















#### 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 <50μA</li>
- No load power consumption<0.1W</li>
- Energy efficiency Level VI (except 5~9V for Level V)
- Comply with EISA 2007/DoE,NRCan,AU/NZ MEPS,EU ErP and meet CoC Version 5
- High efficiency up to 88%
- High operating temperature up to +60°C
- Class II power (without earth pin)
- · Protections: Short circuit / Overload / Over voltage
- · Fully enclosed plastic case
- · LED indicator for power on
- Optional lock type DC plug
- · 100% full load burn-in test
- · 3 years warranty

## Applications

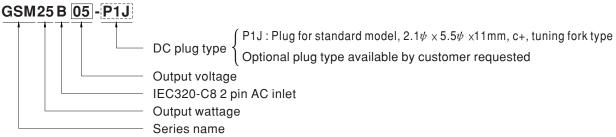
- · Blood glucose meter
- Blood pressure meter
- Nebulizer
- Inhaler
- Portable medical device

### Description

GSM25B is a highly reliable, 25W 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 5VDC and 48VDC that can satisfy the demands for various kinds of miniature medical devices. The circuitry design meets the international medical standards (2  $\times$  MOPP), having an ultra low leakage current (<50 $\mu$ A), fitting the medical devices in direct electrical contact with the patients.

With the efficiency up to 88% and the extreme low no-load power consumption below 0.1W, GSM25B 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. GSM25B is approved with the international medical safety certificates.

#### Model Encoding



# GSM25B series

## **SPECIFICATION**

ORDER NO.		GSM25B05-P1J	GSM25B07-P1J	GSM25B09-P1J	GSM25B12-P1J	GSM25B15-P1J	GSM25B18-P1J	GSM25B24-P1J	GSM25B48-P1J	
OUTPUT	SAFETY MODEL NO.	GSM25B05	GSM25B07	GSM25B09	GSM25B12	GSM25B15	GSM25B18	GSM25B24	GSM25B48	
	DC VOLTAGE Note.2	5V	7.5V	9V	12V	15V	18V	24V	48V	
	RATED CURRENT	4A	2.93A	2.77A	2.08A	1.66A	1.38A	1.04A	0.52A	
	CURRENT RANGE	0 ~ 4A	0 ~ 2.93A	0 ~ 2.77A	0 ~ 2.08A	0 ~ 1.66A	0 ~ 1.38A	0 ~ 1.04A	0 ~ 0.52A	
	RATED POWER (max.)	20W	22W	25W	25W	25W	25W	25W	25W	
	RIPPLE & NOISE (max.) Note.3	60mVp-p	80mVp-p	80mVp-p	120mVp-p	120mVp-p	150mVp-p	180mVp-p	240mVp-p	
	VOLTAGE TOLERANCE Note.4	±6.0%	±5.0%	±5.0%	±3.0%	±3.0%	±3.0%	±2.0%	±2.0%	
	LINE REGULATION Note.5	±1.0%	±1.0%	±1.0%	±1.0%	±1.0%	±1.0%	±1.0%	±1.0%	
	LOAD REGULATION	±6.0%	±5.0%	±5.0%	±3.0%	±3.0%	±3.0%	±2.0%	±2.0%	
	SETUP, RISE TIME Note.6	500ms, 30ms / 230VAC 1000ms, 30ms / 115VAC at full load								
	HOLD UP TIME (Typ.)	16ms / 230VAC 16ms / 115VAC at full load								
INPUT	VOLTAGE RANGE Note.7	80 ~ 264VAC 113 ~ 370VDC								
	FREQUENCY RANGE	47 ~ 63Hz								
	EFFICIENCY (Typ.)	80%	83%	84%	86%	86%	86%	87%	88%	
	AC CURRENT (Typ.)	0.7A / 115VAC	0.35A / 230\	/AC						
	INRUSH CURRENT (Typ.)	55A / 230VAC 30A / 115VAC								
	LEAKAGE CURRENT(max.)	Touch current < 50;//A/264VAC								
PROTECTION		105 ~ 170% rated output power								
	OVERLOAD	Protection type: Hiccup mode, recovers automatically after fault condition is removed								
		5.25 ~ 7.5V	7.88 ~ 10.5V	9.45 ~ 13V	12.6 ~ 17.2V	15.75 ~ 20.25V	18.9 ~ 25.2V	25.2 ~ 32.4V	50.4 ~ 64.8V	
	OVER VOLTAGE	Protection type	: Shut down o/p	voltage, re-pov	ver on to recover	•				
ENVIRONMENT	WORKING TEMP.	-25 ~ +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								
SAFETY & EMC (Note. 8)	SAFETY STANDARDS	ANSI/AAMI ES60601-1 / 60601-1-11, TUV EN60601-1 / 60601-1-11, EAC TP TC 004 approved								
	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, EAC TP TC 020								
	EMC IMMUNITY	Compliance to EN61000-4-2,3,4,5,6,8,11, EN55024, EN60601-1-2, EN61204-3 medical level, criteria A, EAC TP TC 020								
OTHERS	MTBF	796.7K hrs min. MIL-HDBK-217F(25 $^{\circ}$ C)								
	DIMENSION	79*54*33mm (L*W*H)								
	PACKING	235g; 60pcs / 1	5.1Kg / CARTO	V						
CONNECTOR	PLUG	See page 3; Ot	her type availabl	e by customer re	quested					
	CABLE	See page 3; Ot	her type availabl	e by customer re	quested					
NOTE	DC voltage: The output vol     Ripple & noise are measur     Tolerance: includes set up     Line regulation is measuree     Length of set up time is me     Derating may be needed u     The power supply is consic     EMC directives. For guidar	All parameters are specified at 230VAC input, rated load, 25°C 70% RH ambient.  OC voltage: The output voltage set at point measure by plug terminal & 50% load.  Ripple & noise are measured at 20MHz by using a 12" twisted pair terminated with a 0.1uf & 47uf capacitor.  Folerance: includes set up tolerance, line regulation, load regulation.  Line regulation is measured from low line to high line at rated load.  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.  Derating may be needed under low input voltage. Please check the derating curve for more details.  The power supply is considered as an independent unit, but the final equipment still need to re-confirm 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)								



