Vertical Stack Fan
Coil Products – 4 Pipe

PRODUCT SPECIFICATIONS
DSC – 4 PIPE
Series DSC is a four (4) pipe system complete with motorized control valves. Series DSC are also available with 3 way motorized valve piping arrangement. Available with an integrated ERV/HRV module in a slightly larger cabinet size. Refer to DLE-ERV/HRV model series.

- Flow Regulator (optional)
- Strainer (optional)
- Drain Riser
- Supply and Return Risers, type: M Copper
- Supply Air Opening w/ 2 1/8” Duct Collar
- Supply Air Grille, Double Deflection (with or without damper)
- Unilux VFC Thermostat
- Wall Mount Thermostat (Wi-Fi compatibility available)
- 2”x4”x2” Hinged & Removable Access Panel
- Blower, Forward Curved
- Acoustical Baffle
- Motorized Control Valve
- Filter – Behind Single Deflection
- Return Air Grille
- Thermally-Protected Multi-Speed ECM Motor
- Isolating Ball Valve – Sweat Inlet by Flare
- Satin Coat 18 GA. Steel Cabinet with 1/2” Fiberglass Insulation
- Coil, 1/2” O.D. Copper Tubes
- 1-Piece Stainless Steel Drain Pan, Insulated
- EPDM Formed P-Trap Drain Hose
- Return Air Opening

Drain pan overflow sensor and anti-freeze temperature sensor now standard on all units. For operations details, refer to spec sheet.
Unilux vertical stacked fan coil units meet the requirements of UL 1995 / CSA22.2 #236 – Issue 2011 Standard for safety heating and cooling equipment.

1. Cabinet:
20-Gauge satin coat steel. Cabinet is fully insulated with ½” 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: Flame spread rating no more than 25; Smoke developed rating no more than 50.

2. Coil assembly:
Coils corrugated aluminum fins mechanically bonded to ½” OD Copper tube. The number of rows and circuiting are selected to suit scheduled capacities. Coils are rated for a maximum working pressure of 450 psig.

3. 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.

4. Stainless steel drain pan:
Drain pan is one-piece stamped stainless steel product 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” thick thermal and sound insulation.

5. The piping branches:
Are constructed with ½” type ‘L’ copper, and stainless steel braided flex hoses to provide expansion and contraction of risers; include shut-off ball valves with flare nuts in the supply and return branches for easy removal.

6. Risers:
Supply and return risers are type ‘L’ copper and condensate risers are type ‘DWV’ copper. All have 75 mm (3”) deep expanded ends to facilitate field installation. Supply & Return risers are insulated with 1” fiberglass covered with 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.

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

8. Access panel:
Access panel assembly is constructed of 20 gauge steel complete with a durable baked enamel powder finish, with integral grille for the return air opening. The panel is hinged removable to allow for easy filter exchange. The integral core grille has fixed horizontal louvers.

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

10. Unilux VFC Micro-Processor Based Controller:
Unilux VFC microprocessor controls all operations, including a wall-mount thermostat with 7-days 4-time bucket programming, 3-speed fan control, temperature setting, time, date and humidity level display. Wi-Fi option available to allow residents to control their HVAC system from anywhere using Universe application.

11. Filters:
A 1” disposable filter is included with the return air grille.

12. Water Prevention Sensors: NEW
Installed drain pan overflow sensor detects rising drain pan levels and turns off unit to prevent flooding. Also includes an Anti-Freeze Temperature Sensor activates hot water connections when return air is below +4°C (40°F) to prevent freezing and flooding. An audible alarms sounds if in protection mode.
Optional Features

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1. Cabinet:
1.2. Customized height: The standard 84” can be shortened to 80” or extended to 86” or 88”.
1.3. A 2”, 4” or 6” Raised base.
1.4. A 6” x 3.25” fresh air opening with or without a manual sliding balancing damper, or with a motorized balancing damper.

2. Coil and Piping assembly:
2.1. Customized coils to meet the specific project design parameters or the building operating requirements.
2.2. Alternative control valve: 3-way control valve in lieu of 2-way control valve.
2.3. 2-way and 3-way motorized control valves with an electronic fail-safe.
2.4. Automatic balancing valve installed inside VFC.
2.5. Modulating control valve instead of ON/OFF 2 position control valve.
2.6. BTU thermal meter and thermal sensors installed inside VFC.
2.7. Pressure independent control valve.

3. Electrical & Fan assembly:
3.1. Alternative fan: ECM Endura (X13) constant torque ECM fans.
3.2. Alternative fan: ECM EON constant volume fan.
3.3. Rating of motors: can be 115v, 208v or 277v.
3.4. Power fuse or circuit breaker in line with disconnect switch.
3.5. Door interlocking disconnect switch.

4. Risers:
4.1. Type “M” copper for supply and return risers.
4.2. Type “M” copper for drain risers.
4.3. Drain risers insulated.
4.4. Riser pipe insulation thickness can be from 3/8”, ½”, ¾” to 1”.
4.5. Alternative riser insulation material: closed-cell material.

5. Supply & Return air grilles, access panels, and filters:
5.1. Aluminum supply air grilles, return air grilles and access panel.
5.2. Alternative filters: 1” pleated MERV-8 filter, 1” pleated MERV-11 filter, or 1” pleated MERV-13 filter.
5.3. Supply air grilles integrated with manual-adjustable balancing damper.

6. Wi-Fi Connectivity
Option for developer to outfit the entire building with Wi-Fi connectivity package or for individual residents to upgrade at a later date. Wi-Fi connectivity enables access to Universe web & mobile applications for total HVAC control anytime at home or on the go through a mobile device.