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ARI Certified

Airtherm Hi-Performance fan coils are labeled and approved by the Air Conditioning and Refrigeration Institute (ARI). This designation signifies that Airtherm Superior Performance fan coil units have been examined by ARI and comply with the organization's applicable standards.



UL Listing

Airtherm Hi-Performance fan coils are listed by Underwriters Laboratories, Inc. (UL). The UL listing ensures that Airtherm Hi-Performance fan coil units have been examined by UL and comply with the organization's applicable standards. UL's re-examination service includes periodic visits by UL inspectors to Airtherms' factory to ensure continued compliance for all listed products.



C-UL US Listing

Hi-P (ULC). The C-UL US listing ensures that Airtherm Hi-Performance fan coil units have been examined by UL and are in compliance with both the U.S. and Canadian organizations' applicable standards.

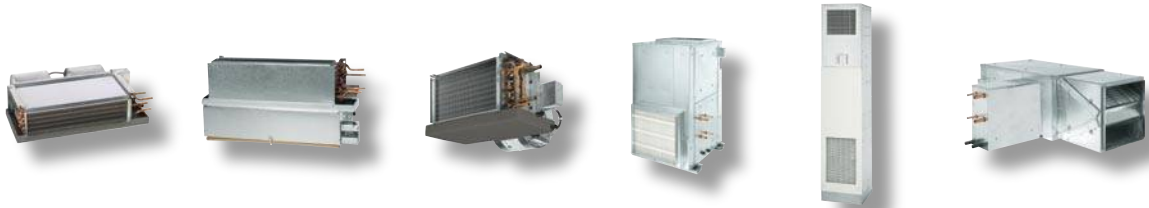
Materials and equipment acceptance for use by the New York Department of Buildings:

SV004-008, SV006-022
SV004-022

MEA 411-05-E
MEA 409-05-E

Applied Products

...more than just fan coils.



For 90 years, Airtherm has been a market leader in providing high quality HVAC products for residential and commercial buildings. Today, the Applied



Products Group continues the proud tradition by offer-

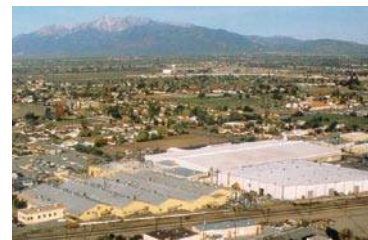
ing to the commercial/industrial market more configurations and size options of quality fan coils and blower coils/air handlers than any other HVAC company in North America.

The Applied Products Group, based in Oklahoma City, Oklahoma, serves all US and overseas markets with complete application engineering, sales, marketing and administrative services.

Served by company factories in Colton, California and Phoenix, Arizona, the Applied Products Group uses the resources of nearly 600,000 square feet of manufacturing and warehouse facilities to provide high quality products to some of the most discriminating customers in the world.

The Applied Products Group

pledge is to provide complete, high quality and timely support for the success-



ful completion of your construction projects involving engineered products offered by Airtherm. We believe in a partnering attitude that creates superior projects and high levels of satisfaction.

400 - 2200 CFM



SVTB



SDTB



SCTF

SVTB - Vertical Basic

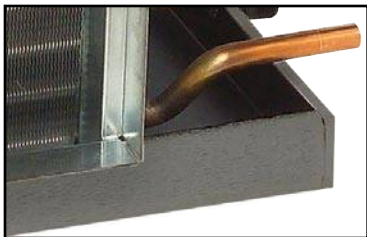
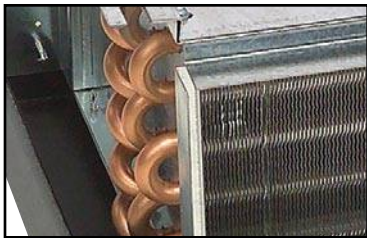
The Vertical Basic (SVTB) is a high static, ducted vertical cased fan coil with bottom return. Primarily used in vertical floor-mounted or hideaway applications, the Vertical Basic is furred into partition walls or hidden in closets, utility rooms and other concealed locations with a ducted discharge. A removable front access panel facilitates easy servicing. A one-inch discharge duct flange is standard on the top panel of each unit. Front Return Basic also available.

SDTB - Vertical Deluxe

The Vertical Deluxe (SDTB) is our Basic model primarily used in floor-mounted or exposed applications. The Vertical Deluxe is finished in a soft white, powder coat epoxy and subjected to a 1500-hour salt spray test in accordance with ASTM B117. Front Return Deluxe is also available.

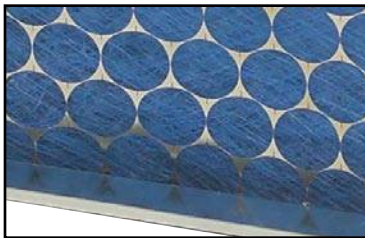
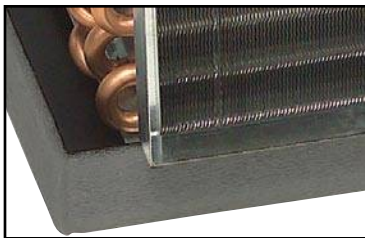
SCTF - Vertical Front Return

The Vertical Front Return (SCTF) is a high static, ducted vertical fan coil for installation in a closet-type enclosure. The front panel is removable for easy service access to the slide-out blower assembly, with quick-connect plug. Vertical Front Return with return-air grille option allows unit to be furred-in. Grille mounts to drywall for easy access without the expense of a closet door. Vertical Front Return Deluxe also available.



Standard Features

- Heavy-gauge galvanized steel cabinet with neoprene-coated 1/2" thick fiberglass insulation with 3.35 PCF density.
- Coils are made of 1/2" OD copper tube with aluminum fins (12 FPI) equipped with manual-air vent. DX and steam coils do not include manual-air vent. Coils are 100% underwater pressure tested at 350 PSI with a 300 PSI working pressure.
- Galvanized drain pan is powder-coated epoxy and subjected to a 650-hour salt spray test in accordance with ASTM-B117. Also comes with 1/8" thick closed-cell insulation and primary and secondary drain connections.
- Three-speed, 115/1/60 PSC motor with quick-connect plug.
- Controls and motors are factory-wired and terminated in a junction box for single-point power supply.
- One-inch, reinforced duct collar on return- and supply-air openings.
- Swing-down, hinged return-air grille/access door on Deluxe and Flush models.
- Deluxe unit has single-deflection supply-air grille.
- One-inch fiberglass, throwaway filter, except Horizontal Basic.
- Individually tagged, crated and shipped as scheduled for installation.
- UL and C-UL approved, ARI certified and 100% factory tested.



Options

- Soft-white, powder-coated epoxy cabinet that's subjected to a 1500-hour salt spray test in accordance with ASTM-B117.
- Drain Pans - stainless steel.
- Insulation - fiberglass, foil-face, elastomeric and double-wall (solid or perforated) in 1/2" and 1" thicknesses.
- Coils - copper fins/tubes, stainless steel fins/tubes, phenolic coated, stainless steel end plates. All options are available on one- to six-rows.
- Three-speed, 208-230/1/50-60 or 277/1/60 PSC motor with quick-connect plug.
- Systems - two- or four-pipe, hydronic cooling/heating, steam, direct-expansion (DX) and/or electric heat.
- Cabinet - Deluxe, Flush and custom colors.
- Controls - wide selection of factory-mounted valves and controls.
- Filters - two-inch thick throwaway, washable and metallic.
- Flow-control circulator for water heating applications.
- Grilles available as double-deflection and in custom colors.
- Electric Strip Heat from 0.5 to 5 kW.



ARI Certified Cooling Capacity

Airtherm SV Series Hi-Performance Vertical fan coils have been rated in accordance with ARI Standard 440-2005 for room fan-coils air-conditioners and are certified by the Air-Conditioning and Refrigeration Institute to meet the following product performance ratings:

| ARI APPROVED STANDARD RATINGS | | | | | | COOLING CAPACITY | | POWER INPUT (WATTS) |
|-------------------------------|-------------------------|-------|-----------|------|----------------------------|----------------------|-------------------------|---------------------|
| SIZE | SERIES / MOTOR TYPE / # | STYLE | RATED CFM | GPM | WPD (FT./H ₂ O) | TOTAL COOLING (BTUH) | SENSIBLE COOLING (BTUH) | |
| 004 | SV Series Standard (1) | B, D | 530 | 3.2 | 2.1 | 15,930 | 11,690 | 175 |
| | | F, R | 550 | 2.9 | 4.3 | 14,260 | 11,040 | 228 |
| | | G, Q | 660 | 3.5 | 1.6 | 17,330 | 13,630 | 227 |
| 006 | SV Series Standard (1) | B, D | 600 | 3.5 | 2.4 | 17,540 | 13,130 | 181 |
| | | F, R | 750 | 3.5 | 6.4 | 17,460 | 14,410 | 260 |
| | | G, Q | 800 | 4.0 | 2.0 | 20,030 | 16,200 | 256 |
| 008 | SV Series Standard (1) | B, D | 760 | 4.2 | 3.1 | 20,820 | 17,190 | 316 |
| | | F, R | 960 | 4.8 | 3.5 | 24,080 | 19,570 | 360 |
| | | G, Q | 890 | 4.3 | 2.2 | 21,550 | 17,730 | 360 |
| 010 | SV Series Standard (1) | B, D | 900 | 4.9 | 4.6 | 24,650 | 20,290 | 356 |
| | | F, R | 1,060 | 5.7 | 5.3 | 28,480 | 23,560 | 383 |
| | | G, Q | 1,080 | 6.2 | 4.4 | 31,080 | 24,950 | 398 |
| 012 | SV Series Standard (1) | B, D | 970 | 5.2 | 5.0 | 25,990 | 21,580 | 413 |
| | | F, R | 1,310 | 7.8 | 8.8 | 39,100 | 30,780 | 540 |
| | | G, Q | 1,280 | 6.9 | 5.1 | 34,680 | 26,470 | 536 |
| 015 | SV Series Standard (2) | B, D | 1,616 | 10.0 | 5.1 | 49,865 | 40,095 | 529 |
| | | F, R | 1,550 | 9.7 | 7.9 | 48,624 | 37,500 | 553 |
| | | G, Q | 1,602 | 9.9 | 5.6 | 49,500 | 39,796 | 529 |
| 018 | SV Series Standard (2) | B, D | 1,898 | 12.4 | 7.0 | 62,141 | 48,454 | 736 |
| | | F, R | 1,898 | 13.0 | 10.9 | 65,009 | 49,559 | 736 |
| | | G, Q | 1,864 | 12.3 | 6.9 | 61,440 | 47,756 | 736 |
| 022 | SV Series Standard (2) | B, D | 2,075 | 14.4 | 8.8 | 71,879 | 54,529 | 1035 |
| | | F, R | 2,075 | 14.4 | 8.8 | 71,879 | 54,529 | 1035 |
| | | G, Q | 2,088 | 13.4 | 5.6 | 66,915 | 52,774 | 1035 |

