



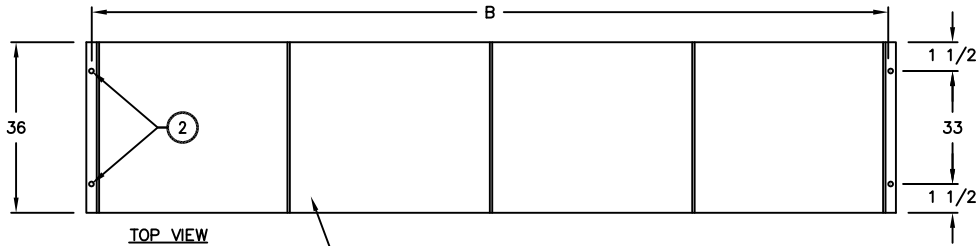
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14716 S. Broadway • Gardena, CA 90248 • USA
 TEL: (310) 532-1555 • (800) 421-1266 • FAX: (310) 324-3030
 Web Site: www.marsair.com • E-mail: info@marsair.com

PROJECT		OPTIONS/ITEMS	
TITLE		DATE	
COMMENTS		4/30/15	PAGE
MODEL NO. BD22 Series		REV. NO	
DRAWING NO. BD22U-F	DRAWN BY NT	CHECKED BY	FILE NAME

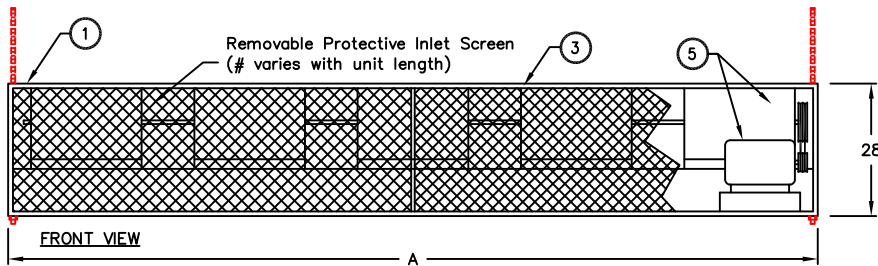
Unheated Drawing

BD22 (Belt Driven 22) Series



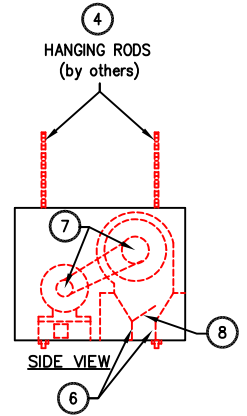
TOP VIEW

Removable Top Access Panels
(# varies with unit length)



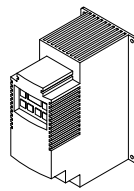
FRONT VIEW

Removable Protective Inlet Screen
(# varies with unit length)



SIDE VIEW

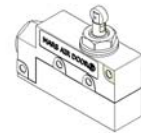
10 Recommended Accessories



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)
BD2296-1U*-TS	96	107	105 1/2
BD22120-1U*-TS	120	131	129 1/2
BD22144-1U*-TS	144	155	153 1/2
BD22168-1U*-TS	168	179	177 1/2
BD22192-1U*-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.

BD22 (Belt Driven 22) Series

Unheated

Model Lengths 96" – 192"



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Unheated Data Sheet

Applications: Environmental Separation: Max Height 24' / Insect Control: Max Height 22'

BD22 (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)
	BD2296-1U*-TS	96	107	36	28	10	700	6000	16250
	BD22120-1U*-TS	120	131	36	28	15	800	6000	20300
	BD22144-1U*-TS	144	155	36	28	15	900	6000	24350
	BD22168-1U*-TS	168	179	36	28	20	1000	6000	28400
	BD22192-1U*-TS	192	203	36	28	20	1100	6000	32500

* - 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:

- ❖ 10 to 20 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 (G)	460v (H)	575v (I)
BD2296-1U*-TS	28.0/26.0	14.0	10.3
BD22120-1U*-TS	42.0/40.0	20.0	15.6
BD22144-1U*-TS	42.0/40.0	20.0	15.6
BD22168-1U*-TS	55.0/51.0	25.5	20.2
BD22192-1U*-TS	55.0/51.0	25.5	20.2

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

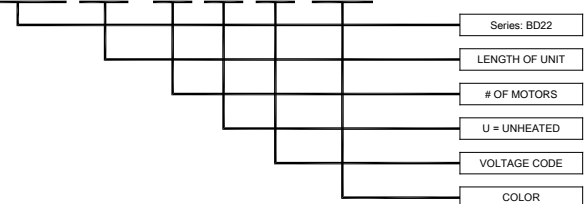
Alternate voltage codes with FLA (Full Load Amp) data:

380-415V/30/50Hz (W) – 11.5A per motor (10HP), 15.5A per motor (15HP), 22.5A per motor (20HP)

Ampacity (MCA) = total FLA X 1.25

EXAMPLE

BD22 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 [G for 10 HP, I for 15 HP, J for 20 HP], † = # 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 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)

10 HP Motor Unit = 75 dBA, 15 HP Motor Unit = 76 dBA, 20 HP Motor Unit = 77 dBA