

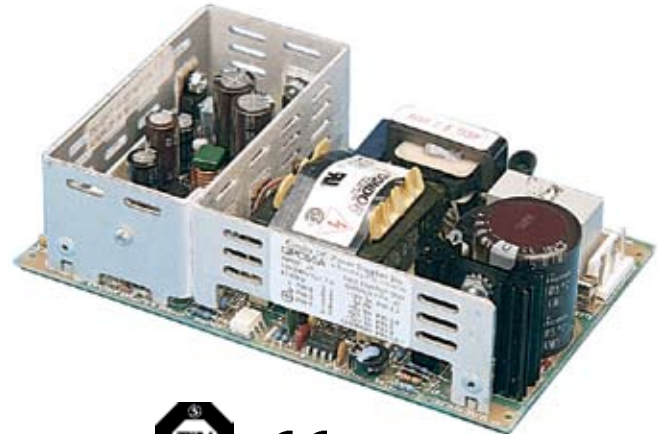
# GPC55 Commercial/GPM55 Medical

## 55 Watt Global Performance Switchers

### GLOBAL PERFORMANCE SWITCHERS

#### 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

<p><b>Ac Input</b> 85-264 Vac, 47-63 Hz single phase.</p>	<p><b>Output Noise</b> 0.5% rms, 1% pk-pk, 20 MHz bandwidth, differential mode. Measured with noise probe directly across output terminals of the power supply.</p>																
<p><b>Input Current</b> Maximum input current at 120 Vac, 60 Hz with full rated output load: 1.7 A</p>	<p><b>Transient Response</b> Main output—500 <math>\mu</math>s typical response time for return to within 0.5% of final value for a 50% load step change. <math>\Delta i/\Delta t &lt; 0.2</math> A/<math>\mu</math>s. Maximum voltage deviation is 3.5%. Startup/shutdown overshoot less than 3%.</p>																
<p><b>Hold-Up Time</b> 20 ms minimum from loss of ac input at full load, nominal line (115 Vac).</p>	<p><b>Voltage Adjustment</b> Built-in potentiometer adjusts voltage <math>\pm 5\%</math> on outputs 1 &amp; 2.</p>																
<p><b>Output Power</b> 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.</p>	<p><b>EMI/EMC Compliance</b> All models include built-in EMI filtering to meet the following emissions requirements:</p> <table border="1"> <thead> <tr> <th>EMI SPECIFICATIONS</th> <th>COMPLIANCE LEVEL</th> </tr> </thead> <tbody> <tr> <td>Conducted Emissions GPC55 Static</td> <td>EN55022 Class B; FCC Class B</td> </tr> <tr> <td>Conducted Emissions GPM55 Static Discharge</td> <td>EN55011 Class B; FCC Class B</td> </tr> <tr> <td>RF Field Susceptibility</td> <td>EN61000-4-2, 6 kV contact, 8 kV air</td> </tr> <tr> <td>Fast Transients/Bursts</td> <td>EN61000-4-3, 3 V/meter</td> </tr> <tr> <td>Surge Susceptibility</td> <td>EN61000-4-4, 2 kV, 5 kHz</td> </tr> <tr> <td>Line Frequency Harmonics</td> <td>EN61000-4-5, 1 kV diff., 2 kV com.</td> </tr> <tr> <td></td> <td>EN61000-3-2 Class A</td> </tr> </tbody> </table>	EMI SPECIFICATIONS	COMPLIANCE LEVEL	Conducted Emissions GPC55 Static	EN55022 Class B; FCC Class B	Conducted Emissions GPM55 Static Discharge	EN55011 Class B; FCC Class B	RF Field Susceptibility	EN61000-4-2, 6 kV contact, 8 kV air	Fast Transients/Bursts	EN61000-4-3, 3 V/meter	Surge Susceptibility	EN61000-4-4, 2 kV, 5 kHz	Line Frequency Harmonics	EN61000-4-5, 1 kV diff., 2 kV com.		EN61000-3-2 Class A
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<p><b>Overload Protection</b> Fully protected against short circuit and output overload. Short circuit protection is cycling type power limit on outputs 1 &amp; 2; foldback type on outputs 3 &amp; 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.</p>	<p><b>Commercial Leakage Current</b> 0.7 mA 254 Vac @ 60 Hz input.</p>																
<p><b>Overvoltage Protection</b> Main outputs: 124% + 12%</p>	<p><b>Commercial Safety</b> 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.</p>																
<p><b>Efficiency</b> 70% at full rated load, nominal input voltage, depending on model and load distribution.</p>	<p><b>Medical Leakage Current</b> 35 <math>\mu</math>A 254 Vac @ 60 Hz input.</p>																
<p><b>Input Protection</b> Internal ac fuse provided. Designed to blow only if a catastrophic failure occurs in the unit.</p>	<p><b>Medical Safety</b> 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.</p>																
<p><b>Inrush Current</b> Inrush is limited by internal thermistors. Inrush at 240 Vac under cold start conditions will not exceed 34 A.</p>																	
<p><b>Temperature Coefficient</b> 0.03%/<math>^{\circ}</math>C typical on all outputs.</p>																	
<p><b>Environmental</b> Designed for 0 to 50<math>^{\circ}</math>C operation at full rated output power; derate output current and total output power by 2.5% per <math>^{\circ}</math>C above 50<math>^{\circ}</math>C. See Environmental and Packaging Specifications on next page.</p>																	

