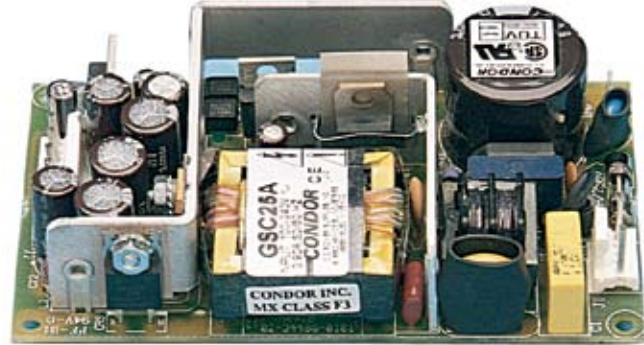


GLOBAL PERFORMANCE SWITCHERS



Features:

- Industry's smallest 25 W switcher
- 2.50 x 4.25 x 0.86"
- Conducted EMI exceeds FCC Class B and CISPR 22 Class B (Commercial models) and CISPR 11 Class B (Medical models)
- Overvoltage protection standard
- Commercial Approved to UL1950, CSA-C22.2 No.950, EN60950
- Medical Approved to UL2601-1, IEC60601-1 EN60601-1 and CSA-C22.2 No. 601-1
- RoHS Compliant (G suffix)
- CE marked to LVD



