3500/15 Power Supply

Bently Nevada* Asset Condition Monitoring

Description

The 3500 Power Supplies are half-height modules and must be installed in the specially designed slots on the left side of the rack. The 3500 rack can contain one or two power supplies (any combination of ac and/or dc) and either supply can power a full rack. If installed, the second supply acts as a backup for the primary supply. When two power supplies are installed in a rack, the supply in the lower slot acts as the primary supply and the supply in the upper slot acts as the backup supply. Removing or inserting either power supply module will not disrupt operation of the rack as long as a second power supply is installed.

The 3500 Power Supplies accept a wide range of input voltages and converts them to voltages acceptable for use by other 3500 modules. Three Power Supply versions are available with the 3500 Series Machinery Protection System as follows:

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

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Specifications

Inputs

Voltage Options:

High Voltage ac

This option uses the ac Power Supply and the High Voltage ac Power Input Module (PIM).

Input Voltage

220 Vac nominal

175 to 264 Vac rms

247 to 373 Vac pk

Note: Installations using ac Power Input Modules (PIM) prior to Rev. R and/or AC Power Supply Modules prior to Rev. M require an input voltage of 175 to 250 Vac rms.

Input Frequency

47 to 63 Hz

Low Voltage ac

This option uses the ac Power Supply and the Low Voltage ac Power Input Module (PIM).

Input Voltage

110 Vac nominal

85 to 132 Vac rms

120 to 188 Vac pk

Note: Installations using ac Power Input Modules (PIM) prior to Rev. R and/or AC Power Supply Modules prior to Rev. M require an input voltage of 85 to 125 Vac rms

Input Frequency

47 to 63 Hz

High Voltage dc

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

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

Out of Range Protection:

For all power supply versions, an under-voltage will not harm either the supply or the PIM. However, an over-voltage will cause the fuse to open on the PIM.

Full Rack Current Draw:

High Voltage AC

2.3 A rms (maximum).

Low Voltage AC

4.5 A rms (maximum).

High Voltage DC

2.5 A (maximum).

Low Voltage DC

10.0 A (maximum).

Outputs

Front Panel LEDs

Supply OK LED:

Indicates when the power supply is operating properly.

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.

CE Mark Directives

EMC Directives:

EN50081-2:

Radiated Emissions

EN 55011, Class A

Conducted Emissions

EN 55011, Class A

EN50082-2:

Electrostatic Discharge

EN 61000-4-2, Criteria B

Radiated Susceptibility

ENV 50140, Criteria A

Conducted Susceptibility

ENV 50141, Criteria A

Electrical Fast Transient

EN 61000-4-4, Criteria B

Surge Capability

EN 61000-4-5, Criteria B

Magnetic Field

EN 61000-4-8, Criteria A

Power Supply Dip

EN 61000-4-11, Criteria B

Radio Telephone

ENV 50204, Criteria B

Low Voltage Directives:

EN 61010-1

Safety Requirements

Hazardous Area Approvals

CSA/NRTL/C:

Approval Option (01)

Class I, Div 2

Groups A, B, C, D

T4 @ Ta = -20 °C to +65 °C

(-4 °F to +150 °F)

Certification Number

CSA 150268-1002151 (LR 26744)

Approval Option (02)

A/Ex nC[L] IIC

Class I, Zone 2

Class I, Div 2, Groups A,B,C,D

T4 @ Ta = -20 °C to +65 °C

(-4 °F to +150 °F)

Certification Number

CSA 1389797 (LR 26744-211)

ATEX

Approval Option (02)

For Selected Ordering Options with ATEX/CSA agency approvals:

II 3/(3) G

EEx nCAL[L] IIC

T4 @ Ta = -20°C to +65°C

(-4°F to +150°F)

Certification Number

LCIE 04 ATEX 6161X

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 special 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.

Ordering Information

3500/15-AXX-BXX-CXX

A: Power Supply Type (Top Slot)

- **0 1** Low Voltage ac (85 to 132 Vac rms)
- **0 2** High Voltage ac (175 to 264 Vac rms)
- **0 3** High Voltage dc (88 to 140 Vdc)
- **0 4** Low Voltage dc (20 to 30 Vdc)

B: Power Supply Type (Bottom Slot)

- **0 0** No supply (use when only one supply is required)
- **0 1** Low Voltage ac (85 to 132 Vac rms)
- **0 2** High Voltage ac (175 to 264 Vac rms)
- **0 3** High Voltage dc (88 to 140 Vdc)
- **0 4** Low Voltage dc (20 to 30 Vdc)

C: Agency Approval Option

- **0 0** None
- **0 1** CSA/NRTL/C
- **0 2** ATEX/CSA (Class 1, Zone 2)

Note: Agency Approval Option C 02 is only available if Power Supply Type (Top Slot) Option is A 01 or A 02 and if Power Supply Type (Bottom Slot) Option is B 00, B 01, or B 02.

Spares

127610-01

ac Power Supply Module

125840-01

High Voltage ac Power Input Module (PIM)

125840-02

Low Voltage ac Power Input Module (PIM)

129486-01

High Voltage dc Power Supply Module

129478-01

High Voltage dc Power Input Module (PIM)

133292-01

Low Voltage dc Power Supply Module