Commercial Model	Medical Model	Output No.	Output	Output Minimum	Output Maximum	Output Peak	Noise P-P	Total Regulation (A)
GPC55A	GPM55A	1	+5V	0.7 A	6 A	8 A	50 mV	2%
		2	+12V	0 A	3 A	5 A	120 mV	2%
		3	+12V	0 A	1 A	1.2 A	120 mV	3%
		4	-12V	0 A	1 A	1.2 A	120 mV	3%
GPC55B	GPM55B	1	+5V	0.7 A	6 A	8 A	50 mV	2%
		2	+12V	0 A	3 A	5 A	120 mV	2%
		3	-5V	0 A	1 A	1.2 A	50 mV	3%
		4	-12V	0 A	1 A	1.2 A	120 mV	3%
GPC55C	GPM55C	1	+5V	0.7 A	6 A	8 A	50 mV	2%
		2	+15V	0 A	3 A	5 A	150 mV	2%
		3	+5V	0 A	1 A	1.2 A	50 mV	3%
		4	+15V	0 A	1 A	1.2 A	150 mV	3%
GPC55D	GPM55D	1	+5V	0.7 A	6 A	8 A	50 mV	2%
		2	+24V	0 A	1.5 A	5 A	240 mV	2%
		3	+12V	0 A	1 A	1.2 A	120 mV	3%
		4	-12V	0 A	1 A	1.2 A	120 mV	3%
GPC55E	GPM55E	1	+5V	0.7 A	6 A	8 A	50 mV	2%
		2	+24V	0 A	1.5 A	5 A	120 mV	2%
		3	+15V	0 A	1 A	1.2 A	150 mV	3%
		4	-15V	0 A	1 A	1.2 A	150 mV	3%
GPC55F	GPM55F	1	+5V	0.7 A	6 A	8 A	50 mV	2%
		2	+12V	0 A	3 A	5 A	120 mV	2%
		3	+15V	0 A	1 A	1.2 A	150 mV	3%
		4	-15V	0 A	1 A	1.1	150 mV	3%
GPC55-5	GPM55-5	1	5V	0 A	11 A	14 A	50 mV	2%
GPC55-12	GPM55-12	1	12V	0 A	4.7 A	5.8 A	120 mV	2%
GPC55-15	GPM55-15	1	15V	0 A	3.7 A	4.7 A	150 mV	2%
GPC55-24	GPM55-24	1	24V	0 A	2.3 A	2.9 A	240 mV	2%
GPC55-28	GPM55-28	1	28V	0 A	2.0 A	2.4 A	280 mV	2%
GPC55-48		1	48V	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 model.

## GPC55/GPM55 MECHANICAL SPECIFICATIONS

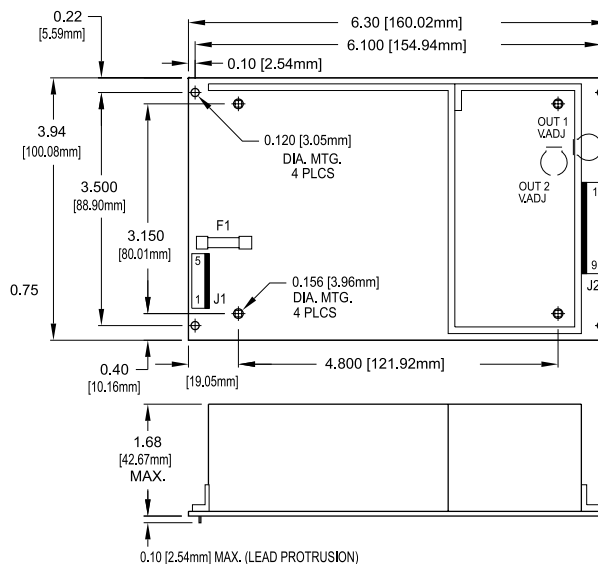
INPUT J1 AMP P/N 640445-5  
0.156 [3.96mm] CTR HEADER  
PIN 1) AC GROUND PIN 3) AC NEUTRAL PIN 5) AC LINE  
PIN 2) N/C PIN 4) N/C

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 PIN 08-30466-1055  
WEIGHT 1.5 LBS MAX. TOLERANCES: X,XX=±0.30 [0.76mm]  
[0.68 kg MAX.] X,XXX=±0.10 [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 <sub>pk</sub>	40 g <sub>pk</sub>
Altitude	-500 to 10,000 ft	-500 to 40,000 ft
Vibration (C)	1.5 g <sub>rms</sub> 0.003 g <sup>2</sup> /Hz	5 g <sub>rms</sub> 0.026 g <sup>2</sup> /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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