# GSM7 Medical
## 7 Watt Single Output Global Performance Switchers

### FEATURES:

- World's smallest medically approved 7 W supply
- 2.00" x 2.28" x 0.56"
- Wide-range ac input (85-264 Vac)
- Approved to UL2601 and IEC601-1
- EMI to CISPR11 Class B/IEC601-1-2
- Ideal for ultra-compact applications
- CE marked to LVD

**SPECIFICATIONS:**

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

**Holdup Time**
16 ms minimum from loss of ac.

**Output Power**
Normal continuous output power is 7 W, 9 W peak for 60 s maximum duration, 10% duty cycle. Factory set to begin power limiting at approximately 9 W.

**Output Regulation**
Regulation from initial setpoint measured by changing load from no-load to 50% load or 50% load to full load in either direction. Initial sepoint tolerance is measured at 50% load. No minimum load is required to maintain proper regulation.

**Overload Protection**
Fully protected against short circuit and output overload. Short circuit protection is cycling type power limit.

**No Load Turn-on/Standby**
Full regulation at no load.

**Output Noise**
0.5% rms, 1% pk-pk, 20 MHz bandwidth, differential mode. Measured with scope probe directly across output terminals of the power supply with load terminated with 0.1 uF capacitor.

**Voltage Adjustment**
Factory set with fixed resistors to maximize reliability.

**Efficiency**
72% minimum for the 5.0 V model at full rated load, nominal input voltage. Efficiency increases as output voltage increases.

**Input Protection**
Internal ac fuse provided on all units. Designed to open only if catastrophic failure occurs in the unit; fuse does not blow on overload or short circuit. Internal 320 Vac MOV included. Units will not be damaged when tested for input transients in accordance with the following standards:

ESD—IEC1000-4-2 Level III
Fast Transient—IEC1000-4-4 Level III

**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 specification on next page.

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

| EMI SPECIFICATIONS | COMPLIANCE LEVEL |
|---|---|
| Conducted Emissions | 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. |

**Medical Safety**
Condor D.C. Power Supplies, Inc. declares under our sole responsibility that all GSM models are in conformity with the applicable requirements of EN60601 following the provisions of the Low Voltage Directive 73/23/EEC.

All GSM models are certified to be in compliance with the applicable requirements of UL2601 Patient Care Equipment), CSA 22.2 No. 234 (with additional tests to C22.2 No 601.1-M90 per T.I.L. CA-08), IEC 601-1 (1988), EN 60601-1: 1990 (consult factory for approval status). Classification (in accordance with sub-clause 5 of IEC 601-1):
(5.1) Protection against electric shock = class II
(5.2) Degree of protection against electric shock = signal output or intermediate
(5.3) Protection against harmful ingress of water = ordinary (no protection)
(5.5) Not suitable for use in the presence of flammable anesthetic mixture
(5.6) Mode of operation = continuous

**Earth Leakage Current**
Leakage current measured in ground wire connection to output common.

| Model | Leakage Current* | Leakage Current** | Test Voltage | Test Method |
|---|---|---|---|---|
| GSM7 | 32 µA | 50 µA | 132 Vac/60 Hz | UL2601 |
| GSM7 | 55 µA | 85 µA | 254 Vac/50 Hz | IEC601 |

* Normal operation **Adnormal/single fault condition


CONDOR Condor D.C. Power Supplies, Inc./A subsidiary of SL Industries, Inc.
2311 Statham Parkway, Oxnard, CA 93033 • 800-235-5929 • 805-486-4565 • FAX 805-487-8911 • www.condorpower.com

# GSM7 Medical 7 Watt Single Output

| Model | Output | Current | Load Regulation | Initial Setpoint Tolerance | OVP Setpoint | Ripple and Noise |
|---|---|---|---|---|---|---|
| GSM7-5 | 5.1 V | 1.4 A | 0.75% | 2.5% | 6.2 ± 0.6 V | 1% |
| GSM7-12 | 12 V | 0.6 A | 0.75% | 2.5% | 14 ± 1.1 V | 1% |
| GSM7-15 | 15 V | 0.5 A | 0.75% | 2.5% | 18.5 ± 1.5 V | 1% |
| GSM7-24 | 24 V | 0.3 A | 0.75% | 2.5% | 28 ± 2.5 V | 1% |
| GSM7-28 | 28 V | 0.3 A | 0.75% | 2.5% | 34 ± 2.8 V | 1% |

## GSM7 MECHANICAL SPECIFICATIONS

INPUT: J1
MOLEX P/N: 22-43-8030
W/CENTER PIN REMOVED: 0.098 CTR HEADER
PIN 1 AC
PIN 3 AC LINE

MOLEXP/N: 22-43-8020
0.098 CTR HEADER

OUTPUT : J2
PIN 1 +V
PIN 2 RETURN

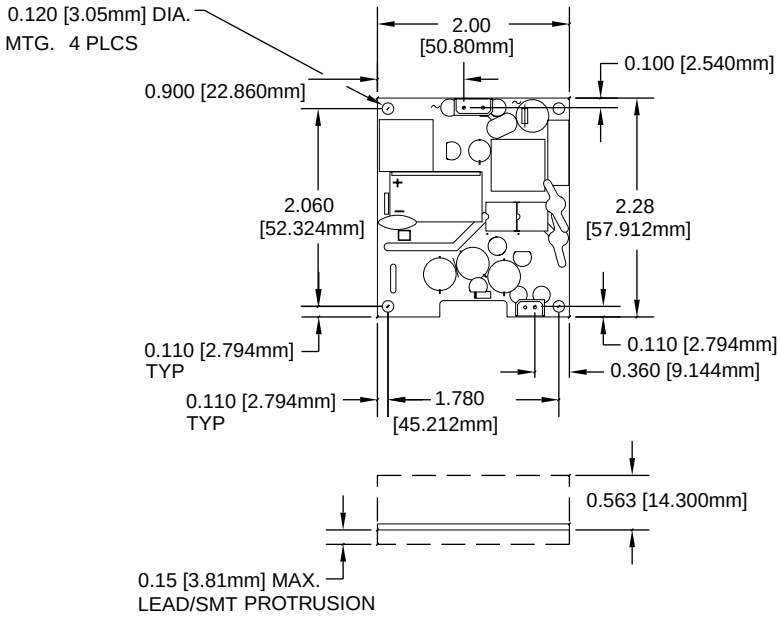
MATING CONNECTOR MOLEX P/N'S

| | HOUSING | CONTACT |
|---|---|---|
| INPUT: J1 | 50-37-5033 | 08-70-1040 |
| OUTPUT : | 50-37-5023 | 08-70-1040 |

NOTE: 2A MAX. RECOMMENDED CURRENT PER CONNECTOR PIN.

WEIGHT 2 OZ. MAX. (0.057kg)

TOLERANCES:
X.XX =± 0.030 (0.76MM)
X.XXX =± 0.010 (0.25MM)




| Environmental Specification | Operating | Non-operating |
|---|---|---|
| Temperature (A) | 0 to 50ºC | -40 to +85ºC |
| 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.