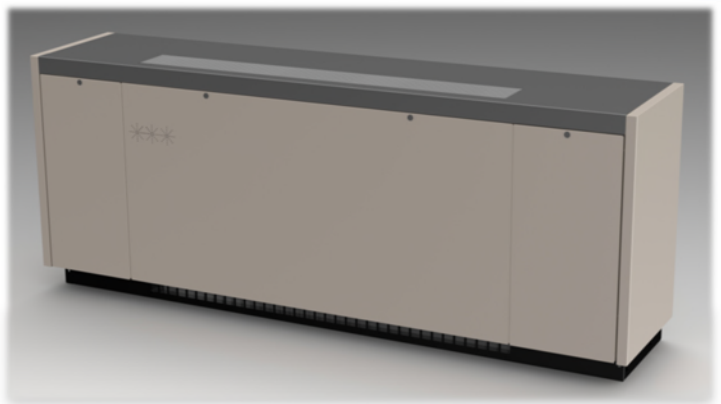


Unit Ventilators - VRFUV

Models

MAUV

MAUH



The entire line of Unit Ventilators is ETL listed to US and Canadian Safety Standards, such as ANSI/UL 1995 and certified under the AHRI 840 program for Unit Ventilators.



Digit 1-4 - Series

MAUV- Unit Ventilator - Vertical

Digit 5 - Design Version

F- Design Designation

Digit 6 - Size

- 1 - 500 CFM
- 2 - 750 CFM
- 3 - 1000 CFM
- 4 - 1250 CFM
- 5 - 1500 CFM

Digit 7 - Paint Color

- P - Polar Ice Front Panels - Bronze Top
- B - Beige Front Panels - Bronze Top
- G - Gray Front Panels - Bronze Top
- W - White Front Panels - Bronze Top
- 1 - Polar Ice Front & Top Panels
- 2 - Beige Front & Top Panels
- 3 - Gray Front & Top Panels
- 4 - White Front & Top Panels
- 5 - Bronze Front & Top Panels

Digit 8 - Access Panel Gauge

- 1 - Standard 16 Gauge Panels
- 2 - Heavy Duty 14 Gauge Panels

Digit 9 - End Panel Kits

- A - No End Panels Factory Installed
- B - Solid End Panels - 16 5/8" Deep Unit
- C - 2.5 x 7 Cutout End Panels - 16 5/8" Deep Unit
- D - 4 x 18 Cutout End Panels - 16 5/8" Deep Unit
- E - 4 x 22 Cutout End Panels - 16 5/8" Deep Unit
- F - Solid End Panels - 21 7/8" Deep Unit
- G - 2.5 x 7 Cutout End Panels - 21 7/8" Deep Unit
- H - 4 x 18 Cutout End Panels - 21 7/8" Deep Unit
- J - 4 x 22 Cutout End Panels - 21 7/8" Deep Unit
- K - 5.25 x 2.5 Corner Cutout End Panels - 21 7/8" Deep Unit

Digit 10 - Inlet Air Arrangement**16-5/8" Cabinet, Front Return Air**

- A - Rear OA Open Piping Tunnel
- B - Rear OA Closed Piping Tunnel
- C - Bottom OA Open Piping Tunnel
- D - No OA Open Piping Tunnel

16-5/8" Cabinet, Draft Stop Return Air

- L - Rear OA Open Piping Tunnel
- M - Rear OA Closed Piping Tunnel
- N - Bottom OA Open Piping Tunnel
- O - No OA Open Piping Tunnel

21-7/8" Cabinet, Front Return Air

- E - Rear OA Piping Passage Unit
- F - Rear OA Full Adapter Back
- G - Top OA Full Adapter Back
- H - Bottom OA Open Adapter Back
- I - No OA Open Adapter Back
- J - 2.5" Step Down Pipe Pass Adapter Back
- K - 2.5" Step Down Full Adapter Back

21-7/8" Cabinet, Draft Stop R.A.

- P - Rear O.A Piping Passage Unit
- R - Rear OA Full Adapter Back
- S - Top OA Full Adapter Back
- T - Bottom OA Open Adapter Back
- U - No OA Open Adapter Back
- W - 2.5" Step Down Pipe Pass Adapter Back

- Y - 2.5" Step Down Full Adapter Back
- X - SPECIAL EXTENDED CABINET FOR VRF KIT
MOUNTING REQUIRES SPECIAL QUOTE. SUBMITTAL
DRAWINGS UV-305, UV-306, UV-309, UV-310.

Digit 11 - Discharge Aire Arrangement

- A - Top Barstock Grille Only
- B - Top Barstock Grille W/Mesh
- C - Top Discharge With No Grille

Digit 12 - Fan Motor Selection

- 1 - PSC Standard Motor
- 2 - ECM - High Efficiency - Three Speed
- 5 - ECM - High Efficiency - Variable Speed

Digit 13 - Face and Bypass Damper

- 1 - No Face & Bypass Damper - Valve Controlled
- 2 - Face & Bypass Damper - Face & Bypass Controlled

Digit 14 - Outdoor Air Damper

- 1 - Standard Damper Assembly
- 3 - Cold Weather Damper Assembly
- 5 - No Outside Air Damper - Recirculation Only

Digit 15 - Temperature Controls

- A - Field Provided and Installed Controls

DDC Ready Unit - With Damper Actuators

- D-Valve Proportional Control
- E-Valve Floating Point Control
- G-Face and Bypass Proportional Control
- H-Face and Bypass Floating Point Control

Digit 16 - Occupied/Unoccupied Options

- 0 - No Requirement (Networked or Field provided and Installed)

B - DDC READY WITH 1k-NICKEL TEMPERATURE SENSORS FOR DAT, RAT, OAT

C - DDC READY WITH 10K TYPE II TEMPERATURE SENSORS FOR DAT, RAT, OAT

D - DDC READY WITH 10K TYPE III TEMPERATURE SENSORS FOR DAT, RAT, OAT

Digit 17 - Power Supply

- J - 115V-1 Phase
- K - 208V - 1 Phase
- L - 230V - 1 Phase
- M - 265V - 1 Phase
- 5 - 200V - 3 Phase
- 6 - 230V - 3 Phase
- 7 - 460V - 3 Phase

Digit 18 - Coil Arrangement

- 1 - Pre-heat
- 2 - Re-heat

Digit 19 - Heating Coil

- A - None
- B - 1 Row Left Hand
- C - 1 Row Right Hand
- D - 2 Row Left Hand
- E - 2 Row Right Hand
- F - 3 Row Left Hand
- G - 3 Row Right Hand
- H - 4 Row Left Hand
- J - 4 Row Right Hand
- M - Steam 1 Row - Same End Connections - Left Hand
- N - Steam 1 Row - Same End Connections - Right Hand
- P - Steam 2 Row - Same End Connections- Left Hand
- R - Steam 2 Row - Same End Connections- Left Hand
- S - Steam 1 Row - Opposite End Connections- Left Hand
- T - Steam 1 Row - Opposite End Connections- Right Hand
- V - Steam 2 Row - Opposite End Connections - Left Hand
- W - Steam 2 Row - Opposite End Connections - Right Hand
- 2 - Electric Heat - 2 Elements
- 3 - Electric Heat - 3 Elements
- 4 - Electric Heat - 4 Elements
- 5 - Electric Heat - 5 Elements
- 6 - Electric Heat - 6 Elements

Digit 20 - Heating Valve & Actuator

- A - No Requirement
- B - Hot Water 3way Proportional -2.0cv
- C - Hot Water 3way Floating Point-2.0cv
- D - Hot Water 3way Proportional -4.0cv
- E - Hot Water 3way Floating Point-4.0cv
- F - Hot Water 3way Proportional -7.5cv
- G - Hot Water 3way Floating Point -7.5cv
- H - Hot Water - 3way-2position Valve / 24 VAC
- J - Hot Water - 2way Proportional -2.0cv
- K - Hot Water - 2way Floating Point -2.0cv
- L - Hot Water - 2way- Proportional - 4.0cv
- M - Hot Water - 2way- Floating Point - 4.0cv
- N - Hot Water - 2way- Proportional - 7.5cv
- O - Hot Water - 2way- Floating Point - 7.5cv
- P - Hot Water - 2way-2position Valve / 24 VAC
- 1 - Steam-2way - Proportional - 2.5cv
- 2 - Steam-2way - Floating Point - 2.5cv
- 3 - Steam-2way-Proportional - 4.0cv
- 4 - Steam-2way-Floating Point- 4.0cv
- 5 - Steam-2way-Proportional - 6.3cv
- 6 - Steam-2way-Floating Point- 6.3cv
- P - Steam - 2way-2position Valve / 24 VAC

Digit 21 - Heating Valve Package

- A - No Requirement
- B - 2way Valves - Piping Package #1
- C - 2way Valves - Piping Package #2
- D - 2way Valves - Piping Package #3
- E - 2way Valves - Piping Package #4
- F - 3way Valves - Piping Package #1
- G - 3way Valves - Piping Package #2
- H - 3way Valves - Piping Package #3
- J - 3way Valves - Piping Package #4
- U- Unions Only

Digit 22 - Cooling Coil

- 2 - 4 Row DX Left Hand—standard
- 3 - 4 Row DX Right Hand—standard
- 4 - 4 Row DX Left Hand—standard coil with no TXV for use with LG VRF outdoor units and other VRF manufacturers who want standard capacity and no TXV.
- 5 - 4 Row DX Right Hand—standard coil with no TXV for use with LG VRF outdoor units and other VRF manufacturers who want standard capacity and no TXV.
- 6 - 4 Row DX Left Hand—reduced capacity coil with no TXV for use with Hitachi VRF outdoor units and other VRF manufacturers who want reduced capacity and no TXV.
- 7 - 4 Row DX Right Hand—reduced capacity coil with no TXV for use with Hitachi VRF outdoor units and other VRF manufacturers who want reduced capacity and no TXV.

Digit 23- Cooling Valve & Actuator

- A - No Requirement

Digit 24 - Cooling Valve Package

- A - No Requirement

Digit 25 – Drain pan

- A - Galvanized Drain Pan
- B - IAQ Drain Pan

Digit 26 - Air Filter

- 1 - 1" Disposable Air Filter
- 2 - 1" Renewable Air Filter
- 3 - 1" Permanent Air Filter
- 4 - 2" Pleated Air Filter

Digit 27 - Warranty

- A - 1year Standard Warranty

Digit 28-29 - SPECIALS

SP - SPECIAL EXTENDED CABINET FOR VRF KIT MOUNTING REQUIRES SPECIAL QUOTE. SUBMITTAL DRAWINGS UV-305, UV-306, UV-309, UV-310.

Digit 1-4 - Series

MAUH Unit Ventilator - Horizontal

Digit 5 - Design Version

F- Design Designation

Digit 6 - Size

2 - 750 CFM
3 - 1000 CFM
4 - 1250 CFM
5 - 1500 CFM
6 - 2000 CFM

Digit 7 - Paint Color

P - Polar Ice
B - Beige
G - Gray
W - White
Z - Charcoal Bronze

Digit 8 - Future Use

A - Always A

Digit 9 - Future Use

A - Always A

Digit 10 - Inlet Air Arrangement

A - Bottom Return Air / Top Outside Air
B - Bottom Return Air / Rear Outside Air
C - Bottom Return Air / No Outside Air
D - Rear Return Air / Top Outside Air
E - Rear Return Air / Rear Outside Air
D - Rear Return Air / No Outside Air

Digit 11 - Discharge Aire Arrangement

A - Front Discharge / Barstock Grille Only
B - Front Discharge / Barstock Grille with Mesh
C - Front Discharge / Open Fan Outlet Suitable for Duct Collar by Others
D - Front Discharge Plenum/ Open Fan Outlet Suitable for Duct Collar by Others
E - Front Discharge Plenum/ Front Double Deflection Grille
F - Front Discharge Plenum/ Bottom Double Deflection Grille (Down Discharge)

Digit 12 - Fan Motor Selection

1 - PSC Standard Motor
2 - ECM - High Efficiency - Three Speed
5 - ECM - - High Efficiency - Variable Speed

Digit 13 - Face and Bypass Damper

1 - No Face & Bypass Damper -Valve Controlled
2 - Face & Bypass Damper -Face & Bypass Controlled

Digit 14 - Outdoor Air Damper

1 - Standard Damper Assembly
3 - Cold Weather Damper Assembly
5 - No Outside Air Damper - Recirculation Only

Digit 15 - Temperature Controls

A - Field Provided and Installed Controls

DDC Ready Unit - With Damper Actuators

D-Valve Proportional Control
E-Valve Floating Point Control
G-Face and Bypass Proportional Control
H-Face and Bypass Floating Point Control

Digit 16 - Occupied/Unoccupied Options

0 - No Requirement (Networked or Field provided and Installed)

B - DDC READY WITH 1k-NICKEL TEMPERATURE SENSORS FOR DAT, RAT, OAT

C - DDC READY WITH 10K TYPE II TEMPERATURE SENSORS FOR DAT, RAT, OAT

D - DDC READY WITH 10K TYPE III TEMPERATURE SENSORS FOR DAT, RAT, OAT

Digit 17 - Power Supply

J - 115V-1 Phase
K - 208V - 1 Phase
L - 230V - 1 Phase
M - 265V - 1 Phase
5 - 200V - 3 Phase
6 - 230V - 3 Phase
7 - 460V - 3 Phase

Digit 18 - Coil Arrangement

1 - Pre-heat
2 - Re-heat

Digit 19 - Heating Coil

A - None
B - 1 Row Left Hand
C - 1 Row Right Hand
D - 2 Row Left Hand
E - 2 Row Right Hand
F - 3 Row Left Hand
G - 3 Row Right Hand
H - 4 Row Left Hand
J - 4 Row Right Hand
M - Steam 1 Row - Same End Connections - Left Hand
N - Steam 1 Row - Same End Connections - Right Hand
P - Steam 2 Row - Same End Connections- Left Hand
R - Steam 2 Row - Same End Connections- Left Hand
S - Steam 1 Row - Opposite End Connections- Left Hand
T - Steam 1 Row - Opposite End Connections- Right Hand
V - Steam 2 Row - Opposite End Connections - Left Hand
W - Steam 2 Row - Opposite End Connections - Right Hand
2 - Electric Heat - 2 Elements
3 - Electric Heat - 3 Elements
4 - Electric Heat - 4 Elements
5 - Electric Heat - 5 Elements
6 - Electric Heat - 6 Elements

