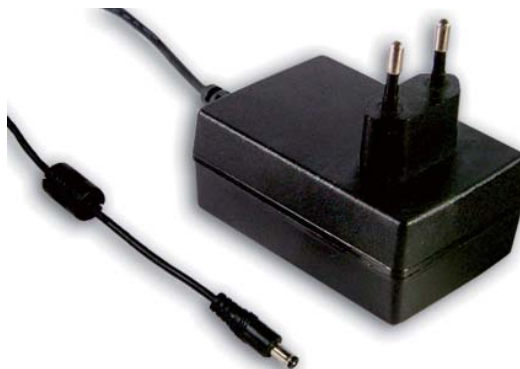




36W AC-DC Single High Reliability Medical Adaptor

**GSM36E** series

## ■ Features

- Universal AC input / Full range
- 2 pole EURO plug
- Medical safety approved (2 × MOPP between primary to secondary)
- Suitable for BF application with appropriate system consideration
- Low leakage current  $<50\mu A$
- No load power consumption  $<0.1W$
- Energy efficiency Level VI (except 5~9V for Level V)
- Comply with EU ErP and meet CoC Version 5
- High efficiency up to 88%
- High operating temperature up to  $+60^{\circ}C$
- 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

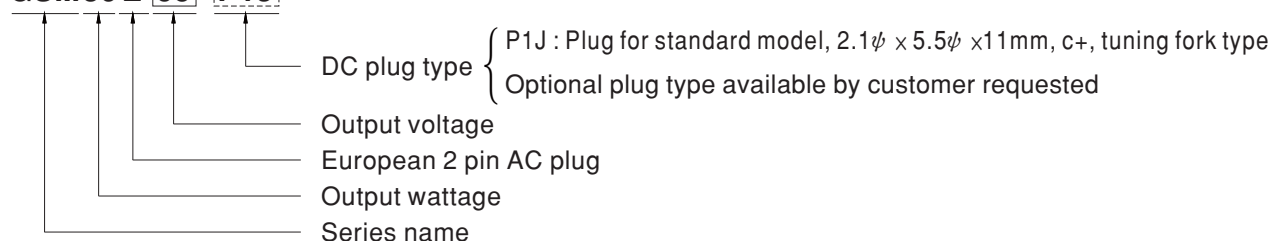
## ■ Description

GSM36E is a highly reliable, 36W wall-mounted style 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 ( $<50\mu A$ ), 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, GSM36E is compliant with 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. GSM36E is approved with the international medical safety certificates.

