



## ■ Features

- Ultra slim, compact size
- Medical safety approved (2 x MOPP) according to BS EN/EN60601-1/BS EN/EN60601-1-11
- Extremely Low leakage current
- 2 pole EURO plug, Class II power unit
- No load power consumption <0.15W
- **Energy efficiency Level VI** ( except 5~9V for Level V )
- -30~+70°C wide range working temperature
- Protections: Short circuit / Overload / Over voltage
- Fully enclosed plastic case
- [Various DC plug quick adapter accessory available](https://www.meanwell.com/upload/pdf/DC_plug.pdf) (Plug kit sold separately, please refer to : [https://www.meanwell.com/upload/pdf/DC\\_plug.pdf](https://www.meanwell.com/upload/pdf/DC_plug.pdf))
- 3 years warranty

## ■ Applications

- Blood glucose meter
- Blood pressure meter
- Nebulizer
- Inhaler
- Portable medical device
- Sleep apnea devices

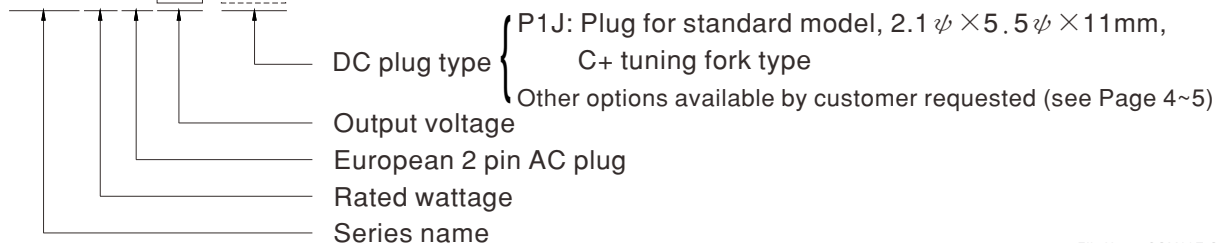
## ■ Description

GSM60E is a 60W ultra slim wall-mounted style single-output green medical adaptor series, which is compact and convenient for carry. GSM60E is a class II power unit (no FG) equipped with the standard 2-Pin European plug, accepting the input range from 80VAC to 264VAC. The whole series provides different models with output voltages ranging between 5VDC and 48VDC that it can satisfy the demands for various types of medical electronic devices. The circuitry design meets the international medical standards (2\*MOPP), having an ultra low leakage current (<100μA), fitting the medical devices in direct electrical contact with the patients.

With the efficiency up to 90% and the extremely low no-load power consumption below 0.15W, GSM60E is compliant with EU ErP and meet CoC version 5 (5~9V for Level V). The supreme feature allows the adaptor to save the energy when it is under either the operating mode or the standby mode. The entire series is approved for international safety regulations; moreover, it adopts the 94V-0 flame retardant plastic case that it can effectively prevent users from electric hazards.