Digit 20 - Heating Valve & Actuator

A - No Requirement
B - Hot Water 3way Proportional -2.0cv
C - Hot Water 3way Floating Point-2.0cv
D - Hot Water 3way Proportional -4.0cv
E - Hot Water 3way Floating Point-4.0cv
F - Hot Water 3way Proportional -7.5cv
G - Hot Water 3way Floating Point -7.5cv
H - Hot Water - 3way-2position Valve / 24 VAC
J - Hot Water - 2way Proportional -2.0cv
K - Hot Water - 2way Floating Point -2.0cv
L - Hot Water - 2way- Proportional - 4.0cv
M - Hot Water - 2way- Floating Point - 4.0cv
N - Hot Water - 2way- Proportional - 7.5cv
O - Hot Water - 2way- Floating Point - 7.5cv
P - Hot Water - 2way-2position Valve / 24 VAC
1 - Steam-2way - Proportional - 2.5cv
2 - Steam-2way - Floating Point - 2.5cv
3 - Steam-2way-Proportional - 4.0cv
4 - Steam-2way-Floating Point- 4.0cv
5 - Steam-2way-Proportional - 6.3cv
6 - Steam-2way-Floating Point- 6.3cv
P - Steam - 2way-2position Valve / 24 VAC

Digit 21 - Heating Valve Package

A - No Requirement
B - 2way Valves - Piping Package #1
C - 2way Valves - Piping Package #2
D - 2way Valves - Piping Package #3
E - 2way Valves - Piping Package #4
F - 3way Valves - Piping Package #1
G - 3way Valves - Piping Package #2
H - 3way Valves - Piping Package #3
J - 3way Valves - Piping Package #4
U- Unions Only

Digit 22 - Cooling Coil

2 - 4 Row DX Left Hand—standard

3 - 4 Row DX Right Hand—standard

4 - 4 Row DX Left Hand—standard coil with no TXV for use with LG VRF outdoor units and other VRF manufacturers who want standard capacity and no TXV.

5 - 4 Row DX Right Hand—standard coil with no TXV for use with LG VRF outdoor units and other VRF manufacturers who want standard capacity and no TXV.

6 - 4 Row DX Left Hand—reduced capacity coil with no TXV for use with Hitachi VRF outdoor units and other VRF manufacturers who want reduced capacity and no TXV.

7 - 4 Row DX Right Hand—reduced capacity coil with no TXV for use with Hitachi VRF outdoor units and other VRF manufacturers who want reduced capacity and no TXV.

Digit 23- Cooling Valve & Actuator

A - No Requirement

Digit 24 - Cooling Valve Package

A - No Requirement

Digit 25 – Drain pan

A - Galvanized Drain Pan
B - IAQ Drain Pan

Digit 26 - Air Filter

1 - 1" Disposable Air Filter
2 - 1" Renewable Air Filter
3 - 1" Permanent Air Filter
4 - 2" Pleated Air Filter

Digit 27 - Warranty

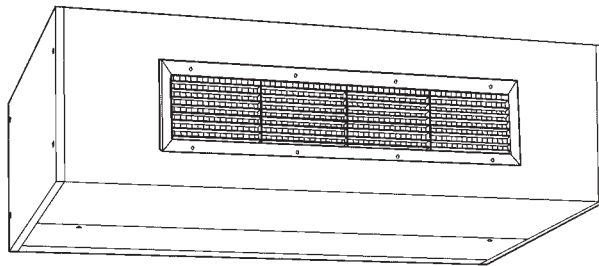
A - 1year Standard Warranty

Digit 28-29 - SPECIALS

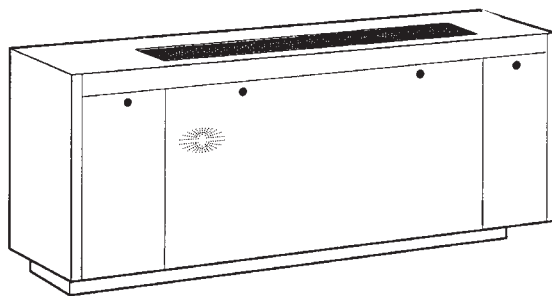
SP - SPECIAL EXTENDED CABINET NOT AVAILABLE ON UH

Features and Benefits

- Vertical and horizontal arrangements for heating, cooling, dehumidification, and ventilation.
- Indoor air quality assured by dehumidification, sealed insulation and choice of filtration.
- Copper coils with mechanically bonded aluminum plate fins provide peak heat transfer. Hot water, chilled water, steam, and electric resistance heat coils are available.
- Rugged dependability, stamped frame made from heavy-gauge galvanized steel ensures exact panel fit, component alignment, and long-term structural integrity.
- Hex-head panel fasteners provide added tamper resistance.
- Designed for easy service and maintenance, including generous piping and wiring access.



Horizontal



Vertical

Indoor air quality – The combination of features in Magic Aire unit ventilators ensures that only clean, healthy, conditioned air is delivered to the occupied space.

One-piece filter cleans the air before it is introduced into the room. Unit is shipped with a 1-inch throwaway filter and can accept permanent or renewable media filters. An optional 2" filter is also available.

Outdoor / return air damper is standard in all units. Outdoor/return air damper is extruded aluminum with closed cell insulation. An optional cold weather damper is available with additional insulation.

Condensate drain pan catches condensate from coils and can be configured for right or left hand drain connection and is field reversible in the event that requirements change after the units are on site. Pans are double sloped to eliminate standing water.

Cooling coil has a full-depth design. When combined with available face and bypass dampers, the coils prevent the buildup of humidity in the room, even during part-load conditions.

Mechanically isolated moving parts and blowers provide quiet operation for critical environments like classrooms.

Rugged dependability stamped frame made from heavy-gage galvanized steel ensures exact panel fit, component alignment, and long-term structural integrity.

Heavy-gage steel cabinet provides secure, dent-resistant protection for internal components. Cabinet exterior has a baked-on polyurethane textured powder-coated finish for corrosion and scratch resistance while providing an enhanced appearance.

Front access panels are secured with hex-head fasteners to provide tamper-resistance while maintaining easy maintenance and service access.

Efficient direct-drive motor prevents alignment problems. Blowers share a common hollow shaft connected to the motor with a resilient coupling.

Steel blower housings are securely mounted to a die-formed galvanized steel blower deck.

Self-aligning fan shaft bearings, vibration isolating motor mounts and flexible drive shaft coupling isolate the rotating components from the rest of the unit to ensure vibration-free operation.

Mechanically bonded aluminum fins provide improved heat transfer with corrosion and vibration resistance. Copper tubes are standard.

Enhanced performance and safety – Draw-thru blower arrangement distributes air across entire coil face for uniform discharge temperatures. Draw-thru design also eliminates hot spots in electric heat coil to maximize heating element life.

Efficient direct drive helps to maintain low operating costs and also reduces maintenance requirements.

Features and Benefits

Wide selection of factory-installed heating coils

includes hot water, steam, and electric resistance heat also available.

Motor and control protection is provided by cartridge fuses. Units are ETL listed to UL Standard 1995.

Economical operation – Magic Aire unit ventilators have low initial costs, but they also save money by reducing installation expense and providing long term energy efficient performance.

Quick installation provided by built-in levelers, drain pan connections on both ends of the unit, and reversible coil hand without unit modification.

PSC motors standard for ease of service and commonality of parts. **Electronically commutated (ECM)**

blower motor option saves energy and has impedance protection with automatic reset. ECM motors will be shipped on units with high static applications. Motors are mounted out of the air stream so they are not subjected to coil heat, further contributing to long motor life.

High-efficiency, precision-balanced blowers minimize air turbulence, surging and vibration to minimize operating expenses.

Mixing damper controls the blend of outside air and room air to achieve comfort levels. When the outside air is suitable, damper can fully open to provide free cooling.

Fewer moving parts lower operating costs by enhancing reliability and making service easier.

Equipment Physical Characteristics

Physical Data						
UNIT UV, UH	MAUV	MAUV	MAUV	MAUV	MAUV	
NOMINAL AIRFLOW	500	750	1000	1250	1500	
FANS						
Quantity	1	2	3	4	5	
Diameter (in.) x Width (in)						
FILTERS						
Nominal Size(in.) (1 in.)	9.25" x 24.25"	9.25" x 36.25"	9.25" x 48.25"	9.25" x 60.25"	9.25" x 72.25"	
Nominal Size(in.) (2 in.)	9.25" x 24.25"	9.25" x 36.25"	9.25" x 48.25"	9.25" x 60.25"	9.25" x 72.25"	
Quantity	1	1	1	1	1	

Physical Data						
UNIT UV, UH		MAUH	MAUH	MAUH	MAUH	MAUH
NOMINAL AIRFLOW		750	1000	1250	1500	2000
FANS						
Quantity		2	3	4	5	5
Diameter (in.) x Width (in)			8.32 x 8			9.5 x 6
FILTERS						
Nominal Size(in.) (1 in.)		9.75" x 36.25"	9.75" x 48.25"	9.75" x 60.25"	9.75" x 72.25"	9.75" x 72.25"
Nominal Size(in.) (2 in.)		9.75" x 36.25"	9.75" x 48.25"	9.75" x 60.25"	9.75" x 72.25"	9.75" x 72.25"
Quantity		1	1	1	1	1

Coil Performance and Physical Data

For standard coil performance, please see selection software, New Magic 4.

Standard Volume Unit Ventilator DX coils (TXV removed)				
Model	Target total load (BTU/HR)	AIR FLOW (CFM)	Volume (cu in)	TOT HEAT (BTU/HR)
UV-500	18000	500	92	NM4
UV-750	24000	750	138	NM4
UV-1000	30000	1000	184	NM4
UV-1250	36000	1250	230	NM4
UV-1500	44000	1500	276	NM4
UH-2000	60000	2000	276	NM4

Reduced Volume Unit Ventilator DX coils (TXV removed)				
Model	Target total load (BTU/HR)	AIR FLOW (CFM)	Volume (cu in)	TOT HEAT (BTU/HR)
UV-500	18000	500	69	17173
UV-750	24000	750	96	23008
UV-1000	30000	1000	110	28766
UV-1250	36000	1250	138	36218
UV-1500	44000	1500	165	44300
UH-2000	60000	2000	220	58301

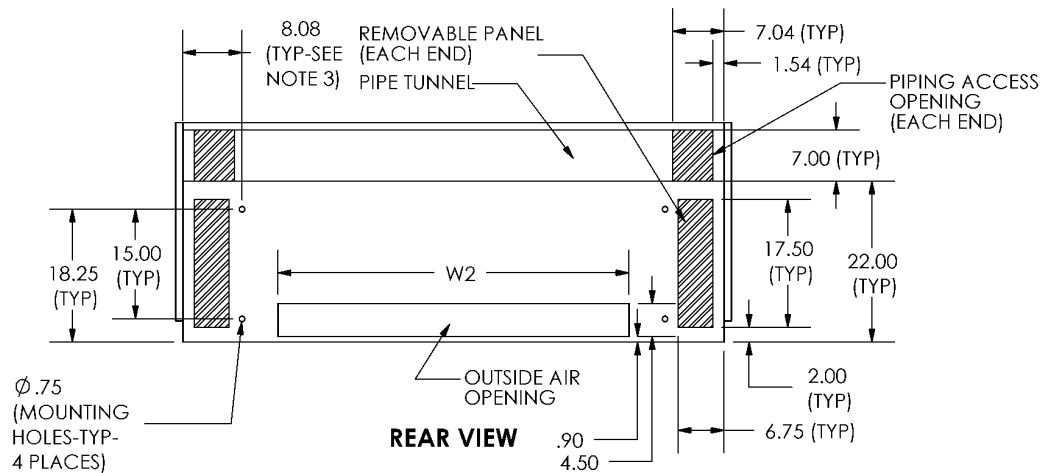
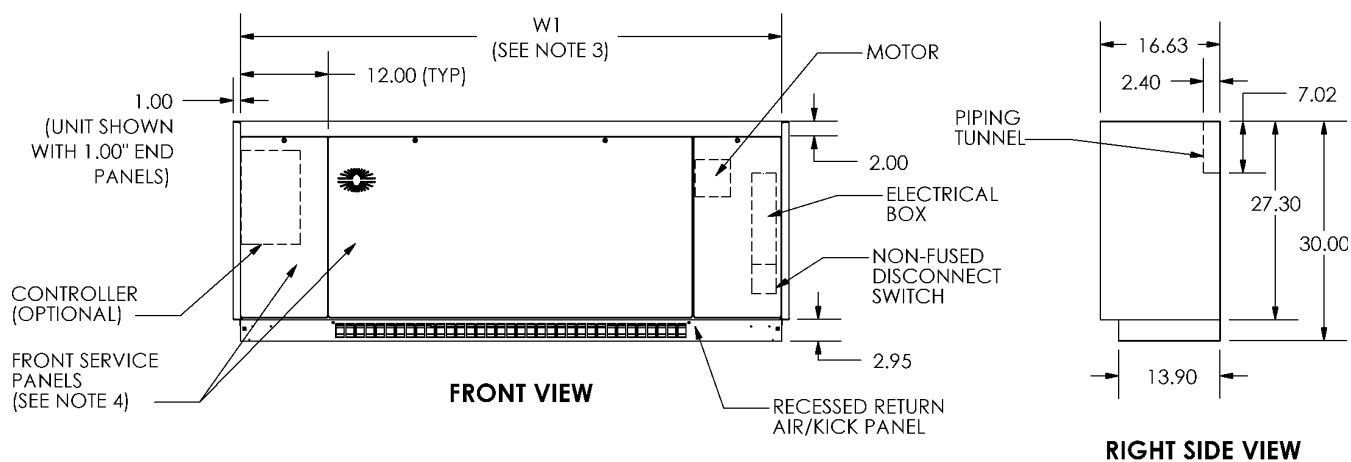
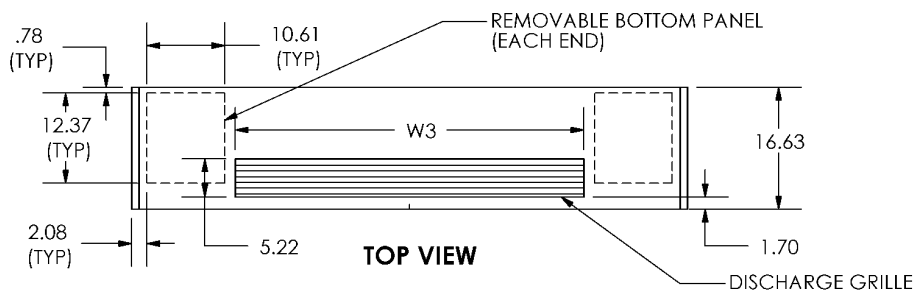
Magic Aire®

**Magic Aire Unit Ventilator
Model MAUVF**

**Certified Drawing
101-1B**

**Inlet Air Arrangements
16 5/8" Deep Unit**

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MODEL NO.	CFM	W1	W2	W3	Approx. Installed Weight (LBS)
MAUVF1	500	50	24	16.6	315
MAUVF2	750	62	36	31.67	380
MAUVF3	1000	74	48	46.74	460
MAUVF4	1250	86	60	61.81	570
MAUVF5	1500	98	72	78.47	640

NOTE:

1. Drawing refers to Design "F" units.
2. All dimensions in inches.
3. Dimension does not include end panels.
4. Three front panels provided for service access.
5. Motor and electrical power input box on right side of unit. Box includes Fan Speed Switch, On/Off Switch and non-fused disconnect switch.

