

## GPM140 SERIES INSTALLATION INSTRUCTIONS

**RATINGS:** 

Input: 100-240 V ac, 4.0 A, 50/60 Hz

Output:

		MAXIMUM OUTPUT AMPS AND WATTS			
		CONVECTION COOLING		FORCED AIR COOLING (1)	
Model	Volts	Without Cover	With Cover	With & Without Cover	$I_{sc}$
GPM140-5	5	26.0 A 130 W	24.0 A 120 W	30.0 A 160 W	28.5 A
GPM140-12	12	11.7 A 140 W	10.0 A 120 W	13.3 A 160 W	18.2 A
GPM140-13	13	10.8 A 140 W	9.20 A 120 W	12.3 A 160 W	16.6 A
GPM140-15	15	9.3 A 140 W	8.0 A 120 W	10.7 A 160 W	16.6 A
GPM140-24	24	5.8 A 140 W	5.8 A 140 W	6.7 A 160 W	13.2 A
GPM140-28	28	5.0 A 140 W	5.0 A 140 W	5.7 A 160 W	12.5 A
GPM140-30	30	4.7 A 140 W	4.7 A 140 W	5.0 A 160 W	12.0 A

Notes:

- 1. Minimum airflow for forced air cooling is 26 cfm.
- 2. Maximum ambient temperature for continuous output power specified above is 50 °C.
- 3.  $I_{sc} = Maximum$  output short circuit current.
- 4. Maximum Relative Humidity 96 %, no condensation.
- 5. Storage: -40 to +85 °C. Units should be allowed to warm-up under non-condensing conditions before application of power.



**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 following the provisions of the Low Voltage Directive 73/23/EEC.

**CERTIFICATION:** All models are Certified to be in compliance with the applicable requirements of UL 2601-1, CSA 22.2 No. 234 (Level 3) (with additional tests to C22.2 No 601.1-M90 per T.I.L. CA-08), and EN 60601-1: 1990 +A13.

## **CLASSIFICATION:**

- (5.1) Protection against electric shock = Class I
- (In accordance with subclause 5 of EN 60601-1)
- (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) Has not been evaluated for use in the presence of a flammable anaesthetic mixture with air, oxygen, or nitrous oxide. This evaluation is made on the end equipment by the OEM.
- (5.6) Mode of operation = Continuous

**GROUNDING:** The Protective Earth (ground) terminal J1, pin 5 (TB1-3) must be bonded to Protective Earth in the host equipment. Using the Protective Earth terminal on the supply for grounding the host equipment is not recommended. A separate dedicated grounding point should be used.

**OUTPUTS:** The output common 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. All DC outputs are SELV under normal and single fault conditions.

**OVERVOLTAGE PROTECTION:** The output is monitored for an overvoltage condition. The trip-point for a 5 volt output is 5.6 to 6.8 volts. 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.

**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.

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**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 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.

**OVERCURRENT PROTECTION:** The internal fuse is located in the phase lead only. EN 60601-1 requires that both supply leads (phase and neutral) be protected against overcurrent. Complete overcurrent protection must be provided in the host equipment. Fuse ratings must not exceed that specified for the internal fuse, must meet the requirements of EN 60601-1 and be acceptable for the country in which the host equipment is to be installed.

**WARNING! RISK OF FIRE!** A blown internal fuse is an indication of catastrophic failure of circuit component(s). Repair must be performed by Condor authorized personnel. Refer to fuse marking on the supply for rating.

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

EXPLANATION OF SYMBOLS			
$\sim$	Alternating Current		
À	Attention, Consult Accompanying Documents		
<u></u>	Attention, Dangerous Voltages		
	Protective Earth (Ground)		

## CONNECTIONS

J1	TB1	AC INPUT	J2		J3	TB2	DC OUTPUTS
1	1	Line	1	Power Fail	1,2,3,4,13,14,15,16	1,2,7,8	+ Output
3	2	Neutral	2	- Sense	5,6,7,8,9,10,11,12	3,4,5,6	Return
5	3	Ground	3	+ Sense			
			4	N/C			

**MATING CONNECTORS:** 

J1	Amp Housing 640250-5 Contact 770522-1
	Amp 640440-4
J3	Amp Housing 1-640250-6 Contact 770522-1

**CAUTION:** Do not exceed 4 A per pin on J3 or 15 A per terminal on TB2.

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, and IEC/EN safety standards.

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