# **GPM140 GLOBAL PERFORMANCE SWITCHERS**



# **FEATURES:**

- Wide-range AC input 85-264Vac
- 2-year warranty
- Approved to UL2601-1, IEC601-1 and CSA22.2 No. 601
- Exceeds FCC and VDE/CISPR11 Class B/IEC601-1-2
- For commercial version, see p. 28
- (€ marked to LVD

# **SPECIFICATIONS:**

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

#### Input Current

Maximum input current at 120Vac, 60Hz with full rated output load: 3.7A

# Hold-Up Time

20mSec minimum from loss of AC input at full load, nominal line (115Vac).

140W convection, 160W with 26cfm moving air. Peak ratings are for 60 sec. maximum duration, 10% duty cycle.

#### **Overload Protection**

Fully protected against short circuit and output overload. Short circuit protection is cycling type power limit. See output ratings chart for additional notes or conditions.

#### Overvoltage Protection

Main outputs: 124% ± 12%

## Efficiency

65% at full rated load, nominal input voltage, depending on model and load distribution.

#### Turn-on Time

Less than 1 second at 120Vac, 25°C (inversely proportional to input voltage and thermistor temperature).

# 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 240Vac under cold start conditions will not exceed 60A.

### 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 (p. 11) for additional information

### Power Fail

TTL- or CMOS-compatible output goes low (< 0.5V) 5mSec 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 94Vac brown-out depending upon incoming line impedance and distortion. Other settings are available to the user through adjustment of built-in potentiometer (consult factory for assistance).

# No-Load Turn-on/Standby

No degradation of reliability will occur.

### Output Noise

0.5% RMS, 1% Pk-Pk, 20MHz bandwidth, differential mode. Measured with noise probe directly across output terminals of the power supply.

### Transient Response

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

#### Remote Sense

Provided as a standard feature on single-output models.

#### Voltage Adjustment

Built-in potentiometer adjusts voltage ±5%.

#### **Reverse Voltage Protection**

All outputs protected against inadvertent application of reverse voltage up to 1 times rated current of the reverse output.

#### Overload Protection

Factory set to begin power limiting at approximately 175W.

#### **EMI/EMC Compliance**

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

EMI SPECIFICATIONS COMPLIANCE LEVEL EN55011 Class B; FCC Class B Conducted Emissions 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.

#### Leakage Current

60μA. 254Vac @ 60Hz input.

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.

Model	Output	Output Minimum	Output Maximum (B)	Output Maximum (C)	Peak	Noise P-P	Total Regulation (A)
GPM140-5	5V	OA	26A	30A	32A	50mV	2%
GPM140-12	12V	0A	11.7A	13.4A	14.6A	120mV	2%
GPM140-15	15V	0A	9.3A	10.7A	11.7A	150mV	2%
GPM140-24	24V	0A	5.8A	6.7A	7.3A	240mV	2%
GPM140-28	28V	0A	5A	5.7A	6.3A	280mV	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.

# **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 770522-1
   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
          + SENSE
   PIN 3)
   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 770522-1
   NOTE: 5A MAX. RECOMMENDED CURRENT PER CONNECTOR PIN
TB2: 0.375 X 6-32 TERMINAL BLOCK
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PIN 5) COMMON

PIN 7) + Vout

COMMON

+ Vout

PIN 6)

PIN 8)

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

X.XXX=0.010 [0.25mm]

[1.36 kg MAX.]

PIN 1) + Vout

PIN 2) + Vout

WEIGHT: 3.0 LBS MAX.

PIN 3) COMMON

PIN 4) COMMON

TOLERANCES: X.XX=0.030 [0.76mm]