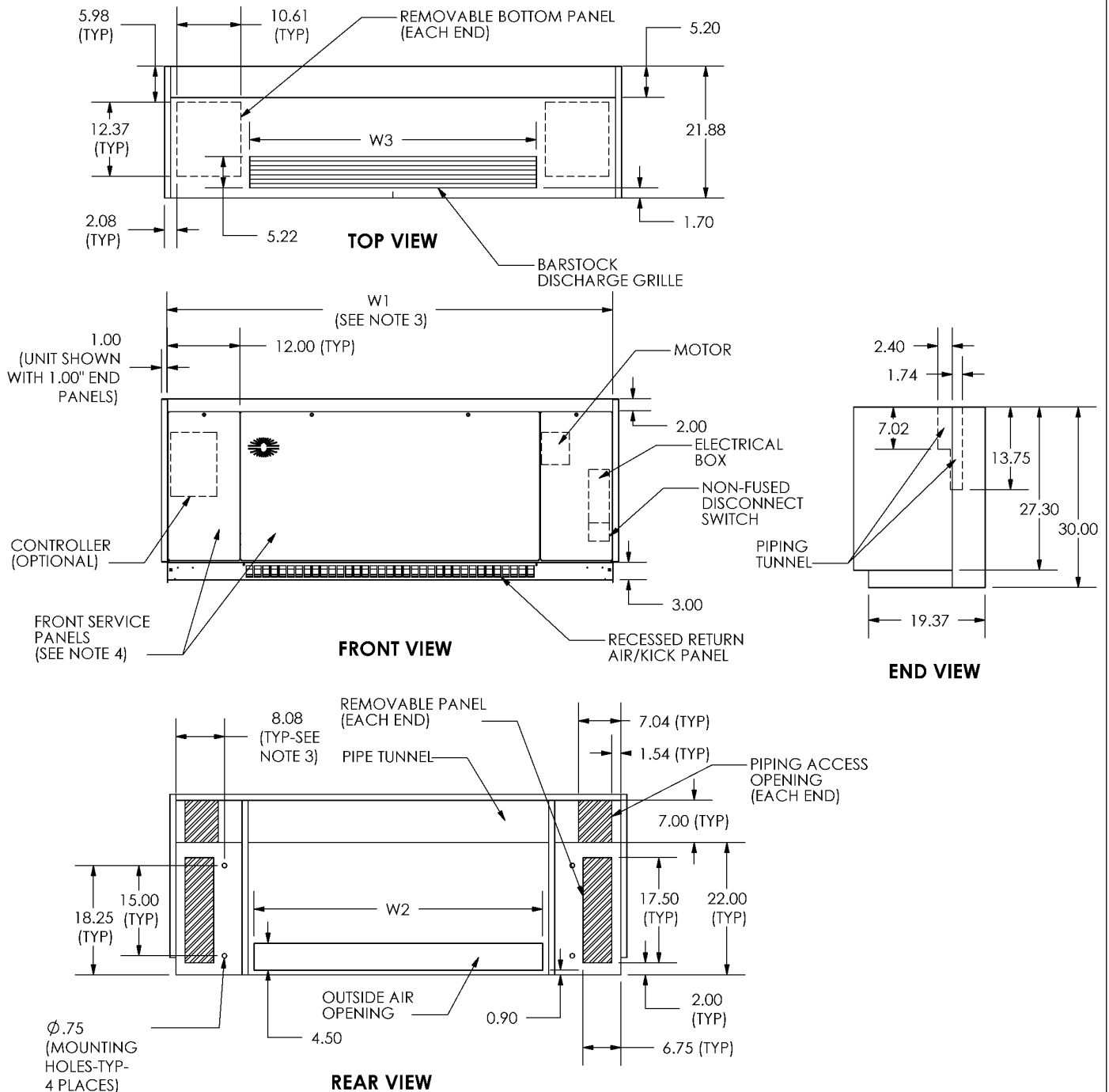
Magic Aire®

Magic Aire Unit Ventilator Model MAUVF

Certified Drawing
100-2B

Inlet Air Arrangements
21 7/8" Deep Unit

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MODEL NO.	CFM	W1	W2	W3	Approx. Installed Weight (LBS)
MAUVF1	500	50	24	16.6	325
MAUVF2	750	62	36	31.67	390
MAUVF3	1000	74	48	46.74	470
MAUVF4	1250	86	60	61.81	595
MAUVF5	1500	98	72	78.47	655

NOTE:

1. Drawing refers to Design "F" units.
2. All dimensions in inches.
3. Dimension does not include end panels.
4. Three front panels provided for service access.
5. Motor and electrical power input box on right side of unit. Box includes Fan Speed Switch, On/Off Switch and non-fused disconnect switch.

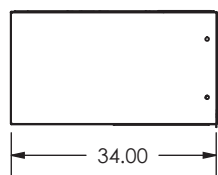


Magic Aire Horizontal Unit Ventilator **Models MAUHF 2-5**

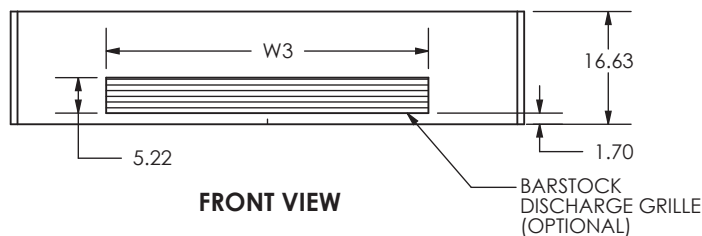
Certified Drawing
UHF-300-I

Discharge Air Arrangement
Barstock Grille/Duct Collar

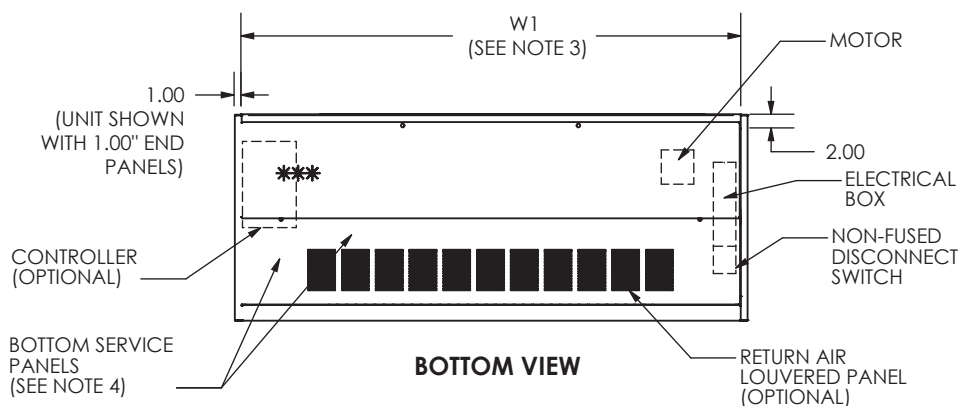
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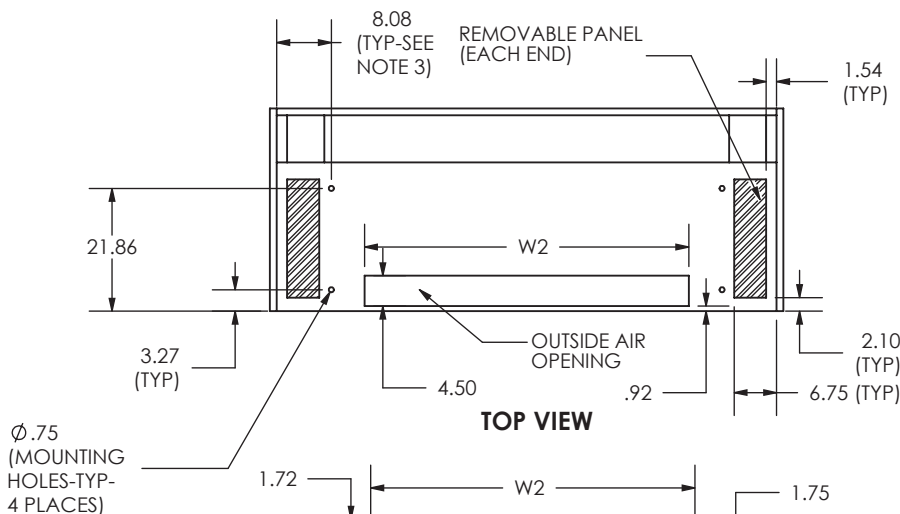
LEFT SIDE VIEW



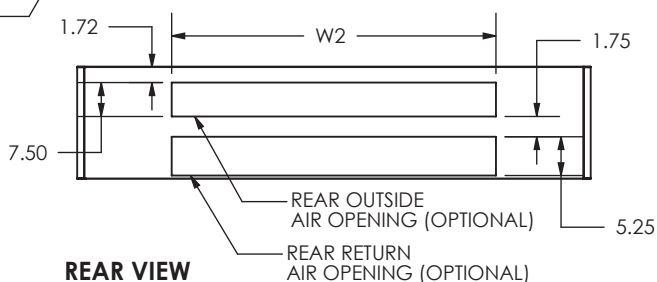
FRONT VIEW



BOTTOM VIEW



TOP VIEW



REAR VIEW

NOTE:

1. Drawing refers to Design "F" units.
2. All dimensions in inches.
3. Dimension does not include end panels.
4. Two bottom panels provided for service access.
5. Motor and electrical power input box on right side of unit. Box includes Fan Speed switch and non-fused disconnect switch.
6. Connection hand is determined by facing discharge of unit.

MODEL NO.	CFM	W1	W2	W3	APPROXIMATE SHIPPING WEIGHT (LBS)	APPROXIMATE INSTALLED WEIGHT (LBS)
UHF2	750	62	36	31.67	420	405
UHF3	1000	74	48	46.74	500	480
UHF4	1250	86	60	61.81	620	600
UHF5	1500	98	72	78.47	690	670

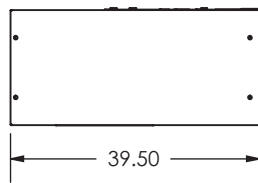
Product Information is Subject to Change Without Notice



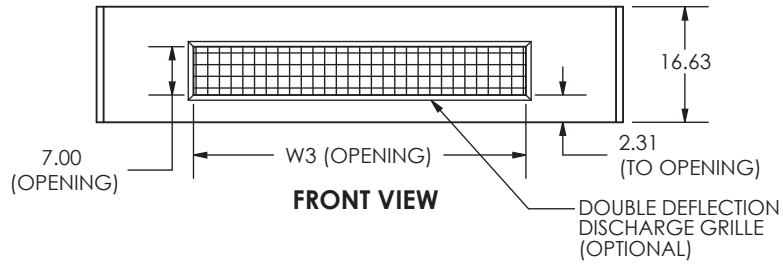
Magic Aire Horizontal Unit Ventilator **Models MAUHF 2-5**

Certified Drawing
UHF-301-I
Front Discharge Plenum
Double Deflection Grille/Duct Collar

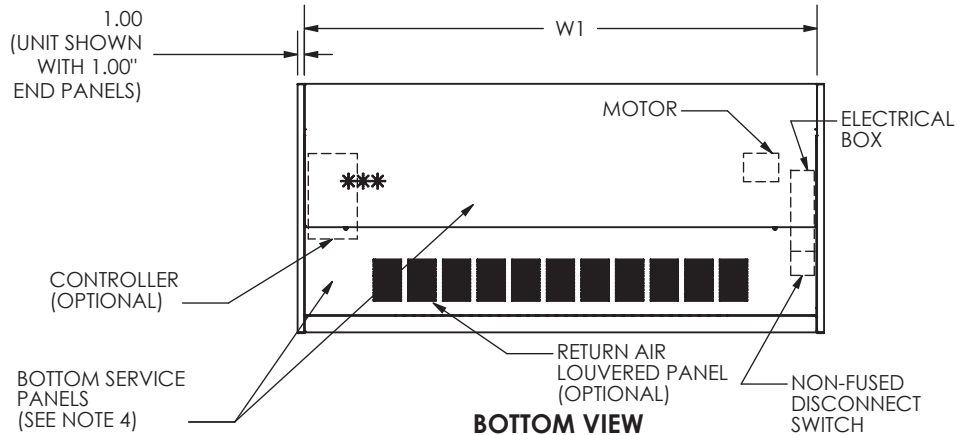
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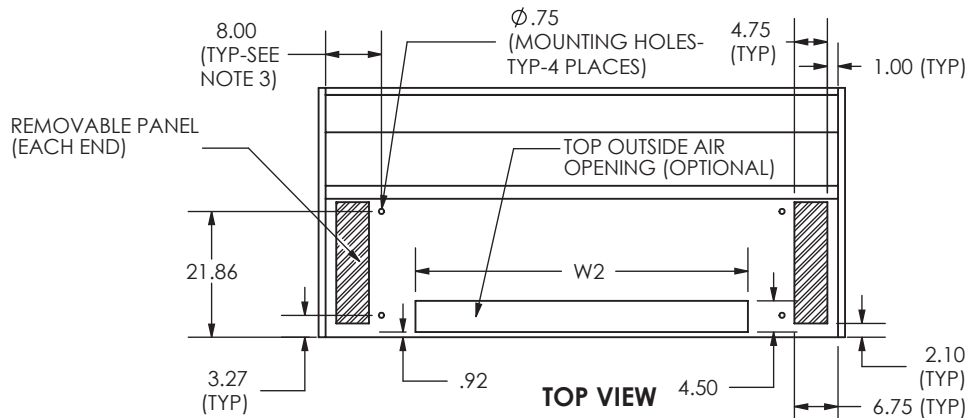
LEFT SIDE VIEW



