3500/05 System Rack

Datasheet

Bently Nevada Machinery Condition Monitoring

141525 Rev. M



Description

Use the 3500 System rack to mount all 3500 monitor modules and power supplies. The rack allows you to place 3500 modules near one another, enabling them to easily communicate, and to mount power supplies necessary to distribute power to each module.

3500 racks are available in two sizes:

Full-size rack. 19-inch EIA rack with 14 available module slots.

Mini-rack. 12-inch rack with seven available module slots.

You can order 3500 racks in three formats:

Panel mount. This rack format mounts to rectangular cut-outs in panels, and secures to the panel using clamps supplied with the rack. Wiring connections and I/O modules are accessible from the rear of the rack.

Rack mount. This rack format mounts the 3500 Rack on 19-inch EIA rails. Wiring connections and I/O modules are accessible from the rear of the rack.

Bulkhead mount. This rack format mounts the rack against a wall or panel when it is not possible to access the rear of the rack. Wiring connections and I/O modules are accessible from the front of the rack. The 3500/05 Mini-Rack is not available in this format.

The power supplies and rack interface module must occupy the far-left rack positions. The remaining 14 rack positions (seven rack positions for the mini-rack) are available for any combination of modules.

If you plan to install internal barriers in the 3500 rack, consult *Specifications and Ordering Information for 3500 Internal Barriers* (document 141495) available from Bently.com.

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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

European Community Directive:

RoHS Directive 2011/65/EU

ABS - Marine and Offshore Applications

DNV GL Rules for Classification – Ships, Offshore Units, and High Speed and Light Craft

Hazardous Area Approvals

For the detailed listing of country and product specific approvals, refer to the *Approvals Quick Reference Guide* (108M1756) available from Bently.com.

CSA/NRTL/C

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 II 3 G

Ex nA nC ic IIC T4 Gc
Ex ec nC ic IIC T4/T5 Gc

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

Ordering Considerations

Racks with Internal Barriers installed require a 3500/04-01 Internal Barrier Earthing Module to provide the IS Earth connection to the 3500/05 rack. This earthing module requires a dedicated rack position.

The 3500/93 System Display A01 System Face Mount option is incompatible with the 3500/05 Mini-rack.

The 3500/05 mini-rack is not available in the Bulkhead Mount option.

The 3500/06 weatherproof housing is not compatible with the 3500/05 Bulkhead Mount option.

When using a 3500 mini-rack in an EIA rack, a 144863-01 19-inch EIA Adapter Panel is required.

The 3500 mini-rack requires Version 2.70 or later of the 3500/01 Software.

Ordering Information

For the detailed listing of country and product specific approvals, refer to the *Approvals Quick Reference Guide* (108M1756) available from Bently.com.

Product Description

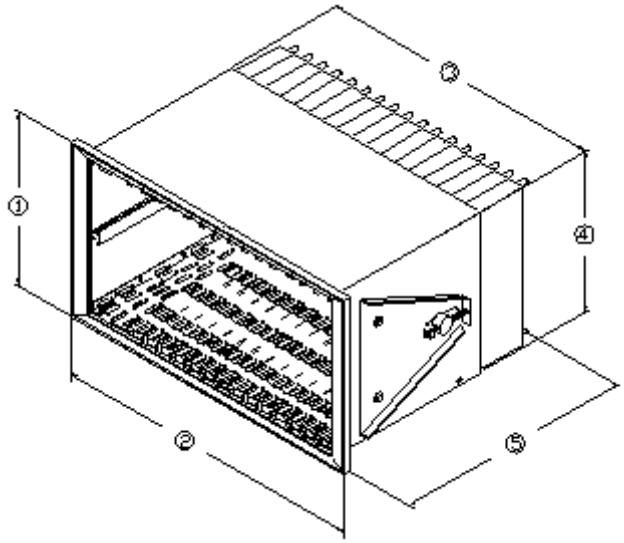
3500/05-AA-BB-CC-DD-EE

A: Rack Size	
01	19-inch Rack (14 module slots)
02	12-inch Mini-Rack (7 module slots)
B: Mounting Options	
01	Panel Mount Option, Full-Size Rack
02	Rack Mount Option, Full-Size Rack (mounts to 19-inch EIA Rack)
03	Bulkhead Mount Option (not available in Mini-Rack)
04	Panel Mount Option, Mini-Rack
05	Rack Mount Option, Mini-Rack
C: Agency Approval Option	
00	None
01	CSA/NRTL/C (Class 1, Division 2)
02	ATEX/IECEx/CSA (Class 1, Zone 2)
D: Reserved	
00	None
E: European Compliance Option	
01	CE

