



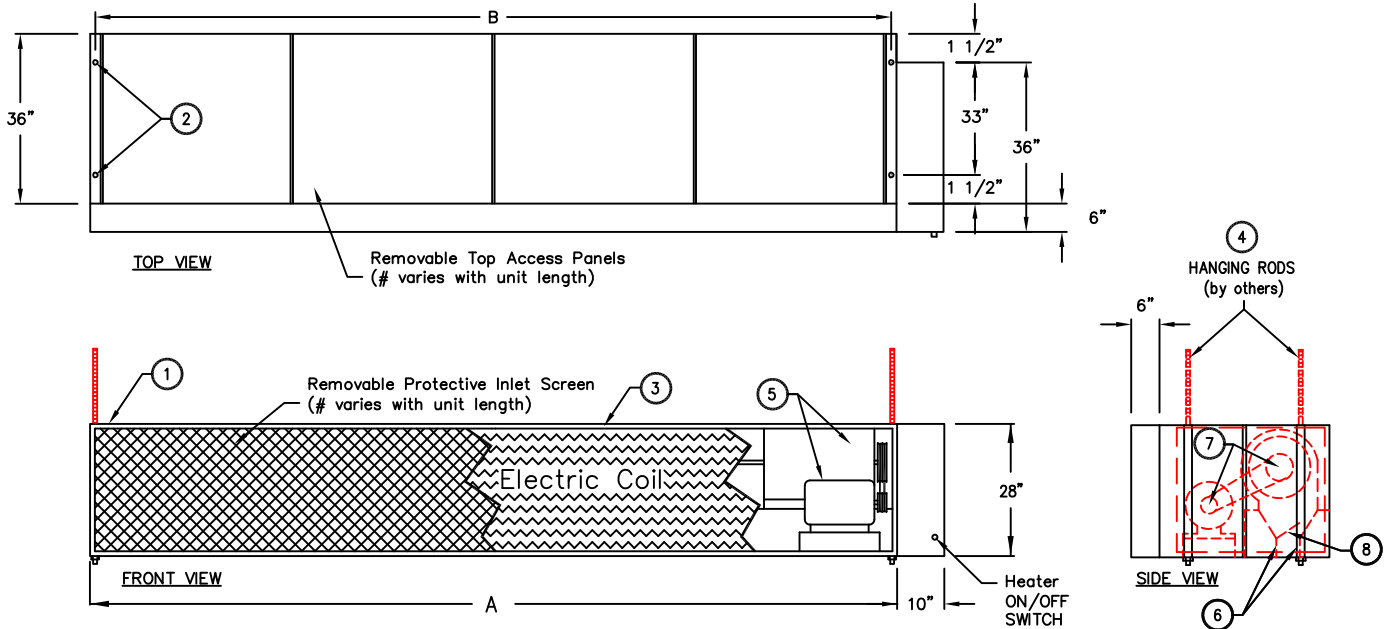
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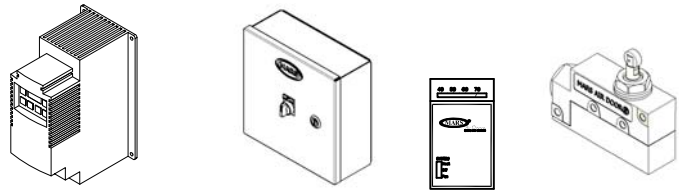
PROJECT		OPTIONS/ITEMS	
TITLE		DATE 4/17/15	
COMMENTS		PAGE	
MODEL NO. BD22 Series		REV. NO	
DRAWING NO. BD22E-F	DRAWN BY TVN	CHECKED BY	FILE NAME

# Electric Heated Drawing

## BD22 (Belt Driven 22) Series



### 9 10 Recommended Accessories



Variable Frequency Drive      Control Panels with Remote T'stat      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)
BD2296-1E*-TS	96	107	105 1/2
BD22120-1E*-TS	120	131	129 1/2
BD22144-1E*-TS	144	155	153 1/2
BD22168-1E*-TS	168	179	177 1/2
BD22192-1E*-TS	192	203	201 1/2

