

High Power Supplies 600/700 Watt AC/DC Universal Input Power Supply
SUMMARY

- **90 -264 Vac nominal input range**
- **Overvoltage and short circuit protection**
- **UL, CSA and EN Medical Standards Approval**
- **Power Good LED**
- **Low Leakage Current**
- **Standalone Power Supply**

The GPMP Series are universal input AC/DC medically approved power supplies with power factor correction (PFC) and up to 700 Watts output power. The series is approved to EN60601-1 with CB report available to reduce design-in time and end system compliance costs.


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

| OUTPUT SPECIFICATIONS | | |
|---------------------------------|-----------------------------------|---|
| Output Power | Integral forced air | 700 Watts max. |
| Total Regulation | | See table |
| Rise time | At turn-on | 2.0 s max. |
| Transient response | Main output 50% 0.2 A/ μ s | 3.5% max. dev. 500 μ s recovery to 1% |
| Temperature Coefficient | | +/-0.03%/oC |
| Overvoltage protection | | 108 to 130% |
| Short Circuit / Over-load Limit | Block Wall | Yes |

| INPUT SPECIFICATIONS | | |
|------------------------|-----------------|--------------------------------|
| Input Voltage range | Universal input | 100-240 nom (85 - 264 max) Vac |
| Input frequency | | 47 Hz to 63 Hz |
| Input surge current | | 40 A max. |
| Ground Leakage current | 264 Vac 60 Hz | 160 μ A |
| Input current | 120 Vac | 8.5 A |
| | 230 Vac | 4.5 A |
| Input fuse | F1,F2 | 10.0 A |

| EMC INFORMATION | | |
|------------------------|--------------|--|
| Conducted emissions | EN55011 | Level B |
| Radiated emissions | EN55011 | Level A |
| Line freq. harmonics | EN61000-3-2 | Class A |
| Voltage fluctuations | EN61000-3-3 | Complies (clause 5b) |
| ESD Air | EN61000-4-2 | 8 kV contact |
| ESD Contact | EN61000-4-2 | 6 kV air |
| Radiated immunity | EN61000-4-3 | 3 V/m |
| Fast Transients (EFT) | EN61000-4-4 | 2 kV 5 kHz |
| Line surge immunity | EN61000-4-5 | 1 kV diff /2 kV cm |
| Conducted immunity | EN61000-4-6 | 3 Vrms |
| Power freq. mag. field | EN61000-4-8 | 3 A/m |
| Voltage dip immunity | EN61000-4-11 | Unit will ride through without loss of output at 75% of rated load with AC power fail warning. |

| ENVIRONMENTAL SPECIFICATIONS | | |
|------------------------------|---------------------------------------|---|
| Thermal Performance | operating ambient (see ratings chart) | -20 °C -50 °C |
| | non-operating | -40 to +85 °C |
| | 0 - 50 °C Convection cooled | 600 Watts |
| Maximum Altitude | operating / non-operating | 10,000 ft. / 40,000 ft. max. |
| Relative Humidity | non-condensing | 5% - 95% RH |
| Vibration (operating) | 0.003 g ² /Hz | 1.5 g _{rms} 3 axes 10 min/axis |
| Vibration (non-operating) | 0.026 g ² /Hz | 5.0 g _{rms} 3 axes, 1 hr/axis |
| Shock (operating) | half-sine 20 g _{pk} | 10 ms, 3 axes, 6 shocks total |
| Shock (non-operating) | half-sine 40 g _{pk} | 10 ms, 3 axes, 6 shocks total |

| GENERAL SPECIFICATIONS | | |
|------------------------|--------------------------|--------------------------------------|
| Hold-up time | 120 Vac, 60 Hz | 35 ms at 600 Watts output |
| Efficiency | 120 Vac 600 W output | >84 % |
| Isolation voltage | input to ouput | 4000 Vac |
| | input to ground | 1500 Vac |
| Switching frequency | fixed | 70 KHz, +/- 10 KHz |
| Safety Approvals | | UL/EN/IEC 60601-1 CSA22.2 No.60601-1 |
| MTBF | Per Bellcore at 25 deg C | 195,000 hours |

| MODEL NUMBER | Output | Peak Output | | Ripple | Regulation |
|--------------|-------------|-------------|--|--------|------------|
| GPMP600-24 | 24 V 25 A | 24 V 27 A | | 240 mV | 0.5% |
| GPMP600-28 | 28 V 21.5 A | 28 V 23.5 A | | 280 mV | 0.5% |
| GPMP600-36 | 36 V 17 A | 36 V 19 A | | 180 mV | 0.5% |
| GPMP700-48 | 48 V 14 A | 48 V 15.6 A | | 240 mV | 0.5% |

