Specification Sheet

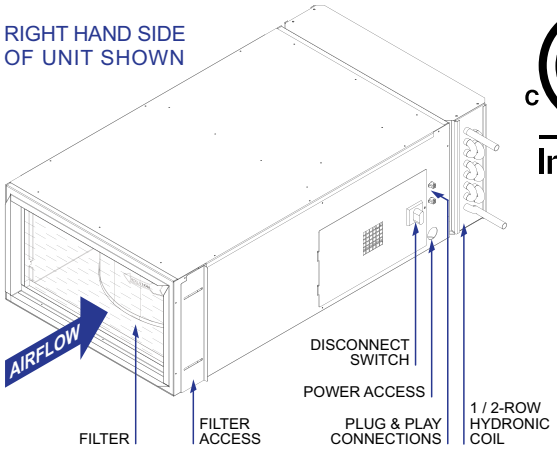
UFW Underfloor Fan Terminal Unit (Hydronic Heating)

Description

UFW (Underfloor Fan Water) is an under floor hydronic heating fan terminal unit. The casing features 20 gauge (1mm) galvanized steel construction, pre-painted black.

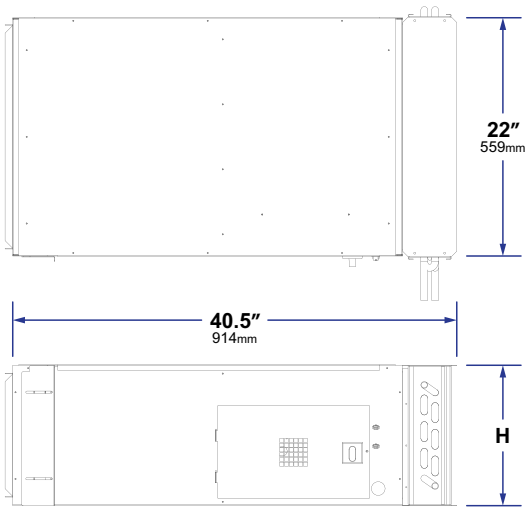
Hydronic coils are available as one (1) or two (2) row configurations. Standard water connections are 1/2"Ø (13mm) straight seamless copper tubing with brazed return bends. Coils are leak tested to 325 psig; design working pressure is 255 psig.

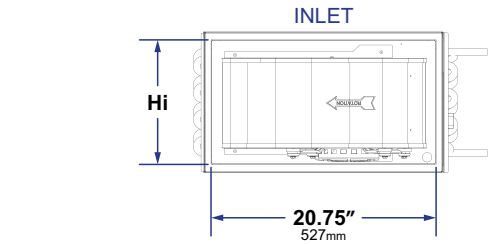
Each unit includes an integrated transformer for 24VAC power, which will power other devices up to a 40VA limit (100VA optional; specify on order). Modular molex cable connections allow plug & play zone installation.

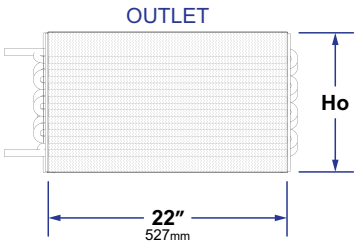


Features

- 20 gauge (1mm) galvanized steel casing, pre-painted black
- Removable fan access panel
- Interlocking disconnect switch on controls access panel
- High efficiency variable speed ECM motor with thermal overload protection (optional direct drive constant speed PSC motor; specify on order)
- Single–point power connection
- 40VA control transformer (100VA optional)
- Main supply fusing
- Terminal strip for hot water valve
- Hydronic heating coil (1-Row / 2-Row)
- 1/2"Ø (13mm) standard water connections
- 1" (25mm) replaceable T/A filter
- ETL listed, fully certified to UL standards
- Meets all NEC requirements
- Includes NEMA-1 enclosure
- Sides lined with 1" (25mm) dual density insulation
- Insulation meets fungi resistance test standards ASTM C-1071 & ASTM G21
- Insulation meets NFPA 90A, UL181
- Insulation has “A” fire classification of 25/50 per ASTM E-84 & UL723
- Insulation meets bacteriological test standards ASTM C-665 & ASTN G22







