GPC140 Commercial/GPM140 Medical
140 Watt Global Performance Switchers

FEATURES:

- Wide-range ac input 85-264 Vac
- 2-year warranty
- Conducted EMI exceeds FCC Class B and CISPR 22 Class B (Commercial models) and CISPR 11 Class B (Medical models)
- Single outputs
- Commercial Approved to UL1950, IEC950, EN60950 and CSA22.2-234 L3
- Medical Approved to UL2601-1, IEC601-1 and CSA22.2 No. 601
- CE marked to LVD

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: 3.7 A

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

Output Power
140 W convection; 160 W with air flow. Peak ratings are for 60 s maximum duration, 10% duty cycle.

Overload Protection
Fully protected against short circuit and output overload. Short circuit protection is cycling type power limit on output 1. Recovery after fault is automatic.

Overvoltage Protection
Main outputs: 130% ± 15% typical.

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, averaged over the first ac half-cycle under cold start conditions will not exceed 60 A.

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

Thermal Shutdown
Provided as a standard feature. Designed to protect unit from prolonged overtemperature.

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.

Power Fail
TTL- or CMOS-compatible output goes low (< 0.5 V) 5 ms before output voltage drops more than 4% below nominal voltage upon loss of ac power. The signal is factory set to trip on 84 to 94 Vac brown-out depending upon incoming line impedance and distortion. Other settings are available to the user through adjustment of built-in potentiometer.

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. $\Delta i/\Delta t<0.2$ A/µs. Maximum voltage deviation is 3.5%. Startup/shutdown overshoot less than 3%.

Remote Sense
Provided as a standard feature.

Voltage Adjustment
Built-in potentiometer adjusts voltage ±5%.

Overload Protection
Factory set to begin power limiting at approximately 175 W.

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

EMI SPECIFICATIONS	COMPLIANCE LEVEL
Conducted Emissions GPC140	EN55022 Class B; FCC Class B
Conducted Emissions GPM140	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.

Commercial Leakage Current
0.95 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. The output(s) are intended for safety earthed Signal Output and Intermediate Circuits only. All dc outputs are SELV under normal and single fault conditions.

Medical Leakage Current
60 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.

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GPC140 Commercial/GPM140 Medical 140 Watt Multiple Output

Commercial Model	Medical Model	Output	Output Minimum	Output Maximum (B)	Output Maximum (C)	Peak	Noise P-P	Total Regulation (A)
GPC140-5	GPM140-5	5 V	0 A	26 A	30 A	32 A	50 mV	2%
GPC140-12	GPM140-12	12 V	0 A	11.7 A	13.4 A	14.6 A	120 mV	2%
GPC140-15	GPM140-15	15 V	0 A	9.3 A	10.7 A	11.7 A	150 mV	2%
GPC140-24	GPM140-24	24 V	0 A	5.8 A	6.7 A	7.3 A	240 mV	2%
GPC140-28	GPM140-28	28 V	0 A	5 A	5.7 A	6.3 A	280 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. Unrestricted natural convection cooling.
C. Requires 26cfm moving air.

GPC140/GPM140 MECHANICAL SPECIFICATIONS

INPUT: J1: AMP P.C.B. HEADER P/N 640445-5

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

MATING CONNECTOR AMP P/N: HOUSING 640250-5
CONTACTS 770476-1

TB1: 0.375 X 6-32 TERMINAL BLOCK

PIN 1) AC LINE
PIN 2) AC NEUTRAL
PIN 3) AC GROUND

SIGNALS: J2 AMP PCB HEADER P/N 640456-4

PIN 1) POWER FAIL
PIN 2) - SENSE
PIN 3) + SENSE
PIN 4) N/C

MATING CONNECTOR AMP P/N 640440-4

OUTPUT: J3 AMP P.C.B. HEADER P/N 1-640445-6

PIN 1) + Vout PIN 9) COMMON
PIN 2) + Vout PIN 10) COMMON
PIN 3) + Vout PIN 11) COMMON
PIN 4) + Vout PIN 12) COMMON
PIN 5) COMMON PIN 13) + Vout
PIN 6) COMMON PIN 14) + Vout
PIN 7) COMMON PIN 15) + Vout
PIN 8) COMMON PIN 16) + Vout

MATING CONNECTOR AMP P/N: HOUSING 1-640250-6
CONTACTS 770476-1

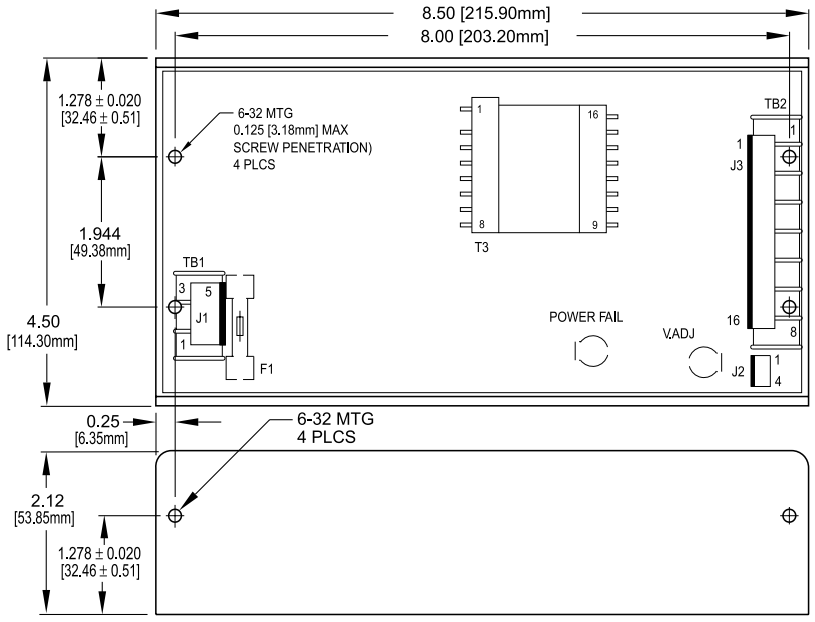
NOTE: 5A MAX. RECOMMENDED CURRENT PER CONNECTOR PIN

TB2: 0.375 X 6-32 TERMINAL BLOCK

PIN 1) + Vout PIN 5) COMMON
PIN 2) + Vout PIN 6) COMMON
PIN 3) COMMON PIN 7) + Vout
PIN 4) COMMON PIN 8) + Vout

OPTIONAL COVER AVAILABLE, ORDER P/N 08-30466-1140
OPTION: ADD "-T" SUFFIX TO PART NUMBER FOR
6-32 SCREW TERMINAL BLOCK ON I/O

WEIGHT: 3.0 LBS MAX. [1.36 kg MAX.]
TOLERANCES: X.XX=0.030 [0.76mm]
X.XXX=0.010 [0.25mm]



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

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