

# HV2 (High Velocity 2) Series

Unheated

Model Lengths: 96"–144"

Environmental Separation (up to 14')

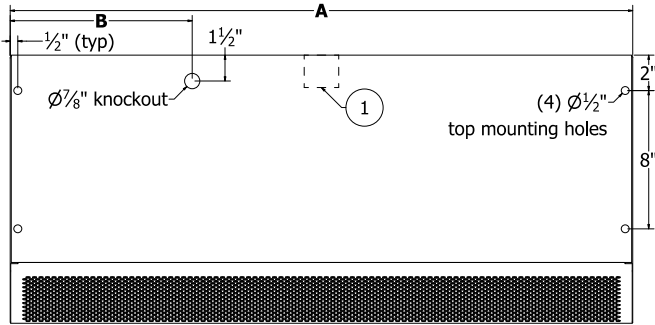
Insect Control (up to 12')



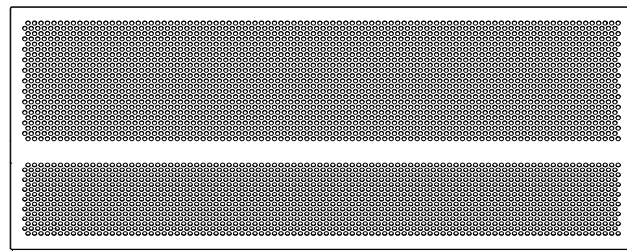
atmosphere is everything

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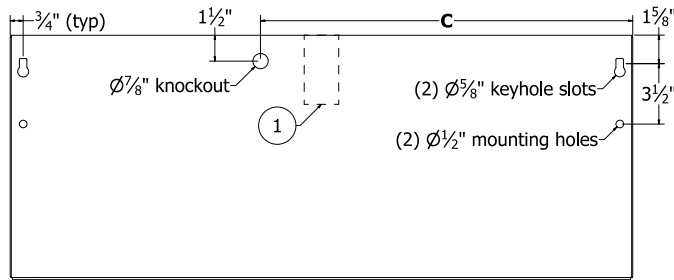
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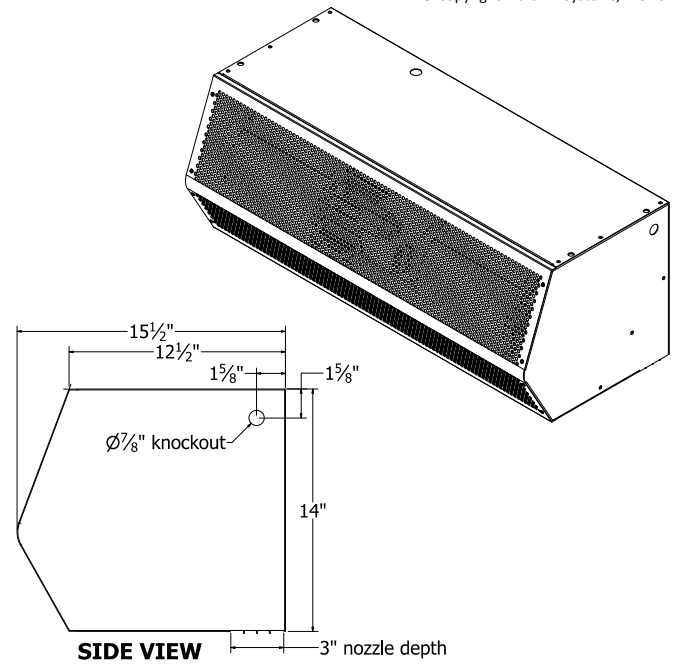
TOP VIEW



FRONT VIEW



REAR VIEW



SIDE VIEW

**Notes:**

1. Internal junction boxes provided for electrical wiring: (1) 2"x4" box for one-motor units, (1) 4"x4" box for two-motor units, (2) 4"x4" box for three-motor units.
2. Recommended service clearances are 2" to the left and right sides, 6" on top, and 18" in front of the unit.
3. Circuit protection (per NEC) to be installed by others.
4. 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.
5. Unit can be fastened to wall on both ends without intermediate support.
6. Motor-Fan Assemblies (MFAs) are shipped loose to minimize freight damage.



