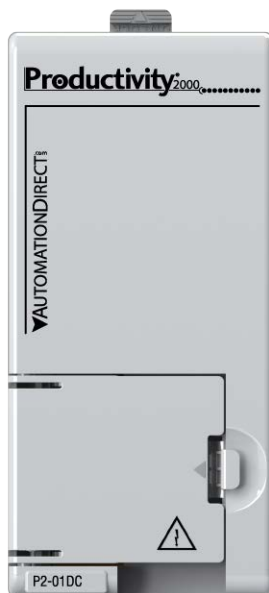


Power Supplies

P2-01DC \$04n58:

The P2-01DC Universal Input Power Supply provides isolated power to the Productivity® 2000 base from an external 24–48 VDC 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.

P2-01DC Specifications

| User Specifications | |
|---|---|
| Input Voltage Range (Tolerance) | 24 to 48 VDC (-15% / +20% @60°C) |
| Maximum Input Power | 38W |
| Cold Start Inrush Current | 34A |
| Maximum Inrush Current (Hot Start) | 34A |
| Input Fuse Protection (Internal) | Micro Fuse 250V, 4A Non-replaceable |
| Efficiency | 75% |
| Output | UL Rated: 24VDC, 0.85 A 3.3 VDC, 3.81 A |
| Maximum Output Power | 29W combined |
| Heat Dissipation | 9W |
| 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 | <19.8 V |
| Over Input Voltage Lock-out | None |
| Input Transient Protection | Varistor, plus input choke and filter |
| Operating Design Life | 10 years at full load at 60°C ambient |

| 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 Category | II |
| Enclosure Type | Open equipment |
| Voltage Withstand (dielectric) | 750VDC applied for 2s |
| Insulation Resistance | >10MΩ @ 500VDC |
| Module Location | Power Supply slot in a Productivity®2000 system. |
| Weight | 363g (12.8 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.

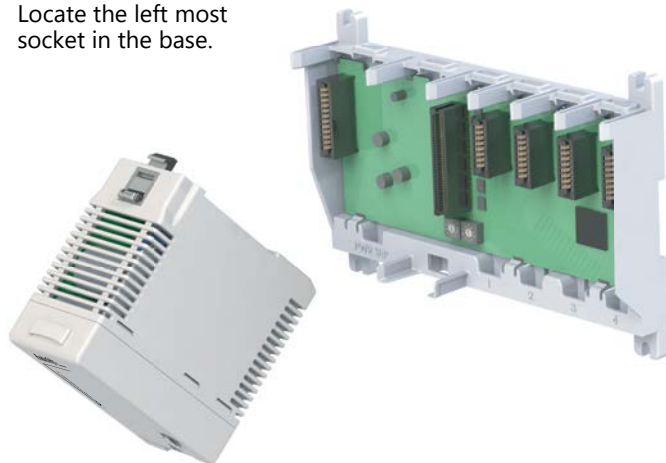
| Terminal Block Specifications | |
|-------------------------------|---|
| Number of Positions | 4 Screw Terminals |
| Wire Range | 22–12 AWG (0.324 to 3.31 sq. mm) Solid Conductor 3/64 inch (1.2 mm) insulation maximum (Use copper conductor, 75°C or equivalent) |
| Screw Driver Width | 1/4 inch (6.5 mm) maximum |
| Screw Size | M3 |
| Screw Torque | 7–9 inch-pounds (0.882–1.02 N·m) |

Power Supply

Power Supply Installation

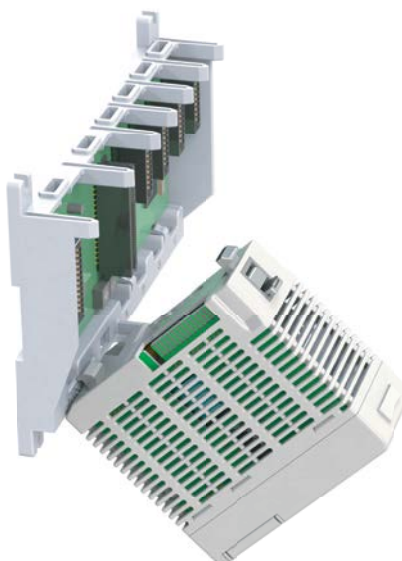
Step One:

Locate the left most socket in the base.



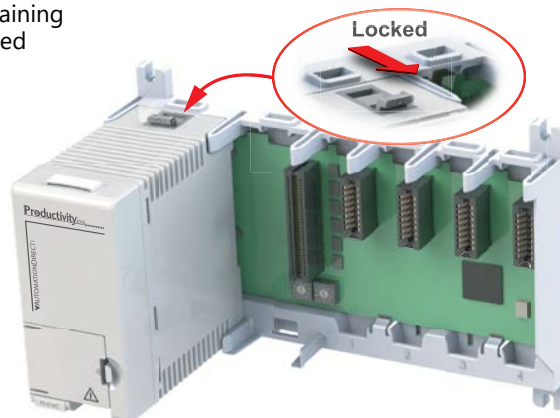
Step Two:

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.



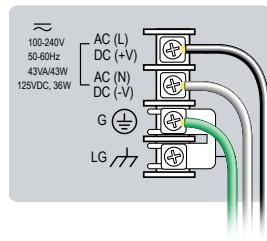
Power Supplies

Power Connections

P2-01DC



100-240 VAC, 125VDC

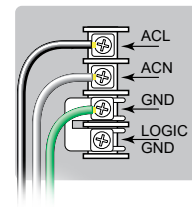
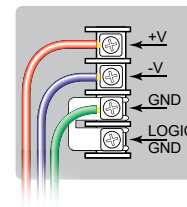


P2-01DCAC

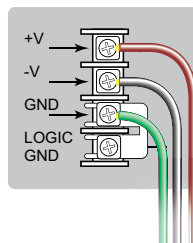


12-24 VDC

24VAC

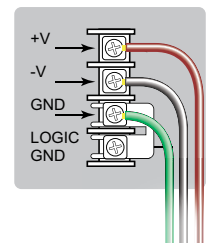


P2-01DC



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) |