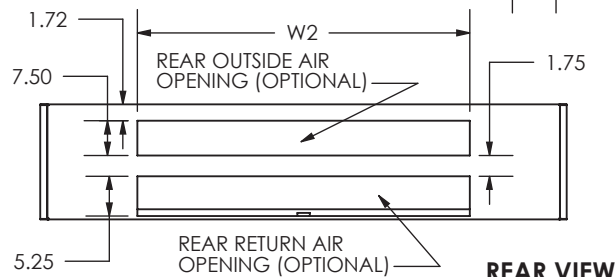
FRONT VIEW



BOTTOM VIEW



TOP VIEW



REAR VIEW

MODEL NO	CFM	W1	W2	W3	APPROXIMATE SHIPPING WEIGHT (LBS)	APPROXIMATE INSTALLED WEIGHT (LBS)
UHF2	750	62	36	36	500	485
UHF3	1000	74	48	48	600	580
UHF4	1250	86	60	60	740	720
UHF5	1500	98	72	72	830	810

NOTE:

1. Drawing refers to Design "F" units.
2. All dimensions are in inches.
3. Dimension does not include end panels.
4. Two bottom panels provided for service access.
5. Motor and electrical power input box on right side of unit. Box includes Fan Speed switch and non-fused disconnect switch.
6. Connection hand is determined by facing discharge of unit.

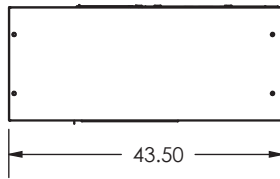


Magic Aire Horizontal Unit Ventilator **Models MAUHF 2-5**

Certified Drawing
UHF-302-I

Down Discharge Plenum
Double Deflection Grille

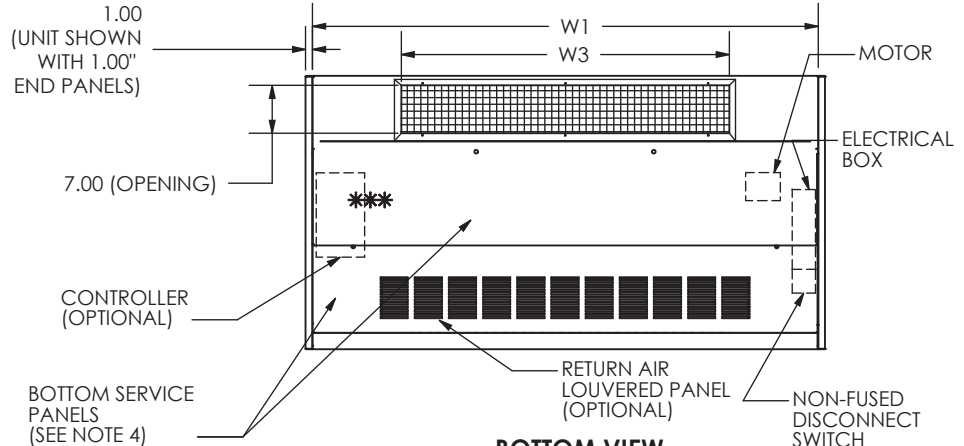
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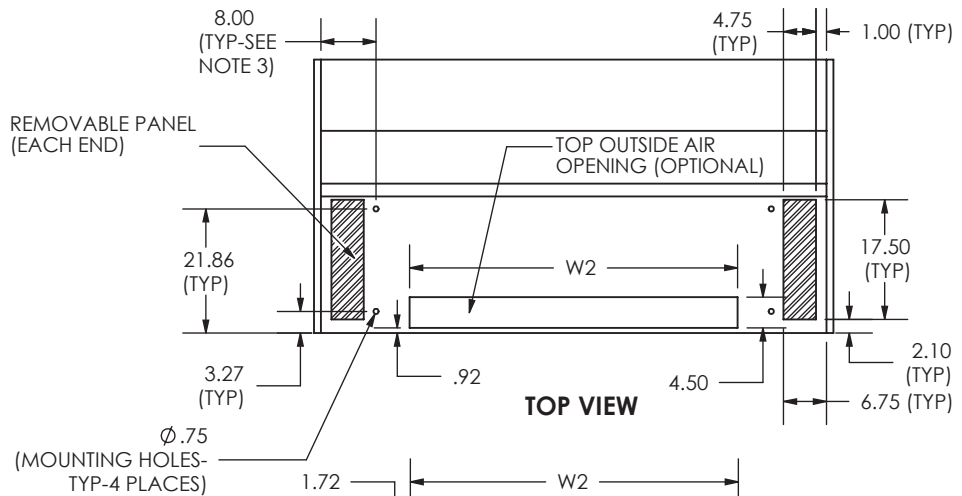
LEFT SIDE VIEW



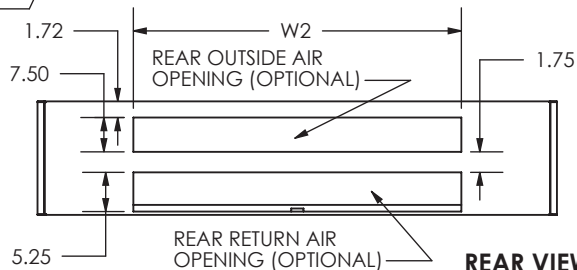
FRONT VIEW



BOTTOM VIEW



TOP VIEW



REAR VIEW

MODEL NO.	CFM	W1	W2	W3	APPROXIMATE SHIPPING WEIGHT (LBS)	APPROXIMATE INSTALLED WEIGHT (LBS)
UHF2	750	62	36	36	530	515
UHF3	1000	74	48	48	640	620
UHF4	1250	86	60	60	790	770
UHF5	1500	98	72	72	880	860

NOTE:

1. Drawing refers to Design "F" units.
2. All dimensions are in inches.
3. Dimension does not include end panels.
4. Two bottom panels provided for service access.
5. Motor and electrical power input box on right side of unit. Box includes Fan Speed switch and non-fused disconnect switch.



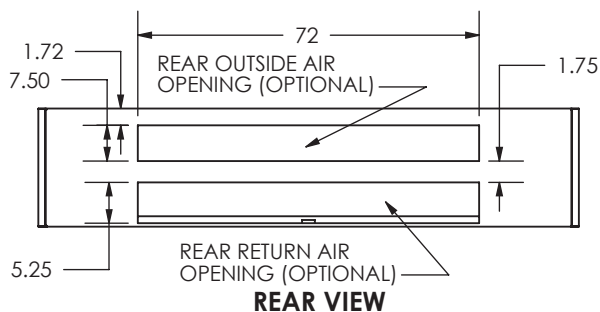
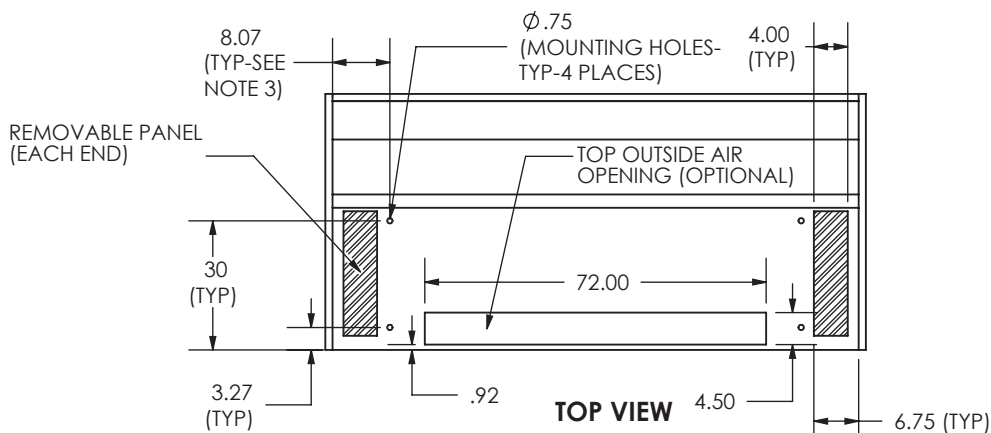
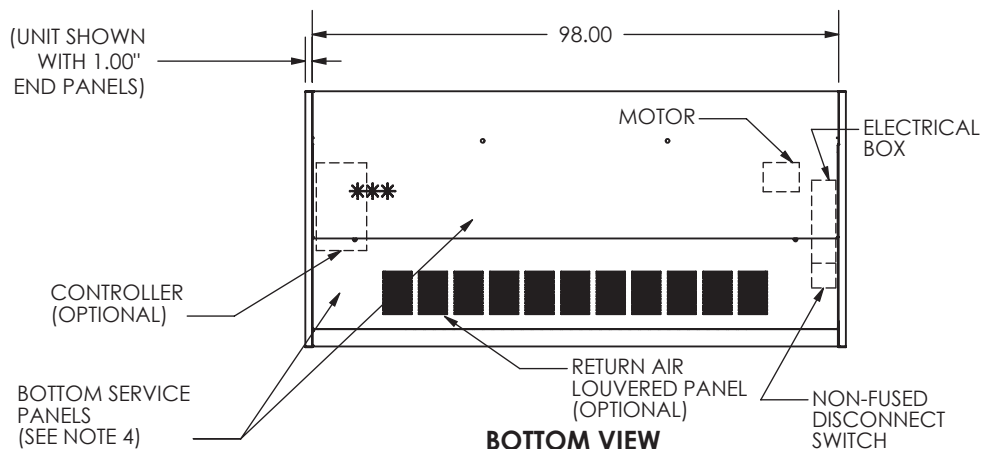
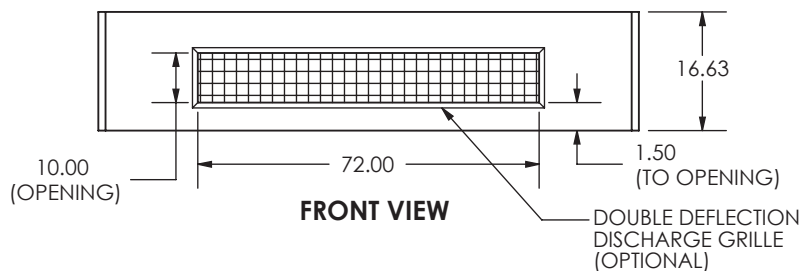
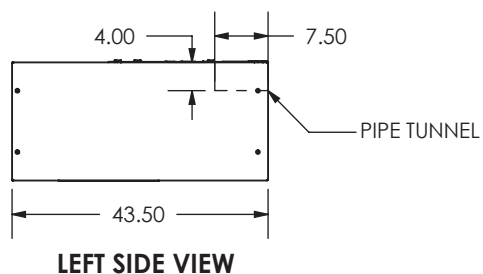
Magic Aire Horizontal Unit Ventilator Model MAUHF 6

**Certified Drawing
UHF-303-I**

**Front Discharge Plenum
Double Deflection Grille/Duct Collar**

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NOTE:

1. Drawing refers to Design "F" units.
2. All dimensions are in inches.
3. Dimension does not include end panels.
4. Two bottom panels provided for service access.
5. Motor and electrical power input box on right side of unit. Box includes Fan Speed switch and non-fused disconnect switch.
6. Connection hand is determined by facing discharge of unit.
7. Approx shipping weight is 1020 lbs. Approx installed weight is 1000 lbs.

