Power Supplies

P2-02DC $5_px:

The P2-02DC Power Supply provides isolated power to the Productivity®2000 base from an external 24VDC source.

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

DC Input Power Supply

IMPORTANT!

Hot-Swapping Information
NOTE: This device cannot be Hot Swapped.

User Specifications	
Input Voltage Range (Tolerance)	24VDC (±2%)
Maximum Input Power	50W
Cold Start Inrush Current	34A
Maximum Inrush Current (Hot Start)	34A
Input Fuse Protection (Internal)	Micro Fuse 250V, 4A Non-replaceable
Efficiency	90%
Output	24VDC, 1.5 A 3.3 VDC, 4A
Maximum Output Power	45W combined
Heat Dissipation	5W
Isolated User 24VDC Output	None
Output Protection for Overcurrent, Overvoltage, and Over-Temperature	3.3 V output self-resetting 24V output fused
Under Input Voltage Lock-out	None
Over Input Voltage Lock-out	None
Input Transient Protection	Transorb, plus input choke and filter
Operating Design Life	>10 years at full load at 60°C ambient

General Specifications	
Operating Temperature	0º to 60ºC (32º to 140ºF)
Storage Temperature	-20º to 70ºC (-4º to 158ºF)
Humidity	5 to 95% (non-condensing)
Altitude	2000m, max.
Pollution Degree	2
Environmental Air	No corrosive gases permitted
Vibration	IEC60068-2-6 (Test Fc)
Shock	IEC60068-2-27 (Test Ea)
Overvoltage Category	II
Enclosure Type	Open equipment
Voltage Withstand (dielectric)	Non-isolated
Insulation Resistance	Non-isolated
Module Location	Power Supply slot in a Productivity®2000 system.
Weight	90g (3.2 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 D.O.C. for details.*

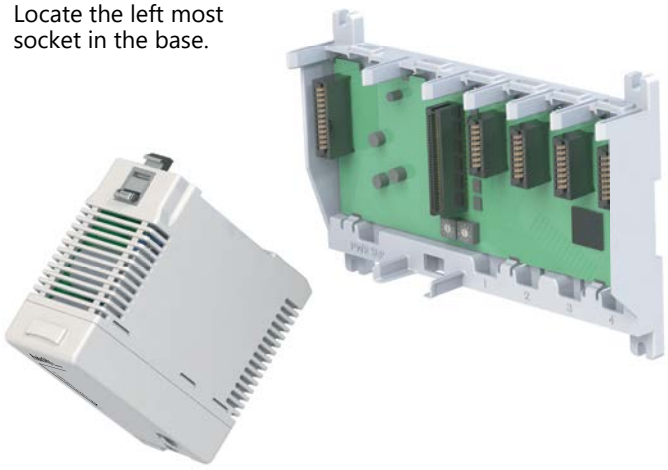
Terminal Block Specifications	
Number of Positions	4 screw terminals
Wire Range	22–12 AWG (0.324 to 3.31 sq. mm) Solid / stranded conductor 3/64 inch (1.2 mm) insulation maximum (Use copper conductor, 75°C or equivalent)
Conductors	USE COPPER CONDUCTORS, 75°C or equivalent 1/4 in. (6-7 mm) strip length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

Power Supply

Power Supply Installation

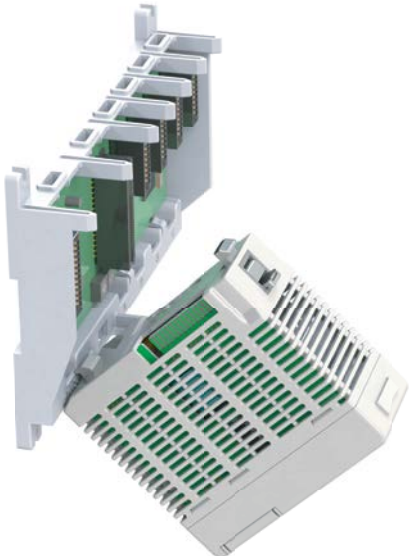
Step One:

Locate the left most socket in the base.



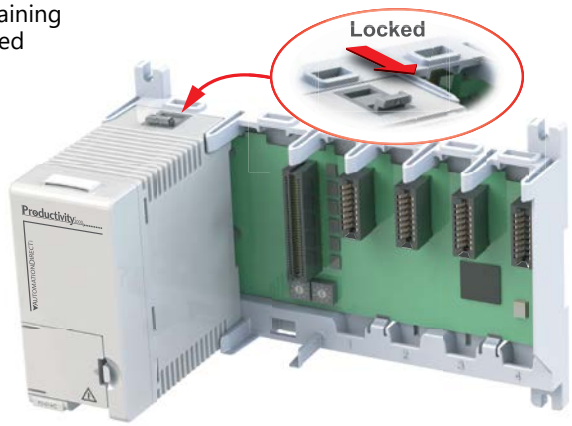
Step Two:

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.

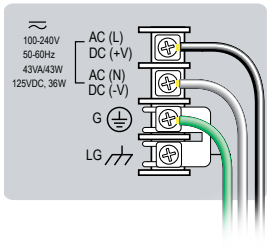


Power Supplies

Power Connections

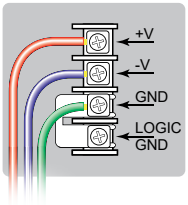
P2-01DC

100-240 VAC, 125VDC

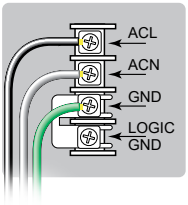


P2-01DCAC

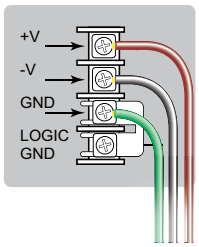
12–24 VDC



24VAC

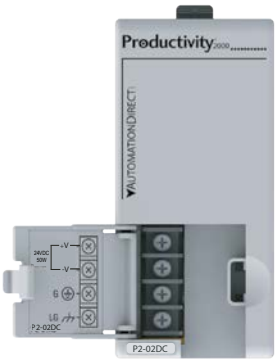


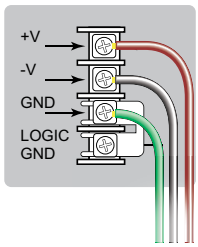
P2-01DC



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.

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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)