GPC55 Commercial/GPM55 Medical

55 Watt Global Performance Switchers

GLOBAL PERFORMANCE SWITCHERS

CONDOR DC Power Supplies

FEATURES:

- **Wide-range ac input 85-264 Vac**
- **2-year warranty**
- **Conducted EMI complies with FCC Class B and CISPR 22 Class B (Commercial models) and CISPR 11 Class B (Medical models)**
- **Commercial Approved to UL1950, IEC950 and CSA22.2-234 L3**
- **Medical Approved to UL2601-1, IEC601-1 and CSA22.2 No. 601**
- **Complies with EN61000-3-2 Class A**
- **Single and multiple outputs**
- **CE marked to LVD**
- **RoHS Compliant Model Available (G suffix)**



SPECIFICATIONS

Ac Input
85-264 Vac, 47-63 Hz single phase.

Input Current
Maximum input current at 120 Vac, 60 Hz with full rated output load: 1.7 A

Hold-Up Time
20 ms minimum from loss of ac input at full load, nominal line (115 Vac).

Output Power
55 W continuous, 70 W peak. Peak ratings are for 60 s maximum duration, 10% duty cycle. During peak load condition, output regulation may exceed total regulation limits.

Overload Protection
Fully protected against short circuit and output overload. Short circuit protection is cycling type power limit on outputs 1 & 2; foldback type on outputs 3 & 4. Recovery after fault is automatic. See output ratings chart for additional notes or conditions. Factory set to begin power limiting at approximately 75 W.

Overvoltage Protection
Main outputs: 124% + 12%

Efficiency
70% at full rated load, nominal input voltage, depending on model and load distribution.

Input Protection
Internal ac fuse provided. Designed to blow only if a catastrophic failure occurs in the unit.

Inrush Current
Inrush is limited by internal thermistors. Inrush at 240 Vac under cold start conditions will not exceed 34 A.

Temperature Coefficient
0.03%/°C typical on all outputs.

Environmental
Designed for 0 to 50°C operation at full rated output power; derate output current and total output power by 2.5% per °C above 50°C. See Environmental and Packaging Specifications on next page.

Output Noise
0.5% rms, 1% pk-pk, 20 MHz bandwidth, differential mode. Measured with noise probe directly across output terminals of the power supply.

Transient Response
Main output—500 µs typical response time for return to within 0.5% of final value for a 50% load step change. Δi/Δt<0.2 A/µs. Maximum voltage deviation is 3.5%. Startup/shutdown overshoot less than 3%.

Voltage Adjustment
Built-in potentiometer adjusts voltage ±5% on outputs 1 & 2.

EMI/EMC Compliance
All models include built-in EMI filtering to meet the following emissions requirements:

EMI SPECIFICATIONS	COMPLIANCE LEVEL
Conducted Emissions GPC55 Static	EN55022 Class B; FCC Class B
Conducted Emissions GPM55	EN55011 Class B; FCC Class B
Static Discharge	EN61000-4-2, 6 kV contact, 8 kV air
RF Field Susceptibility	EN61000-4-3, 3 V/meter
Fast Transients/Bursts	EN61000-4-4, 2 kV, 5 kHz
Surge Susceptibility	EN61000-4-5, 1 kV diff., 2 kV com.
Line Frequency Harmonics	EN61000-3-2 Class A

Commercial Leakage Current
0.7 mA 254 Vac @ 60 Hz input.

Commercial Safety
Approved to UL1950, CSA22.2 No. 234 Level 3, IEC950 and EN60950. UL file #E135803 commercial; CSA #LR46516 all models. All dc outputs are SELV under normal and single fault conditions.

Medical Leakage Current
35 µA 254 Vac @ 60 Hz input.

Medical Safety
Approved to UL2601, CSA22.2 No. 601 Level 3 and IEC601. UL file E116994; CSA #LR46516. The output(s) are intended for safety earthed Signal Output and Intermediate Circuits only. The output(s) are not acceptable for patient connection without additional isolation. All dc outputs are SELV under normal and single fault conditions.

All specifications are typical at nominal input, full load at 25°C unless otherwise stated