- Notes:
- 1) Based on 80°F DB and 67°F WB EAT, 45°F EWT, 10°F temperature rise, high fan speed. Motor voltage 115/1/60 power source. Air flow under dry coil conditions. Water pressure drops shown in feet of water. All units are listed under UL Category Control No. LZFE.
 - 2) Ratings are based on actual CFM. Standard coils for 004 is 3 rows and 006-022 is 4 rows.
 - 3) Legend - B = SVTB; D = SDTB; F = SCTF; R = Front return deluxe; G = Rear return and bottom supply; Q = Rear return and bottom supply deluxe.

Heating Performance

| Heating Performance | | | | | | |
|---------------------|----------------------------|------------------|-----------|-------|-----|----------------------------|
| SIZE | SERIES / MODEL | COIL ROWS/ (FPI) | RATED CFM | MBH | GPM | WPD (FT./H ₂ O) |
| 004 | SV Series (Basic / Deluxe) | 1 Row (12) | 525 | 26.7 | 1.3 | 1.8 |
| | | 2 Rows (12) | 525 | 40.1 | 2.0 | 1.3 |
| 006 | SV Series (Basic / Deluxe) | 1 Row (12) | 610 | 33.6 | 1.7 | 2.9 |
| | | 2 Rows (12) | 610 | 49.9 | 2.5 | 2.1 |
| | SV Series (Front Return) | 1 Row (12) | 750 | 37.8 | 1.9 | 3.3 |
| | | 2 Rows (12) | 750 | 57.3 | 2.8 | 2.4 |
| 008 | SV Series (Basic / Deluxe) | 1 Row (12) | 780 | 35.3 | 1.8 | 2.7 |
| | | 2 Rows (12) | 780 | 55.3 | 2.7 | 2.0 |
| | SV Series (Front Return) | 1 Row (12) | 975 | 38.7 | 1.9 | 3.1 |
| | | 2 Rows (12) | 975 | 62.3 | 3.1 | 2.3 |
| 010 | SV Series (Basic / Deluxe) | 1 Row (12) | 930 | 36.4 | 1.8 | 3.3 |
| | | 2 Rows (12) | 930 | 59.1 | 2.9 | 2.5 |
| | SV Series (Front Return) | 1 Row (12) | 1,100 | 39.0 | 1.9 | 3.7 |
| | | 2 Rows (12) | 1,100 | 64.4 | 3.2 | 2.8 |
| 012 | SV Series (Basic / Deluxe) | 1 Row (12) | 1,135 | 43.2 | 2.2 | 4.9 |
| | | 2 Rows (12) | 1,135 | 70.7 | 3.5 | 3.7 |
| | SV Series (Front Return) | 1 Row (12) | 1,350 | 38.5 | 1.9 | 0.7 |
| | | 2 Rows (12) | 1,350 | 69.3 | 3.4 | 1.2 |
| 015 | SV Series (Basic / Deluxe) | 1 Row (12) | 1,625 | 62.8 | 3.1 | 4.0 |
| | | 2 Rows (12) | 1,625 | 100.9 | 5.0 | 3.4 |
| | SV Series (Front Return) | 1 Row (12) | 1,625 | 62.8 | 3.1 | 5.2 |
| | | 2 Rows (12) | 1,625 | 103.7 | 5.2 | 5.4 |
| 018 | SV Series (Basic / Deluxe) | 1 Row (12) | 1,910 | 75.5 | 3.8 | 5.4 |
| | | 2 Rows (12) | 1,910 | 121.5 | 6.0 | 4.5 |
| | SV Series (Front Return) | 1 Row (12) | 1,910 | 54.2 | 2.6 | 0.9 |
| | | 2 Rows (12) | 1,910 | 124.2 | 6.2 | 7.0 |
| 022 | SV Series (Basic / Deluxe) | 1 Row (12) | 2,090 | 86.8 | 4.3 | 6.8 |
| | | 2 Rows (12) | 2,090 | 138.8 | 6.9 | 5.7 |
| | SV Series (Front Return) | 1 Row (12) | 2,090 | 63.9 | 3.2 | 1.2 |
| | | 2 Rows (12) | 2,090 | 138.8 | 6.9 | 5.7 |

Notes: Based on 70°F DB EAT, 180°F EWT, 40°F temperature drop, high fan speed. Motor voltage 115/1/60 power source. Air flow under dry coil conditions. Water pressure drops shown in feet of water.

Coil Data

Coils are made from 1/2" O.D. copper tubing with .016" wall thickness, and tubes are staggered for maximum heat transfer. A manual air vent is standard on all hydronic coils. DX and steam coils do not include manual-air vent. All coils are 100% underwater pressure tested to 350 PSIG with a 300 PSIG working pressure. Steam coils are rated for up to 15 PSIG or 250°F.

Coils are available in two- or four-pipe, and from one- to eight-row configurations for SPCV Series units. All units available with any combination of chilled or hot water, steam or direct expansion. Custom circuiting is available.

Vertical SV Coil

| Coil Rows | 004 | 006 | 008 | 010 | 012 | 015 | 018 | 022 |
|-----------------|-----------------|-----|-----|-----|-----|-----|-----|-----|
| Single-Row Coil | S T A N D A R D | | | | | | | |
| Two-Row Coil | | | | | | | | |
| Three-Row Coil | | | | | | | | |
| Four-Row Coil | | | | | | | | |
| Five-Row Coil | O P T I O N A L | | | | | | | |
| Six-Row Coil | | | | | | | | |
| Seven-Row Coil | | | | | | | | |
| *Eight-Row Coil | | | | | | | | |

* Seven-row coil maximum when selecting a DX coil with a hot water coil.

Coil Options:

- DX – Includes distributor and nozzle, TXV must be field furnished and installed
- Steam – 1-15 PSIG
- Opposite End Connection (E). Place the “E” - pipe-hand connection in the eleventh digit of the model number - when ordering
- Preheat Coil Position (PREHEAT) – Standard coil is reheat position
- Phenolic Anti-Corrosion Coating (PAC)
 - Stainless Steel Tubes/Fins/End Plates
- Copper Fins/Tubes/End Plates
 - 6-16 Fins Per Inch (Standard is 12 FPI)

Coil connections on the chilled water side for SV004-SV006 is 1/2" and 3/4" on SV008-022. The hot water connection is 1/2" on the SV004-022.

Electric Heat

Electric heat may be furnished with either hydronic, direct expansion or steam coils and is factory-mounted, wired, and tested. Option-equipped with low-watt density (for long life) nichrome wire elements. The heater has a built-in, high limit, and fusible link to provide maximum safety.

Vertical (SV Series)

