

2-PIPE VERTICAL FAN COIL – DL & DLE



SPECIFICATIONS

CABINET

Cabinets are 20-gauge satin-coat steel. The cabinet is fully-insulated with ½-inch fiberglass bonded with a thermosetting resin and coated on the airstream side with an acrylic facing – without the use of flammable adhesives. Insulation inside the unit is flame-spread rated no more than 25 and smoke developed rating no more than 50.

Alternative cabinet material options include 18-gauge galvanized steel, 20-gauge galvanized steel or 20-gauge satin-coat steel. Choose to change the height from 84 inches to 80, 86 or 88 inches. You can also add a 2, 4 or 6-inch riser.

A 6-inch x 3.25-inch fresh air opening with or without a manual-sliding balancing damper or with a motorized balance damper can also be included.

COIL ASSEMBLY

Coils are ½-inch OD copper tubes with mechanically-bonded corrugated aluminum fins. The number of rows and circuiting are selected to suit scheduled capacities. Coils are rated for a minimum working pressure of 450 psig.

Customized coils are available to meet project-specific design parameters or building operating requirements.

FAN ASSEMBLY

A thermally-protected, multi-speed ECM motor is resiliently mounted to a centrifugal fan which has a galvanized-steel forward-curved DWDI wheel in a painted housing.

Optional fans include ECM Endura (X13) constant-torque ECM fans or ECM EON constant-volume fans. The motors can be rated 115v, 208v or 277v.

GRILLES AND REGISTERS

Double deflection supply grilles and registers have adjustable vertical and/or horizontal louvers. Registers are constructed with light-gauge metal complete with adjustable opposed blade dampers.

Optional register equipment includes aluminum supply air grilles, return air grilles and access panel, or supply air grilles with integrated manual-adjustable balancing damper.

UNILUX VFC MICRO-PROCESSOR BASED CONTROLLER

We include our Unilux VFC micro-processor, which controls all operations, including wall-mount thermostat with 7-day, 4-time bucket programming; 3-speed fan control; temperature setting and time, date and humidity display.

Wi-Fi option is available to allow residents to control their HVAC system from anywhere with our Universe application.

FILTERS

A 1-inch disposable filter is included with the return air grille.

Optional filters include 1-inch pleated MERV-8 filter, 1-inch pleated MERV-11 filter or 1-inch pleated MERV-13 filter.

ELECTRIC HEATING ELEMENT

Available 1KW auxiliary electric heater featuring single stage with an open-wire nickel-chrome element carried in floating ceramic bushings. An auto-reset high-limit cut-off thermostat is factory installed in the coil frame.

WATER PREVENTION SENSORS

We factory install a drain-pan overflow sensor that detects rising water levels in the drain pan and turns off the unit to prevent flooding.

We also include an anti-freeze temperature sensor that activates hot water connections when return air is below 4°C (40°F) to prevent freezing and flooding.

An audible alarm sounds if the unit enters protection mode.

STAINLESS STEEL DRAIN PAN

Our drain pans are one-piece stainless-steel stamped products designed to never leak, and positively sloped for positive drainage. The drain hose from the outlet to the condensate riser shall form a running P-Trap. The underside of the drain pan is insulated with ½-inch thick thermal and sound insulation.

PIPING BRANCHES

Piping branches are constructed with ½-inch type "L" copper. We use stainless steel braided flex hoses to allow expansion and contraction of risers. We include shut-off ball valves with flare nuts in the supply and return branches for easy removal.

RISERS

Supply and return risers are type "L" copper. Condensate risers are type "DWV" copper. All have 75mm (3 inch) deep expanded ends to facilitate field installation. Supply and return risers are insulated with 1-inch fiberglass covered with a vapor-barrier jacket, which complies with ASTM 84 for flame-spread and smoke-developed ratings. The insulation is continuous over the riser length within the height of the cabinet.

Optional riser configurations include type "M" copper for supply and return risers or type "M" copper for drain risers. Insulation options include insulating drain risers, changing the thickness to 3/8-inch, ½-inch, ¾-inch or 1-inch, or using closed-cell insulation.

CONTROL VALVE PACKAGE

Our standard is a factory-assembled 2-way control valve with flare nut connections to piping branches to facilitate easy removal without using a torch or pipe cutters. This includes motorized electrical "on/off" controlling. Control valves are piped normally-closed to the coil. We provide 3-way motorized valves on top of each riser if the main supply is on ground level or on the bottom if the main supply is on the top level. Maximum entering water temperature on the control valve shall be 200°F and maximum operating pressure shall be 300 psig.

Alternative control options include 2-way and 3-way motorized control valves with electronic fail-safes, automatic balancing valve installed inside VFC, modulating control valve instead of on/off 2-position control valve, BTU thermal meter and thermal sensors installed inside the VFC, or a pressure independent control valve.

ACCESS PANEL

The access panel assembly is constructed of 20-gauge steel complete with a durable, baked enamel-powder finish. The return air opening grille with fixed horizontal louvers is integrated in the construction. The panel is hinged for easy removal.