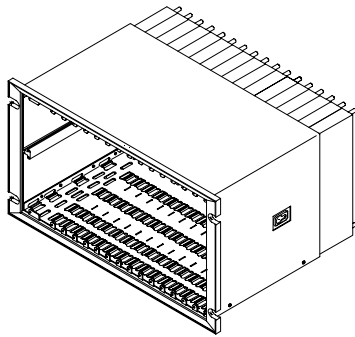


### 3500/05 Rack



### Description

The 3500 System rack is designed to hold all monitor modules and rack power supplies. It provides backplane communications for the various 3500 modules to communicate with one another and for the power supplies to distribute power to each module as required.

3500 Racks are available in two sizes:

- 1 **Full-size Rack** – 19-inch EIA rack has 14 available module slots
- 2 **Mini-Rack** – 12-inch rack has 7 available module slots

3500 racks are available in three formats:

- 1 **Panel mount** – used for rectangular cut-outs in panels, secured using clamps supplied with the rack. Wiring connections and I/O modules are accessed from the rear of the rack.
- 2 **Rack mount** – used for mounting the 3500 rack on 19-inch EIA rails. Wiring connections and I/O modules are accessed from the rear of the rack.
- 3 **Bulkhead mount** – used for affixing the rack against a wall or panel when rear access is not available. Wiring connections and I/O modules are accessed from the front of the rack. This format is not available in the 3500/05 Mini-rack.

The Power Supplies and Rack Interface Module must be installed in the far left positions. The remaining 14 rack positions (remaining 7 positions for the Mini-rack) are available for any combination of modules. If internal barriers are to be installed in the 3500 rack, consult BNC part number 141495-01, Specifications and Ordering Information for 3500 Internal Barriers.



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## Specifications

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### Hazardous Area Approvals

**CSA/NRTL/C** Refer to the data sheet of applicable monitor being inserted into the rack.

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### CE Mark Directives

**BNC 136669** Bently Nevada Corp Low Voltage Directive

**BNC 134036** Bently Nevada Corp EMC Directive

**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

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## Ordering Considerations

- Racks with Internal Barriers installed require that a 3500/04-01 Internal Barrier Earthing Module is installed to provide the connection of the IS Earth to the 3500/05 rack. This 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 3500/01 Software, version 2.70 or later.
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## Ordering Information

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### Rack Ordering Information

#### 3500/05-AXX-BXX-CXX-DXX-EXX

<b>A: Rack Size:</b>	<b>0 1</b>	19-inch Rack (14 Module Slots)
	<b>0 2</b>	12-inch Mini-Rack (7 Module Slots)
<b>B: Mounting Options:</b>	<b>0 1</b>	Panel Mount Option, Full-Size Rack
	<b>0 2</b>	Rack Mount Option, Full-Size Rack (mounts to 19-inch EIA Rack)
	<b>0 3</b>	Bulkhead Mount Option (Not available in Mini-Rack)
	<b>0 4</b>	Panel Mount Option, Mini-Rack
	<b>0 5</b>	Rack Mount Option, Mini-Rack
<b>C: Agency Approval Option:</b>	<b>0 0</b>	None
	<b>0 1</b>	CSA-NRTL/C
<b>D: Reserved:</b>	<b>0 0</b>	None
<b>E: European Compliance Option:</b>	<b>0 0</b>	None
	<b>0 1</b>	CE

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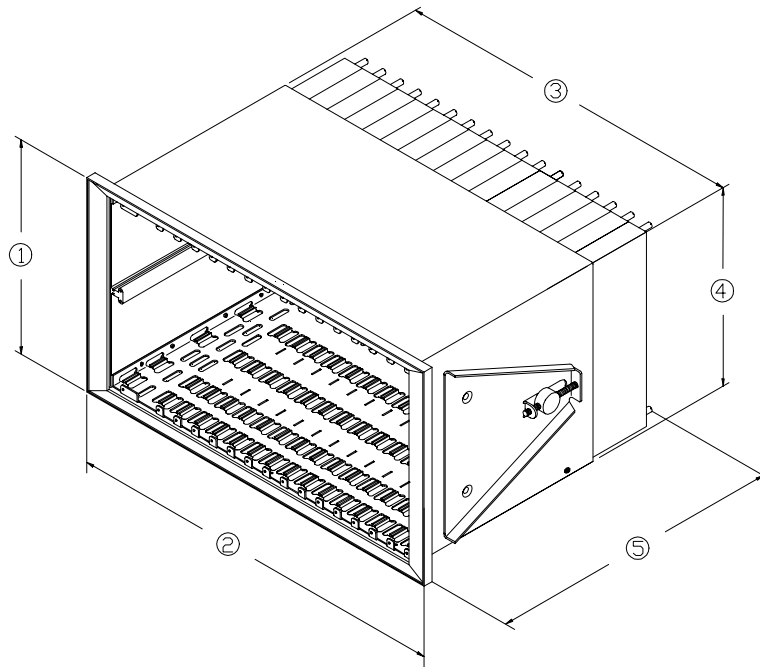
## Spares