| Size | kW | 1.0 | 1.5 | 2.0 | 2.5 | 3.0 | 3.5 | 4.0 | 4.5 | 5.0 | 5.5 | 6.0 | 6.5 | 7.0 | 7.5 | 8.0 | 8.5 | 9.0 | |
|------|---------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|--|
| | Voltage | AMPS | | | | | | | | | | | | | | | | | |
| 004 | 115 | 8.7 | 13.0 | 17.4 | 21.7 | 26.1 | | | | | | | | | | | | | |
| | 208 | 4.8 | 7.2 | 9.6 | 12.0 | 14.4 | 16.8 | 19.2 | | | | | | | | | | | |
| | 230 | 4.4 | 6.5 | 8.7 | 10.9 | 13.0 | 15.2 | 17.4 | | | | | | | | | | | |
| | 277 | 3.6 | 5.4 | 7.2 | 9.0 | 10.8 | 12.6 | 14.4 | | | | | | | | | | | |
| 006 | 115 | 8.7 | 13.0 | 17.4 | 21.7 | 26.1 | | | | | | | | | | | | | |
| | 208 | 4.8 | 7.2 | 9.6 | 12.0 | 14.4 | 16.8 | 19.2 | 21.6 | 24.0 | | | | | | | | | |
| | 230 | 4.4 | 6.5 | 8.7 | 10.9 | 13.0 | 15.2 | 17.4 | 19.6 | 21.7 | | | | | | | | | |
| | 277 | 3.6 | 5.4 | 7.2 | 9.0 | 10.8 | 12.6 | 14.4 | 16.3 | 18.1 | | | | | | | | | |
| 008 | 115 | 8.7 | 13.0 | 17.4 | 21.7 | 26.1 | | | | | | | | | | | | | |
| | 208 | 4.8 | 7.2 | 9.6 | 12.0 | 14.4 | 16.8 | 19.2 | 21.6 | 24.0 | | | | | | | | | |
| | 230 | 4.4 | 6.5 | 8.7 | 10.9 | 13.0 | 15.2 | 17.4 | 19.6 | 21.7 | | | | | | | | | |
| | 277 | 3.6 | 5.4 | 7.2 | 9.0 | 10.8 | 12.6 | 14.4 | 16.3 | 18.1 | | | | | | | | | |
| 010 | 115 | 8.7 | 13.0 | 17.4 | 21.7 | 26.1 | | | | | | | | | | | | | |
| | 208 | 4.8 | 7.2 | 9.6 | 12.0 | 14.4 | 16.8 | 19.2 | 21.6 | 24.0 | 26.4 | 28.9 | 31.3 | 33.7 | 36.1 | 38.5 | | | |
| | 230 | 4.4 | 6.5 | 8.7 | 10.9 | 13.0 | 15.2 | 17.4 | 19.6 | 21.7 | 23.9 | 26.1 | 28.3 | 30.4 | 32.6 | 34.8 | | | |
| | 277 | 3.6 | 5.4 | 7.2 | 9.0 | 10.8 | 12.6 | 14.4 | 16.3 | 18.1 | 19.9 | 21.7 | 23.5 | 25.3 | 27.1 | 28.9 | | | |
| 012 | 115 | 8.7 | 13.0 | 17.4 | 21.7 | 26.1 | | | | | | | | | | | | | |
| | 208 | 4.8 | 7.2 | 9.6 | 12.0 | 14.4 | 16.8 | 19.2 | 21.6 | 24.0 | 26.4 | 28.9 | 31.3 | 33.7 | 36.1 | 38.5 | 40.9 | 43.3 | |
| | 230 | 4.4 | 6.5 | 8.7 | 10.9 | 13.0 | 15.2 | 17.4 | 19.6 | 21.7 | 23.9 | 26.1 | 28.3 | 30.4 | 32.6 | 34.8 | 37.0 | 39.1 | |
| | 277 | 3.6 | 5.4 | 7.2 | 9.0 | 10.8 | 12.6 | 14.4 | 16.3 | 18.1 | 19.9 | 21.7 | 23.5 | 25.3 | 27.1 | 28.9 | 30.7 | 32.5 | |
| 015 | 115 | 8.7 | 13.0 | 17.4 | 21.7 | 26.1 | | | | | | | | | | | | | |
| | 208 | 4.8 | 7.2 | 9.6 | 12.0 | 14.4 | 16.8 | 19.2 | 21.6 | 24.0 | 26.4 | 28.9 | 31.3 | 33.7 | 36.1 | 38.5 | 40.9 | 43.3 | |
| | 230 | 4.4 | 6.5 | 8.7 | 10.9 | 13.0 | 15.2 | 17.4 | 19.6 | 21.7 | 23.9 | 26.1 | 28.3 | 30.4 | 32.6 | 34.8 | 37.0 | 39.1 | |
| | 277 | 3.6 | 5.4 | 7.2 | 9.0 | 10.8 | 12.6 | 14.4 | 16.3 | 18.1 | 19.9 | 21.7 | 23.5 | 25.3 | 27.1 | 28.9 | 30.7 | 32.5 | |
| 018 | 115 | 8.7 | 13.0 | 17.4 | 21.7 | 26.1 | | | | | | | | | | | | | |
| | 208 | 4.8 | 7.2 | 9.6 | 12.0 | 14.4 | 16.8 | 19.2 | 21.6 | 24.0 | 26.4 | 28.9 | 31.3 | 33.7 | 36.1 | 38.5 | 40.9 | 43.3 | |
| | 230 | 4.4 | 6.5 | 8.7 | 10.9 | 13.0 | 15.2 | 17.4 | 19.6 | 21.7 | 23.9 | 26.1 | 28.3 | 30.4 | 32.6 | 34.8 | 37.0 | 39.1 | |
| | 277 | 3.6 | 5.4 | 7.2 | 9.0 | 10.8 | 12.6 | 14.4 | 16.3 | 18.1 | 19.9 | 21.7 | 23.5 | 25.3 | 27.1 | 28.9 | 30.7 | 32.5 | |
| 022 | 115 | 8.7 | 13.0 | 17.4 | 21.7 | 26.1 | | | | | | | | | | | | | |
| | 208 | 4.8 | 7.2 | 9.6 | 12.0 | 14.4 | 16.8 | 19.2 | 21.6 | 24.0 | 26.4 | 28.9 | 31.3 | 33.7 | 36.1 | 38.5 | 40.9 | 43.3 | |
| | 230 | 4.4 | 6.5 | 8.7 | 10.9 | 13.0 | 15.2 | 17.4 | 19.6 | 21.7 | 23.9 | 26.1 | 28.3 | 30.4 | 32.6 | 34.8 | 37.0 | 39.1 | |
| | 277 | 3.6 | 5.4 | 7.2 | 9.0 | 10.8 | 12.6 | 14.4 | 16.3 | 18.1 | 19.9 | 21.7 | 23.5 | 25.3 | 27.1 | 28.9 | 30.7 | 32.5 | |

Air Flow Data

Air flow shown below is under dry coil conditions.

Vertical (SV Series)

| SIZE | MODEL / STYLE | COIL ROWS | 0.00 | | | 0.05 | | | 0.10 | | | 0.15 | | | 0.20 | | | 0.25 | | |
|-----------------------|-------------------------|--------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| | | | HI | MED | LOW | HI | MED | LOW | HI | MED | LOW | HI | MED | LOW | HI | MED | LOW | HI | MED | LOW |
| 004 Basic / Deluxe | SV Series (Standard) | 3 ROW | 545 | 440 | 355 | 525 | 425 | 350 | 510 | 415 | 340 | 500 | 405 | 325 | 490 | 395 | 310 | 480 | 380 | 295 |
| | | 4 ROW | 535 | 430 | 345 | 515 | 415 | 340 | 500 | 405 | 340 | 90 | 395 | 315 | 480 | 385 | 300 | 470 | 370 | 285 |
| 006 Basic / Deluxe | SV Series (Standard) | 3 ROW | 624 | 490 | 380 | 600 | 470 | 360 | 585 | 555 | 340 | 570 | 440 | 335 | 560 | 425 | 310 | 545 | 410 | 295 |
| | | 4 ROW | 614 | 480 | 370 | 590 | 460 | 350 | 575 | 545 | 330 | 560 | 430 | 315 | 550 | 415 | 300 | 535 | 400 | 285 |
| 006 Front Return | SV Series (Standard) | 3 ROW | 765 | 650 | 560 | 735 | 635 | 550 | 715 | 620 | 540 | 695 | 605 | 525 | 675 | 585 | 510 | 655 | 565 | 495 |
| | | 4 ROW | 755 | 640 | 550 | 725 | 625 | 540 | 705 | 610 | 530 | 685 | 595 | 515 | 665 | 575 | 500 | 645 | 555 | 485 |
| 008 Basic / Deluxe | SV Series (Standard) | 3 ROW | 790 | 620 | 515 | 775 | 610 | 505 | 765 | 600 | 500 | 745 | 590 | 490 | 725 | 575 | 485 | 705 | 560 | 465 |
| | | 4 ROW | 775 | 605 | 500 | 765 | 595 | 490 | 750 | 585 | 485 | 730 | 575 | 480 | 710 | 560 | 470 | 690 | 545 | 450 |
| 008 Front Return | SV Series (Standard) | 3 ROW | 985 | 875 | 685 | 970 | 845 | 675 | 950 | 825 | 660 | 925 | 805 | 645 | 900 | 785 | 630 | 875 | 765 | 615 |
| | | 4 ROW | 970 | 860 | 670 | 960 | 830 | 660 | 935 | 810 | 645 | 910 | 790 | 630 | 885 | 770 | 615 | 860 | 750 | 600 |
| 010 Basic / Deluxe | SV Series (Standard) | 3 ROW | 935 | 715 | 555 | 920 | 705 | 550 | 905 | 695 | 545 | 890 | 685 | 535 | 865 | 675 | 525 | 835 | 655 | 510 |
| | | 4 ROW | 920 | 700 | 540 | 905 | 690 | 535 | 890 | 680 | 530 | 875 | 670 | 520 | 850 | 660 | 510 | 820 | 640 | 495 |
| 010 Front Return | SV Series (Standard) | 3 ROW | 1110 | 980 | 800 | 1075 | 950 | 785 | 1045 | 920 | 765 | 1010 | 895 | 745 | 975 | 865 | 725 | 940 | 835 | 700 |
| | | 4 ROW | 1095 | 965 | 785 | 1060 | 935 | 770 | 1030 | 910 | 750 | 1000 | 880 | 730 | 960 | 850 | 710 | 925 | 820 | 685 |
| 012 Basic / Deluxe | SV Series (Standard) | 3 ROW | 1145 | 935 | 715 | 1125 | 920 | 705 | 1095 | 905 | 695 | 1065 | 885 | 685 | 1030 | 865 | 675 | 1005 | 835 | 655 |
| | | 4 ROW | 1130 | 920 | 700 | 1110 | 905 | 690 | 1080 | 890 | 680 | 1050 | 870 | 670 | 1020 | 850 | 660 | 990 | 820 | 640 |
| 012 Front Return | SV Series (Standard) | 3 ROW | 1370 | 1125 | 645 | 1330 | 1115 | 635 | 1295 | 1100 | 630 | 1255 | 1085 | 625 | 1215 | 1065 | 620 | 1185 | 1050 | 610 |
| | | 4 ROW | 1355 | 1110 | 630 | 1315 | 1100 | 625 | 1280 | 1085 | 615 | 1240 | 1070 | 610 | 1200 | 1055 | 605 | 1170 | 1040 | 595 |
| 015 Front Return | SV Series (Standard) | 3 ROW | 1640 | 1345 | 1160 | 1600 | 1325 | 1140 | 1560 | 1305 | 1120 | 1520 | 1280 | 1100 | 1480 | 1250 | 1080 | 1435 | 1215 | 1040 |
| | | 4 ROW | 1620 | 1325 | 1140 | 1580 | 1305 | 1120 | 1540 | 1285 | 1100 | 1500 | 1260 | 1080 | 1460 | 1230 | 1060 | 1415 | 1200 | 1020 |
| 018 Front Return | SV Series (Standard) | 3 ROW | 1920 | 1770 | 1535 | 1870 | 1730 | 1500 | 1815 | 1670 | 1450 | 1760 | 1610 | 1410 | 1690 | 1560 | 1360 | 1630 | 1510 | 1300 |
| | | 4 ROW | 1900 | 1750 | 1515 | 1850 | 1710 | 1480 | 1795 | 1650 | 1430 | 1740 | 1590 | 1390 | 1670 | 1540 | 1340 | 1610 | 1490 | 1285 |
| 022 Front Return | SV Series (Standard) | 3 ROW | 2120 | 2000 | 1410 | 2035 | 1940 | 1390 | 1950 | 1870 | 1370 | 1890 | 1790 | 1335 | 1815 | 1725 | 1290 | 1750 | 1660 | 1240 |
| | | 4 ROW | 2100 | 1980 | 1390 | 2015 | 1920 | 1370 | 1930 | 1850 | 1350 | 1870 | 1770 | 1315 | 1795 | 1705 | 1270 | 1730 | 1640 | 1220 |

Notes: Ratings and capacity tables based on nominal CFM.