Spares

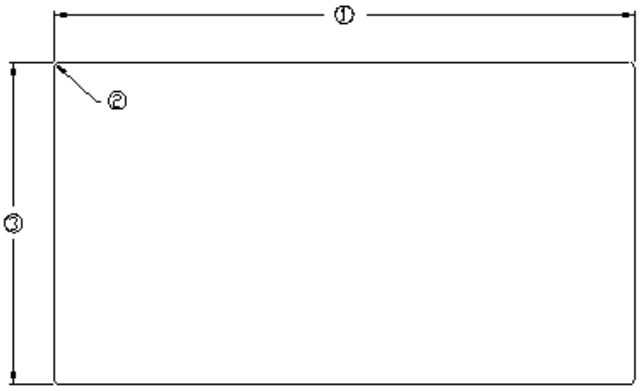
Part Number	Description
Half-height Module Adapter	
125388-01	Half-height module Internal Chassis (qty 1)
125565-01	Half-height Module Card Guide (qty 1)
04300111	Screws for half-height Module Internal Chassis (qty 3)
Power Supply Blank Cover Kit	
131150-01	Power Supply Blank Front Panel (qty 1, includes screws)
128085-01	Power Supply Input Connector Cover (qty 1) Order part 04310251 for screws.
04310251	Screws for Power Supply Input Cover (qty 2)
Full-height Blank Monitor Cover Kit Order as 130768-01. Includes:	
130944-01	Full-height Monitor Blank Front Panel (qty 1, includes screws)
128031-01	I/O Module Cover (qty 1) Order part 04310251 for screws.
04310251	Screw for I/O Module Cover (qty 2)
Half-height Blank Monitor Cover Kit	
131151-01	Half-height Blank Front Panel Cover (qty 1, includes screws)
Miscellaneous Components	
00561941	TMR/SIM jumper (installed on the 3500 backplane)
144863-01	Adapter Panel, Mini-rack, 19-inch
129766-01	Rack Installation and Maintenance Manual
130432-01	Field Wiring Diagrams

Figures and Drawings



1. 265.94 mm (10.470 in.)
2. 482.60 mm (19.000 in.)
3. 441.96 mm (17.400 in.)
4. 246.38 mm (9.700 in.)
5. 349.25 mm (13.750 in.), 422.91 mm (16.650 inches) if used with internal barriers

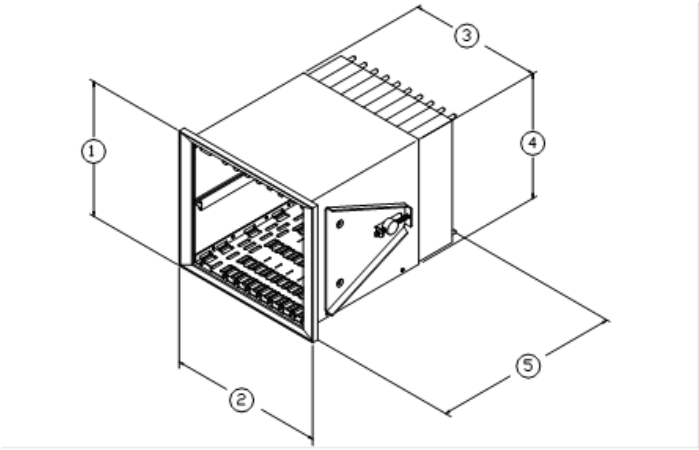
Figure 1: 3500 Full-Size rack mounting dimensions for the Rack and Panel Mount Configuration



1. 452.1 +/- 1.5 mm (17.80 +/- 0.06 in.)
2. 3.2 mm (0.125 in.) radius, maximum
3. 251.5 +/- 1.5 mm (9.90 +/- 0.60 in.)

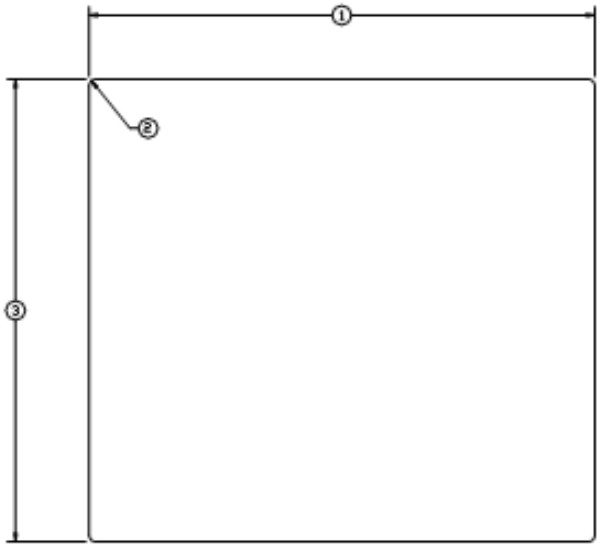
1. 452.1 +/- 1.5 mm (17.80 +/- 0.06 in.)
2. 3.2 mm (0.125 in.) radius, maximum
3. 251.5 +/- 1.5 mm (9.90 +/- 0.60 in.)

