	D	E	Blower	Motor		
02	200	35	37	32	1	1	0.83	117
03	300	35	37	32	1	1	1.08	122
04	400	41	43	38	2	1	1.35	137
06	600	53	55	50	2	1	1.88	152
08	800	53	55	50	2	1	2.31	157
10	1000	75	77	72	4	2	3.16	229
12	1200	75	77	72	4	2	3.65	243

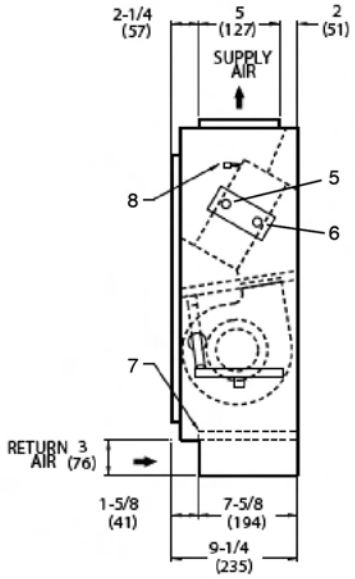
†Unit weights are based on dry coils and minimum rows. Weights exclude packaging, valves, and other components.

42VA FURRED-IN VERTICAL UNIT

TOP VIEW



FRONT VIEW



RIGHT SIDE VIEW

LEGEND

1 — Optional Unit Mounted Control Box
2 — Wall Mounting Holes (4), 3/4-in. Diameter
3 — Drain, 3/4-in. MPT
4 — Drain Pan, Auxiliary, Shipped Loose
5 — Supply Conn, 5/8-in. OD
6 — Return Conn, 5/8-in. OD
7 — Filter
8 — Air Vent, 1/8-in. MPT
9 — Discharge Opening
10 — Flexible Conduit
11 — Front Access Panel

NOTES:

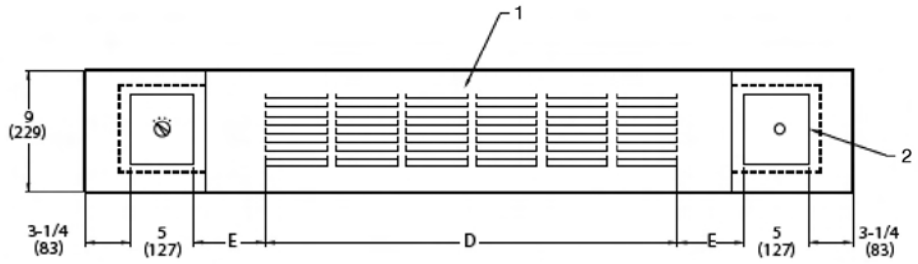
1. Right hand unit shown; left hand unit opposite. Coil connection locations are ± 5/8-inches.
2. Unit sizes 02 and 03 have one motor, one blower; sizes 04 through 08 have one motor, 2 blowers; sizes 10 and 12 have 2 motors, 4 blowers.
3. Standard 3-row coil shown.
4. Optional unit-mounted switch box and controls, when specified, are installed on opposite side from cooling connections.
5. Not shown: 3-speed fan switch; wall plate, 1/2-in. fiberglass insulation on inside of casing, closed cell foam on main drain pan.
6. Units have galvanized finish.
7. See 42VA-203-1 for optional coil connections.
8. Dimensions shown in inches (mm).

UNIT SIZE	NOM AIRFLOW (Cfm)	DIMENSIONS (in.)				QTY/UNIT		FACE AREA (sq ft)	UNIT WEIGHT* (lb)
		A	B	C	D	Blower	Motor		
02	200	25	22	23 1/2	16	1	1	0.83	65
03	300	29	26	27 1/2	20	1	1	1.08	80
04	400	35	32	33 1/2	26	2	1	1.35	90
06	600	45	42	43 1/2	36	2	1	1.88	112
08	800	47	44	45 1/2	38	2	1	2.31	115
10	1000	61	58	59 1/2	52	4	2	3.16	140
12	1200	69	66	67 1/2	60	4	2	3.65	170

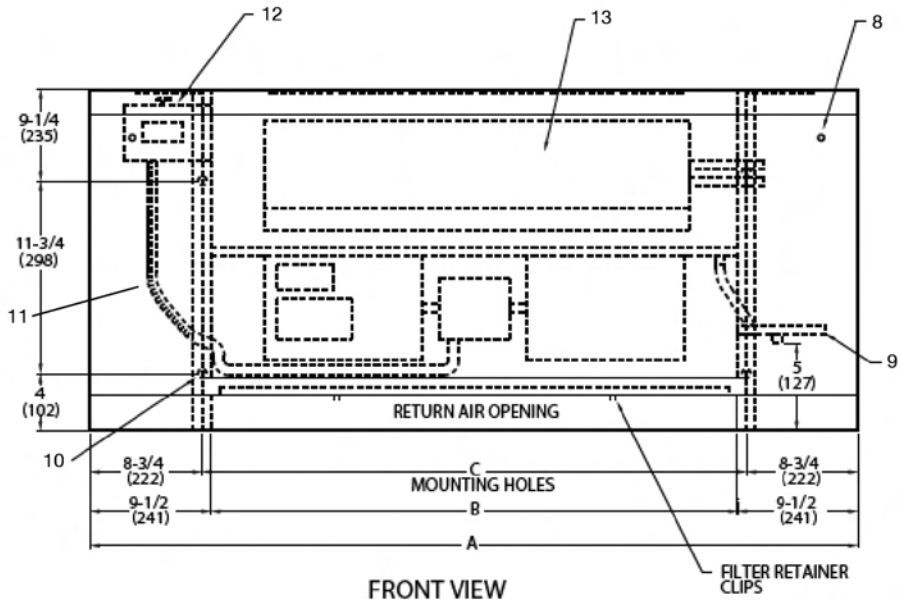
*Unit weights are based on dry coils and minimum rows. Weights exclude packaging, valves, and other components.

Base unit dimensions (cont)

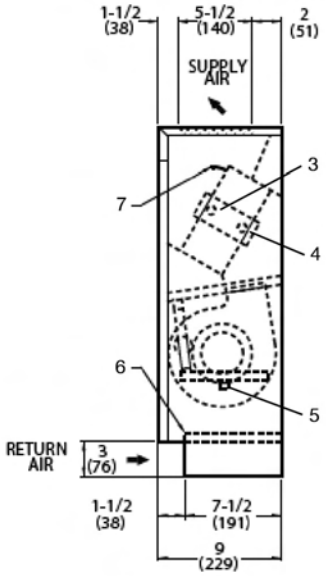
42VB VERTICAL CABINET UNIT



TOP VIEW



FRONT VIEW



RIGHT SIDE VIEW

LEGEND

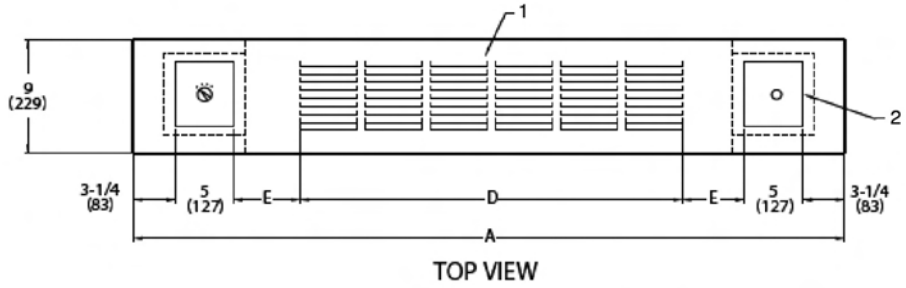
1 — Standard Stamped Supply Grille
2 — Access Door, Fan Switch
3 — Supply Conn, $^5/_8$-in. OD
4 — Return Conn, $^5/_8$-in. OD
5 — Drain, $^3/_4$-in. MPT
6 — Filter
7 — Air Vent, $^1/_8$-in. MPT
8 — Front Panel Fastener
9 — Drain Pan, Auxiliary, Shipped Loose
10 — Wall Mounting Holes (4), $^3/_4$-in. Diameter
11 — Flexible Conduit
12 — Fan Switch, 3-speed
13 — Front Access Panel

NOTES:
1. Right hand unit shown; left hand unit opposite. Coil connection locations are ± $^5/_8$-inches.
2. Unit sizes 02 and 03 have one motor, one blower; sizes 04 through 08 have one motor, 2 blowers; sizes 10 and 12 have 2 motors, 4 blowers.
3. Standard 3-row coil shown.
4. Cabinet has an Arctic White baked finish.
5. Stamped supply grille standard. Optional single or double deflection grilles available.
6. Not shown: $^1/_2$-in. fiberglass insulation on inside of casing, closed cell foam on main drain pan.
7. See 42VA-203-1 for optional coil connections.
8. Dimensions shown in inches (mm).

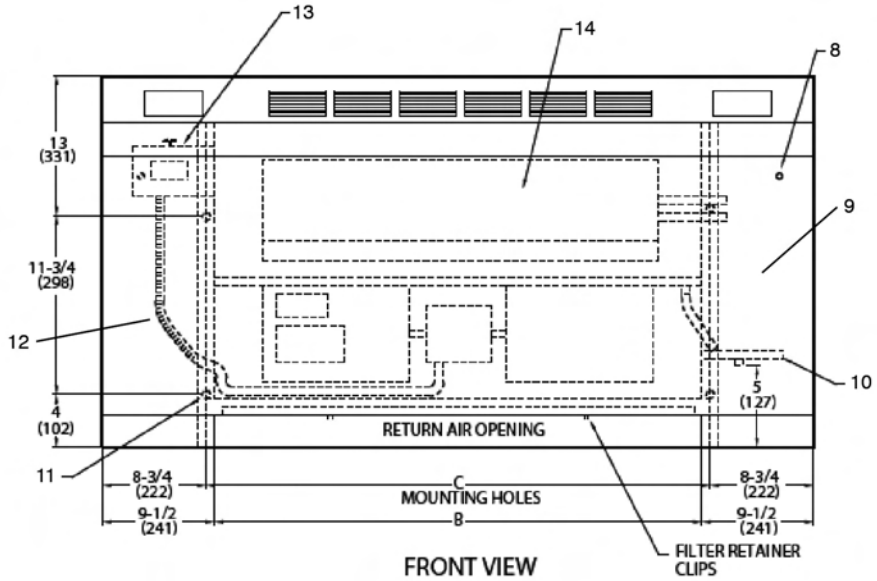
UNIT SIZE	NOM AIRFLOW (Cfm)	DIMENSIONS (in.)					QTY/UNIT		FACE AREA (sq ft)	UNIT WEIGHT* (lb)
		A	B	C	D	E	Blower	Motor		
02	200	41	22	23 1/2	17 1/4	3 5/8	1	1	0.83	89
03	300	45	26	27 1/2	21 1/2	3 1/2	1	1	1.08	95
04	400	51	32	33 1/2	26	4 1/4	2	1	1.35	116
06	600	61	42	43 1/2	39	2 3/4	2	1	1.88	134
08	800	63	44	45 1/2	39	3 3/4	2	1	2.31	137
10	1000	77	58	59 1/2	52	4 1/4	4	2	3.16	169
12	1200	85	66	67 1/2	61	3 3/4	4	2	3.65	192

*Unit weights are based on dry coils and minimum rows. Weights exclude packaging, valves, and other components.

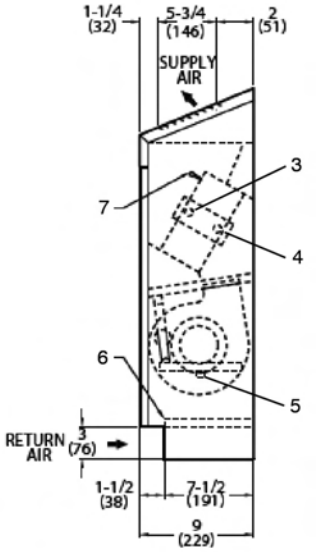
42VF VERTICAL CABINET UNIT WITH SLANT TOP



TOP VIEW



FRONT VIEW



RIGHT SIDE VIEW

LEGEND

1 — Standard Stamped Supply Grille
2 — Access Door, Fan Switch
3 — Supply Conn, $^5/_8$-in. OD
4 — Return Conn, $^5/_8$-in. OD
5 — Drain, $^3/_4$-in. MPT
6 — Filter
7 — Air Vent, $^1/_8$-in. MPT
8 — Front Panel Fastener
9 — Optional Valve Package (inside cabinet)
10 — Drain Pan, Auxiliary, Shipped Loose
11 — Wall Mounting Holes $^3/_4$-in. Diameter
12 — Flexible Conduit
13 — Fan Switch, 3 speed
14 — Access Doors

NOTES:

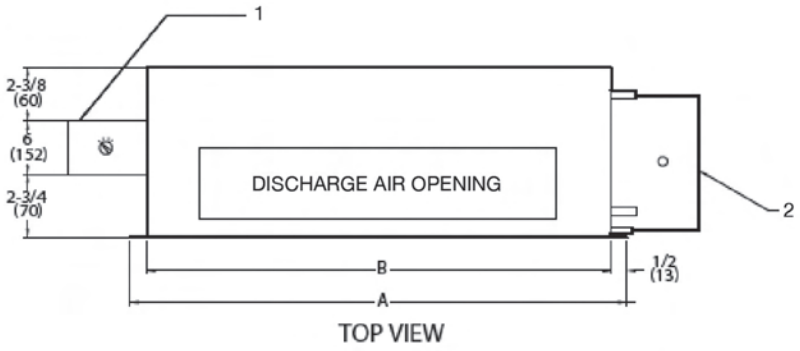
1. Right hand unit shown; left hand unit opposite. Coil connection locations are ± $^5/_8$-inches.
2. Unit sizes 02 and 03 have one motor, one blower; sizes 04 through 08 have one motor, 2 blowers; sizes 10 and 12 have 2 motors, 4 blowers.
3. Standard 3-row coil shown.
4. Cabinet has an Arctic White baked finish.
5. Not shown: $^1/_2$-in. fiberglass insulation on inside of casing, closed cell foam on main drain pan.
6. See 42VA-203-1 for optional coil connections.
7. Valve package is factory-installed inside the cabinet when ordered with the unit (based on component size).
8. Dimensions shown in inches (mm).

UNIT SIZE	NOM AIRFLOW (Cfm)	DIMENSIONS (in.)					QTY/UNIT		FACE AREA (sq ft)	UNIT WEIGHT* (lb)
		A	B	C	D	E	Blower	Motor		
02	200	41	22	$23^1/_2$	$17^1/_4$	$3^5/_8$	1	1	0.83	92
03	300	45	26	$27^1/_2$	$21^1/_2$	$3^1/_2$	1	1	1.08	98
04	400	51	32	$33^1/_2$	26	$4^1/_4$	2	1	1.35	122
06	600	61	42	$43^1/_2$	39	$2^3/_4$	2	1	1.88	141
08	800	63	44	$45^1/_2$	39	$3^3/_4$	2	1	2.31	144
10	1000	77	58	$59^1/_2$	$52^1/_8$	$4^1/_4$	4	2	3.16	178
12	1200	85	66	$67^1/_2$	61	$3^3/_4$	4	2	3.65	205

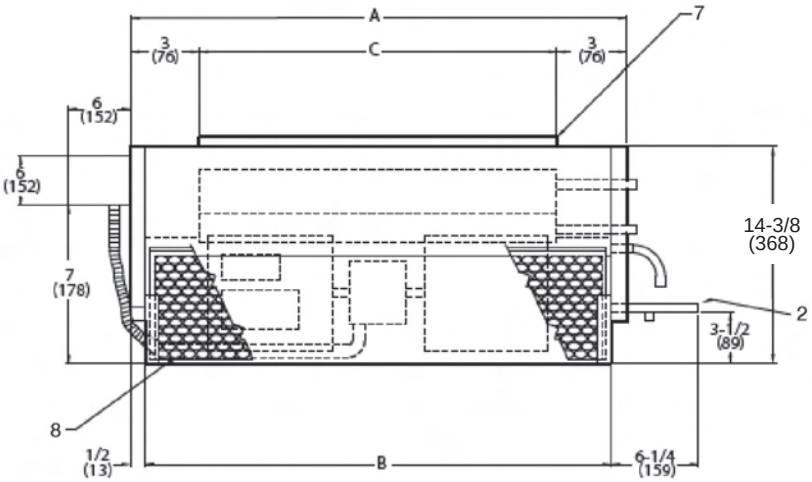
*Unit weights are based on dry coils and minimum rows. Weights exclude packaging, valves, and other components.

Base unit dimensions (cont)

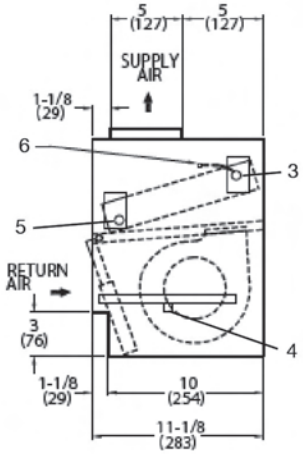
42VC FURRED-IN LOWBOY UNIT



TOP VIEW



FRONT VIEW



RIGHT SIDE VIEW

LEGEND

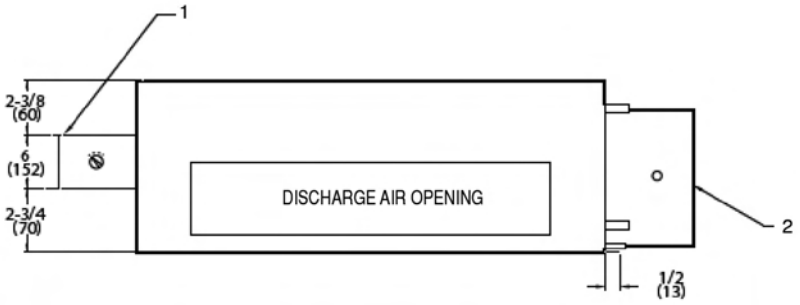
1 — Optional Unit Mounted Control Box
2 — Drain Pan, Auxiliary, Shipped Loose
3 — Supply Conn, $^5/_8$-in. OD
4 — Drain, $^3/_4$-in. MPT
5 — Return Conn, $^5/_8$-in. OD
6 — Air Vent, $^1/_8$-in. MPT
7 — Discharge Opening
8 — Filter

NOTES:
1. Right hand unit shown; left hand unit opposite. Coil connection locations are ± $^5/_8$-inches.
2. Unit sizes 02 through 04 have one motor, 2 blowers; size 06 has 2 motors, 4 blowers.
3. Standard 2-row coil shown.
4. Optional unit-mounted switch box and controls, when specified, are installed on opposite side from cooling connections.
5. Height increases by 2 in. with electric heat.
6. Not shown: 3-speed fan switch, $^1/_2$-in. fiberglass insulation on inside of casing, closed cell foam on main drain pan.
7. Units have galvanized finish.
8. See 42VC-203-1 for optional coil connections.
9. Dimensions shown in inches (mm).

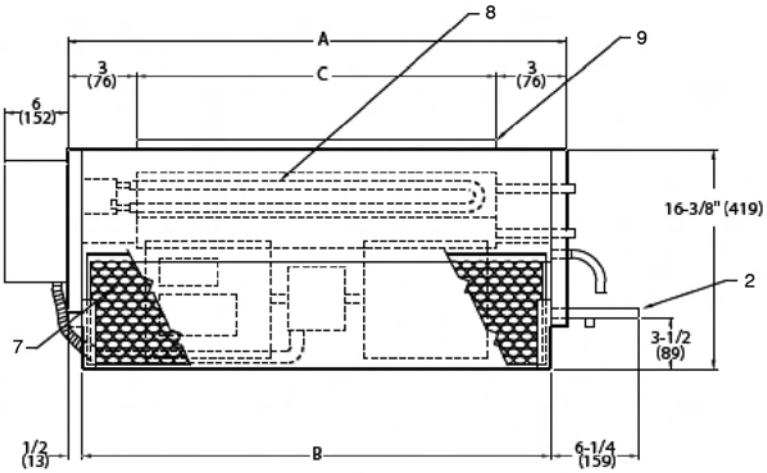
UNIT SIZE	NOM AIRFLOW (Cfm)	DIMENSIONS (in.)			QTY/UNIT		FACE AREA (sq ft)	UNIT WEIGHT* (lb)
		A	B	C	Blower	Motor		
02	200	23	22	17	2	1	1.18	50
03	300	28	27	22	2	1	1.53	60
04	400	36	35	30	2	1	2.08	72
06	600	50	49	44	4	2	3.06	110

*Unit weights are based on dry coils and minimum rows. Weights exclude packaging, valves, and other components.

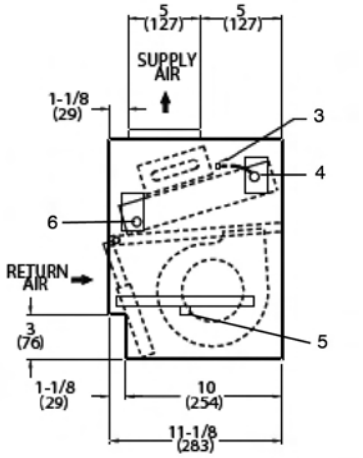
42VC FURRED-IN LOWBOY UNIT WITH ELECTRIC HEAT



TOP VIEW



FRONT VIEW



RIGHT SIDE VIEW

LEGEND

1 — Unit-Mounted Control Box (Optional)
2 — Drain Pan, Auxiliary, Shipped Loose
3 — Air Vent, $^1/_8$-in. MPT
4 — Supply Conn, $^5/_8$-in. OD
5 — Drain, $^3/_4$-in. MPT
6 — Return Conn, $^5/_8$-in. OD
7 — Filter
8 — Electical Sheath Heater Element
9 — Discharge Opening

NOTES:

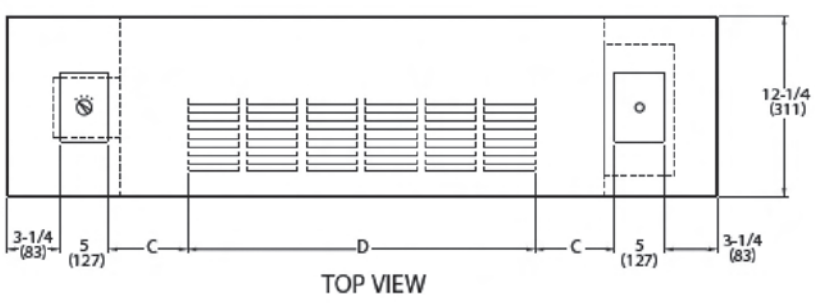
1. Right hand unit shown; left hand unit opposite. Coil connection locations are ± $^5/_8$-inches.
2. Unit sizes 02 through 04 have one motor, 2 blowers; size 06 has 2 motors, 4 blowers.
3. Standard 2-row coil shown.
4. Optional unit-mounted switch box and controls, when specified, are installed on opposite side from cooling connections.
5. Height increases by 2 in. with electric heat.
6. Not shown: 3-speed fan switch, $^1/_2$-in. fiberglass insulation on inside of casing, closed cell foam on main drain pan.
7. Units have galvanized finish.
8. See 42VC-203-1 for optional coil connections.
9. Dimensions shown in inches (mm).

UNIT SIZE	NOM AIRFLOW (Cfm)	DIMENSIONS (in.)			QTY/UNIT		FACE AREA (sq ft)	UNIT WEIGHT* (lb)
		A	B	C	Blower	Motor		
02	200	23	22	17	2	1	1.18	50
03	300	28	27	22	2	1	1.53	60
04	400	36	35	30	2	1	2.08	72
06	600	50	49	44	4	2	3.06	110

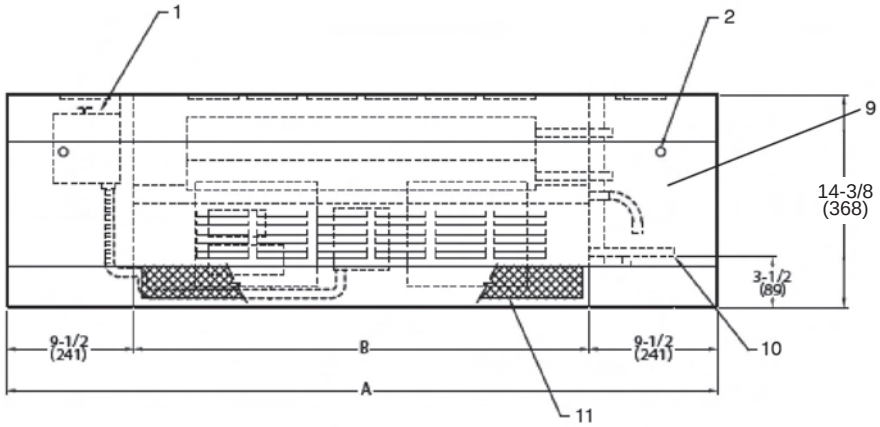
*Unit weights are based on dry coils and minimum rows. Weights exclude packaging, valves, and other components.

Base unit dimensions (cont)

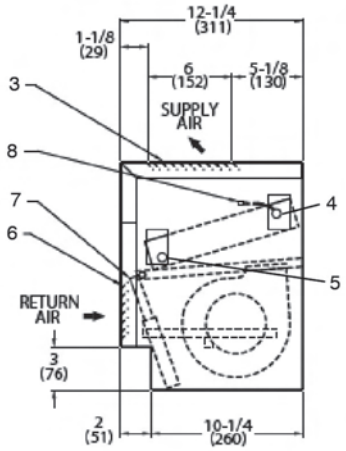
42VE CABINET LOWBOY UNIT



TOP VIEW



FRONT VIEW



RIGHT SIDE VIEW

LEGEND

1 — Fan Switch, 3-Speed, behind Access Door
2 — Front Panel Fastener
3 — Stamped Supply Grille
4 — Supply Conn, $^5/_8$-in. OD
5 — Return Conn, $^5/_8$-in. OD
6 — Stamped Return Grille
7 — Filter
8 — Air Vent, $^1/_8$-in. MPT
9 — Optional Valve Package (inside cabinet)
10 — Drain Pan, Auxiliary, with $^3/_4$-in. MPT Drain Connection
11 — Return Air Grille

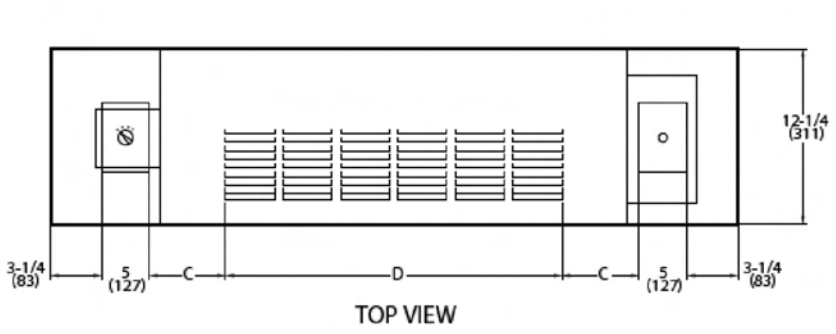
NOTES:

1. Right hand unit shown; left hand unit opposite. Coil connection locations are ± $^5/_8$-inches.
2. Unit sizes 02 through 04 have one motor, 2 blowers; size 06 has 2 motors, 4 blowers.
3. Cabinet has an Arctic White baked finish.
4. Height increases by 2 in. with electric heat.
5. Standard 2-row coil shown.
6. Not shown: $^1/_2$-in. fiberglass insulation on inside of casing, closed cell foam on main drain pan.
7. See 42VC-203-1 for optional coil connections.
8. Valve package is factory-installed inside the cabinet when ordered with the unit (based on component size).
9. Dimensions shown in inches (mm).

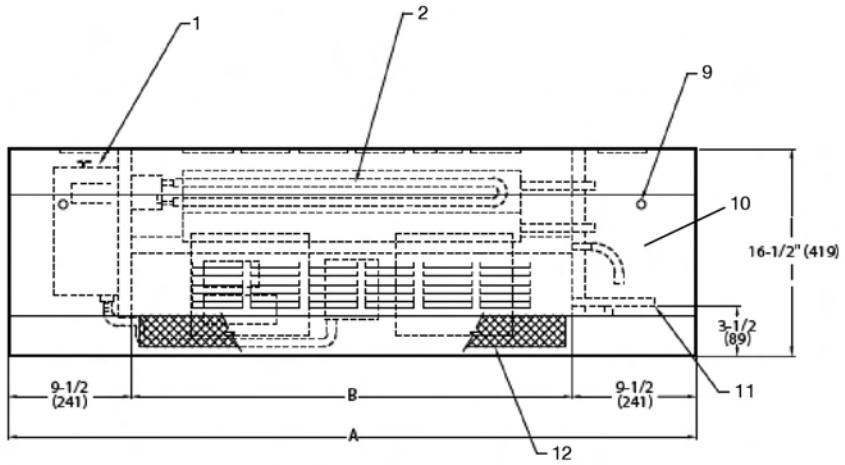
UNIT SIZE	NOM AIRFLOW (Cfm)	DIMENSIONS (in.)				QTY/UNIT		FACE AREA (sq ft)	UNIT WEIGHT* (lb)
		A	B	C	D	Blower	Motor		
02	200	41	22	$3^3/_4$	17	2	1	1.18	72
03	300	46	27	4	$21^1/_2$	2	1	1.53	100
04	400	54	35	$3^5/_8$	$30^1/_4$	2	1	2.08	108
06	600	68	49	$4^1/_{16}$	$43^3/_8$	4	2	3.06	154

*Unit weights are based on dry coils and minimum rows. Weights exclude packaging, valves, and other components.

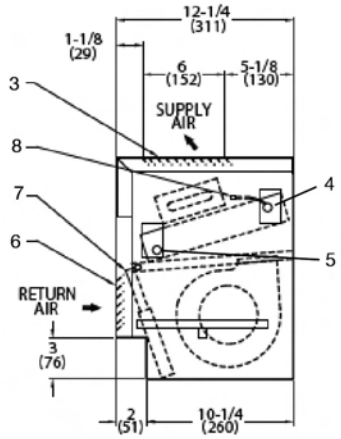
42VE CABINET LOWBOY UNIT WITH ELECTRIC HEAT



TOP VIEW



FRONT VIEW



RIGHT SIDE VIEW

LEGEND

1 — Fan Switch, 3-Speed, behind Access Door
2 — Electrical Sheath Heater Element
3 — Stamped Supply Grille
4 — Supply Conn, $^5/_8$-in. OD
5 — Return Conn, $^5/_8$-in. OD
6 — Stamped Return Grille
7 — Filter
8 — Air Vent, $^1/_8$-in. MPT
9 — Front Panel Fastener
10 — Optional Valve Package (inside cabinet)
11 — Drain Pan, Auxiliary, with $^3/_4$-in. MPT Drain Connection
12 — Return Air Grille

NOTES:

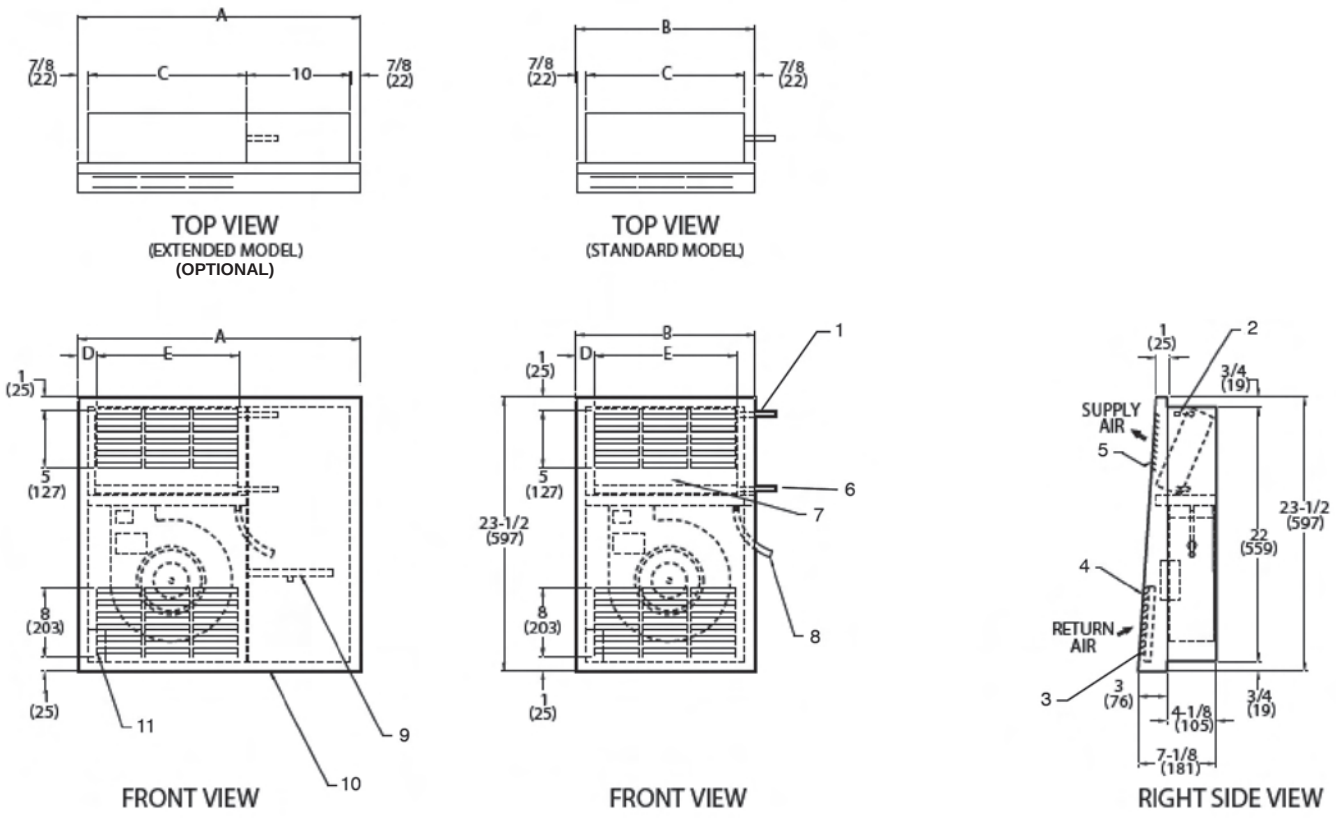
1. Right hand unit shown; left hand unit opposite. Coil connection locations are ± $^5/_8$-inches.
2. Unit sizes 02 through 04 have one motor, 2 blowers; size 06 has 2 motors, 4 blowers.
3. Cabinet has an Arctic White baked finish.
4. Height increases by 2 in. with electric heat.
5. Standard 2-row coil shown.
6. Not shown: $^1/_2$-in. f berglass insulation on inside of casing, closed cell foam on main drain pan.
7. See 42VC-203-1 for optional coil connections.
8. Valve package is factory-installed inside the cabinet when ordered with the unit (based on component size).
9. Dimensions shown in inches (mm).

UNIT SIZE	NOM AIRFLOW (Cfm)	DIMENSIONS (in.)				QTY/UNIT		FACE AREA (sq ft)	UNIT WEIGHT* (lb)
		A	B	C	D	Blower	Motor		
02	200	41	22	$3^3/_4$	17	2	1	1.18	72
03	300	46	27	4	$21^1/_2$	2	1	1.53	100
04	400	54	35	$3^5/_8$	$30^1/_4$	2	1	2.08	108
06	600	68	49	$4^1/_{16}$	$43^3/_8$	4	2	3.06	154

*Unit weights are based on dry coils and minimum rows. Weights exclude packaging, valves, and other components.

Base unit dimensions (cont)

42VG FURRED-IN WALL UNIT



LEGEND

1 — Supply Conn, $^5/_8$-in. OD
2 — Air Vent, $^1/_8$-in. MPT
3 — Filter
4 — Return Air Grille, Stamped
5 — Stamped Supply Grille
6 — Return Conn, $^5/_8$-in. OD
7 — Removable Front Panel
8 — Drain Conn, $^7/_8$-in. OD
9 — Auxilary Drain Pan
10 — Valve Compartment - (Optional)
11 — Junction Box

NOTES:
1. Right hand unit shown; left hand unit opposite. Coil connection locations are ± $^5/_8$-inches.
2. Front panel has an Arctic White baked finish.
3. Standard 2-row coil shown.
4. Unit size 01 has one motor, one blower; size 03 has 2 motors, 2 blowers.
5. Unit has $^1/_2$-in. flanges for mounting to wall surface.
6. Front panel hooks at top of unit, swing down and snap in at bottom against a spring clip.
7. Not shown: 3-speed fan switch, wall plate, $^1/_2$-in. fiberglass insulation on inside of casing, closed cell foam on main drain pan.
8. Dimensions shown in inches (mm).

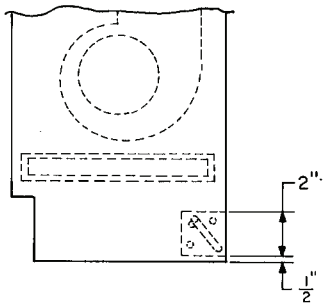
UNIT SIZE	NOM AIRFLOW (Cfm)	DIMENSIONS (in.)					QTY/UNIT		UNIT WEIGHT* (lb)
		A	B	C	D	E	Blower	Motor	
01	150	$25^3/_4$	$15^3/_4$	14	$1^1/_2$	$12^3/_4$	1	1	40
03	300	$39^3/_4$	$29^3/_4$	28	$1^{15}/_{16}$	$25^7/_8$	2	2	74

*Unit weights are based on dry coils and minimum rows. Weights exclude packaging, valves, and other components.

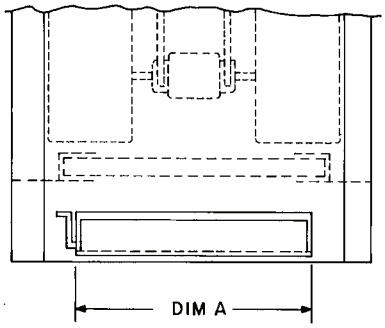
Accessory dimensions

OUTSIDE AIR OPENING/DAMPER

UNIT SIZE	NOMINAL AIRFLOW (CFM)	DIMENSION A (in.)	
		VA,VB,VF Units	VC,VE Units
02	200	8	6
03	300	10	6
04	400	12	6
06	600	14	6
08	800	18	—
10	1000	27	—
12	1200	27	—



SIDE VIEW

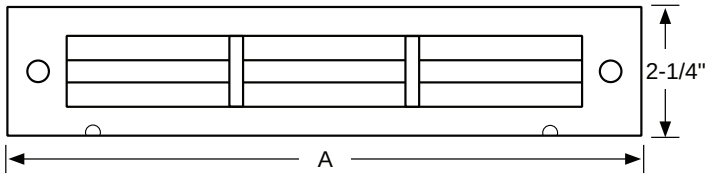


BACK VIEW

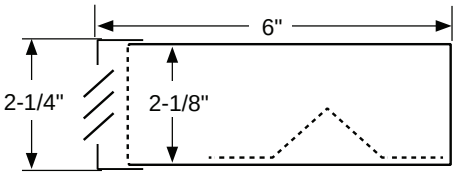
NOTES:
1. The above figure shows the outside air arrangement in 42V Series units. Manual or motorized dampers are available for 42VA,VB, and VF units. An outside air opening is available for 42VC and VE units. All outside air openings are located on the back panel of the units.
2. A 6 in. diameter outside air opening with duct collar and filter is available with special quote for the 42CE,CF,CG, and CK units. The location of the outside air opening on the 42C units will need to be specified with respect to the return air location.
3. A 6 in. diameter outside air opening is available with special quote for 42D units (except the 42DA unit).

