

PH12 (Phantom 12) Series

Hot Water/Steam Heated

Model Lengths: 48"–144"

Environmental Separation (up to 16')

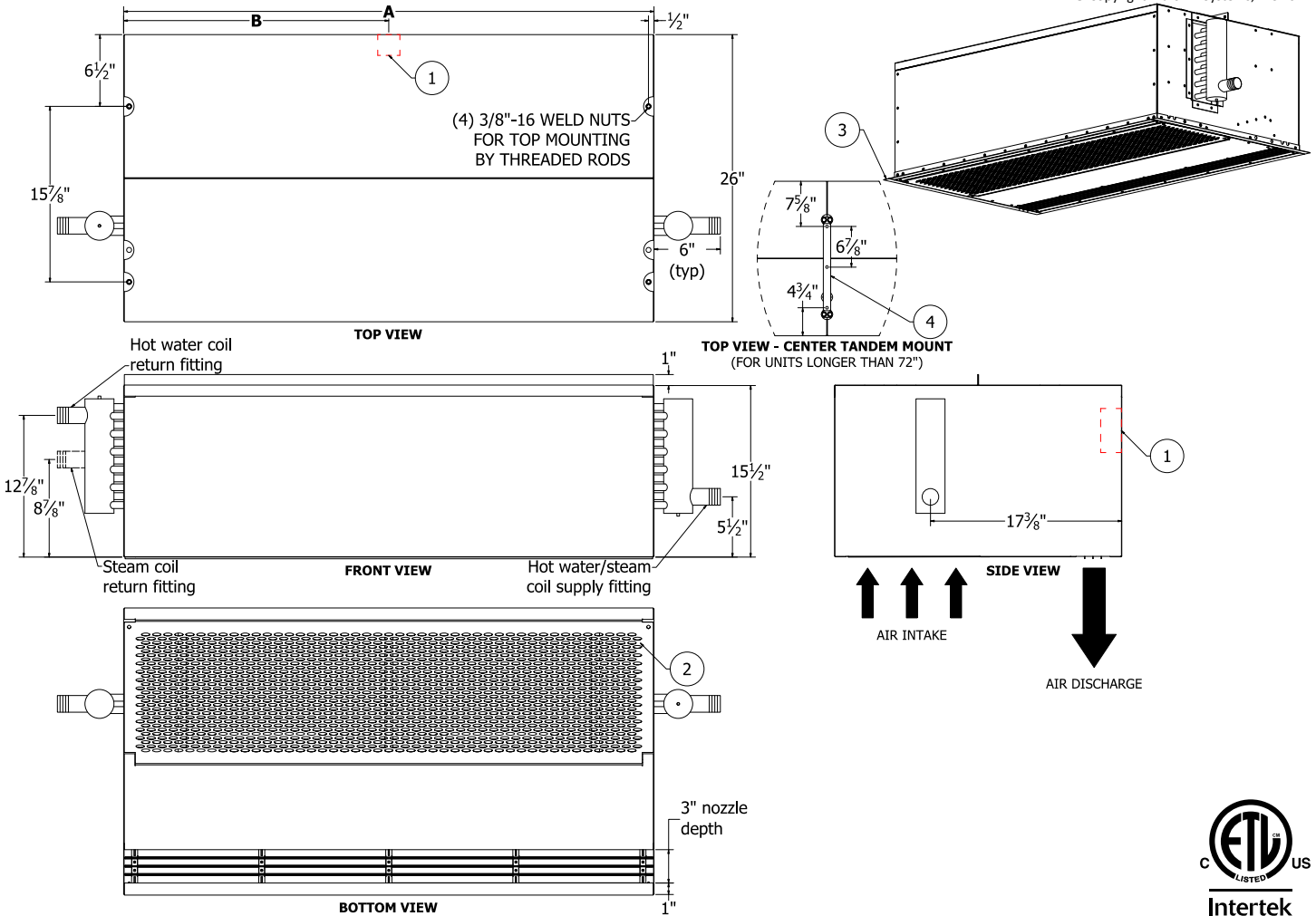
Insect Control (up to 14')



atmosphere is everything

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Notes:

1. Internal junction box (j-box) provided for electrical wiring.
2. Cleanable polyester filters are installed standard. Optional washable aluminum or pleated paper filters are also available.
3. (4) 1" wide matching trim pieces are included and shipped loose for optional installation.
4. Units up to 72" in width can be suspended from both ends without intermediate support. Longer units are double units and must be supported in the center.
5. Recommended service clearances are 12" to the left and right sides and 18" on top of the unit.
6. Circuit protection (per NEC) to be installed by others.
7. To prevent accidental damage during operation, unit must be installed so that the bottom of the air curtain does not extend below the door header.