Magic Aire

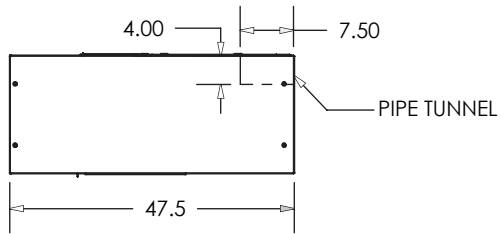
**Magic Aire Horizontal Unit Ventilator
Model MAUHF 6**

**Certified Drawing
UHF-304-I**

**Down Discharge Plenum
Double Deflection Grille**

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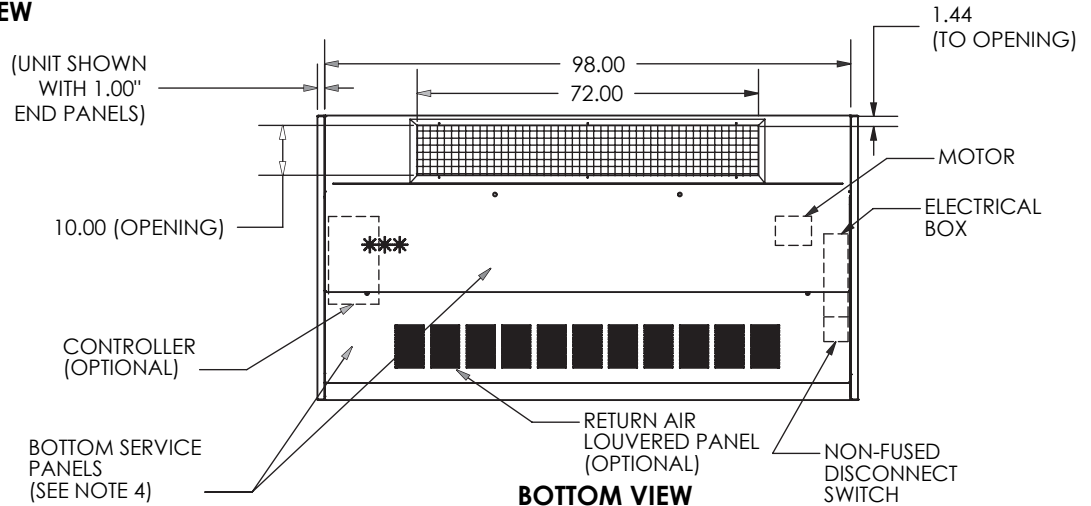
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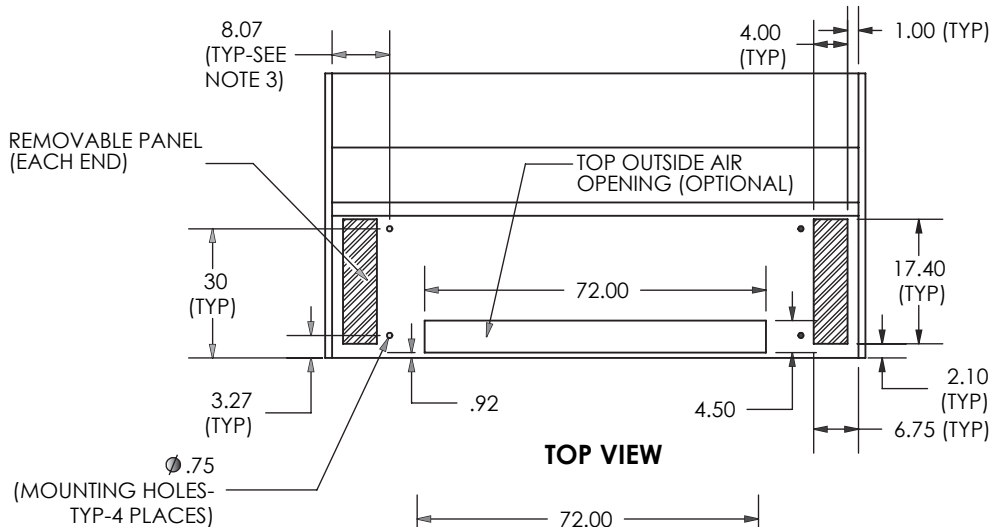
LEFT SIDE VIEW



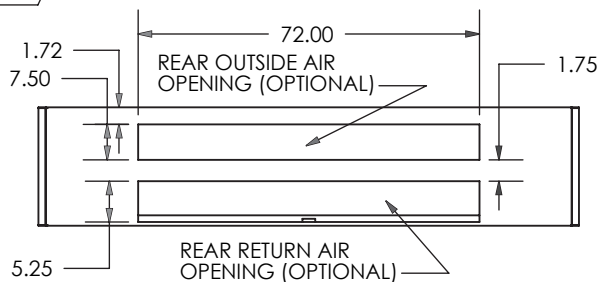
FRONT VIEW



BOTTOM VIEW



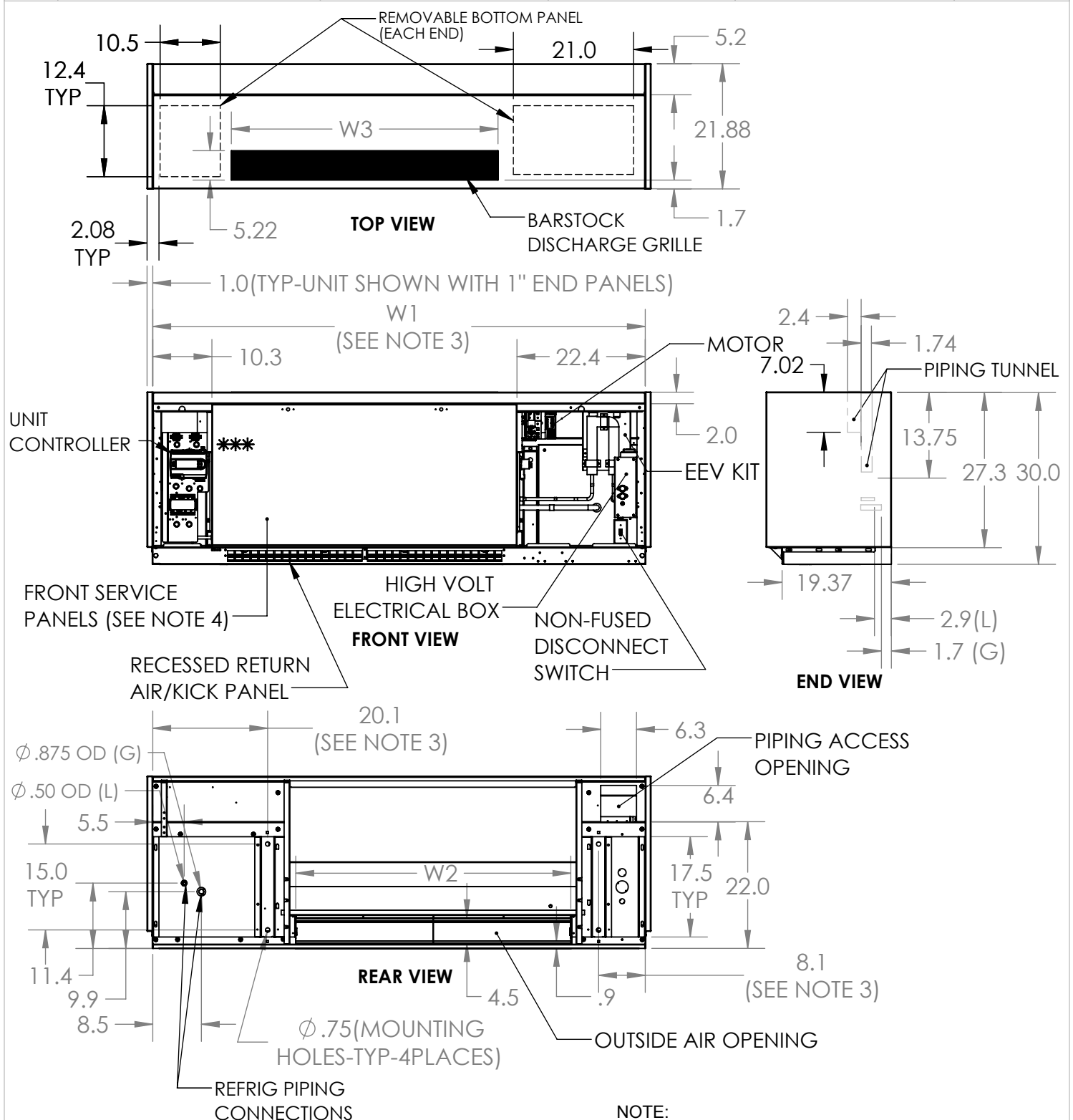
TOP VIEW



REAR VIEW

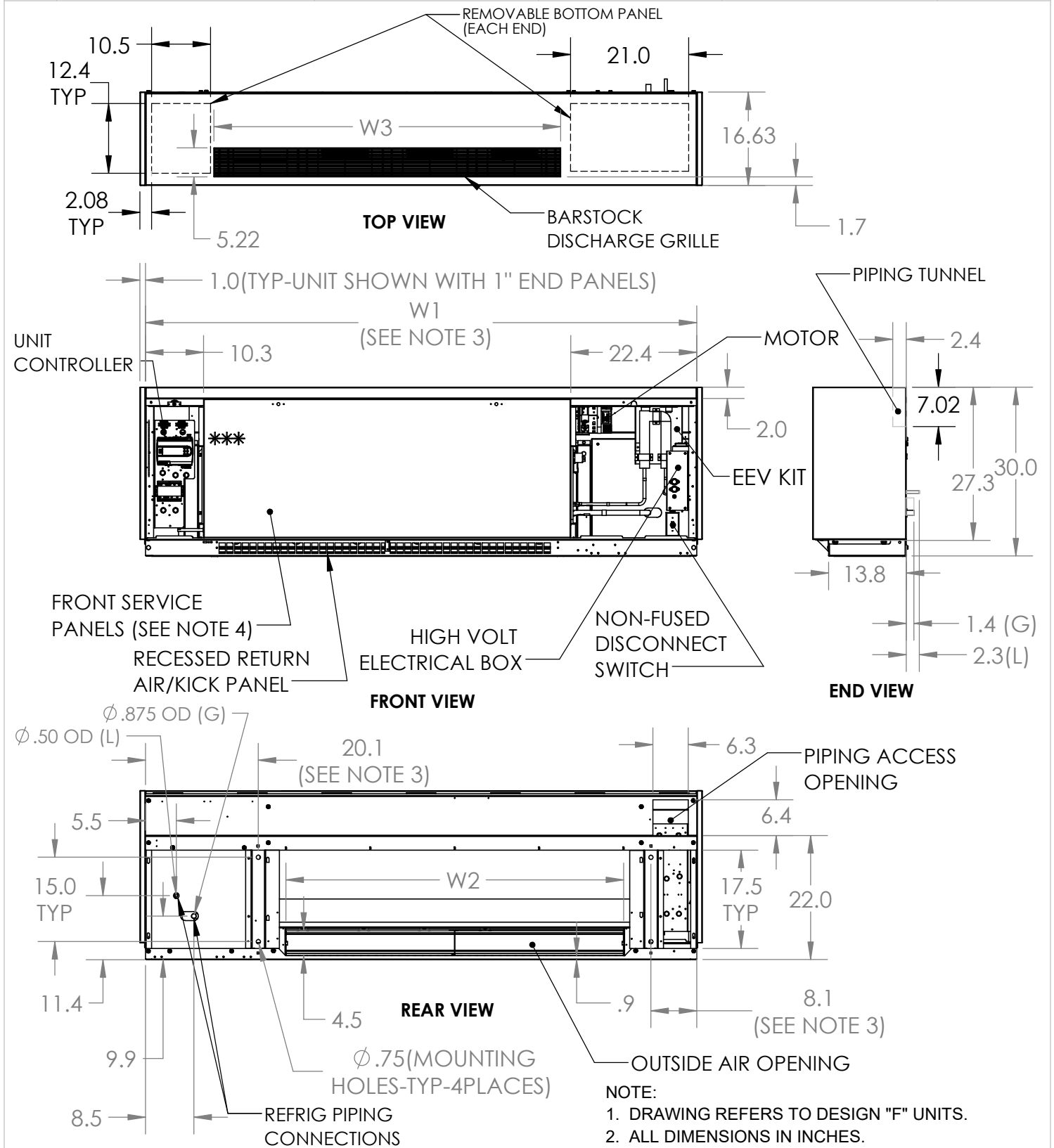
NOTE:

1. Drawing refers to Design "F" units.
2. All dimensions are in inches.
3. Dimension does not include end panels.
4. Two bottom panels provided for service access.
5. Motor and electrical power input box on right side of unit. Box includes Fan Speed switch and non-fused disconnect switch.
6. Connection hand is determined by facing discharge of unit.
7. Approx shipping weight is 1050 lbs. Approx installed weight is 1030 lbs.

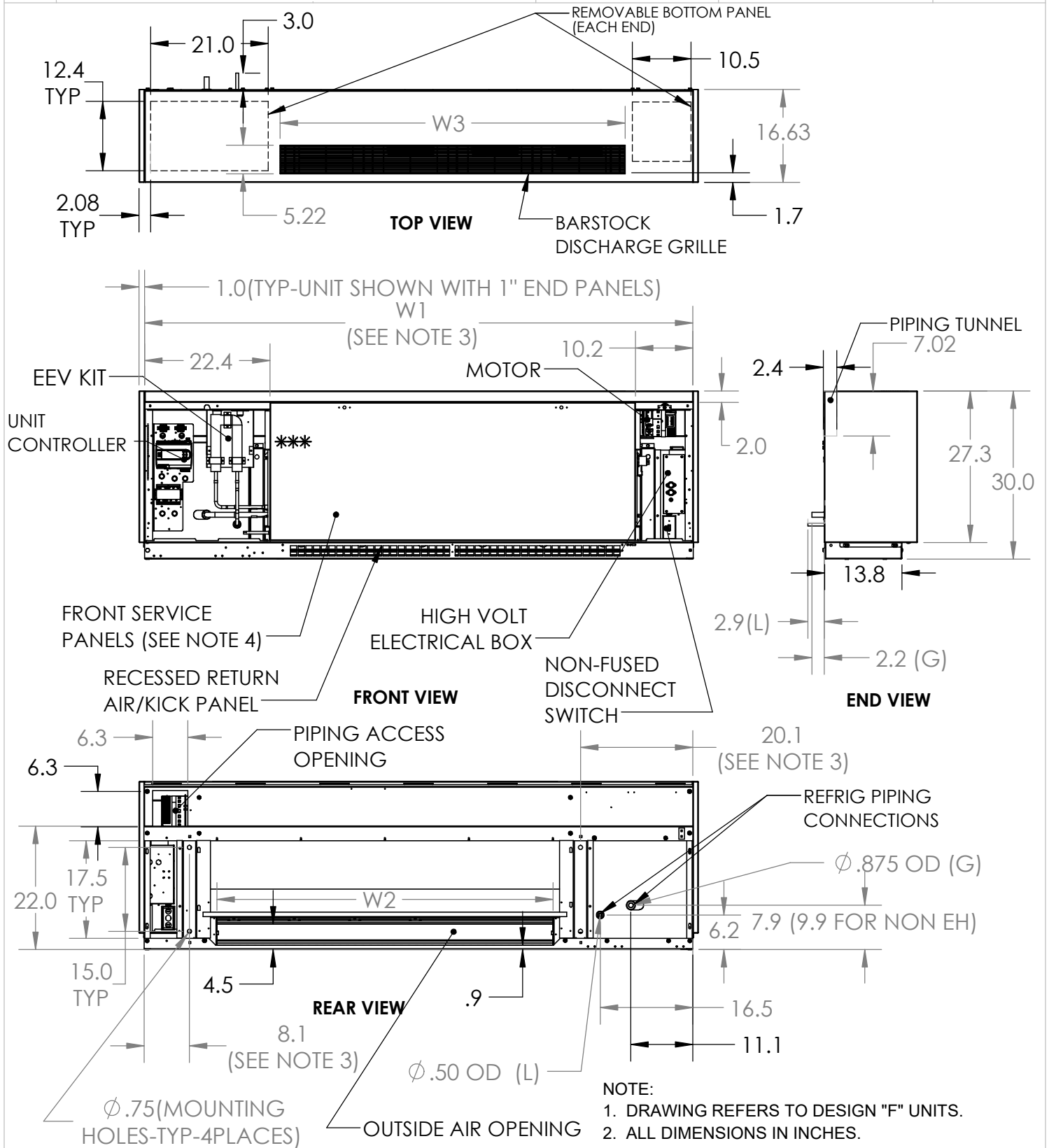


MODEL NO.	CFM	W1	W2	W3	APPROXIMATE SHIPPING WEIGHT (LBS)	APPROXIMATE INSTALLED WEIGHT (LBS)
UVF2	750	74	36	31.7	432	412
UVF3	1000	86	48	46.7	512	492
UVF4	1250	98	60	61.8	627	607
UVF5	1500	110	72	78.5	697	677