WALL BOXES (42VA,VB,VF UNITS)

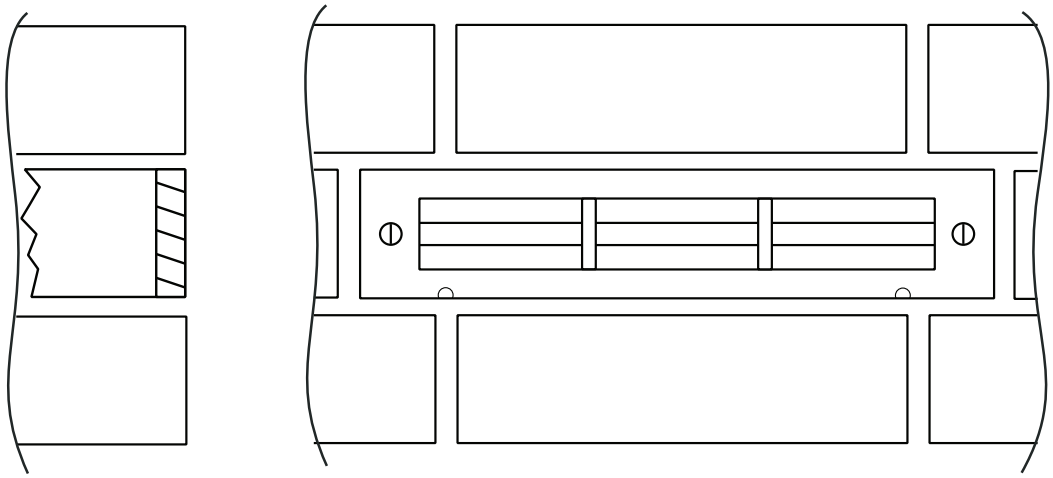
UNIT SIZE	NOMINAL AIRFLOW (Cfm)	DIMENSION A (in.)
02	200	8 1/4
03	300	10 1/4
04	400	12 1/4
06	600	14 1/4
08	800	18 1/4
10	1000	27 1/4
12	1200	27 1/4



FRONT VIEW



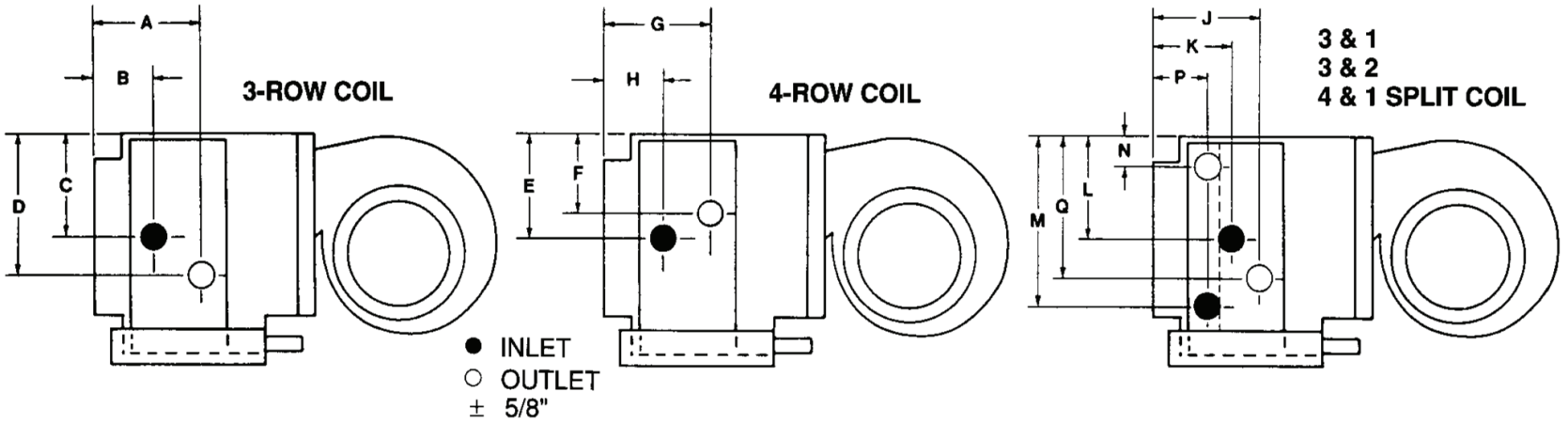
SIDE VIEW



TYPICAL WALL INSTALLATION

NOTE: Optional outside air wall boxes are constructed of aluminum to minimize corrosion. A louvered grille caps the wall box on the exterior side. A fine mesh insect screen is installed behind the louver on the inside of the box.

42C OPTIONAL COIL CONNECTION LOCATION SIZES 02-12



COIL CONNECTION DIMENSIONS

RIGHT HAND	UNIT SIZE	3-ROW COIL				4-ROW COIL				3 AND 1 SPLIT COIL						
		A	B	C	D	E	F	G	H	J	K	L	M	N	P	Q
	02	4 3/4	2 5/8	4 1/4	4 1/4	3 5/8	4 1/4	5 5/16	2 1/16	5 5/16	3 1/8	4 1/4	5 5/8	1 1/8	2 1/16	4 1/4
	03	4 3/4	2 5/8	4 1/4	4 1/4	3 5/8	4 1/4	5 5/16	2 1/16	5 5/16	3 1/8	4 1/4	5 5/8	1 1/8	2 1/16	4 1/4
	04	4 3/4	2 5/8	4 1/4	4 1/4	3 5/8	4 1/4	5 5/16	2 1/16	5 5/16	3 1/8	4 1/4	5 5/8	1 1/8	2 1/16	4 1/4
	06	4 3/4	2 5/8	3 5/8	4 7/8	5 1/2	4 7/8	5 5/16	2 1/16	5 5/16	3 1/8	4 7/8	6 7/8	2 3/8	2 1/16	4 7/8
	08	4 3/4	2 5/8	3 5/8	4 7/8	3 5/8	4 1/4	5 5/16	2 1/16	5 5/16	3 1/8	4 7/8	6 7/8	2 3/8	2 1/16	4 7/8
	10	4 3/4	2 5/8	4 7/8	3 5/8	4 1/4	4 7/8	5 5/16	2 1/16	5 5/16	3 1/8	5 1/2	6 7/8	2 3/8	2 1/16	4 1/4
	12	4 3/4	2 5/8	4 7/8	3 5/8	4 1/4	4 7/8	5 5/16	2 1/16	5 5/16	3 1/8	5 1/2	6 7/8	2 3/8	2 1/16	4 1/4

LEFT HAND	UNIT SIZE	3 AND 2 SPLIT COIL						
		J	K	L	M	N	P	Q
	02	6 5/16	4 1/8	3 5/8	5	1 1/8	2 11/16	3 5/8
	03	6 5/16	4 1/8	3 5/8	5	1 1/8	2 11/16	3 5/8
	04	6 5/16	4 1/8	3 5/8	5	1 1/8	2 11/16	3 5/8
	06	6 5/16	4 1/8	4 1/4	6 3/4	1 1/8	2 11/16	4 1/4
	08	6 5/16	4 1/8	4 1/4	6 3/4	1 1/8	2 11/16	4 1/4
	10	6 5/16	4 1/8	3 5/8	6 3/4	1 1/8	2 11/16	4 7/8
	12	6 5/16	4 1/8	3 5/8	6 3/4	1 1/8	2 11/16	4 7/8

RIGHT HAND	UNIT SIZE	3 AND 2 SPLIT COIL						
		J	K	L	M	N	P	Q
	02	6 5/16	4 1/8	4 1/4	5 5/8	1 3/4	2 11/16	4 1/4
	03	6 5/16	4 1/8	4 1/4	5 5/8	1 3/4	2 11/16	4 1/4
	04	6 5/16	4 1/8	4 1/4	5 5/8	1 3/4	2 11/16	4 1/4
	06	6 5/16	4 1/8	4 7/8	6 7/8	3	2 11/16	4 7/8
	08	6 5/16	4 1/8	4 7/8	6 7/8	3	2 11/16	4 7/8
	10	6 5/16	4 1/8	5 1/2	6 7/8	3	2 11/16	4 1/4
	12	6 5/16	4 1/8	5 1/2	6 7/8	3	2 11/16	4 7/8

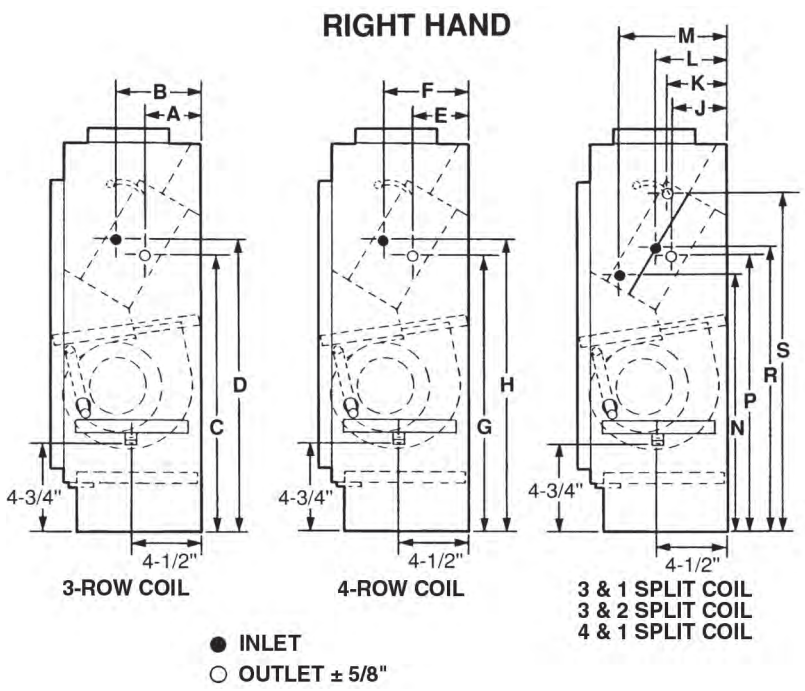
RIGHT HAND	UNIT SIZE	4 AND 1 SPLIT COIL						
		J	K	L	M	N	P	Q
	02	5 3/16	2 5/8	4 1/4	5 5/8	1 1/8	1 9/16	4 1/4
	03	5 5/16	2 5/8	4 1/4	5 5/8	1 1/8	1 9/16	4 1/4
	04	5 5/16	2 5/8	4 1/4	5 5/8	1 1/8	1 9/16	4 1/4
	06	5 5/16	2 5/8	4 7/8	6 7/8	2 3/8	1 9/16	4 7/8
	08	5 5/16	2 5/8	4 7/8	6 7/8	2 3/8	1 9/16	4 7/8
	10	5 5/16	2 5/8	5 1/2	6 7/8	2 3/8	1 9/16	4 1/4
	12	5 5/16	2 5/8	5 1/2	6 7/8	2 3/8	1 9/16	4 1/4

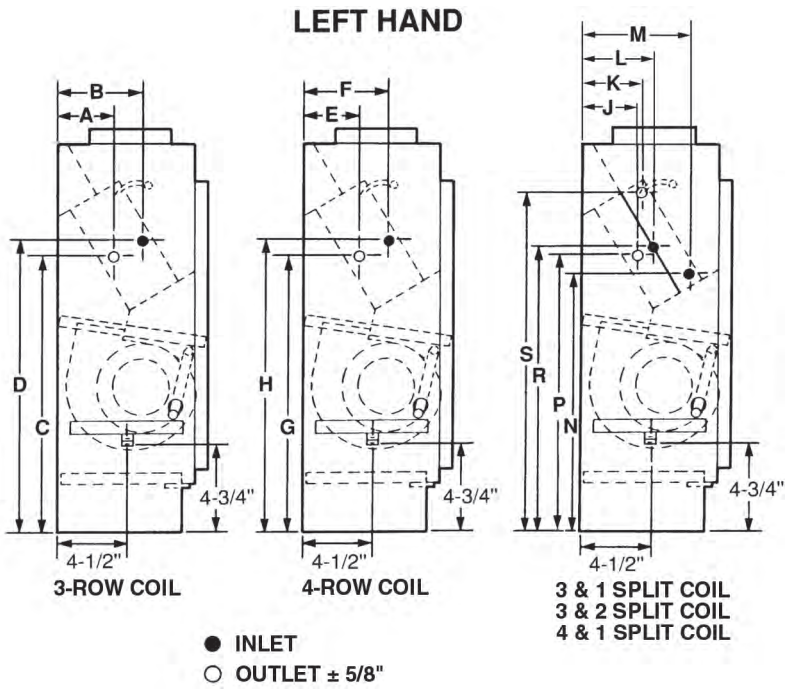
LEFT HAND	UNIT SIZE	4 AND 1 SPLIT COIL						
		J	K	L	M	N	P	Q
	02	5 3/16	2 5/8	3 5/8	5	1/2	1 9/16	3 5/8
	03	5 5/16	2 5/8	3 5/8	5	1/2	1 9/16	3 5/8
	04	5 5/16	2 5/8	3 5/8	5	1/2	1 9/16	3 5/8
	06	5 5/16	2 5/8	4 1/4	6 3/4	1/2	1 9/16	4 1/4
	08	5 5/16	2 5/8	4 1/4	6 3/4	1/2	1 9/16	4 1/4
	10	5 5/16	2 5/8	3 5/8	6 3/4	1/2	1 9/16	4 7/8
	12	5 5/16	2 5/8	3 5/8	6 3/4	1/2	1 9/16	4 7/8

LEFT HAND	UNIT SIZE	3-ROW COIL				4-ROW COIL				3 AND 1 SPLIT COIL						
		A	B	C	D	E	F	G	H	J	K	L	M	N	P	Q
	02	4 3/4	2 5/8	4 1/4	4 1/4	4 1/4	3 5/8	5 5/16	2 1/16	5 5/16	3 1/8	3 5/8	5	1/2	2 1/16	3 5/8
	03	4 3/4	2 5/8	4 1/4	4 1/4	4 1/4	3 5/8	5 5/16	2 1/16	5 5/16	3 1/8	3 5/8	5	1/2	2 1/16	3 5/8
	04	4 3/4	2 5/8	4 1/4	4 1/4	4 1/4	3 5/8	5 5/16	2 1/16	5 5/16	3 1/8	3 5/8	5	1/2	2 1/16	3 5/8
	06	4 3/4	2 5/8	4 7/8	3 5/8	4 7/8	5 1/2	5 5/16	2 1/16	5 5/16	3 1/8	4 1/4	6 3/4	1/2	2 1/16	4 1/4
	08	4 3/4	2 5/8	4 7/8	3 5/8	4 1/4	3 5/8	5 5/16	2 1/16	5 5/16	3 1/8	4 1/4	6 3/4	1/2	2 1/16	4 1/4
	10	4 3/4	2 5/8	3 5/8	4 7/8	4 7/8	4 1/2	5 5/16	2 1/16	5 5/16	3 1/8	3 5/8	6 3/4	1/2	2 1/16	4 7/8
	12	4 3/4	2 5/8	3 5/8	4 7/8	4 7/8	4 1/2	5 5/16	2 1/16	5 5/16	3 1/8	3 5/8	6 3/4	1/2	2 1/16	4 7/8

NOTES:
1. Right hand unit shown; left hand unit opposite.
2. All dimensions are in inches ±1/4 inch.
3. Dimensions do not apply to units with factory valve packages.
4. All connection sizes 5/8 in. OD.
5. Split coil connections shown are for 4-pipe combinations; chilled/hot water coils only, with hot water coil in standard reheat position.

42VA,VB,VF OPTIONAL COIL CONNECTION LOCATION SIZES 02–12





NOTES:
1. Dimensions for split coils with opposite end connections will vary.
2. Coil connection dimensions are for coil stub outs only. Valve packages not included.
3. All dimensions are in inches.
4. Split coil connections shown are for 4-pipe combinations; chilled/hot water coils only, with hot water coil in standard reheat position.

COIL CONNECTION DIMENSIONS

RIGHT HAND	UNIT SIZE	3-ROW COIL				4-ROW COIL				3 AND 1 SPLIT COIL							
		A	B	C	D	E	F	G	H	J	K	L	M	N	P	R	S
	02	4	5 15/16	17 1/16	18 1/8	3 1/2	6 1/4	16 7/8	19 1/8	3 9/16	4 7/8	5 1/2	8	15 7/8	16 7/8	18	21 1/4
	03	4	5 15/16	17 1/16	18 1/8	3 1/2	6 1/4	16 7/8	19 1/8	3 9/16	4 7/8	5 1/2	8	15 7/8	16 7/8	18	21 1/4
	04	4	5 15/16	17 1/16	18 1/8	3 1/2	6 1/4	16 7/8	19 1/8	3 9/16	4 7/8	5 1/2	8	15 7/8	16 7/8	18	21 1/4
	06	3 11/16	5 5/8	17 5/8	18 11/16	3 1/4	6 1/2	17 7/16	18 5/8	3 1/4	4 7/8	5 3/16	8	15 7/8	17 7/16	18 1/2	21 1/4
	08	3 11/16	5	17 5/8	19 3/4	2 7/8	5 9/16	18	20 3/16	3 1/4	4 7/8	5 3/16	8	15 7/8	17 7/16	18 1/2	21 1/4
	10	3 1/16	5 5/8	18 3/4	18 11/16	3 1/4	5 7/8	17 7/16	19 5/8	2 7/8	4 7/8	6	8	15 7/8	18	18 1/8	21 1/4
	12	3 1/16	5 5/8	18 3/4	18 11/16	3 1/4	5 7/8	17 7/16	19 5/8	2 7/8	4 7/8	6	8	15 7/8	18	18 1/8	21 1/4

COIL CONNECTION DIMENSIONS

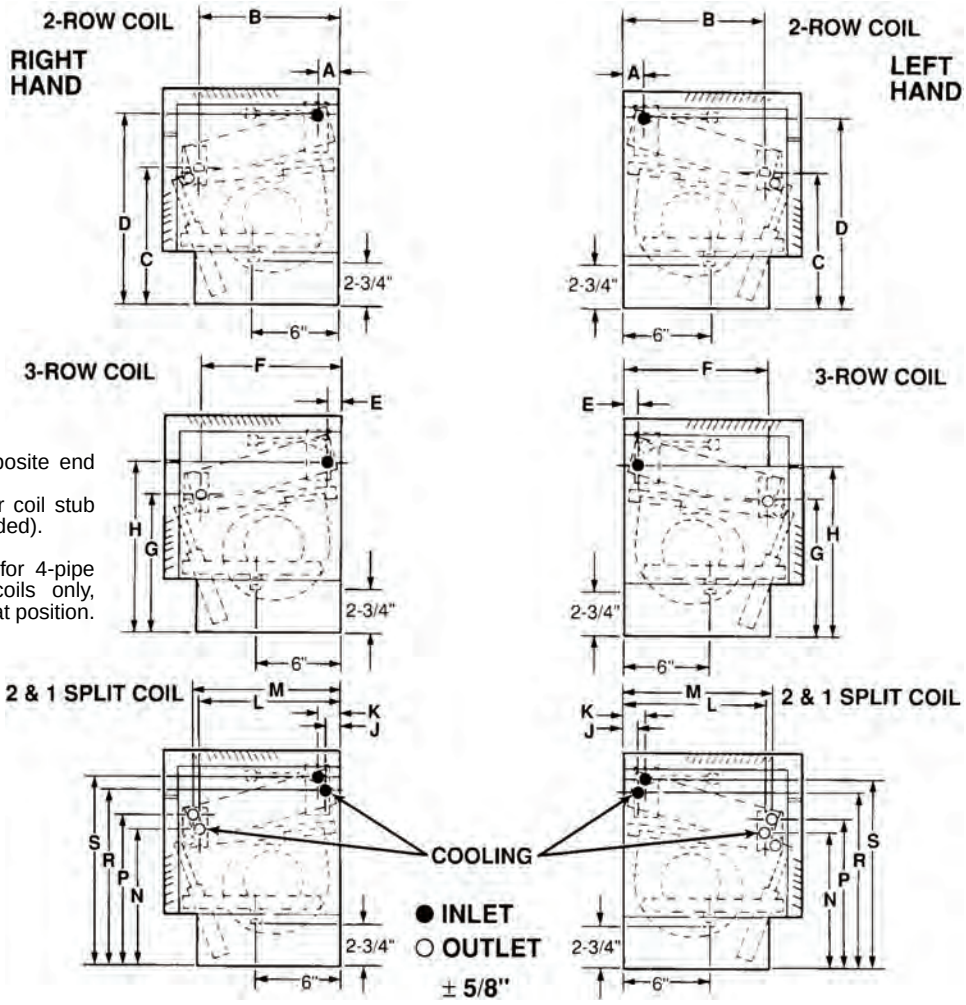
LEFT HAND	UNIT SIZE	3-ROW COIL				4-ROW COIL				3 AND 1 SPLIT COIL							
		A	B	C	D	E	F	G	H	J	K	L	M	N	P	R	S
	02	4	5 15/16	17 1/16	18 1/8	3 1/4	6 1/2	17 7/16	18 5/8	3 1/4	4 5/8	5 3/16	7 3/4	16 7/16	17 7/16	18 1/2	21 7/8
	03	4	5 15/16	17 1/16	18 1/8	3 1/4	6 1/2	17 7/16	18 5/8	3 1/4	4 5/8	5 3/16	7 3/4	16 7/16	17 7/16	18 1/2	21 7/8
	04	4	5 15/16	17 1/16	18 1/8	3 1/4	6 1/2	17 7/16	18 5/8	3 1/4	4 5/8	5 3/16	7 3/4	16 7/16	17 7/16	18 1/2	21 7/8
	06	3 1/16	5 5/8	17 5/8	18 11/16	3 1/2	6 1/4	16 7/8	19 1/8	3 1/2	4 5/8	5 1/2	7 3/4	16 7/16	16 7/8	18	21 7/8
	08	3	5 5/8	18 3/4	18 11/16	2 9/16	5 7/8	18 1/2	19 5/8	2 7/8	3 15/16	4 7/8	7 1/8	17 1/2	18	19 1/8	23
	10	3 11/16	5	17 5/8	19 3/4	2 7/8	6 3/16	18	19 1/8	3 1/4	3 15/16	4 1/2	7 1/8	17 1/2	17 7/16	19 5/8	23
	12	3 11/16	5	17 5/8	19 3/4	2 7/8	6 3/16	18	19 1/8	3 1/4	3 15/16	4 1/2	7 1/8	17 1/2	17 7/16	19 5/8	23

RIGHT HAND	UNIT SIZE	3 AND 2 SPLIT COIL								4 AND 1 SPLIT COIL							
		J	K	L	M	N	P	R	S	J	K	L	M	N	P	R	S
	02	4	7 1/4	5 1/2	8 3/8	16 7/16	16 7/8	17 7/16	18 5/8	3 1/2	6	6 1/4	7 3/4	16 7/16	16 7/16	19 1/8	21 7/8
	03	4	7 1/4	5 1/2	8 3/8	16 7/16	16 7/8	17 7/16	18 5/8	3 1/2	6	6 1/4	7 3/4	16 7/16	16 7/16	19 1/8	21 7/8
	04	4	7 1/4	5 1/2	8 3/8	16 7/16	16 7/8	17 7/16	18 5/8	3 1/2	6	6 1/4	7 3/4	16 7/16	16 7/16	19 1/8	21 7/8
	06	3 11/16	5 3/4	5 3/16	8 1/8	16 7/16	17 7/16	16 7/8	19 1/8	3 1/4	6 1/4	6 1/2	7 3/4	16 7/16	16 7/16	18 5/8	21 7/8
	08	3	8 1/16	5 3/16	7 1/2	17 1/2	17 7/16	18 1/2	19 5/8	2 7/8	5 1/2	5 9/16	8 1/8	17 1/2	18	20 3/16	23
	10	3 11/16	7 3/8	6	6 3/4	17 1/2	18	18	19 1/8	3 1/4	5 3/4	5 7/8	8 1/2	17 1/2	17 7/16	19 5/8	23
	12	3 11/16	7 3/8	6	6 3/4	17 1/2	18	18	19 1/8	3 1/4	5 3/4	5 7/8	8 1/2	17 1/2	17 7/16	19 5/8	23

LEFT HAND	UNIT SIZE	3 AND 2 SPLIT COIL								4 AND 1 SPLIT COIL							
		J	K	L	M	N	P	R	S	J	K	L	M	N	P	R	S
	02	4	6	5 1/2	8 3/8	16 7/16	16 7/8	17 7/16	18 5/8	3 1/2	6	6 1/4	9	17 1/8	16 7/8	19 1/8	22 1/2
	03	4	6	5 1/2	8 3/8	16 7/16	16 7/8	17 7/16	18 5/8	3 1/2	6	6 1/4	9	17 1/8	16 7/8	19 1/8	22 1/2
	04	4	6	5 1/2	8 3/8	16 7/16	16 7/8	17 7/16	18 5/8	3 1/2	6	6 1/4	9	17 1/8	16 7/8	19 1/8	22 1/2
	06	3 11/16	6	5 3/16	8 1/8	16 7/16	17 7/16	16 7/8	19 1/8	3 1/4	6 1/4	6 1/2	9	17 1/8	17 7/16	18 5/8	22 1/2
	08	3	6	5 3/16	7 1/2	17 1/2	17 7/16	18 1/2	19 5/8	2 7/8	5 1/2	5 9/16	9	17 1/8	18	20 3/16	22 1/2
	10	3 11/16	6	6	6 3/4	17 1/2	18	18	19 1/8	3 1/4	5 3/4	5 7/8	9	17 1/8	17 7/16	19 5/8	22 1/2
	12	3 11/16	6	6	6 3/4	17 1/2	18	18	19 1/8	3 1/4	5 3/4	5 7/8	9	17 1/8	17 7/16	19 5/8	22 1/2

Accessory dimensions (cont)

42VC,VE OPTIONAL COIL CONNECTION LOCATION SIZES 02–06

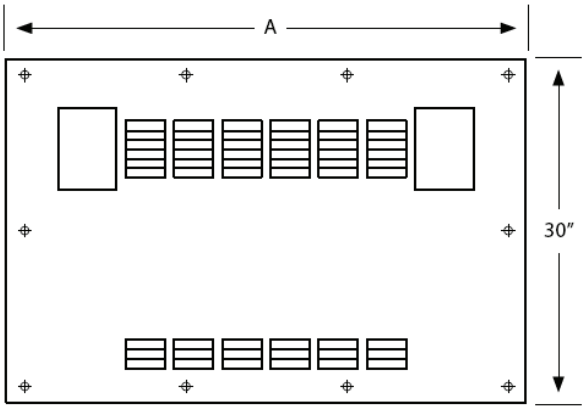


NOTES:
1. Dimensions for split coils with opposite end connections will vary.
2. Coil connection dimensions are for coil stub outs only (valve packages not included).
3. All dimensions are in inches.
4. Split coil connections shown are for 4-pipe combinations; chilled/hot water coils only, with hot water coil in standard reheat position.

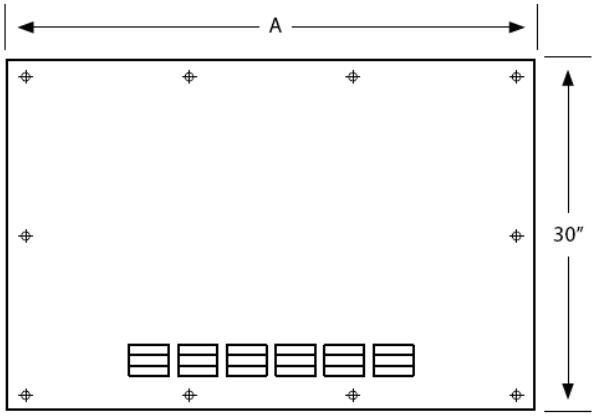
COIL CONNECTION DIMENSIONS

	UNIT SIZE	2-ROW COIL				3-ROW COIL				2 AND 1 SPLIT COIL							
		A	B	C	D	E	F	G	H	J	K	L	M	N	P	R	S
RIGHT HAND	02	1	10 3/8	10 7/16	11 1/4	1 5/16	10	8 3/8	12 1/2	7/8	1 15/16	10 1/8	9 3/4	9 1/2	10 9/16	10 1/4	12 3/8
	03	1	10 3/8	10 7/16	11 1/4	1 5/16	10	8 3/8	12 1/2	7/8	1 5/16	10 1/8	9 3/4	9 1/2	10 9/16	10 1/4	12 3/8
	04	1	10 3/8	10 7/16	11 1/4	1 1/2	9 3/4	8 15/16	11 7/8	7/8	1 5/16	10 1/8	9 3/4	9 1/2	10 9/16	10 1/4	12 3/8
	06	1 1/4	10	10	11 3/4	1 1/2	9 3/4	8 15/16	11 7/8	1 1/4	1 5/16	9 3/4	9 3/4	8 15/16	10 9/16	10 3/4	12 3/8
LEFT HAND	02	1 1/4	10 3/16	9 1/4	12 3/8	1 5/16	10	8 3/8	12 1/2	1 1/16	1 15/16	10	10 3/8	10 3/8	10 1/2	11 3/8	12 3/8
	03	1 1/4	10 3/16	9 1/4	12 3/8	1 5/16	10	8 3/8	12 1/2	1 1/16	1 5/16	10	10 3/8	8 3/8	10 1/2	11 3/8	12 3/8
	04	1 1/4	10 3/16	9 1/4	12 3/8	1 1/4	10	10	10 3/4	1 1/16	1 15/16	10	10 3/8	8 3/8	10 1/2	11 3/8	12 3/8
	06	1 7/16	10	10	11 3/4	1 1/4	10	10	10 3/4	1 1/4	1 15/16	9 3/4	10 7/16	8 15/16	10 1/2	10 3/4	12 3/8

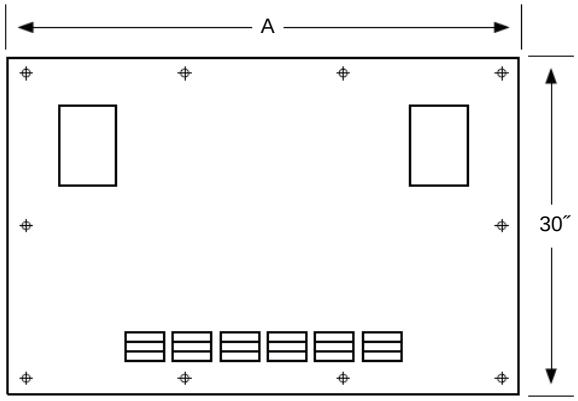
DECORATIVE WALL PANELS (42VA units only)



FRONT RETURN AND SUPPLY WITH ACCESS DOORS



FRONT RETURN TOP SUPPLY



FRONT RETURN AND TOP SUPPLY WITH ACCESS DOORS (ETO)

UNIT SIZE	CFM	A (in.)
02	200	40
03	300	44
04	400	50
06	600	60
08	800	62
10	1000	76
12	1200	84

NOTE: ETO — Engineered To Order.

Accessory dimensions (cont)

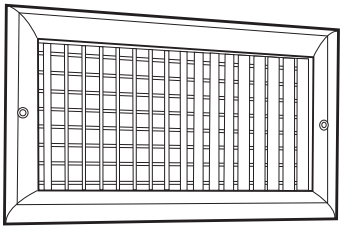
DISCHARGE AIR GRILLES

DISCHARGE GRILLES

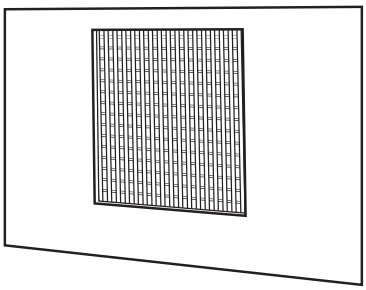
Unit Size	Nominal Airflow (Cfm)	Recommended Grille Sizes (in.) Unit				
		42C*	42VA	42VB,VF	42VC*	42VE
02	200	16 x 6	16 x 5	16 x 6	16 x 5	16 x 6
03	300	20 x 6	20 x 5	20 x 6	22 x 5	22 x 6
04	400	26 x 6	26 x 5	26 x 6	30 x 5	30 x 6
06	600	30 x 6	36 x 5	36 x 6	44 x 5	44 x 6
08	800	38 x 6	38 x 5	38 x 6	—	—
10	1000	52 x 6	52 x 5	52 x 6	—	—
12	1200	60 x 6	60 x 5	60 x 6	—	—

*Refer to unit dimensions to size field transitions.

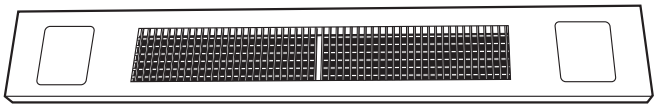
ANODIZED ALUMINUM DOUBLE-DEFLECTION GRILLE (With Frame)



INTEGRAL DOUBLE-DEFLECTION GRILLE FOR HORIZONTAL UNITS (Installed on 42CG Unit as Shown)



INTEGRAL DOUBLE-DEFLECTION GRILLE FOR VERTICAL UNITS (Installed on 42VB Unit as Shown)



Performance data

AIR DELIVERY (CFM)
42C SERIES — 60 Hz MOTOR

UNIT	SIZE	COIL	EXTERNAL STATIC PRESSURE (in. wg)								
			0.00			0.05	0.10	0.15	0.20	0.25	0.30
			Fan Speed								
			Low	Med	High	High	High	High	High	High	High
42CA	02	3-Row	175	195	220	205	185	160	—	—	—
		4-Row	165	190	215	200	175	140	—	—	—
	03	3-Row	250	295	330	300	265	225	170	—	—
		4-Row	240	285	320	290	250	205	150	—	—
	04	3-Row	220	360	510	480	450	415	370	290	—
		4-Row	215	305	500	470	440	400	340	240	—
	06	3-Row	330	540	760	720	670	620	560	475	—
		4-Row	295	530	745	700	650	590	525	430	—
	08	3-Row	335	590	870	840	800	760	700	620	—
		4-Row	330	585	860	825	780	730	665	575	—
	10	3-Row	490	665	1100	1060	1010	930	845	730	—
		4-Row	480	655	1085	1040	970	895	800	670	—
	12	3-Row	705	950	1425	1370	1310	1240	1160	1055	—
		4-Row	690	930	1400	1345	1280	1205	1115	990	—
42CE,CG,CK	02	3-Row	150	175	190	180	170	145	—	—	—
		4-Row	145	170	185	180	160	125	—	—	—
	03	3-Row	215	270	300	275	250	215	165	—	—
		4-Row	205	260	290	270	240	195	—	—	—
	04	3-Row	205	275	470	445	415	380	320	250	—
		4-Row	200	270	460	435	400	355	300	210	—
	06	3-Row	280	450	690	655	615	560	500	410	—
		4-Row	220	440	675	635	595	535	465	355	—
	08	3-Row	335	565	835	800	760	710	650	570	—
		4-Row	325	550	815	780	740	658	615	515	—
	10	3-Row	485	630	1045	995	940	880	805	710	—
		4-Row	475	615	1020	970	915	850	765	645	—
	12	3-Row	540	900	1300	1240	1180	1110	1025	920	840
		4-Row	530	880	1275	1215	1150	1075	980	850	815
42CH	04	3-Row	515	600	665	630	595	550	500	430	350
		4-Row	505	585	650	620	575	530	465	395	300
	06	3-Row	545	705	830	780	725	670	610	550	480
		4-Row	525	680	800	750	700	640	585	520	440
	08	3-Row	630	715	930	870	810	750	685	615	540
		4-Row	615	705	905	840	780	720	655	580	495
	10	3-Row	1210	1350	1445	1360	1275	1185	1095	1000	880
		4-Row	1180	1315	1410	1320	1230	1140	1050	945	810
42CF	04	3-Row	485	535	570	540	505	465	420	360	285
		4-Row	420	525	555	520	485	445	390	330	—
	06	3-Row	540	640	720	680	635	585	530	460	385
		4-Row	525	625	700	660	610	560	500	430	340
	08	3-Row	545	660	800	750	695	640	580	515	440
		4-Row	535	645	780	725	670	615	555	485	395
	10	3-Row	1060	1195	1295	1216	1130	1045	960	865	700
		4-Row	1035	1165	1260	1175	1090	1005	915	810	700

NOTE: Air delivery is based on operation with dry coils and clean air filter.

Performance data (cont)

AIR DELIVERY (CFM) (cont)

42V SERIES — 60 Hz MOTOR

UNIT	SIZE	COIL	EXTERNAL STATIC PRESSURE (in. wg)						
			0.00			0.05	0.15	0.20	0.30
			Fan Speed						
			Low	Med	High	High	High	High	High
42VA,VB,VF	02	3-Row	185	210	240	195	150	105	—
		4-Row	165	190	215	170	135	95	—
	03	3-Row	205	250	295	260	220	185	155
		4-Row	200	240	285	245	205	170	140
	04	3-Row	225	295	410	370	335	310	290
		4-Row	220	280	395	355	325	300	260
	06	3-Row	310	460	620	565	515	475	440
		4-Row	305	450	605	550	505	465	430
	08	3-Row	360	575	700	640	600	545	500
		4-Row	350	570	690	630	590	540	490
	10	3-Row	490	675	915	850	780	725	655
		4-Row	475	650	885	820	755	700	635
	12	3-Row	580	935	1100	1025	970	920	865
		4-Row	565	910	1070	995	945	895	840
42VC,VE	02	2-Row	125	170	250	225	190	150	120
		3-Row	115	155	230	210	180	145	115
	03	2-Row	195	285	370	345	305	275	235
		3-Row	185	265	345	315	285	255	230
	04	2-Row	240	350	480	440	400	360	320
		3-Row	230	335	460	420	385	345	310
	06	2-Row	395	575	750	700	660	660	560
		3-Row	355	510	670	625	580	540	495

NOTE: Air delivery is based on operation with dry coils and clean air filter.

HOT WATER HEATING CAPACITIES (MBtuh) — MODELS 42CA,CE,CF,CG,CH,CK,VA,VB,VF

ROWS	UNIT SIZE	WATER FLOW (GPM)											
		0.5	1.0	1.5	2.0	3.0	4.0	5.0	6.0	7.0	8.0	10.0	12.0
1	02	7.6	8.8	9.2	9.4	9.6	9.8	—	—	—	—	—	—
	03	9.3	11.2	12.0	12.5	12.8	13.0	—	—	—	—	—	—
	04	12.0	14.0	15.3	16.2	16.8	17.1	—	—	—	—	—	—
	06	13.5	18.0	20.4	21.8	24.0	24.4	—	—	—	—	—	—
	08	—	21.3	24.8	26.5	28.8	30.0	—	—	—	—	—	—
	10	—	24.0	30.5	33.5	36.2	37.5	—	—	—	—	—	—
	12	—	26.5	35.8	38.8	42.3	44.0	—	—	—	—	—	—
2	02	12.1	14.1	15.0	15.7	16.4	16.8	—	—	—	—	—	—
	03	16.6	19.4	20.6	21.8	23.0	23.5	—	—	—	—	—	—
	04	18.5	23.4	25.5	26.7	28.6	29.4	—	—	—	—	—	—
	06	—	29.0	33.0	34.8	37.2	38.8	39.8	40.5	41.1	42.0	—	—
	08	—	32.8	37.7	40.8	45.0	46.9	47.5	49.7	50.6	51.4	—	—
	10	—	40.5	47.5	51.4	56.5	59.5	61.5	63.5	65.0	66.0	—	—
	12	—	49.0	55.5	59.5	64.7	68.0	70.7	72.7	74.0	75.3	—	—
3	02	15.0	17.4	18.6	19.4	20.3	20.8	—	—	—	—	—	—
	03	20.0	24.0	25.5	26.9	28.5	29.6	—	—	—	—	—	—
	04	22.5	29.0	31.6	33.0	35.2	36.4	—	—	—	—	—	—
	06	—	—	40.5	43.0	46.0	47.8	49.0	50.0	50.6	51.1	—	—
	08	—	—	47.0	51.2	55.5	58.0	60.0	61.5	62.6	63.5	—	—
	10	—	—	—	63.5	69.5	73.5	76.0	78.4	80.0	81.5	82.8	84.5
	12	—	—	—	70.0	79.4	84.2	87.5	90.0	92.0	93.4	96.0	—
4	02	17.2	20.0	21.2	21.8	22.5	23.0	—	—	—	—	—	—
	03	21.5	27.0	29.1	30.0	31.8	32.6	—	—	—	—	—	—
	04	25.0	33.0	35.6	37.0	38.5	39.6	—	—	—	—	—	—
	06	—	—	46.0	50.0	53.5	55.0	56.0	57.0	57.8	58.7	—	—
	08	—	—	51.3	55.0	60.0	63.0	65.0	66.4	67.4	68.3	—	—
	10	—	—	—	70.5	77.7	81.5	84.1	86.3	88.0	89.5	91.3	92.5
	12	—	—	—	82.5	92.5	97.5	101.1	104.0	106.5	108.5	110.5	112.0

NOTE: Ratings based on nominal cfm, 70 F entering dry bulb, 180 F entering wet bu b.