Model Number	Mechanical Data					Lab Data				
	Overall Length A (in)	Nozzle Length (in)	J-box Distance from Each Edge B (in)	Motor (hp)	Weight (lb)	Max Core Velocity at Nozzle (in)	Avg Velocity (fpm)	Volume (cfm)	Uniformity (%)	Power Rating (watt)
<input type="checkbox"/> PH1236-1**-PW	36	36	18	1	105	6050	3097	2323	91	1158
<input type="checkbox"/> PH1242-1**-PW	42	42	21	1	115	6300	2824	2471	90	1259
<input type="checkbox"/> PH1248-1**-PW	48	48	24	1	125	6450	2534	2534	89	1343
<input type="checkbox"/> PH1260-1**-PW	60	60	30	1	140	6750	2207	2759	86	1531
<input type="checkbox"/> PH1272-2**-PW	72	72	36	(2) 1	205	6050	3097	4646	91	2316
<input type="checkbox"/> PH1284-2**-PW	84	84	(2) 21	(2) 1	235	6300	2824	4942	90	2518
<input type="checkbox"/> PH1296-2**-PW	96	96	(2) 24	(2) 1	250	6450	2534	5068	89	2686
<input type="checkbox"/> PH12120-2**-PW	120	120	(2) 30	(2) 1	275	6750	2207	5518	86	3062
<input type="checkbox"/> PH12144-4**-PW	144	144	(2) 36	(4) 1	410	6050	3097	9292	91	4632

* – Use corresponding letters in "Electrical Data" column headers (see page 2) to complete the model numbers.

Note: above data is for 60 Hz at 1725 RPM. For 50 Hz, RPM is 1425 with a 17% reduction in performance.



NOTE: Mars Air Systems, LLC reserves the right to change specifications and product design without notice. Such revisions do not entitle the buyer to corresponding changes, improvements, additions, or replacements for previously purchased equipment.

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Standard Features:

Air Curtain

- ❖ ETL-certified to conform to UL 1995 (US) and CSA 22.2 (Canada) standards for indoor use
- ❖ Sleek self-contained one-piece heavy-gauge corrosion-proof paint lock metal design
- ❖ Fire retardant and rust preventative electrostatic polyurethane powder coating
 - Standard color is Pearl White (PW)
- ❖ 1 HP continuous duty Totally Enclosed Air Over (TEAO) motors (NEMA 1)
- ❖ Adjustable air directional vanes with 40° sweep front to back
- ❖ 18-month parts warranty
- ❖ Freight included (FOB continental USA)
- ❖ Proudly made in the USA

Hot Water and Steam Coils

- ❖ Coil casings shall not be less than 16-gauge galvanized steel with tube holes formed with extruded collars
- ❖ Fins are die formed 0.006" aluminum (1 row – 10 FPI, 2 row – 8 FPI)
- ❖ Coil tubes constructed of heavy wall, 5/8" OD seamless copper (Steam – 0.035" & Hot Water – 0.025")
- ❖ Coil tubes arranged in a staggered pattern and mechanically expanded into fins to ensure a uniform pressure bond
- ❖ Manifolds shall be of heavy seamless copper construction
- ❖ All joints shall be brazed with high temperature silver brazing alloy (Steam – 7% & Hot Water – 3%), max steam operating pressure: 30 PSI
- ❖ Fittings shall be of wrought copper or similar construction such that the entire fluid circuit shall be of compatible nonferrous materials
- ❖ Manifold shall be fitted with 1/4" vent or drain fittings
- ❖ Supply fitting is on the right side of coil. Return fitting is on the left side
 - Same end connections available (see Coil Options below)

Mars Recommended Accessories (see [catalog](#) for complete listing):

- ❖ **Door Limit Switches** (\$)
 - 99-018, Commercial surface mounted magnetic switch (controller required)
- ❖ **Controllers**
 - MCPB-†V*, [Motor Control Panel](#), 120V control voltage († = # of Motors, * = Voltage Code) (\$)
 - MCP-TD, Adjustable time delay, 1sec-100hr (panel required)
 - MCP-HD, Heat on Demand, Hot Water/Steam (thermostat included)
 - MCP-24V, Low voltage control option (panel required)
 - BMS-303, BMS for monitor and control (panel with MCP-24V required)

Note: Dry contact provided in panel for monitoring motor. 24Vac signal provided from panel for controlling motor.