Motor Data

Motors are wired to a junction box ready for single-point field connection. Outstanding features include:

- Quick-Connect Plug
- Permanent Split Capacitor
- Thermal overload protection
- 1050 RPM for lower operating costs
- Oversized bearings and permanently lubricated and sealed
- 122°F maximum operating temperature
- Custom motor mounts designed to reduce noise and eliminate vibration
- Stators are epoxy-dipped for more efficient motor cooling

Optional motors:

- 208V-1Ø-60 motors
- 277V-1Ø-60 motors
- 230/220V-1Ø-60 motors
- 50-Hz motors in specified voltages

Vertical (SV Series)

| Motors (1100 RPM) | | | | 115V | | 208V | | 230V | | 277V | |
|-------------------|-----------------------------|----------|---------|------|-------|------|-------|------|-------|------|-------|
| Size | Series / Model / Motor Type | HP (Qty) | Blowers | AMPS | WATTS | AMPS | WATTS | AMPS | WATTS | AMPS | WATTS |
| 004 | SV Front Return (Std) | 1/10 (1) | 1 | 1.5 | 175 | 0.80 | 175 | 0.7 | 175 | 0.5 | 175 |
| | SV Front Return (Std) | 1/10 (1) | 1 | 1.4 | 228 | 0.70 | 228 | 0.6 | 228 | 0.5 | 228 |
| 006 | SV Basic/Deluxe (Std) | 1/10 (1) | 1 | 1.6 | 181 | 0.90 | 181 | 0.8 | 181 | 0.8 | 181 |
| | SV Front Return (Std) | 1/6 (1) | 1 | 2.3 | 260 | 1.20 | 260 | 1.1 | 260 | 0.8 | 260 |
| 008 | SV Basic/Deluxe (Std) | 1/6 (1) | 1 | 2.2 | 316 | 1.10 | 316 | 1.0 | 316 | 1.3 | 316 |
| | SV Front Return (Std) | 1/4 (1) | 1 | 3.2 | 360 | 1.60 | 360 | 1.5 | 360 | 1.2 | 360 |
| 010 | SV Basic/Deluxe (Std) | 1/6 (1) | 1 | 2.4 | 356 | 1.20 | 356 | 1.1 | 356 | 1.5 | 356 |
| | SV Front Return (Std) | 1/4 (1) | 1 | 3.3 | 383 | 1.80 | 383 | 1.6 | 383 | 1.3 | 383 |
| 012 | SV Basic/Deluxe (Std) | 1/4 (1) | 1 | 3.2 | 413 | 1.70 | 413 | 1.5 | 413 | 1.7 | 413 |
| | SV Front Return (Std) | 1/3 (1) | 1 | 4.5 | 540 | 2.60 | 540 | 2.4 | 540 | 1.8 | 540 |
| 015* | SV Basic/Deluxe (Std) | 1/6 (2) | 2 | 4.6 | 547 | 2.30 | 547 | 2.1 | 547 | 1.6 | 547 |
| | SV Front Return (Std) | 1/6 (2) | 2 | 4.6 | 553 | 2.40 | 553 | 2.2 | 553 | 1.6 | 553 |
| 018* | SV Basic/Deluxe (Std) | 1/4 (2) | 2 | 6.4 | 644 | 3.30 | 644 | 3.0 | 644 | 2.4 | 644 |
| | SV Front Return (Std) | 1/4 (2) | 2 | 6.4 | 654 | 3.30 | 654 | 3.0 | 654 | 2.6 | 654 |
| 022* | SV Basic/Deluxe (Std) | 1/3 (2) | 2 | 9.0 | 793 | 5.30 | 793 | 4.8 | 793 | 3.6 | 793 |
| | SV Front Return (Std) | 1/3 (2) | 2 | 9.0 | 798 | 5.30 | 798 | 4.8 | 798 | 3.6 | 798 |

* Data reflects combined performance of (2) motors for both Horizontal and Vertical units.

Notes: Motor full load amps listed refer to NEC amps. Actual motor nameplate amps may vary.

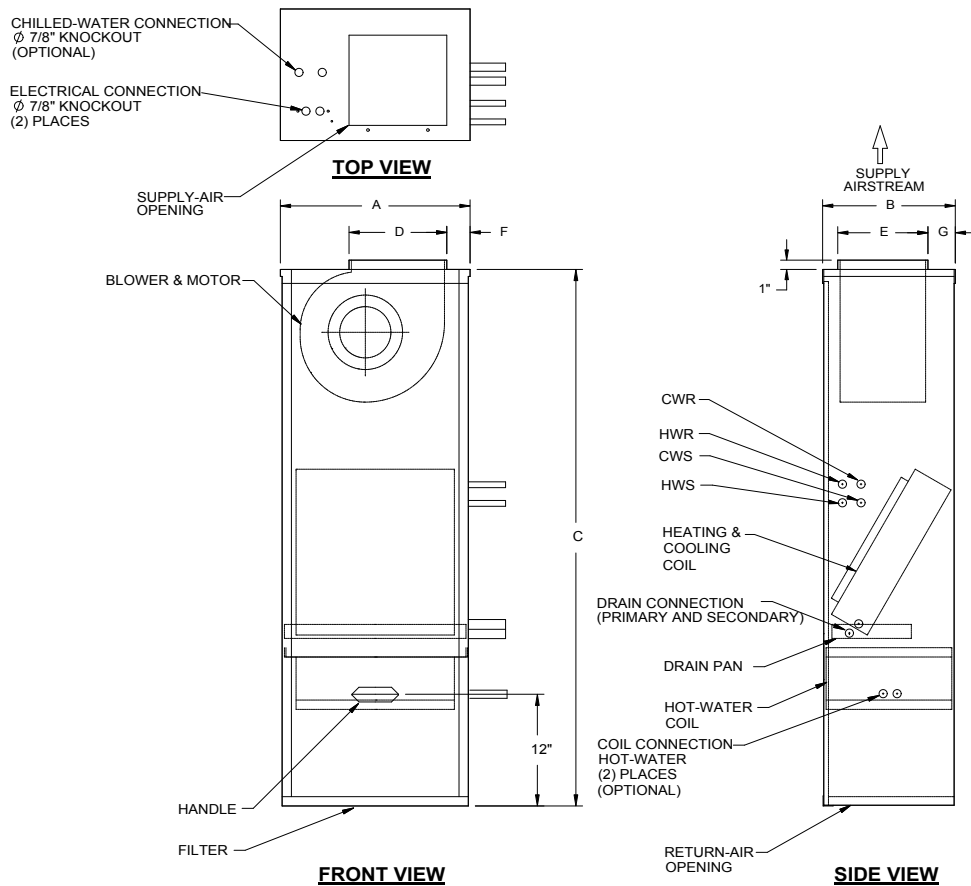
Sound Data

Vertical (SV Series)