HOT WATER HEATING CAPACITIES (MBtuh) — MODELS 42VC,VE

ROWS	UNIT SIZE	WATER FLOW (GPM)						
		0.5	1.0	1.5	2.0	2.5	3.0	4.0
1	02	7.2	9.7	10.4	10.7	10.8	—	—
	03	9.5	12.4	14.1	15.1	15.5	—	—
	04	10.1	14.5	17.4	19.4	20.8	21.5	22.2
	06	14.6	20.2	23.5	26.0	27.5	28.7	29.7
2	02	11.2	14.3	15.6	16.5	17.2	17.7	—
	03	14.3	19.1	21.8	23.4	24.3	24.6	—
	04	—	22.6	27.1	30.0	32.0	33.2	34.1
	06	—	31.1	36.6	39.7	42.0	44.1	46.8
3	02	12.8	16.5	18.4	19.7	20.7	21.4	—
	03	18.0	22.8	25.9	27.7	28.8	29.4	—
	04	—	25.5	31.8	33.6	35.2	36.2	36.8
	06	—	37.0	40.9	43.7	46.0	47.8	51.0

NOTE: Ratings based on nominal airflow (cfm), 70 F entering dry bu b, 180 F entering wet bulb.

Performance data (cont)

COOLING AND HEATING CAPACITIES (Btuh) — MODEL 42VG

UNIT SIZE	AIRFLOW (Cfm)	WATER FLOW (Gpm)	PRESSURE DROP (ft wg)	COOLING			HEATING	
				Entering Water Temperature (F)				
				40	45	50	160	180
01	150	1.0	0.8	4,240	3,450	2,750	8,200	10,000
		1.5	1.6	4,950	4,080	3,270	8,750	10,850
		2.0	2.7	5,320	4,500	3,500	9,220	11,300
		2.5	3.6	5,500	4,620	3,620	9,450	11,700
		3.0	5.5	5,590	4,850	3,770	9,700	12,300
03	300	1.0	1.5	7,850	6,400	5,100	15,500	18,900
		1.5	2.9	8,850	7,800	6,250	16,700	20,400
		2.0	4.8	10,200	8,660	6,730	17,300	21,100
		2.5	6.4	10,800	9,100	7,130	17,600	21,500
		3.0	9.7	11,100	9,650	7,500	18,000	22,000

NOTE: Cooling capacity based on standard conditions at 80 F dry bulb, 67 F wet bulb entering air temperature. To determine sensible, use ratio of 0.83 to above total.

STEAM HEATING CAPACITIES (Btuh) MODELS 42VA,VB,VF,CA,CE,CF,CG,CH,CK

UNIT SIZE	1-ROW COIL	2-ROW COIL
02	12,270	19,920
03	16,890	28,580
04	21,940	37,530
06	31,610	54,995
08	40,415	71,250
10	52,685	91,655
12	62,355	109,120

NOTES:
1. Ratings based on nominal cfm, 70 F entering dry bulb, 2 psig.
2. All capacities above 50,000 Btuh rating are beyond the capacity of the standard control valve. Consult factory for these applications.
3. Steam coils are not available for 42VC,VE,VG units.

Electrical data

ELECTRIC HEATER DATA

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									
120	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	—
240	2.1	4.2	6.3	8.3	12.5	16.7	20.8	25.0	33.3	—
277	1.8	3.6	5.4	7.2	10.8	14.4	18.05	21.7	28.9	36.1

LEGEND

FLA — Full Load Amps

NOTE: All heaters are single-stage and single-phase.

42CA,CE,CG AND CK MOTOR DATA

V-Ph-Hz	FAN SPEED	FAN SPEED (RPM)	UNIT SIZE											
			02			03			04			06		
			Nominal Hp	Watts	Amps	Nominal Hp	Watts	Amps	Nominal Hp	Watts	Amps	Nominal Hp	Watts	Amps
115-1-60	H	1200	1/30	87	0.53	1/30	85	0.83	1/12	165	1.25	1/12	165	1.25
	M	980		55	0.31		55	0.50		80	0.70		80	0.72
	L	790		35	0.27		35	0.34		50	0.45		50	0.45
208-1-60	H	1200	1/30	86	0.45	1/30	89	0.46	1/12	115	0.64	1/12	130	0.64
	M	980		60	0.29		60	0.29		89	0.43		100	0.47
	L	790		28	0.15		28	0.15		45	0.22		48	0.24
230-1-60	H	1200	1/30	103	0.45	1/30	106	0.40	1/12	135	0.64	1/12	155	0.64
	M	980		70	0.31		73	0.32		105	0.45		115	0.52
	L	790		33	0.15		33	0.15		53	0.24		60	0.28
277-1-60	H	1200	1/30	80	0.33	1/30	80	0.34	1/12	150	0.64	1/12	155	0.64
	M	980		64	0.26		66	0.26		116	0.43		110	0.43
	L	790		40	0.16		43	0.16		60	0.25		90	0.35
220-1-50	H	1100	1/30	87	0.42	1/30	87	0.42	1/12	118	0.56	1/12	150	0.69
	M	850		62	0.29		62	0.29		93	0.44		112	0.52
	L	350		40	0.19		43	0.19		52	0.25		56	0.26

V-Ph-Hz	FAN SPEED	FAN SPEED (RPM)	UNIT SIZE								
			08			10*			12*		
			Nominal Hp	Watts	Amps	Nominal Hp	Watts	Amps	Nominal Hp	Watts	Amps
115-1-60	H	1200	1/6	235	2.10	1/12 (2)	305	2.70	1/6 (2)	435	4.00
	M	980		160	1.50		150	1.40		305	2.80
	L	790		120	1.20		100	0.90		130	1.20
208-1-60	H	1200	1/6	195	1.00	1/12 (2)	260	1.25	1/6 (2)	340	2.00
	M	980		135	0.69		190	0.94		255	1.33
	L	790		90	0.47		90	0.46		180	0.94
230-1-60	H	1200	1/6	210	1.00	1/12 (2)	290	1.25	1/6 (2)	380	2.00
	M	980		150	0.70		220	1.00		285	1.34
	L	790		105	0.50		110	0.50		210	1.00
277-1-60	H	1200	1/6	240	0.92	1/12 (2)	270	1.25	1/6 (2)	440	1.84
	M	980		160	0.62		200	0.80		300	1.20
	L	790		90	0.35		75	0.25		175	0.66
220-1-50	H	1100	1/6	152	0.80	1/12 (2)	248	1.18	1/6 (2)	280	1.55
	M	850		105	0.52		192	0.91		200	0.99
	L	350		75	0.38		105	0.50		140	0.68

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

NOTES:

1. Motor nameplate amps may vary.
2. Fan coil units comply with ETL, Canadian Standards Association (CSA), and ETL of Canada standards.

Electrical data (cont)

42C HIGH-STATIC PSC MOTOR DATA

SIZE	NOMINAL HP	AMPS	WATTS
42C*02	1/12	1.4	59
42C*03	1/12	1.4	100
42C*04	1/6	2.5	195
42C*06	1/6	2.5	195
42C*08	1/5	3.6	277
42C*10	1/6	5.0	360
42C*12	1/5	7.2	513

NOTES:
1. High-static PSC motors are available on 42CA,CE,CK for 60 Hz voltages with a special quote.
2. Motor amps and watts based on 115V motors.

42CF,CH MOTOR DATA

V-Ph-Hz	FAN SPEED	FAN SPEED (RPM)	UNIT SIZE											
			04			06			08			10*		
			Nominal Hp	Watts	Amps	Nominal Hp	Watts	Amps	Nominal Hp	Watts	Amps	Nominal Hp	Watts	Amps
115-1-60	H	1200	1/8	150	1.40	1/8	180	1.70	1/8	180	1.70	1/8 (2)	300	2.80
	M	980		160	1.65		175	1.65		195	1.70		345	3.37
	L	790		135	1.45		140	1.45		165	1.45		290	2.95
208-1-60	H	1200	1/8	135	0.68	1/8	150	0.72	1/8	160	0.74	1/8 (2)	280	1.44
	M	980		120	0.60		130	0.66		135	0.67		250	1.25
	L	790		105	0.54		110	0.57		110	0.57		205	1.05
230-1-60	H	1200	1/8	150	0.68	1/8	160	0.72	1/8	170	0.75	1/8 (2)	300	1.44
	M	980		128	0.58		145	0.66		135	0.67		260	1.30
	L	790		115	0.55		127	0.60		127	0.57		205	1.05
277-1-60	H	1200	1/8	145	0.60	1/8	155	0.60	1/8	170	0.66	1/8 (2)	310	1.20
	M	980		125	0.45		130	0.48		145	0.54		265	0.95
	L	790		90	0.36		90	0.36		100	0.39		195	0.74
220-1-50	H	1200	1/6	205	1.00	1/6	225	0.36	1/6	256	1.20	1/6 (2)	420	2.00
	M	980		145	0.69		150	1.08		160	0.76		285	1.36
	L	790		93	0.45		95	0.47		95	0.48		180	0.88

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

NOTES:
1. Motor nameplate amps may vary.
2. Fan coil units comply with ETL, Canadian Standards Association (CSA), and ETL of Canada standards.

42VA,VB, AND VF MOTOR DATA

V-Ph-Hz	FAN SPEED	FAN SPEED (RPM)	UNIT SIZE											
			02			03			04			06		
			Nominal Hp	Watts	Amps	Nominal Hp	Watts	Amps	Nominal Hp	Watts	Amps	Nominal Hp	Watts	Amps
115-1-60	H	1200	1/30	85	0.53	1/30	80	0 83	1/12	130	1.40	1/6	180	2.50
	M	980		50	0.31		50	0.48		75	0.70		140	1.30
	L	790		35	0.27		35	0 33		50	0.47		60	0.57
208-1-60	H	1200	1/30	85	0.48	1/30	85	0.48	1/12	110	0.69	1/6	190	1.00
	M	980		60	0.29		60	0 29		85	0.40		130	0.59
	L	790		28	0.14		28	0.14		45	0.22		90	0.47
230-1-60	H	1200	1/30	100	0.48	1/30	102	0.48	1/12	120	0.69	1/6	205	1.00
	M	980		70	0.31		70	0 31		100	0.43		150	0.71
	L	790		33	0.15		33	0.15		53	0.24		105	0.50
277-1-60	H	1200	1/30	80	0.35	1/30	82	0 35	1/12	140	0.69	1/6	205	0.91
	M	980		65	0.26		67	0 26		110	0.44		140	0.57
	L	790		40	0.16		43	0.17		65	0.25		80	0.34
220-1-50	H	1200	1/30	80	0.40	1/30	85	0.40	1/12	145	0.70	1/6	175	0.91
	M	980		60	0.27		60	0 27		140	0.56		155	0.62
	L	790		30	0.15		30	0.15		120	0.38		130	0.43

V-Ph-Hz	FAN SPEED	FAN SPEED	UNIT SIZE								
			08			10*			12*		
			Nominal Hp	Watts	Amps	Nominal Hp	Watts	Amps	Nominal Hp	Watts	Amps
115-1-60	H	1200	1/6	210	2.50	1/12 (2)	240	2.80	1/6 (2)	370	5.00
	M	980		140	1.30		145	1.30		265	2.50
	L	790		65	0.61		100	0.40		125	1.25
208-1-60	H	1200	1/6	195	1.30	1/12 (2)	210	1.38	1/6 (2)	340	2.60
	M	980		135	0.69		160	0.80		220	1.15
	L	790		90	0.47		90	0.45		170	0.84
230-1-60	H	1200	1/6	215	1.30	1/12 (2)	235	1.38	1/6 (2)	370	2.60
	M	980		155	0.71		190	0.85		285	1.40
	L	790		110	0.50		115	0.50		200	1.00
277-1-60	H	1200	1/6	210	0.91	1/12 (2)	270	1.38	1/6 (2)	370	1.82
	M	980		140	0.58		200	0.82		255	1.10
	L	790		85	0.35		125	0.45		145	0.65
220-1-50	H	1200	1/6	185	0.92	1/12 (2)	230	1.30	1/6 (2)	265	1.73
	M	980		160	0.63		190	1.02		190	1.00
	L	790		135	0.44		155	0.60		135	0.80

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

NOTES:
1. Motor nameplate amps may vary.
2. Fan coil units comply with ETL, Canadian Standards Association (CSA), and ETL of Canada standards.

Electrical data (cont)

42VC,VE MOTOR DATA

V-Ph-Hz	FAN SPEED	FAN SPEED (RPM)	UNIT SIZE					
			02			03		
			Nominal Hp	Watts	Amps	Nominal Hp	Watts	Amps
115-1-60	H	1200	1/20	68	0.60	1/12	135	1.60
	M	980		45	0.30		65	0.60
	L	790		25	0.20		40	0.30
208-1-60	H	1200	1/20	56	0.50	1/12	109	0.66
	L	790		35	0.20		55	0.30
230-1-60	H	1200	1/20	64	0.50	1/12	128	0.66
	L	790		42	0.22		65	0.28
277-1-60	H	1200	1/20	85	0.30	1/12	135	0.50
	M	980		45	0.12		85	0.33
	L	790		35	0.07		55	0.22

V-Ph-Hz	FAN SPEED	FAN SPEED	UNIT SIZE					
			04			06*		
			Nominal Hp	Watts	Amps	Nominal Hp	Watts	Amps
115-1-60	H	1200	1/12	150	1.60	1/12 (2)	260	3.20
	M	980		65	0.60		125	1.20
	L	790		40	0.30		85	0.80
208-1-60	H	1200	1/12	116	0.66	1/12 (2)	232	1.32
	L	790		58	0.30		103	0.50
230-1-60	H	1200	1/12	138	0.66	1/12 (2)	245	1.32
	L	790		67	0.30		120	0.52
277-1-60	H	1200	1/12	140	0.50	1/12 (2)	260	1.00
	M	980		88	0.34		155	0.65
	L	790		57	0.22		100	0.40

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

NOTES:
1. Motor nameplate amps may vary.
2. Fan coil units comply with ETL, Canadian Standards Association (CSA), and ETL of Canada standards.

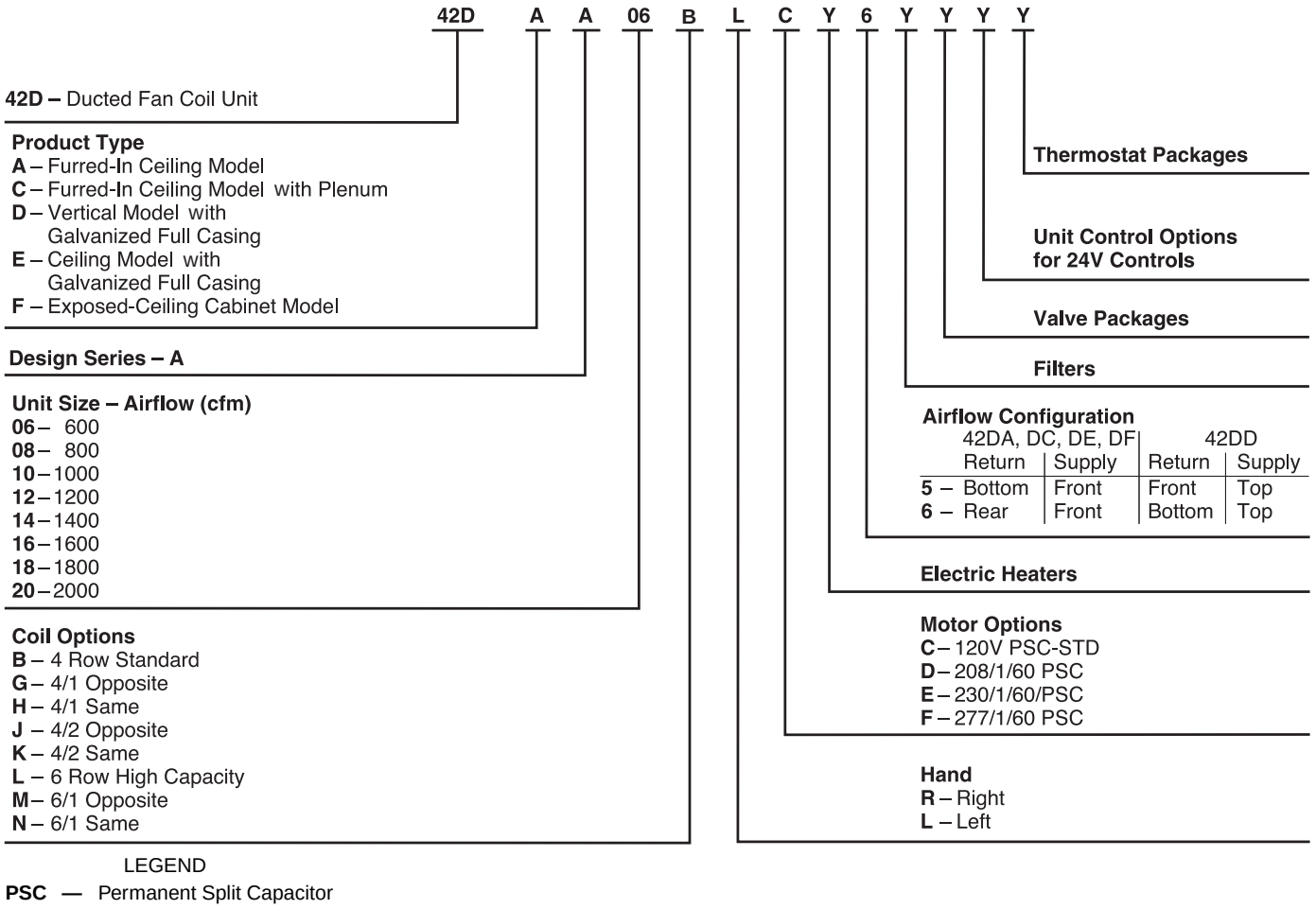
42VG MOTOR DATA

V-Ph-Hz	FAN SPEED	FAN SPEED (RPM)	UNIT SIZE					
			01			03*		
			Nominal Hp	Watts	Amps	Nominal Hp	Watts	Amps
115-1-60	H	1200	1/20	135	1.60	1/20 (2)	270	3.20
	M	980		83	1.00		167	1.91
	L	790		69	0.80		138	1.54

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

NOTES:
1. Motor nameplate amps may vary.
2. Fan coil units comply with ETL, Canadian Standards Association (CSA), and ETL of Canada standards.

Model number nomenclature



AHRI capacity ratings

The 42D 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:

AHRI CERTIFIED™
www.ahridirectory.org
Room Fan-Coils
AHRI Standard 440

AHRI APPROVED STANDARD RATINGS*

UNIT TYPE	UNIT SIZE†	NOMINAL CFM	GPM	COOLING CAPACITY		POWER INPUT (WATTS)**
				Total Heat Btuh	Sensible Heat Btuh	
42DF	06	600	3.7	18,100	13,700	225
	08	800	5.0	23,400	17,600	275
	10	1000	6.9	33,300	24,000	400
	12	1200	8.7	41,800	30,200	450
	14	1400	10.0	48,900	34,000	470

*Ratings based on motor at high fan speed, standard air and dry coil operation, 10 degrees F water temperature rise; entering air temperatures of 80 F db, 67 F wb; entering water temperature 45 F.

†With standard 4-row coil.

**Motor type, permanent split capacitor, operating at 115-1-60 voltage.

AHRI capacity rating (cont)

SOUND POWER DATA

42DA, DC, DD, DE SOUND RATINGS — OCTAVE BAND SOUND POWER LEVEL RATINGS* (dB)

SIZE	RATING	FAN SPEED	CFM	SOUND POWER LEVEL, L_W (dB one reference pico watt) — Hz							A-wgt (dBA)
				125	250	500	1000	2000	4000	8000	
06	CASING RADIATED	High	745	71	69	57	56	46	43	35	63
		Medium	595	65	61	52	49	41	36	—	56
		Low	500	55	51	42	37	27	26	—	46
	DISCHARGE	High	745	69	66	54	55	46	43	34	61
		Medium	595	63	58	49	48	41	36	19	54
		Low	500	53	50	42	37	27	26	19	45
08	CASING RADIATED	High	955	69	66	58	56	47	41	30	62
		Medium	775	65	62	52	46	41	32	—	56
		Low	555	58	52	46	40	29	28	—	48
	DISCHARGE	High	955	67	63	55	55	47	41	29	60
		Medium	775	63	59	49	45	41	32	19	54
		Low	555	56	50	43	39	29	28	19	46
10	CASING RADIATED	High	1155	68	63	57	55	47	40	30	60
		Medium	940	62	57	52	47	40	32	—	54
		Low	740	53	50	44	39	30	18	—	46
	DISCHARGE	High	1155	66	60	54	54	47	40	29	58
		Medium	940	60	54	49	46	40	32	19	51
		Low	740	53	50	42	38	30	18	19	45
12	CASING RADIATED	High	1555	69	66	57	51	45	40	29	61
		Medium	1195	65	63	52	47	40	33	—	57
		Low	995	61	59	50	43	36	28	—	53
	DISCHARGE	High	1555	67	63	54	50	45	40	28	58
		Medium	1195	63	60	49	46	40	33	19	54
		Low	995	59	56	47	42	36	28	19	50
14	CASING RADIATED	High	1870	69	66	58	54	46	41	29	61
		Medium	1710	66	62	54	48	42	33	—	57
		Low	1250	60	57	50	43	37	28	—	52
	DISCHARGE	High	1870	67	63	55	53	46	41	28	59
		Medium	1710	64	59	51	47	42	33	19	55
		Low	1250	58	54	47	42	37	28	19	50
16	CASING RADIATED	High	1100	70	66	60	57	48	44	35	62
		Medium	750	66	61	56	50	44	38	28	58
		Low	475	61	55	50	43	36	27	19	52
	DISCHARGE	High	1100	68	63	57	56	48	44	34	61
		Medium	750	64	58	53	49	44	38	27	55
		Low	475	59	52	47	42	36	27	19	49
18	CASING RADIATED	High	1060	70	65	60	58	49	44	34	63
		Medium	885	66	60	55	50	44	39	26	57
		Low	680	58	53	49	42	36	27	—	50
	DISCHARGE	High	1060	68	62	57	57	49	44	33	61
		Medium	885	64	57	52	49	44	39	25	55
		Low	680	56	50	46	41	36	27	19	48
20	CASING RADIATED	High	1030	72	65	61	58	52	47	37	63
		Medium	850	65	59	55	50	45	39	26	57
		Low	650	58	52	49	42	35	26	—	49
	DISCHARGE	High	1030	70	62	58	57	52	47	36	62
		Medium	850	63	56	52	49	45	39	25	55
		Low	650	56	50	46	41	35	26	19	47

*Rated in accordance qith AHRI 260, sound rating of ducted air moving and conditioning equipment.

SOUND POWER DATA

42DF SOUND RATINGS — OCTAVE BAND SOUND POWER LEVEL RATINGS* (dB)

SIZE	RATING	FAN SPEED	CFM	SOUND POWER LEVEL, L_W (dB one reference pico watt) — Hz							A-wgt (dBA)
				125	250	500	1000	2000	4000	8000	
06	CASING RADIATED	High	860	65	66	64	59	56	53	42	65
		Medium	650	60	60	57	52	50	46	32	58
		Low	515	55	55	52	46	43	36	19	53
08	CASING RADIATED	High	800	66	67	65	60	57	54	43	66
		Medium	610	61	61	58	53	51	47	33	59
		Low	510	57	56	53	47	44	37	20	54
10	CASING RADIATED	High	980	67	68	66	62	59	56	45	68
		Medium	870	63	62	59	55	52	45	34	60
		Low	625	58	57	54	49	45	38	22	55
12	CASING RADIATED	High	870	68	69	67	63	60	57	47	69
		Medium	675	65	62	60	56	63	49	36	62
		Low	525	60	58	55	50	46	39	23	56
14	CASING RADIATED	High	860	69	70	68	64	61	58	48	70
		Medium	660	66	63	61	57	54	50	37	63
		Low	510	61	59	55	51	47	40	24	57
16	CASING RADIATED	High	930	71	71	69	66	63	60	50	71
		Medium	720	68	65	63	59	56	52	39	65
		Low	500	60	58	54	50	46	39	23	56
18	CASING RADIATED	High	1000	74	72	69	67	65	63	52	72
		Medium	750	71	65	63	60	58	53	43	66
		Low	475	59	56	53	49	45	38	21	55
20	CASING RADIATED	High	970	75	73	70	69	66	65	55	74
		Medium	700	73	68	65	62	61	57	46	68
		Low	460	63	57	52	49	45	36	20	55

*Rated in accordance qith AHRI 350, sound rating of ducted air moving and conditioning equipment.

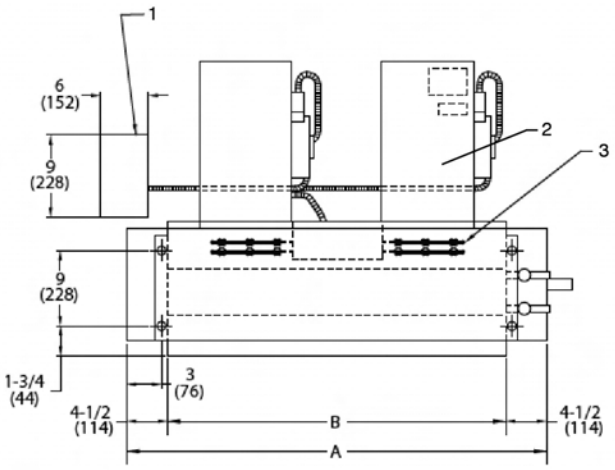
Physical data

UNIT SIZE 42D	06	08	10	12	14	16	18	20
NOMINAL AIRFLOW (cfm)	600	800	1000	1200	1400	1600	1800	2000
SHIPPING WEIGHT (lb)*								
42DA	64	79	93	110	119	129	137	155
42DC	94	107	150	169	174	178	195	220
42DD	150	163	176	195	220	235	240	247
42DE	135	155	165	184	199	215	232	243
42DF	157	167	177	199	215	229	249	258
COIL WATER WEIGHT (Approx lb per row of coil)	1.3	1.6	1.9	2.3	2.7	3.0	3.4	3.7
COILS								
FPI	10 fins/inch							
Coil Face Area (sq ft)	1.6	2.1	2.5	3.0	3.5	4.1	4.6	5.0
MOTOR (qty)	1	1	1	2	2	2	2	2
BLOWER (qty)	1	1	1	2	2	2	2	2
FILTERS								
Nominal Size (in.) (1-in. thick)								
42DA	NA							
42DC	14 x 21	14 x 26	14 x 30	14 x 35	14 x 40	14 x 45	14 x 50	14 x 54
42DD								
(Front Return)	12 3/4 x 21	12 3/4 x 26	12 3/4 x 30	12 3/4 x 35	12 3/4 x 40	12 3/4 x 45	12 3/4 x 50	12 3/4 x 54
(Bottom Return)	12 3/4 x 21	12 3/4 x 25	12 3/4 x 29	12 3/4 x 34	12 3/4 x 39	12 3/4 x 44	12 3/4 x 49	12 3/4 x 53
42DE	14 x 14 3/4	14 x 19 3/4	14 x 23 3/4	14 x 28 3/4	14 x 33 3/4	14 x 38 3/4	14 x 43 3/4	14 x 47 3/4
42DF	14 x 14	14 x 20	14 x 24	14 x 28	14 x 34	14 x 38	14 x 44	14 x 48
Qty	1							
SUPPLY DUCT COLLAR	1-in.							
PIPING CONNECTIONS (Sweat - 4-Row)								
Inlet (in. OD)	5/8		7/8		1 1/8			
Outlet (in. OD)	5/8		7/8		1 1/8			

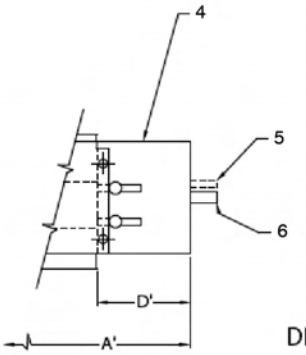
*Calculate Operating Weight of unit: Shipping Weight + Coil Water Weight x Number of Coil Rows.

Base unit dimensions

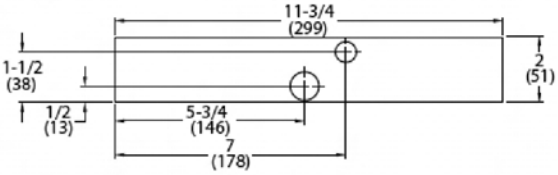
42DA FURRED-IN CEILING UNIT WITH ELECTRIC HEAT

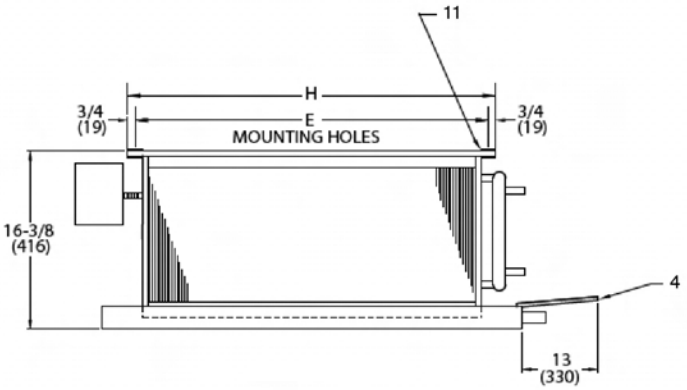


TOP VIEW

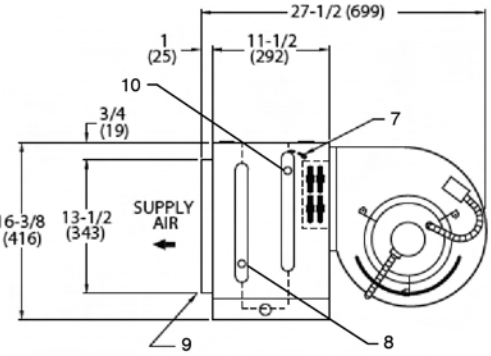


DRAIN OUTLET





FRONT VIEW



RIGHT SIDE VIEW

UNIT SIZE	NOM AIRFLOW (Cfm)	DIMENSIONS (in. ± 1/8)						QTY/UNIT		UNIT WEIGHT* (lb)
		A	A'	B	D'	E	H	Blower	Motor	
06	600	23	32	14	13 1/2	17	18 1/2	1	1	64
08	800	28	37	19	13 1/2	22	23 1/2	1	1	79
10	1000	32	42	23	14 1/2	26	27 1/2	1	1	90
12	1200	37	47	28	14 1/2	31	32 1/2	2	2	108
14	1400	42	52	33	14 1/2	36	37 1/2	2	2	119
16	1600	47	56	38	13 1/2	41	42 1/2	2	2	124
18	1800	52	62	43	14 1/2	46	47 1/2	2	2	141
20	2000	56	66	47	14 1/2	50	51 1/2	2	2	151

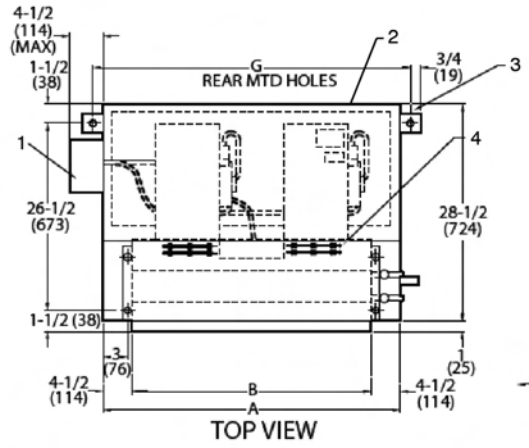
*Unit weights are based on dry coils and minimum rows. Weights exclude packaging, valves, and other components.

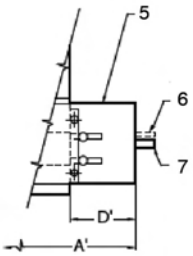
NOTES:
1. Right hand unit shown; left hand unit opposite. Coil connection locations are ± 5/8 inches.
2. Sizes 06, 08 and 10 have one motor, one blower; sizes 12 through 20 have 2 motors, 2 blowers.
3. Standard 4-row coil shown. Other coil option dimensional data available on request.
4. See 42DA-203-1 for optional coil connec ions.
5. Fan switch, wall plate not shown.
6. Galvanized finish provided as standard.
7. Dimensions are in inches (mm).

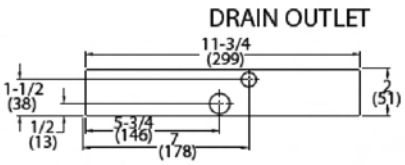
LEGEND

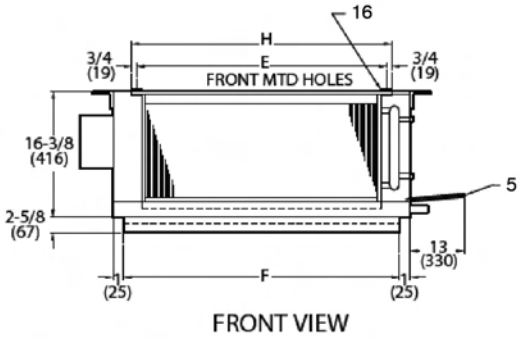
1 — Motor Junction Box
2 — Motor-Blower Assembly
3 — Electric Strip Heater Element (optional)
4 — Auxiliary Drip Lip (Optional, Shipped Loose)
5 — Tell-Tale Drain (optional)
6 — Drain Connection, 7/8-in. OD
7 — Air Vent, 1/8-in. MPT
8 — Supply Connection
9 — Supply Duct Collar, 1 inch
10 — Return Connection
11 — Mounting Holes (four, 3/4-in. diameter) have Rubber Grommets with 3/8-in. holes.

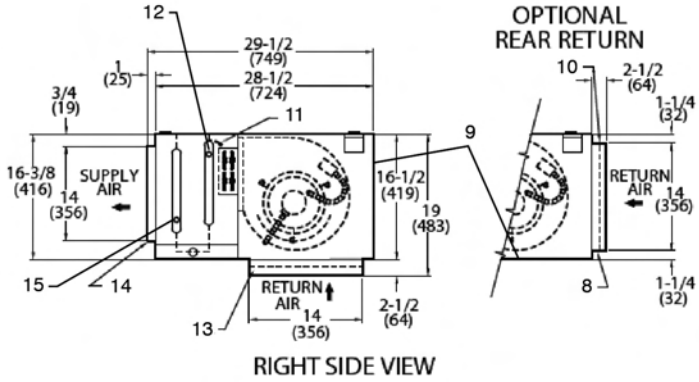
42DC FURRED-IN CEILING UNIT WITH PLENUM AND ELECTRIC HEAT











UNIT SIZE	NOM AIRFLOW (Cfm)	DIMENSIONS (in. ± 1/8)								QTY/UNIT		UNIT WEIGHT* (lb)
		A	A'	B	D'	E	F	G	H	Blower	Motor	
06	600	23	32	14	13 1/2	17	21	25 1/4	18 1/2	1	1	94
08	800	28	37	19	13 1/2	22	26	30 1/4	23 1/2	1	1	107
10	1000	32	42	23	14 1/2	26	30	34 1/4	27 1/2	1	1	150
12	1200	37	47	28	14 1/2	31	35	39 1/4	32 1/2	2	2	169
14	1400	42	52	33	14 1/2	36	40	44 1/4	37 1/2	2	2	174
16	1600	47	56	38	13 1/2	41	45	49 1/4	42 1/2	2	2	178
18	1800	52	62	43	14 1/2	46	50	54 1/4	47 1/2	2	2	195
20	2000	56	66	47	14 1/2	50	54	58 1/4	51 1/2	2	2	220

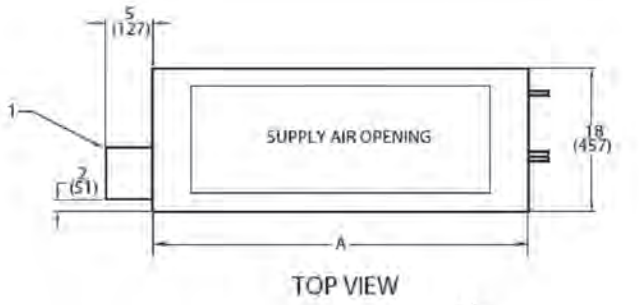
*Unit weights are based on dry coils and minimum rows. Weights exclude packaging, valves, and other components.

NOTES:
1. Right hand unit shown; left hand unit opposite. Coil connection locations are ± 5/8 inches.
2. Sizes 06, 08 and 10 have one motor, one blower. Sizes 12 through 20 have 2 motors, 2 blowers.
3. Filter and filter rack are standard.
4. Standard 4-row coil shown. Other coil option dimensional data available on request.
5. See 42DA-203-1 for optional coil connections.
6. Fan switch, wall plate not shown.
7. Galvanized finish provided as standard.
8. Dimensions are in inches (mm).

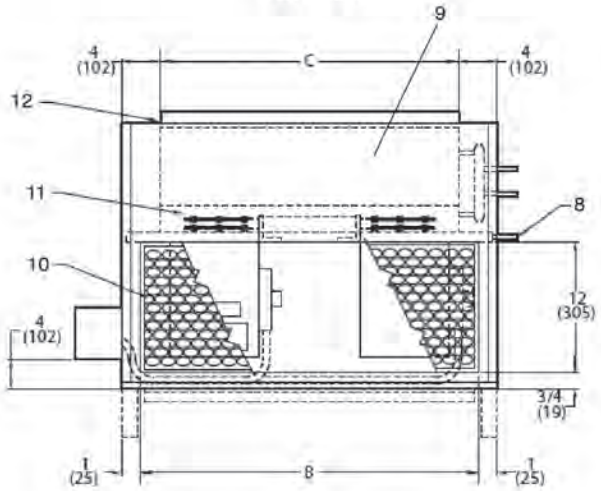
LEGEND
1 — Motor Junc ion Box Opposite Piping
2 — Insulated Return Air Plenum
3 — Mounting Clips (Shipped Loose)
4 — Electrical Strip Heater Element (op ional)
5 — Auxiliary Drip Lip (Shipped Loose) with 3/8-in. Hole
6 — Tell-Tale Drain (optional)
7 — Drain Connection, 7/8-in. OD
8 — Filter Retainer Angle
9 — Access Panel
10 — Return Duct Collar, 2 1/2 inches
11 — Air Vent, 1/8-in. MPT
12 — Return Connection
13 — Filter, 1-in.
14 — Supply Duct Collar, 1 inch
15 — Supply Connection
16 — Mounting Holes (four, 3/4-in. diameter) with Rubber Grommet

Base unit dimensions (cont)

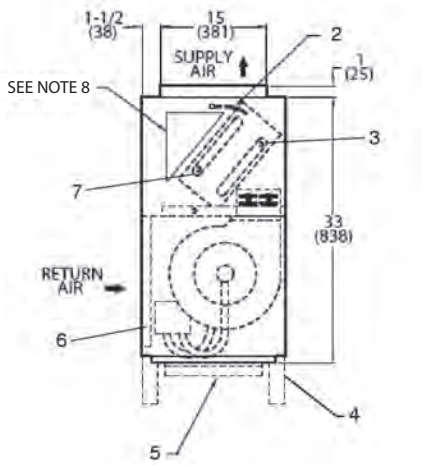
42DD VERTICAL UNIT WITH FULL CASING AND ELECTRIC HEAT



TOP VIEW



FRONT VIEW



RIGHT SIDE VIEW

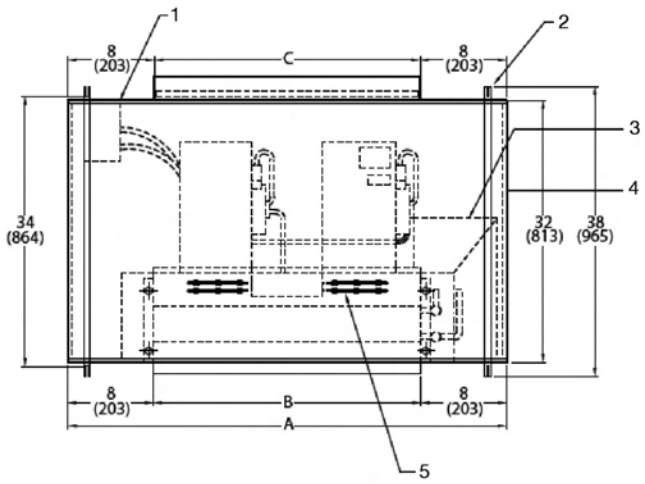
UNIT SIZE	NOM AIRFLOW (Cfm)	DIMENSIONS (in. ± 1/8)			QTY/UNIT		UNIT WEIGHT* (lb)
		A	B	C	Blower	Motor	
06	600	23	21	15	1	1	135
08	800	28	26	20	1	1	145
10	1000	32	30	24	1	1	155
12	1200	37	35	29	2	2	180
14	1400	42	40	34	2	2	190
16	1600	47	45	39	2	2	200
18	1800	52	50	44	2	2	215
20	2000	56	54	48	2	2	230

*Unit weights are based on dry coils and minimum rows. Weights exclude packaging, valves, and other components.

