Power Supplies

P2-01AC $-00?vi:

The P2-01AC Input Power Supply provides isolated power to the Productivity®2000 base from an external 100-240 VAC or 125VDC source.

No power budgeting is required. Any combination of I/O modules may be installed in any slots without power budget considerations.

AC Input Power Supply

IMPORTANT!

Hot-Swapping Information

NOTE: This device cannot be Hot Swapped.

User Specifications	
Input Voltage Range (Tolerance)	100 to 240 VAC (-15% / +10%) 125VDC* (-15% / +20%)
Rated Operating Frequency	50 to 60 Hz with ±5% tolerance
Maximum Input Power	37.4 W
Cold Start Inrush Current	23.6 A
Maximum Inrush Current (Hot Start)	25.6 A
Input Fuse Protection (Internal)	Micro fuse 250V, 2A, Non-replaceable
Efficiency	75%
Output	UL Rated: 24VDC, 0.85 A 3.3 VDC, 3.81 A
Maximum Output Power	29W Combined
Heat Dissipation	8.4 W
Isolated User 24VDC Output	None
Output Protection for Over Current, Over Voltage, and Over Temperature	Self resetting for both voltage outputs to base
Under Input Voltage Lock-out	<70 VAC
Over Input Voltage Lock-out	None
Input Transient Protection	Varistor, plus input choke and filter
Operating Design Life	10 years at full load at 40°C ambient and 5 years at 60°C ambient

**Only available on Rev. B and up.*

General Specifications	
Operating Temperature	0° to 60°C (32° to 140°F)
Storage Temperature	-20° to 70°C (-4° to 158°F)
Humidity	5 to 95% (non-condensing)
Altitude	2,000 meters, max.
Pollution Degree	2
Environmental Air	No corrosive gases permitted
Vibration	IEC60068-2-6 (Test Fc)
Shock	IEC60068-2-27 (Test Ea)
Overvoltage	II
Enclosure Type	Open equipment
Voltage Withstand (dielectric)	2100VDC applied for 2 seconds
Insulation Resistance	>10MV @ 500VDC
Module Location	Power Supply slot in a Productivity2000 system.
Weight	294g (10.4 oz)
Agency Approvals**	UL 61010-1 and UL 61010-2-201 File E139594, Canada and USA CE (EN 61131-2 EMC, EN 61010-1 and EN 61010-2-201 Safety)*

**Meets EMC and Safety requirements. See the Declaration of Conformity for details.*
***To obtain the most current agency approval information, see the Agency Approval Checklist section on the specific component part number web page.*

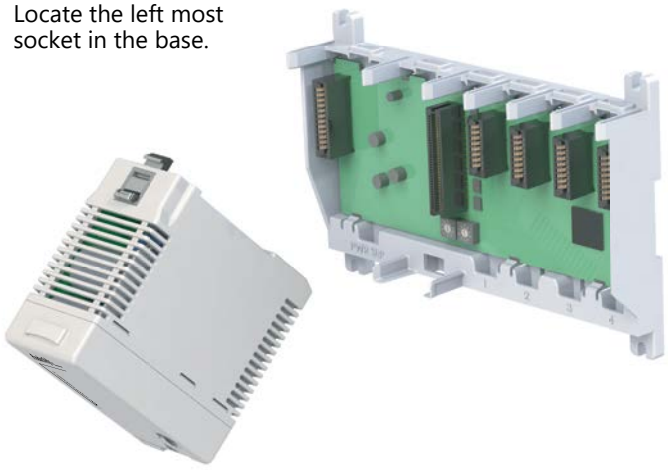
Terminal Block Specifications	
Number of Positions	4 Screw Terminals
Wire Range	22–12 AWG (0.324 to 2.08 sq. mm) Solid/Stranded Conductor 3/64 inch (1.2 mm) insulation maximum Use copper conductors, 75°C or equivalent
Screw Driver Width	1/4 inch (6.5 mm) maximum
Screw Size	M3 size
Screw Torque	7–9 inch-pounds (0.882 - 1.02 N·m)