## ■ Model Encoding

**GSM36E 05 -P1J**

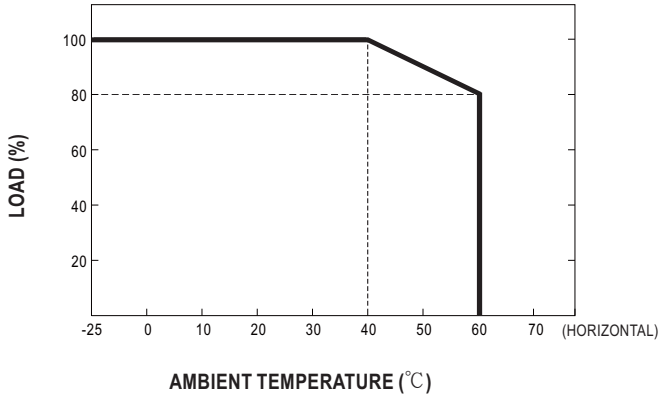




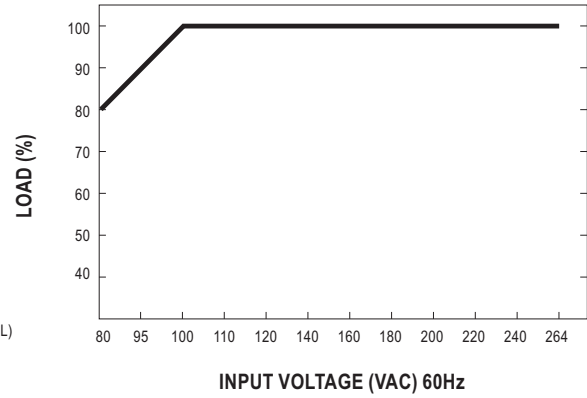
**SPECIFICATION**

ORDER NO.	GSM36E05-P1J	GSM36E07-P1J	GSM36E09-P1J	GSM36E12-P1J	GSM36E15-P1J	GSM36E18-P1J	GSM36E24-P1J	GSM36E48-P1J		
OUTPUT	<b>SAFETY MODEL NO.</b>	GSM36E05	GSM36E07	GSM36E09	GSM36E12	GSM36E15	GSM36E18	GSM36E24	GSM36E48	
	<b>DC VOLTAGE</b> Note.2	5V	7.5V	9V	12V	15V	18V	24V	48V	
	<b>RATED CURRENT</b>	4.5A	4.32A	4A	3A	2.4A	2A	1.5A	0.75A	
	<b>CURRENT RANGE</b>	0 ~ 4.5A	0 ~ 4.32A	0 ~ 4A	0 ~ 3A	0 ~ 2.4A	0 ~ 2A	0 ~ 1.5A	0 ~ 0.75A	
	<b>RATED POWER (max.)</b>	22.5W	32.4W	36W	36W	36W	36W	36W	36W	
	<b>RIPPLE &amp; NOISE (max.)</b> Note.3	80mVp-p	80mVp-p	80mVp-p	120mVp-p	120mVp-p	150mVp-p	180mVp-p	240mVp-p	
	<b>VOLTAGE TOLERANCE</b> Note.4	±6.0%	±5.0%	±5.0%	±3.0%	±3.0%	±3.0%	±2.0%	±2.0%	
	<b>LINE REGULATION</b> Note.5	±1.0%	±1.0%	±1.0%	±1.0%	±1.0%	±1.0%	±1.0%	±1.0%	
	<b>LOAD REGULATION</b>	±6.0%	±5.0%	±5.0%	±3.0%	±3.0%	±3.0%	±2.0%	±2.0%	
	<b>SETUP, RISE TIME</b> Note.6	500ms, 30ms / 230VAC      1000ms, 30ms / 115VAC at full load								
<b>HOLD UP TIME (Typ.)</b>	16ms / 230VAC      16ms / 115VAC at full load									
INPUT	<b>VOLTAGE RANGE</b> Note.7	80 ~ 264VAC    113 ~ 370VDC								
	<b>FREQUENCY RANGE</b>	47 ~ 63Hz								
	<b>EFFICIENCY (Typ.)</b>	80%	83%	84%	86%	87%	87%	87%	88%	
	<b>AC CURRENT (Typ.)</b>	0.9A / 115VAC		0.45A / 230VAC						
	<b>INRUSH CURRENT (Typ.)</b>	55A / 230VAC		30A / 115VAC						
<b>LEAKAGE CURRENT(max.)</b>	Touch current < 50 $\mu$ A/264VAC									
PROTECTION	<b>OVERLOAD</b>	105 ~ 170% rated output power Protection type : Hiccup mode, recovers automatically after fault condition is removed								
	<b>OVER VOLTAGE</b>	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	<b>WORKING TEMP.</b>	-25 ~ +60°C (Refer to "Derating Curve")								
	<b>WORKING HUMIDITY</b>	20% ~ 90% RH non-condensing								
	<b>STORAGE TEMP., HUMIDITY</b>	-40 ~ +85°C, 10 ~ 95% RH								
	<b>TEMP. COEFFICIENT</b>	±0.03% / °C (0~40°C)								
	<b>VIBRATION</b>	10 ~ 500Hz, 2G 10min./1cycle, period for 60min. each along X, Y, Z axes								
SAFETY & EMC (Note. 8)	<b>SAFETY STANDARDS</b>	TUV EN60601-1 / 60601-1-11 approved								
	<b>WITHSTAND VOLTAGE</b>	I/P-O/P:4KVAC								
	<b>ISOLATION RESISTANCE</b>	I/P-O/P:100M Ohms / 500VDC / 25°C / 70% RH								
	<b>EMC EMISSION</b>	Compliance to EN55011(CISPR11) class B, EN61000-3-2,3								
OTHERS	<b>EMC IMMUNITY</b>	Compliance to EN61000-4-2,3,4,5,6,8,11, EN55024, EN60601-1-2, EN61204-3 medical level, criteria A								
	<b>MTBF</b>	657.4K hrs min. MIL-HDBK-217F(25°C)								
	<b>DIMENSION</b>	79*54*33mm (L*W*H)								
CONNECTOR	<b>PACKING</b>	230g ; 60pcs / 14.8Kg / CARTON								
	<b>PLUG</b>	See page 3 ; Other type available by customer requested								
NOTE	<b>CABLE</b>	See page 3 ; Other type available by customer requested								
	<p>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 &amp; 50% load.                  3. 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.                  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-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>)</p>									