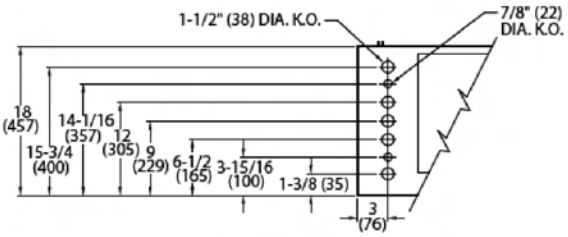
NOTES:
1. Right hand unit shown; left hand unit opposite. Coil connection locations are ± 5/8 inches.
2. Standard 4-row coil shown. Other coil option dimensional data available on request.
3. Sizes 06, 08 and 10 have one motor, one blower. Sizes 12 through 20 have 2 motors, 2 blowers.
4. Supply and return connections terminate within unit when valves are factory installed.
5. See 42DD-203-1 for optional coil connections.
6. Fan switch and wall plate are not shown.
7. Galvanized finish provided as standard.
8. Units with internal factory valve packages have external connections located in triangular section above coil.
9. Consult Carrier for ducted front return air and external filter rack with 1-in. duct collar and throwaway filters.
10. Units with electric heat require additional access on the side of unit for servicing contactor box.
11. With bottom return, access to filter is through the front access panel.
12. Dimensions are in inches (mm).

LEGEND
1 — Motor Junction Box
2 — Air Vent, 1/8-in. MPT
3 — Return Connection (See table on page 88.)
4 — Optional 6-in. Legs
5 — Bottom Return (optional)
6 — Return Air Opening
7 — Supply Connection (See table on page 88.)
8 — Drain Connection, 7/8-in. OD
9 — Front Access Panel
10 — Filter, Throwaway
11 — Electric Strip Heater Element (optional)
12 — Supply Duct Connection, 1-in.

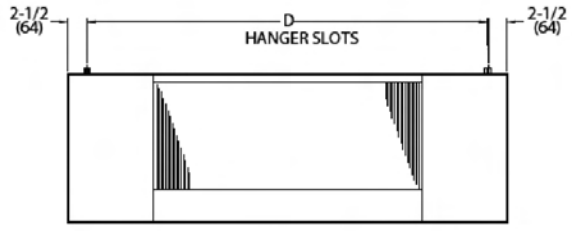
42DE CEILING UNIT WITH FULL CASING AND ELECTRIC HEAT



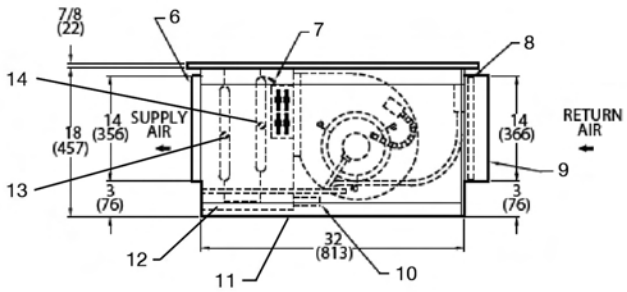
TOP VIEW



PARTIAL REAR VIEW (TYP. BOTH SIDES)



FRONT VIEW



RIGHT SIDE VIEW

UNIT SIZE	NOM AIRFLOW (Cfm)	DIMENSIONS (in. ± 1/8)				QTY/UNIT		UNIT WEIGHT* (lb)
		A	B	C	D	Blower	Motor	
06	600	31	15	15	26	1	1	150
08	800	36	20	20	31	1	1	160
10	1000	40	24	24	35	1	1	170
12	1200	45	29	29	40	2	2	195
14	1400	50	34	34	45	2	2	205
16	1600	55	39	39	50	2	2	215
18	1800	60	44	44	55	2	2	230
20	2000	64	48	48	59	2	2	235

*Unit weights are based on dry coils and minimum rows. Weights exclude packaging, valves, and other components.

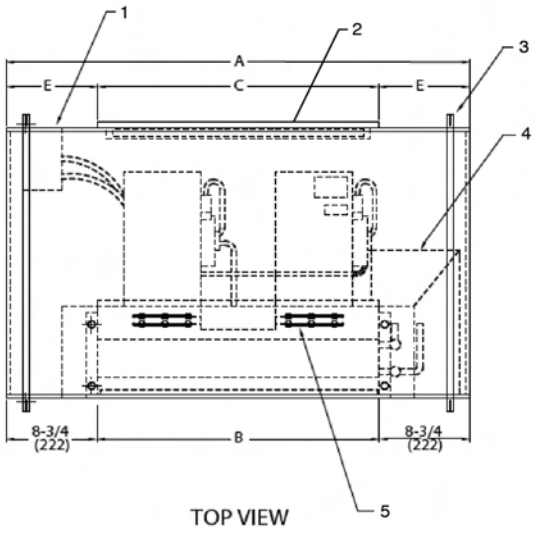
NOTES:
1. Right hand unit shown; left hand unit opposite.
2. Coil stub-out location data available on request.
3. Unit fabricated of galvanized steel.
4. Internal parts fabricated of galvanized steel.
5. Sizes 06, 08 and 10 have one motor, one blower. Sizes 12 through 20 have 2 motors, 2 blowers.
6. Units must have drain line pitched and trapped externally.
7. See 42DA-203-1 for optional coil connections.
8. Fan switch, wall plate not shown.
9. Galvanized finished provided as standard.
10. Dimensions are in inches (mm).

LEGEND

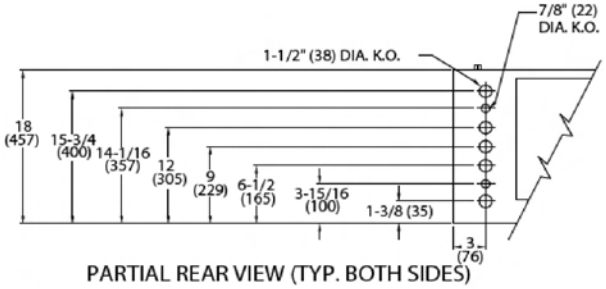
1 — Motor Junction Box
2 — Unit Mounting Channel (2), 14-gage; 4 Mounting Slots, 1/2-in. x 2-in.
3 — Auxiliary Drip Lip (optional, shipped loose)
4 — Side Access Panels
5 — Electrical Strip Heater Element (optional)
6 — Supply Air Duct Connection, 1 in.
7 — Manual Air Vent
8 — Filter, Throwaway, 1-in.
9 — Return Air Duct Connection, 2 1/2 in.
10 — Drain, 7/8-in. OD
11 — Bottom Access Panel
12 — Drain Pan
13 — Coil Inlet (see table on page 87), Copper Sweat Connection
14 — Coil Outlet (see table on page 87), Copper Sweat Connection

Base unit dimensions (cont)

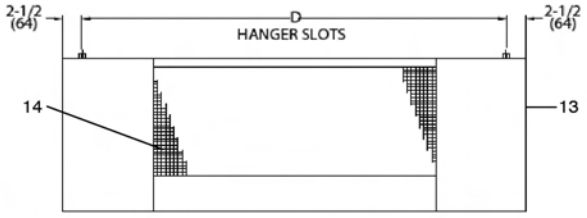
42DF EXPOSED CEILING UNIT WITH DISCHARGE AND RETURN GRILLE AND ELECTRIC HEAT



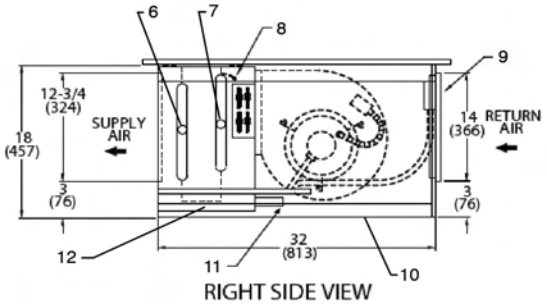
TOP VIEW



PARTIAL REAR VIEW (TYP. BOTH SIDES)



FRONT VIEW



RIGHT SIDE VIEW

UNIT SIZE	NOM AIRFLOW (Cfm)	DIMENSIONS (in. ± 1/8)					QTY/UNIT		UNIT WEIGHT* (lb)
		A	B	C	D	E	Blower	Motor	
06	600	31	13 1/2	14	26	8 1/2	1	1	150
08	800	36	18 1/2	20	31	8	1	1	160
10	1000	40	22 1/2	24	35	8	1	1	170
12	1200	45	27 1/2	28	40	8 1/2	2	2	195
14	1400	50	32 1/2	34	45	8	2	2	205
16	1600	55	37 1/2	38	50	8 1/2	2	2	215
18	1800	60	42 1/2	44	55	8	2	2	230
20	2000	64	46 1/2	48	59	8	2	2	235

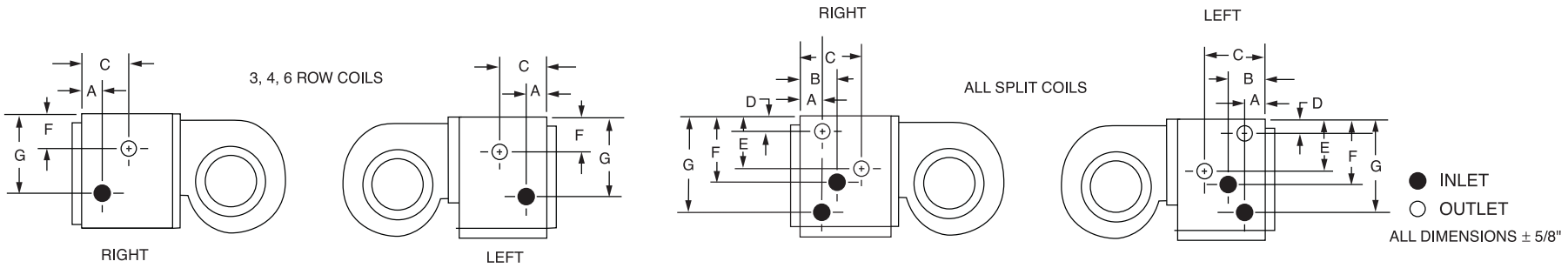
*Unit weights are based on dry coils and minimum rows. Weights exclude packaging, valves, and other components.

NOTES:
1. Right hand unit shown; left hand unit opposite.
2. Coil stub-out connection data available on request.
3. Units fabricated of galvanized steel with an Arctic White baked finish.
4. Internal parts fabricated of galvanized steel.
5. Sizes 06, 08 and 10 have one motor, one blower. Sizes 12 through 20 have 2 motors, 2 blowers.
6. Units must have drain line pitched and trapped externally.
7. Stamped supply and return grilles are not available.
8. Bottom return air is not available.
9. See 42DA-203-1 for optional coil connections.
10. Fan switch and wall plate are not shown.
11. Dimensions are in inches (mm).

LEGEND

1 — Junction Box
2 — Return Air Grille, Hinged, Bar Type, with Filter Frame (Anodized Aluminum Only)
3 — Unit Mounting Channel (2), 14-gage; 4 Mounting Slots, 1/2 in. x 2-in.
4 — Auxiliary Drip Lip
5 — Electric Strip Heater Element (optional)
6 — Coil Inlet (See table on page 87), Copper Sweat Connection
7 — Coil Outlet (See table on page 87), Copper Sweat Connection
8 — Manual Air Vent
9 — Filter, Throwaway
10 — Bottom Access Panel
11 — Drain, 7/8-in. OD
12 — Drain Pan Insulated with Styrofoam
13 — Side Access Panel (2)
14 — Discharge Air Grille (Double Deflection)

42DA,DC,DE AND DF OPTIONAL COIL CONNECTION LOCATION SIZES 06–20



UNIT CFM		COIL CONNECTION DIMENSIONS (in.)											
		3-Row				4-Row				6-Row			
		A	C	F	G	A	C	F	G	A	C	F	G
Right Hand	600-800	3 7/8	6	7 5/16	7 5/16	2 13/16	6 1/16	4 13/16	10 7/16	1 3/4	7 1/8	4 13/16	10 7/16
	1000-2000	3 7/8	6	9 13/16	9 13/16								
Left Hand	600-800	3 7/8	6	7 15/16	7 5/16	2 13/16	6 1/16	5 7/16	9 13/16	1 3/4	7 1/8	5 7/16	13/16
	1000-2000	3 7/8	6	5 7/16	10 7/16								

UNIT CFM		COIL CONNECTION DIMENSIONS (in.)													
		3 and 1 Split Coil							3 and 2 Split Coil						
		A	B	C	D	E	F	G	A	B	C	D	E	F	G
Right Hand	600-800	2 13/16	3 7/8	6 1/16	1 1/16	7 5/16	7 5/16	13 9/16	2 1/4	3 7/8	6 1/16	3/4	7 5/16	7 5/16	13 1/4
	1000-2000	2 13/16	3 7/8	6 1/16	1 1/16	4 13/16	9 13/16	13 9/16	2 1/4	3 7/8	6 1/16	3/4	4 13/16	9 13/16	13 1/4
Left Hand	600-800	2 13/16	3 7/8	6 1/16	7/16	7 15/16	7 15/16	12 15/16	2 1/4	3 7/8	6 1/16	3/4	7 15/16	7 15/16	13 1/4
	1000-2000	2 13/16	3 7/8	6 1/16	7/16	5 7/16	10 7/16	12 15/16	2 1/4	3 7/8	6 1/16	3/4	5 7/16	10 7/16	13 1/4

UNIT CFM		COIL CONNECTION DIMENSIONS (in.)													
		4 and 1 Split Coil							4 and 2 Split Coil						
		A	B	C	D	E	F	G	A	B	C	D	E	F	G
Right Hand	600-2000	3/4	2 13/16	6 1/16	7/16	4 13/16	10 7/16	12 15/16	2 1/4	3 7/8	7 1/8	3/4	4 13/16	10 7/16	13 1/4
Left Hand	600-2000	3/4	2 13/16	6 1/16	1 1/16	5 7/16	9 13/16	13 9/16	2 1/4	3 7/8	7 1/8	3/4	5 7/16	9 13/16	13 1/4

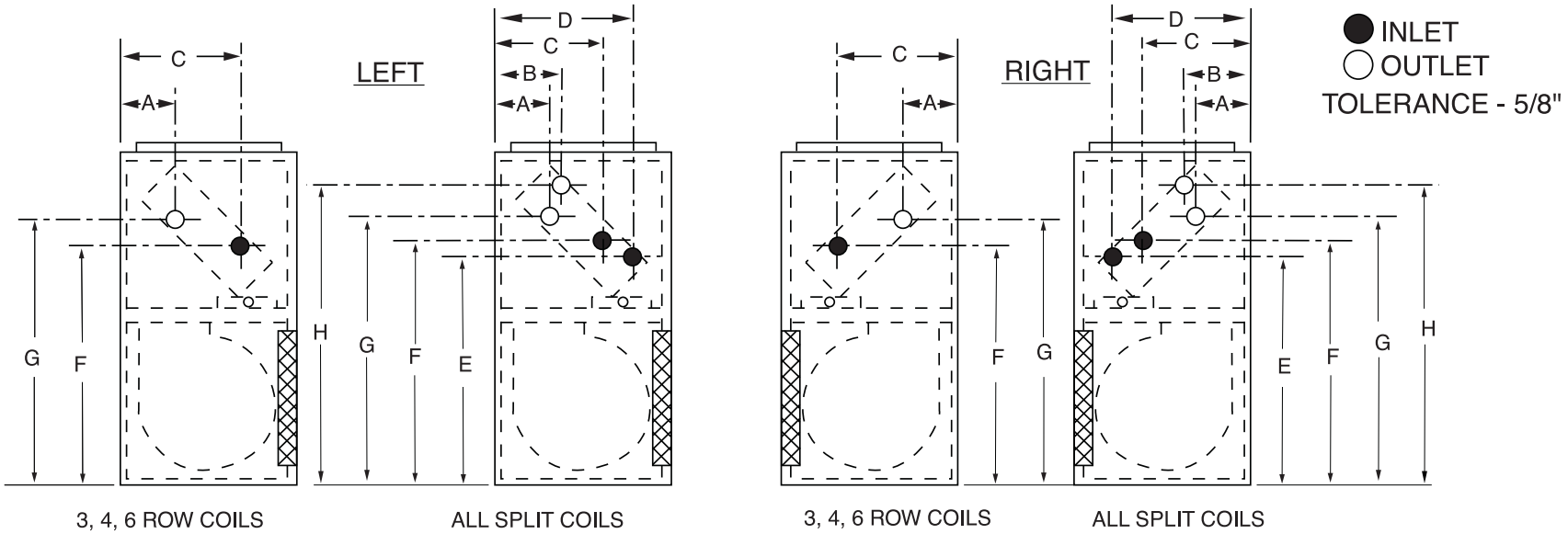
UNIT CFM		COIL CONNECTION DIMENSIONS (in.)						
		6 and 1 Split Coil						
		A	B	C	D	E	F	G
Right Hand	600-800	1 3/4	2 7/8	8 1/4	3/8	4 3/4	10 3/8	13 1/4
	1000-2000							
Left Hand	600-800	1 3/4	2 7/8	8 1/4	3/8	4 3/4	10 3/8	13 1/4
	1000-2000							

NOTES:
1. Refer to pages 85 and 86 for coil inlet and outlet knockout locations on DE and DF units.
2. Cooling coil is first in the airstream.
3. Split coil connections shown are for 4-pipe combination chilled water/hot water coils only,

COIL CONNECTIONS SIZES (OD COPPER SWEAT) (in.)				
cfm	1-2 Row	3 Row	4 Row	6 Row
600	5/8	5/8	5/8	7/8
800	5/8	5/8	5/8	7/8
1000	5/8	7/8	7/8	7/8
1200	5/8	7/8	7/8	7/8
1400	5/8	7/8	1 1/8	1 1/8
1600	5/8	7/8	1 1/8	1 1/8
1800	5/8	1 1/8	1 1/8	1 1/8
2000	5/8	1 1/8	1 1/8	1 1/8

NOTE: Does not apply to connection size when optional valve packages are used.

42DD OPTIONAL COIL CONNECTION LOCATION SIZES 06–20



UNIT CFM		COIL CONNECTION DIMENSIONS (in.)											
		3-Row				4-Row				6-Row			
		A	C	F	G	A	C	F	G	A	C	F	G
Right Hand	600-800 1000-2000	6 11/16 5 3/8	8 1/2 9 7/8	26 23 15/16	24 7/8 27	4 1/2	10 3/16	23 3/8	26 1/2	3 1/2	11 1/8	23 15/16	25 7/8
Left Hand	600-800 1000-2000	7 5 3/8	8 7/8 10 3/16	7 15/16 5 7/16	24 3/8 26 1/2	4 3/4	9 7/8	23 15/16	25 15/16	3 7/8	10 3/4	24 1/2	25 3/8

UNIT CFM		COIL CONNECTION DIMENSIONS (in.)															
		3 and 1 Split Coil								3 and 2 Split Coil							
		A	B	C	D	E	F	G	H	A	B	C	D	E	F	G	H
Right Hand	600-800 1000-2000	5 3/4 4 7/16	5 1/4 5 1/4	7 5/8 8 15/16	12 7/16 12 7/16	19 11/16 19 11/16	25 7/16 23 5/16	24 5/16 26 7/16	31 5/16 31 5/16	5 3/4 4 7/16	5 9/16 5 9/16	7 5/8 8 15/16	12 3/4 12 3/4	20 1/4 20 1/4	25 7/16 23 5/16	24 5/16 26 1/16	31 7/8 31 7/8
Left Hand	600-800 1000-2000	6 1/8 4 3/4	4 15/16 4 15/16	7 15/16 9 1/4	12 1/8 12 1/8	20 3/16 20 3/16	24 15/16 22 13/16	23 3/4 25 15/16	31 7/16 31 7/16	6 1/8 4 3/4	5 9/16 5 9/16	7 15/16 9 1/4	12 3/4 12 3/4	20 1/4 20 1/4	24 15/16 22 13/16	23 3/4 25 7/8	31 7/8 31 7/8

UNIT CFM		COIL CONNECTION DIMENSIONS (in.)															
		4 and 1 Split Coil								4 and 2 Split Coil							
		A	B	C	D	E	F	G	H	A	B	C	D	E	F	G	H
Right Hand	600-2000	4 7/16	5 13/16	10 3/16	13 1/16	20 3/4	23 3/8	26 7/16	32 7/16	3 1/2	5 9/16	9 1/4	12 3/4	20 1/4	22 13/16	25 7/8	31 7/8
Left Hand	600-2000	4 3/4	6 13/16	9 7/8	13 3/8	20 1/4	23 7/8	25 7/8	31 7/8	3 7/8	5 9/16	8 15/16	12 3/4	20 1/4	23 5/16	25 3/8	31 7/8

NOTES:
1. Does not apply to connection size when optional valve packages are used.
2. Cooling coil is first in the airstream.
3. Split coil connections shown are for 4-pipe combination chilled water/hot water coils only, with hot water in the reheat position, as standard.

COIL CONNECTIONS SIZES (OD COPPER SWEAT) (in.)				
cfm	1-2 Row	3 Row	4 Row	6 Row
600	5/8	5/8	5/8	7/8
800	5/8	5/8	5/8	7/8
1000	5/8	7/8	7/8	7/8
1200	5/8	7/8	7/8	7/8
1400	5/8	7/8	1 1/8	1 1/8
1600	5/8	7/8	1 1/8	1 1/8
1800	5/8	1 1/8	1 1/8	1 1/8
2000	5/8	1 1/8	1 1/8	1 1/8

NOTE: Does not apply to connection size when optional valve packages are used.

Performance data

AIR DELIVERY (CFM) — 42DA,DC,DD,DE

UNIT	SIZE	COIL	EXTERNAL STATIC PRESSURE (in. wg)									
			0.0			0.10	0.20	0.25	0.30	0.40	0.50	0.60
			Fan Speed									
			Low	Med	High	High	High	High	High	High	High	High
42DA	06	3-Row	545	645	800	740	680	650	620	560	470	330
		4-Row	530	630	780	720	660	630	600	540	430	260
		6-Row	505	595	740	680	620	590	560	470	330	—
	08	3-Row	645	885	1080	1010	940	910	870	800	710	590
		4-Row	630	870	1060	990	920	890	850	770	680	540
		6-Row	600	830	1010	940	870	840	800	710	590	—
	10	3-Row	825	1045	1280	1260	1240	1190	1130	1010	910	640
		4-Row	805	1020	1250	1230	1210	1160	1100	970	840	700
		6-Row	765	975	1190	1170	1140	1090	1030	890	720	—
	12	3-Row	945	1125	1450	1360	1270	1220	1180	1090	990	850
		4-Row	925	1100	1420	1330	1240	1200	1150	1060	950	790
		6-Row	885	1055	1360	1270	1180	1130	1090	990	850	—
	14	3-Row	890	1405	1875	1730	1590	1520	1450	1310	1170	920
		4-Row	860	1355	1810	1680	1550	1490	1420	270	1110	890
		6-Row	820	1300	1730	1590	1450	1380	1310	1170	970	—
	16	3-Row	900	1420	2080	1940	1800	1730	1660	1510	1350	1110
		4-Row	875	1385	2030	1890	1750	1680	1610	1460	1280	1000
		6-Row	845	1335	1960	1810	1660	1590	1510	1350	1110	—
	18	3-Row	1160	1720	2630	2570	2485	2415	2340	2170	1945	—
		4-Row	1145	1685	2445	2380	2285	2215	2145	1985	1770	—
		6-Row	1115	1615	2075	1990	1885	1820	1755	1615	1425	—
	20	3-Row	1225	1860	2780	2700	2605	2545	2470	2310	2120	—
		4-Row	1210	1825	2595	2510	2405	2345	2275	2125	1950	—
		6-Row	1180	1755	2225	2120	2010	1945	1885	1755	1600	—
42DC, DD,DE	06	3-Row	535	630	780	710	640	600	570	500	410	280
		4-Row	520	610	760	690	620	580	550	470	380	230
		6-Row	485	570	710	640	570	540	500	410	280	—
	08	3-Row	590	810	990	920	850	820	780	700	590	430
		4-Row	575	795	970	900	830	790	760	670	550	350
		6-Row	560	770	940	860	780	740	700	590	430	—
	10	3-Row	755	955	1170	1140	1100	1040	990	910	810	700
		4-Row	735	930	1140	1110	1070	1010	960	860	760	660
		6-Row	690	875	1070	1030	990	930	880	760	620	—
	12	3-Row	1040	1240	1600	1480	1360	1300	1240	1120	980	780
		4-Row	1035	1235	1590	1460	1330	1270	1200	1070	920	700
		6-Row	965	1145	1480	1360	1240	1180	1120	980	780	—
	14	3-Row	1290	1770	1940	1795	1660	1595	1525	1390	1280	1085
		4-Row	1260	1710	1880	1740	1610	1550	1485	1350	1210	1015
		6-Row	1200	1590	1745	1625	1510	1455	1400	1265	1065	—
	16	3-Row	1105	1710	2380	2230	2100	2015	1945	1785	1640	—
		4-Row	1075	1650	2320	2175	2050	1970	1905	1745	1570	—
		6-Row	1015	1530	2180	2060	1950	1875	1820	1660	1425	—
	18	3-Row	1105	1675	2515	2450	2355	2275	2185	2045	1850	—
		4-Row	1090	1640	2355	2260	2155	2075	1990	1860	1657	—
		6-Row	1060	1570	1990	1870	1755	1680	1600	1490	1330	—
	20	3-Row	1170	1815	2690	2580	2475	2405	2315	2185	2025	—
		4-Row	1155	1780	2505	2390	2275	2205	2120	2000	1855	—
		6-Row	1125	1710	2140	2000	1880	1810	1730	1630	1505	—

LEGEND

ESP — External Static Pressure

NOTES:
1. Tabled values are standard cfm at sea level, 70 F with dry coil.
2. Ratings include factory-installed filter and/or grille, where applicable.
3. For air delivery at low and medium speed, use the selection software.

Performance data (cont)

AIR DELIVERY (CFM) — 42DF

UNIT	SIZE	COIL	EXTERNAL STATIC PRESSURE (in. wg)		
			0.00		
			Fan Speed		
			Low	Med	High
42DF	06	3-Row	465	545	680
		4-Row	460	540	670
		6-Row	445	520	650
	08	3-Row	490	670	820
		4-Row	480	665	810
		6-Row	465	640	780
	10	3-Row	660	835	1020
		4-Row	645	820	1000
		6-Row	620	785	960
	12	3-Row	810	960	1240
		4-Row	795	945	1220
		6-Row	775	925	1190
	14	3-Row	700	1105	1470
		4-Row	680	1090	1450
		6-Row	665	1050	1400
	16	3-Row	685	1085	1590
		4-Row	680	1070	1570
		6-Row	650	1030	1510
	18	3-Row	1155	1505	1800
		4-Row	1140	1485	1780
		6-Row	1090	1420	1700
	20	3-Row	1280	1675	2030
		4-Row	1260	1650	2000
		6-Row	1225	1600	1940

LEGEND

ESP — External Static Pressure

NOTES:
1. Tabled values are standard cfm at sea level, 70 F with dry coil.
2. Ratings include factory-installed filter and/or grille, where applicable.
3. For air delivery at low and medium speed, use the selection software.

42D STEAM COIL HEATING CAPACITIES (Btuh)

UNIT SIZE	70 F ENTERING AIR TEMPERATURE	
	1-Row Coil	2-Row Coil
06	28,900	52,500
08	38,400	70,000
10	46,000	86,000
12	55,800	103,900
14	65,100	121,200
16	74,400	138,500
18	83,700	155,800
20	92,100	172,000

NOTES:
1. Ratings based on nominal cfm, 70 F entering dry bulb, 2 psig steam.
2. All capacities above 50,000 Btuh rating are beyond the capacity of the standard control valve. Consult factory for these applications.

42D HOT WATER HEATING CAPACITIES (MBtuh)

ROWS	UNIT SIZE	GPM														
		0.5	1.0	1.5	2.0	2.5	3.0	3.5	4.0	5.0	6.0	7.0	8.0	9.0	10.0	11.0
1 ROW	06	13.5	17.5	19.5	20.5	21.3	21.8	22.2	22.5	—	—	—	—	—	—	—
	08	16.0	22.0	24.6	26.5	27.9	29.0	29.5	29.9	—	—	—	—	—	—	—
	10	—	25.5	29.0	31.2	32.7	34.0	34.8	35.5	—	—	—	—	—	—	—
	12	—	29.0	33.6	36.3	38.2	39.8	40.9	41.7	—	—	—	—	—	—	—
	14	—	31.5	37.7	41.0	43.5	45.5	46.8	48.0	—	—	—	—	—	—	—
	16	—	34.0	41.2	45.3	48.4	51.0	52.8	54.2	—	—	—	—	—	—	—
	18	—	36.0	44.5	49.6	53.1	55.9	58.0	59.7	—	—	—	—	—	—	—
	20	—	38.0	47.5	52.9	56.9	60.3	62.8	64.7	—	—	—	—	—	—	—
2 ROW	06	—	24.5	—	30.7	—	33.5	—	35.2	36.0	—	—	—	—	—	—
	08	—	29.5	—	38.7	—	42.9	—	45.3	46.5	—	—	—	—	—	—
	10	—	33.5	—	45.4	—	50.7	—	54.4	56.7	68.2	69.3	—	—	—	—
	12	—	36.5	—	51.5	—	59.0	—	63.3	66.2	68.7	70.2	71.2	—	—	—
	14	—	39.3	—	56.8	—	66.2	—	71.9	75.7	78.4	80.5	82.0	—	—	—
	16	—	41.0	—	61.9	—	73.5	—	80.2	84.8	87.9	90.3	92.3	—	—	—
	18	—	—	—	66.5	—	79.6	—	87.9	93.3	97.2	100.0	102.3	—	—	—
	20	—	—	—	70.0	—	84.5	—	93.6	100.5	105.2	108.7	111.4	—	—	—
4 ROW	06	—	—	—	40.2	—	45.0	—	47.9	49.5	50.8	51.5	—	—	—	—
	08	—	—	—	47.8	—	56.7	—	60.9	63.5	65.5	67.4	—	—	—	—
	10	—	—	—	57.3	—	66.4	—	72.3	76.6	79.5	81.5	83.0	84.4	—	—
	12	—	—	—	64.0	—	76.4	—	83.7	88.8	92.2	95.3	97.7	99.4	—	—
	14	—	—	—	—	—	82.9	—	92.0	98.3	103.0	106.6	109.5	112.0	—	—
	16	—	—	—	—	—	89.4	—	100.5	109.3	115.2	119.4	122.7	125.8	—	—
	18	—	—	—	—	—	95.7	—	109.0	109.3	126.1	131.2	135.2	138.6	—	—
	20	—	—	—	—	—	101.3	—	116.2	128.1	136.2	142.3	145.9	151.0	—	—
6 ROW	06	—	—	—	—	—	—	—	54.6	56.5	57.7	58.6	59.4	60.0	—	—
	08	—	—	—	—	—	—	—	68.9	72.2	74.5	76.3	77.6	78.5	—	—
	10	—	—	—	—	—	—	—	81.9	86.3	89.6	92.2	94.1	95.5	96.7	97.7
	12	—	—	—	—	—	—	—	94.0	99.8	104.0	107.3	110.4	112.4	114.1	115.4
	14	—	—	—	—	—	—	—	102.4	111.0	116.8	121.0	124.2	126.9	129.5	131.5
	16	—	—	—	—	—	—	—	111.6	122.3	129.4	134.5	138.6	142.0	145.2	147.5
	18	—	—	—	—	—	—	—	119.5	133.0	141.2	147.2	152.2	156.3	160.3	163.4
	20	—	—	—	—	—	—	—	128.0	142.3	152.1	158.0	164.7	169.6	174.0	177.5

NOTE: Ratings based on nominal cfm, 70 F entering dry bulb, 180 F entering water temperature.

Electrical data

42D ELECTRIC HEATER DATA

HEATER VOLTAGE	HEATER kW										
	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0	12.0	14.0
	FLA										
120	16.7	25.0	—	—	—	—	—	—	—	—	—
208	9.6	14.4	19.2	24.0	28.8	33.7	38.5	43.3	48.1	57.7	67.3
240	8.3	12.5	16.7	20.8	25.0	29.2	33.3	37.5	41.7	50.0	58.3
277	7.2	10.8	14.4	18.0	21.7	25.3	28.9	32.5	36.1	43.3	50.5

LEGEND

FLA — Full Load Amps

NOTES:
1. All heaters are single-stage and single-phase.
2. In all units using over 48 amps, the heating elements are subdivided and protected. Additional cost is incurred because of added components.
3. A separate power source is required for motor and heaters except when motors and heaters of same voltage are ordered in conjunction with a single power source wiring option. This option, which meets NEC (National Electric Code) requirements, consists of a factory-furnished and installed junction box and fuse for 6.25 amp (max) fan and control circuit connection to a single power source. Power supply circuit to unit must be field furnished and installed in accordance with applicable codes.

42DA MOTOR DATA

V-Ph-Hz	FAN SPEED	FAN SPEED (RPM)	UNIT SIZE											
			06			08			10			12*		
			Nominal Hp	Watts	Amps	Nominal Hp	Watts	Amps	Nominal Hp	Watts	Amps	Nominal Hp	Watts	Amps
115-1-60	H	1200	1/8	280	2.70	1/5	330	3.10	1/4	470	5.60	1/8 (2)	550	5.30
	M	980		200	2.00		225	2.25		360	3.70		305	2.92
	L	790		140	1.50		135	1.44		240	2.60		205	1.93
208/230-1-60	H	1200	1/10	240	1.10	1/5	420	1.80	1/4	430	2.00	1/5 (2)	450	2.10
	M	980		175	0.74		280	1.26		260	1.20		325	1.45
	L	790		110	0.50		155	0.73		165	0.80		215	1.00
277-1-60	H	1200	1/5	275	1.15	1/5	275	1.21	1/4	425	1.62	1/5 (2)	550	2.40
	M	980		175	0.69		175	0.69		260	1.04		355	1.38
	L	790		90	0.33		90	0.34		155	0.65		175	0.67

V-Ph-Hz	FAN SPEED	FAN SPEED (RPM)	UNIT SIZE											
			14*			16*			18*			20*		
			Nominal Hp	Watts	Amps	Nominal Hp	Watts	Amps	Nominal Hp	Watts	Amps	Nominal Hp	Watts	Amps
115-1-60	H	1200	1/5 (2)	650	6.40	1/4 (2)	900	8.80	1/4 (2)	1180	11.80	1/4 (2)	1180	11.80
	M	980		440	4.60		705	6.90		770	8.30		770	8.30
	L	790		280	3.00		430	4.20		460	5.30		460	5.30
208/230-1-60	H	1200	1/5 (2)	465	2.10	1/5 (2)	740	3.60	1/4 (2)	925	4.10	1/4 (2)	925	4.10
	M	980		325	1.45		360	1.80		5.45	2.48		545	2.48
	L	790		220	1.00		220	1.20		330	1.60		330	1.60
277-1-60	H	1200	1/4 (2)	735	2.70	1/4 (2)	940	3.60	1/4 (2)	980	3.72	1/4 (2)	980	3.72
	M	980		510	1.90		560	2.20		550	2.20		550	2.20
	L	790		330	1.30		335	1.40		320	1.40		320	1.40

*Total motor amps and watts shown for units with 2 motors (size 12 through 20).

NOTES:
1. Motor nameplate amps may vary.
2. Fan coil units comply with ETL, Canadian Standards Association (CSA), and ETL of Canada standards.

42DC,DD AND DE MOTOR DATA

V-Ph-Hz	FAN SPEED	FAN SPEED (RPM)	UNIT SIZE											
			06			08			10			12*		
			Nominal Hp	Watts	Amps	Nominal Hp	Watts	Amps	Nominal Hp	Watts	Amps	Nominal Hp	Watts	Amps
115-1-60	H	1200	1/8	265	2.60	1/5	310	3.00	1/4	440	4.50	1/8 (2)	550	5.40
	M	980		195	1.95		220	2.30		330	3.40		390	3.90
	L	790		155	1.54		140	1.50		225	2.50		305	3.10
208/230-1-60	H	1200	1/10	235	1.00	1/5	325	1.45	1/4	410	1.80	1/5 (2)	700	3.20
	M	980		165	0.72		210	0.95		250	1.10		430	2.00
	L	790		110	0.49		135	0.62		160	0.76		305	1.48
277-1-60	H	1200	1/5	275	1.10	1/5	275	1.40	1/4	395	1.51	1/5 (2)	535	2.40
	M	980		175	0.70		175	0.69		260	1.10		360	1.40
	L	790		90	0.33		90	0.34		155	0.65		190	0.70

V-Ph-Hz	FAN SPEED	FAN SPEED (RPM)	UNIT SIZE											
			14*			16*			18*			20*		
			Nominal Hp	Watts	Amps	Nominal Hp	Watts	Amps	Nominal Hp	Watts	Amps	Nominal Hp	Watts	Amps
115-1-60	H	1200	1/5 (2)	690	6.80	1/4 (2)	900	9.80	1/4 (2)	1015	10.20	1/4 (2)	1020	10.20
	M	980		560	5.40		725	7.70		745	7.80		750	7.80
	L	790		280	3.50		450	5.24		450	5.30		460	5.30
208/230-1-60	H	1200	1/5 (2)	720	3.30	1/5 (2)	680	3.00	1/4 (2)	820	3.70	1/4 (2)	820	3.70
	M	980		440	2.00		445	2.00		500	2.20		510	2.20
	L	790		310	1.48		285	1.33		330	1.50		330	1.50
277-1-60	H	1200	1/4 (2)	700	2.65	1/4 (2)	830	3.20	1/4 (2)	900	3.50	1/4 (2)	925	3.52
	M	980		495	1.96		510	2.00		550	2.23		550	2.23
	L	790		300	1.30		300	1.30		320	1.36		320	1.36

*Total motor amps and watts shown for units with 2 motors (size 12 through 20).

NOTES:
1. Motor nameplate amps may vary.
2. Fan coil units comply with ETL, Canadian Standards Association (CSA), and ETL of Canada standards.