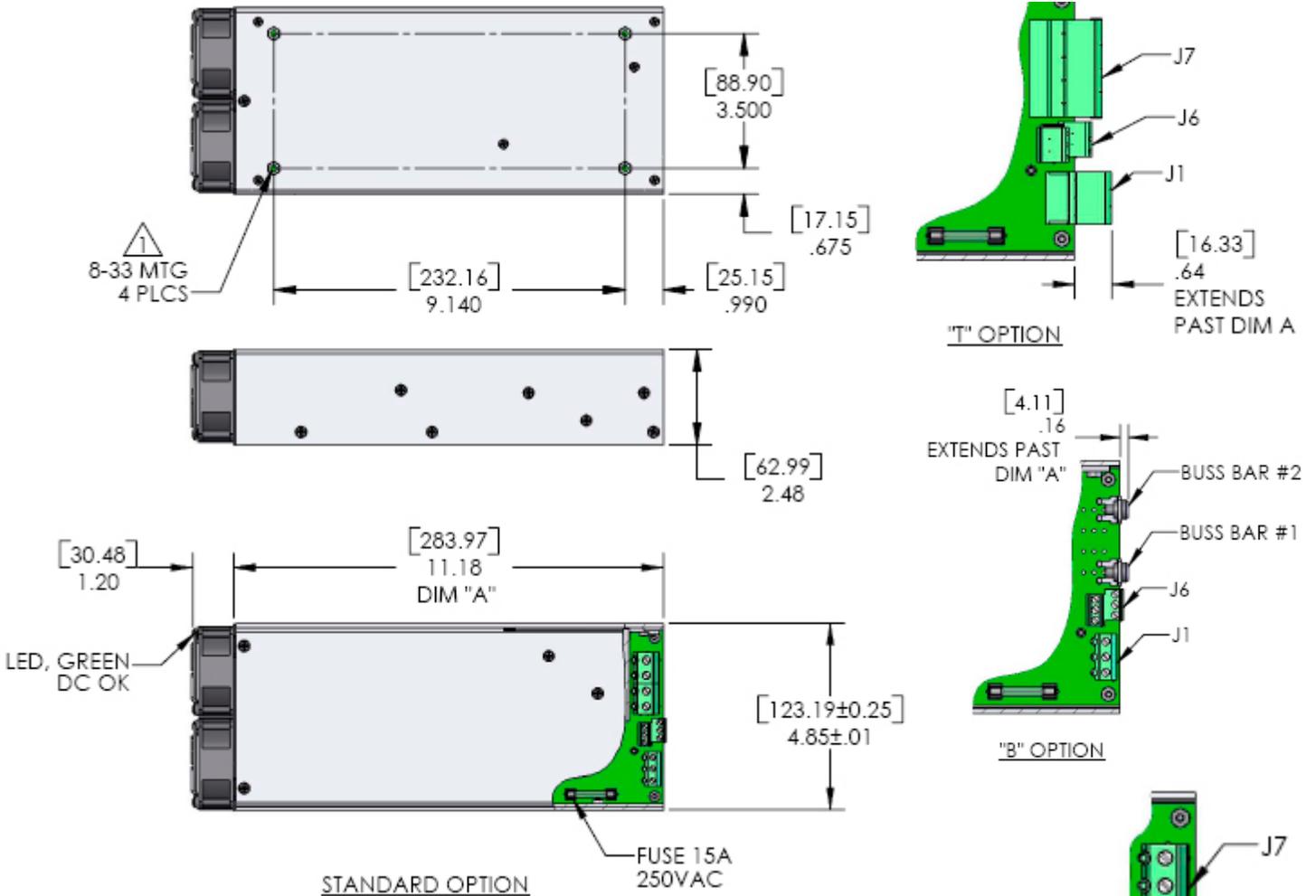
| NOTES |
|---|
| 1. Integral forced air cooling |
| 2. Peak rating is for 1 minute maximum 10% duty cycle |
| 3. Noise measurent 20 MHz Bandwidth, differential mode. Measured with scope probe directly across output terminals of the power supply. |
| 4. No minimum load required. |

| MECHANICAL NOTES |
|---|
| The GPMP series is factory configured for stand alone installation with multiple configurations of output connectors. Apart from the DIN 41612 option there are three Phoenix contact connector options shown in the drawing on page 3. |
| The GPHP (commercial series) can be configured with Condor CRA series racks. Other mounting configurations and connector options are available, Please contact factory. |

| POWER CONNECTOR DIN # 41612 Type H | |
|------------------------------------|-----------------|
| INPUT PINS | |
| Z-32 | AC Line |
| D-30 | AC Neutral |
| Z-28, D26 | GROUND |
| OUTPUT PINS | |
| Z12, D14, Z16,D18 | OUTPUT |
| Z4, D6, Z8, D10 | RETURN (COMMON) |
| STATUS & CONTROL PINS | |
| Z20 | DC POWER GOOD |
| Z24 | INHIBIT |
| D22 | AC POWER FAIL |

OUTLINE AND MOUNTING DRAWING

Other drawings and SolidWorks™ 3D Models are available on request.