ALL DIMENSIONS
NOMINAL +/- 0.1" (2.5mm)

H	**in**	**8**	**10**	**13**	**15**
	mm	203	254	330	381
Hi	**in**	**6.4**	**8.4**	**11.4**	**13.4**
	mm	163	213	290	343
Ho	**in**	**6.8**	**8.8**	**11.8**	**13.8**
	mm	173	224	299	351

AirFixture®

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Electrical Performance

1. 120V (120/1/60) | 277V (277/1/60)
   - Single Phase 120V / 277V requires 3 conductors: Line / Neutral / Ground
2. 240V (240/1/60)
   - Single Phase 240V requires 3 conductors: Line1 / Line2 / Ground
3. 208V (208/1/60)
   - Single Phase 208V requires 4 conductors: Line1 / Line2 / Neutral / Ground
4. 208V (208/3/60) | 480V (480/3/60)
   - 3-Phase 208V / 480V requires 5 conductors: Line1 / Line2 / Line3 / Neutral / Ground

Additional custom Voltages / 50Hz capabilities available; specify on order.

PRODUCT DESCRIPTION		PRIMARY VOLTAGE	PHASE	FAN MOTOR VOLTAGE	MCA	MOP
UFW	**12**	120V	1PH	120V	9.6A	15A
	20	208V	1PH	120V	9.6A	15A
	24	240V	1PH	240V	5.4A	15A
	27	277V	1PH	277V	5.1A	15A
	23	208V	3PH	120V	9.6A	15A
	48	480V	3PH	277V	5.1A	15A

Sequence of Operation

The heating sequence will begin with a call for heating from the thermostat.

For hydronic heat, different water valve controls are offered. The standard unit will have controls for 1) normally-closed 24VAC open with spring return, 2) normally-open 24VAC closed with spring return, and 3) normally open 0-10V proportional. Other configurations are available through special requests.

When heat demand has been satisfied and the thermostat has released its call for heat, the fan will continue to run at least 30 seconds to cool down the heating elements. For large heat capacity units, the fan will continue to run until an internal sensor detects the heating elements have cooled down sufficiently. For hydronic heat, the cool down will be 15 seconds.

Standard fan units work in heating only. For fan units configured to operate in cooling mode, a call for cooling from the thermostat will signal the fan to run. Fan units equipped with EC motors will vary the fan speed based on cooling demand. AC motors will run at a single speed.

This sequence represents typical operation as recommended by the manufacturer; any project operational specification that requires a custom sequence must be specified prior to final order.

Specification Sheet

UFW Underfloor Fan Terminal Unit (Hydronic Heating)

Specifications

Application:	Underfloor Hydronic Heating | Raised Access Floor Systems 10"–17" (254mm–432mm) +
Dimensions: **LxWxH (Nominal)**	40.5" x 22" x 8" (1029mm x 559mm x 203mm) 40.5" x 22" x 10" (1029mm x 559mm x 254mm) 40.5" x 22" x 13" (1029mm x 559mm x 330mm) 40.5" x 22" x 15" (1029mm x 559mm x 381mm)
Construction:	Galvanized Steel | 20 Gauge (1mm) | Pre-Painted Black
Supply Press. / Temp.:	0.02–0.1 in. w.c. (5–25 Pa) | 40–120°F (4–49°C)
Air Flow Capacity: **(Nominal Maximum)**	300 cfm @ 0.05 in. w.c. (510 m^3/hr @ 12.5 Pa) | Minimum 8" (203mm) Casing Height 1200 cfm @ 0.05 in. w.c. (2040 m^3/hr @ 12.5 Pa) | Minimum 13" (330mm) Casing Height 1500 cfm @ 0.05 in. w.c. (2548 m^3/hr @ 12.5 Pa) | Minimum 15" (381mm) Casing Height