Electrical data (cont)

42DF MOTOR DATA

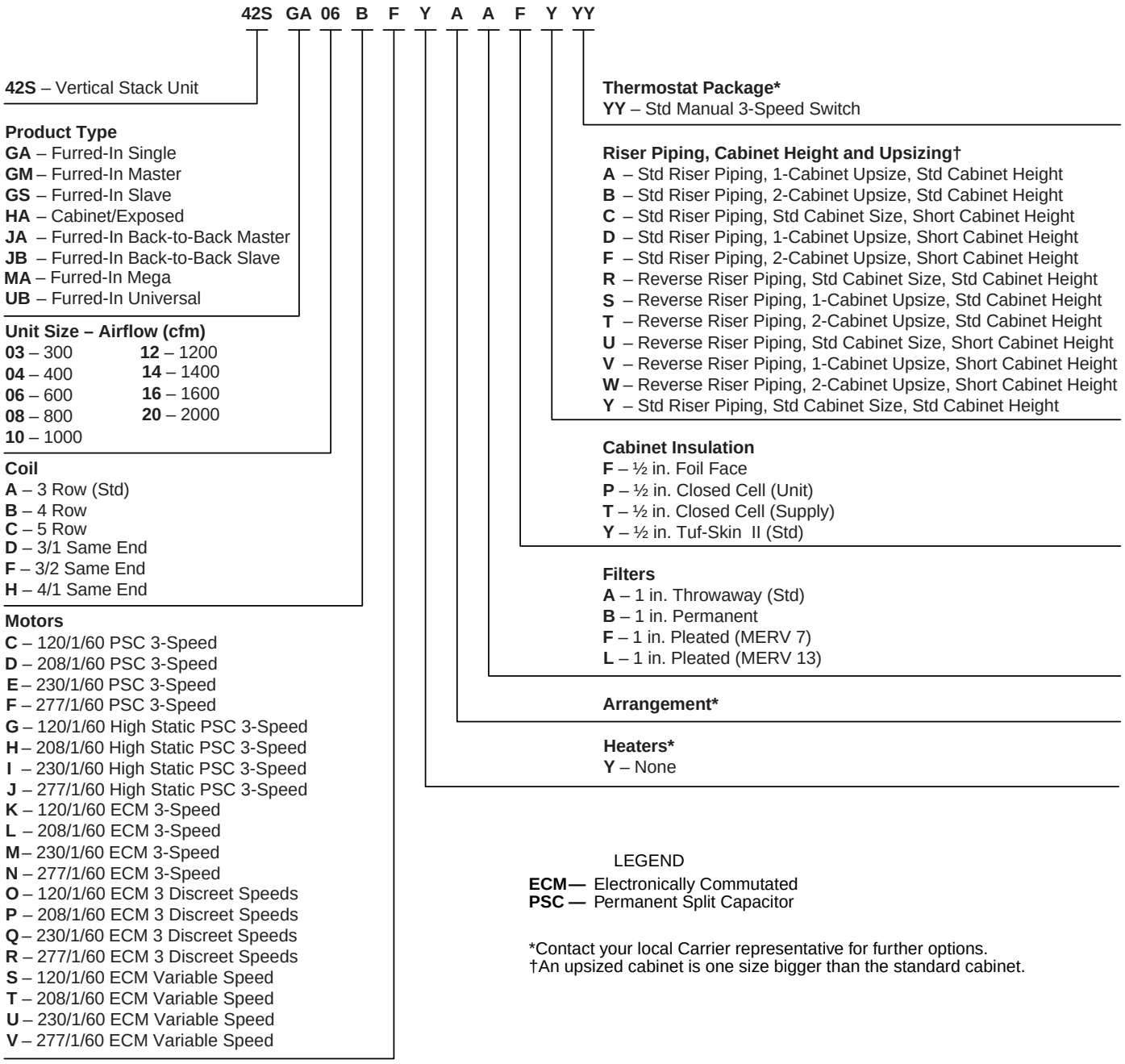
V-Ph-Hz	FAN SPEED	FAN SPEED (RPM)	UNIT SIZE											
			06			08			10			12*		
			Nominal Hp	Watts	Amps	Nominal Hp	Watts	Amps	Nominal Hp	Watts	Amps	Nominal Hp	Watts	Amps
115-1-60	H	1200	1/8	260	2.40	1/5	275	3.10	1/4	380	3.70	1/8 (2)	490	4.40
	M	980		195	1.70		205	2.10		300	3.00		310	3.00
	L	790		125	1.15		155	1.58		210	2.00		210	2.10
208/230-1-60	H	1200	1/10	235	1.00	1/5	230	1.05	1/4	410	1.80	1/5 (2)	450	2.00
	M	980		165	0.72		145	0.65		220	1.05		300	1.40
	L	790		105	0.48		105	0.48		160	0.75		224	1.05
277-1-60	H	1200	1/5	205	0.72	1/5	270	0.90	1/4	285	1.27	1/5 (2)	370	1.44
	M	980		140	0.51		190	0.71		180	0.73		235	0.89
	L	790		90	0.31		155	0.57		95	0.37		165	0.63

V-Ph-Hz	FAN SPEED	FAN SPEED (RPM)	UNIT SIZE											
			14*			16*			18*			20*		
			Nominal Hp	Watts	Amps	Nominal Hp	Watts	Amps	Nominal Hp	Watts	Amps	Nominal Hp	Watts	Amps
115-1-60	H	1200	1/5 (2)	520	5.00	1/4 (2)	670	6.50	1/4 (2)	800	7.40	1/4 (2)	840	8.20
	M	980		320	3.00		470	4.80		670	6.60		685	6.60
	L	790		210	2.10		300	3.10		420	4.10		435	4.20
208/230-1-60	H	1200	1/5 (2)	470	2.10	1/5 (2)	590	2.90	1/4 (2)	705	3.20	1/4 (2)	810	3.44
	M	980		340	1.50		440	2.10		420	2.00		495	2.20
	L	790		230	1.10		300	1.45		315	1.55		320	1.50
277-1-60	H	1200	1/4 (2)	450	1.60	1/4 (2)	470	1.70	1/4 (2)	620	2.80	1/4 (2)	870	3.30
	M	980		330	1.28		350	1.20		420	1.65		545	2.20
	L	790		250	0.90		250	0.90		230	0.95		320	1.36

*Total motor amps and watts shown for units with 2 motors (size 12 through 20).

NOTES:
1. Motor nameplate amps may vary.
2. Fan coil units comply with ETL, Canadian Standards Association (CSA), and ETL of Canada standards.

Model number nomenclature



LEGEND

ECM— Electronically Commutated
PSC — Permanent Split Capacitor

*Contact your local Carrier representative for further options.
†An upsized cabinet is one size bigger than the standard cabinet.

AHRI rating capacity

The 42S 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:

AHRI CERTIFIED™ www.ahridirectory.org
Room Fan-Coils
AHRI Standard 440

AHRI APPROVED STANDARD RATINGS — STANDARD CAPACITY COIL

UNIT TYPE*	UNIT SIZE	COIL	NOMINAL CFM	GPM	COOLING CAPACITY		POWER INPUT (Watts)†
					Total Heat Btuh	Sensible Heat Btuh	
42S	03	3-Row	300	2.7	11,500	7,000	85
		4-Row	300	3.2	12,200	7,300	85
	04	3-Row	400	2.8	13,600	9,000	115
		4-Row	400	3.5	15,600	9,600	115
	06	3-Row	600	4.1	21,900	14,000	135
		4-Row	600	5.1	26,000	15,300	135
	08	3-Row	800	4.4	27,500	17,800	250
		4-Row	800	5.6	31,400	19,500	250
	10	3-Row	1000	6.3	37,700	24,500	325
		4-Row	1000	7.5	42,200	25,600	325
	12	3-Row	1200	6.7	43,100	28,400	440
		4-Row	1200	8.0	46,500	30,500	440
	14	3-Row	1400	7.7	38,300	27,900	670
		4-Row	1400	9.0	45,200	32,400	630

*Table values are listed for each half of 42SJ units and master/slave.
†Motor type, permanent split capacitor, operating at 115-1-60 voltage.

NOTES:
1. Ratings based on motor at high fan speed, standard air and dry coil operation, 10 degrees F water temperature rise; entering air temperatures of 80 F db, 67 F wb; entering water temperature 45 F.
2. Nominal airflow for Mega Stack unit sizes 16 and 20 fall outside the performance range covered by standard AHRI440 for room fan coils.

SOUND POWER DATA

42SG, SH, SJ, SU SOUND RATINGS FOR NON-DUCTED EQUIPMENT — OCTAVE BAND SOUND POWER LEVEL RATINGS* (dB)

SIZE	RATING	FAN SPEED	CFM	SOUND POWER LEVEL, L_W (dB one reference pico watt) — Hz							A-wgt (dBA)
				125	250	500	1000	2000	4000	8000	
03	CASING RADIATED	High	389	60	53	49	42	34	32	37	50
		Medium	313	56	51	44	36	28	31	37	47
		Low	277	53	44	41	31	26	31	37	43
04	CASING RADIATED	High	430	66	57	53	46	38	33	36	55
		Medium	330	56	51	46	38	29	30	37	48
		Low	254	54	45	40	31	26	30	36	44
06	CASING RADIATED	High	657	67	57	55	48	45	41	37	57
		Medium	530	62	52	50	43	37	34	36	52
		Low	350	53	43	42	33	27	30	36	44
08	CASING RADIATED	High	754	70	61	57	52	47	42	37	59
		Medium	580	63	55	52	45	38	34	36	53
		Low	417	58	49	46	38	30	30	36	48
10	CASING RADIATED	High	1000	72	67	63	61	57	55	47	66
		Medium	920	70	64	60	58	53	51	43	63
		Low	650	64	57	54	51	45	41	37	56
12	CASING RADIATED	High	1214	74	70	66	66	59	57	50	70
		Medium	870	66	60	58	54	49	44	38	59
		Low	564	57	53	52	43	37	32	36	52

*Rated in accordance with AHRI 350, sound rating of ducted air moving and conditioning equipment.

SOUND POWER DATA (cont)

42SG, SH, SJ, SU SOUND RATINGS FOR DUCTED EQUIPMENT — OCTAVE BAND SOUND POWER LEVEL RATINGS* (dB)

SIZE	RATING	FAN SPEED	CFM	SOUND POWER LEVEL, L_W (dB one reference pico watt) — Hz							A-wgt (dBA)
				125	250	500	1000	2000	4000	8000	
03	CASING RADIATED	High	389	59	50	47	39	29	29	35	48
		Medium	313	54	49	43	34	26	29	35	45
		Low	277	52	41	40	30	25	30	35	42
	DISCHARGE	High	389	56	56	41	34	24	29	35	49
		Medium	313	52	50	36	28	24	29	35	44
		Low	277	50	44	32	26	24	29	35	40
04	CASING RADIATED	High	430	64	55	51	44	35	31	35	53
		Medium	330	57	50	45	37	28	29	35	47
		Low	254	54	47	39	30	25	29	35	43
	DISCHARGE	High	430	65	57	47	40	28	30	34	52
		Medium	330	57	49	40	33	24	29	34	45
		Low	254	52	44	32	26	24	29	35	41
06	CASING RADIATED	High	657	65	55	51	45	38	34	35	54
		Medium	530	60	49	47	40	33	31	35	49
		Low	350	51	41	40	31	26	29	35	42
	DISCHARGE	High	657	64	57	49	38	30	31	34	52
		Medium	530	59	50	44	32	26	29	34	47
		Low	350	53	41	36	24	24	29	35	41
08	CASING RADIATED	High	754	68	58	55	49	42	36	35	57
		Medium	580	62	53	50	43	36	31	34	51
		Low	417	55	46	45	36	29	29	35	46
	DISCHARGE	High	754	67	59	51	41	35	33	35	55
		Medium	580	60	52	45	35	28	30	34	48
		Low	417	54	46	39	28	24	29	35	43
10	CASING RADIATED	High	1000	70	63	59	56	50	44	36	62
		Medium	920	68	60	57	53	47	40	35	59
		Low	650	62	53	52	45	40	33	35	53
	DISCHARGE	High	1000	72	64	53	49	40	38	35	60
		Medium	920	70	61	51	47	37	35	35	57
		Low	650	62	55	45	39	30	30	34	50
12	CASING RADIATED	High	1214	71	66	64	61	53	46	37	66
		Medium	870	63	58	56	50	45	37	35	57
		Low	564	54	51	50	40	33	30	35	49
	DISCHARGE	High	1214	74	66	56	56	43	40	36	63
		Medium	870	59	51	46	38	30	30	34	48
		Low	564	49	44	35	26	24	29	35	40

*Rated in accordance with AHRI 260, sound rating of ducted air moving and conditioning equipment.

AHRI capacity ratings (cont)

42SM SOUND RATINGS — OCTAVE BAND SOUND POWER LEVEL RATINGS* (dB)

SIZE	RATING	FAN SPEED	CFM	SOUND POWER LEVEL, L_W (dB one reference pico watt) — Hz							A-wgt (dBA)
				125	250	500	1000	2000	4000	8000	
14	CASING RADIATED	High	1343	75	64	61	61	57	52	43	66
		Medium	1075	72	60	57	56	52	46	38	62
		Low	805	68	54	53	49	44	37	35	56
	DISCHARGE	High	1343	69	65	61	61	58	58	53	66
		Medium	1075	66	60	57	55	53	52	46	61
		Low	805	60	52	50	47	44	52	37	56
16	CASING RADIATED	High	1527	80	65	60	59	56	51	40	67
		Medium	1393	79	64	59	58	55	49	39	66
		Low	1040	74	58	55	53	50	43	37	61
	DISCHARGE	High	1527	80	68	64	68	64	61	54	72
		Medium	1393	79	66	63	66	62	59	52	70
		Low	1040	73	61	59	51	56	52	45	65
20	CASING RADIATED	High	1855	82	70	66	66	62	58	49	71
		Medium	1510	76	65	63	61	57	52	42	66
		Low	988	70	56	57	52	46	39	35	59
	DISCHARGE	High	1855	85	73	76	76	69	64	57	79
		Medium	1510	77	68	64	66	61	57	50	70
		Low	988	72	57	55	56	49	44	38	61

*Rated in accordance with AHRI 260, sound rating of ducted air moving and conditioning equipment. Airflow and sound data measured at 0.5-in. wg ESP (external static pressure).

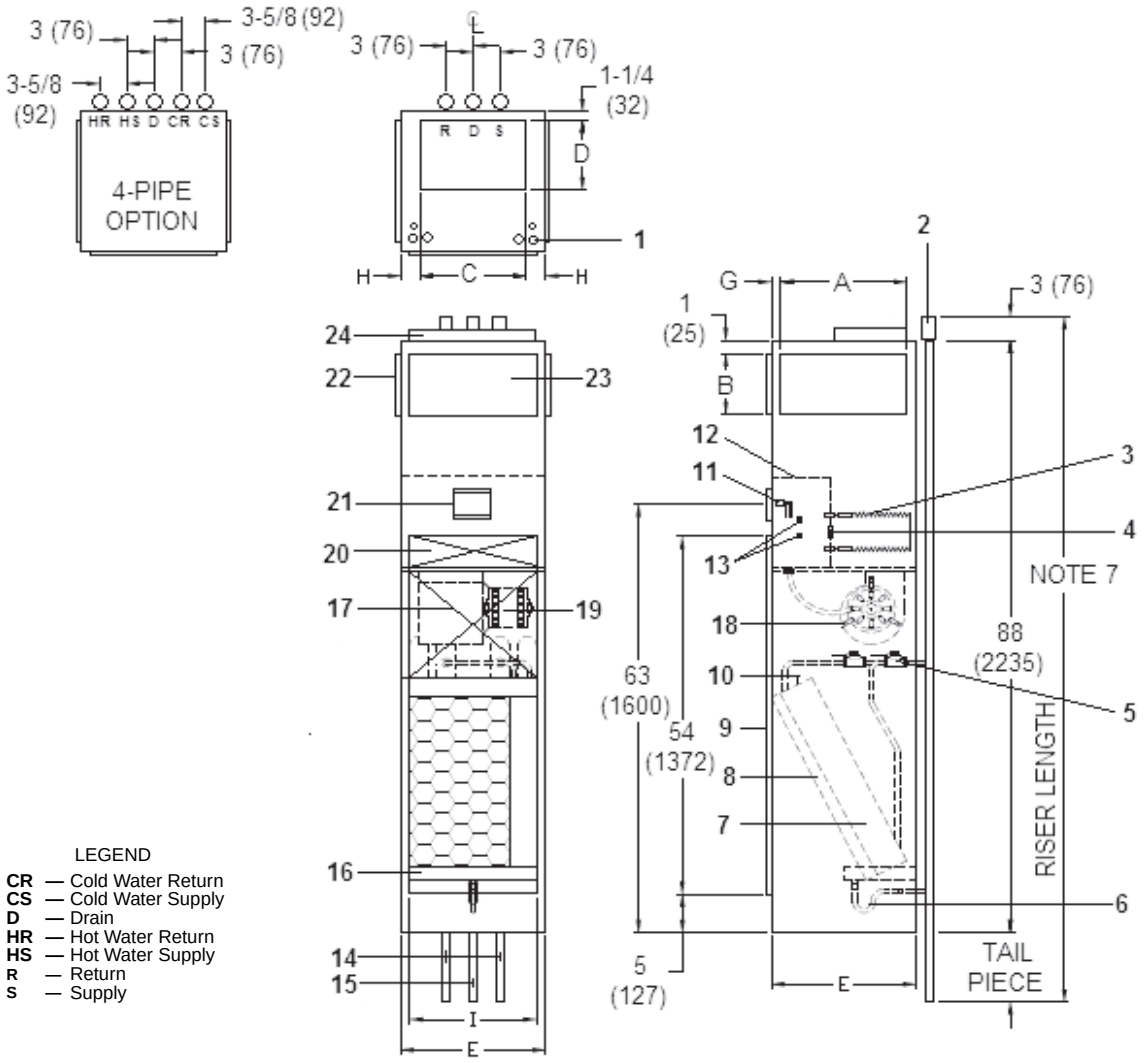
Physical data

UNIT SIZE 42S	03	04	06	08	10	12	14	16	20
NOMINAL AIRFLOW (cfm)	300	400	600	800	1000	1200	1400	1600	2000
SHIPPING WEIGHT (lb)*									
42SGA,SGM,SU	180	225	240	260	280	305	—	—	—
42SH	202	247	262	286	311	336	—	—	—
42SJ	360	450	480	520	560	610	—	—	—
42SGS	162	203	216	234	252	275	—	—	—
42SM	—	—	—	—	—	—	390	390	390
COIL WATER WEIGHT (Approx lb per row of coil)	1.79		2.63		3.45		4.09	4.09	4.39
COILS									
FPI	14 fins/inch								
BLOWER (qty)									
42SGA,SH,SU,SGM,SGS,SM	1	1	1	1	1	1	1	1	1
42SJ	2	2	2	2	2	2	—	—	—
FILTERS									
Nominal Size (in.) (1-in. thick)	$12^1/_2$ x $24^1/_4$		$16^1/_4$ x $26^3/_4$		$20^1/_2$ x $29^1/_4$		$24^1/_2$ x $29^1/_4$		$26^1/_4$ x $30^1/_2$
Qty	1†								
PIPING CONNECTIONS									
Inlet (in. OD)	$^1/_2$, unless larger size valve package is selected								

*Calculate Operating Weight of Unit: Shipping Weight + Coil Water Weight x Number of Coil Rows.
†42SJ units require two filters.

Base unit dimensions

42SGA FURRED-IN STACK UNIT WITHOUT RISER CHASE



LEGEND

CR — Cold Water Return
CS — Cold Water Supply
D — Drain
HR — Hot Water Return
HS — Hot Water Supply
R — Return
S — Supply

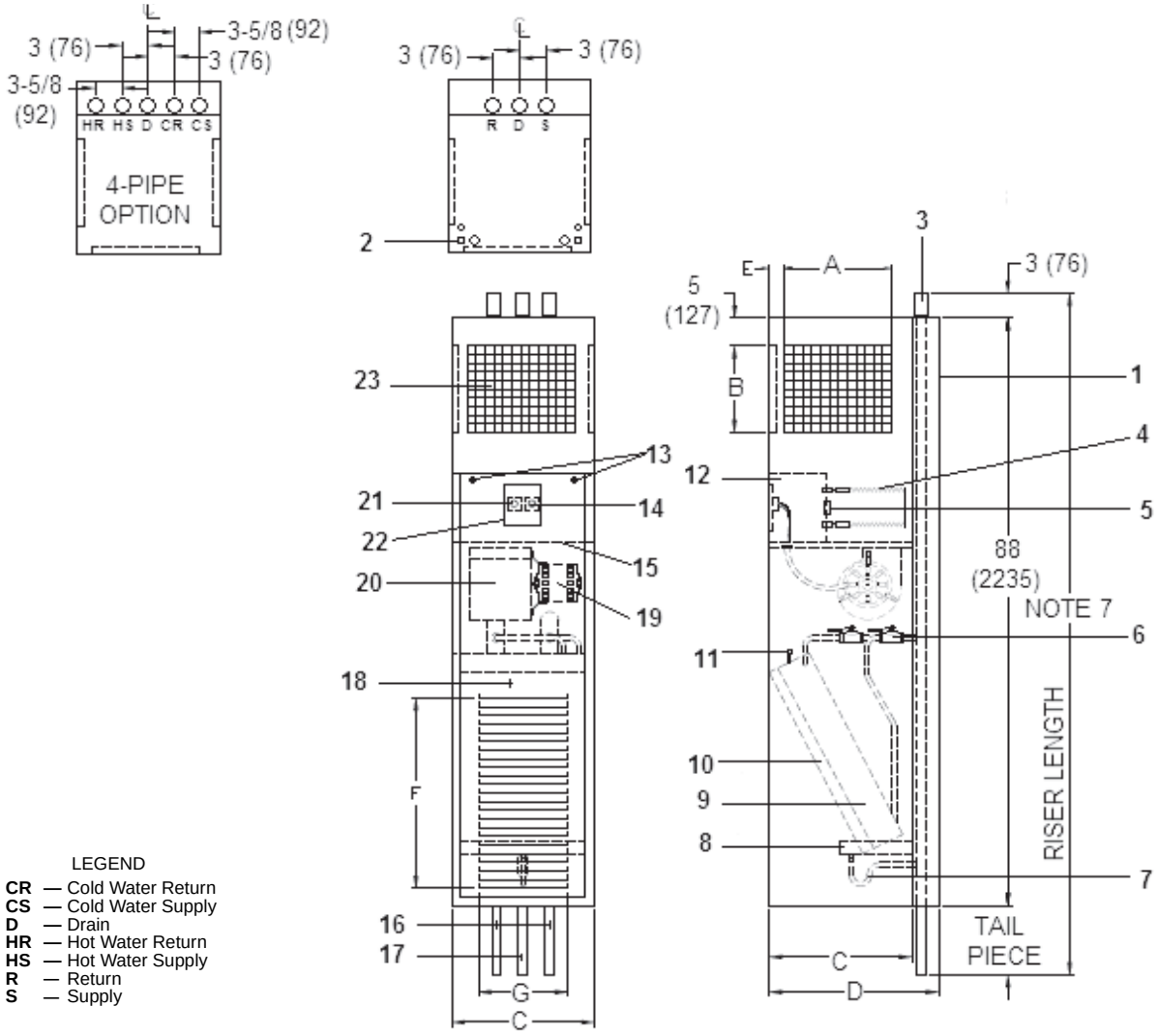
ITEM	DESCRIPTION	QTY
1	Electrical Knockouts	1
2	3-in. Expanded Section of Riser	3/5
3	Strip Heater (Optional)	1
4	Limit Switch (Optional)	1
5	1/2-in. Isolation Ball Valve	2/4
6	Flexible Drain Tube/P-Trap	1
7	Coil 1/2-in. OD Copper Tube	1
8	Filter, Throwaway, 1-in.	1
9	Return Air Opening	1
10	Air Vent, Manual	1
11	Molex Connector for Field-Installed Tstat	1
12	Control Box	1
13	Knockout (For Optional Remote Mounting)/ Side	2
14	Riser, Supply and Return (Copper)	2/4
15	Riser, Drain (Copper)	1
16	Drain Pan	1
17	Acoustical Bypass Panel	1
18	Blower	1
19	Motor, 3-Speed, PSC, with Quick Connect	1
20	Access Panel (Control Box)	1
21	Control Opening (Surface Mount Tstat)	1
22	Duct Collar, 1/2-in. Extension	1/2/3
23	Supply Air Opening(s)	1/2/3
24	Top Supply Duct Collar 1-in. Extension (Optional)	1

NOTES:
1. Units are fabricated of galvanized steel with a 16-gage galvanized fan deck.
2. All risers are insulated with (1/2-in. or 3/4-in. thick) closed cell insulation.
3. Thermostat shipped loose for field installation when ordered with the unit.
4. Risers are factory piped to coil with valve package as specified.
5. Blower, motor, coil, valves, and filter are accessible through the return air opening.
6. Unit and control box are insulated.
7. Riser length = [(floor to floor) +2 in.], maximum riser leng h = 119 inches.
8. Maximum riser size is 2 1/2-in. diameter. If larger size is required, please consult the factory.
9. Expansion loops in hot water hea ing circuits as required.
10. Dimensions are in inches. Dimensions in () are in millimeters.
11. Drawing is pictorial (see unit arrangements for actual supply and return air orientation).
12. A 9-in. x 2 1/4-in. slot is provided in the inside back panel for coil connection penetration to permit expansion and contraction of riser. Care must be taken to position the riser so that coil connection is at center of slot.

UNIT MODEL	SINGLE SUPPLY			DOUBLE SUPPLY			TOP SUPPLY			DIMENSIONS - INCHES				FILTER SIZE
	A	B	SIZE	A	B	SIZE	C	D	SIZE	E	G	H	I	
42SGA03	14	8	14 X 8	14	6	14 X 6	14	10	14 x 10	17	1 1/2	1 1/2	14	12 1/2 X 24 1/4 X 1
42SGA04	14	12	14 X12	14	6	14 X 6	14	10	14 x 10	17	1 1/2	1 1/2	14	12 1/2 X 24 1/4 X 1
42SGA06	18	10	18 X10	18	6	18 X 6	16	12	16 x 12	20	1	2	18	16 1/4 X 26 3/4 X 1
42SGA08	18	12	18 X 12	18	6	18 X 6	16	12	16 x 12	20	1	2	18	16 1/4 X 26 3/4 X 1
42SGA10	—	—	—	22	8	22 X 8	18	16	18 x 16	24	1	3	22	20 1/2 X 29 1/4 X 1
42SGA12	—	—	—	22	8	22 X 8	18	16	18 x 16	24	1	3	22	20 1/2 X 29 1/4 X 1

Base unit dimensions (cont)

42SHA CABINET STACK UNIT



LEGEND

CR — Cold Water Return
CS — Cold Water Supply
D — Drain
HR — Hot Water Return
HS — Hot Water Supply
R — Return
S — Supply

ITEM	DESCRIPTION	QTY
1	Full Riser Chase	1
2	Electrical Knockouts	1
3	3-in. Expansion Section of Riser	3/5
4	Strip Heater (Optional)	1
5	Limit Switch (Optional)	1
6	1/2-in. Isolation Ball Valve	2/4
7	Flexible Drain Tube/P-Trap	1
8	Drain Pan	1
9	Coil 1/2-in. OD Copper Tube	1
10	Filter, Throwaway, 1-in.	1
11	Air Vent, Manual	1
12	Control Box	1
13	Cabinet Camloc Fastener	2
14	3-Speed Switch (Optional)	1
15	Electrical Access Panel	1
16	Riser, Supply and Return (Copper)	2/4
17	Riser, Drain (Copper)	1
18	Return Air Panel	1
19	Motor, 3-Speed, PSC with Quick Connect	1
20	Blower	1
21	Thermostat (Optional)	1
22	Hinged Control Access Door	1
23	Double Deflection Steel Core Grille Assembly	1

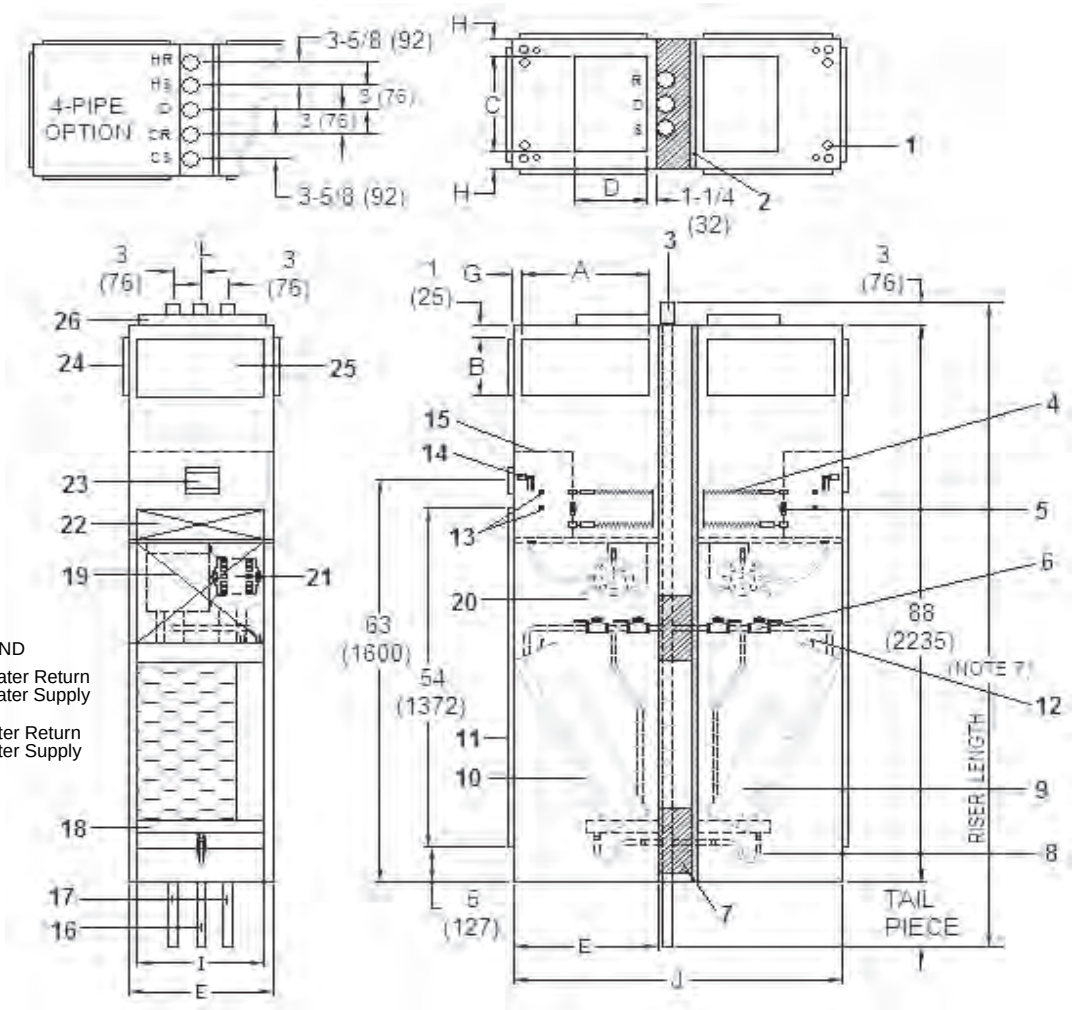
*Drawing provided for reference only. Dimensions may vary with options ordered.

NOTES:

1. Units are fabricated of 18-gage galvanized steel with a 16-gage galvanized fan deck.
2. All risers are insulated with (1/2-in. or 3/4-in. thick) closed cell insulation.
3. Risers are piped to coil with valve package as specified.
4. Blower, motor, coil, valves, and filter are accessible through the return air opening.
5. Unit and control box are insulated.
6. Maximum riser size is 2 1/2-in. diameter. If larger sizes are required, please consult the factory.
7. Riser length = [(floor to floor) +2 in.], maximum riser length = 119 inches.
8. Expansion loops in hot water heating circuits as required.
9. Drawing is pictorial (see unit arrangements for actual supply and return air orienta ion).
10. Unit is available in front return only.
11. Dimensions are in inches. Dimensions is () are in milimeters.
12. A 9-in. x 2 1/4-in. slot is provided in the inside back panel for coil connection penetration to permit expansion and contraction of risers. Care must be taken to position the risers so that coil connection is at center of slot.

UNIT MODEL	SINGLE SUPPLY			DOUBLE SUPPLY			DIMENSIONS - INCHES					FILTER SIZE
	A	B	SIZE	A	B	SIZE	C	D	E	F	G	
42SHA03	14	8	14 X 8	14	6	14 X 6	17	22 3/8	2 1/2	22 1/8	14 3/4	12 1/2 X 24 1/4 X 1
42SHA04	14	12	14 X12	14	8	14 X 8	17	22 3/8	2 1/2	22 1/8	14 3/4	12 1/2 X 24 1/4 X 1
42SHA06	14	12	14 X12	14	8	14X 8	20	25 3/8	2 1/2	26 5/8	17 3/4	16 1/4 X 26 3/4 X 1
42SHA08	14	16	14 X 16	14	10	14 X 10	20	25 3/8	2 1/2	26 5/8	17 3/4	16 1/4 X 26 3/4 X 1
42SHA10	18	16	18 X 16	14	12	14 X 12	24	29 3/8	2 1/2	31 1/8	17 3/4	20 1/2 X 29 1/4 X 1
42SHA12	18	16	18 X 16	14	12	14X 12	24	29 3/8	2 1/2	31 1/8	17 3/4	20 1/2 X 29 1/4 X 1

42SJA/42SJB FURRED-IN STACK BACK TO BACK UNIT



LEGEND

CR — Cold Water Return
CS — Cold Water Supply
D — Drain
HR — Hot Water Return
HS — Hot Water Supply
R — Return
S — Supply

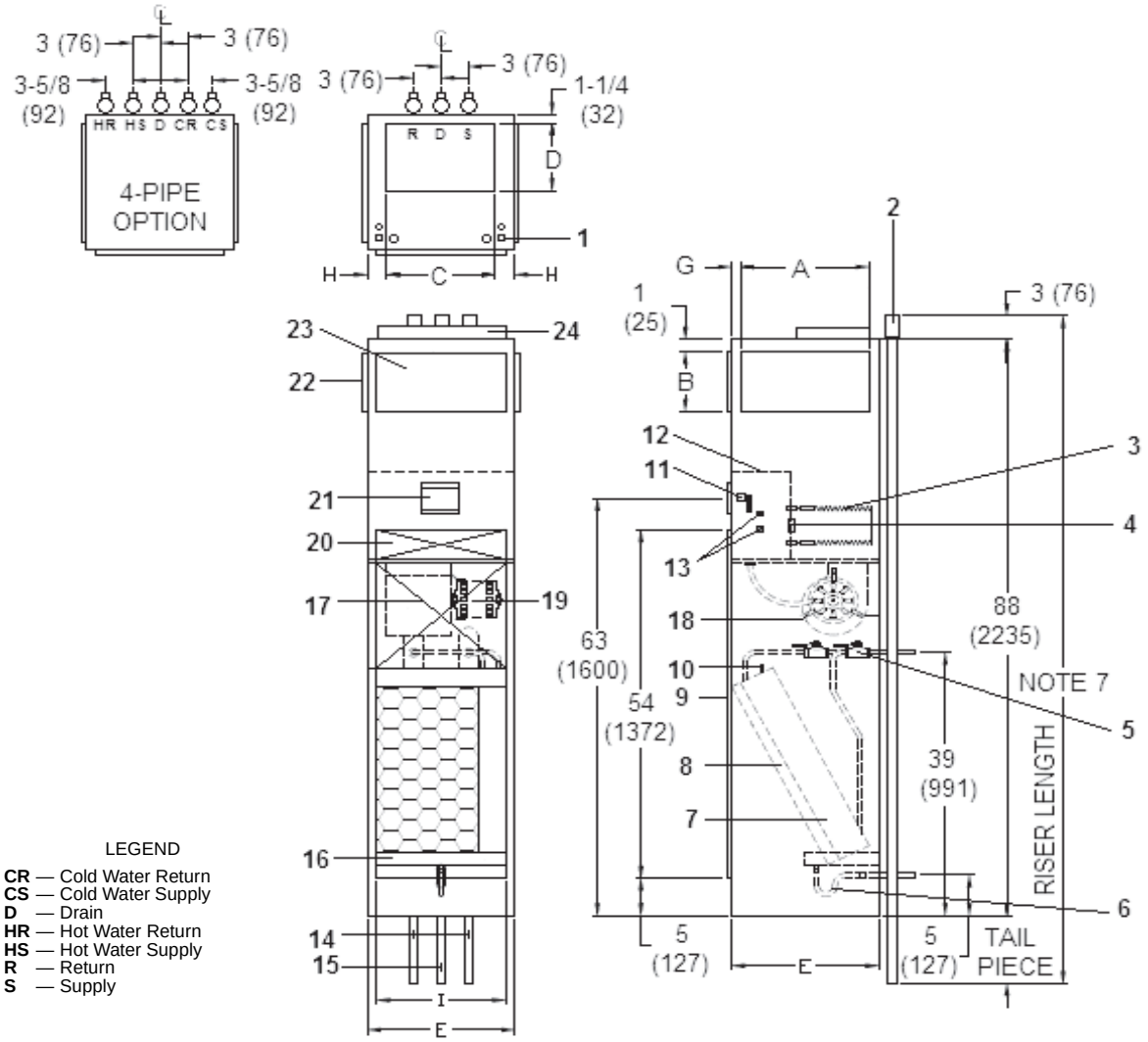
ITEM	DESCRIPTION	QTY
1	Electrical Knockouts	6
2	Gypsum Board 5/8" Type X	1
3	3-in. Expanded Section of Riser	3/5
4	Strip Heater (Optional)	2
5	Limit Switch (Optional)	2
6	1/2-in. Isolation Ball Valve	2/4
7	Thermafiber Insulation	—
8	Flexible Drain Tube/P-Trap	2
9	Coil 1/2-in. OD Copper Tube	2
10	Filter, Throwaway, 1-in.	2
11	Return Air Opening	2
12	Air Vent, Manual	2
13	Knockout (For Optional Remote Mounting)/ Side	2
14	Molex Connector for Field-Installed Tstat	2
15	Control Box	2
16	Riser, Drain (Copper)	1
17	Riser, Supply and Return (Copper)	2/4
18	Drain Pan	2
19	Acoustical Bypass Panel	2
20	Blower	2
21	Motor, 3-Speed, PSC, with Quick Connect	2
22	Access Panel (Control Box)	2
23	Control Opening (Surface Mount Tstat)	2
24	Duct Collar, 1/2-in. Extension (Typical)	1/2/3
25	Supply Air Opening(s)	1/2/3
26	Top Supply Duct Collar, 1-in. Extension (Optional)	1

NOTES:
1. Units are fabricated of galvanized steel with a 16-gage galvanized fan deck.
2. All risers are insulated with (1/2-in. or 3/4-in. thick) closed cell insula ion.
3. Thermostat shipped loose for field installation when ordered with the unit.
4. Risers are piped to coil with valve package as specified.
5. Blower, motor, coil, valves, and filter are accessible through the return air opening.
6. Unit and control box are insulated.
7. Riser length = [(floor to floor) +2 in.], maximum riser length = 119 inches.
8. Maximum riser size is 2 1/2-in. diameter. If larger size is required, please consult the factory.
9. Expansion loops in hot water heating circuits as required.
10. Drawing is pictorial (see unit arrangements for actual supply and return air orientation).
11. Dimensions are in inches. Dimensions in () are in millimeters.
12. A 9-in. x 2 1/4-in. slot is provided in the inside back panel for coil connection penetration to permit expansion and contraction of riser. Care must be taken to position the riser so that coil connection is at center of slot.

