

3500/15 AC and DC Power Supplies

Datasheet

Cordant™

141530 Rev. P



Description

The Bently Nevada™ 3500/15 AC and DC Power Supplies are half-height modules and must be installed in designated slots on the left side of the rack. The 3500 rack can contain one or two power supplies with any combinations of AC and DC. Either supply can power a full rack.

When two power supplies are installed in a rack, the one in the lower slot acts as the primary supply, and the other in the upper slot acts as the backup supply. If installed, the second supply is the backup for the primary one.

Removing or inserting either power supply module does not disrupt operation of the rack as long as a second power supply is installed.

The 3500/15 AC and DC Power Supplies accepts a wide range of input voltages and converts them to voltages acceptable for use by other 3500 modules. The following power supplies are available with the 3500 Series Machinery Protection System:

- Universal AC Power
- High Voltage DC Power Supply
- Low Voltage DC Power Supply



The Universal AC Power Supply and PIM (Power Input Module) are not compatible with the Legacy 3500 AC Power Supply, High Voltage AC PIM and Low Voltage AC PIM.



The High Voltage and Low Voltage DC Power Supplies and PIM (Power Input Module) are NOT compatible with the Legacy 3500 High Voltage and Low Voltage DC Power Supplies and PIMs.



Specifications

Inputs

Voltage Options

Universal Voltage AC	
Description	This option uses the universal AC Power Supply and universal AC Power Input Module (PIM).
Input Voltage	110 to 220 Vac nominal Non-hazardous areas: 85 to 264 Vac rms Hazardous areas: 85 to 250 Vac rms 120 to 373 Vac pk The universal AC Power Supply and Power Input Module are not compatible with the legacy High Voltage AC or Low Voltage AC units.
Input Frequency	47 to 63 Hz
High Voltage DC	
Description	This option uses the High Voltage DC Power Supply and the High Voltage DC Power Input Module (PIM).
Input voltage	88 to 140 Vdc
Low Voltage DC	
Description	This option uses the Low Voltage DC Power Supply and the Low Voltage DC Power Supply Input Module (PIM).
Input voltage	20 to 30 Vdc

Current Information

Out of Range Protection	For all power supply options, an under-voltage does not harm the supply or the PIM. An over-voltage causes the fuse to open on the PIM.
Full Rack Current Draw	
Universal voltage AC	2.8 A rms (maximum)
High voltage DC	2.5 A (maximum)
Low voltage DC	11.0 A (maximum)

Outputs

Front Panel LEDs	
Supply OK LED	Indicates when the power supply is operating properly

Physical

Power Supply Module	
Dimensions (Height x width x depth)	120.7 mm x 50.8 mm x 251.5 mm 4.75 in x 2.0 in x 9.9 in
Weight	1.39 kg 3.06 lb
Power Input Modules	
Dimensions (Height x width x depth)	120.7 mm x 25.4 mm x 114.3 mm 4.75 in x 1.0 in x 4.5 in
Weight	0.34 kg 0.75 lb

Rack Space Requirements

Power supply module	Two half-height slots are located on the left side of the rack. Each slot accommodates one power supply. Both slots can hold a power supply at the same time, allowing for redundant power supplies.
Power input module	Special half-height module located directly behind the associated power supply

Miscellaneous

Minimum loading	No minimum rack load is required.
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Environmental Limits

Operating temperature	-30 °C to +65 °C -22 °F to +150 °F
Storage temperature	-40 °C to +85 °C -40 °F to +185 °F
Humidity	95%, non-condensing

Compliance and Certifications

FCC

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

- This device may not cause harmful interference.
- This device must accept any interference received, including interference that may cause undesired operation.

EMC

European Community Directive:

EMC Directive 2014/30/EU

Standards:

EN 61000-6-2; Immunity for
Industrial Environments
EN 61000-6-4; Emissions for
Industrial Environments

Electrical Safety

European Community Directive:

LV Directive 2014/35/EU

Standards:

EN 61010-1

RoHS

European Community Directive:

RoHS Directive 2011/65/EU

Maritime

DNV GL rules for classification – Ships,
offshore units, and high speed and light
craft

ABS Rules for Condition of Classification,
Part 1

- Steel Vessels Rules
- Offshore Units and Structures

Hazardous Area Approvals



For the detailed listing of country and product-specific approvals, refer to the [Approvals Quick Reference Guide \(108M1756\)](#).

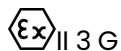
For additional technical documentation, please log in to bntechsupport.com and access the Bently Nevada Media Library.

cNRTLus

Class I, Zone 2: AEx/Ex nA nC ic IIC T4 Gc;
Class I, Zone 2: AEx/Ex ec nC ic IIC T4 Gc;
Class I, Division 2, Groups A, B, C, and D;

T4 @ Ta= -20°C to +65°C (-4°F to +149°F)
When installed per drawing 149243 or
149244.

ATEX/IECEx



Ex nA nC ic IIC T4 Gc
Ex ec nC ic IIC T4 Gc

T4 @ Ta= -20°C to +65°C
(-4°F to +149°F)
When installed per drawing 149243 or
149244.

Ordering Information



For the detailed listing of country and product-specific approvals, refer to the [Approvals Quick Reference Guide \(108M1756\)](#).

For additional technical documentation, please log in to bntechsupport.com and access the Bently Nevada Media Library.

3500/15 Power Supply Module

3500/15 -AA-BB-CC

A: Power Supply Type (Top Slot)

03	Legacy High Voltage DC (88 to 140 Vdc)
04	Legacy Low Voltage DC (20 to 30 Vdc)
05	Universal AC Voltage (85 to 264 Vac rms)
06	High Voltage DC Supply
07	Low Voltage DC Supply

B: Power Supply Type (Bottom Slot)

00	No Supply (Used when no supply is required)
03	Legacy High Voltage DC (88 to 140 Vdc)
04	Legacy Low Voltage DC (20 to 30 Vdc)
05	Universal AC Voltage (85 to 264 Vac rms)
06	High Voltage DC Supply
07	Low Voltage DC Supply

C: Agency Approval

00	None
01	CSA / NRTL / C (Class 1, Division 2)