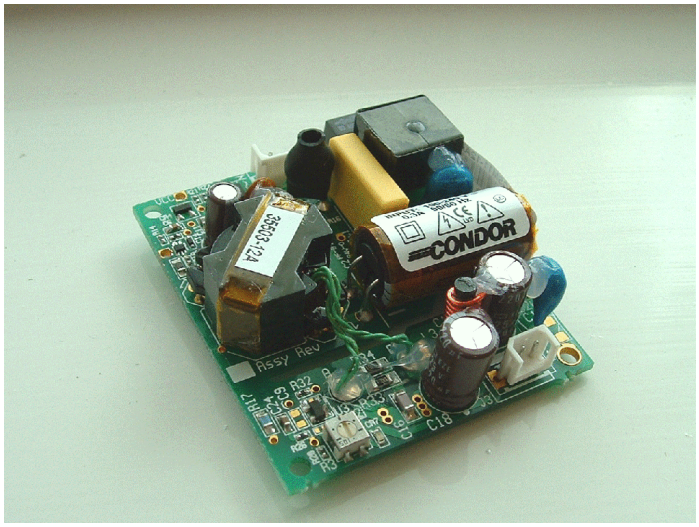
GSM11 MEDICAL SERIES SINGLE OUTPUT POWER SUPPLY

Low Power Medical Power Supplies 11 Watt AC/DC Universal Input Power Supply

SUMMARY

- **85 - 264 Vac input range (100 - 240 Vac nominal)**
- **Overvoltage and short circuit protection**
- **Approved to UL, CSA and EN Standards**
- **Class II input**
- **RoHS Compliant (G suffix models)**



The GSM11 Series is an 11 W universal input AC/DC power supply in an industry leading small footprint. With the medical approvals the GSM11 is ideal for a variety of medical device applications including small single board computers, battery charging, and running small motors, pumps, and solenoids. The series, with full approval to EN60601-1 and EN60950-1 Standards, improves design-in time and reduces end system compliance costs.

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

SPECIFICATIONS

OUPUT SPECIFICATIONS

Output Power	Natural Convection	11 Watts
Total Regulation		See table
Turn on time		2.0 s max.
Transient response	Main output 50% 0.2 A/µs	5% max. dev. 1 ms recovery to 1%
Temperature Coefficient		+/-0.03%/oC
Overvoltage protection		110 - 155%
Short Circuit protection	Power cycling	135 % +/- 20 %

INPUT SPECIFICATIONS

Input Voltage range	Universal input	100-240 nom (85 - 264 max) Vac
Input frequency		55 Hz +/- 10 Hz
Input surge current		35 A max.
Input current	120 Vac	0.23 A
	230 Vac	0.16 A
Input fuse	F1	1.0 A

EMC INFORMATION

Conducted emissions	EN55011	Level B
Radiated emissions	EN55011	Level A
Line freq. harmonics	EN61000-3-2	Complies
Voltage fluctuations	EN61000-3-3	Complies
ESD Air	EN61000-4-2	8 kV air
ESD Contact	EN61000-4-2	4 kV contact
Radiated immunity	EN61000-4-3	3 V/m
Fast Transients (EFT)	EN61000-4-4	2 kV
Line surge immunity	EN61000-4-5	1 kV differential
Conducted immunity	EN61000-4-6	3 Vrms
Power freq. mag. field	EN61000-4-8	3 A/m
Voltage dip immunity	EN61000-4-11	5 cycles 40 % vnom 4.0 Watts. 25 cycles 70 % vnom 11 W

ENVIRONMENTAL SPECIFICATIONS

Thermal Performance	operating ambient (see ratings chart)	0-70 °C
	non-operating	-40 to +85 °C
	0 - 50 °C Convection cooled	11 Watts
	50 -70 °C ambient Convection cooled	derate to 50%
Relative Humidity	non-condensing	5% - 95% RH
Maximum Altitude	operating / non-operating	10,000 ft. / 40,000 ft. max.
Vibration	5 Hz- 500 Hz	2.5 g rms
Shock	per MIL-STD-810E	516.4 part IV