| Size | Series / Model | Fan Speed | OCTAVE BAND | | | | | | |
|------|--------------------------|-----------|------------------------|------|------|------|------|------|------|
| | | | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| | | | CENTER FREQUENCY (CPS) | | | | | | |
| | | | 125 | 250 | 500 | 1000 | 2000 | 4000 | 8000 |
| 004 | SV Series Basic / Deluxe | High | 58.1 | 51.8 | 48.6 | 44.5 | 36.3 | 32.5 | 30.8 |
| | | Medium | 54.5 | 39.5 | 38.1 | 33.6 | 27.3 | 24.3 | 26.3 |
| | | Low | 49.6 | 38.5 | 37.2 | 32.1 | 26.1 | 22.7 | 24.6 |
| 006 | SV Series Basic / Deluxe | High | 59.5 | 50.1 | 49.1 | 43.2 | 38.1 | 34.7 | 35.1 |
| | | Medium | 56.3 | 47.3 | 44.6 | 38.8 | 33.4 | 32.0 | 33.4 |
| | | Low | 50.9 | 45.5 | 41.2 | 35.6 | 30.7 | 27.3 | 26.1 |
| | SV Series Front Return | High | 59.2 | 52.1 | 51.6 | 46.4 | 41.4 | 36.0 | 33.6 |
| | | Medium | 53.6 | 49.3 | 47.7 | 41.5 | 35.5 | 33.8 | 26.0 |
| | | Low | 51.8 | 47.1 | 44.3 | 36.4 | 34.2 | 31.5 | 24.4 |
| 008 | SV Series Basic / Deluxe | High | 62.1 | 56.6 | 53.3 | 48.3 | 44.2 | 40.8 | 36.5 |
| | | Medium | 56.6 | 48.2 | 45.7 | 41.6 | 38.2 | 32.9 | 29.7 |
| | | Low | 51.8 | 44.6 | 39.6 | 36.2 | 33.8 | 27.8 | 24.4 |
| | SV Series Front Return | High | 60.1 | 57.0 | 55.7 | 53.0 | 49.7 | 45.0 | 37.0 |
| | | Medium | 56.7 | 52.3 | 47.0 | 45.4 | 41.2 | 34.2 | 27.8 |
| | | Low | 53.4 | 46.5 | 43.7 | 42.2 | 39.6 | 32.7 | 25.4 |
| 010 | SV Series Basic / Deluxe | High | 63.2 | 56.9 | 57.3 | 53.1 | 47.3 | 41.8 | 39.8 |
| | | Medium | 58.1 | 51.7 | 53.8 | 48.3 | 42.4 | 37.2 | 31.7 |
| | | Low | 55.5 | 46.9 | 46.1 | 41.4 | 35.6 | 32.3 | 29.1 |
| | SV Series Front Return | High | 61.5 | 59.8 | 57.2 | 56.0 | 52.1 | 47.1 | 39.1 |
| | | Medium | 57.2 | 54.1 | 52.2 | 49.3 | 42.1 | 38.9 | 27.3 |
| | | Low | 54.1 | 48.6 | 45.8 | 44.5 | 39.7 | 36.7 | 26.1 |
| 012 | SV Series Basic / Deluxe | High | 65.3 | 61.4 | 60.1 | 56.5 | 49.9 | 45.1 | 43.1 |
| | | Medium | 60.4 | 55.9 | 54.2 | 52.1 | 44.7 | 41.1 | 35.4 |
| | | Low | 56.3 | 51.7 | 46.8 | 44.3 | 36.9 | 35.6 | 30.1 |
| | SV Series Front Return | High | 62.5 | 61.3 | 59.8 | 57.8 | 54.7 | 47.6 | 40.8 |
| | | Medium | 58.8 | 57.2 | 54.1 | 50.3 | 44.1 | 38.6 | 28.7 |
| | | Low | 54.3 | 53.7 | 48.6 | 46.5 | 41.4 | 34.2 | 27.7 |
| 015 | SV Series Front Return | High | 58.5 | 55.5 | 53.0 | 49.0 | 47.0 | 45.0 | 40.8 |
| | | Medium | 54.3 | 51.4 | 48.1 | 44.3 | 42.1 | 38.9 | 29.0 |
| | | Low | 51.0 | 48.4 | 45.4 | 41.2 | 38.7 | 35.4 | 26.8 |
| 018 | SV Series Front Return | High | 61.0 | 57.5 | 55.5 | 51.5 | 50.0 | 47.0 | 42.4 |
| | | Medium | 56.2 | 53.3 | 52.1 | 49.1 | 46.4 | 42.0 | 32.1 |
| | | Low | 52.4 | 50.5 | 49.4 | 46.4 | 41.4 | 38.5 | 30.8 |
| 022 | SV Series Front Return | High | 62.5 | 60.0 | 58.6 | 53.2 | 51.7 | 48.4 | 45.6 |
| | | Medium | 58.0 | 56.4 | 55.3 | 51.4 | 49.5 | 44.1 | 32.7 |
| | | Low | 53.1 | 51.5 | 50.4 | 47.4 | 45.4 | 41.8 | 31.9 |

- Notes: 1) Power levels are in dB RE 10-12 watts.
 2) Sound data tested in accordance with ASHRAE Standard 68 and ARI Standard 260 and 350.
 3) Air Flow under dry coil conditions.

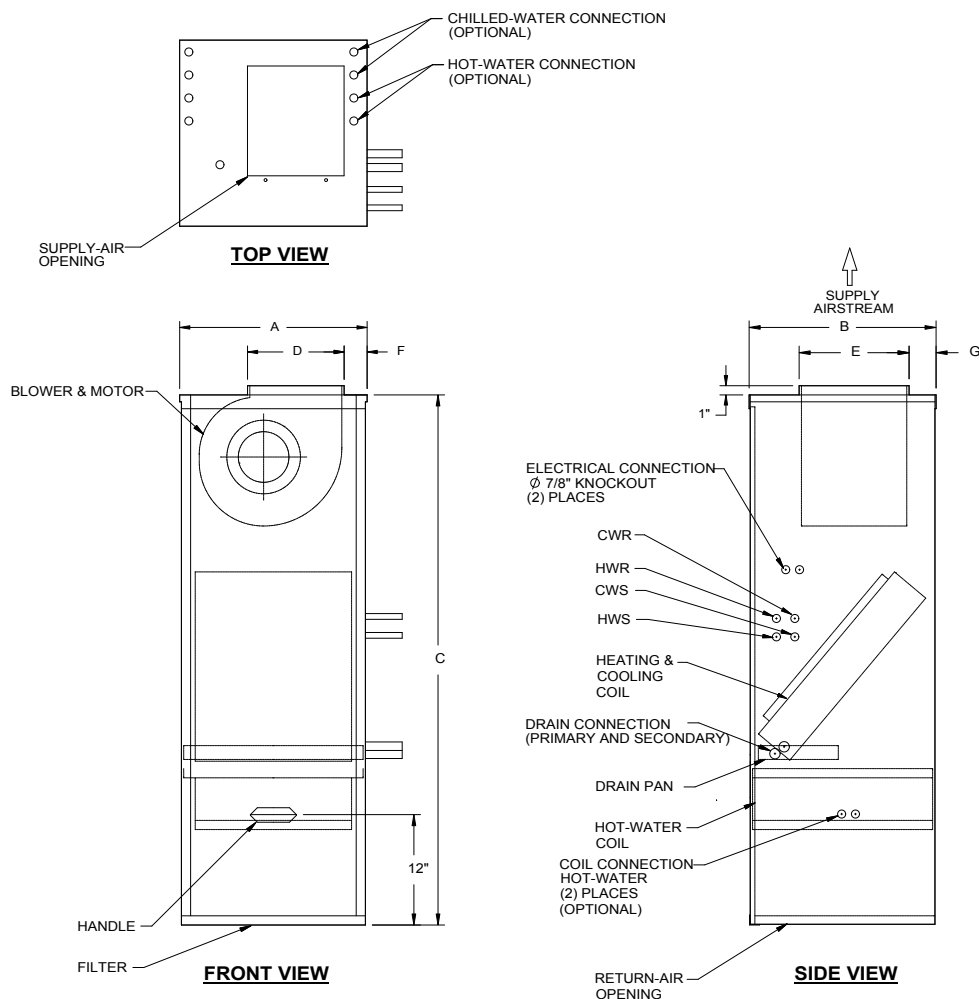
HI-PERFORMANCE CASED VERTICAL - BASIC/DELUXE BOTTOM RETURN 400 - 800 CFM



| MODEL BASIC / DELUXE | A | B | C | D | E | F | G | FILTER SIZE |
|-------------------------|---------|---------|--------|----------|---------|--------|--------|----------------|
| 400 | 20-5/32 | 14-5/32 | 57-5/8 | 10-15/32 | 7-3/32 | 2-7/32 | 3-1/32 | 16X16X1 |
| 600 | 20-5/32 | 14-5/32 | 57-5/8 | 10-15/32 | 8-15/32 | 2-7/32 | 3-1/32 | 16X20X1 |
| 800 | 20-5/32 | 14-5/32 | 57-5/8 | 10-15/32 | 9-13/32 | 2-7/32 | 3-1/32 | 20X20X1 |

- All sizes shown in inches.
- Right-hand unit shown, left-hand unit opposite.
- Coil connections determined by facing the supply-air opening.
- Electrical junction box is located on the same side as the coil connections.
- Unit must be installed level and condensate drain lines should be trapped.
- Drain pan is powder-coated epoxy with a 1/8" thick closed-cell insulation and has 3/4" NPT primary and secondary drain connections.
- Entire cabinet, scroll and blower wheel are heavy-gauge, galvanized steel.
- Coil Connections: 1/2" CW and HW on 004-008.