Model Number	Mechanical Data						AMCA Certified Lab Data				
	Overall Length A (in)	Nozzle Length (in)	Top Knockout Location B (in)	Rear Knockout Location C (in)	Motor (hp)	Weight (lb)	Max Core Velocity at Nozzle (in)	Avg Velocity (fpm)	Volume (cfm)	Uniformity (%)	Power Rating (watt)
<input type="checkbox"/> HV236-1U*-TS	36	36	10 ½	21 ½	1	115	6000	2745	2059	90	1245
<input type="checkbox"/> HV240-1U*-TS †	40	40	12 ½	23 ½	1	120	6060	2677	2231	93	1205
<input type="checkbox"/> HV242-1U*-TS	42	42	13 ½	24 ½	1	120	6051	2654	2322	93	1305
<input type="checkbox"/> HV248-1U*-TS	48	48	16 ½	27 ½	1	125	6144	2447	2447	88	1360
<input type="checkbox"/> HV272-2U*-TS	72	72	31 ½	40 ½	(2) 1	220	6000	2745	4118	90	2490
<input type="checkbox"/> HV284-2U*-TS	84	84	37 ½	46 ½	(2) 1	235	6051	2654	4644	93	2610
<input type="checkbox"/> HV296-2U*-TS	96	96	43 ½	52 ½	(2) 1	250	6144	2447	4894	88	2720
<input type="checkbox"/> HV2108-3U*-TS	108	108	31 ½	40 ½	(3) 1	330	6000	2745	6177	90	3735
<input type="checkbox"/> HV2120-3U*-TS	120	120	35 ½	44 ½	(3) 1	345	6060	2678	6693	93	3615
<input type="checkbox"/> HV2144-3U*-TS	144	144	43 ½	52 ½	(3) 1	375	6144	2447	7341	88	4080
<i>The following models are not licensed to bear the AMCA seal</i>											
<input type="checkbox"/> HV260-1U*-TS	60	60	22 ½	33 ½	1	140	6100	2285	2856	80	1485
<input type="checkbox"/> HV2120-2U*-TS	120	120	55 ½	64 ½	(2) 1	275	6100	2285	5711	80	2971

\* – 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 1450 with a 17% reduction in performance.

- The AMCA Certified Ratings Seal applies to airflow rate, average outlet velocity, outlet velocity uniformity, velocity project, and power rating at free delivery only.
- † Limited availability, long lead times may apply.

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.

# HV2 (High Velocity 2) Series

Unheated

Model Lengths: 96"–144"

Environmental Separation (up to 14')

Insect Control (up to 12')



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## Standard Features:

- ❖ ETL-certified to conform to UL 507 (US) and CSA 22.2 (Canada) standards for indoor and outdoor use
- ❖ AMCA-certified to AMCA 211 (includes performance testing per AMCA 220)
  - Certified models are approved for use as alternate to vestibules (per ASHRAE 90.1, IECC, and IgCC)
- ❖ 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 Titanium Silver (TS)
- ❖ 1 HP continuous duty Totally Enclosed Air Over (TEAO) motors (NEMA 1)
- ❖ Adjustable air directional vanes with 40° sweep front to back
- ❖ 5-year parts warranty
- ❖ Freight included (FOB continental USA)
- ❖ Proudly made in the USA

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

- ❖ **Door Limit Switches (\$)**
  - 99-014, Combination mechanical switch, 250V, 1HP Max
  - 99-125, Industrial surface mounted magnetic switch (controller required)
- ❖ **Controllers**
  - MCPB-†U\*, [Motor Control Panel](#), 120V control voltage († = # of Motors, \* = Voltage Code) (\$)
  - MCP-TD, Adjustable time delay, 1sec-100hr (panel required)
  - 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.