- NOTE:
- DRAWING REFERS TO DESIGN "F" UNITS.
 - ALL DIMENSIONS IN INCHES.
 - DIMENSION DOES NOT INCLUDE END PANELS.
 - THREE FRONT PANELS PROVIDED FOR SERVICE ACCESS. PANELS HIDDEN FOR CLARITY.
 - MOTOR AND ELECTRICAL POWER INPUT BOX ON RIGHT SIDE
 - (G) REFERS TO REFRIG GAS LINE; (L) REFERS TO REFRIG LIQUID LINE

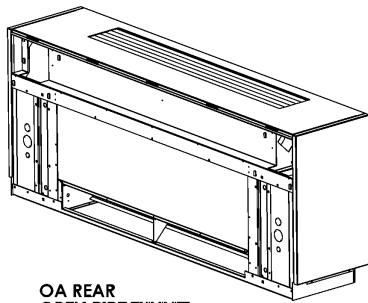


MODEL NO.	CFM	W1	W2	W3	APPROXIMATE SHIPPING WEIGHT (LBS)	APPROXIMATE INSTALLED WEIGHT (LBS)
UVF2	750	74	36	31.7	392	372
UVF3	1000	86	48	46.7	465	445
UVF4	1250	98	60	61.8	573	553
UVF5	1500	110	72	78.5	636	616

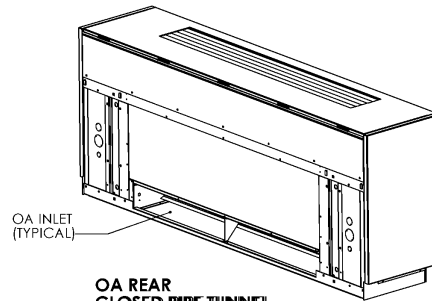


MODEL NO.	CFM	W1	W2	W3	APPROXIMATE SHIPPING WEIGHT (LBS)	APPROXIMATE INSTALLED WEIGHT (LBS)
UVF2	750	74	36	31.7	392	372
UVF3	1000	86	48	46.7	465	445
UVF4	1250	98	60	61.8	573	553
UVF5	1500	110	72	78.5	636	616

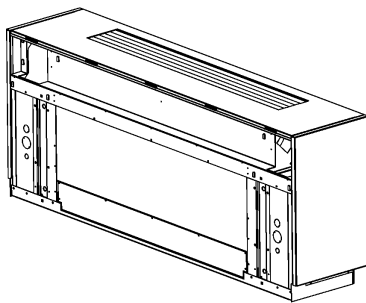
- NOTE:
- DRAWING REFERS TO DESIGN "F" UNITS.
 - ALL DIMENSIONS IN INCHES.
 - DIMENSION DOES NOT INCLUDE END PANELS.
 - THREE FRONT PANELS PROVIDED FOR SERVICE ACCESS. PANELS HIDDEN FOR CLARITY.
 - MOTOR AND ELECTRICAL POWER INPUT BOX ON RIGHT SIDE
 - (G) REFERS TO REFRIG GAS LINE; (L) REFERS TO REFRIG LIQUID LINE



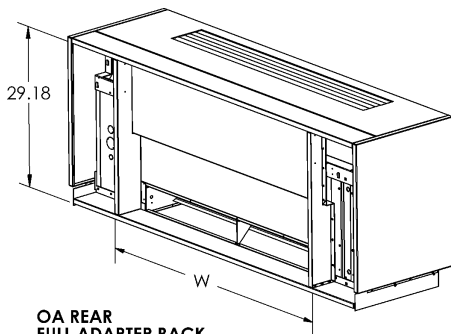
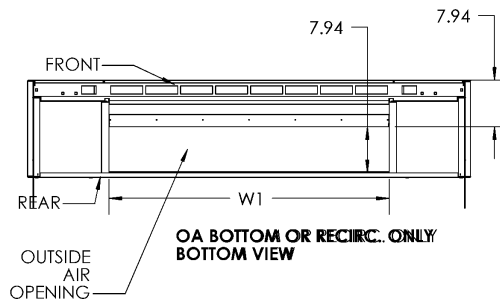
**OA REAR
OPEN PIPE TUNNEL
(A, L)**



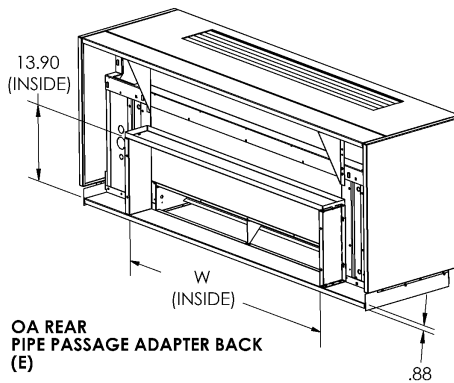
**OA REAR
CLOSED PIPE TUNNEL
(B, M)**



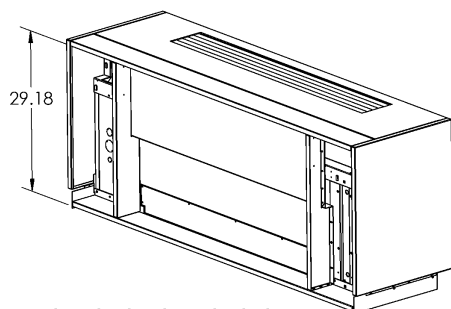
**OA BOTTOM OR RECIRC.. ONLY
(C, D, N, O)**



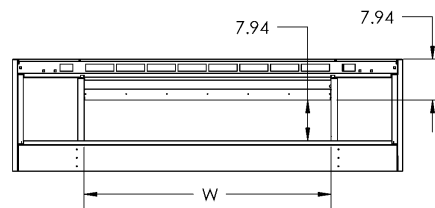
**OA REAR
FULL ADAPTER BACK
(F, R)**



**OA REAR
PIPE PASSAGE ADAPTER BACK
(E)**

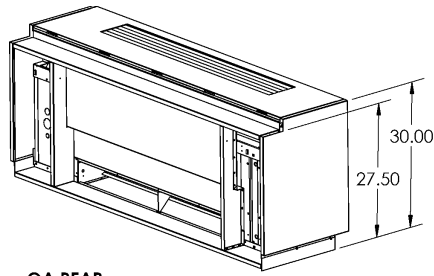


**OA BOTTOM OR RECIRC. ONLY
FULL ADAPTER BACK
(H, I, T, U)**

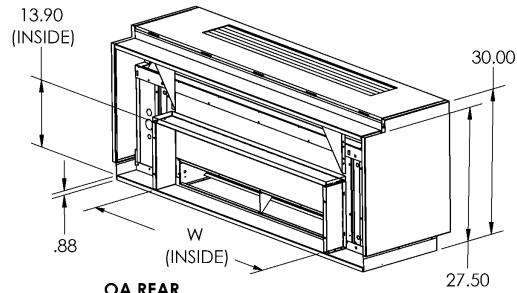


**OA BOTTOM OR RECIRC. ONLY
FULL ADAPTER BACK
BOTTOM VIEW**

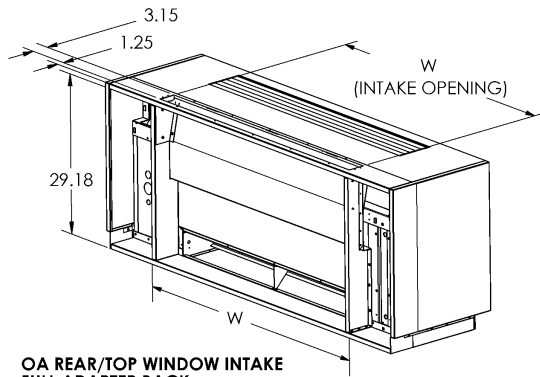
Model No.	CFM	W
MAUVF1	500	26
MAUVF2	750	38
MAUVF3	1000	50
MAUVF4	1250	62
MAUVF5	1500	74



**OA REAR
2.5\"/>**



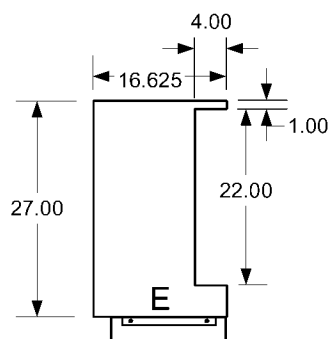
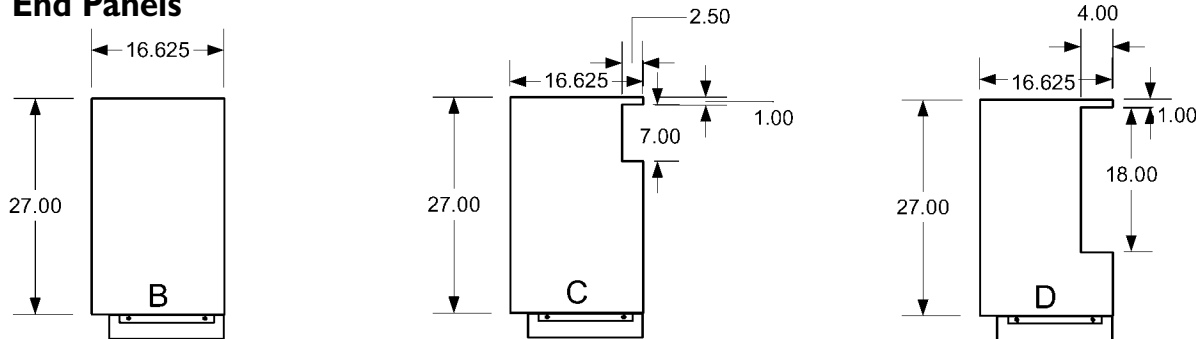
**OA REAR
2.5\"/>**



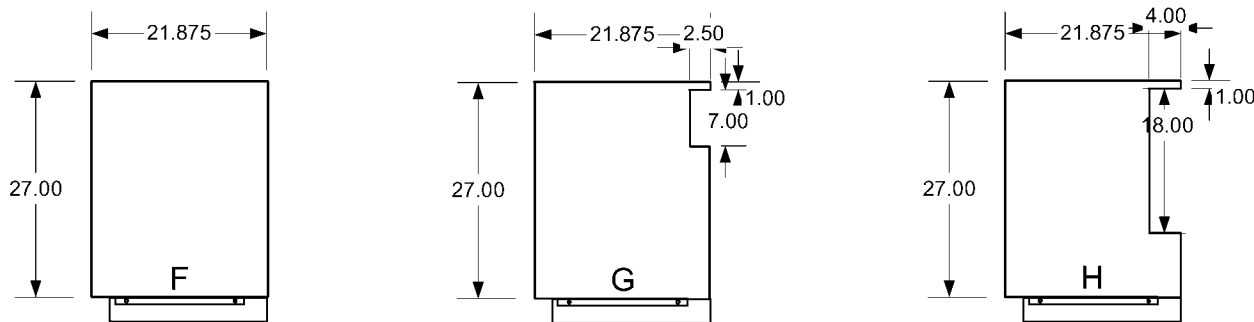
**OA REAR/TOP WINDOW INTAKE
FULL ADAPTER BACK
(G)**

End Panel Options

16-5/8" End Panels



21-7/8" End Panels



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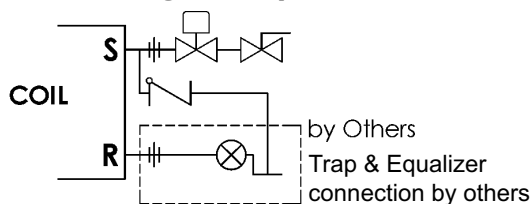
Water valves can be either 2 way or 3 way. Hot water valves are piped normally open to the coil. Chilled water valves are piped normally closed to the coil. On 2 pipe heat/cool applications, the valves are piped as though heating valves (Normally Open).

Piping packages are installed and tested in the factory to ensure proper operation and leak tightness. They are disconnected at the unions and shipped in the end compartments.

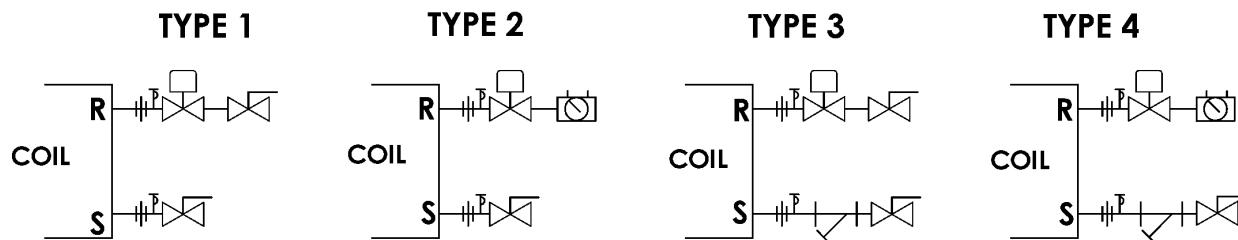
All water coils contain vent and drain plugs as standard. Control valve and all components by the factory, unless otherwise indicated.

Valve packages must be field insulated.