SPECIFICATIONS

| Ac Input 90-264 Vac, 47-63 Hz single phase. | Inrush Current Inrush is limited by internal thermistor. The inrush at 230 Vac, averaged over the first ac half-cycle under cold start conditions will not exceed 32 A. | | | | | | | | | | | | | | | |
|--|---|--------------------|------------------|---------------------------|------------------------------|---------------------------|------------------------------|------------------|-------------------------------------|-------------------------|------------------------|------------------------|--------------------------|----------------------|-----------------------------------|------------|
| Input Current Maximum input current at minimum 120 Vac, 60 Hz with full rated output load is 0.6 A. | Temperature Coefficient 0.03%/°C typical on all outputs. | | | | | | | | | | | | | | | |
| Hold-up Time 15 ms minimum from loss of ac input at full load, nominal line (120 Vac). | 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 between 50 - 70°C. See Environmental and Packaging Specifications on next page. | | | | | | | | | | | | | | | |
| Output Power Normal continuous output power is 25 W, 28 W peak for 60 sec. maximum duration, 10% duty cycle. Factory set to begin power limiting at approximately 30 W. | EMI/EMC Compliance All models include built-in EMI filtering to meet the following emissions requirements: | | | | | | | | | | | | | | | |
| Output Regulation Regulation from initial setpoint measured by changing load from 5% load to 50% load or 50% load to full load in either direction. Initial setpoint tolerance is measured at 50% load. A minimum load of 5% of the output current on the +5.1 V output (125 mA) is required to maintain proper regulation. | <table border="1"> <thead> <tr> <th>EMI SPECIFICATIONS</th> <th>COMPLIANCE LEVEL</th> </tr> </thead> <tbody> <tr> <td>Conducted Emissions GSC25</td> <td>EN55022 Class B; FCC Class B</td> </tr> <tr> <td>Conducted Emissions GSM25</td> <td>EN55011 Class B; FCC Class B</td> </tr> <tr> <td>Static Discharge</td> <td>EN61000-4-2, 6 kV contact, 8 kV air</td> </tr> <tr> <td>RF Field Susceptibility</td> <td>EN61000-4-3, 3 V/meter</td> </tr> <tr> <td>Fast Transients/Bursts</td> <td>EN61000-4-4, 2 kV, 5 kHz</td> </tr> <tr> <td>Surge Susceptibility</td> <td>EN61000-4-5, 1 kV diff, 2 kV com.</td> </tr> </tbody> </table> | EMI SPECIFICATIONS | COMPLIANCE LEVEL | Conducted Emissions GSC25 | EN55022 Class B; FCC Class B | Conducted Emissions GSM25 | 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. | |
| EMI SPECIFICATIONS | COMPLIANCE LEVEL | | | | | | | | | | | | | | | |
| Conducted Emissions GSC25 | EN55022 Class B; FCC Class B | | | | | | | | | | | | | | | |
| Conducted Emissions GSM25 | 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. | | | | | | | | | | | | | | | |
| Overload Protection Fully protected against short circuit and output overload. Short circuit protection is cycling type power limit | Commercial Safety: Condor D.C. Power Supplies, Inc. declares under our sole responsibility that all GSC models are in conformity with the applicable requirements of EN60950 following the provisions of the Low Voltage Directive 73/23/EEC. All GSC models are approved to UL1950, CSA-C22.2 No.950, EN60950. | | | | | | | | | | | | | | | |
| 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. | GSM25 Medical Model Earth Leakage Current Leakage current measured in the Gnd wire connection when measured per UL2601-1 or IEC60601-1 is as follows: | | | | | | | | | | | | | | | |
| Transient Response Main output: 750 μs typical response time for return to within 0.5% of final value for a 50% load step within the regulation limits of minimum and maximum load, ΔI/Δt <0.2 A/μs. Maximum voltage deviation is 3.5%. Startup/shut-down overshoot less than 2%. | <table border="1"> <thead> <tr> <th>Model</th> <th>Normal Leakage</th> <th>Fault Leakage</th> <th>Test Voltage</th> <th>Test Method</th> </tr> </thead> <tbody> <tr> <td>GSM25</td> <td>50 μA</td> <td>78 μA</td> <td>132 Vca/60 Hz</td> <td>UL2601-1</td> </tr> <tr> <td>GSM25</td> <td>94 μA</td> <td>150 μA</td> <td>264 Vca/50 Hz</td> <td>IEC60601-1</td> </tr> </tbody> </table> | Model | Normal Leakage | Fault Leakage | Test Voltage | Test Method | GSM25 | 50 μA | 78 μA | 132 Vca/60 Hz | UL2601-1 | GSM25 | 94 μA | 150 μA | 264 Vca/50 Hz | IEC60601-1 |
| Model | Normal Leakage | Fault Leakage | Test Voltage | Test Method | | | | | | | | | | | | |
| GSM25 | 50 μA | 78 μA | 132 Vca/60 Hz | UL2601-1 | | | | | | | | | | | | |
| GSM25 | 94 μA | 150 μA | 264 Vca/50 Hz | IEC60601-1 | | | | | | | | | | | | |
| Overvoltage Protection Built in with firing point set per ratings table. OVP firing reduces voltage to less than 50% of nominal voltage in 50 ms. | 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 UL2601-1 Patient Care Equipment, CSA-C22.2 No.601.1, IEC60601-1, EN 60601-1. | | | | | | | | | | | | | | | |
| Voltage Adjustment Factory set with fixed resistors to maximize reliability. | | | | | | | | | | | | | | | | |
| Efficiency 70% minimum at full rated load, nominal input voltage. | | | | | | | | | | | | | | | | |
| Input Protection Internal ac fuse provided on all units. | | | | | | | | | | | | | | | | |

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

| Commercial Model | Medical Model | Output No. | Output | Current | Load Regulation | Initial Setpoint Tolerance | OVP Setting | Ripple and Noise | Notes |
|------------------|---------------|------------|---------|---------|-----------------|----------------------------|-------------|------------------|-------|
| GSC25A | GSM25A | 1 | + 5.1 V | 2.5 A | 1% | 1% | 6.2 ± 0.6 V | 1% | A |
| | | 2 | +12 V | 1.5 A | 4% | 3% | | 1% | A |
| | | 3 | - 12V | 0.2 A | 1% | 4% | | 1% | B |
| GSC25B | GSM25B | 1 | + 5 V | 2.5 A | 1% | 1% | 6.2 ± 0.6 V | 1% | A |
| | | 2 | +15 V | 1.5 A | 4% | 3% | | 1% | A |
| | | 3 | - 15V | 0.2 A | 1% | 4% | | 1% | B |
| GSC25D | GSM25D | 1 | +5.1 V | 2.5 A | 1% | 1% | 6.2 ± 0.6 V | 1% | A |
| | | 2 | +24 V | 1.0 A | 4% | 3% | | 1% | A |
| | | 3 | -12V | 0.2 A | 1% | 4% | | 1% | B |