■ Derating Curve

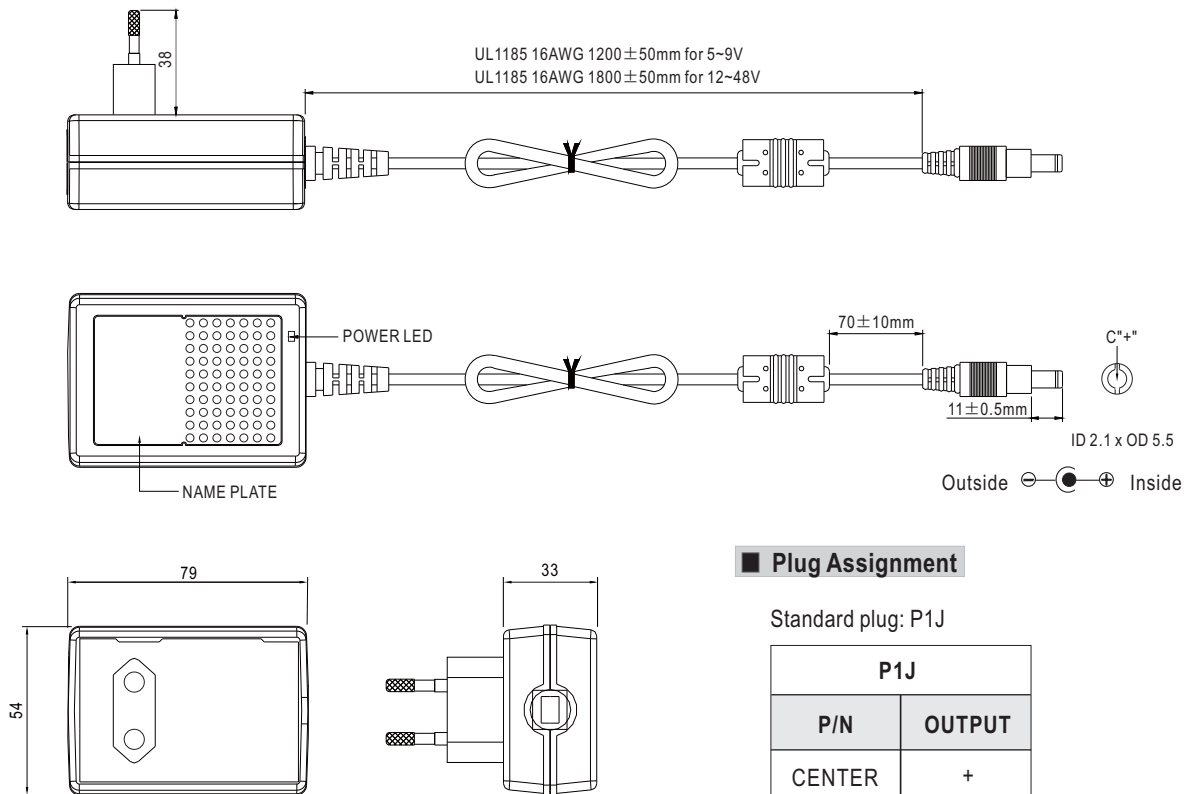


■ Static Characteristics



■ 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>