



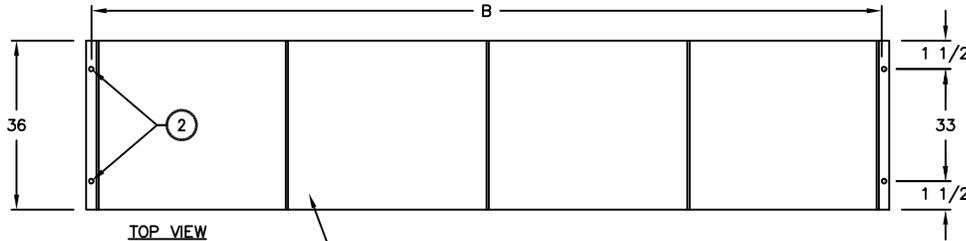
atmosphere is everything

14716 S. Broadway • Gardena, CA 90248 • USA  
 TEL: (310) 532-1555 • (800) 421-1266 • FAX: (310) 324-3030  
 Web Site: www.marsair.com • E-mail: info@marsair.com

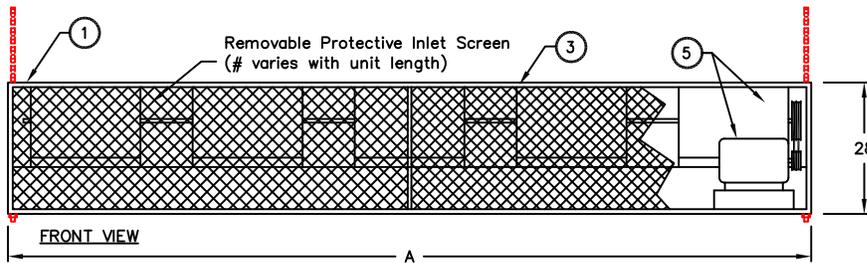
PROJECT	OPTIONS/ITEMS
TITLE	
COMMENTS	DATE 9/12/16
50 Hz Amperage Data @ 440v (+/- 10%) (S) WD Motor Amps: 5 HP - 4.7A, 7 1/2 HP - 8.4A, 10 HP - 11A XP Motor Amps: 5 HP - 4.7A, 7 1/2 HP - 9.3A, 10 HP - 11A	PAGE
	REV. NO
MODEL NO. BD14 Series	DRAWING NO. BD14U-F
DRAWN BY BH	CHECKED BY
FILE NAME	

## Unheated Drawing

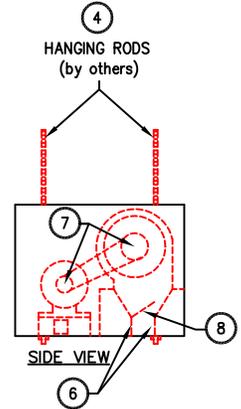
### BD14 (Belt Driven 14) Series



Removable Top Access Panels  
 (# varies with unit length)

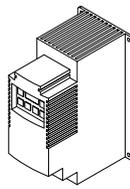


Removable Protective Inlet Screen  
 (# varies with unit length)

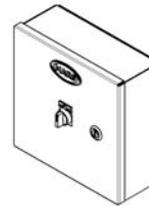


4 HANGING RODS  
 (by others)

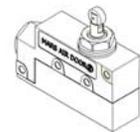
### 10 Recommended Accessories



Variable Frequency Drive



Control Panels 9



Door Limit Switches

\*- Use corresponding letters in "Electrical Data" columns to complete the model numbers.

MODEL NUMBER	NOZZLE LENGTH (in)	OVERALL LENGTH A (in)	MOUNTING WIDTH B (in)
BD1496-1U*-TS	96	107	105 1/2
BD14120-1U*-TS	120	131	129 1/2
BD14144-1U*-TS	144	155	153 1/2
BD14168-1U*-TS	168	179	177 1/2
BD14192-1U*-TS	192	203	201 1/2

#### Notes:

- This product is designed to meet the National Electric Code (NEC).
- (4) 3/4" mounting holes provided on for overhead mounting provided, (2) on each end.
- All units have a self contained one piece cabinet, fire retardant and corrosion proof paint lock metal double protected with baked on Titanium Silver color, rust preventative electrostatic polyurethane powder coating.
- Cabinet is to be mounted from overhead and has sufficient strength for suspension from both ends without intermediate support.
- High efficiency motor and dynamically balanced forward curved centrifugal blowers.
- Unit is to be installed such that air flow is unobstructed. Unit has a 5" air discharge nozzle containing adjustable air directional vanes with 40° sweep front to back.
- Unit provided with adjustable sheaves and pulleys field adjustable to suit varying conditions. VFD optional.
- Adjustable perforated volume dampers (2). Capable of reducing air velocity up to 50%.
- Circuit protection as per NEC by others.
- Optional motor control panel and door limit switch are field installed and/or wired by others. The door limit switch is to be mounted such that the air curtain turns on as door begins to open. To prevent unit damage, the air curtain must be installed such that the bottom of the air curtain is not below the door header.

