



■ Features

- Universal AC input / Full range
- 2 pole AC inlet IEC320-C8
- Medical safety approved (2 x MOPP between primary to secondary)
- Suitable for BF application with appropriate system consideration
- Low leakage current <100uA
- No load power consumption<0.15W
- Energy efficiency level VI
- Comply with EISA 2007/DoE,NRCan, AU/NZ MEPS, EU ErP and meet CoC Version 5
- Built-in active PFC function
- High efficiency up to 91%
- Fanless design with -30~+70°C working temperature
- Class II power (without earth pin)
- Protections: Short circuit / Overload / Over voltage / Over temperature
- Fully enclosed plastic case
- LED indicator for power on
- 100% full load burn-in test
- Optional lock type DC plug
- 3 years warranty

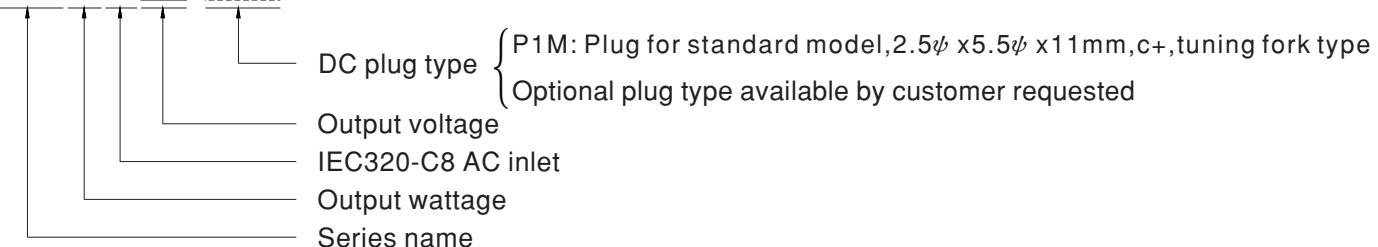
■ Description

GSM90B is a highly reliable, 90W desktop style single-output green medical adaptor series. This product is equipped with a 2-pin (no FG) standard IEC320-C8 power plug, adopting the input range from 80VAC to 264VAC. The entire series supplies different output voltages between 12VDC and 48VDC that can satisfy the demands for various kinds of medical electrical devices. The circuitry design meets the international medical standards (2*MOPP), having an ultra low leakage current (<100uA), fitting the medical devices in direct electrical contact with the patients.

With the efficiency up to 91% and the extremely low no-load power consumption below 0.15W, GSM90B is compliant with USA EISA 2007/DoE, Canada NRCan, Australia and New Zealand MEPS, EU ErP, and meet Code of Conduct (CoC) Version 5. The supreme feature allows the adaptor to save the energy when it is either under the operating mode or the standby mode. The entire series utilizes the 94V-0 flame retardant plastic case, providing the double insulation that effectively prevents electrical shock. GSM90B is approved with the international medical safety certificates.

