

BDx Module

1U Blocking Diode Module Add-on with Fully Integrated Cooling

Datasheet Not Yet Available

This is a print of data from the Magna-Power website



Key Facts

- Add-on module for MagnaDC power supplies
- 4 models addressing broad range of applications
- Protection up to 1,200 Vdc
- Forward current up to 1,200 Adc
- Fully integrated cooling with status indicator
- Power supply user I/O controls interface
- Included fixed rail rack-mount kit

Available For

MAGNADC

Programmable DC Power Supplies

- [SL Series 1.5 kW to 8 kW](#)
- [XR Series 2 kW to 10 kW](#)
- [TS Series 5 kW to 50 kW](#)
- [MS Series 30 kW to 75 kW](#)
- [MT Series 100 kW to 2000 kW+](#)

Fully integrated

High-power rack-mount blocking diode solution

For applications or products where the [Integrated Blocking Diode \(+BD\) option](#) is not available or desired, the BDx Module offers a turn-key rack-mount blocking diode solution, including:

- Fully integrated and enclosed heatsinking and fan cooling
- User I/O status feedback including a temperature alarm state
- Front panel status indicator
- Heavy-duty tin-plated copper bus bars
- Remote sensing terminal for voltage feedback compensation
- Universal single phase active-PFC AC input connection

Internally, semiconductors are secured to Magna-Power manufactured heatsinks with fans and integrated thermocouples. An internal microprocessor monitors the internal temperature and provides +5V digital output signal when the system is powered and in a normal operating state. This +5V signal can be easily integrated into interlock systems, to ensure power is only driven through the BDx Module when its powered on and cooling is functional. Additional, a +5V digital input allows control of when the BDx Module is turned off and on, providing complete integration with a connected power supply.



Back EMF Protection

Prevent back-electromotive force (EMF) from electric motors or from the connection of charged batteries and capacitors from flowing back into the output of your power supply.



High Voltage Protection

Protect your power supply and other DC power equipment from externally generated DC bus voltages that could exceed the equipment's maximum ratings.



Mixed Voltage Paralleling

Connect multiple power supplies with different voltage ratings in parallel and protect lower voltage products high bus voltages.

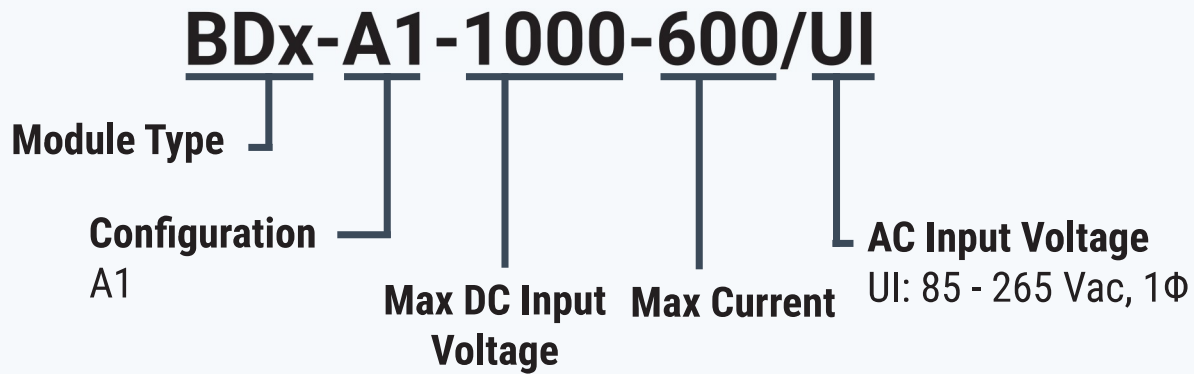


Prevent Load Discharge

Prevent the power supply's internal bleeder network from discharging batteries, capacitors or fuel cells when the power supply is standby, faulted state, or turned off.

Model Ordering Guide

BDx Module models are defined by the configuration type and number, the maximum DC input voltage rating, and the maximum current rating.



Models

The following table of models provides all the available model configurations and their protection ratings:

Model	Config	Max DC Input Voltage	Max Current	Reverse Voltage Rating	Typical Losses
BDx-A1-1000-300/UI	A1	1000 Vdc	300 Adc	1200 Vdc	Up to 1.4%
BDx-A1-150-600/UI	A1	150 Vdc	600 Adc	200 Vdc	Up to 2.5%
BDx-A1-1000-600/UI	A1	1000 Vdc	600 Adc	1200 Vdc	Up to 1.4%
BDx-A1-150-1200/UI	A1	150 Vdc	1200 Adc	200 Vdc	Up to 2.5%

Specifications

AC Input Specifications

1Φ AC Input Voltage
1Φ, 2-wire + ground

85 to 265 Vac

AC Input Connector

IEC 60320 C13 receptacle

AC Input Frequency

50-60 Hz

Physical Specifications

Racking Standard	EIA-310
Rear Support Rails	Included
Size and Weight Configuration A1, All Models	1U 1.75" H x 19" W x 24" D (4.4 x 48.3 x 61.0 cm) 20 lbs (9.07 kg)

Environmental Specifications

Ambient Operating Temperature	0°C to 50°C
Storage Temperature	-25°C to +85°C
Humidity	Relative humidity 30% to 90%, non-condensing
Air Flow	Side intake, rear exhaust

Regulatory Compliance

EMC	Complies with 2014/30/EU (EMC Directive) CISPR 22 / EN 55022 Class A
Safety	Complies with EN61010-1 Complies with 2014/35/EU (Low Voltage Directive)
CE Mark	Yes
RoHS Compliant	Yes

External User I/O Specifications

External User I/O Port	25-pin D-sub DB-25, female See User Manual for pin layout
Digital Output Voltage System Status	+5V when systems normal. 0V when off or faulted state. Connected to MagnaDC interlock input via provided cable.
Digital Input Voltage Enable	+5V to engage cooling fans. 0V to disable product. Connected to MagnaDC power status output via provided cable.
Remote Sense	6-32 screw connection for positive terminal

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