

## ■ Features

- Universal AC input / Full range
- 2 pole EURO plug
- High efficiency up to 88%
- Low leakage current  $<50\mu\text{A}$
- Protections: Short circuit / Overload / Over voltage
- Fully enclosed plastic case
- Medical safety approved (2 × MOPP between primary to secondary)
- Class II power (without earth pin)
- LED indicator for power on
- No load power consumption  $<0.1\text{W}$
- ErP step2 compliant (level V)
- Meet EISA 2007 (Energy Independence and Security Act)
- Optional lock type DC plug
- 3 years warranty

## ■ Applications

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

## ■ Description

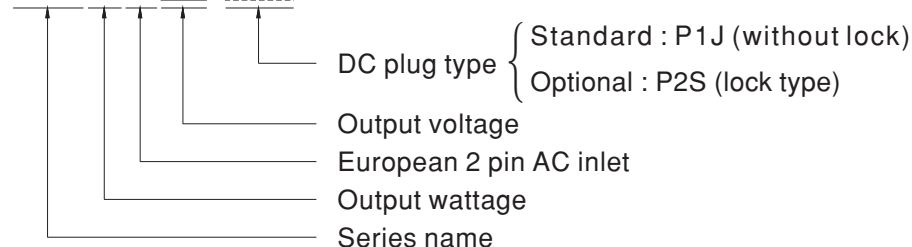
GSM25E is a highly reliable, 25W single-output green medical adaptor series. This product is equipped with a 2-pin (no FG) standard European power plug, adopting the input range from 80VAC to 264VAC.

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 × MOPP), having an ultra low leakage current ( $<50\mu\text{A}$ ), 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, the design of GSM25E observes the latest energy regulation (level V); 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. GSM25E is approved with the international medical safety certificates.

