



Kinetix 2000 Power Rail

Catalog Numbers 2093-PRS1, 2093-PRS2, 2093-PRS3, 2093-PRS4, 2093-PRS5, 2093-PRS7, 2093-PRS8S

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About This Publication

This publication provides installation instructions for a Kinetix 2000 power rail (PR). Use these instructions for mounting your power rail to the panel.

The power rail distributes power and control signals to Kinetix 2000 axis modules that power and control servo motors or other devices producing motion. The power rail provides a common mounting mechanism for the modules that comprise a Kinetix 2000 motion system of one to eight axes.

Refer to the Kinetix 2000 Multi-axis Servo Drive User Manual, publication 2093-UM001, for power up procedures, troubleshooting information, and instructions on integrating a Kinetix 2000 system with ControlLogix, CompactLogix, and SoftLogix modules or PCI cards. The user manual provides detailed wiring examples, and information about installing or removing equipment and accessories not described in this document.

Important User Information

Solid state equipment has operational characteristics differing from those of electromechanical equipment. Safety Guidelines for the Application, Installation and Maintenance of Solid State Controls (publication SGI-1.1 available from your local Rockwell Automation sales office or online at <http://literature.rockwellautomation.com>) describes some important differences between solid state equipment and hard-wired electromechanical devices. Because of this difference, and also because of the wide variety of uses for solid state equipment, all persons responsible for applying this equipment must satisfy themselves that each intended application of this equipment is acceptable.





In no event will Rockwell Automation, Inc. be responsible or liable for indirect or consequential damages resulting from the use or application of this equipment.

The examples and diagrams in this manual are included solely for illustrative purposes. Because of the many variables and requirements associated with any particular installation, Rockwell Automation, Inc. cannot assume responsibility or liability for actual use based on the examples and diagrams.

No patent liability is assumed by Rockwell Automation, Inc. with respect to use of information, circuits, equipment, or software described in this manual.

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Throughout this manual, when necessary, we use notes to make you aware of safety considerations.

WARNING	Identifies information about practices or circumstances that can cause an explosion in a hazardous environment, which may lead to personal injury or death, property damage, or economic loss.
	Identifies information that is critical for successful application and understanding of the product.
IMPORTANT	Identifies information about practices or circumstances that can lead to personal injury or death, property damage, or economic loss. Attentions help you to identify a hazard, avoid a hazard, and recognize the consequences.
	Labels may be on or inside the equipment, for example, a drive or motor, to alert people that dangerous voltage may be present.
SHOCK HAZARD	
	Labels may be on or inside the equipment, for example, a drive or motor, to alert people that surfaces may reach dangerous temperatures.
BURN HAZARD	
	

Before You Begin

Remove all packing material, wedges, and braces from within and around the components. After unpacking, check the item name-plate catalog number against the purchase order.

Kinetix 2000 Power Rail Box Contents

Drive Component	Ships With
Power Rail	<ul style="list-style-type: none"> One braided 100 mm (3.9 in.) ground strap This manual, Installation Instructions, publication 2093-IN004.

IMPORTANT

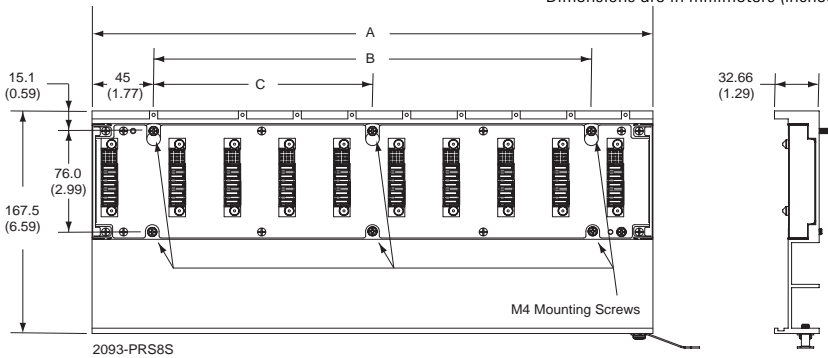
To improve the bond between the power rail and subpanel, construct your subpanel out of zinc plated (paint-free) steel.

Dimensions

Mounting dimensions for the Kinetix 2000 power rail are shown in the figure and table below.

Kinetix 2000 Power Rail Approximate Dimensions

Dimensions are in millimeters (inches).



Kinetix 2000 Power Rail Dimensions

Catalog Number	Power Rail Axis	Dimension, Approx.					
		A		B		C	
		mm	(in.)	mm	(in.)	mm	(in.)
2093-PRS1	1	90.0	(3.54)	N/A		N/A	
2093-PRS2	2	130.0	(5.12)	40.0	(1.58)	N/A	
2093-PRS3	3	170.0	(6.69)	80.0	(3.15)	N/A	
2093-PRS4	4	210.0	(8.27)	120.0	(4.72)	N/A	
2093-PRS5	5	250.0	(9.84)	160.0	(6.30)	N/A	
2093-PRS7	7	330.0	(12.99)	240.0	(9.45)	120.0	(4.72)
2093-PRS8S	8	410.0	(16.14)	320.0	(12.60)	160.0	(6.30)

Mount the Power Rail

The Kinetix 2000 power rail comes in several lengths. Power rails will support one integrated axis module, additional axis modules, and a shunt module (catalog numbers 2093-AC05-MP \times , 2093-AMP \times , 2093-AM0 \times , and 2093-ASP06). Additional open slots must have a slot filler module (2093-PRF) installed to provide continuity for control signals and system power.