Figure 2: 3500 Full-Size Rack Recommended Panel Cutout



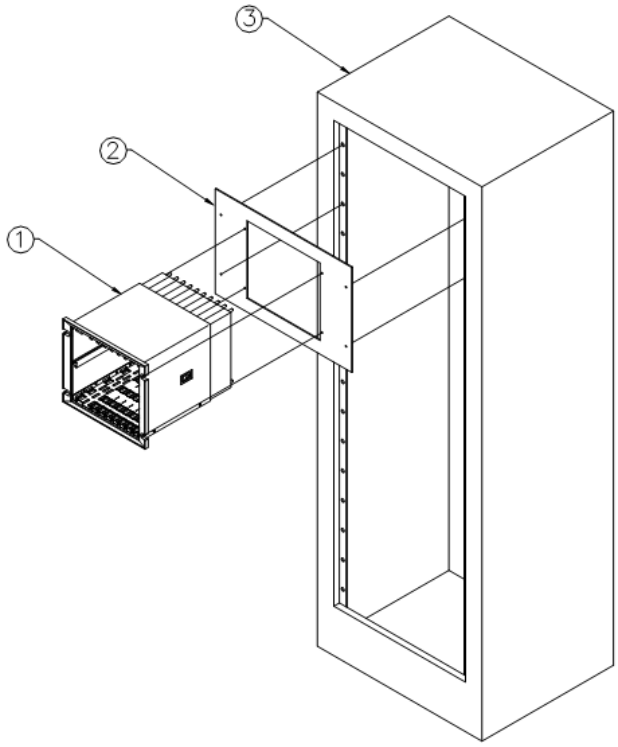
1. 10.470 inches (265.94 mm).
2. 12.000 inches (304.80 mm).
3. 10.400 inches (264.16 mm).
4. 9.700 inches (246.38 mm).
5. 13.750 inches (349.25 mm), 16.650 inches (422.91 mm) if used with internal barriers

Figure 3: 3500 Mini-rack mounting dimensions for the Panel Mount Configuration



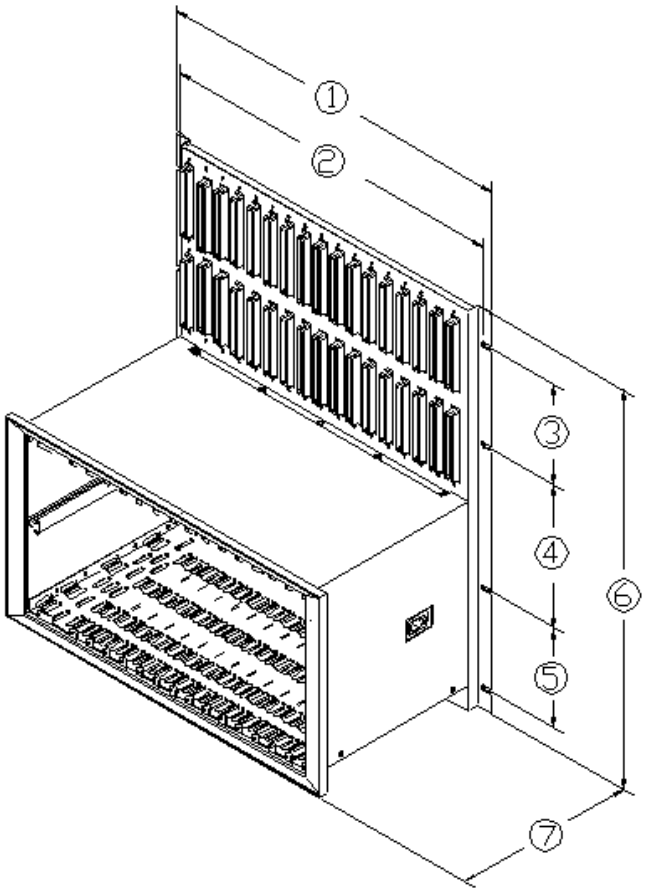
1. 274.3 +/- 1.5 mm (10.80 +/- 0.06 in.)
2. 3.2 mm (0.125 in.) radius, maximum.
3. 251.5 +/- 1.5 mm (9.90 +/- 0.60 in)

Figure 4: 3500 Mini-rack Recommended Panel Cutout



1. 3500 Mini-rack
2. Adapter Panel
3. Standard 19-inch EIA rack

Figure 5: 3500 Mini-rack and Adapter Panel mounting to a 19-inch EIA Rack



1. 482.60 mm (19.000 inches)
2. 459.59 mm (18.094 inches)
3. 133.35 mm (5.250 inches)
4. 190.50 mm (7.500 inches)
5. 133.35 mm (5.250 inches)
6. 532.64 mm (20.970 inches)
7. 266.70 mm (10.500 inches)

Figure 6: Dimensions of a Bulkhead Mount 3500 rack

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