Part Number	Description
<b>Half-height Module Adapter</b>	
	Order the following
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)
<b>Power Supply Blank Cover Kit</b>	
	Order the following
131150-01	Power Supply Blank Front Panel (Qty 1)
128085-01	Power Supply Input Connector Cover (Qty 1)
04310251	Screw for Power Supply Input Cover (Qty 2)
<b>Full-height Blank Monitor Cover Kit</b>	
	Order as 130768-01 which <i>includes</i>
130944-01	Full-height Monitor Blank Front Panel (Qty 1)
128031-01	I/O Module Cover (Qty 1)
04310251	Screw for I/O Module Cover (Qty 2)
<b>Half-height Blank Monitor Cover Kit</b>	
	Order the Following
131151-01	Half-height Blank Front Panel Cover (Qty 1)
<b>Misc Components</b>	
00517016	TMR/SIM jumper (installed on the 3500 backplane)
144863-01	Adapter Panel, Mini-rack, 19-inch
129766-01	Rack Installation and Maintenance Manual

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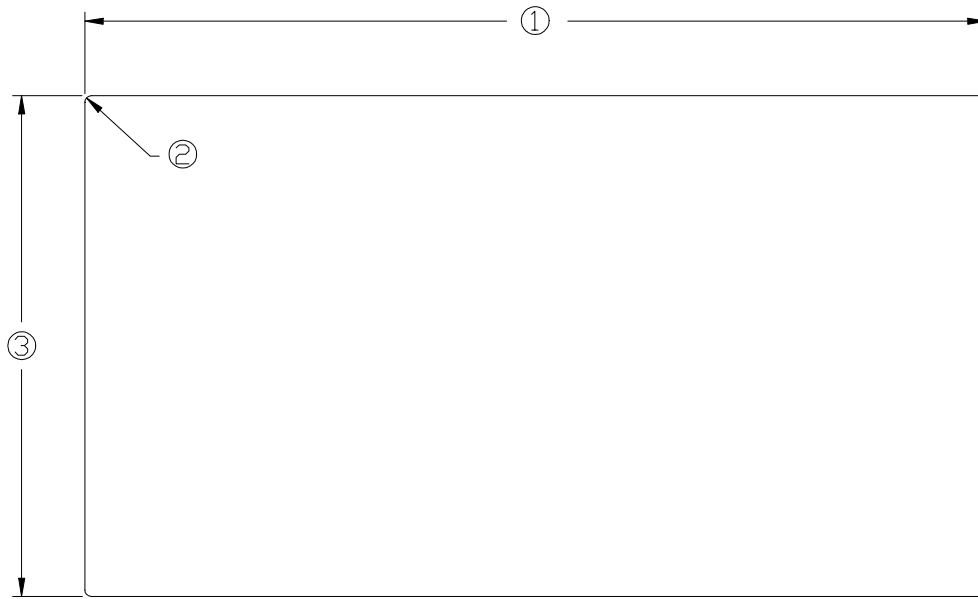
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## Figures and Tables



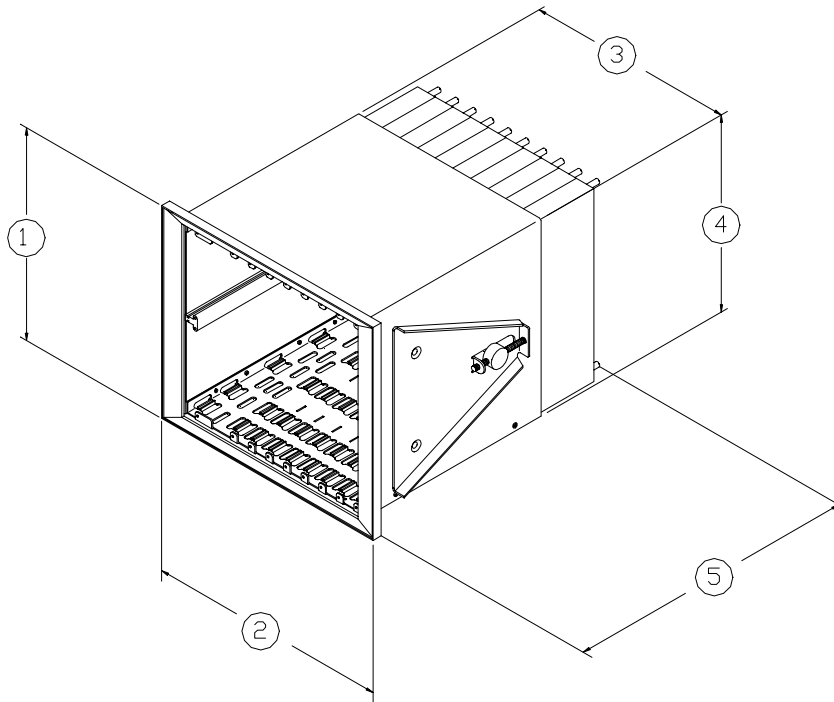
**Figure 1. 3500 Full-Size rack mounting dimensions for the Rack and Panel Mount Configuration**