UNIT MODEL	SINGLE SUPPLY			DOUBLE SUPPLY			TOP SUPPLY			DIMENSIONS - INCHES					FILTER SIZE
	A	B	SIZE	A	B	SIZE	C	D	SIZE	E	G	H	I	J	
42SJA03	14	8	14 X 8	14	6	14 X 6	14	10	14 x 10	17	1 1/2	1 1/2	14	39 5/8	12 1/2 X 24 1/4 X 1
42SJA04	14	12	14 X12	14	6	14 X 6	14	10	14 x 10	17	1 1/2	1 1/2	14	39 5/8	12 1/2 X 24 1/4 X 1
42SJA06	18	10	18 X10	18	6	18 X 6	16	12	16 x 12	20	1	2	18	45 5/8	16 1/4 X 26 3/4 X 1
42SJA08	18	12	18 X 12	18	6	18 X 6	16	12	16 x 12	20	1	2	18	45 5/8	16 1/4 X 26 3/4 X 1
42SJA10	—	—	—	22	8	22 X 8	18	16	18 x 16	24	1	3	22	53 5/8	20 1/2 X 29 1/4 X 1
42SJA12	—	—	—	22	8	22 X 8	18	16	18 x 16	24	1	3	22	53 5/8	20 1/2 X 29 1/4 X 1

Base unit dimensions (cont)

42SGM FURRED-IN STACK MASTER UNIT



LEGEND

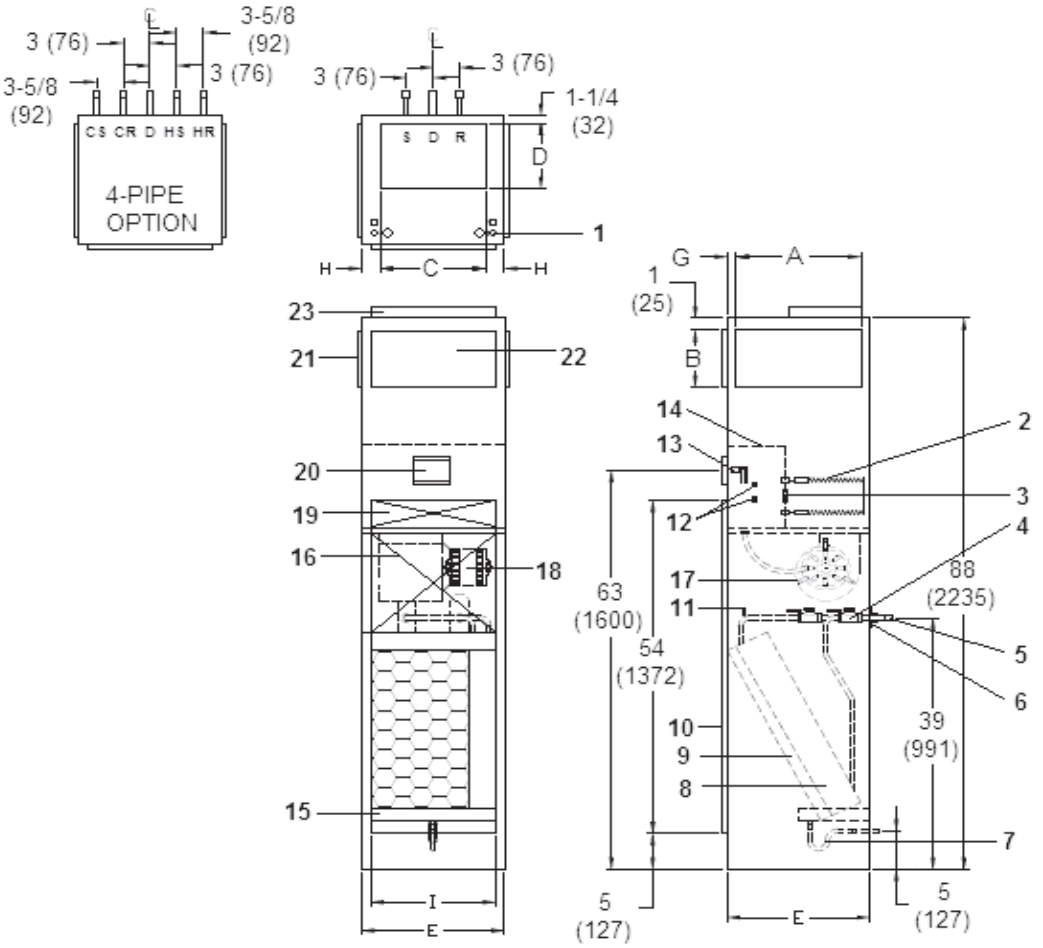
CR — Cold Water Return
CS — Cold Water Supply
D — Drain
HR — Hot Water Return
HS — Hot Water Supply
R — Return
S — Supply

ITEM	DESCRIPTION	QTY
1	Electrical Knockouts	1
2	3-in. Expanded Section of Riser	3/5
3	Strip Heater (Optional)	1
4	Limit Switch (Optional)	1
5	1/2-in. Isolation Ball Valve	2/4
6	Flexible Drain Tube/P-Trap	1
7	Coil 1/2-in. OD Copper Tube	1
8	Filter, Throwaway, 1-in.	1
9	Return Air Opening	1
10	Air Vent, Manual	1
11	Molex Connector for Field-Installed Tstat	1
12	Control Box	1
13	Knockout (For Optional Remote Mounting)/ Side	2
14	Riser, Supply and Return (Copper)	2/4
15	Riser, Drain (Copper)	1
16	Drain Pan	1
17	Acoustical Bypass Panel	1
18	Blower	1
19	Motor, 3-Speed, PSC, with Quick Connect	1
20	Access Panel (Control Box)	1
21	Control Opening (Surface Mount Tstat)	1
22	Duct Collar, 1/2-in. Extension (Typical)	1/2/3
23	Supply Air Opening(s)	1/2/3
24	Top Suopply Duct Collar, 1-in. Extension (Optional)	1

NOTES:
1. Units are fabricated of galvanized steel with a 16-gage galvanized fan deck.
2. All risers are insulated with (1/2-in. or 3/4-in. thick) closed cell insulation.
3. Thermostat shipped loose for field installation when ordered with the unit.
4. Risers are piped to coil wi h valve package as specified.
5. Blower, motor, coil, valves, and filter are accessible through the return air opening.
6. Unit and control box are insulated.
7. Riser length = [(floor to floor) +2 in.], maximum riser length = 119 inches.
8. Maximum riser size is 2 1/2-in. diameter. If larger size is required, please consult the factory.
9. Expansion loops in hot water heating circuits as required.
10. Drawing is pictorial (see unit arrangements for actual supply and return air orientation).
11. Dimensions are in inches. Dimensions in () are in millimeters.
12. A 9-in. x 2 1/4-in. slot is provided in the inside back panel for coil connection penetration to permit expansion and contraction of riser. Care must be taken to position the riser so that coil connection is at center of slot.

UNIT MODEL	SINGLE SUPPLY			DOUBLE SUPPLY			TOP SUPPLY			DIMENSIONS - INCHES				FILTER SIZE
	A	B	SIZE	A	B	SIZE	C	D	SIZE	E	G	H	I	
42SGM03	14	8	14 X 8	14	6	14 X 6	14	10	14 x 10	17	1 1/2	1 1/2	14	12 1/2 X 24 1/4 X 1
42SGM04	14	12	14 X12	14	6	14 X 6	14	10	14 x 10	17	1 1/2	1 1/2	14	12 1/2 X 24 1/4 X 1
42SGM06	18	10	18 X10	18	6	18 X 6	16	12	16 x 12	20	1	2	18	16 1/4 X 26 3/4 X 1
42SGM08	18	12	18 X 12	18	6	18 X 6	16	12	16 x 12	20	1	2	18	16 1/4 X 26 3/4 X 1
42SGM10	—	—	—	22	8	22 X 8	18	16	18 x 16	24	1	3	22	20 1/2 X 29 1/4 X 1
42SGM12	—	—	—	22	8	22 X 8	18	16	18 x 16	24	1	3	22	20 1/2 X 29 1/4 X 1

42SGS FURRED-IN SLAVE UNIT



LEGEND

CR — Cold Water Return
CS — Cold Water Supply
D — Drain
HR — Hot Water Return
HS — Hot Water Supply
R — Return
S — Supply

ITEM	DESCRIPTION	QTY
1	Electrical Knockouts	1
2	Strip Heater (Optional)	1
3	Limit Switch (Optional)	1
4	1/2-in. Isolation Ball Valve	2/4
5	Coil Stub Outs	2/4
6	Shipping Brace	2/4
7	Flexible Drain Tube/P-Trap	1
8	Coil 1/2-in. OD Copper Tube	1
9	Filter, Throwaway, 1-in.	1
10	Return Air Opening	1
11	Air Vent, Manual	1
12	Knockout (For Optional Remote Mounting)/ Side	2
13	Molex Connector for Field-Installed Tstat	1
14	Control Box	1
15	Drain Pan	1
16	Acoustical Bypass Panel	1
17	Blower	1
18	Motor, 3-Speed, PSC, with Quick Connect	1
19	Access Panel (Control Box)	1
20	Control Opening (Surface Mount Tstat)	1
21	Duct Collar, 1/2-in. Extension (Typical)	1/2/3
22	Supply Air Opening(s)	1/2/3
23	Top Supply Duct Collar 1-in. Extension (Optional)	1

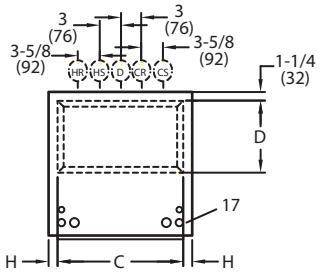
NOTES:
1. Units are fabricated of galvanized steel with a 16-gage galvanized fan deck.
2. Coil with valves as specified.
3. Thermostats shipped loose for field connection when ordered with unit.
4. Blower, motor, coil, valves, and filter are accessible through the return air opening.
5. Unit and control box are insulated.
6. Expansion loops in hot water heating circuits as required.
7. All dimensions are in inches. Dimensions in () are in millimeters.
8. Drawing is pictorial (see unit arrangements for actual supply and return air orientation)
9. A 9-in. x 2 1/4-in. slot is provided in the inside back panel for coil connection penetration to permit expansion and contrac ion of risers. Care must be taken to position the risers so that coil connection is at center of slot.

UNIT MODEL	SINGLE SUPPLY			DOUBLE SUPPLY			TOP SUPPLY			DIMENSIONS - INCHES				FILTER SIZE
	A	B	SIZE	A	B	SIZE	C	D	SIZE	E	G	H	I	
42SGS03	14	8	14 X 8	14	6	14 X 6	14	10	14 x 10	17	1 1/2	1 1/2	14	12 1/2 X 24 1/4 X 1
42SGS04	14	12	14 X12	14	6	14 X 6	14	10	14 x 10	17	1 1/2	1 1/2	14	12 1/2 X 24 1/4 X 1
42SGS06	18	10	18 X10	18	6	18 X 6	16	12	16 x 12	20	1	2	18	16 1/4 X 26 3/4 X 1
42SGS08	18	12	18 X 12	18	6	18 X 6	16	12	16 x 12	20	1	2	18	16 1/4 X 26 3/4 X 1
42SGS10	—	—	—	22	8	22 X 8	18	16	18 x 16	24	1	3	22	20 1/2 X 29 1/4 X 1
42SGM12	—	—	—	22	8	22 X 8	18	16	18 x 16	24	1	3	22	20 1/2 X 29 1/4 X 1

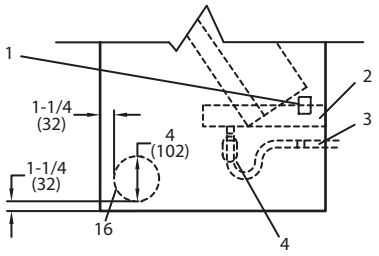
Base unit dimensions (cont)

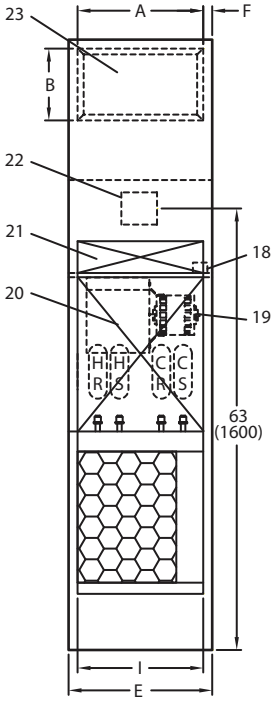
42SU UNIVERSAL FURRED-IN STACK

ITEM	DESCRIPTION	QTY
1	Float Switch (Optional)	1
2	Drain Pan	1
3	Flexible Drain Tube/P-Trap	1
4	Drain Knockout (3 Sides)	1 each side
5	Blower	1
6	Riser Knockouts (3 Sides)	2/4
7	1/2 in. Flare Adaptor (SWT x 37 5)	2/4
8	Coil, 1/2 in. OD Copper Tube	1
9	1 in. Filter (Factory Installed)	1
10	Manual Air Vent	1
11	Return Air Opening	1
12	Knockout (For Optional Thermostat Remote Mounting)	3
13	Molex Connector for Field-Installed Thermostat	1
14	Control Box	1
15	Duct Collar Extension (1/2 in. Side, 1 in. Top)	1/2/3
16	Outside Air Knockout (On Each Side Panel)	1
17	Electrical Knockouts (Near Each Side)	1
18	Service Switch (Optional)	1
19	Motor, 3-Speed, PSC, with Quick Connect Std	1
20	Access Panel for Motor and Blower Assembly	1
21	Access Panel (Control Box)	1
22	Control Opening Knockout (Surface Mount Thermostat)	1
23	Supply Air Knockouts (4 Sides and Top, Stitch Cut)	1/2/3

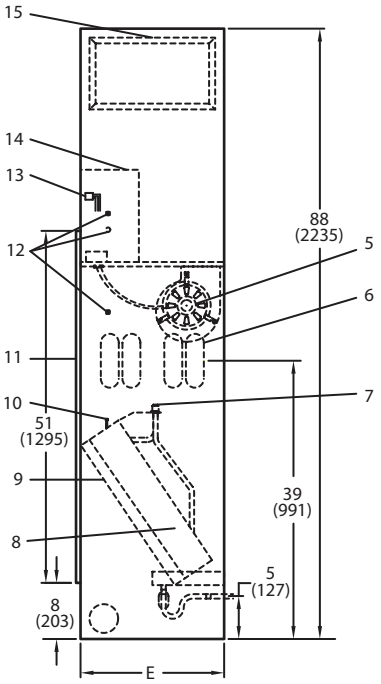


TOP VIEW





FRONT VIEW



SIDE VIEW

LEGEND

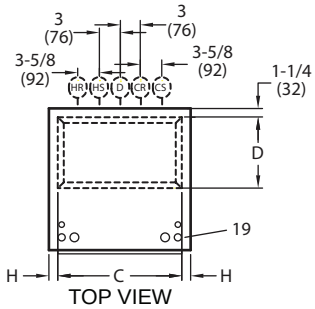
CR — Cold Water Return
CS — Cold Water Supply
D — Drain
HR — Hot Water Return
HS — Hot Water Supply
PSC — Permanent Split Capacitor
SWT — Sweat

NOTES:
1. Units are fabricated of 18-gage galvanized steel with a 16-gage galvanized fan deck.
2. Thermostats shipped loose for field connection.
3. Blower, motor, valves, coil, and filter are accessible through the return air opening.
4. Unit and control box are insulated with 1/2-in. (13 mm) coated fiberglass insulation.
5. All risers will ship separately from units. Riser dimensions are measured from centerline of knockout.
6. Drain knockouts on three sides of cabinet.
7. Flex hoses ship with unit.
8. Thread fittings on both ends of flex hoses must be field tightened and leak tested.
9. Return air panel not shown.
10. All dimensions are in inches (mm).

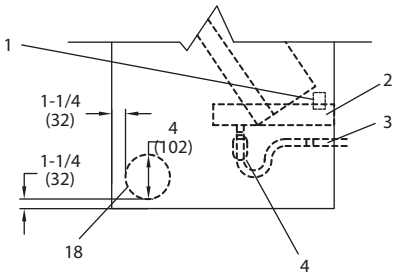
UNIT SIZE	UNIT WEIGHT* lb (kg)	DIMENSIONS, in. (mm)										FILTER SIZE in. (mm)
		Side Supply			Top Supply			E	F	H	I	
		A	B	Size	C	D	Size					
03	180 (82)	14 (356)	12 (305)	14 x 12 (356 x 305)	14 (356)	10 (254)	14 x 10 (356 x 254)	17 (432)	3 (76)	1 1/2 (38)	14 (356)	12 1/2 x 24 1/4 x 1 (318 x 616 x 25)
04	225 (102)											
06	240 (109)	18 (457)	12 (305)	18 x 12 (457 x 305)	16 (406)	12 (305)	16 x 12 (406 x 305)	20 (508)	1 (25)	2 (51)	18 (457)	16 1/4 x 26 3/4 x 1 (413 x 679 x 25)
08	260 (118)											
10	280 (127)	22 (559)	16 (406)	22 x 16 (559 x 406)	18 (457)	16 (406)	18 x 16 (457 x 406)	24 (610)	1 (25)	3 (76)	22 (559)	20 1/2 x 29 1/4 x 1 (521 x 743 x 25)
12	305 (138)											

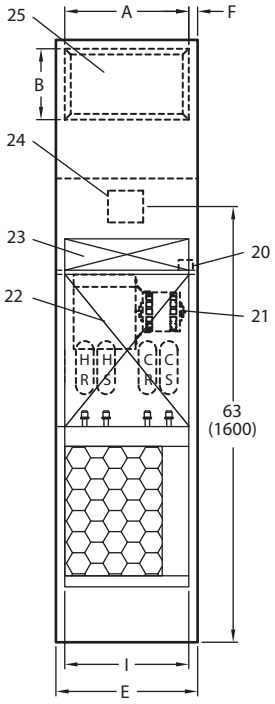
*Unit weights are based on dry coils and minimum rows. Weights exclude packaging, valves, and other components.

42SU UNIVERSAL FURRED-IN STACK WITH HEATER

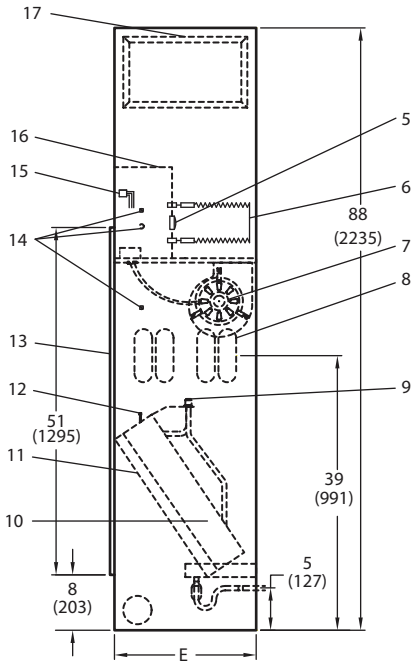


TOP VIEW





FRONT VIEW



SIDE VIEW

ITEM	DESCRIPTION	QTY
1	Float Switch (Optional)	1
2	Drain Pan	1
3	Flexible Drain Tube/P-Trap	1
4	Drain Knockout (3 Sides)	1 each side
5	Limit Switch (Factory Installed)	1
6	Strip Heater	1
7	Blower	1
8	Riser Knockouts (3 Sides)	2/4
9	1/2 in. Flare Adaptor (SWT x 37.5)	2/4
10	Coil, 1/2 in. OD Copper Tube	1
11	1 in. Filter (Factory Installed)	1
12	Manual Air Vent	1
13	Return Air Opening	1
14	Knockout (For Optional Thermostat Remote Mounting)	3
15	Molex Connector for Field-Installed Thermostat	1
16	Control Box	1
17	Duct Collar Extension (1/2 in. Side, 1 in. Top)	1/2/3
18	Outside Air Knockout (On Each Side Panel)	1
19	Electrical Knockouts (Near Each Side)	1
20	Service Switch (Optional)	1
21	Motor, 3-Speed, PSC, with Quick Connect Std	1
22	Access Panel for Motor and Blower Assembly	1
23	Access Panel (Control Box)	1
24	Control Opening Knockout (Surface Mount Thermostat)	1
25	Supply Air Knockouts (4 Sides and Top, Stitch Cut)	1/2/3

LEGEND

CR — Cold Water Return
CS — Cold Water Supply
D — Drain
HR — Hot Water Return
HS — Hot Water Supply
PSC — Permanent Split Capacitor
SWT — Sweat

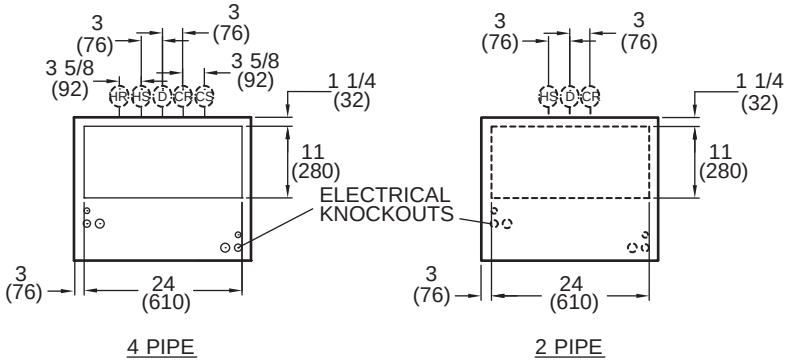
NOTES:
1. Units are fabricated of 18-gage galvanized steel wi h a 16-gage galvanized fan deck.
2. Thermostats shipped loose for field connection.
3. Blower, motor, valves, coil, and filter are accessible through the return air opening.
4. Unit and control box are insulated with 1/2-in. (13 mm) coated fiberglass insulation.
5. All risers will ship separately from units. Riser dimensions are measured from centerline of knockout.
6. Drain knockouts on three sides of cabinet.
7. Flex hoses ship with unit.
8. Thread fittings on both ends of flex hoses must be field tightened and leak tested.
9. Return air panel not shown.
10. All dimensions are in inches (mm).

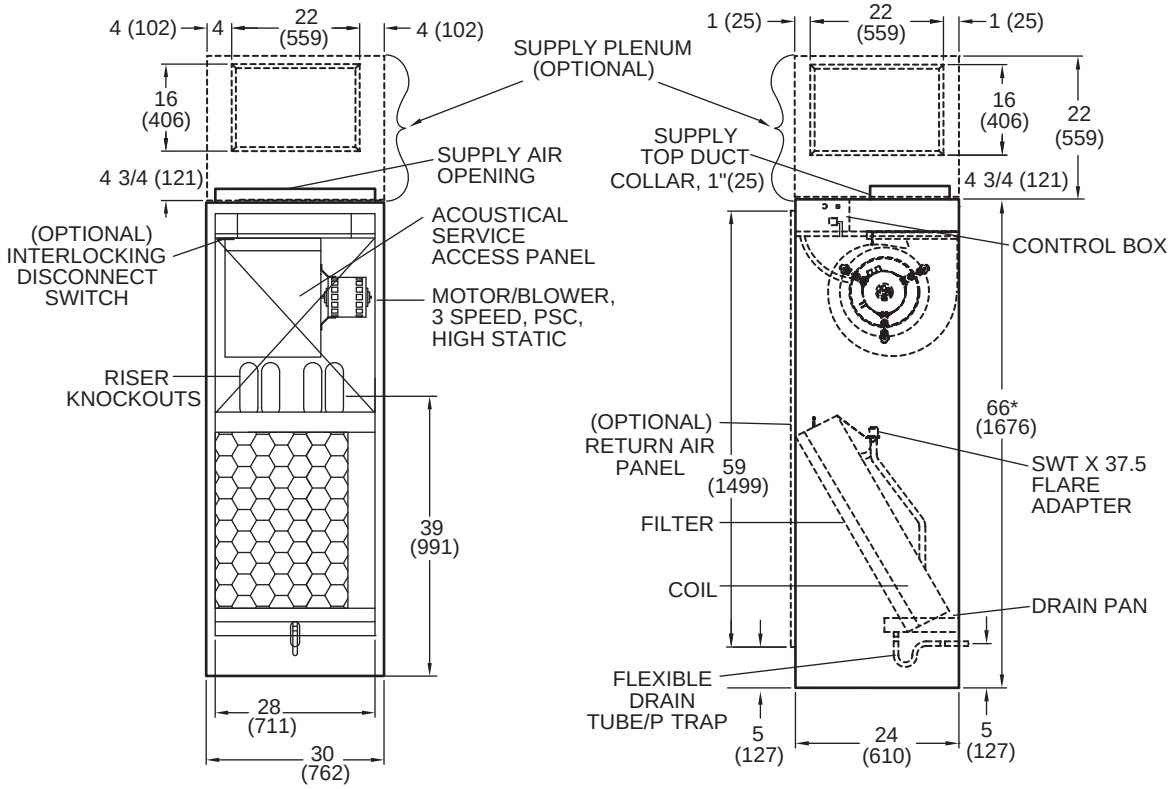
UNIT SIZE	UNIT WEIGHT* lb (kg)	DIMENSIONS, in. (mm)									FILTER SIZE in. (mm)
		Side Supply			Top Supply			E	F	H	I	
		A	B	Size	C	D	Size					
03	182 (83)	14 (356)	12 (305)	14 x 12 (356 x 305)	14 (356)	10 (254)	14 x 10 (356 x 254)	17 (432)	3 (76)	1 1/2 (38)	14 (356)	12 1/2 x 24 1/4 x 1 (318 x 616 x 25)
04	227 (103)											
06	242 (110)	18 (457)	12 (305)	18 x 12 (457 x 305)	16 (406)	12 (305)	16 x 12 (406 x 305)	20 (508)	1 (25)	2 (51)	18 (457)	16 1/4 x 26 3/4 x 1 (413 x 679 x 25)
08	262 (119)											
10	282 (128)	22 (559)	16 (406)	22 x 16 (559 x 406)	18 (457)	16 (406)	18 x 16 (457 x 406)	24 (610)	1 (25)	3 (76)	22 (559)	20 1/2 x 29 1/4 x 1 (521 x 743 x 25)
12	307 (139)											

*Unit weights are based on dry coils and minimum rows. Weights exclude packaging, valves, and other components.

Base unit dimensions (cont)

42SM MEGA FURRED-IN STACK





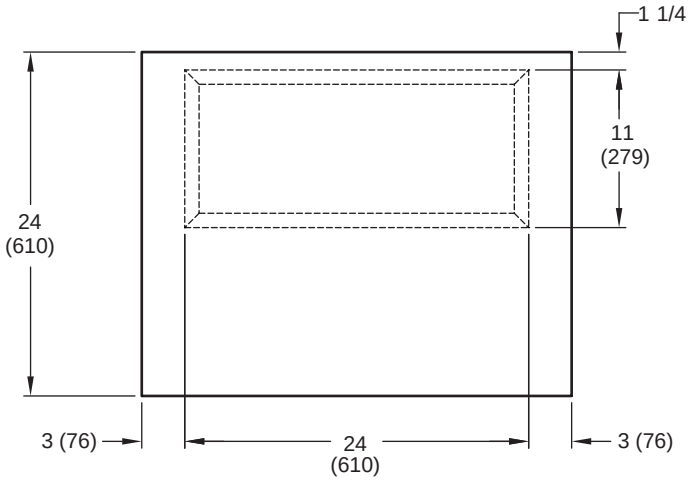
LEGEND

CR — Cold Water Return
CS — Cold Water Supply
D — Drain
HR — Hot Water Return
HS — Hot Water Supply
PSC — Permanent Split Capacitor
SWT — Sweat

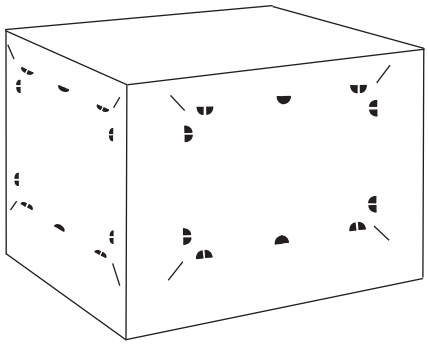
NOTES:
1. Units measurements on drawings are shown in inches (millimeters).
2. Units are fabricated of galvanized steel with a 16 gage galvanized fan deck.
3. Blower, motor, valves, coil, and filter are accessible through the return air opening.
4. Unit and control box are insulated with $^1/_2$-in. (13 mm) coated fiberglass insulation.
5. Maximum riser size is 2 $^1/_2$-in. (64 mm) diameter. If larger sizes are required, please consult the factory.
6. This drawing is pictorial. (See unit arrangements for actual supply and return air orienta ion.)
7. Riser length = [floor to floor + 2-in. (51 mm)]. Maximum riser length is 119-in. (3023 mm).
8. Unit shipping weight is approximately 390 lb (176 kg).

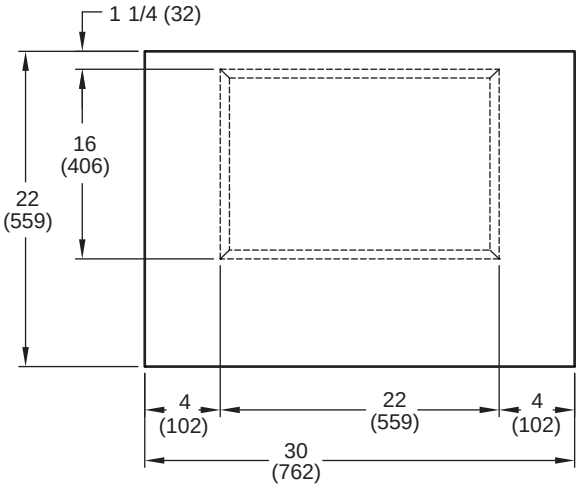
Accessory dimensions

42SM OPTIONAL SUPPLY PLENUM

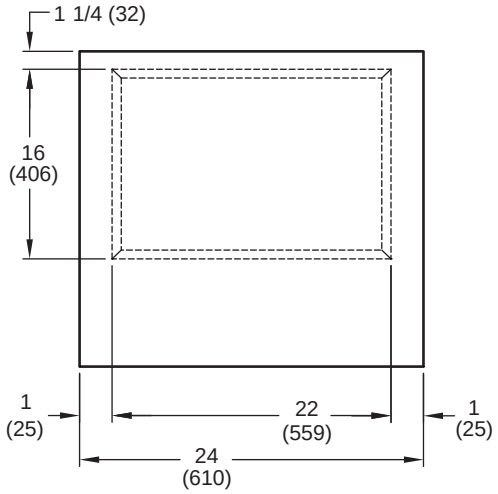


TOP





FRONT

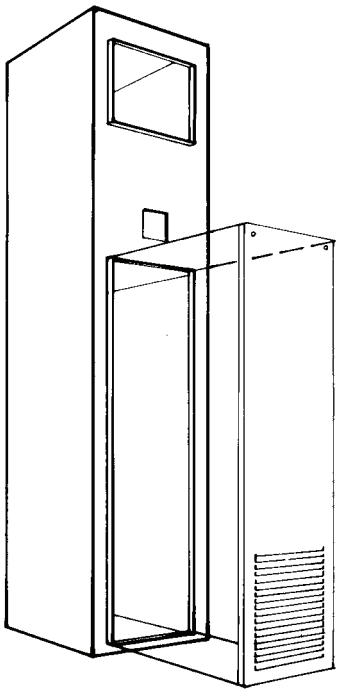


RIGHT

NOTES:
1. Plenum box adds 22-in. (559 mm) to unit height, adds 26 lb (11.8 kg) to unit weight, and is factory installed.
2. 1/4-in. closed cell insulation is standard for the plenum box.
3. Side supply is 22-in. (559 mm) x 16-in. (406 mm) on all four sides.
4. Top supply is 24-in. (610 mm) x 11-in. (279 mm) which matches unit top ducted discharge.
5. All dimensions are in inches (mm).

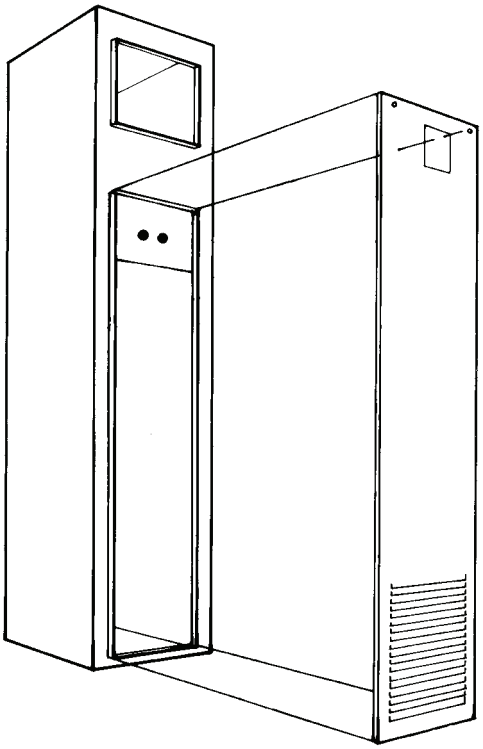
Accessory dimensions (cont)

PANEL NO. 1



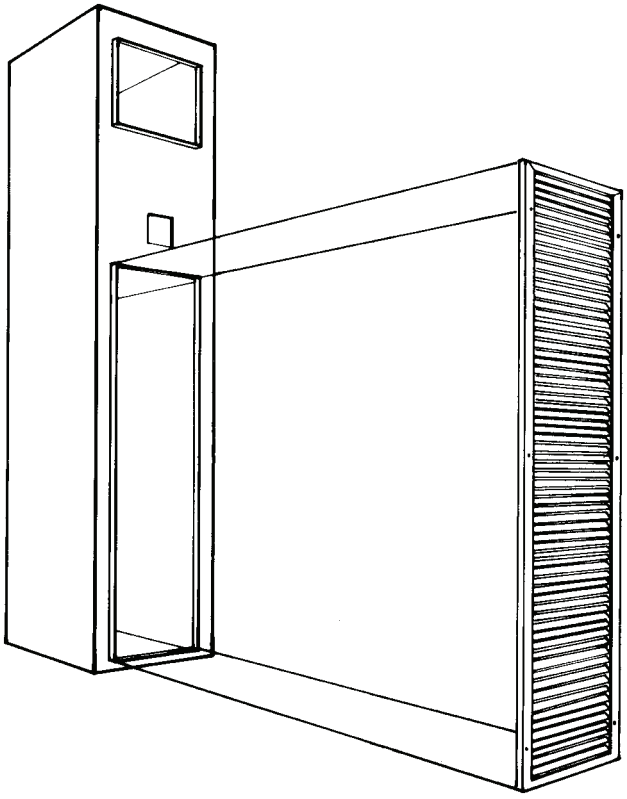
SHORT FRAME — SURFACE MOUNTED GRILLE
(for use with surface or wall mounted thermostat applications)

PANEL NO. 2 WITH CONTROL DOOR



LONG FRAME — SURFACE MOUNTED GRILLE
(for use with unit mounted thermostat applications)

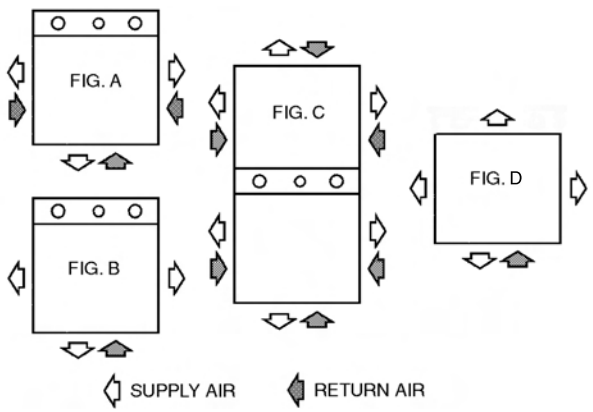
PANEL NO. 3



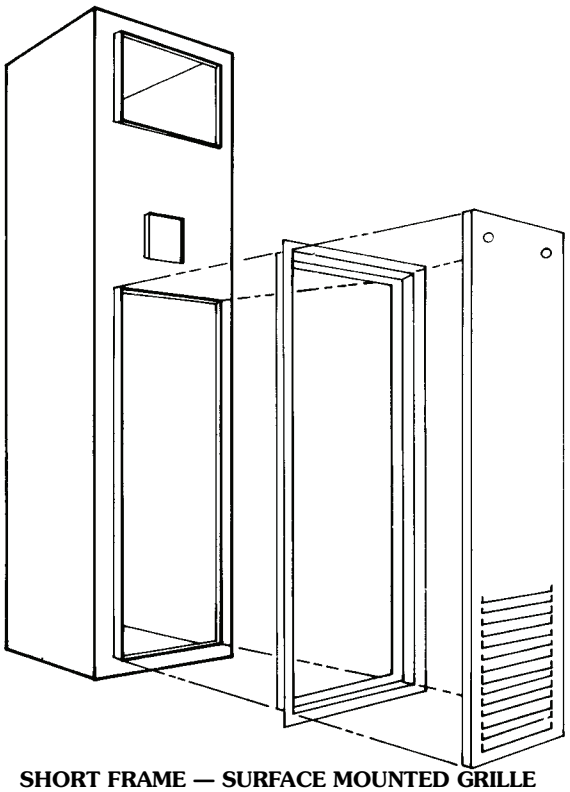
SHORT FRAME — SURFACE MOUNTED GRILLE
(for use with surface or wall mounted thermostat applications)

GRILLE LOCATIONS

UNIT	FIG.	GRILLE	ARRANGEMENTS
42SG	A	Supply	Up to 3 grilles located on any of 3 sides shown.
		Return	One grille located on any of 3 sides shown.
42SH	B	Supply	Up to 3 grilles located on any of 3 sides shown.
		Return	One grille located opposite risers.
42SJ	C	Supply	Up to 3 grilles located on any of 3 sides shown (per section).
		Return	One grille located on any of 3 sides shown (per section).
42SU	D	Supply	Up to 3 openings from any 5 knock-outs available.
		Return	One grille location.