ATTENTION



These procedures assume you have prepared your panel and understand how to bond your system.

Refer to the Kinetix 2000 Multi-axis Servo Drive User Manual, publication 2093-UM001, for detailed instructions on how to ground and bond your power rail.

Follow these steps to mount a Kinetix 2000 power rail.

1. Lay out the position for your power rail in the enclosure.

For panel layout recommendations, refer to the Kinetix 2000 Multi-axis Servo Drive User Manual, publication 2093-UM001. Mounting hole dimensions are provided in the figure and table.

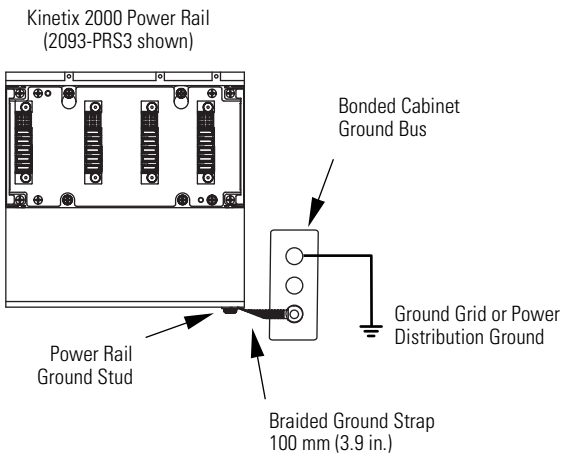
2. Attach the power rail to the cabinet.

The recommended mounting hardware is M4 metric bolts.

For bonding techniques to effectively reduce high-frequency noise, refer to the System Design for Control of Electrical Noise Reference Manual, publication GMC-RM001.

3. Tighten all mounting fasteners.
4. Attach the braided grounding strap between the ground stud and a bonded cabinet ground, as shown in the following figure.

Attaching the Braided Ground Strap



Additional Resources

The following documents contain additional information concerning related Allen-Bradley products.

For	Read This Document	Publication Number
Information on installing, configuring, startup, troubleshooting, and applications for your Kinetix 2000 servo drive system	Kinetix 2000 Multi-axis Servo Drive User Manual	2093-UM001
Information on the installation of your Kinetix 2000 axis modules	Kinetix 2000 Axis Module Installation Instructions	2093-IN001
Information on the installation of your Kinetix 2000 and shunt modules	Kinetix 2000 Shunt Module Installation Instructions	2093-IN002
Information on the installation of your Kinetix 2000 slot filler module	Kinetix 2000 Slot Filler Module Installation Instructions	2093-IN003
Information, examples, and techniques designed to minimize system failures caused by electrical noise	System Design for Control of Electrical Noise Reference Manual	GMC-RM001
	EMC Noise Management DVD	GMC-SP001
Specifications, motor/servo-drive system combinations, and accessories for Kinetix motion control products	Kinetix Motion Control Selection Guide	GMC-SG001
Online product selection and system configuration tools, including AutoCAD (DXF) drawings	Rockwell Automation Configuration and Selection Tools website	http://www.ab.com/e-tools/
For declarations of conformity (DoC) currently available from Rockwell Automation	Rockwell Automation Product Certification website	http://www.rockwellautomation.com/products/certification
A glossary of industrial automation terms and abbreviations	Rockwell Automation Industrial Automation Glossary	AG-7.1

You can view or download publications at <http://literature.rockwellautomation.com>. To order paper copies of technical documentation, contact your local Rockwell Automation distributor or sales representative.

Notes:

Rockwell Automation Support

Rockwell Automation provides technical information on the Web to assist you in using its products. At <http://support.rockwellautomation.com>, you can find technical manuals, a knowledge base of FAQs, technical and application notes, sample code and links to software service packs, and a MySupport feature that you can customize to make the best use of these tools.

For an additional level of technical phone support for installation, configuration, and troubleshooting, we offer TechConnect Support programs. For more information, contact your local distributor or Rockwell Automation representative, or visit <http://support.rockwellautomation.com>.

Installation Assistance

If you experience a problem with a hardware module within the first 24 hours of installation, please review the information that's contained in this manual. You can also contact a special Customer Support number for initial help in getting your module up and running.

United States	1.440.646.3223 Monday – Friday, 8am – 5pm EST
Outside United States	Please contact your local Rockwell Automation representative for any technical support issues.

New Product Satisfaction Return

Rockwell tests all of its products to ensure that they are fully operational when shipped from the manufacturing facility. However, if your product is not functioning, it may need to be returned.

United States	Contact your distributor. You must provide a Customer Support case number (see phone number above to obtain one) to your distributor in order to complete the return process.
Outside United States	Please contact your local Rockwell Automation representative for return procedure.

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