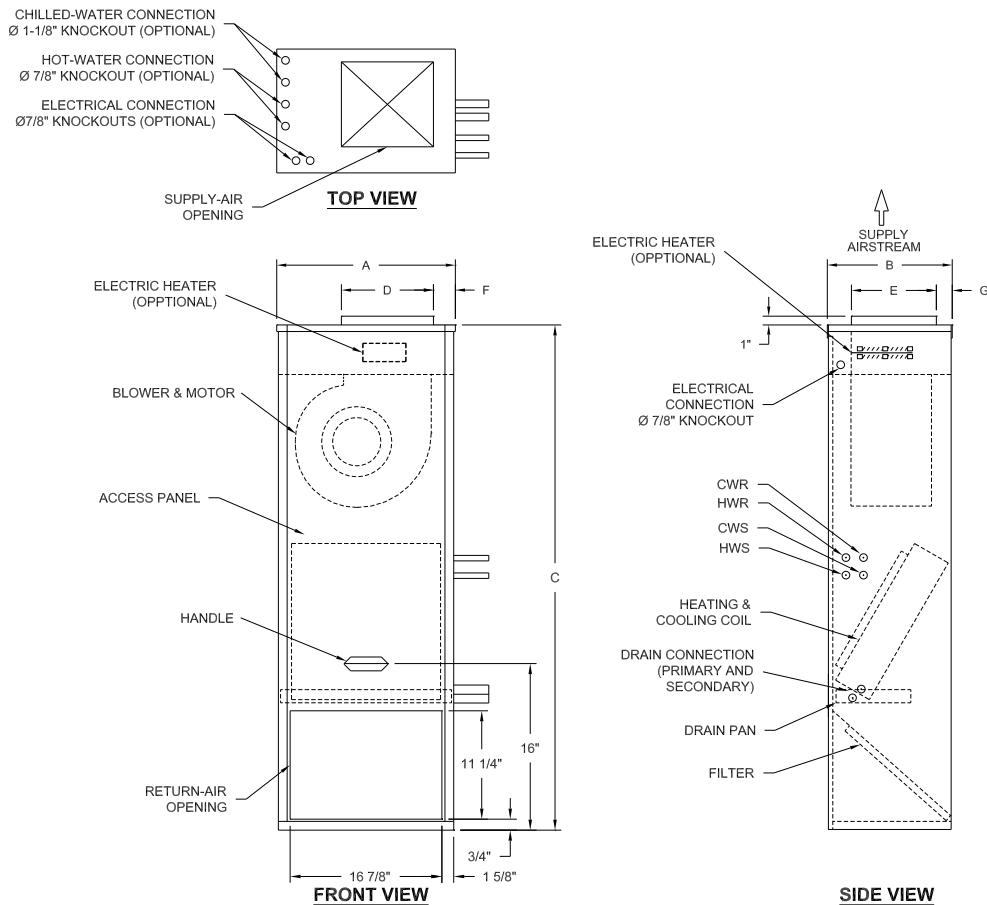
HI-PERFORMANCE CASED VERTICAL - BASIC/DELUXE BOTTOM RETURN 1000 - 2200 CFM



| MODEL BASIC / DELUXE | A | B | C | D | E | F | G | FILTER SIZE |
|-------------------------|----------|---------|--------|--------|----------|-------|--------|----------------|
| 1000 | 20-11/32 | 20-5/16 | 57-5/8 | 10-3/8 | 11-15/16 | 2-1/8 | 3-1/16 | 20X20X1 |
| 1200 | 20-11/32 | 20-5/16 | 57-5/8 | 10-3/8 | 11-15/16 | 2-1/8 | 3-1/16 | 20X20X1 |
| 1500 | 36 | 24-5/8 | 62-3/4 | 24 | 10-1/2 | 3 | 3 | 30X24X1 |
| 1800 | 36 | 24-5/8 | 62-3/4 | 24 | 10-1/2 | 3 | 3 | 30X24X1 |
| 2200 | 36 | 24-5/8 | 62-3/4 | 24 | 10-1/2 | 3 | 3 | 30X24X1 |

- All sizes shown in inches.
- Right-hand unit shown, left-hand unit opposite.
- Coil connections determined by facing the supply-air opening.
- Electrical junction box is located on the same side as the coil connections.
- Unit must be installed level and condensate drain lines should be trapped.
- Drain pan is powder-coated epoxy with a 1/8" thick closed-cell insulation and has 3/4" NPT primary and secondary drain connections.
- Entire cabinet, scroll and blower wheel are heavy-gauge, galvanized steel.
- Coil Connections: 1/2" CW on CV010; 3/4" on 012-022 and 1/2" HW on 010-022.

HI-PERFORMANCE CASED VERTICAL - BASIC FRONT RETURN 400 - 800 CFM

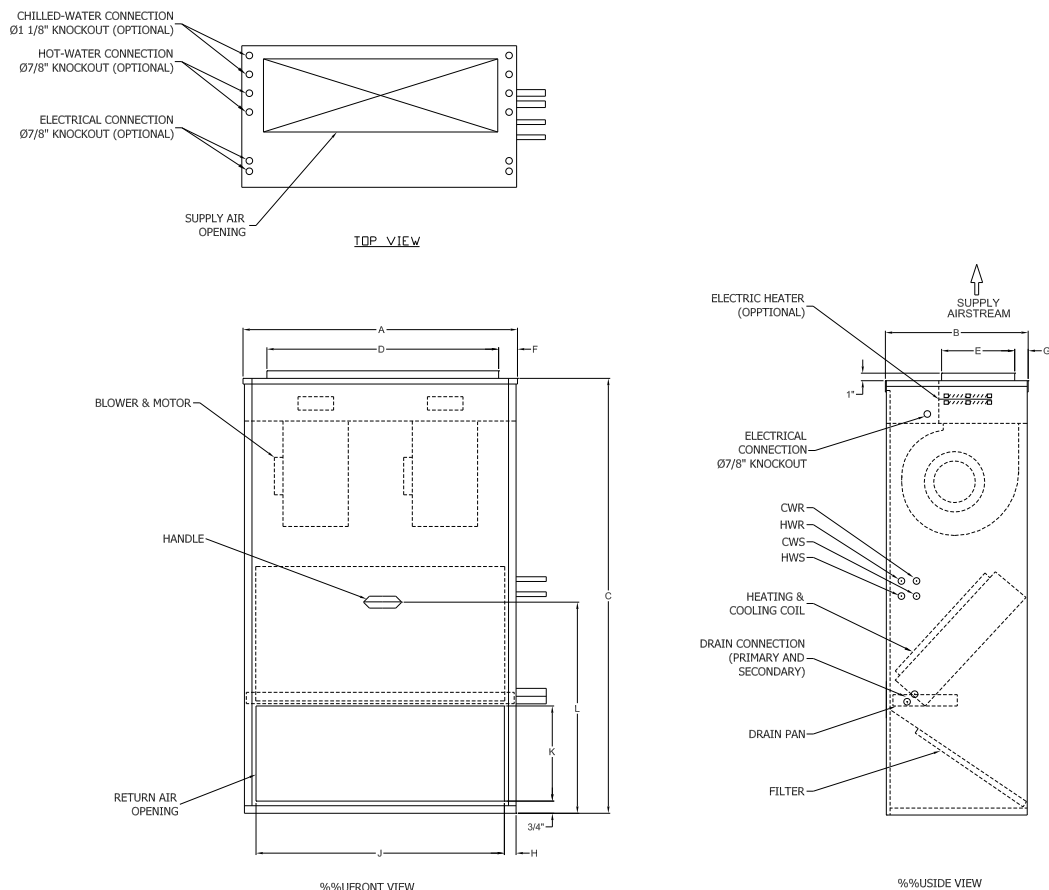


| MODEL BASIC / DELUXE | A | B | C | D | E | F | G | FILTER SIZE |
|-------------------------|---------|---------|--------|----------|---------|--------|--------|----------------|
| 400 | 20-5/32 | 14-5/32 | 57-5/8 | 10-15/32 | 7-3/32 | 2-7/32 | 3-1/32 | 16X16X1 |
| 600 | 20-5/32 | 14-5/32 | 57-5/8 | 10-15/32 | 8-15/32 | 2-7/32 | 3-1/32 | 16X20X1 |
| 800 | 20-5/32 | 14-5/32 | 57-5/8 | 10-15/32 | 9-13/32 | 2-7/32 | 3-1/32 | 20X20X1 |

- All sizes shown in inches.
- Right-hand unit shown, left-hand unit opposite.
- Coil connections determined by facing the supply-air opening.
- Electrical junction box is located on the same side as the coil connections.
- Unit must be installed level and condensate drain lines should be trapped.
- Drain pan is powder-coated epoxy with a 1/8" thick closed-cell insulation and has 3/4" NPT primary and secondary drain connections.
- Entire cabinet, scroll and blower wheel are heavy-gauge, galvanized steel.
- Coil Connections: 1/2" CW and HW on 004-008.

HI-PERFORMANCE CASED VERTICAL - BASIC FRONT RETURN

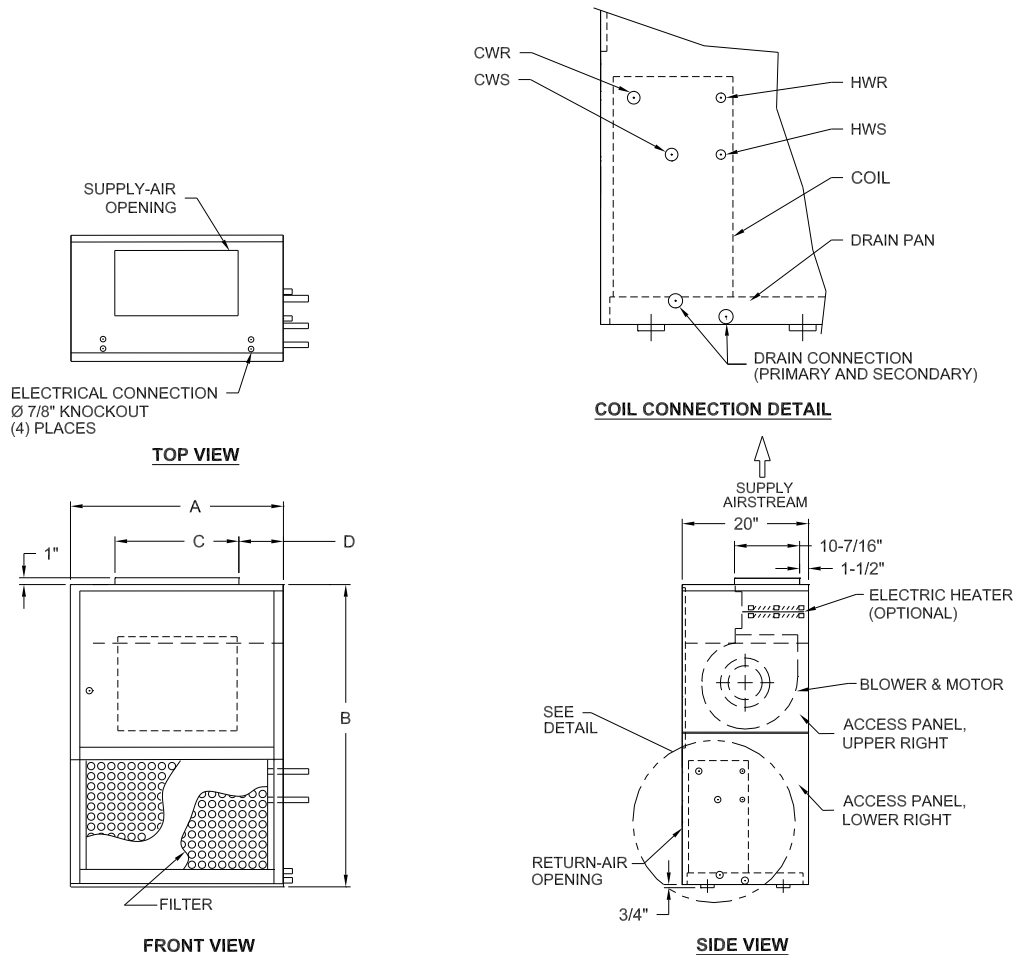
1000 - 2200 CFM



| MODEL BASIC / DELUXE | A | B | C | D | E | F | G | FILTER SIZE |
|-------------------------|----------|---------|--------|--------|----------|-------|--------|----------------|
| 1000 | 20-11/32 | 20-5/16 | 57-5/8 | 10-3/8 | 11-15/16 | 2-1/8 | 3-1/16 | 20X20X1 |
| 1200 | 20-11/32 | 20-5/16 | 57-5/8 | 10-3/8 | 11-15/16 | 2-1/8 | 3-1/16 | 20X20X1 |
| 1500 | 36 | 24-5/8 | 62-3/4 | 24 | 10-1/2 | 3 | 3 | 30X24X1 |
| 1800 | 36 | 24-5/8 | 62-3/4 | 24 | 10-1/2 | 3 | 3 | 30X24X1 |
| 2200 | 36 | 24-5/8 | 62-3/4 | 24 | 10-1/2 | 3 | 3 | 30X24X1 |

- All sizes shown in inches.
- Right-hand unit shown, left-hand unit opposite.
- Coil connections determined by facing the supply-air opening.
- Electrical junction box is located on the same side as the coil connections.
- Unit must be installed level and condensate drain lines should be trapped.
- Drain pan is powder-coated epoxy with a 1/8" thick closed-cell insulation and has 3/4" NPT primary and secondary drain connections.
- Entire cabinet, scroll and blower wheel are heavy-gauge, galvanized steel.
- Coil Connections: 1/2" CW on CV010; 3/4" on 012-022 and 1/2" HW on 010-022.

