



CONDOR DC POWER SUPPLIES INC.  
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# GPM41 SERIES INSTALLATION INSTRUCTIONS

**MODEL NUMBERS:** GPM41-X, where X represents the output voltage which may be any number from 5 thru 28. May be followed by suffix -XXX where XXX may be any number from 001 thru 999 to indicate value added configurations that have no impact on safety and/or suffix G to indicate compliance to RoHS.

## RATINGS

Input: 100-240 V ac, 1.3 A, 50/60 Hz.

Output: 6 A or 40 W maximum or see table for standard output voltage models.

Model	Output	Watts
GPM41-5	+5 V dc 6.0 A	30
GPM41-12	+12 V dc 3.3 A	40
GPM41-15	+15 V dc 2.7 A	40
GPM41-24	+24 V dc 1.7 A	40
GPM41-28	+28 V dc 1.4 A	40

- Notes:
1. Maximum ambient temperature for rated output is 50 °C.
  2. Maximum Relative Humidity 96 %, no condensation.
  3. Storage: -40 to +85 °C. Units should be allowed to warm-up under non-condensing conditions before application of power.

**SAFETY COMPLIANCE STANDARDS:** All models are Certified to be in compliance with the applicable requirements of IEC/EN/UL 60601-1, and CAN/CSA 22.2 No. 601.1.

- CLASSIFICATION:**
- (5.1) Protection against electric shock = Class I
  - (5.2) Degree of protection against electric shock = Signal output or intermediate
  - (5.3) Protection against harmful ingress of water = Ordinary (no protection)
  - (5.5) Not suitable for use in the presence of flammable anesthetic mixture
  - (5.6) Mode of operation = Continuous

**CE SAFETY DECLARATION:** Condor DC Power Supplies, Inc. declares under our sole responsibility that all models listed above are in conformity with the applicable requirements of EN 60950-1 following the provisions of the Low Voltage Directive 73/23/EEC.

**OVERCURRENT PROTECTION:** External overcurrent protection must be provided in the end application. IEC 60601-1 requires that both supply leads (phase and neutral) be protected against overcurrent. A 2.5 A 250 V rated fuse with an I<sup>2</sup>t rating ≥20 is recommended. The fuse current rating must not exceed 2.5 A. The fuses must meet the requirements of IEC 60601-1 and be acceptable for the country in which the host equipment is to be installed.

**WARNING! RISK OF FIRE!** A blown fuse is an indication of catastrophic failure of circuit component(s). Repair must be performed by Condor authorized personnel.

**WARNING! SHOCK HAZARD!** Dangerous voltages are present on some components, printed wiring traces and heatsinks.

**GROUNDING:** Protection Class I requires that the ground terminal be bonded to Protective Earth in the end application. Using this terminal for the primary system earthing terminal is not recommended. The Power Supply may be attached to system ground by soldering a grounded wire directly to a .098 inch hole marked with a ground symbol near T1. Alternatively, #4 screws (max 0.22 inch head diameter) and metal spacers (3/16 inch diameter, 1/4 inch minimum length) should be used to mount the power supply to grounded metal surfaces (Protective Earth). When mounting surfaces are not grounded or spacers are non-metallic, electrically connect the two metallic mounting pads on the pwb together.





**OUTPUTS:** Either the + or - output should be connected to Protective Earth in the end application. The output is intended for Protectively Earthed Signal Output and Intermediate Circuits only. The output is not acceptable for patient connection without additional isolation. The DC output is SELV under normal and single fault conditions.

**OVERVOLTAGE PROTECTION:** The output is monitored for an overvoltage condition. In some applications where an overvoltage condition could result in a hazard as defined in applicable safety standards, redundant or additional overvoltage protection may be required. Consult factory for details.

**DIELECTRIC STRENGTH TEST CAUTION:** When performing Dielectric Strength Tests, catastrophic failure of the unit may result if a Dielectric Strength test voltage greater than 1800 V ac is applied between primary and secondary circuits. The components providing isolation from primary to secondary cannot be tested while installed in the power supply without overstressing basic (primary to ground) insulation. All isolating components are individually 100 % tested at 4800 V ac prior to installation.

**MAINTAINING ISOLATION:** The creepage distance between primary and ground is 4 mm minimum; between primary and secondary circuits is 8 mm minimum. Secondary to ground creepage is not defined or controlled. The output common is bypassed to ground using a 0.001 µF 1 kV capacitor. The required creepage and clearance distances from primary circuits to ground and secondary circuits must be maintained after installation to preserve the intended safety.

**TEMPERATURES:** The maximum operating temperatures of certain safety components, as defined in the applicable safety standards, must not be exceeded after installation to preserve the intended safety. The output power, ambient air temperature and the availability, amount, direction and/or restriction of airflow influence the temperatures of these components.

EXPLANATION OF SYMBOLS	
	Alternating Current
	Attention, Consult Accompanying Documents
	Attention, Dangerous Voltages
	Earth (Ground)

**C O N N E C T I O N S**

J1 Pin	AC Input
1	Line
2	Neutral

J2 Pin	DC Output
1	Output (+)
2	Output (+)
3	Common
4	Common

MATING CONNECTORS	
J1	AMP Housing 640250-2 Contact 640706-1
J2	AMP Housing 640250-4 Contact 640706-1

**CAUTION:** Do not exceed 5 A per contact.

Condor DC Power Supplies Inc. will not be liable for the safety, reliability or performance of these power supplies if a) any changes, modifications or repairs are carried out by other than authorized agents of Condor DC Power Supplies Inc., or b) the installation of the supply is not in accordance with these installation instructions and the applicable UL, CSA, IEC and/or EN safety standards.