# BD14 (Belt Driven 14) Series

Unheated

Model Lengths 96" – 192"



atmosphere is everything

14716 S. BROADWAY, GARDENA, CA 90248 • Ph: (310)532-1555 Fax: (310)532-3030 • [www.marsair.com](http://www.marsair.com)  
© Copyright Mars Air Systems, LLC 2014

## Unheated Data Sheet

**Applications: Environmental Separation: Max Height 16' / Insect Control: Max Height 14'**

BD14 (WindGuard)	Mechanical Data						Lab Data	
Model Number	Nozzle Length (in)	Length (in)	Depth (in)	Height (in)	Motor (hp)	Weight (lbs)	Max Velocity (fpm)	Max Volume (cfm)
BD1496-1U*-TS	96	107	36	28	5	600	4500	11700
BD14120-1U*-TS	120	131	36	28	5	700	4500	14650
BD14144-1U*-TS	144	155	36	28	7 1/2	800	4500	17600
BD14168-1U*-TS	168	179	36	28	7 1/2	900	4500	20500
BD14192-1U*-TS	192	203	36	28	10	1000	4500	23450

\* - Use corresponding letters in "Electrical Data" columns to complete the model numbers.

Note: Data above is for 60 Hz, 17% reduction in the performance data with 50 Hz.

### Features:

- ❖ 5 to 10 HP continuous duty premium efficiency industrial motors
- ❖ Motor shall be inverter rated totally enclosed fan cooled suitable for continuous heavy-duty operation
- ❖ Sleek self-contained one-piece heavy gauge corrosion proof paint lock metal design
- ❖ For Indoor/Outdoor Use
- ❖ Heavy duty cabinet 16 gauge, 1 1/2" square galvanized tube, cased with a minimum 14-gauge galvanized steel panels
- ❖ Belt drive unit for heavy duty industrial projects
- ❖ Top mounting holes provided (3/4")
- ❖ Cabinet has sufficient strength for fastening to wall on both ends without intermediate support.
- ❖ Motor shall be internally mounted in the cabinet to prevent damage and to eliminate the need for a belt guard, complying with OSHA requirements
- ❖ Adjustable air discharge nozzle with 40° sweep front to back
- ❖ Discharge nozzle shall be 5 inches wide and shall distribute a uniform outlet air velocity pattern without the use of baffles or diverters
- ❖ Adjustable perforated volume dampers capable of reducing air velocity up to 50%
- ❖ Blower wheel shall be forward curved cold rolled steel, direct coupled, dynamically balanced and furnished complete with blower wheel housing
- ❖ Variable pitch sheaves adjustable to suit field conditions
- ❖ Standard color is Titanium Silver
- ❖ Rust preventative electrostatic polyurethane powder coating
- ❖ 12-month parts warranty
- ❖ Freight Not Included (FOB Factory)
- ❖ Proudly Made in the USA

Electrical Data (FLA)	Unit Voltage (Voltage Code)		
	208-230V/3Ø (G)	460V/3Ø (H)	575V/3Ø (I)
BD1496-1U*-TS	14.2/13.0	6.5	5.3
BD14120-1U*-TS	14.2/13.0	6.5	5.3
BD14144-1U*-TS	21.6/20.0	10.0	8.9
BD14168-1U*-TS	21.6/20.0	10.0	8.9
BD14192-1U*-TS	28.0/26.0	13.0	10.3

\* - Use corresponding letters in "Electrical Data" columns to complete the model numbers.

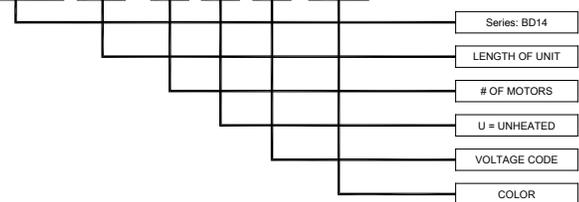
Alternate voltage codes with FLA (Full Load Amp) data:

380-415V/3Ø/50Hz (W) – 6.5A per motor (5HP), 8.3A per motor (7½HP), 11.5A per motor (10HP)

Ampacity (MCA) = total FLA X 1.25

### EXAMPLE

**BD14 96 - 1 U H - TS**



### Mars Recommended Accessories (See Submittals for additional details):

- ❖ Door Limit Switches
  - 99-125, Industrial surface mounted magnetic switch (controller required)
- ❖ Controllers
  - MCP\*-+U‡, Motor Control Panel, 120V control voltage (\* = HP Code, † = # of Motors, ‡ = Voltage Code)  
Note: possible HP Codes = E (5 HP), G (7½ HP), H (10 HP)
  - 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 required with MCP-24V)  
Note: Dry contact provided in panel for monitoring motor. 24Vac signal provided from panel for controlling motor

### Sound Levels: (measured at 10' in an open field)

5 HP Motor Unit = 73 dBA, 7 ½ HP Motor Unit = 74 dBA, 10 HP Motor Unit = 75 dBA