■ Model Encoding

GSM90B 12 -P1M

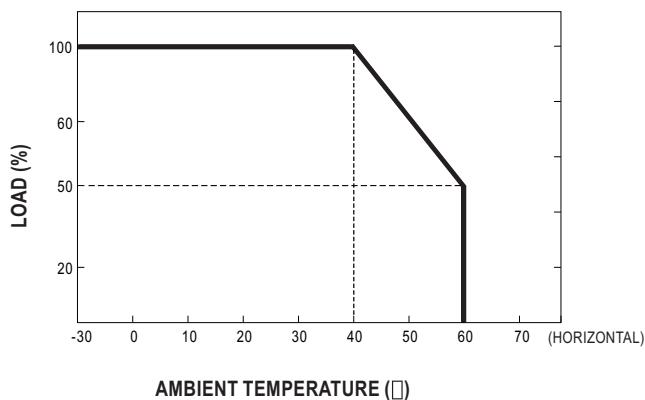


SPECIFICATION

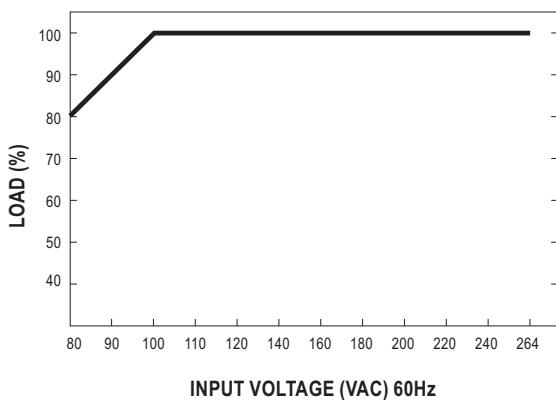
ORDER NO.	GSM90B12-P1M	GSM90B15-P1M	GSM90B19-P1M	GSM90B24-P1M	GSM90B48-P1M		
OUTPUT	SAFETY MODEL NO.	GSM90B12	GSM90B15	GSM90B19	GSM90B24		
	DC VOLTAGE Note.2	12V	15V	19V	24V		
	RATED CURRENT	6.67A	6A	4.74A	3.75A		
	CURRENT RANGE	0 ~ 6.67A	0 ~ 6A	0 ~ 4.74A	0 ~ 3.75A		
	RATED POWER (max.)	80W	90W	90W	90W		
	RIPLE & NOISE (max.) Note.3	120mVp-p	150mVp-p	180mVp-p	200mVp-p		
	VOLTAGE TOLERANCE Note.4	±5.0%	±5.0%	±4.0%	±3.0%		
	LINE REGULATION Note.5	±1.0%	±1.0%	±1.0%	±1.0%		
	LOAD REGULATION	±5.0%	±5.0%	±4.0%	±3.0%		
INPUT	SETUP, RISE TIME Note.6	1000ms, 50ms / 230VAC	1500ms, 50ms / 115VAC	at full load			
	HOLD UP TIME (Typ.)	20ms / 230VAC	20ms / 115VAC	at full load			
PROTECTION	VOLTAGE RANGE Note.7	80 ~ 264VAC	113 ~ 370VDC				
	FREQUENCY RANGE	47 ~ 63Hz					
	POWER FACTOR (Typ.)	PF>0.91 / 230VAC	PF>0.95 / 115VAC	at full load			
	EFFICIENCY (Typ.)	88%	89%	89%	90%		
	AC CURRENT (Typ.)	1.3A / 115VAC	0.6A / 230VAC				
	INRUSH CURRENT (Typ.)	30A / 115VAC	65A / 230VAC				
ENVIRONMENT	LEAKAGE CURRENT(max.)	Touch current < 100μA/264VAC					
	OVERLOAD	110 ~ 150% rated output power					
		Protection type : Hiccup mode, recovers automatically after fault condition is removed					
	OVER VOLTAGE	105 ~ 135% rated output voltage					
SAFETY & EMC (Note. 8)	OVER TEMPERATURE	Shut down o/p voltage, re-power on to recover					
	WORKING TEMP.	-30 ~ +60°C (Refer to "Derating Curve")					
	WORKING HUMIDITY	20% ~ 90% RH non-condensing					
	STORAGE TEMP., HUMIDITY	-40 ~ +85°C, 10 ~ 95% RH					
	TEMP. COEFFICIENT	±0.03% / °C (0 ~ 40°C)					
	VIBRATION	10 ~ 500Hz, 2G 10min./1cycle, period for 60min. each along X, Y, Z axes					
OTHERS	SAFETY STANDARDS	ANSI/AAMI ES60601-1 / ES60601-1-11, TUV EN60601-1 / EN60601-1-11 approved					
	ISOLATION LEVEL	Primary-Secondary: 2xMOPP					
	WITHSTAND VOLTAGE	I/P-O/P: 4KVAC					
	ISOLATION RESISTANCE	I/P-O/P:100M Ohms / 500VDC / 25°C / 70% RH					
	EMC EMISSION	Compliance to EN55011(CISPR11) class B, EN61000-3-2,3, FCC PART 15 class B					
	EMC IMMUNITY	Compliance to EN61000-4-2,3,4,5,6,8,11, EN55024, EN60601-1-2, EN61204-3 medical level, criteria A					
CONNECTOR	MTBF	405.6K hrs min. MIL-HDBK-217F(25°C)					
	DIMENSION	145*60*32mm (L*W*H)					
NOTE	PACKING	0.45Kg; 30pcs/14.5Kg/1CUFT					
	PLUG	See page 3 ; Other type available by customer requested					
	CABLE	See page 3 ; Other type available by customer requested					

1. All parameters are specified at 230VAC input, rated load, 25°C 70% RH ambient.
2. DC voltage: The output voltage set at point measure by plug terminal & 50% load.
3. Ripple & noise are measured at 20MHz by using a 12" twisted pair terminated with a 0.1uf & 47uf capacitor.
4. Tolerance: includes set up tolerance, line regulation, load regulation.
5. Line regulation is measured from low line to high line at rated load.
6. Length of set up time is measured at first cold start. Turning ON/OFF the power supply may lead to increase of the set up time.
7. Derating may be needed under low input voltage. Please check the derating curve for more details.
8. The power supply is considered as an independent unit, but the final equipment still need to re-confirmed that the whole system complies with the EMC directives. For guidance on how to perform these EMC tests, please refer to "EMI testing of component power supplies." (as available on <http://www.meanwell.com>)

■ Derating Curve

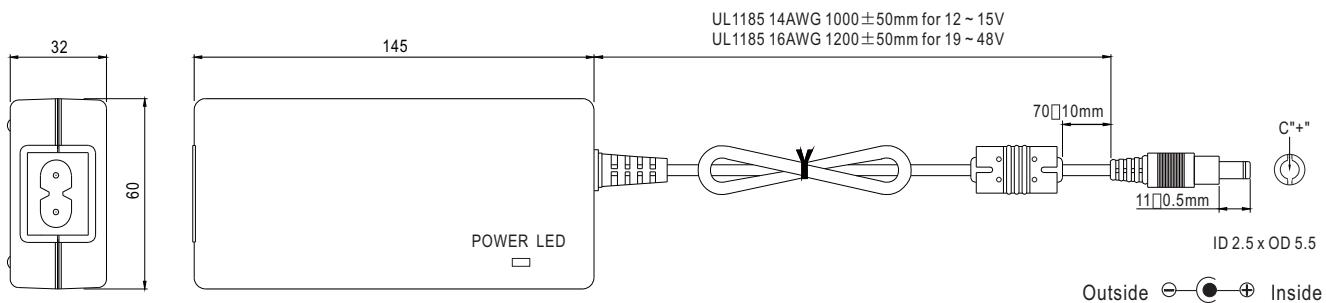


■ Static Characteristics



■ Mechanical Specification

Case No. GS90A Unit:mm



■ Plug Assignment

Standard plug: P1M

P1M	
P/N	OUTPUT
CENTER	+

 Optional lock type plug: P2S
 SWITCHCRAFT S761K plug equivalent

■ Installation Manual

 Please refer to : <http://www.meanwell.com/webnet/search/InstallationSearch.html>