STANDARD OPTION
J1: PHOENIX P/N 1732034

- 1 AC INPUT LINE
- 2 AC INPUT NEUTRAL
- 3 AC INPUT SFTY GND

J7: PHOENIX P/N 1706785
(2 REQUIRED)

- 4 OUTPUT #1
- 3 OUTPUT #1
- 2 RETURN
- 1 RETURN

J6: PHOENIX P/N 1726066

- 1 FAN ON/OFF
- 2 +12V AUX
- 3 COMMON
- 4 INHIBIT
- 5 AC POWER FAIL
- 6 DC POWER GOOD

"B" OPTION
J1: PHOENIX P/N 1732034

- 1 AC INPUT LINE
- 2 AC INPUT NEUTRAL
- 3 AC INPUT SFTY GND

BUSS BAR #1
SCREW: 10-32UNC x .312

BUSS BAR #2
SCREW: 10-32UNC x .312

J6: PHOENIX P/N 1726066

- 1 FAN ON/OFF
- 2 +12V AUX
- 3 COMMON
- 4 INHIBIT
- 5 AC POWER FAIL
- 6 DC POWER GOOD

"T" OPTION
J1: PHOENIX P/N 1732034

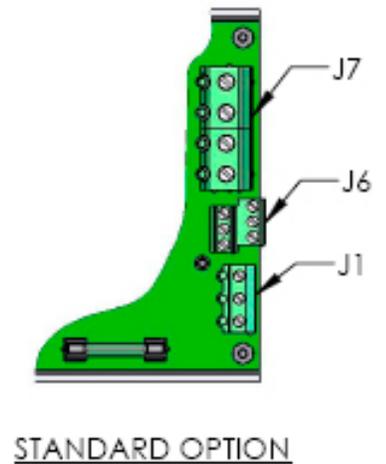
- 1 AC INPUT LINE
- 2 AC INPUT NEUTRAL
- 3 AC INPUT SFTY GND

J6: PHOENIX P/N 1802414
MATING CONNECTOR
PHOENIX 1754465 (2 REQUIRED)

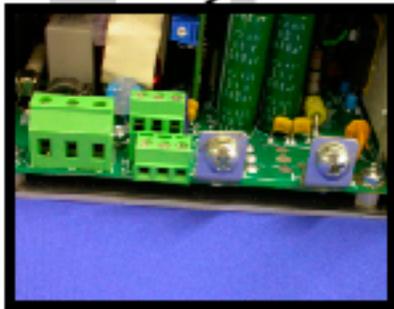
- 1 FAN ON/OFF
- 2 +12V AUX
- 3 COMMON
- 4 INHIBIT
- 5 AC POWER FAIL
- 6 DC POWER GOOD

J7: PHOENIX P/N 1998959
MATING CONNECTOR
PHOENIX 1913523

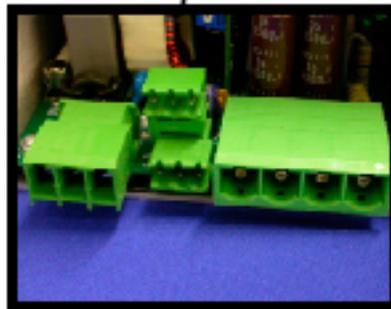
- 4 OUTPUT #1
- 3 OUTPUT #1
- 2 RETURN
- 1 RETURN



GPMP SERIES CONNECTOR OPTIONS



"B" Option
 Phoenix Direct wire connectors
 for A.C. input & Signals,
 Buss Bar for D.C. output
 #10 Lugs



"T" Option
 Phoenix Plug-in connector



Standard Configuration
 Phoenix Direct wire connectors

CONDOR DC POWER SUPPLIES
 A SUBSIDIARY OF SL INDUSTRIES
 2311 STATHAM PKWY, OXNARD, CA 93033

| DRAWN | DATE | DOC. NO. | REV. |
|-------|---------|----------|------|
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