- (1) 10.470 inches (265.94 mm).
- (2) 19.000 inches (482.60 mm).
- (3) 17.400 inches (441.96 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



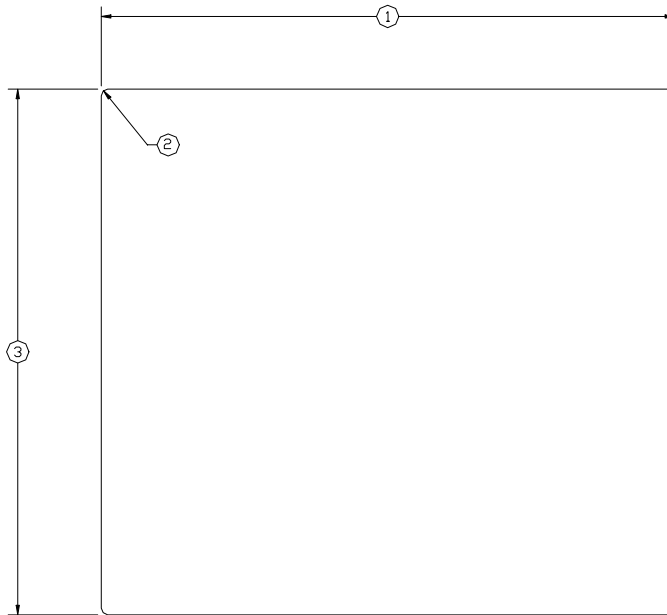
**Figure 2. 3500 Full-Size Rack Recommended Panel Cutout**

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



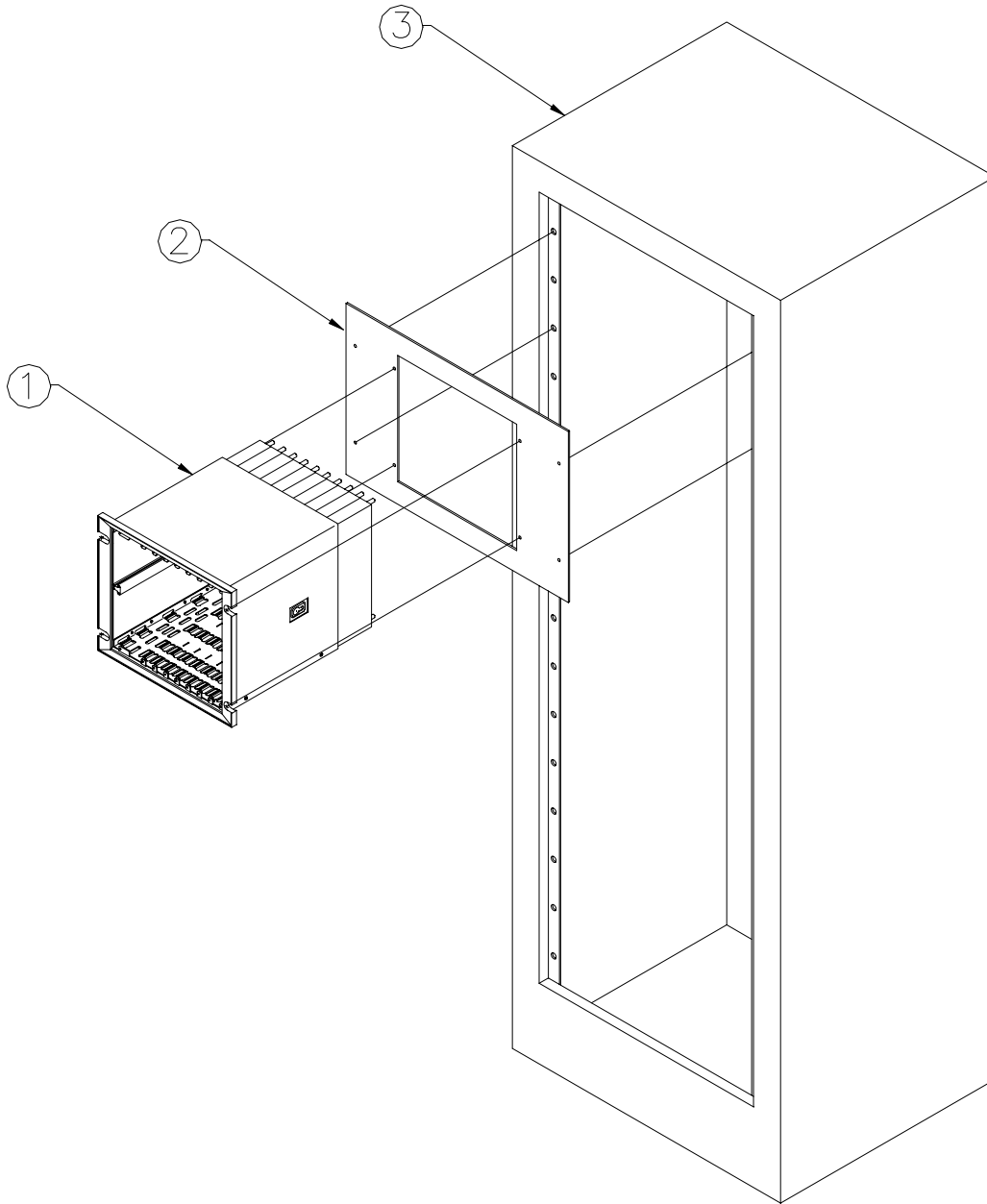
**Figure 3. 3500 Mini-rack mounting dimensions for the Panel Mount Configuration**