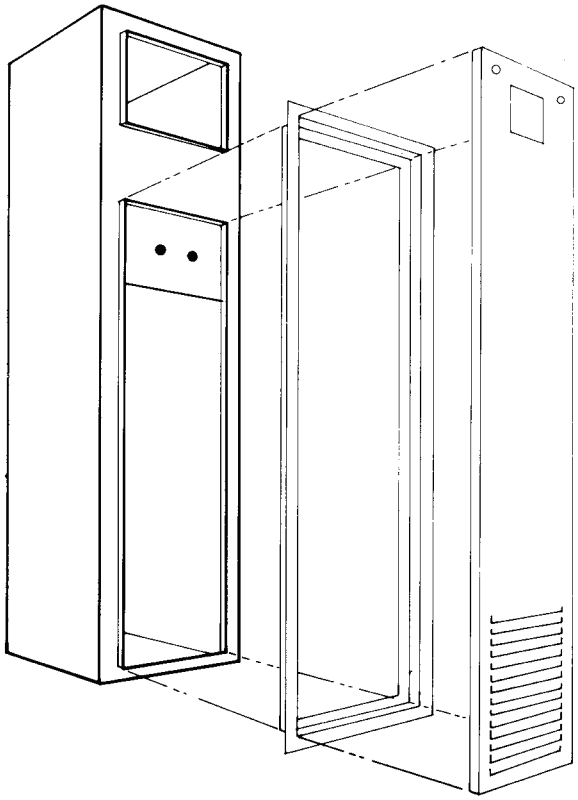


PANEL NO. 4



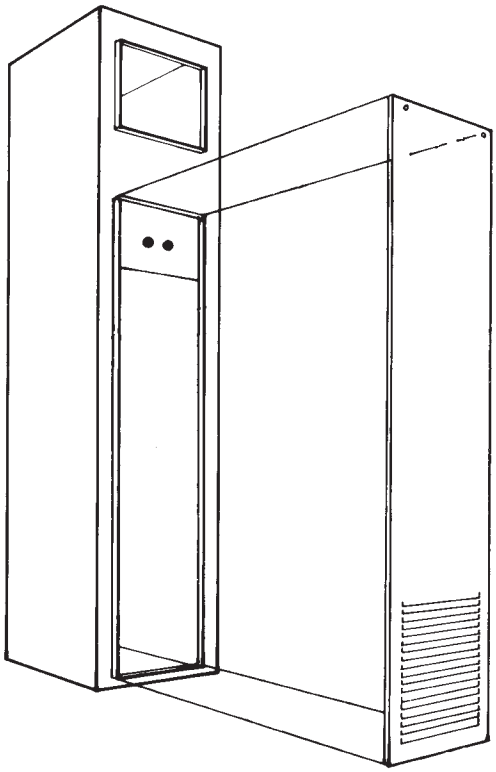
SHORT FRAME — SURFACE MOUNTED GRILLE
(for use with surface or wall mounted thermostat applications)

PANEL NO. 5 WITH CONTROL DOOR



LONG FRAME — SURFACE MOUNTED GRILLE
(for use with unit mounted thermostat applications)

PANEL NO. 2 WITHOUT CONTROL DOOR



LONG FRAME — SURFACE MOUNTED GRILLE
(for use with wall mounted thermostat applications)

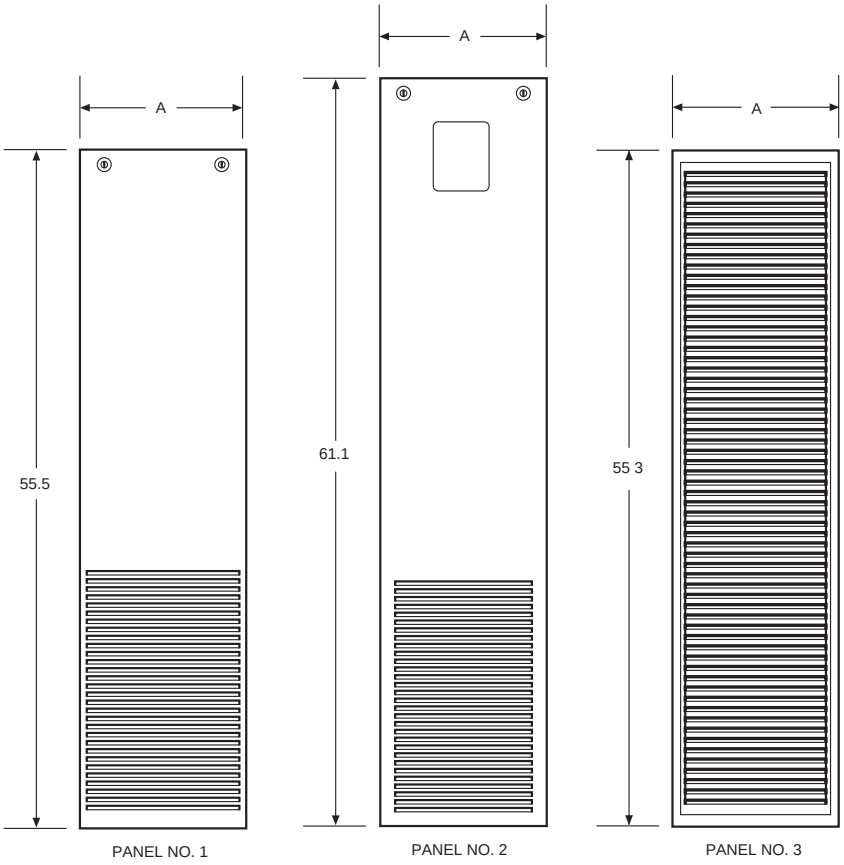
Accessory dimensions (cont)

RETURN-AIR WALL PANELS FOR FURRED-IN UNITS — PANELS WITH NO FRAME

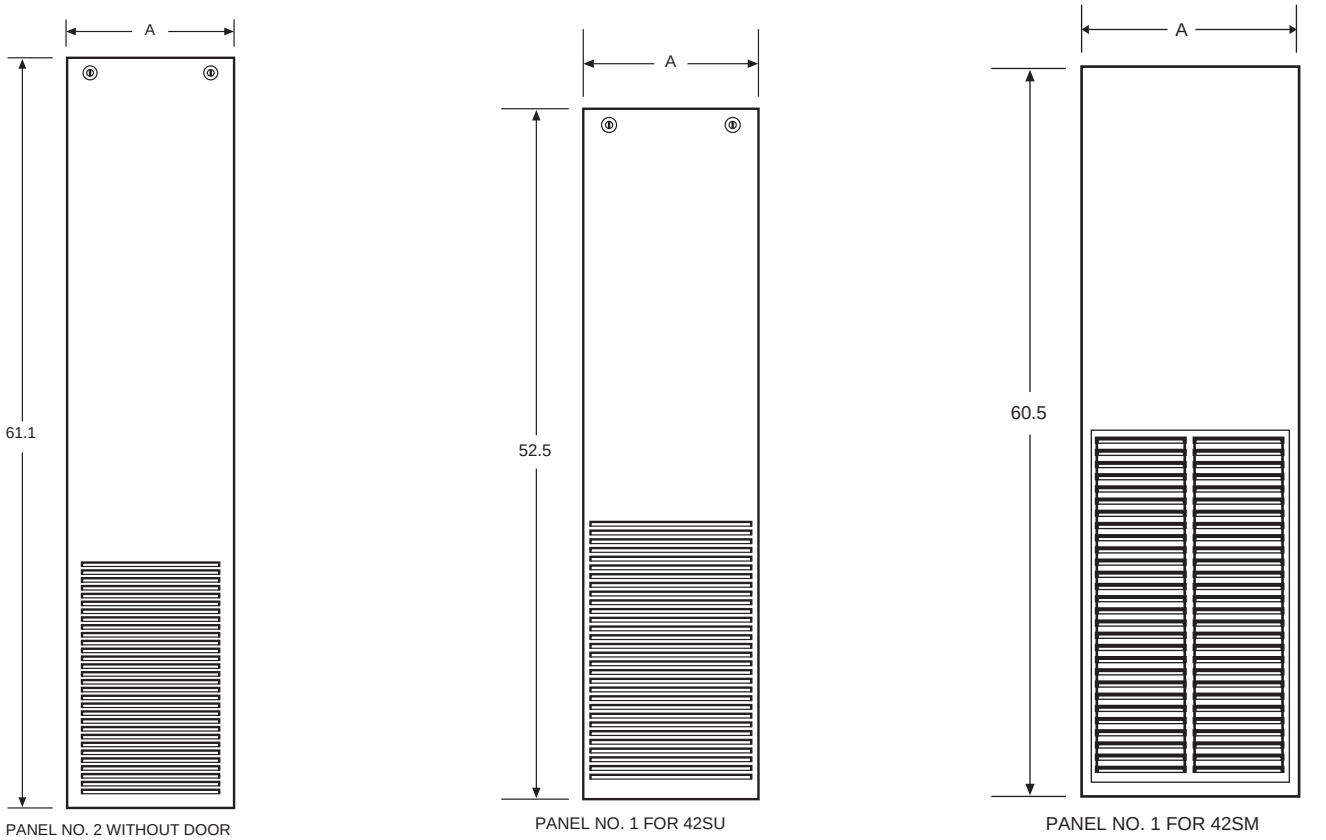
PANEL DIMENSIONS (in.)

PANEL NO.	UNIT	UNIT SIZE	A
1	42SG,SJ, SU	03, 04 06, 08 10, 12	15.5 19.5 23.5
	42SM	14,16,20	29.5
2	42SG,SJ	03, 04 06, 08 10, 12	15.5 19.5 23.5
3	42SG,SJ	03, 04 06, 08 10, 12	15.2 19.2 23.2

NOTE: Dimensions in inches.



PANEL NO. 1 PANEL NO. 2 PANEL NO. 3



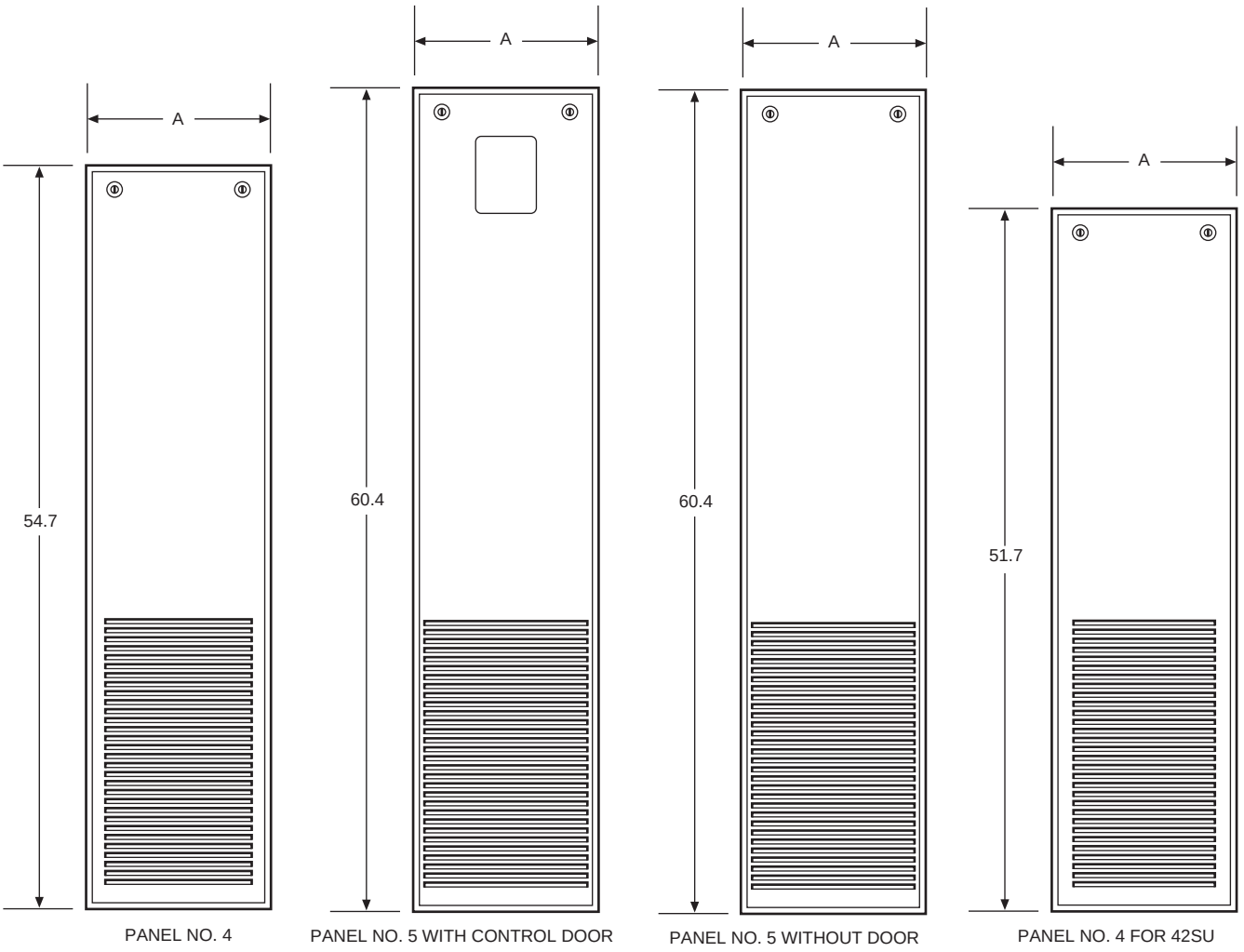
PANEL NO. 2 WITHOUT DOOR PANEL NO. 1 FOR 42SU PANEL NO. 1 FOR 42SM

RETURN-AIR WALL PANELS FOR FURRED-IN UNITS — PANELS WITH FRAME

PANEL AND FRAME DIMENSIONS (in.)

PANEL NO.	UNIT	UNIT SIZE	A
4	42SG,SJ, SU	03, 04 06, 08 10, 12	15.1 19.1 23.1
5	42SG,SJ	03, 04 06, 08 10, 12	15.1 19.1 23.1

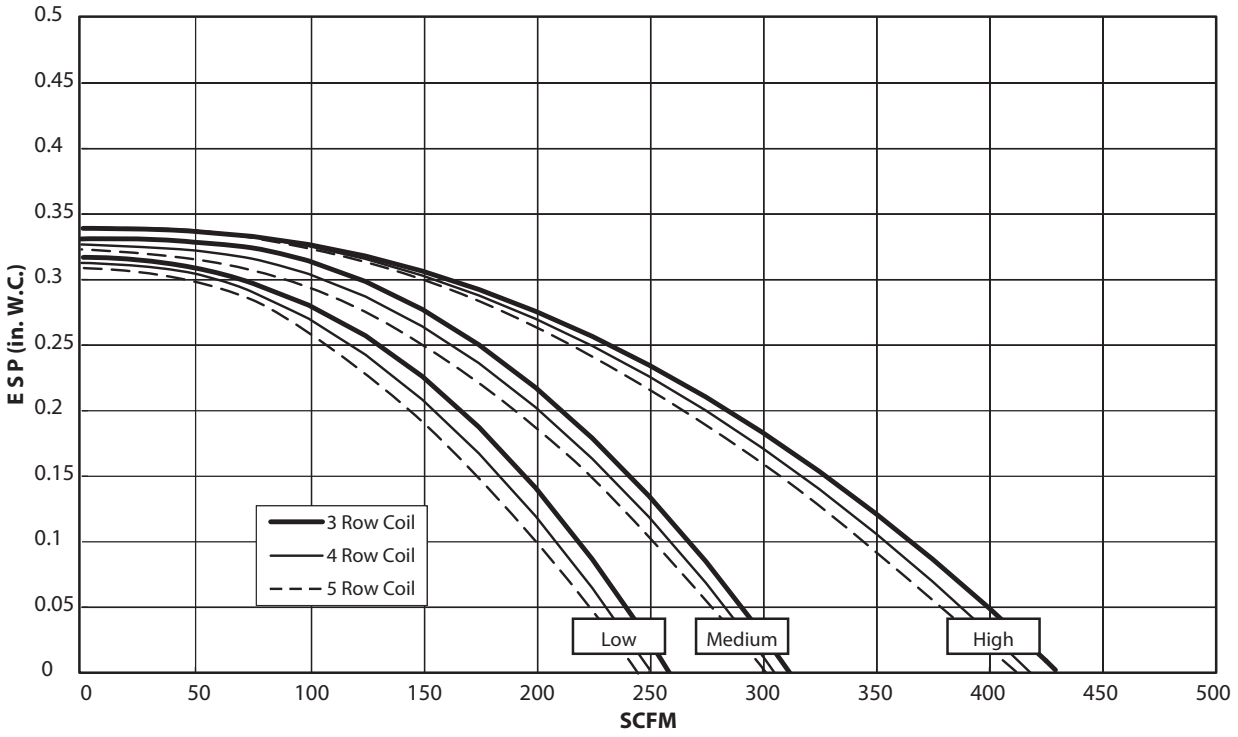
NOTE: Dimensions in inches.



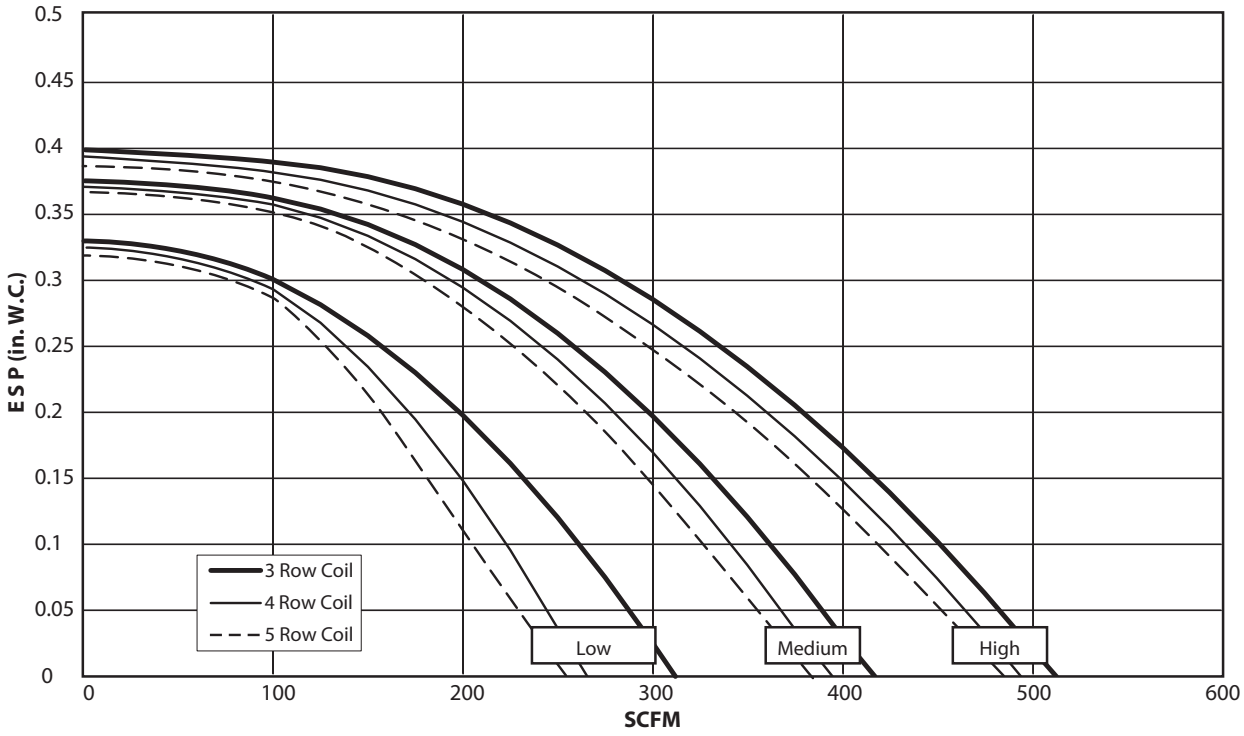
PANEL NO. 4 | PANEL NO. 5 WITH CONTROL DOOR | PANEL NO. 5 WITHOUT DOOR | PANEL NO. 4 FOR 42SU

AIR DELIVERY

42S SERIES — UNIT SIZE 03



42S SERIES — UNIT SIZE 04

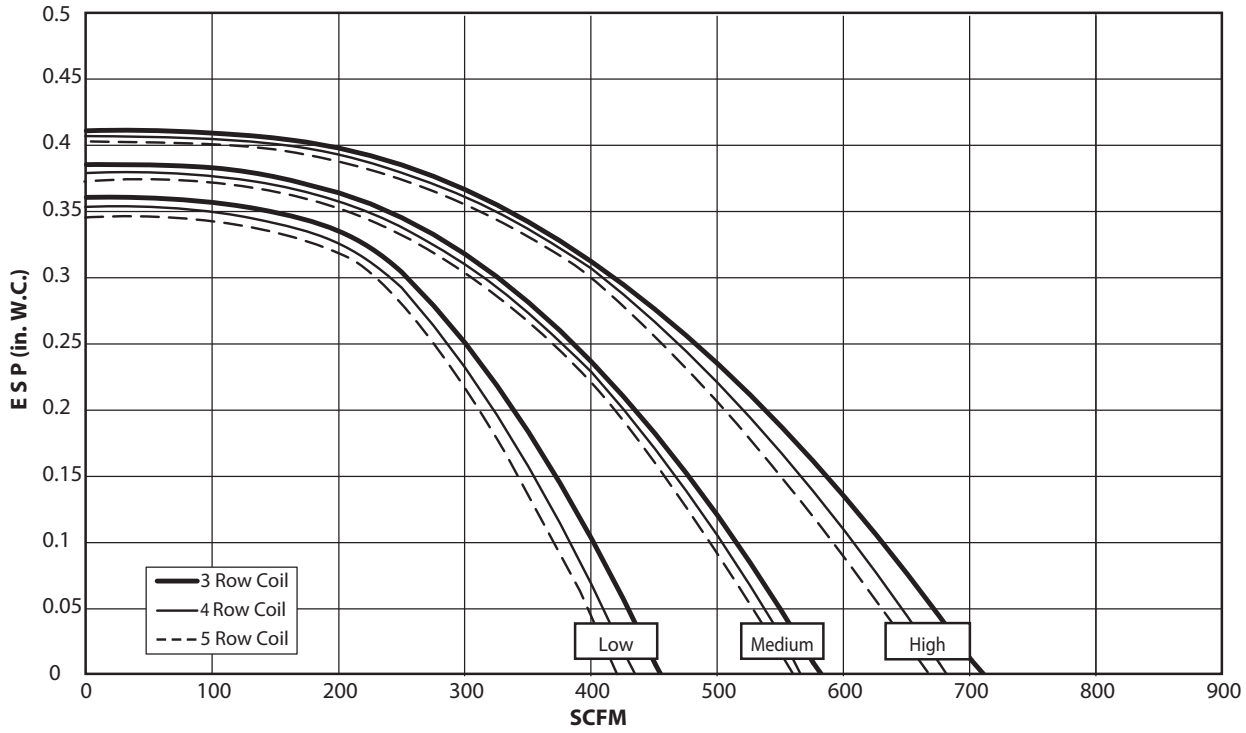


LEGEND

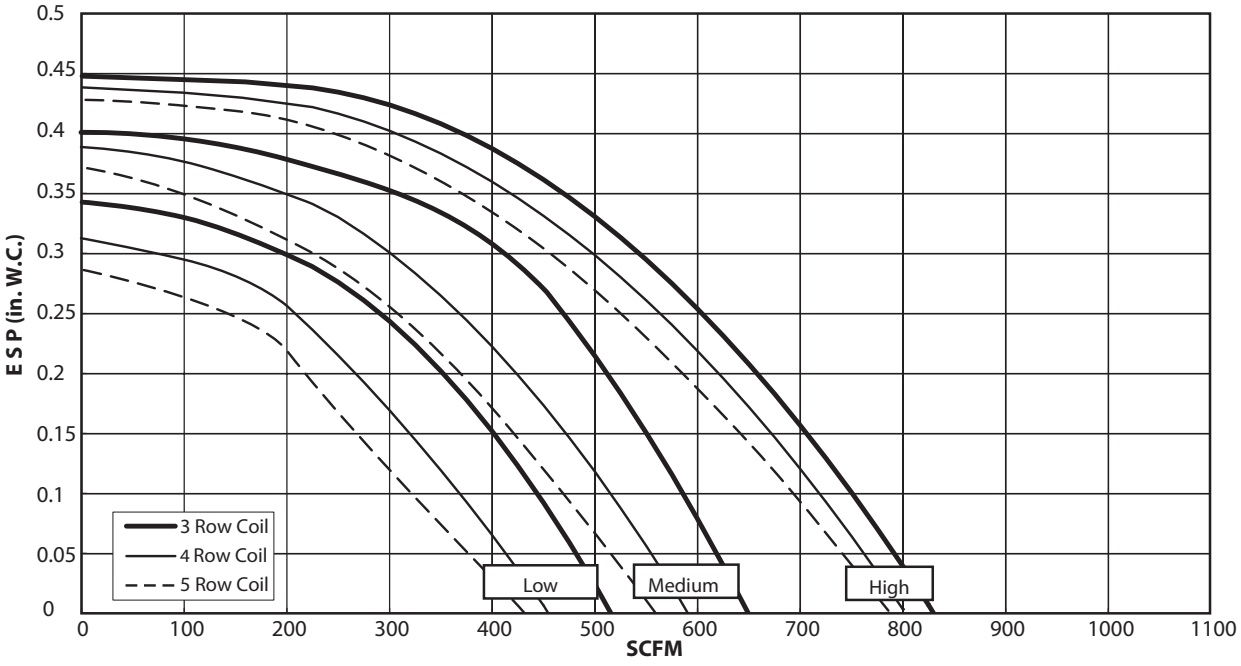
SCFM — Square Cubic Feet Per Minute
ESP — External Static Pressure

AIR DELIVERY (cont)

42S SERIES — UNIT SIZE 06



42S SERIES — UNIT SIZE 08

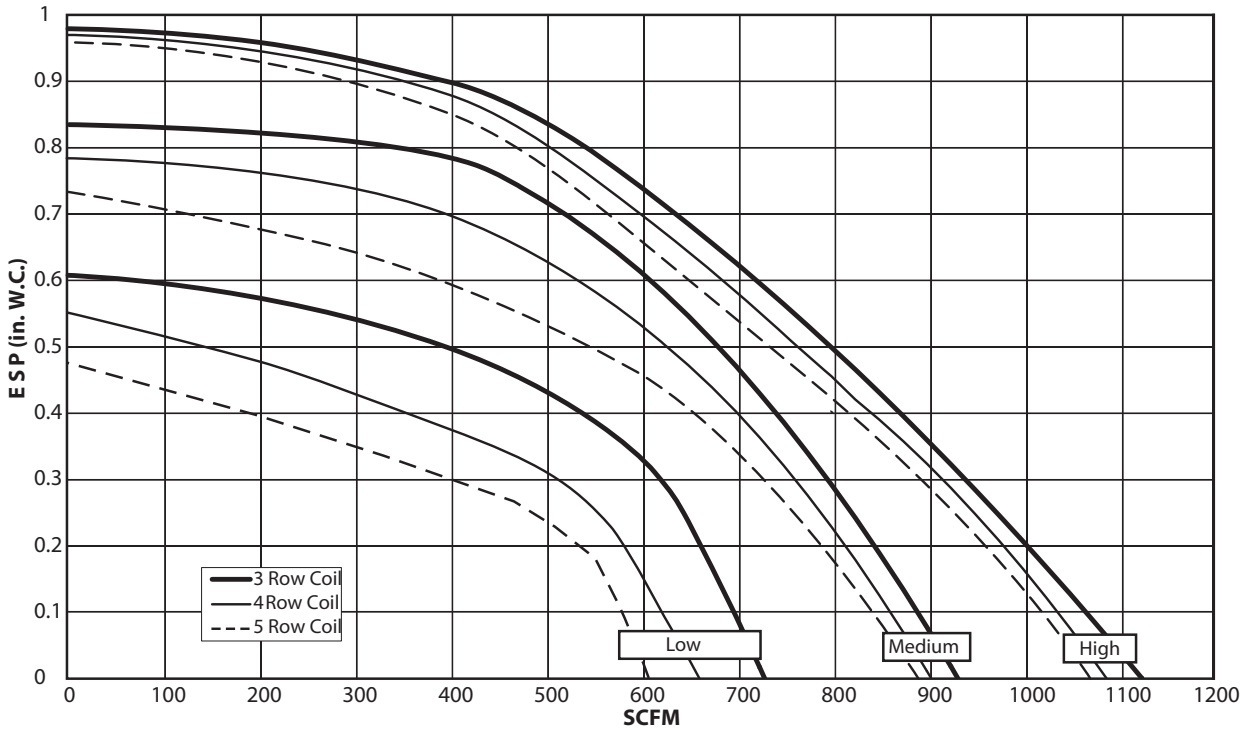


LEGEND

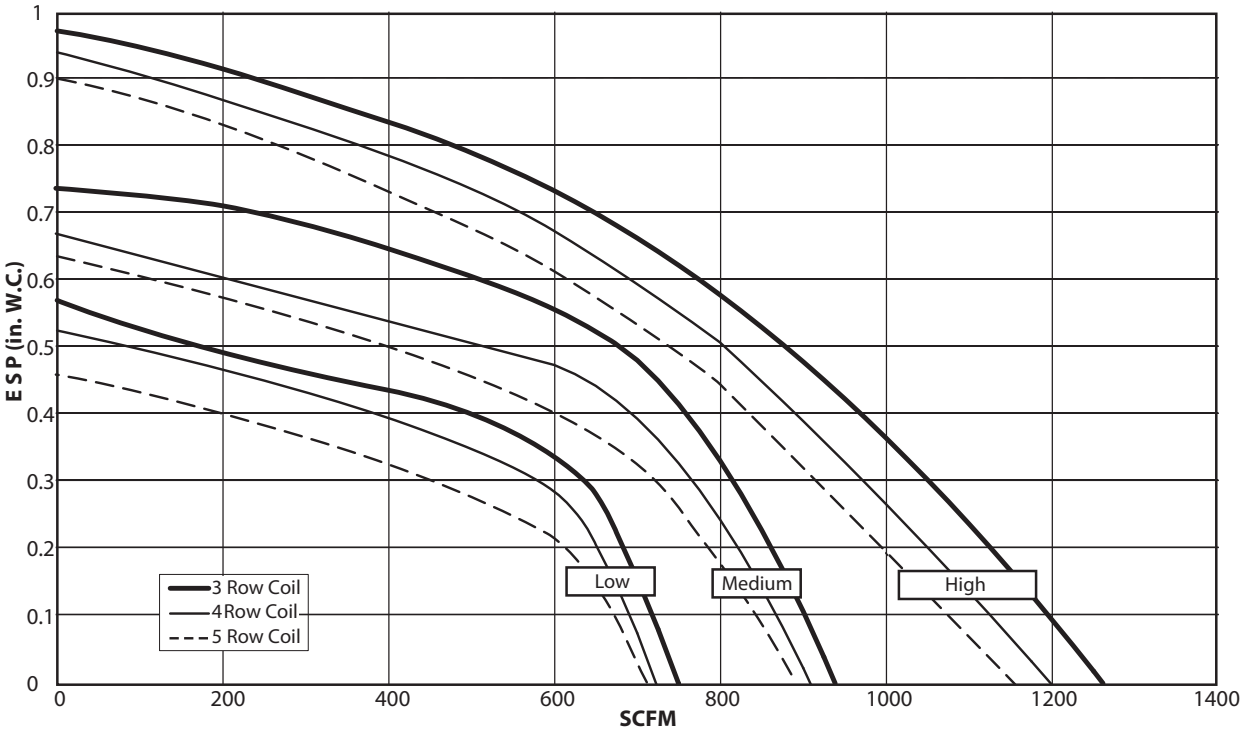
SCFM — Square Cubic Feet Per Minute
ESP — External Static Pressure

AIR DELIVERY (cont)

42S SERIES — UNIT SIZE 10



42S SERIES — UNIT SIZE 12

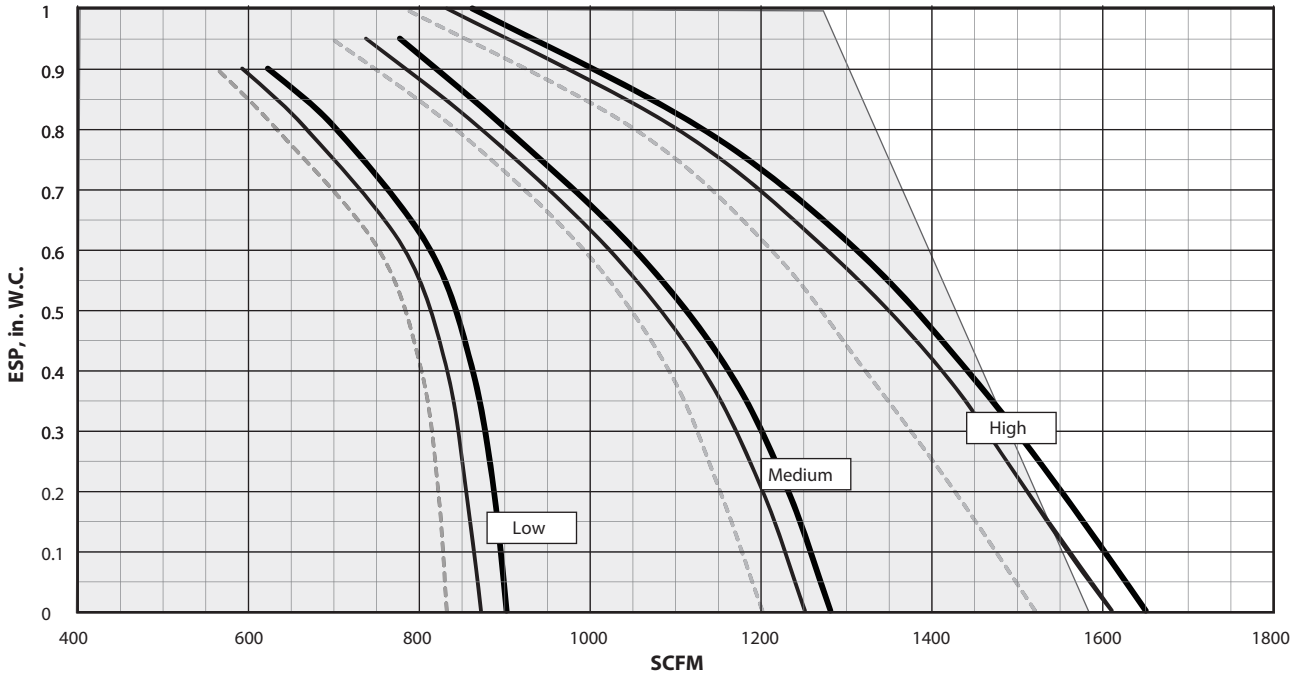


LEGEND

SCFM — Square Cubic Feet Per Minute
ESP — External Static Pressure

AIR DELIVERY (cont)

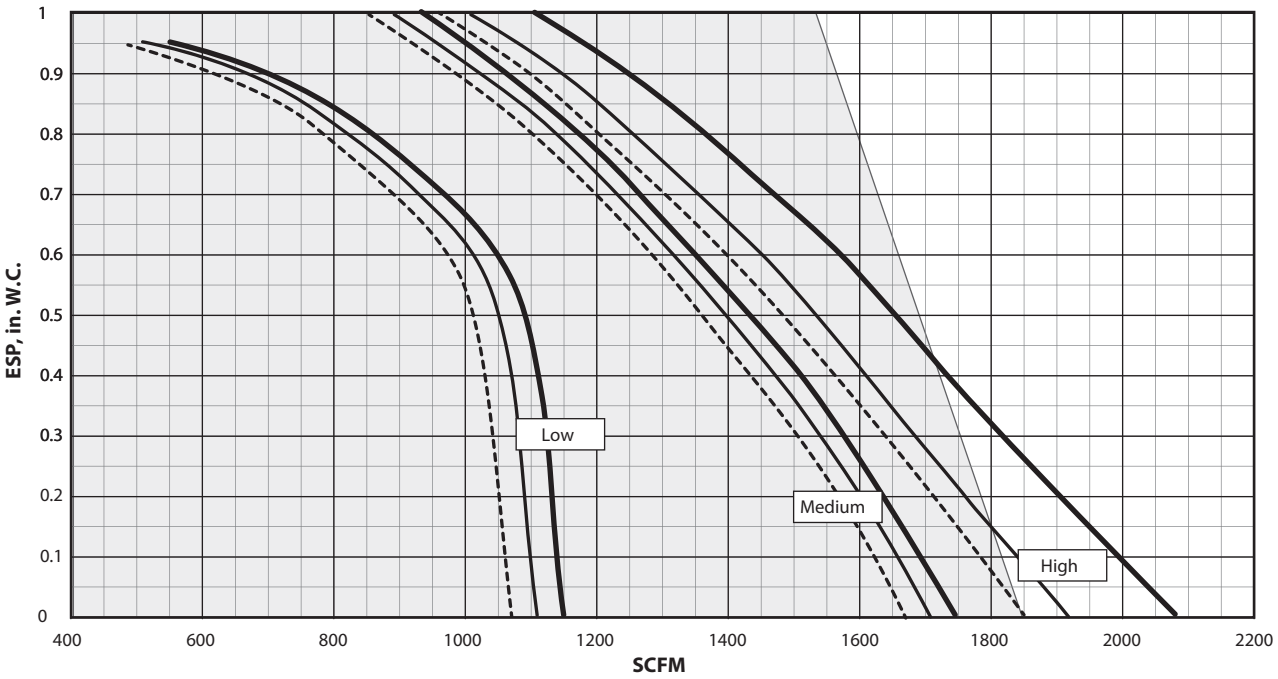
42S SERIES — UNIT SIZE 14 (SGM)



PSC Motor Fan Curve: 3 row 4 row 5 row

ECM Operating Range:

42S SERIES — UNIT SIZE 16 (SGM)



PSC Motor Fan Curve: 3 row 4 row 5 row

ECM Operating Range:

LEGEND

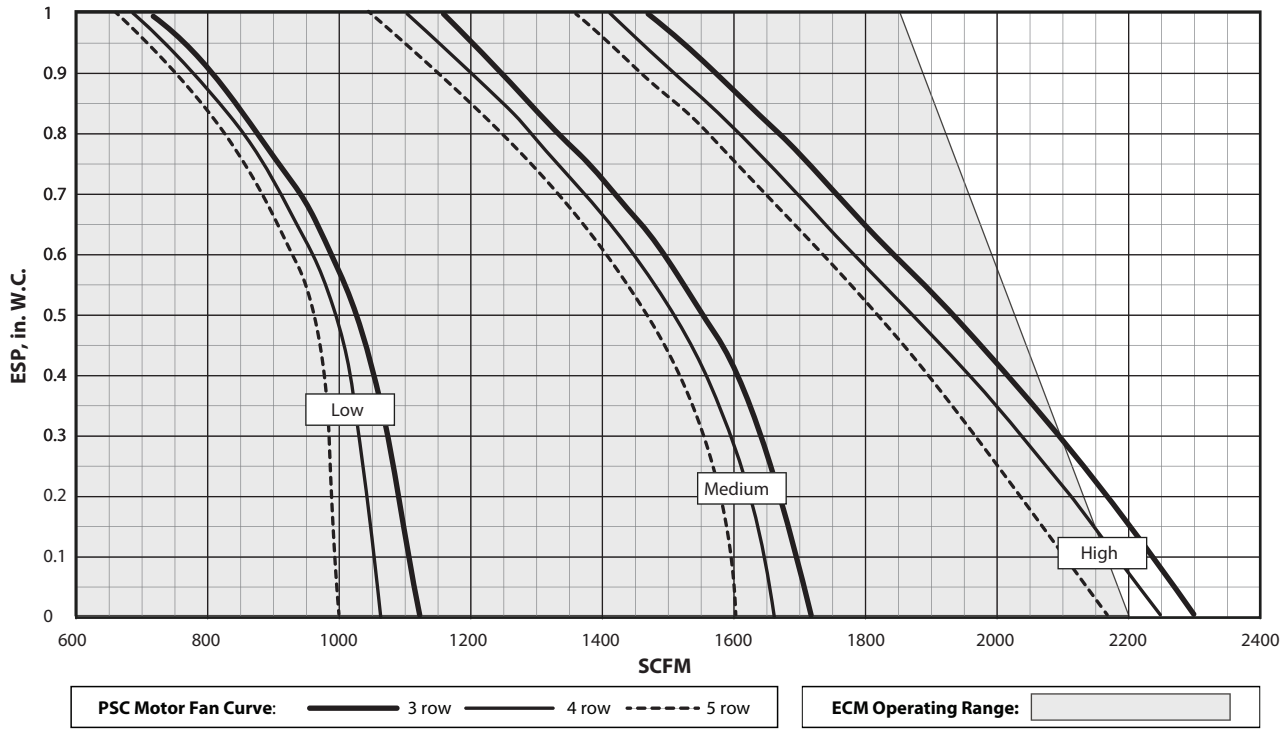
ECM — Electronically Commutated
ESP — External Sta ic Pressure
PSC — Permanent Split Capacitor
SCFM — Square Cubic Feet Per Minute

NOTE: The Mega Stack unit with an ECM motor can operate at any airflow and static pressure combination within the shaded area.

Performance data (cont)

AIR DELIVERY (cont)

42S SERIES — UNIT SIZE 20 (SGM)



LEGEND

ECM — Electronically Commutated
ESP — External Static Pressure
PSC — Permanent Split Capacitor
SCFM — Square Cubic Feet Per Minute

NOTE: The Mega Stack unit with an ECM motor can operate at any airflow and static pressure combination within the shaded area.

For High-Static Fan Performance data, refer to Carrier Electronic Selection Program.