Commercial Model	Medical Model	Output No.	Output	Output Minimum	Output Maximun	Output Peak	Noise P-P	Total Regulation (A)
GPC55A	GPM55A	1 2 3 4	+5 V +12 V +12 V -12 V	0.7 A 0 A 0 A 0 A	6 A 3 A 1 A 1 A	8 A 5 A 1.2 A 1.2 A	50 mV 120 mV 120 mV 120 mV	2% 2% 3% 3%
GPC55B	GPM55B	1 2 3 4	+5 V +12 V -5 V -12 V	0.7 A 0 A 0 A 0 A	6 A 3 A 1 A 1 A	8 A 5 A 1.2 A 1.2 A	50 mV 120 mV 50 mV 120 mV	2% 2% 3% 3%
GPC55C	GPM55C	1 2 3 4	+5 V +15 V -5 V -15 V	0.7 A 0 A 0 A 0 A	6 A 3 A 1 A 1 A	8 A 5 A 1.2 A 1.2 A	50 mV 150 mV 50 mV 150 mV	2% 2% 3% 3%
GPC55D	GPM55D	1 2 3 4	+5 V +24 V +12 V -12 V	0.7 A 0 A 0 A 0 A	6 A 1.5 A 1 A 1 A	8 A 5 A 1.2 A 1.2 A	50 mV 240 mV 120 mV 120 mV	2% 2% 3% 3%
GPC55E	GPM55E	1 2 3 4	+5 V +24 V +15 V -15 V	0.7 A 0 A 0 A 0 A	6 A 1.5 A 1 A 1 A	8 A 5 A 1.2 A 1.2 A	50 mV 120 mV 150 mV 150 mV	2% 2% 3% 3%
GPC55F	GPM55F	1 2 3 4	+5 V +12 V +15 V -15 V	0.7 A 0 A 0 A 0 A	6 A 3 A 1 A 1 A	8 A 5 A 1.2 A 11	50 mV 120 mV 150 mV 150 mV	2% 2% 3% 3%
GPC55-5	GPM55-5	1	5 V	0 A	11 A	14 A	50 mV	2%
GPC55-12	GPM55-12	1	12 V	0 A	4.7 A	5.8 A	120 mV	2%
GPC55-15	GPM55-15	1	15 V	0 A	3.7 A	4.7 A	150 mV	2%
GPC55-24	GPM55-24	1	24 V	0 A	2.3 A	2.9 A	240 mV	2%
GPC55-28	GPM55-28	1	28 V	0 A	2.0 A	2.4 A	280 mV	2%
GPC55-48		1	48 V	0 A	1.5 A	1.5 A	480 mV	2%

A. Total regulation is defined as the maximum deviation from the nominal voltage for all steady-state conditions of initial voltage setting, input line voltage and output load.
B. Add "G" suffix to model to indicate RoHS compliant moel.

GPC55/GPM55 MECHANICAL SPECIFICATIONS

INPUT J1 AMP P/N 640445-5
0.156 [3.96mm] CTR HEADER

PIN 1) AC GROUND PIN 3) AC NEUTRAL PIN 5) AC LINE
PIN 2) N/C PIN 4) N/C

OUTPUT J2 AMP P/N 640445-9
0.156 [3.96mm] CTR HEADER

J2	MULTIPLE OUTPUT MODELS	SINGLE OUTPUT MODELS
PIN 1)	OUTPUT #2	OUTPUT #1
PIN 2)	OUTPUT #2	OUTPUT #1
PIN 3)	OUTPUT #1	OUTPUT #1
PIN 4)	OUTPUT #1	OUTPUT #1
PIN 5)	COMMON	COMMON
PIN 6)	COMMON	COMMON
PIN 7)	COMMON	COMMON
PIN 8)	OUTPUT #4	N/C
PIN 9)	OUTPUT #3	N/C

MATING CONNECTORS AMP P/N

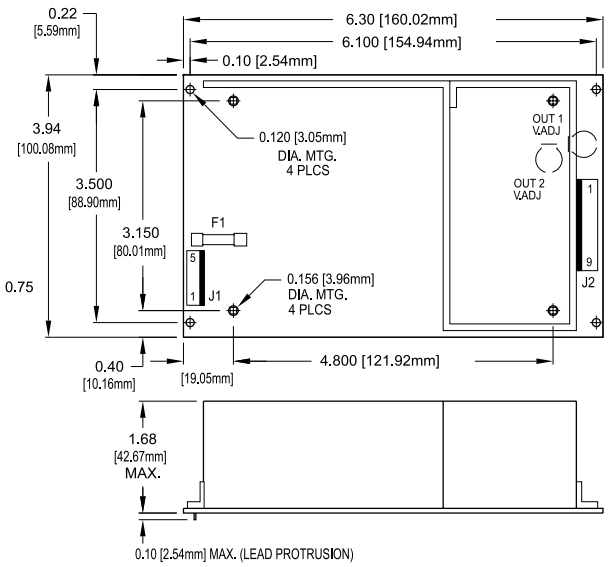
	HOUSING	CONTACT
INPUT	640250-5	770476-1
OUTPUT	640250-9	770476-1

NOTE: 5A MAXIMUM RECOMMENDED CURRENT PER CONNECTOR PIN

OPTIONAL ENCLOSURE AVAILABLE, ORDER P/N 08-30466-1055

WEIGHT 1.5 LBS MAX. [0.68 kg MAX.]

TOLERANCES: X.XX=0.030 [0.76mm]
X.XXX=0.010 [0.25mm]



ENVIRONMENTAL SPECIFICATIONS	OPERATING	NON-OPERATING
Temperature (A)	See individual Specs	-40 to +85°C
Humidity (A)	0 to 95% RH	0 to 95% RH
Shock (B)	20 g_{pk}	40 g_{pk}
Altitude	-500 to 10,000 ft	-500 to 40,000 ft
Vibration (C)	1.5 g_{rms}, 0.003 g^2/Hz	5 g_{rms}, 0.026 g^2/Hz

A. Units should be allowed to warm up/operate under non-condensing conditions before application of power.

B. Shock testing—half-sinusoidal, 10 ± 3 ms duration, ± direction, 3 orthogonal axes, total 6 shocks.

C. Random vibration—10 to 2000Hz, 6dB/octave roll-off from 350 to 2000Hz, 3 orthogonal axes. Tested for 10 min./axis operating and 1 hr./axis non-operating.

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