Notes:

- This product is designed to meet the National Electric Code (NEC) and is CSA Listed.
- (4) 5/8" 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.
- Unit is to be installed such that air flow is unobstructed. Unit has a 4.5" air discharge nozzle containing adjustable air directional vanes with 40° sweep front to back. To prevent unit damage, the air curtain must be installed such that the bottom of the air curtain is not below the door header.
- Units are direct drive. One external top mounted 2"x4" J-box provided above each motor.
- Electric heater shown with heater component panel on right side, as standard. (Note: This is not the same as the optional remote air curtain unit control panel, see note 10.) Optional left hand mounting available. Special remote mounted heater component panel available for installations with space limitations. Contact factory for details and minimum installation space requirements.
- Wall mounted 24 volt thermostat with remote "heat/off/fan" switch is shipped loose and field installed. Terminal block provided inside control panel.
- Circuit protection as per NEC by others.
- Optional remote air curtain unit control panel and door limit switch are field installed and wired by others. The remote air curtain unit control panel is required when a door limit switch is used to automatically turn the air curtain on as door begins to open. Special remote mounted heater component panel (see note 7) is integrated with the optional remote air curtain unit control panel when the two options are selected.

# BD22 (Belt Drive) Series

Electric Heated

Model Lengths 96" – 192"



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## Electric Heated 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)
BD2296-1E*-TS	96	107	42	28	10	850	6000	16250
BD22120-1E*-TS	120	131	42	28	15	975	6000	20300
BD22144-1E*-TS	144	155	42	28	15	1100	6000	24350
BD22168-1E*-TS	168	179	42	28	20	1225	6000	28400
BD22192-1E*-TS	192	203	42	28	20	1350	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:

- Air Curtain
- 10 to 20 HP Heavy Duty TEFC Motors
- Air curtain has a self-contained cabinet with sufficient strength for fastening from overhead on both ends without intermediate support. Top and rear mounting holes provided (4) 3/4"
- Adjustable air directional nozzle with 40° sweep front to back
- Standard color is Titanium Silver
- Rust preventative electrostatic polyurethane powder coating
- All units are shipped fully assembled ready for installation
- 12-month parts warranty
- Freight Not Included (FOB Factory)
- Proudly Made in the USA

Electrical Data (FLA)	Heater Voltage (Voltage Code) Amperage		Heater Data	
	460v (H)	575v (I)	3Ø kW	Temp Rise (°F)
BD2296-1E*-TS	195	156	155	30
BD22120-1E*-TS	245	196	195	30
BD22144-1E*-TS	289	231	230	30
BD22168-1E*-TS	339	272	270	30
BD22192-1E*-TS	390	312	310	30

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

Note: For Ampacity Multiply FLA X 1.25

### Electric Heater Coil and Wiring

- Coils are an open type for rapid temperature rise to be located in the air curtain's intake directly in the air stream.
- Manual reset thermal overload protection provided
- Controls are externally mounted, prewired ready for power connection
- A heat ON/OFF switch is unit mounted on external controls

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

- Door Limit Switches
    - 99-125, Industrial surface mounted magnetic switch (controller required)
  - Controllers
    - MCP\*-+E\*, Motor Control Panel, 120V control voltage (\* = HP Code [H 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-306, 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

Model Number	Motor Amperage	
	460v/3Ø (H)	575v/3Ø (I)
BD2296-1E*-TS	14.0	10.3
BD22120-1E*-TS	20.0	15.6
BD22144-1E*-TS	20.0	15.6
BD22168-1E*-TS	25.5	20.2
BD22192-1E*-TS	25.5	20.2

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

Note: For ampacity, multiply FLA X 1.25

### 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

### EXAMPLE

**BD22120-1 E H - TS**