- (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 4. 3500 Mini-rack Recommended Panel Cutout**

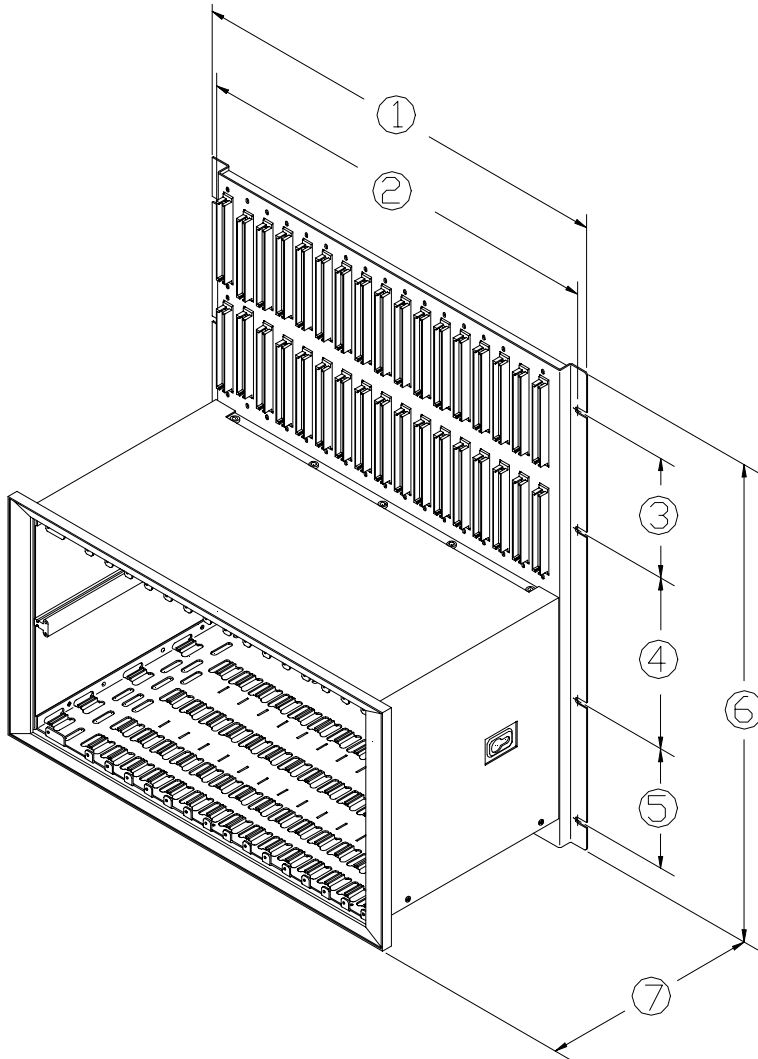
- (1) 10.80 +/- 0.06 inches (274.3 +/- 1.5 mm).
- (2) 0.125 inches (3.2 mm) radius, maximum.
- (3) 9.90 +/- 0.60 inches (251.5 +/- 1.5 mm).



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

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





**Figure 6. Dimensions of a Bulkhead Mount 3500 rack**

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