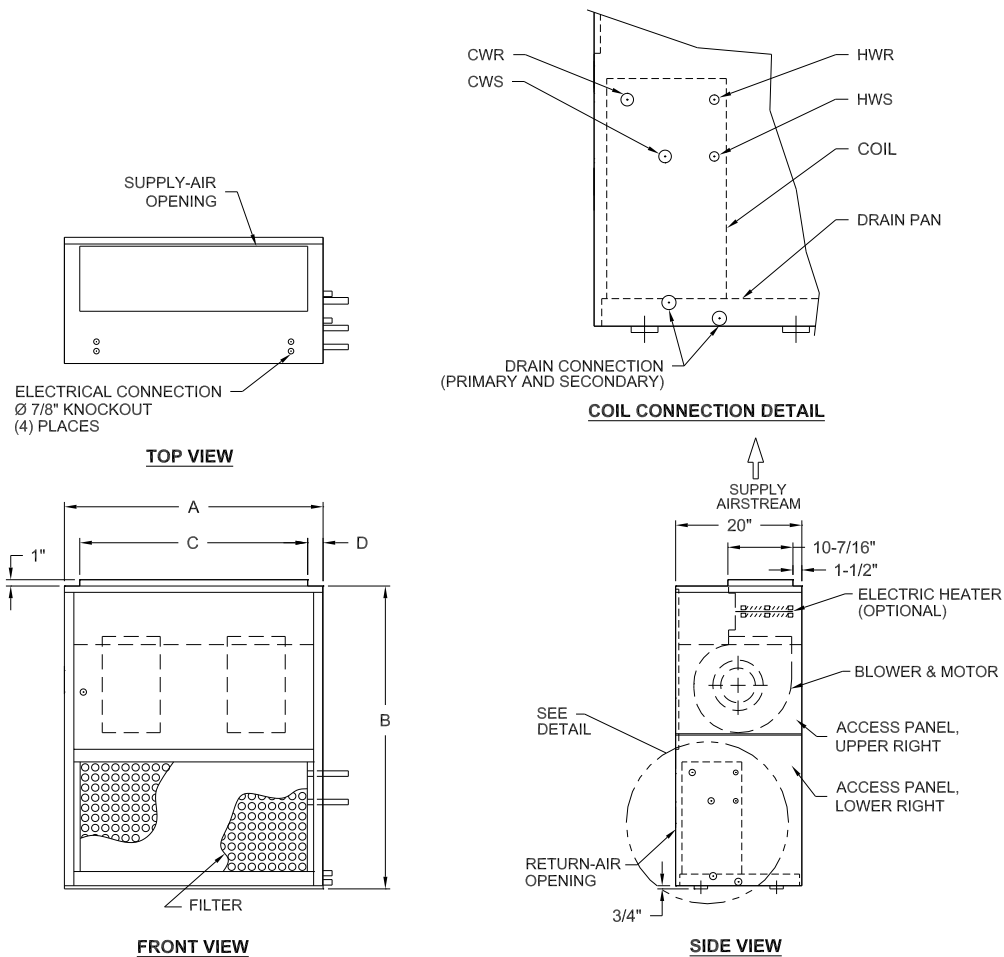
HI-PERFORMANCE CASED VERTICAL - FRONT RETURN/TOP SUPPLY 600 - 1200 CFM



| MODEL FRONT RETURN / TOP SUPPLY | A | B | C | D | FILTER SIZE |
|---------------------------------------|----|----|--------|-------|----------------|
| 600 | 21 | 42 | 12-1/4 | 4-3/8 | 16X16X1 |
| 800 | 25 | 42 | 12-1/4 | 6-3/8 | 16X20X1 |
| 1000 | 25 | 45 | 12-1/4 | 6-3/8 | 20X20X1 |
| 1200 | 30 | 45 | 12-1/4 | 8-7/8 | 20X25X1 |

- All sizes shown in inches.
- Right-hand unit shown, left-hand unit opposite.
- Coil connections determined by facing the supply-air opening.
- Electrical junction box is located on the same side as the coil connections.
- Unit must be installed level and condensate drain lines should be trapped.
- Drain pan is powder-coated epoxy with a 1/8" thick closed-cell insulation and has 3/4" NPT primary and secondary drain connections.
- Entire cabinet, scroll and blower wheel are heavy-gauge, galvanized steel.
- Coil Connections: 1/2" CW for 006; 3/4" on 008-022 chilled water. 1/2" HW on 006-022 hot water.

HI-PERFORMANCE CASED VERTICAL - FRONT RETURN/TOP SUPPLY 1500 - 2200 CFM



| MODEL FRONT RETURN / TOP SUPPLY | A | B | C | D | FILTER SIZE |
|---------------------------------------|----|----|--------|-------|----------------|
| 1500 | 37 | 48 | 25-1/4 | 5-7/8 | 25X25X1 |
| 1800 | 37 | 48 | 32-1/4 | 2-3/8 | (2) 25X16X1 |
| 2200 | 41 | 48 | 36-1/4 | 2-3/8 | (2) 25X20X1 |

- All sizes shown in inches.
- Right-hand unit shown, left-hand unit opposite.
- Coil connections determined by facing the supply-air opening.
- Electrical junction box is located on the same side as the coil connections.
- Unit must be installed level and condensate drain lines should be trapped.
- Drain pan is powder-coated epoxy with a 1/8" thick closed-cell insulation and has 3/4" NPT primary and secondary drain connections.
- Entire cabinet, scroll and blower wheel are heavy-gauge, galvanized steel.
- Coil Connections: 1/2" CW for 006; 3/4" on 008-022 chilled water. 1/2" HW on 006-022 hot water.

Weights and Measures

The following SV Series weights and measures are based on fan coil units only. Add approximately 20% for packaging and crating.

| Unit | Model | Rows | Dimensions / Inches | | | Weight/lbs. | | Dimensions / Millimeters | | | Weight/kg | |
|----------------------------------|-------|------|---------------------|-------|-------|-------------|-----|--------------------------|-------|-------|-----------|-----|
| | | | Height | Width | Depth | Dry | Wet | Height | Width | Depth | Dry | Wet |
| SV & DF Series Basic / Deluxe | 004 | 3 | 59 | 21 | 15 | 104 | 109 | 1,499 | 533 | 381 | 47 | 50 |
| | 004 | 4 | 59 | 21 | 15 | 109 | 116 | 1,499 | 533 | 381 | 49 | 53 |
| | 006 | 3 | 59 | 21 | 15 | 110 | 115 | 1,499 | 533 | 381 | 50 | 52 |
| | 006 | 4 | 59 | 21 | 15 | 116 | 122 | 1,499 | 533 | 381 | 52 | 55 |
| | 008 | 3 | 59 | 21 | 15 | 142 | 147 | 1,499 | 533 | 381 | 64 | 67 |
| | 008 | 4 | 59 | 21 | 15 | 147 | 154 | 1,499 | 533 | 381 | 67 | 70 |
| | 010 | 3 | 59 | 21 | 21 | 151 | 156 | 1,499 | 533 | 533 | 58 | 71 |
| | 010 | 4 | 59 | 21 | 21 | 156 | 163 | 1,499 | 533 | 533 | 71 | 74 |
| | 012 | 3 | 59 | 21 | 21 | 167 | 172 | 1,499 | 533 | 533 | 76 | 78 |
| | 012 | 4 | 59 | 21 | 21 | 172 | 179 | 1,499 | 533 | 533 | 78 | 81 |
| | 015 | 3 | 59 | 22 | 30 | 224 | 234 | 1,499 | 559 | 762 | 102 | 106 |
| | 015 | 4 | 59 | 22 | 30 | 230 | 243 | 1,499 | 559 | 762 | 104 | 110 |
| | 018 | 3 | 59 | 22 | 30 | 234 | 244 | 1,499 | 559 | 762 | 106 | 111 |
| | 018 | 4 | 59 | 22 | 30 | 240 | 253 | 1,499 | 559 | 762 | 109 | 115 |
| SCTF Series Front Return | 022 | 3 | 59 | 22 | 30 | 234 | 244 | 1,499 | 559 | 762 | 106 | 111 |
| | 022 | 4 | 59 | 22 | 30 | 240 | 253 | 1,499 | 559 | 762 | 109 | 115 |
| | 004 | 3 | 43 | 21 | 15 | 116 | 121 | 1,092 | 533 | 508 | 53 | 55 |
| | 004 | 4 | 43 | 21 | 15 | 121 | 128 | 1,092 | 533 | 508 | 55 | 58 |
| | 006 | 3 | 43 | 21 | 15 | 116 | 121 | 1,092 | 533 | 508 | 53 | 55 |
| | 006 | 4 | 43 | 21 | 15 | 121 | 128 | 1,092 | 533 | 508 | 55 | 58 |
| | 008 | 3 | 43 | 25 | 15 | 131 | 136 | 1,092 | 635 | 508 | 59 | 62 |
| | 008 | 4 | 43 | 25 | 15 | 136 | 143 | 1,092 | 635 | 508 | 62 | 65 |
| | 010 | 3 | 46 | 25 | 21 | 141 | 146 | 1,168 | 635 | 508 | 64 | 66 |
| | 010 | 4 | 46 | 25 | 21 | 146 | 153 | 1,168 | 635 | 508 | 66 | 70 |
| | 012 | 3 | 46 | 30 | 21 | 152 | 157 | 1,168 | 762 | 508 | 69 | 71 |
| | 012 | 4 | 46 | 30 | 21 | 157 | 164 | 1,168 | 762 | 508 | 71 | 75 |
| | 015 | 3 | 49 | 37 | 30 | 202 | 212 | 1,245 | 940 | 508 | 92 | 96 |
| | 015 | 4 | 49 | 37 | 30 | 208 | 221 | 1,245 | 940 | 508 | 94 | 100 |
| | 018 | 3 | 49 | 37 | 30 | 213 | 223 | 1,245 | 940 | 508 | 97 | 101 |
| | 018 | 4 | 49 | 37 | 30 | 219 | 232 | 1,245 | 940 | 508 | 99 | 105 |
| | 022 | 3 | 49 | 41 | 30 | 230 | 240 | 1,245 | 1041 | 508 | 104 | 109 |
| | 022 | 4 | 49 | 41 | 30 | 236 | 249 | 1,245 | 1041 | 508 | 107 | 113 |