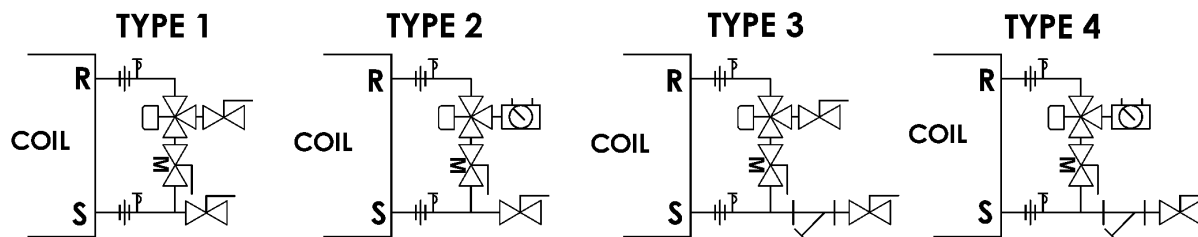
Steam - Valve Package Components



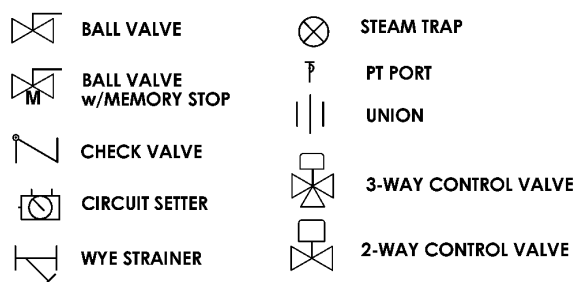
Two Way - Valve Package Components



Three Way - Valve Package Components



LEGEND



DDC Ready Control Package

The direct digital control (DDC) ready control package is a pre-wired control offering of selected control components. This allows any control vendor to easily interface with the unit ventilator. The DDC ready package consists of the following components which are factory wired to a terminal strip that is located in the left hand end pocket of the unit ventilator.

The unit is shipped from the factory with an ETL listing.

- A NEC Class 2 type transformer 24 VAC at 75 VA. The transformer is protected by a circuit breaker.
- The fan start/stop relay is a double pole/ single throw relay rated for 12 FLA 60 LRA-amps at 120VAC and 8 FLA and 48 LRA 240/277 VAC. Pickup voltage @ 85%, inrush rating 5 VA and a sealed rating of 4 VA. The relay is rated for 1,000,000 operations mechanically and 100,000 on inductive loads at maximum current rating.
- Multi-pole field wiring terminal block has a minimum rating for 20-amps at 150 volts.
- An standard low temperature detection thermostat has a vapor pressure type element strung along the face of the coil. If six inch of this element falls below 38°F ± 2°F, it must be integrated into the control sequence to shut outside air damper, open the hot water valve and turn off the fan motor. The device is automatic reset at approximately 45°F .

Once the basic package is selected, the following options are also available:

- Control valve(s). 3-point floating, 2-10vdc or 4-20ma in either a 2-way or 3- way configuration.
- Face and bypass isolation valve. 2-position, 2 or 3-way spring return ONLY.
- Face and bypass damper actuator. 3-point floating, 2-10vdc or 4-20ma.
- OA/RA actuator. 3-point floating, 2-10vdc or 4-20ma.
- Piping package

Valves/Piping Package

Control valves may be mounted in an optional factory piping package to include unions at the coil, p/t ports on the supply and return lines, and shutoff ball valve on the supply and return. Stroke time for modulating and floating point valves is approximately 150-seconds. The ambient temperature range is 35° F to 125° F. Fluid temperature range is 32°F to 200°F (not steam rated). The valve body connections are SW, and the maximum pressure is 300 psi. Maximum close-off _P for 2.0 Cv valves is 50 psi and for 4.0 and 7.5 Cv 35 psi.

Damper Actuators

There are three types of damper actuators used with the DDC Ready Package:

Optional face and bypass actuator is 24-volt, 3-point floating, 2-10vdc or 4-20ma, non-spring return. Incoming power is 24 VAC with a consumption of watts, 3va. Maximum torque of 35 in/lb and drive time is 110-seconds. The 3-point floating point actuators have input impedance less than 1000 Ohms to provide at least 24mA load for Triac switching.

- Optional outside-air/return air actuator is spring return and takes a 3- point floating, 2-10vdc or 4-20ma signal. Actuators provide 35 in/lb. of torque with a motor run time of <40 to 75 sec., spring run time of <25 sec. @ -4°F to 122°F. The power consumption is 7 VA with temperature limits of -22° F to 122° F. The 3-point floating point actuators have input impedance less than 1000 Ohms to provide at least 24mA load for Triac switching.

Fan Start/Stop Relay

The fan start/stop relay enables the fan start and stop. The fan's speed is controlled by a unit mounted fan switch.

Equipment Specifications

UNIT CONSTRUCTION

Unit shall be constructed of heavy gauge steel components to form a ridged frame that is suitable for rigorous classroom duty. Unless painted for cosmetic reasons, the frame shall be entirely of galvanized material to prevent corrosion.

Exterior panels must be constructed of heavy gauge steel that have been cleaned and pretreated prior to painting to afford the maximum corrosion resistance possible, even after scratches that might appear during normal use. These panels shall be coated with at least 2 mil of the highest quality, polyester baked-on textured powder paint.

Unit tops shall be constructed of heavy gauge steel coated with a textured finish baked on powder paint to resist both corrosion and marring during normal use.

Units shall be constructed such that normal unit operation is not affected by removal of front panels for routine maintenance or troubleshooting/adjustments of control components. Units requiring all front panels to be installed for correct unit operation shall not be accepted.

INSULATION

The standard unit shall be constructed such that there shall be no fiberglass in the airstreams

PIPE TUNNEL

Floor units shall have an integral pipe tunnel that can be used for piping across the unit with at least two pipes without increasing the normal depth of the unit. This tunnel shall be insulated from the unit and shall be accessible from both end compartments allowing maximum flexibility of piping installation.

BAR STOCK DISCHARGE GRILLE

Discharge grilles shall be welded steel continuous blade design with spacing no more than .230" such that normal pencils cannot penetrate.

(Optional) To further ensure that debris cannot be placed into the fans, the grille shall be backed by screens with spaces no larger than 1/4 inch.

DRAIN PANS

Drain pans shall be furnished on all units. Pans shall be insulated to ensure that they do not sweat during the cooling season and be sloped in two planes to prevent standing water. Drain stubs shall be at least 7/8" OD. Both left and right hand stubs shall be furnished on all units; connection shall be field reversible.

Drain pans on ceiling units shall have drains located 4.5" above the bottom of the unit to allow for installation of traps on the drain line by the installing contractor.

CEILING UNITS

Ceiling units shall have two hinged front panels for easy access to filters and for routine maintenance. Retaining chains shall be furnished for both panels to ensure maximum safety in accessing the unit through these panels. Normal unit operation shall not be affected by opening of the front panels to allow maximum flexibility for troubleshooting/adjusting of controls.

End panels shall be easily removable by use of 5/32" hex wrench on no more than four fasteners per panel. These fasteners shall be accessible from the outside of the unit.

End panels that are not easily removable from the outside are not acceptable.

DISCHARGE OPTIONS

Ceiling units shall be fitted with a (bar stock discharge grille), (duct collar arrangement), (double deflection).

DOUBLE DEFLECTION GRILLES – HORIZONTAL ONLY

Double deflection grilles shall be constructed of heavy gauge extruded aluminum components that have been anodized with a clear finish for maximum corrosion resistance and enhanced appearance. Blades shall be fully adjustable both vertically and horizontally to all maximum flexibility of adjustment of air flow direction.

TRIM FLANGES (OPTIONAL)

Trim flanges shall be furnished by the unit manufacturer and be painted with the same high quality finish as on the ceiling unit. These flanges shall be furnished for the four sides of the unit.

FAN MOTOR (FREE DELIVERY)

All units shall be furnished with a thermally protected permanent split capacitor motor for maximum efficiency.

Unit shall have at least three speeds selectable from a switch located on the front of the unit control box. Motor speed shall be provided by means of a multi-tap autotransformer that is used to control the voltage to the main winding of the motor. Units from 500 to 1500 CFM shall use the same motor to reduce replacement parts inventory.

FAN MOTOR (HIGH STATIC)

All units shall be furnished with an integrally protected, programmable, electronically commutated, polyphase motor that has been preprogrammed with the capability of delivering at least three distinct air volumes. For hydronic units these air volumes shall be 100% rated air for Max, approximately 70% of rated air for high, and approximately 50% of rated air for low. Motors that are not programmable to ensure constant correct air delivery shall not be acceptable.

FANS

Fans shall be large diameter (at least 8") for low speed, quiet operation and shall be constructed of high impact mineral filled polymer material (500-1500 CFM). Fans must be mounted on a continuous, precision ground hollow shaft that is supported on one end by a long life bearing and connected to the motor shaft by a coaxial steel coupling with resilient inner ring. Motors shall be easily removable and secured in a wire motor mount bolted to the unit frame. The wire mount shall be mechanically isolated from the frame of the unit by resilient bushings at each mounting point of the motor mount assembly.

ROOM AIR/OUTDOOR AIR DAMPERS

Damper shall be constructed of one piece heavy gauge extruded aluminum material that has been stiffened by use of multiple components to afford maximum rigidity, strength and corrosion resistance. Seats shall be deep pile polyester material on all side edges; damper blades shall use dual durometer PVC seals with memory suitable for use from -30°F to 160°F. The damper shafts shall pass through trouble-free nylon bearings and be connected to the damper blade using multiple fasteners that utilize vibration resistant components for maximum trouble-free life.

The damper must be insulated with closed cell foam insulation. Optional cold weather damper must be available for maximum cold weather protection.

FACE AND BYPASS DAMPER

Face and bypass dampers must be constructed of heavy gauge aluminum material that has been stiffened by use of multiple components to form a cross section that forms a rectangle to afford maximum rigidity. Damper shafts shall pass through trouble free nylon bearings and be connected to the damper blade using multiple fasteners that utilize vibration resistant components for maximum trouble-free life.

AGENCY LISTINGS

All units shall be listed by NRTI (Nationally Recognized Testing laboratory) such as ETL. All units shall have certified performance under applicable ARI 840 program for unit ventilators. The manufacturer shall furnish proof of such certification prior to final approval of the product.

COILS

Chilled water and combination chilled/hot water coils shall be constructed of mechanically expanded copper tubing minimum wall .016" inside, aluminum fins, minimum thickness .025". The fin surface shall be enhanced to the maximum degree by incorporating a raised lance design. Coils shall be pressure tested at no less than 350 psig at the factory to ensure they are leak tight. Hot water coils shall be constructed of mechanically expanded copper tubing minimum wall .016", inside aluminum fins minimum thickness .045". The coil performance shall be maximized by incorporation of a waffle design of the fin surface. Coils shall be pressure tested at no less than 350 psig at the factory to ensure they are leak tight. A coil low limit shall be factory mounted on the leaving side of the heating coil. If the capillary device senses a temperature less than 38°F along any 6" the device will actuate, device shall be SPDT, auto reset.

Steam coils shall be the freeze resistant double tube, distribution type utilizing a tube in tube design with a long life copper header. Non-distributing type coils are not acceptable. Ferrous materials in the header are also not acceptable. DX coils shall be furnished with a thermal expansion valve sized to accommodate the condensing unit selected to meet the load. Coils shall be pressure tested at no less than 350 psig at the factory to ensure they are leak tight. Electric heat elements shall be the open wire type. They shall be mounted in individual heavy gauge galvanized steel frames and suspended in ceramic insulators. Dual capillary type thermal sensing elements, one automatic reset and one manual reset, shall be employed to protect the unit from overheating in the event of abnormal operation. Each circuit above 48 amps shall be protected by its own fuses rated for the duty and voltage to which they are applied. The unit must be constructed such that troubleshooting or adjustment of the controls can be done with the unit operating normally.

FILTERS

The units shall be furnished with throwaway, permanent, renewable filters. This filter shall be placed in the air stream such that all outdoor and/or return air passes through a single filter. Separate filtration of the outdoor air and return air is not acceptable. Permanent filters

Equipment Specifications

shall be constructed utilizing a heavy gauge aluminum frame with spun aluminum media suitable for repeated washing and reuse. Renewable filters shall be constructed of heavy gauge galvanized, painted frames fitted with fiberglass media. The frame shall be easily disassembled for media renewal. Units shall be constructed to accept 2" filters without cabinet modification.

(Optional) ____ sets of spare throwaway filters are to be furnished by the manufacturer.

(Optional) Supply ____ sets of permanent filters, to be furnished by the manufacturer.

(Optional) Supply ____ sets of washable filters, to be furnished by the manufacturer.

(Optional) Supply ____ sets of 2" filters, to be furnished by the manufacturer.

TEMPERATURE CONTROLS

The unit ventilator manufacturer shall furnish, install, wire and factory test a complete control package suitable for the unit type(s) selected.

The sequence of operation shall be ASHRAE Cycle II with minimum position of the outdoor actuator adjustable by the installing contractor, balance contractor, and owner/operator.

The desired room temperature and the (optional) night setback offset shall be adjustable at the unit keypad or at the wall thermostat.

NIGHT SET BACK RELAY (OPTIONAL)

A unit mounted relay shall be furnished that can be used by the controls contractor to signal the unit to go to occupied/ unoccupied mode from a remote source. The relay furnished shall have a 24 VAC coil. An optional timeclock with 7 day 24 hour, skip-a-day feature shall be provided. Timeclock will have captive trippers in 2 hour increments, holiday switch and 7 day reserve.