## ■ Model Encoding

**GSM25E 05 -P1J**

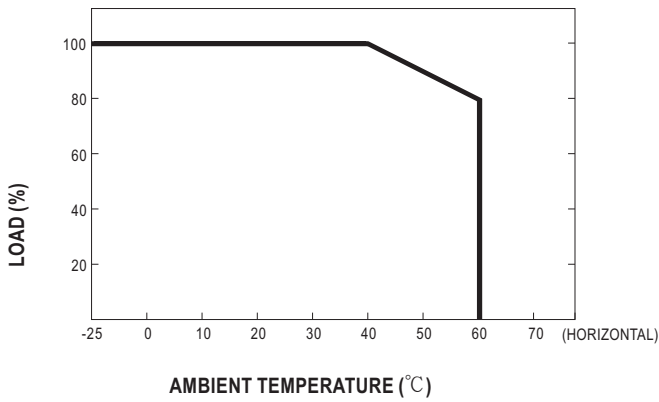




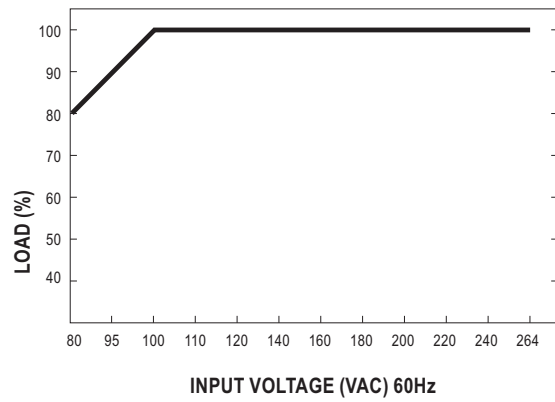
**SPECIFICATION**

ORDER NO.	GSM25E05-P1J	GSM25E07-P1J	GSM25E09-P1J	GSM25E12-P1J	GSM25E15-P1J	GSM25E18-P1J	GSM25E24-P1J	GSM25E48-P1J	
OUTPUT	SAFETY MODEL NO.	GSM25E05	GSM25E07	GSM25E09	GSM25E12	GSM25E15	GSM25E18	GSM25E24	GSM25E48
	DC VOLTAGE <span style="float:right">Note.2</span>	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.) <span style="float:right">Note.3</span>	60mVp-p	80mVp-p	80mVp-p	120mVp-p	120mVp-p	150mVp-p	180mVp-p	240mVp-p
	VOLTAGE TOLERANCE <span style="float:right">Note.4</span>	±6.0%	±5.0%	±5.0%	±3.0%	±3.0%	±3.0%	±2.0%	±2.0%
	LINE REGULATION <span style="float:right">Note.5</span>	±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 <span style="float:right">Note.6</span>	500ms, 30ms / 230VAC      1000ms, 30ms / 115VAC at full load							
HOLD UP TIME (Typ.)	16ms / 230VAC      16ms / 115VAC at full load								
INPUT	VOLTAGE RANGE	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 / 230VAC					
	INRUSH CURRENT (Typ.)	55A / 230VAC		30A / 115VAC					
LEAKAGE CURRENT(max.)	Touch current < 50 $\mu$ A/264VAC								
PROTECTION	OVERLOAD	105 ~ 170% rated output power Protection type : Hiccup mode, recovers automatically after fault condition is removed							
	OVER VOLTAGE	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
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. 7)	SAFETY STANDARDS	TUV EN60601-1 / 60601-1-11 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							
OTHERS	EMC IMMUNITY	Compliance to EN61000-4-2,3,4,5,6,8,11, EN55024, EN60601-1-2, EN61204-3 medical level, criteria A							
	MTBF	796.7K hrs min. MIL-HDBK-217F(25°C)							
	DIMENSION	79*54*33mm (L*W*H)							
CONNECTOR	PACKING	230g ; 60pcs / 14.8Kg / CARTON							
	PLUG	Standard type P1J: 2.1 $\phi$ * 5.5 $\phi$ * 11mm, tuning fork type, center positive for stock ; Other type available by customer requested							
	CABLE	See page 2							
NOTE	<ol style="list-style-type: none"> <li>All parameters are specified at 230VAC input, rated load, 25°C 70% RH ambient.</li> <li>DC voltage: The output voltage set at point measure by plug terminal &amp; 50% load.</li> <li>Ripple &amp; noise are measured at 20MHz by using a 12" twisted pair terminated with a 0.1<math>\mu</math>f &amp; 47<math>\mu</math>f capacitor.</li> <li>Tolerance: includes set up tolerance, line regulation, load regulation.</li> <li>Line regulation is measured from low line to high line at rated load.</li> <li>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.</li> <li>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 <a href="http://www.meanwell.com">http://www.meanwell.com</a>)</li> </ol>								

■ Derating Curve

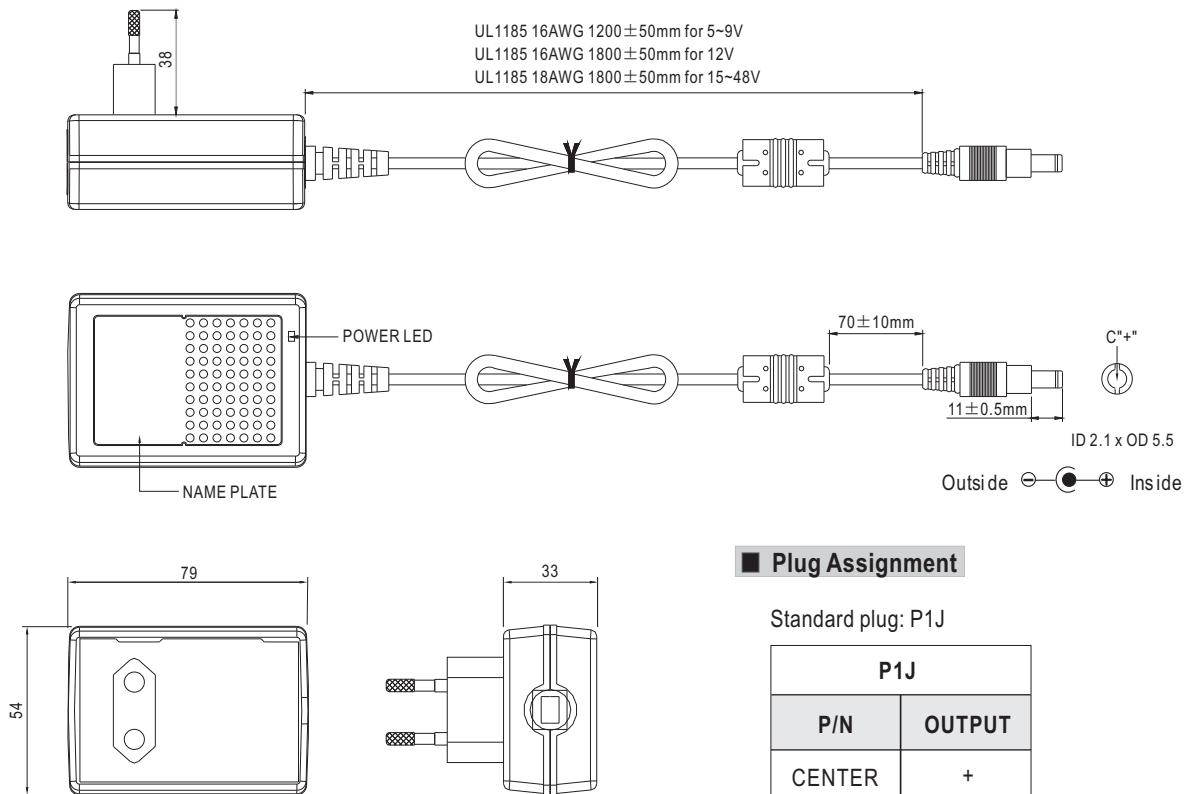


■ Static Characteristics



■ Mechanical Specification

Unit:mm



■ Plug Assignment

Standard plug: P1J

P1J	
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>