General

Furnish and install Airtherm SV Series Vertical Direct Drive Fan Coil units as indicated on the plans and in the specifications. All units shall be completely factory-assembled, tested and shipped as one working unit. All units shall be capable of meeting or exceeding the scheduled capacities for cooling, heating and air delivery. Dimensions for each model and size shall be considered maximums. Units shall be UL listed and also in compliance with UL/ANSI Standard 1995, and be certified as complying with the latest edition of ARI Standard 440.

Construction

All unit chassis shall be fabricated of heavy gauge galvanized steel panels able to meet 125-hour salt spray test per ASTM B-117. All exterior panels shall be insulated with 1/2" thick, 3.35 pound per cubic foot, dual density fiberglass insulation rated for a maximum air velocity of 3600 f.p.m. Insulation shall conform to UL 181 for erosion and NFPA 90A and 90B for flame spread (25) and smoke developed (50) rating per ASTM E-84 and UL 723 and CAN./ULC, S102-M88.

All concealed units shall have a minimum 1" duct collar on the discharge. Plenum units shall have a minimum 1" duct collar on the return.

All exposed units shall have exterior panels fabricated of cold-rolled steel. The fan and filter bottom access panel has two screws for easy removal and access for service and is also equipped with a safety chain.

OPTION: Provide foil-faced insulation in lieu of standard. Foil insulation shall meet or exceed the requirements stated above, and in addition, meet ASTM Standards C665 and C-1136 for biological growth in insulation. Insulation shall be lined with aluminum foil, fiberglass scrim reinforcement, and 30-pound kraft paper laminated together with a flame resistant adhesive. All exposed edges shall be sealed to prevent any fibers from reaching the air stream.

OPTION: Provide Elastomeric Closed Cell Foam Insulation in lieu of standard. Insulation shall conform to UL 181 for erosion and NFPA 90A for fire, smoke and melting, and comply with a 25/50 Flame Spread and Smoke Developed Index per ASTM E-84 or UL 723. Additionally, insulation shall comply with Anti-microbial Performance Rating of zero, no observed growth, per ASTM G21. Polyethylene insulation is not acceptable.

OPTION: For exposed units, the bottom access panels shall be attached with quick open fasteners to allow for easy removal and access for service.

OPTION: For exposed units, provide double deflection discharge grille and either a rear return or bottom return single deflection grille. Supply and return duct connections are available.

Unit mounting shall be by hanger and slotted hanging brackets provided at four locations. For easy installation, exposed units provided with 1/2" mounting knockouts in four places.

Painted Finish

All exposed cabinet exterior panels shall be provided with soft-white powder-coated epoxy finish and subjected to a 1500-hour salt spray test in accordance with ASTM B117.

Sound

Units shall have published sound power level data tested in accordance with ARI Standard 350-2000 (non-ducted equipment) and ARI Standard 260-2001 (ducted equipment).

Fan Assembly

Unit fan shall be a dynamically balanced, forwardly curved, DWDI centrifugal type constructed of heavy gauge zinc coated galvanized steel for corrosion resistance. Motors shall be high efficiency, permanently lubricated sleeve bearing, permanent split-capacitor type with UL and C-UL listed automatic reset thermal overload protection and three

separate horsepower taps. Single speed motors are not acceptable.

The fan assembly shall be easily removable for servicing the motor and blower at or away from the unit. The entire fan assembly shall be able to come out of the unit by removing two wing nuts and unplugging the motor.

Plenum unit fan assemblies shall be easily serviced through an access panel provided.

OPTION: Devices used to energize and de-energize (switch) fan speeds must be totally silent. Mercury and/or quiet relays and/or contactors are not acceptable.

Coils

All cooling and heating coils shall optimize rows and fins per inch to meet the specified capacity. Coils shall have seamless copper tubes and shall be mechanically expanded to provide an efficient, permanent bond between the tube and fin. Fins shall have high efficiency aluminum surface optimized for heat transfer, air pressure drop and carryover.

All coils shall be hydrostatically tested at 350 PSIG air pressure under water, and rated for a maximum of 300 PSIG working pressure at 200°F maximum water temperature. Direct expansion cooling coils shall include a fixed orifice distributor and nozzle.

Steam coils shall be standard steam type suitable for temperatures above 35°F and 15 PSIG maximum working pressure.

OPTION: Coil casing shall be fabricated from 304 Stainless Steel. All coils shall be provided with a manual-air vent fitting to allow for coil venting.

OPTION: Provide automatic air vents in lieu of manual-air vents.

Cooling and heating coils shall be in the common coil casing, heating coils shall be furnished in the

re-heat or pre-heat position on the unit with chilled water coils, and DX heating coil shall be in pre-heat position only.

Drain Pans

Primary condensate drain pans shall be single wall, heavy gauge, powder-coated epoxy subjected to a 650-hour salt spray test in accordance with ASTM B117, and shall extend under the entire cooling coil. Drain pans shall be of one-piece construction and be positively sloped for condensate removal. Drain pans shall have primary and secondary drain connections.

The drain pan shall be externally insulated with a closed cell foam insulation. The insulation shall carry no more than a 25/50 Flame Spread and Smoke Developed Rating per ASTM E-84 and UL 723 and fungi resistant per ASTM G21/C1338, bacteria resistant per ASTM G22 and mold growth per UL 181.

OPTION: Provide a single wall primary drain pan constructed entirely of heavy gauge type 304 stainless steel for superior corrosion resistance. Stainless steel drain pans shall be externally insulated and meet or exceed the requirements stated above.

Provide a secondary drain connection on the primary drain pan for condensate overflow.

OPTION: Provide a condensate overflow switch in the primary drain pan for condensate overflow.

Filters

All plenum and exposed units shall be furnished with a minimum 1" nominal glass fiber throwaway filter. Filters shall be tight fitting to prevent air bypass. Plenum and exposed unit filters shall be easily removable from the bottom or rear of the unit without the need for tools.

OPTION: Provide unit with 1" pleated filters rated at 25-30% efficiency and MERV 6 based on ASHRAE 52.2 - 1999.

Electrical (Option)

Units shall be furnished with single point power connection. Provide an electrical junction box with terminal strip for motor and other electrical terminations.

OPTION: The factory-mounted terminal wiring strip consists of a multiple position screw terminal block to facilitate wiring terminations for the electric control valves and thermostats.

Electric Heat

Furnish an electric resistance heating assembly as an integral part of the fan coil unit, with the heating capacity, voltage and kilowatts scheduled. The heater assembly shall be designed and rated for installation on the fan coil unit without the use of duct extensions or transitions, and be located in the unit as to not expose the fan assembly to excessive leaving air temperatures that could affect motor performance.

The heater and unit assembly shall be listed for zero clearance and meet all NEC requirements, and be UL listed with the unit as an assembly in compliance with UL/ANSI Standard 1995.

All heating elements shall be open coil type Nichrome wire mounted in ceramic insulators and located in an insulated heavy gauge galvanized steel housing. All elements shall terminate in a machine staked stainless steel terminal secured with stainless steel hardware for corrosion resistance. The element support brackets shall be spaced no greater than 3-1/2" on center. All internal wiring shall be rated for 105°C minimum.

All heaters shall include over temperature protection consisting of an automatic reset primary thermal limit and back up secondary thermal limit. All heaters shall be single stage.

An incoming line power distribution block shall be provided and designated to accept single point

power wiring capable of carrying 125% of the calculated load current.

OPTION: Devices used to energize and de-energize (switch) electric heat must be totally silent. Mercury and/or quiet relays and/or contactors are not acceptable.

Piping Packages (Option)

Provide a factory assembled valve piping package to consist of a 2 or 3 way, on/off, motorized electric control valve and two ball isolation valves. Control valves are piped normally closed to the coil. Maximum entering water temperature on the control valve is 180°F, and maximum close-off pressure is 75 PSIG (1/2") or 50 PSIG (3/4"). Maximum operating pressure shall be 300 PSIG.

OPTION: Provide 3-wire floating point modulating control valve in lieu of standard 2-position control valve with factory assembled valve piping package.

OPTION: Provide either a fixed or adjustable flow control device for each piping package.

OPTION: Provide pressure-temperature ports for each piping package.

Piping packages are shipped installed on all units and can be shipped separately by request only.

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