Custom Controls Form - VRFUV - LG set up

Job Name:
 Quote #
 RFCP #
 Rep Contact Name
 Rep Contact Email
 PO#
 Sales Order #:

Component to be Used	Manufacturer	Model #	QTY per JOB	Supplied By	Description or Use
Discharge Air Sensor					
Return Air Sensor					
Mixed Air Sensor					
O/A Air Sensor					
Fan Current Sensor					
DDC Controller					
Thermostat					
O/A,R/A Damper Actuator					
Face & Bypass Actuator					
LG Comm Card	LG	PAHCMR000		Customer	mounted on control panel
Pipe_in thermistor	LG	EBG62485902		Customer	Comes with Comm Kit
Pipe_out thermistor)	LG	EBG62485903		Customer	Comes with Comm Kit
EEV Kit power supply				Factory	Factory supplied. Please do not send power supplies to factory.
EEV Expansion Valve Kit	LG	PRLK048A0		Customer	Supplied by customer - Factory Wired Pigtail – Field Installed Kit

Factory Contact	Ship Controls To
	MagicAire
Phone: 940-397-2100	Attn: UV Sales Department
	501 Galveston Street
Email: techsupport@magicaire.com	Wichita Falls, Texas 76301

Request Number	RFCP2023025
Base Model	Base Model digit 15 = A
New Model	Suffix added for handing: -SR or -SL
	VRFUUV set up including extended unit end compartments (Drawings UVF-305 and UVF-306) and custom coil and Factory Control Panel with *LG Comm Kit"
	Factory mounted:
	Sheet metal control panel with hinge with COMM card
	LG comm kit (LG Comm Card, LG pipe_in thermistor, LG pipe_out thermistor) (supplied by customer)
	EEV Shielded Harness (factory wired to low voltage control panel - field wired to EEV Valve Kit)
Change Requested	Shipped Loose:
	Factory provided power supply. Modified in factory for use with VHB tape and harness connections.
	LG EEV Expansion Valve Kit "Factory Wired Pigtail – Field Installed Kit. Use "EEV Wiring Instructions" and repackaged to ship loose to be field installed.
	Interconnecting Copper piping between DX Coil and EEV Expansion Valve Kit and associated piping grommets and mounting holes. 3/8" thick piping insulation for gas and liquid lines supplied and installed in field
	Field Installed Controls. Does not include factory mounting field provided controller or any other customer supplied parts.

Request Number	RFCP - NEW
Base Model	Base Model digit 15 = D, E, G, H AND digit 16 = 0
New Model	Suffix added for handing: -SR or -SL
	VRFUV set up including extended unit end compartments (Drawings UVF-305 and UVF-306) and custom coil and Factory Control Panel with *LG Comm Kit"
	Factory mounted:
	Sheet metal control panel with hinge with COMM card
	LG comm kit (LG Comm Card, LG pipe_in thermistor, LG pipe_out thermistor) (supplied by customer)
	EEV Shielded Harness (factory wired to low voltage control panel - field wired to EEV Valve Kit)
Change Requested	Shipped Loose:
	Factory provided power supply. Modified in factory for use with VHB tape and harness connections.
	LG EEV Expansion Valve Kit "Factory Wired Pigtail – Field Installed Kit. Use "EEV Wiring Instructions" and repackaged to ship loose to be field installed.
	Interconnecting Copper piping between DX Coil and EEV Expansion Valve Kit and associated piping grommets and mounting holes. 3/8" thick piping insulation for gas and liquid lines supplied and installed in field
	Base units will be DDC Ready with Damper Actuators. Does not include factory mounting field provided controller or temperature sensors or any additional customer supplied parts.

Request Number	RFCP - NEW
Base Model	Base Model digit 15 = D, E, G, H AND digit 16 = B, C, D
New Model	Suffix added for handing: -SR or -SL
	VRFUV set up including extended unit end compartments (Drawings UVF-305 and UVF-306) and custom coil and Factory Control Panel with *LG Comm Kit"
	Factory mounted:
	Sheet metal control panel with hinge with COMM card
	LG comm kit (LG Comm Card, LG pipe_in thermistor, LG pipe_out thermistor) (supplied by customer)
	EEV Shielded Harness (factory wired to low voltage control panel - field wired to EEV Valve Kit)
Change Requested	Shipped Loose:
	Factory provided power supply. Modified in factory for use with VHB tape and harness connections.
	LG EEV Expansion Valve Kit "Factory Wired Pigtail – Field Installed Kit. Use "EEV Wiring Instructions" and repackaged to ship loose to be field installed.
	Interconnecting Copper piping between DX Coil and EEV Expansion Valve Kit and associated piping grommets and mounting holes. 3/8" thick piping insulation for gas and liquid lines supplied and installed in field
	Base units will be DDC Ready with Damper Actuators and factory supplied and installed temperature sensors. Does not include factory mounting field provided controller or any additional customer supplied parts.

Request Number	RFCP - NEW
Base Model	Base Model digit 15 = D, E, G, H AND digit 16 = B, C, D
New Model	Suffix added for handing: -SR or -SL
	VRFUUV set up including extended unit end compartments (Drawings UVF-305 and UVF-306) and custom coil and Factory Control Panel with *LG Comm Kit"
	Factory mounted: The standard DDC Ready Package consist of terminal blocks mounted on a hinged panel , a wiring harness (shown below),a 75VA control transformer, and a fan start/stop relay with a 3 speed fan switch (not included with variable speed motor option). DX Relay and low limit; and water coil low limit (when water coil ordered); andoutside air damper actuator or a face and bypass damper actuator (when ordered)
	Includes factory supplied and installed temperature sensors.
Change Requested	Does not include factory mounting field provided controller or any additional customer supplied parts.

Request Number	RFCP - NEW
Base Model	Base Model digit 15 = D, E, G, H AND digit 16 = B, C, D
New Model	Suffix added for handing: -SR or -SL
	VRFUV set up including extended unit end compartments (Drawings UVF-305 and UVF-306) and custom coil and Factory Control Panel with *LG Comm Kit" Factory mounted: The standard DDC Ready Package consist of terminal blocks mounted on a hinged panel , a wiring harness (shown below),a 75VA control transformer, and a fan start/stop relay with a 3 speed fan switch (not included with variable speed motor option). DX Relay and low limit; and water coil low limit (when water coil ordered); andoutside air damper actuator or a face and bypass damper actuator (when ordered) Does not include factory supplied and installed temperature sensors.
Change Requested	Does not include factory mounting field provided controller or any additional customer supplied parts.

Request Number RFCP2023118

Base Model MAUHF with 4 or 5 for digit 23 (TXV removed from coil)

Factory Mounted

- Sheet metal control panel with hinge with COMM card
(supplied by customer)

Shipped Loose

Change Requested -LG EEV Kit power supply. Modified in factory for use
with VHB tape and harness connections.

All other parts will be field provided and installed and
wired.

Terms and Conditions of Sale

The following terms and conditions apply to and govern the sale of the air handling equipment and parts manufactured by both the MagicAire and Continental VAV divisions of United Electric Company, L.P. ("United Electric").

EXCLUSIVE TERMS OF SALE - United Electric quotes and sells its goods on the expressed condition that the buyer assents to the terms and conditions set forth hereon, regardless of any inconsistent or additional terms that may be embodied in any purchase order. United Electric's sale of its goods is expressly conditional on, and the buyer's acceptance and receipt of the goods shall constitute the buyer's assent to, such terms and conditions.

ACCEPTANCE - All orders are subject to Credit and Sales Department approval and acceptance. United Electric reserves the right, among other remedies, to terminate or suspend further delivery against an order in the event the buyer fails to pay any portion of the order when it becomes due. Should buyer's financial condition become unsatisfactory to United Electric, cash payments or satisfactory security may be required by United Electric for further deliveries or for goods already delivered.

CANCELLATION - Buyer shall not cancel the order with-out prior written consent of United Electric. In the event buyer cancels the order with the prior written consent of United Electric after the buyer's offer to purchase is received and acknowledged in writing, United Electric shall be entitled to receive from the buyer United Electric's cost plus a reasonable allowance for over-head and profit. Furthermore, for goods released for production but prevented by buyer from shipping upon completion or by the acknowledged shipping date, whichever is later, United Electric may, at its option, in addition to all other remedies, invoice buyer to be pay-able within 30 days and store the goods at buyer's sole expense

DELIVERIES - Any stated shipping date of the goods is United Electric's best estimate based upon the volume of orders for the goods United Electric has received or expects to receive at the time it receives buyer's order. UNITED ELECTRIC MAKES NO GUARANTEE OF SHIPMENT BY THE ESTIMATED DATE AND SHALL HAVE NO LIABILITY OR OTHER OBLIGATION, INCLUDING, BUT NOT LIMITED TO INCIDENTAL OR CONSEQUENTIAL DAMAGES THE BUYER OR ANY THIRD PARTY MAY INCUR, FOR ITS FAILURE TO SHIP BY SUCH DATE, REGARDLESS OF CAUSE.

SHIPMENTS - United Electric shall not be bound to deliver any goods for which buyer has not given ship-ping instructions. ALL PRODUCTS ARE SOLD F.O.B. UNITED ELECTRIC'S PLANT. TITLE TO GOOD PASSES TO THE BUYER UPON DELIVERY BY UNITED ELECTRIC TO THE FREIGHT LINE. All goods are shipped at buyer's risk. Buyer should examine shipments carefully for loss or damage and should have same noted by transportation agent on the freight bill upon accepting delivery. In the event of concealed damage, buyer has 15 days from receipt of the goods in which to call the freight line for an inspection.

In either case, the equipment cannot be returned to United Electric until after a freight inspection has been completed. In absence of shipping

instructions, United Electric shall use its own discretion in choice of carrier.

TAXES - Sales, use, consumption, storage or other taxes, if applicable, shall be paid by the buyer.

RETURN GOODS - New and unused goods returned for credit will not be accepted unless a Return Goods Authorization number has been issued by United Electric. Goods must be securely packed to reach United Electric without damage and properly identified with the Return Goods Authorization number. RGA numbers are valid for only 30 days after issuance. A mini-mum 35% fee will be charged on all stock products cleared for return that can be returned to stock after inspection. Build-to-order products manufactured and shipped cannot be returned and a 100% cancellation fee applies to any order that has been released for production but has not shipped. All goods must be returned freight prepaid by the buyer.

ALL PRODUCTS LIMITED WARRANTY - United Electric warrants that its goods will be free from defects in material and workmanship under normal use and maintenance for a period of one year from the date of original installation or 18 months from the date of shipment or whichever comes first. A new or rebuilt part to replace any defective part will be provided without charge, PROVIDED the defective part is returned to United Electric. The replacement part assumes the unused portion of the warranty. THIS WARRANTY DOES NOT INCLUDE LABOR or other costs incurred for identifying, repairing, removing, in-stalling, shipping, servicing, or handling of either defective parts or replacement parts.

UNITED ELECTRIC WILL NOT BE RESPONSIBLE FOR:1. Normal maintenance.2. Damage or repairs required as a consequence of faulty installation or application by others.3. Failure to start due to voltage conditions, blown fuses, open circuit breakers, or other damages due to the inadequacy or interruption of electrical service.4. Damage or repairs required as a consequence of any misapplication, abuse, improper servicing, unauthorized alteration, or improper operation.5. Damage as a result of floods, winds, fires, lightning, accidents, corrosive atmosphere, or other conditions beyond the control of United Electric.6. Parts not supplied or designated by United Electric.7. United Electric products installed outside the United States and Canada.

FOR SERVICE OR REPAIR, FOLLOW THESE STEPS IN ORDER: FIRST: Contact the installing contractor. SECOND: Contact the distributor or nearest authorized United Electric representative.

THIRD: Contact:

UNITED ELECTRIC CO., L.P.

501 Galveston St.

Wichita Falls, Texas 76301

(940) 397-2100

THIS WARRANTY IS EXCLUSIVE AND IN LIEU OF ALL OTHER WARRANTIES EXPRESS OR IMPLIED, INCLUDING, WITHOUT LIMITATION, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

BUYER'S EXCLUSIVE REMEDY - The buyer's acceptance of the goods shall confirm the buyer's review and acceptance of United Electric's All Products Limited Warranty, notwithstanding any other written or oral warranty of the goods that may be given to the buyer.

THE BUYER'S EXCLUSIVE REMEDY AGAINST UNITED ELECTRIC SHALL BE LIMITED TO UNITED ELECTRIC'S ALL PRODUCTS LIMITED WARRANTY. NO OTHER REMEDY, INCLUDING, BUT NOT LIMITED TO, RECOVERY FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES FOR LOST PROFITS, LOST SALES, INJURY TO PERSON OR PROPERTY, OR ANY OTHER INCIDENTAL OR CONSEQUENTIAL LOSS, SHALL BE AVAILABLE TO THE BUYER.

FIELD MODIFICATIONS - Should the installing contractor believe that the goods do not meet the requirements of the original submittal or do not operate according to the submittal, the buyer should immediately con-tact the selling distributor or authorized United Electric representative as outlined in the All Products Limited Warranty section. Upon United Electric's acceptance of responsibility to make modifications to the goods, United Electric will, at its sole discretion, either direct the contractor to make the modifications, send its own field service technicians to make the modifications, or engage another contractor to make the modifications. If United Electric directs the installing con-tractor to make the modifications, United Electric will issue a Field Repair Order (FRO) specifying the work to be done and the price to be paid. DO NOT BEGIN ANY MODIFICATIONS WITHOUT AN FRO NUMBER. United Electric will not be responsible for any costs incurred in modifying the goods, unless it has approved the modifications in advance.

EXCUSE OF PERFORMANCE - United Electric shall not be liable for its failure to perform due to causes be-yond its reasonable control, including but not limited to strikes, fire, war, acts of God, whether such events occur at or about United Electric's plant or at the plant of its suppliers.

CASH DISCOUNT AND TERMS - Unless otherwise specified, a 1% discount may be taken if paid within ten (10) days after invoice date. Net due thirty (30)days from date of invoice. United Electric may chargel-1/2% each month on all sums more than 30 days past due, the first such charge to accrue on the 61stday after date of invoice.

MISCELLANEOUS - THESE TERMS AND CONDITIONS FOR THE SALE OF THE GOODS SHALL BE CONSTRUED ACCORDING TO THE LAWS OF THE STATE OF TEXAS. ALL SUMS DUE UNITED ELECTRIC FOR THE SALE OF ITS GOODS ARE PAYABLE, AND ALL MATTERS ARISING PURSUANT TO SUCH SALE ARE PERFORMABLE, IN WICHITA COUNTY, TEXAS. The terms and conditions stated hereon constitute the full understanding between United Electric and the buyer, and no terms, conditions, understanding or agreement purporting to modify or vary these terms shall be binding unless here-after made in writing and signed by United Electric and the buyer.

United Electric has a policy of continuous product improvement, and reserves the right to change de-sign and specification without notice. United Electric has no system design or application responsibility to buyer or any third party.