- ❖ **Brackets (\$)**
  - B0004, Adjustable mounting bracket set, 3½" clearance
  - B0008 to B0011, Extended wall mounting bracket set, 10", 16", 19", and 23" clearance respectively

## Severe Duty and Finish

- HSG-304SS-HV/EP, 304 Stainless steel housing construction
- INS-WD-HV2, Washdown motor fan assembly, IP54
- INS-XP-HV2, Explosion resistant motor fan assembly, Class 1, Division 1, Group D (TENV)

**Note:** Washdown and explosion proof units draw higher motor amperage (see electrical data table). Control panels for these units require OL/MP with higher amperage range (use MCP-MWD or MCP-MXP accessory).

(\$) = 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

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"/> HV236-1U*-TS	9.0	5.0	3.3/3.2	1.6	1.3
<input type="checkbox"/> HV240-1U*-TS †	9.0	5.0	3.3/3.2	1.6	1.3
<input type="checkbox"/> HV242-1U*-TS	9.0	5.0	3.3/3.2	1.6	1.3
<input type="checkbox"/> HV248-1U*-TS	9.0	5.0	3.3/3.2	1.6	1.3
<input type="checkbox"/> HV260-2U*-TS	9.0	5.0	3.3/3.2	1.6	1.3
<input type="checkbox"/> HV272-2U*-TS	18.0	10.0	6.6/6.4	3.2	2.6
<input type="checkbox"/> HV284-2U*-TS	18.0	10.0	6.6/6.4	3.2	2.6
<input type="checkbox"/> HV296-2U*-TS	18.0	10.0	6.6/6.4	3.2	2.6
<input type="checkbox"/> HV2108-3U*-TS	27.0	15.0	9.9/9.6	4.8	3.9
<input type="checkbox"/> HV2120-2U*-TS	18.0	10.0	6.6/6.4	3.2	2.6
<input type="checkbox"/> HV2120-3U*-TS	27.0	15.0	9.9/9.6	4.8	3.9
<input type="checkbox"/> HV2144-3U*-TS	27.0	15.0	9.9/9.6	4.8	3.9

\* – Use corresponding letters in "Voltage Code" column headers to complete the model numbers.  
† – Limited availability, long lead times may apply.

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

### Explosion proof motor FLA data (INS-XP-STD2):

- 115V/1Ø/60Hz (A) – 12.8A per motor
- 208-230V/1Ø/60Hz (D) – 6.4A per motor
- 208-230V/3Ø/60Hz (G) – 3.5/3.2A per motor
- 460V/3Ø/60Hz (H) – 1.6A per motor

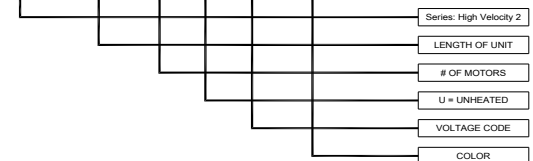
### Washdown motor FLA data (INS-WD-STD2):

- 115V/1Ø/60Hz (A) – 12A per motor
- 208-230V/1Ø/60Hz (D) – 6.4/6A per motor
- 208-230V/3Ø/60Hz (G) – 3.3A per motor
- 460V/3Ø/60Hz (H) – 1.5A per motor

AMCA Certified Projection Velocity		
Model	Distance from Nozzle (in)	Average Core Velocity (fpm)
HV236-1U*	40	2002
	80	1238
	120	1088
	160	1039
	200	967

EXAMPLE

**HV2 144 - 3 U H - TS**



MARS Air Systems, LLC certifies that the Air Curtains shown on this data sheet are licensed to bear the AMCA seal. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 211 and comply with the requirements of the AMCA Certified Ratings Program.

The AMCA Certified Ratings Seal applies to airflow rate, average outlet velocity, outlet velocity uniformity, velocity projection and power rating at free delivery only.

NOTE: Models HV260-1 and HV2120-2 are not AMCA-certified.