- ❖ **Thermostats** (\$)
 - 99-063, Thermostat, line voltage up to 250V max, single stage, single pole
 - ❖ **Severe Duty and Finish**
 - HSG-304SS-PH, 304 Stainless steel housing construction
 - ❖ **Coil Options**
 - HSG-COIL-LH, Accessory, Left Hand HW/S Coil Connection Adder
 - HSG-COIL-RH, Accessory, Right Hand HW/S Coil Connection Adder
- (S) = Shipped loose

Sound Levels (measured at 10' in a free field):

1 Motor Unit = 70 dBA, 2 Motor Unit = 73 dBA, 3 Motor Unit = 75 dBA, 4 Motor Unit = 75 dBA

Coil Data	Hot Water				Steam		
	Coil Code (X)	GPM	MBH	Temp Rise (°F)	Coil Code (Y)	MBH	Temp Rise (°F)
<input type="checkbox"/> PH1236-1**-PW	2 Row	6	79	31	1 Row	72	28
<input type="checkbox"/> PH1242-1**-PW	2 Row	7	87	33	1 Row	85	32
<input type="checkbox"/> PH1248-1**-PW	2 Row	7	95	37	1 Row	92	36
<input type="checkbox"/> PH1260-1**-PW	2 Row	7	109	38	1 Row	108	38
<input type="checkbox"/> PH1272-2**-PW	2 Row	12	164	36	1 Row	154	34
<input type="checkbox"/> PH1284-2**-PW	2 Row	13	184	37	1 Row	172	34
<input type="checkbox"/> PH1296-2**-PW	2 Row	15	205	40	1 Row	186	36
<input type="checkbox"/> PH12120-2**-PW	2 Row	17	243	42	1 Row	217	36
<input type="checkbox"/> PH12144-4**-PW	2 Row	19	328	36	1 Row	310	34

* - Use corresponding letters in "Coil Code" and "Voltage Code" column headers to complete the model numbers.

EAT: 70 F, EWT: 200 F, Steam pressure: 5 PSI

Electrical Data Full Load Amp (FLA)	Unit Amperage (Voltage Code)					
	Single Phase			Three Phase		
	115V/1Ø <input type="checkbox"/> (A)	208-230V/1Ø <input type="checkbox"/> (D)	208-230V/3Ø <input type="checkbox"/> (G)	460V/3Ø <input type="checkbox"/> (H)	575V/3Ø <input type="checkbox"/> (I)	
<input type="checkbox"/> PH1236-1**-PW	9.0	5.0	3.3/3.2	1.6	1.3	
<input type="checkbox"/> PH1242-1**-PW	9.0	5.0	3.3/3.2	1.6	1.3	
<input type="checkbox"/> PH1248-1**-PW	9.0	5.0	3.3/3.2	1.6	1.3	
<input type="checkbox"/> PH1260-1**-PW	9.0	5.0	3.3/3.2	1.6	1.3	
<input type="checkbox"/> PH1272-2**-PW	18.0	10.0	6.6/6.4	3.2	2.6	
<input type="checkbox"/> PH1284-2**-PW	18.0	10.0	6.6/6.4	3.2	2.6	
<input type="checkbox"/> PH1296-2**-PW	18.0	10.0	6.6/6.4	3.2	2.6	
<input type="checkbox"/> PH12120-2**-PW	18.0	10.0	6.6/6.4	3.2	2.6	
<input type="checkbox"/> PH12144-4**-PW	36.0	20.0	13.2/12.8	6.4	5.2	

* - Use corresponding letters in "Coil Code" and "Voltage Code" column headers to complete the model numbers.

Ampacity (MCA) = total FLA x 1.25

Alternate voltage codes with FLA data:

- 277V/1Ø/60Hz (L) – 5.2A per motor
- 220V/1Ø/50Hz (U) – 7.1A per motor
- 380-415V/3Ø/50Hz (W) – 1.8A per motor

EXAMPLE

PH12 72 - 2 X H - PW