A. To maintain proper regulation on output 2, +5.1 V current must be at least 1/4 and not greater than 5 times V2 current. V1 must be adjusted within 1% of 5.1 V to maintain full load regulation on V2.

B. Thermal foldback type current limit

C. Add "G" suffix to model number for RoHS compliant model.

GSC25/GSM25 MECHANICAL SPECIFICATIONS

INPUT: J1

AMP P/N: 640445-3
W/CENTER PIN REMOVED: 0.156 CTR HEADER
PIN 1 AC LINE
PIN 2 AC NEUTRAL

GND

0.250 FASTON TAB

OUTPUT: J2

AMP P/N: 640445-6
0.156 CTR HEADER

| PIN # | OUTPUT |
|-------|-----------|
| 1 | OUTPUT #2 |
| 2 | OUTPUT #1 |
| 3 | OUTPUT #1 |
| 4 | COMMON |
| 5 | COMMON |
| 6 | OUTPUT #3 |

MATING CONNECTOR AMP P/N'S

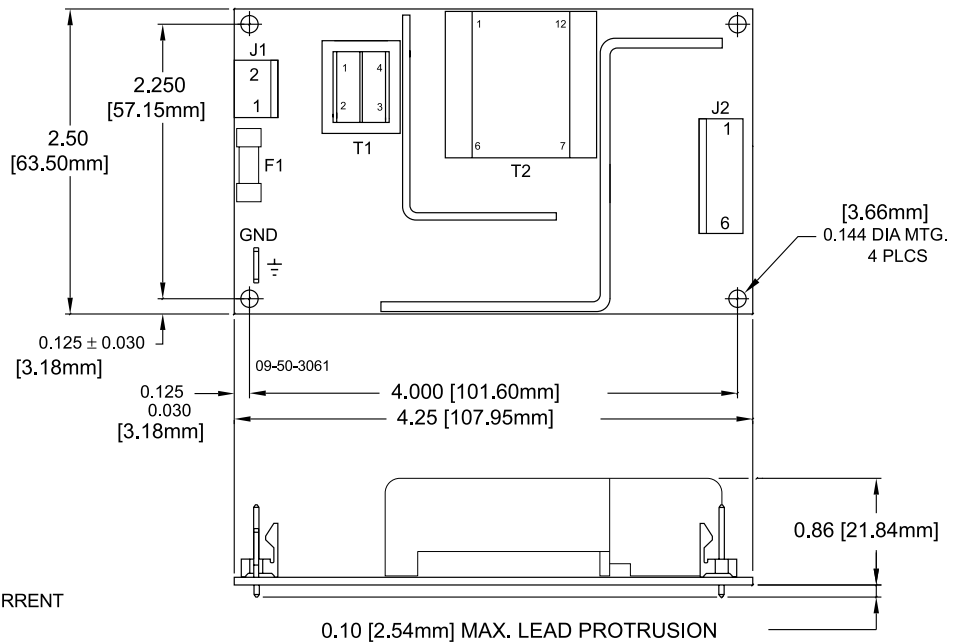
| | HOUSING | CONTACT |
|-----------|----------|----------|
| INPUT J1 | 640250-3 | 770476-1 |
| OUTPUT J2 | 640250-6 | 770476-1 |

NOTE: 5A MAXIMUM RECOMMENDED CURRENT PER CONNECTOR PIN.

TOLERANCES:

X.XX = ± 0.030 (0.76MM)

X.XXX = ± 0.010 (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 _{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. 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.