42S BASE STEAM CAPACITIES (MBtuh)

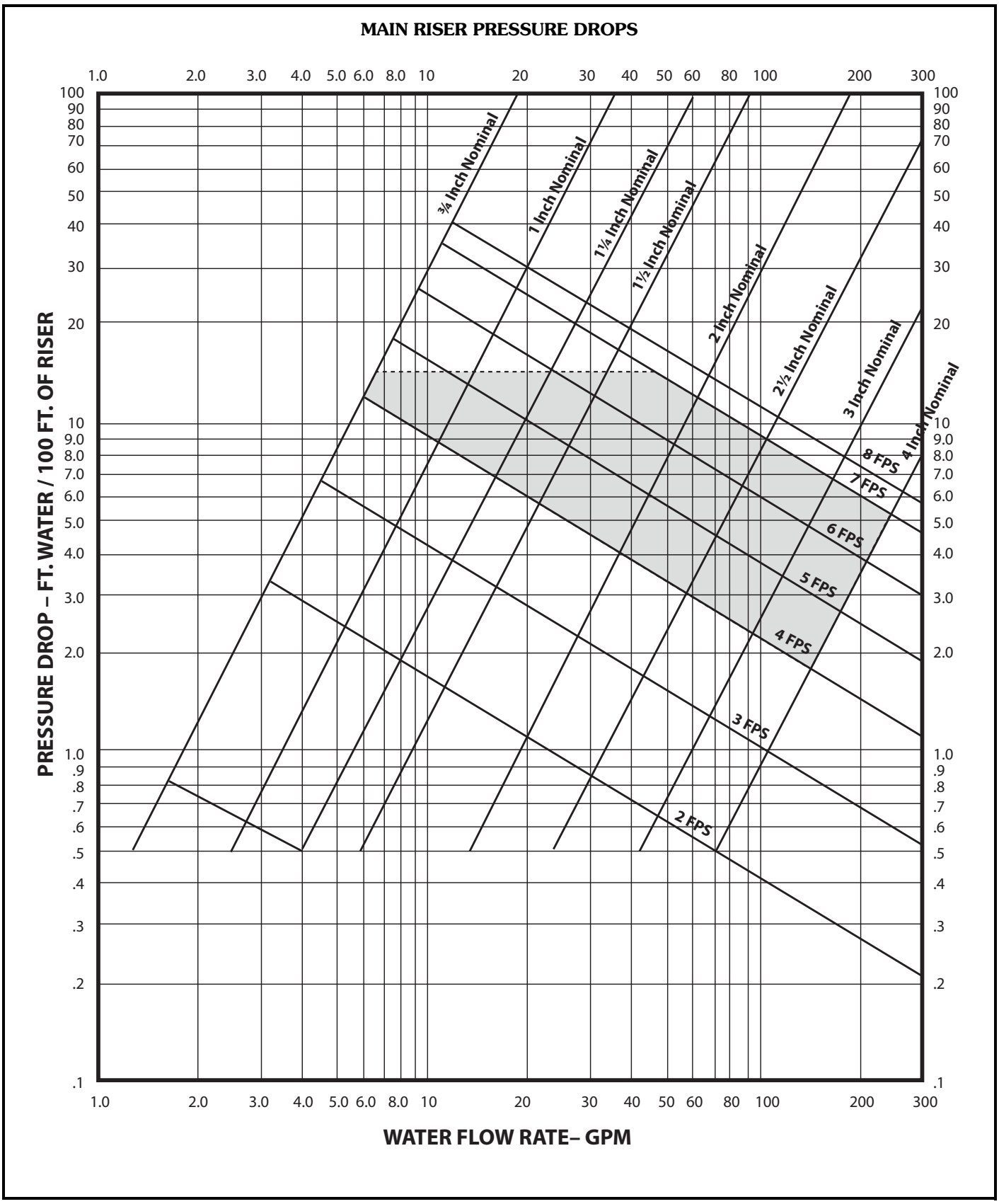
UNIT SIZE	1-ROW COIL	2-ROW COIL
03	16.8	28.5
04	21.9	37.5
06	31.6	54.9
08	40.4	71.2
10	52.6	91.6
12	62.3	109.1

42S HOT WATER HEATING CAPACITIES (MBtuh)

ROWS	UNIT SIZE	GPM						
		0.5	**1**	**2**	**3**	**4**	**6**	**8**
1 Row	03	11.3	14.0	15.8	16.5	—	—	—
	04	11.5	14.4	16.3	17.1	—	—	—
	06	—	19.8	23.3	24.7	25.4	—	—
	08	—	20.1	23.9	25.4	26.2	—	—
	10	—	25.2	31.1	33.6	34.9	—	—
	12	—	25.4	31.6	34.1	35.5	—	—
	14	—	—	30.7	33.5	35.0	36.7	N/A
	16	—	—	32.5	35.6	37.4	39.3	N/A
	20	—	—	35.5	39.3	41.4	43.8	N/A
2 Row	03	15.9	21.0	24.2	—	—	—	—
	04	16.2	21.8	25.6	27.0	—	—	—
	06	—	27.2	35.5	37.4	39.0	—	—
	08	—	28.0	36.1	39.5	41.1	—	—
	10	—	33.2	45.5	50.8	53.8	56.9	—
	12	—	33.7	46.6	52.5	55.8	59.3	61.2
	14	—	—	44.4	50.6	54.1	58.0	60.0
	16	—	—	47.4	54.7	59.0	63.7	66.3
	20	—	—	51.2	60.0	65.1	70.9	74.1
3-Row	03	14.3	20.0	23.5	24.8	—	—	—
	04	14.6	20.8	25.0	26.5	—	—	—
	06	—	25.1	32.9	36.0	37.7	—	—
	08	—	25.7	34.6	38.3	40.3	—	—
	10	—	—	41.7	47.8	51.1	54.6	—
	12	—	—	42.9	49.7	53.5	57.7	—
	14	—	—	54.0	64.4	70.5	77.1	80.7
	16	—	—	56.9	69.2	76.5	84.7	89.2
	20	—	—	60.1	74.0	82.5	92.2	97.6
4-Row	03	—	21.0	25.1	—	—	—	—
	04	—	22.0	27.1	28.9	—	—	—
	06	—	27.6	36.9	40.4	42.1	—	—
	08	—	28.4	39.3	43.7	46.0	—	—
	10	—	—	—	53.1	57.1	61.2	63.3
	12	—	—	—	55.7	60.5	65.5	68.1
	14	—	—	58.2	71.5	79.3	87.7	92.1
	16	—	—	60.6	75.6	84.8	95.0	100.5
	20	—	—	64.3	81.9	93.0	105.6	112.6
5-Row	14	—	—	65.3	79.3	87.2	95.5	99.8
	16	—	—	68.8	85.5	95.4	106.3	112.1
	20	—	—	72.6	92.3	104.7	118.5	126.0

NOTE: Ratings based on nominal cfm, 70 F edb (entering dry bulb), 160 F EWT (entering water temperature).

Performance data (cont)



Electrical data

42S MOTOR DATA

V-PH-Hz	FAN SPEED	42SG,SJ,SH,SU UNIT WITH PSC											
		03			04			06			08		
		Nominal Hp	Watts	Amps	Nominal Hp	Watts	Amps	Nominal Hp	Watts	Amps	Nominal Hp	Watts	Amps
115-1-60	High	1/30	85	.81	1/20	115	1.20	1/15	135	1.30	1/5	210	2.33
	Medium		60	.60		70	.70		100	1.00		145	1.40
	Low		40	.40		50	.50		65	.65		90	1.00
208-1-60	High	1/30	122	.31	1/20	114	.60	1/15	125	.70	1/5	185	.96
	Medium		66	.35		63	.32		95	.46		137	.77
	Low		42	.24		40	.21		70	.35		122	.68
230-1-60	High	1/30	140	.31	1/20	130	.60	1/15	140	.70	1/5	193	.96
	Medium		76	.36		72	.33		105	.46		152	.77
	Low		50	.25		47	.22		85	.38		140	.69
277-1-60	High	1/30	80	.30	1/20	115	.40	1/15	135	.60	1/6	200	.71
	Medium		60	.20		75	.30		100	.40		160	.60
	Low		40	.10		50	.20		77	.35		115	.50

V-PH-Hz	FAN SPEED	42SG,SJ,SH,SU UNIT WITH PSC						42SM UNIT WITH HIGH STATIC PSC								
		10			12			14			16			20		
		Nominal Hp	Watts	Amps	Nominal Hp	Watts	Amps	Nominal Hp	Watts	Amps	Nominal Hp	Watts	Amps	Nominal Hp	Watts	Amps
115-1-60	High	1/5	325	3.30	1/4	420	5.10	1/2	658	7.3	3/4	730	8.7	3/4	1051	10.8
	Medium		255	2.46		285	2.80		523	5.4		600	5.9		816	8.1
	Low		190	2.00		210	2.20		392	4.2		497	5.0		545	5.7
208-1-60	High	1/5	300	1.40	1/4	355	2.20	1/2	558	3.0	3/4	690	3.7	3/4	842	4.5
	Medium		214	1.10		235	1.20		411	2.4		553	3.1		572	3.2
	Low		162	.86		150	.80		280	1.7		369	2.2		370	2.2
230-1-60	High	1/5	320	1.40	1/4	405	2.20	1/2	597	3.0	3/4	753	3.8	3/4	908	4.4
	Medium		245	1.10		270	1.20		464	2.4		606	3.0		680	3.4
	Low		186	.91		180	.85		339	1.9		445	2.4		446	2.4
277-1-60	High	1/5	325	1.20	1/4	420	1.60	1/2	585	2.5	3/4	735	3.1	3/4	926	3.7
	Medium		270	1.00		300	1.17		458	2.0		608	2.5		716	2.9
	Low		180	.75		200	.90		328	1.5		464	2.0		464	2.0

LEGEND

ECM — Electronically Commutated
ESP — External Static Pressure
PSC — Permanent Split Capacitor
FLA — Full Load Amps

NOTES:
1. All tables above are based on PSC motors.
2. All PSC motors furnished by Carrier include automatic thermal overload protection. The overload automatically resets when the temperature returns to a safe limit.
3. UL approves the motor and thermal overload combination at locked rotor conditions only.
4. PSC FLA information is given at 0.0 in. wg ESP. Full load condition for a PSC motor will occur at 0.0 in. wg external static. As static pressure increases, the amp draw of a PSC motor will decrease.

42SM ECM MOTOR DATA

VOLTAGE	Fan Speed	42SM UNIT								
		14			16			20		
		Nominal Hp	Watts	Amps	Nominal Hp	Watts	Amps	Nominal Hp	Watts	Amps
120	High	3/4	588	7.1	1	690	8.2	1	971	11.1
	Medium		350	4.4		403	5.0		554	6.7
	Low		201	2.7		228	3.0		285	3.7

LEGEND

ECM — Electronically Commutated
ESP — External Static Pressure
PSC — Permanent Split Capacitor
FLA — Full Load Amps

NOTES:
1. ECM motor FLA is given at 1.0 in. wg ESP. An ECM motor reaches full load condition at the units maximum external static because it has increased output to maintain airflow. An ECM motor decreases output with lower static, causing the minimum power usage to occur at 0.0 in. wg ESP.
2. This data is for design purposes, and should not be used for an energy analysis.

Electrical data (cont)

42S ELECTRIC HEATER DATA

HEATER VOLTAGE	HEATER kW								
	1.0	1.5	2.0	3.0	4.0	5.0	6.0	8.0	10.0
	FLA								
120	8.3	12.5	16.7	25.0	—	—	—	—	—
208	4.8	7.2	9.6	14.4	19.2	24.0	28.8	38.5	48.1
240	4.2	6.2	8.3	12.5	16.7	20.8	25.0	33.3	45.5
277	3.6	5.4	7.2	10.8	14.4	18.0	21.7	28.9	36.1

LEGEND

FLA — Full Load Amps

NOTES:

1. All heaters are single stage and single-phase. two-stage heaters may be available with a special request.
2. In all units using over 48 amps, the heating elements are subdivided and protected. Additional cost is incurred because of added components. Each circuit of the electric heater coil has an automatic reset thermal cutout with back-up high limit control and operating contactor.
3. Electric heater and motor voltage must be the same and need to be ordered in conjunction with a single power source wiring option. This option, which meets NEC (National Electric Code) requirements, consists of a factory-furnished and installed junction box and fuse for 6.25 amp (max) fan and control circuit connection to a single power source. All units with electric heat must include a fused service switch. Power supply circuit to unit must be field furnished and installed in accordance with applicable codes.
4. Fan coil units comply with ETL, Canadian Standards Association (CSA), and ETL of Canada standards.

Guide specifications — 42C series

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)
42CF (Furred-in with Plenum, High Static 400 to 1000 cfm)
42CG (Cabinet)
42CH (Furred-in, High Static)
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

Unit shall be tested and certified in accordance with AHRI Standard 440, latest edition and base unit ETL certified. (Units with special features may not have ETL certification.) Each coil shall be factory tested for leakage at 350 psig air pressure with coil submerged in water. Insulation and adhesive shall meet NFPA 90A requirements for flame spread and smoke generation. All equipment wiring shall comply with NEC requirements.

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,CH):

1. Casing is 18-gage 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 closed-cell fire-retardant foam insulation. An extension drain pan shall be provided for installation under factory-provided water valves at the job site.
3. Unit 42CH shall include a high-static motor.

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

Base unit with factory-installed plenum section and 1-in. fiberglass throwaway filter as shown on equipment drawings. Unit 42CF shall include a high-static motor. 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 slotted head, positive-locking quarter-turn fasteners. The cabinet shall be coated with an Arctic White baked 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 baked finish.

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 spacing. Coil fins are mechanical bonded to tube joints. The copper tubes comply with the ASTM B-75. The fin thickness is 0.0045-in. and tube thickness is 0.016 inches. All coils are tested with air under water and are suitable for design working pressures of 250 psig at 220 F. Burst tested at 350 psig.

H. Controls and Safeties:

Unit shall be furnished with a 3-speed, 4-position fan switch on a wall plate for field mounting. 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.

Guide specifications — 42C series (cont)

J. Electrical Requirements:

Standard unit shall operate on 120 v, single-phase, 60 Hz electric power. All internal wiring shall be in flexible conduit.

K. Motor(s):

Fan motors shall be 3-speed, 120 v, single-phase, 60 Hz, permanent split capacitor type, with sleeve type bearings and oversized oil reservoirs to ensure lubrication.

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. For installation in a 4-pipe system, unit shall be equipped with a 3-row cooling/one-row heating split-circuit coil, a 3-row cooling/2-row heating split-circuit coil, or a 4-row cooling/one-row heating split-circuit coil as required. Coil connections to be as shown on the equipment drawings.

* 3. For installation on a 2-pipe system, units shall be equipped with a 4-row, cooling/heating coil.

* 4. Fan motor shall be permanent split-capacitor type, 208, 220, 240, or 277-v, single-phase, 50 or 60 Hz as specified on the equipment schedule.

* 5. 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.

* 6. Filter track and cleanable filter shall be installed in the plenum.

* 7. 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.

* 8. Discharge-air grille with double deflection, aluminum construction with aluminum frame shall be factory installed as shown on the equipment schedule. Aluminum grilles shall have a natural anodized finish (42CG only).

* 9. Double-deflection discharge-air grille with steel construction shall be factory installed as shown on equipment schedule. Grille shall be painted to match cabinet (42CG only).

10. Manual stop, balancing, combination balance and stop, ball type, and flow control valves shall be factory furnished and installed as indicated on the equipment drawings.

11. 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.

12. Heating and/or cooling wall thermostat shall be factory furnished for field installation.

13. Automatic changeover device(s) shall be factory wired for field installation on the supply piping.

14. Sequenced heating and cooling wall thermostat shall be factory furnished for field installation.

15. Tamper-proof fasteners (Allen head) shall be installed on the access panel on cabinet models.

16. Unit shall operate on 208, 220, 240, 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.

17. Cabinet of 42CG unit or bottom panels of 42CK unit shall be painted with the color specified on the equipment schedule.

18. A stainless steel drain pan shall be available for factory installation.

19. Factory-installed insulation options shall include foil faced fiberglass or closed cell insulation.

Fan Coil Unit — Ducted Models

HVAC Guide Specifications — 42D

Size Range: **600 to 2000 Nominal Cfm**

Carrier Model Numbers:

42DA (Ceiling Furred-in)
42DC (Ceiling Furred-in with Plenum)
42DD (Vertical with Galvanized Casing)
42DE (Ceiling with Galvanized Casing)
42DF (Ceiling Exposed Cabinet)

Part 1 — General

1.01 SYSTEM DESCRIPTION

Horizontal, 2-pipe or 4-pipe or electric heat fan coil unit for ducted installations; horizontal furred-in or exposed ceiling model, ceiling cabinet, or vertical model with galvanized casing for closet or utility room installation.

1.02 QUALITY ASSURANCE

Units shall be ETL approved, except for 42DF. All units shall be CSA approved, including 42DF. Each coil shall be factory tested for leakage at 350 psig air pressure with coil submerged in water. Insulation and adhesive shall meet NFPA 90A requirements for flame spread and smoke generation. All equipment wiring shall comply with NEC requirements. The 42DF model shall be tested and certified in accordance with AHRI Standard 440, latest edition.

1.03 DELIVERY, STORAGE AND HANDLING

Unit shall be handled and stored in accordance with the manufacturer's instructions.

Part 2 — Products

2.01 EQUIPMENT

A. General:

Factory assembled, horizontal or vertical blow-thru ducted fan coil unit. 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. Horizontal, Furred-in Base Unit (42DA):

1. Outside panels shall be galvanized steel, lined on the inside with 1/2-in. thick fiberglass insulation and a 1 in. long collar for supply duct connection.
2. The drain pan shall be constructed of 18-gage galvanized steel extending the entire length and width of coil(s) and pitched for drainage. The inside surface of the drain pan shall be coated with closed-cell, fire retardant foam. An extension drain pan shall be provided for installation at the jobsite under the factory-furnished electric water valves.

C. Horizontal Base Unit with Plenum for Concealed Installation (42DC):

Unit shall have a factory-installed, 18-gage galvanized steel plenum section and 1-in. throwaway filter. The plenum shall be either bottom or rear return, lined with 1/2-in. thick fiberglass insulation and include a removable panel to provide access to the fan/motor assembly.

D. Horizontal, Enclosed Unit for Concealed Installation (42DE):

Unit shall be constructed of galvanized steel with removable panels for access to internal components. Units have 1/2-in. fiberglass insulation, filter track with 1-in. throwaway filter, 1-in. supply collar, and 2 1/2-in. return-air collar on rear of unit for duct connection.

E. Horizontal Cabinet Unit for Exposed Installation (42DF):

Unit shall be constructed of steel with arctic white re-coatable baked enamel finish. Cabinet shall be lined with 1/2-in. fiberglass insulation and have removable bottom access panel. Unit shall include hinged bar type return-air grille on rear of unit with 1-in. throwaway filter and integral double deflection supply-air grille.

F. Vertical, Enclosed Unit for Closet Installation (42DD):

Unit shall be constructed of galvanized steel with 1/2-in. fiberglass insulation. Unit shall include front return-air opening with 1-in. throwaway filter and 1-in. supply-air duct collar.

G. Fans:

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

H. Coils:

Standard base unit shall be equipped with a 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 spacing; Coil fins are mechanical bonded to tube joints. The copper tubes comply with the ASTM B-75. The fin thickness is 0.0045-in. and tube thickness is 0.016-in. All coils are tested with air under water and are suitable for design working pressures of 250 psig at 220 F. Burst tested at 350 psig.

I. Controls and Safeties:

Unit shall be furnished with a 3-speed, 4-position fan switch on a wall plate for field mounting. The fan motor(s) shall be equipped with integral, automatic reset thermal overload motor protection.

J. Operating Characteristics:

A single-circuit 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. A double circuit coil unit installed in a 4-pipe system shall be capable of providing sequenced heating and cooling.

Guide specifications — 42D series (cont)

K. Electrical Requirements:

Standard unit shall operate on 115-v, single-phase, 60-Hz electric power, and all exposed wiring shall be in a flexible conduit.

L. Motor(s):

Fan motors shall be 3-speed permanent split capacitor type, 115 volts, with sleeve type bearings and oversized oil reservoirs.

M. Special Features:

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

* 1. Unit coil(s) shall be equipped with automatic air vents.

* 2. Unit shall be equipped with a 6-row cooling coil for installation in a 2-pipe chilled water system or direct expansion (DX) system.

* 3. For installation in a 4-pipe chilled water system or DX system, unit shall be equipped with either a 4-row cooling/one-row heating split circuit, or a 4/2 split circuit or a 6/1 split circuit (except 42DD) as required.

* 4. Fan motor(s) shall be permanent split capacitor type, 208, 230, or 277 volts for low-static applications (42DF) or 208, 230 or 277 volts for high-static applications (42DA, DC, DD, and DE). 220-volt fan motor shall be available for 50 Hz applications.

* 5. Electric Heat:

a. Unit shall be equipped with electric resistance strip heaters mounted on the entering air side of the water coil.

b. Heaters shall include automatic reset high limit cutout, contactor, factory-furnished junction box and fuse to protect the motor.

c. Heaters shall be single-stage, single-phase, 120, 208, 220, 240 or 277 volts, for 50 Hz or 60 Hz applications. Capacity shall be as shown on the equipment schedule.

d. Control circuit for single power source connection is available and must be used when motors and heaters are of the same voltage.

* 6. Filter track and cleanable filter shall be installed in the plenum (42DC, DD, and DE only).

7. 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.

8. Removable drain pan extension (drip lip) shall be available for field installation under electric water valves.

9. Six-in. diameter outside air opening with duct collar shall be provided to duct outside ventilation air to unit, with or without manual outdoor air damper. (Special quote needed.)

10. Balancing and combination balance and stop (ball) and flow control valves shall be factory furnished and installed as indicated on the equipment drawings.

11. Motorized 2-way and 3-way valves shall be wired to the unit. In order to prevent shipping damage, they shall be factory assembled in the valve package. The valve packages shall terminate with belled ends or unions for field attachment to the coil.

12. Heating and/or cooling thermostat (SPDT) shall be factory furnished for field installation (2-pipe system).

13. Automatic changeover device(s) shall be factory wired for field installation on supply piping (2-pipe system).

14. Sequenced heating and cooling wall thermostat shall be factory furnished for field installation (4-pipe system)

15. Cabinet of 42DF 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.

Fan Coil Unit — Vertical Stack Models

HVAC Guide Specifications — 42S

Size Range: **300 to 2000 Nominal Cfm**

Carrier Model Numbers:

42SG (Furred-in)
42SH (Cabinet)
42SJ (Furred-in, Back-to-Back)
42SM (Mega, Furred-in)
42SU (Universal, Furred-in)

Part 1 — General

1.01 SYSTEM DESCRIPTION

Stack fan coil units, 2-pipe, 4-pipe or 2-pipe with electric heat for furred-in or exposed cabinets that are floor mounted in multi-story buildings.

1.02 QUALITY ASSURANCE

Units shall be tested and certified in accordance with AHRI standard 440, latest edition. All 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 300 psig air pressure with coil submerged in water. Insulation and adhesive shall meet NFPA 90A requirements for flame spread and smoke generation.

1.03 DELIVERY, STORAGE AND HANDLING

Unit shall be handled and stored in accordance with the manufacturer's instructions.

Part 2 — Products

2.01 EQUIPMENT

A. General:

Factory assembled, stack fan coil units. Units are 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. Cabinet Stack Unit (42SH):

Outside panels are made of 18-gage galvanized steel coated with baked-on enamel finish and are fabricated with no exposed fasteners. The interior surfaces shall be lined with 1/2-in. thick fiberglass insulation. The standard cabinet unit has factory-installed double deflection discharge grille(s) and stamped supply grille. Controls are factory wired and mounted in small access panel at front of unit.

C. Furred-In Stack Unit (42SG):

The unit shall be constructed of 18-gage galvanized steel frame and 18-gage galvanized steel back panel. The fan coil is for furred-in installation. These units are designed to have the wallboard applied directly to the unit surface and all openings have standard 1/2-in. thick fiberglass insulation. Units have double deflection aluminum discharge grille(s) and painted, stamped (standard) or bar-type aluminum (optional) return-air grille panel. Removable return-air grille provides access to all internal piping and wiring. Controls are provided with a quick disconnect plug for field-mounting on front of unit.

D. Back-To-Back Furred-In Stack Units (42SJ):

The open unit shall be constructed of 18-gage galvanized steel frame and 18-gage galvanized steel back panel. These units are similar to the 42SG but are actually two completely separate units contained in one cabinet that share a common set of risers. These units are designed to have the wallboard directly applied to the unit surface and openings have standard 1/2-in. drywall flanges. The interior surfaces shall be lined with 1/2-in. thick fiberglass insulation. Units have double deflection aluminum supply grille(s) and painted, stamped (standard) or bar-type aluminum (optional) return-air grille panel. Removable return-air grille provides access to all internal piping and wiring. Controls are provided with a quick disconnect plug for field-mounting on front of unit.

E. Universal Furred-In Stack Units (42SU):

Units shall be constructed of heavy-gage galvanized steel frame and back panel. Interior surfaces shall be lined with standard fiberglass insulation. Units shall be designed to have wallboard applied directly to the unit surface. All units shall include a return air block-off panel. Units shall have an optional double deflection aluminum discharge grille(s) or an optional arctic white painted double deflection discharge grille(s). Unit shall have an arctic white painted stamped steel return air access panel. Removable return air/access panel shall provide access to all internal components. Controls shall be provided with a quick-connect plug for field-mounting of thermostat on the front of unit. Units shall have stainless steel hose kits.

F. Mega Furred-In Stack Units (42SM):

Units shall be constructed of heavy-gage galvanized steel frame and back panel. Interior surfaces shall be lined with standard fiberglass insulation. Optional anti-microbial fiberglass, foil faced or closed cell insulation is available. Units shall be designed to have wallboard applied directly to the unit surface. Controls shall be factory wired and accessible from the front of the unit. Return air/access opening shall provide access to all internal components. All valve package piping to the coil(s) shall be factory installed.

G. Drain Pan:

Drain pan shall be formed of 18-gage steel and shall be coated inside with fire-retardant closed-cell foam insulation. Water never touches the metal pan, eliminating the possibility of corrosion. On 42SG, SH, and SJ units the drain is factory piped to the drain riser that has a removable "P-trap" allowing easy cleaning. On 42SU and 42SM units, the drain pan shall be field piped to the drain riser with a removable/cleanable "P-trap." On 42SM units, the standard drain pan is stainless steel, externally coated with a 2-part closed cell foam insulation.

H. Filter:

A filter track complete with 1-in. non-woven synthetic throwaway filter shall be installed in the unit. Optional filters are available.

I. Fan:

1. Centrifugal fan shall be directly driven by an electric motor.
2. Fan wheel shall be double-width type with forward-curved blades and shall be statically and dynamically balanced.
3. Fan wheel and scroll shall be constructed of galvanized steel.
4. Fans shall be easily removable.

J. Coil:

1. Standard base unit shall be equipped with a 3-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.
2. All coils shall have 1/2-in. copper tubes and aluminum fins with 14 fins per inch spacing; coil fins are mechanically bonded to copper tubes. The copper tubes comply with the ASTM B-75. The fin thickness is 0.0045-in. and tube thickness is 0.016 inches. All coils are tested with air at 300 psig under water.
3. Coil shall be equipped with a manual air vent and shall be piped to supply and return risers with valves as specified on the equipment drawings. For 42SU and 42SM units, coil is not piped to risers, which shall be shipped separately.
4. Piping between hot water coil and risers shall include loops to compensate for maximum riser expansion and contraction of 1 1/2-in. on 42SG, 42SH, and 42SJ units. On 42SU and 42SM units, a flexible hose is included.

K. Flexible Hose for 42SU abd 42SM Fan Coil:

1. Construction:
   a. Hose shall have an external component constructed of stainless steel 304L wire braid with an internal core tube of EPDM rubber.
   b. Hoses shall have 37.5 degree female swivel crimp on fittings on either end for attachment to brass 1/2-in. male adapters.
   c. Hoses shall be assembled with a patented process which bonds the tube to the outer braid, minimizing the possibility of the hose assembly kinking during installation.
   d. All hoses shall be equipped with permanently installed (crimped) end fittings to eliminate the possibility of bands or clamps loosening and creating leaks.
   e. Plated steel hose swivel fittings and brass adapters shall reduce the possibility of overtorquing.
2. Regulations:
   a. Hoses shall meet UL-94 VO rating listed as Underwriters Laboratories Yellow Card number QMFZ2.E80017.
   b. The 1/2-in. hoses shall be rated for a maximum working pressure of 400 psig and burst pressure of 1600 psig.
   c. Temperature range for hose assemblies shall be –40 to 200 F.
   d. Hoses shall be field connected.
   e. Torque specifications for hose connections shall be 350 in.-lb +10/-0 in.-lb to prevent leaks.

L. Risers:

1. Standard factory-furnished and installed risers shall be up to 119 in. long with 3-in. belled ends at the top for floor to floor dimensions up to 117 in. For floor to floor dimensions greater than 117 in., 104 in. risers will be provided with riser extensions up to 24 in. long.
2. Supply and return risers shall be 3/4-in. to 2 1/2-in. diameter.
3. Risers shall be Type M or L copper insulated with 1/2-in. or 3/4-in. thick closed cell insulation.
4. Optional riser chase on 42SGA for application of wall board directly to the chase.

M. Valves:

The factory furnished or installed risers shall have ball valves except on the drain riser.

N. Controls and Safeties:

1. Controls:

   Unit shall come with no controls unless control package is selected.
2. Safeties:

   Unit fan motor shall be equipped with thermal overload protection with automatic reset.

O. Operating Characteristics:

1. A unit with a conventional coil, 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 unit with a row-split coil, installed in a 4-pipe system, shall be capable of providing sequenced heating and cooling.

P. Electrical Requirements:

Standard unit shall operate on 115-v, single-phase, 60 Hz electrical power supply. All externally exposed wiring shall be in flexible conduit.

Q. Motor:

1. Standard fan motor shall be 3-speed, 115-v, single-phase, 60 Hz, permanent split capacitor type, factory mounted on the blower housing.
2. Bearings shall be permanently lubricated sleeve type.

3. Motor shall be equipped with quick connect electrical plug.

R. Special Features:

Certain standard features are not applicable when the features designated by * are specified.

* 1. Unit coil shall be equipped with automatic air vents.

* 2. Unit shall be equipped with a 4-row or 5-row coil for installation in a 2-pipe system.

* 3. For installation in a 4-pipe system, unit shall be equipped with:

a. A 3/1, 3/2 or 4/1 row-split coil, as shown on equipment drawings for cooling and heating.

b. Two each supply and return risers and one drain riser.

c. Two ball valves, 2 circuit setters and two 2-way motorized valves.

d. Motorized control valves shall be rated at 300 PSI with 150 PSI close-off pressure differential, and rated to operate with fluid temperatures from 40 to 180 F. Normally closed valves shall be powered open with spring driven closure.

* 4. Unit shall be equipped with 3-way motorized valves.

5. Fixed flow valve(s) shall be factory installed as shown on the equipment drawings.

* 6. Motor shall be 3-speed, single-phase, 60 Hz permanent split capacitor type for 208, 230 or 277 volts or 50 Hz permanent split capacitor type for 220 volts.

7. Motor shall be ECM motor for single-phase, 60 Hz, 115, 208, 230, or 277 V.

* 8. Double-deflection aluminum finish supply grille(s) shall be finished for field installation.

9. Double-deflection aluminum finish supply grille(s) with opposed blade damper shall be furnished for field installation on two or more discharge units.

10. Ceiling skirts for exposed stack units shall be provided for field trim and installation.

11. A fresh-air opening shall be provided as shown on the equipment drawings.

*12. One-in. thick cleanable filters, pleated MERV 8 filters, or pleated MERV 13 filters shall be installed in the filter track.

13. Unit shall be equipped with nichrome wire electric strip heaters for total or auxiliary electric heat as specified on the equipment schedule.

a. Heaters shall be protected by an automatic reset safety cutout switch and a fusible link.

b. Heater capacity shall be as specified on the equipment schedule.

c. Heaters shall be single phase, 60 Hz for 120, 208, 240 or 277 volts as specified on the equipment schedule.

d. Electric heaters shall include thermal overload protection with fusible link back-up.

e. Units with electric heat shall also include blower motor and control sub-fusing.

14. Fused or unfused service switch shall be provided. Switch shall be suitable for single phase, 60 Hz service for 115, 208, 240 or 277 volts as specified on the equipment schedule.

15. Panels of 42SH unit shall be painted with the color specified on the equipment schedule.

16. Return air panels shall be supplied as shown on the equipment drawings.

17. Tamper-proof fastners (Allen head) shall be installed on the access panels on cabinet models.

18. A stainless steel drain pan shall be available for factory installation.

19. Factory-installed insulation options shall include foil faced fiberglass or closed cell insulation (42SG,SH,SJ,SM only).

20. Control Options:

a. Factory installed 24-V transformer and relay board for use, with 24-V controls by others.

b. 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.

c. Factory-Installed Carrier Fan Coil Open Controller: BACnet 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.

Guide specifications — 42V series

Fan Coil Unit — Vertical Models

HVAC Guide Specifications — 42V

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

Carrier Model Numbers:

42VA (Furred-in)
42VB (Cabinet)
42VC (Furred-in, Lowboy, 200 to 600 cfm)
42VE (Cabinet, Lowboy, 200 to 600 cfm)
42VF (Cabinet, Slant Top)
42VG (Furred-in, Wall, 150 and 300 cfm)

Part 1 — General

1.01 SYSTEM DESCRIPTION

Vertical, 2-pipe or 4-pipe, or electric heat, room fan coil unit for furred-in, or cabinet floor mounted installation. (42VC and VE are low profile units.)

1.02 QUALITY ASSURANCE

Unit shall be tested and certified in accordance with AHRI Standard 440, latest edition, and base unit ETL certified. (Units with special features may not have ETL certification.) Each coil shall be factory tested for leakage at 300 psig air pressure with coil submerged in water. Insulation and adhesive shall meet NFPA 90A requirements for flame spread and smoke generation.

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

B. Base Unit (42VA, VC):

1. Outside panels are made of 18-gage galvanized steel. Lined on the inside with 1/2-in. thick fiberglass insulation, with a 1 in. long collar for top supply duct connection. Units shall be supplied with a 1-in. fiberglass throwaway filter.
2. The drain pan shall be constructed of 18-gage galvanized steel extending the entire length and width of the coil(s) and pitched for drainage. The inside surface of the drain pan shall be coated with closed cell fire retardant foam insulation. An extension drain pan shall be provided for installation under the water valves at the jobsite.

C. Cabinet Models (42VB, VE, VF):

1. Cabinet models shall be coated with an Arctic White baked finish, and include a 1-in. fiberglass throwaway filter.
2. Cabinet models shall be free standing with 2 access doors. A stamped supply-air grille shall be included in the top of the cabinet. (Overall cabinet height shall not exceed 14 1/2-in. on low profile 42VE unit.)
3. The 42VF top panel shall slope down from back to front at an angle of 25 degrees. Standard stamped grille shall provide a discharge into the room at a nominal 67 degrees from the vertical.

D. Furred-In Model (42VG):

1. Cabinet shall be fabricated of 18-gage galvanized steel with 1/2-in. thick fiberglass insulation. Cabinet shall be coated with baked enamel finish. Removable front panel shall provide service access and shall include die-formed supply and return-air grilles.
2. Combination condensate pan and fan deck shall be insulated with closed-cell fire-retardant foam.

E. Fans:

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

F. Coils:

Standard base unit shall be equipped with a 3-row (42VA, VB, VF units) or 2-row coil (42VC, VE, VG units) 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 spacing; Coil fins are mechanical bonded to tube joints. The copper tubes comply with the ASTM B-75. The fin thickness is 0.0045 in. and tube thickness is 0.016 in. All coils are tested with air under water and are suitable for design working pressures of 250 psig at 220 F. Burst tested at 350 psig.

G. Controls and Safeties:

Unit shall be furnished with a 3-speed, 4-position fan switch on a wall plate for field mounting on furred-in units. Cabinet units shall be furnished with a factory-installed 3-speed, 4-position fan switch. Internal wiring from motor and valves shall be in flexible metal conduit, terminating in the junction box.

H. Operating Characteristics:

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

I. Electrical Requirements:

Standard unit shall operate on 120 v, single-phase, 60 Hz electric power. All internal wiring shall be in flexible conduit.

J. Motor(s):

Fan motor(s) shall be 3-speed, 120 v, single-phase, 60 Hz, permanent split capacitor type with sleeve type bearings and oversized oil reservoirs to ensure lubrication. Motors shall have integral automatic temperature reset for motor protection.

K. Special Features:

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

* 1. Unit coil(s) shall be equipped with automatic air vents.

* 2. For installation in a 2-pipe system, unit shall be equipped with a 4-row cooling/heating coil (42VA,VB,VF units) or a 3-row cooling/heating coil (42VC,VE).

* 3. For installation in a 4-pipe system, 42VA,VB, VF units shall be equipped with a 3-row cooling/one-row heating split-circuit coil, a 3-row cooling/2-row heating split-circuit coil or a 4-row cooling/one-row heating split-circuit coil as required. The 42VC,VE units shall be equipped with a 2-row cooling/one-row heating split-circuit coil.

* 4. Fan motor shall be permanent split-capacitor type, 208, 220, 240, or 277-v, single-phase, 50 or 60 Hz as specified on the equipment schedule.

* 5. Unit shall be equipped with electric resistance sheath type heaters mounted on the leaving 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. Unit height on 42VC and VE shall be increased by 2 in. to accommodate heaters.

* 6. Cleanable filter shall be factory installed in the filter track.

* 7. Leveling legs shall be factory installed on the unit and permit a maximum adjustment of $^3/_4$ inch.

8. Switch box complete with switch shall be factory installed on the unit.

9. Discharge-air grille with double deflection aluminum construction as shown on the equipment schedule shall be furnished for field installation (42VA,VC units).

10. Discharge-air grille with double deflection steel or aluminum construction shall be shipped installed in the unit (42VB,VF,VE units). Steel grilles shall be painted to match cabinet. Aluminum grilles shall be a natural anodized finish.

11. Reverse-stamped grille (42VB,VF units) shall provide a discharge into the room at a nominal 23 degrees from vertical.

12. Stamped type aluminum return-air grille with filter holder shall be furnished for field installation. (Not available for 42VG unit.)

13. Manual stop, balancing, combination balance and stop (ball type), and flow control valves shall be factory furnished and installed as indicated on the equipment drawings.

14. Motorized 2-way and 3-way valves shall be factory assembled and wired to unit with tubes terminating in belled ends or unions for field attachment to the coil. Valves shall be packaged within the unit to prevent shipping damage.

15. Heating and/or cooling wall thermostat shall be factory furnished for field installation.

16. Heating and/or cooling thermostat shall be factory wired and installed.

17. Automatic changeover device(s) shall be factory wired for field installation on the supply piping.

18. Sequenced heating and cooling wall thermostat shall be factory furnished for field installation.

19. Sequenced heating and cooling thermostat shall be factory wired and installed.

*20. Tamper-proof fasteners (Allen head) shall be installed on front panel and access doors on cabinet models.

*21. Cabinet shall be painted with the color specified on the equipment schedule.

*22. Factory-installed outside-air damper shall be manually adjustable through the return air opening or shall be arranged for remote manual adjustment, complete with linkage and electric motor to open damper when fan is on. Or, unit shall have a $^3/_{16}$-in. shaft extending outside the unit for installation of a field-supplied damper (42VA,VB,VF).

23. Wall panels, painted with specified color, shall be furnished for top discharge or front discharge recessed unit (42VA only).

24. Unit shall operate on 208, 220, 240, or 277-v, single-phase, 50 or 60 Hz electrical power as specified on the equipment schedule. All wiring shall be in flexible conduit.

25. Outside air wall boxes for field installation.

26. A stainless steel drain pan shall be available for factory installation.

27. Factory-installed insulation options shall include foil faced fiberglass or closed cell insulation.

Guide specifications — 42V series (cont)

28. Stainless steel chassis, including stainless steel construction of innercase legs, coil supports, rear panel, coil end sheets and baffles, baffle extensions, drain pan and blower deck, baffle angle, base plate, filter channel, top panel, front panel, and duct flanges.

29. Stainless steel cabinet, including brushed 304 stainless steel construction of top panel, front panel, outer case legs, sub base, base plate, and filter channel.

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