Power Supply

Power Supply Installation

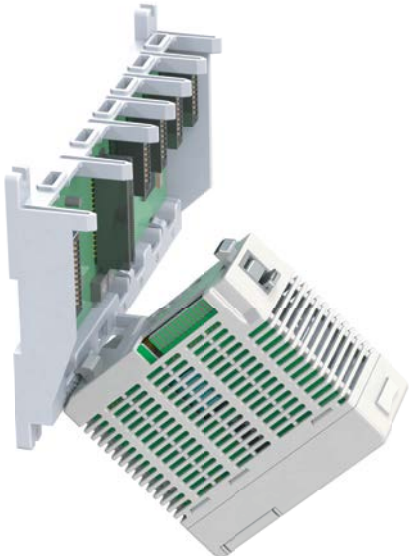
Step One:

Locate the left most socket in the base.



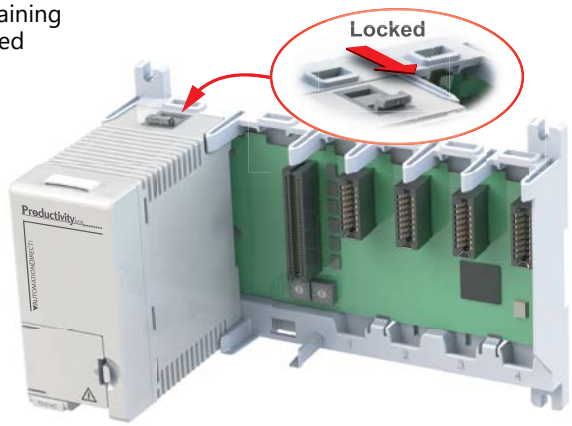
Step Two:

Insert the Power Supply at a 30° angle into the notch located at the bottom of the base and rotate up until seated in socket.



Step Three:

Snap the top retaining tab into the locked position.

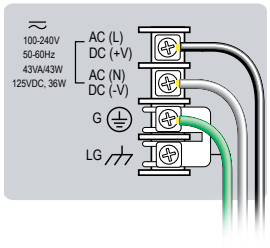


Power Supplies

Power Connections

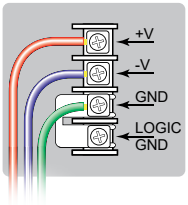
P2-01DC

100-240 VAC, 125VDC

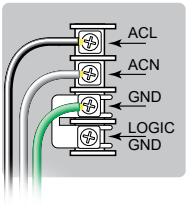


P2-01DCAC

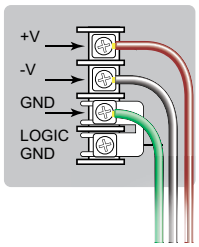
12–24 VDC



24VAC

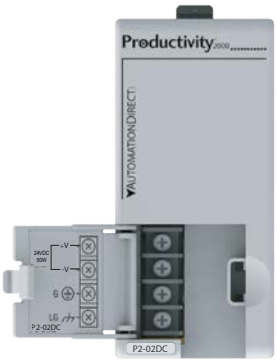


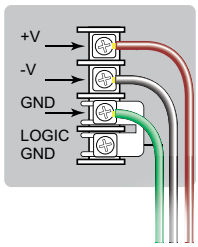
P2-01DC



24–48 VDC

P2-02DC





24VDC

Grounding

A good common ground reference (earth ground) is essential for proper operation of the Productivity® 2000 system. One side of all control circuits, power circuits and the ground lead must be properly connected to earth ground by either installing a ground rod in close proximity to the enclosure or by connecting to the incoming power system ground. There must be a single-point ground (i.e. copper bus bar) for all devices in the enclosure that require an earth ground.

Terminal Block Specifications	
Number of Positions	4 screw terminals
Wire Range	22–12 AWG (0.324 to 3.31 sq. mm) Solid / stranded vonductor 3/64 inch (1.2 mm) insulation maximum (Use copper conductor, 75°C or equivalent)
Conductors	USE COPPER CONDUCTORS, 75°C or equivalent 1/4 in. (6-7 mm) strip length
Screw Driver Width	1/4 inch (6.5 mm) maximum
Screw Size	M3
Screw Torque	7–9 inch-pounds (0.882–1.02 N·m)