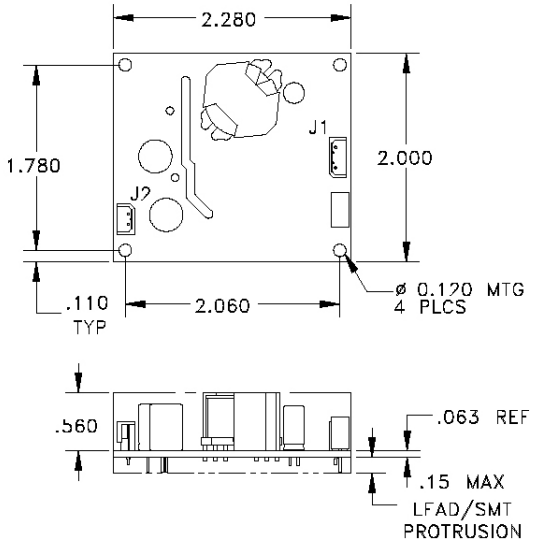
GENERAL SPECIFICATIONS		
Hold-up time	120 Vac, 60 Hz	>31 ms at 11 Watts output
Efficiency	120 Vac 11 W output	67 - 77 %
isolation voltage	input to ouput	4000 Vac 1500 Vac
Switching frequency	fixed	80 KHz, +/- 5 KHz
Safety Approvals		UL/EN/IEC 60601-1 CSA22.2 No.601 UL/EN/IEC 60950-1 CSA22.2 No.60950-1
Maximum weight		50 g (0.1 lbs)

MODEL NUMBER Shown with opt A Connectors	50°C Convection	RIPPLE	REGULATION	ADJUSTMENT
GSM11-3AAG	3.3 V 2.0 A	50 mV	2%	+/- 5%
GSM11-5AAG	5.1 V 2.2 A	50 mV	2%	+/- 5%
GSM11-12AAG	12 V 0.92 A	120 mV	2%	+/- 5%
GSM11-15AAG	15 V 0.73 A	150 mV	2%	+/- 5%
GSM11-24AAG	24 V 0.46 A	240 mV	2%	+/- 5%
GSM11-28AAG	28 V 0.39 A	280 mV	2%	+/- 5%

NOTES

1. Convection cooling rating is 11 Watts (7 Watts on 3.3 V unit)
2. When the input voltage is less than 90 Vac the operating temperature range is 0°C to 40°C. The ripple and regulation specs. may not be met.
3. Peak output rating is 15 Watts for 1 minute, 10% duty cycle. (7 Watts on 3.3 V unit)
4. Noise 0.5% RMS, 1% Pk-Pk, 20 MHz Bandwidth, differential mode. Measured with scope probe directly across output terminals of the power supply.
5. Installation data is online at www.condorpower.com

GSM11 CONNECTOR OPTIONS (other options available)			
AC INPUT	OPTION A	OPTION B	OPTION T
Connector	2.5 mm SPOX	0.025" Square pin locking	Screw terminal block
Part Num	MOLEX 22-43-8030	MOLEX 22-23-2031	Weco 950-T-DS/02
Mate	MOLEX 50-37-5033	MOLEX 22-01-2035	26-16 Gage
Pins	MOLEX 08-70-1040	MOLEX 08-50-0113	N/A
Kit	18-30234-111A	18-30234-111B	N/A
	Pin 1 =neutral Pin 3 =line	Pin 1 =neutral Pin 3 =line	Pin 1 =neutral Pin 2 =line
DC OUTPUT	OPTION A	OPTION B	OPTION T
Connector	2.5 mm SPOX	0.025" Square pin locking	Screw terminal block
Part Num	MOLEX 22-43-8020	MOLEX 22-23-2021	Weco 950-T-DS/02
Mate	MOLEX 50-37-5023	MOLEX 22-01-2025	26-16 Gage
Pins	MOLEX 08-70-1040	MOLEX 08-50-0113	N/A
Kit	18-30234-112A	18-30234-112B	N/A
	Pin 1=+Vout Pin 2 =Return	Pin 1=+Vout Pin 2 =Return	Pin 1=+Vout Pin 2 =Return



GSM11 Part Numbering Scheme

GSM11-xxYYG

xx=Volts (5,12,etc)

YY=In-out connectors e.g. AA, TB, BA

G=RoHS Compliant

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