## ■ Model Encoding

**GSM60E 05 -P1J**



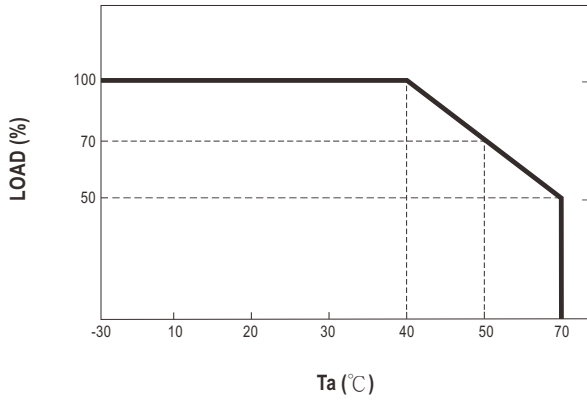


# 60W AC-DC Reliable Green Slim Wall-mounted Medical Adaptor **GSM60E** series

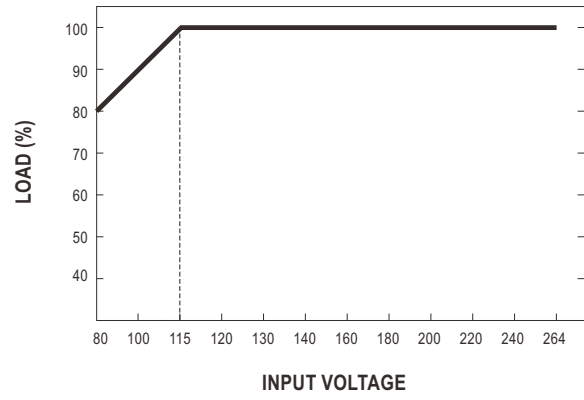
## SPECIFICATION

ORDER NO.	GSM60E05-P1J	GSM60E07-P1J	GSM60E09-P1J	GSM60E12-P1J	GSM60E15-P1J	GSM60E18-P1J	GSM60E24-P1J	GSM60E48-P1J		
OUTPUT	SAFETY MODEL NO.	GSM60E05	GSM60E07	GSM60E09	GSM60E12	GSM60E15	GSM60E18	GSM60E24	GSM60E48	
	DC VOLTAGE <span style="float:right">Note.2</span>	5V	7.5V	9V	12V	15V	18V	24V	48V	
	RATED CURRENT	6A	6A	5.5A	4.5A	4A	3.33A	2.5A	1.25A	
	CURRENT RANGE	0 ~ 6A	0 ~ 6A	0 ~ 5.5A	0 ~ 4.5A	0 ~ 4A	0 ~ 3.33A	0 ~ 2.5A	0 ~ 1.25A	
	RATED POWER (max.)	30W	45W	50W	54W	60W	60W	60W	60W	
	RIPPLE & NOISE (max.) <span style="float:right">Note.3</span>	100mVp-p	100mVp-p	100mVp-p	100mVp-p	120mVp-p	120mVp-p	120mVp-p	150mVp-p	
	VOLTAGE TOLERANCE <span style="float:right">Note.4</span>	±5.0%	±5.0%	±5.0%	±5.0%	±5.0%	±3.0%	±3.0%	±3.0%	
	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 <span style="float:right">Note.6</span>	±5.0%	±5.0%	±5.0%	±3.0%	±3.0%	±2.0%	±2.0%	±2.0%	
SETUP, RISE, HOLD UP TIME	1000ms, 100ms, 10ms/230VAC      1000ms, 100ms, 10ms/115VAC at full load									
INPUT	VOLTAGE RANGE <span style="float:right">Note.7</span>	80 ~ 264VAC      113 ~ 370VDC								
	FREQUENCY RANGE	47 ~ 63Hz								
	EFFICIENCY (Typ.)	80%	85%	87%	88%	88%	88%	88%	90%	
	AC CURRENT	1.5A / 115VAC      0.8A / 230VAC								
	INRUSH CURRENT (max.)	Cold start 50A / 115VAC      100A / 230VAC								
LEAKAGE CURRENT(max.)	Touch current < 100µA/264VAC									
PROTECTION	OVERLOAD	105 ~ 160% rated output power Protection type : Hiccup mode, recovers automatically after fault condition is removed								
	OVER VOLTAGE	110 ~ 140% rated output voltage Protection type : Clamp by zener diode, output short								
ENVIRONMENT	WORKING TEMP.	-30 ~ +70°C (Refer to "Derating Curve")								
	WORKING HUMIDITY	20% ~ 90% RH non-condensing								
	STORAGE TEMP., HUMIDITY	-30 ~ +85°C, 10 ~ 95% RH non-condensing								
	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	TUV BS EN/EN60601-1, BS EN/EN60601-1-11, EAC TP TC 004 approved								
	ISOLATION LEVEL	Primary - Secondary: 2 x MOPP								
	WITHSTAND VOLTAGE	I/P-O/P:5656VDC								
	ISOLATION RESISTANCE	I/P-O/P:100M Ohms / 500VDC / 25°C / 70% RH								
	EMC EMISSION	Parameter	Standard			Test Level / Note				
		Conducted emission	BS EN/EN55011 (CISPR11)			Class B				
		Radiated emission	BS EN/EN55011 (CISPR11)			Class B				
		Harmonic current	BS EN/EN61000-3-2			Class A				
	Voltage flicker	BS EN/EN61000-3-3			-----					
	EMC IMMUNITY	BS EN/EN55011, BS EN/EN60601-1-2								
Parameter		Standard			Test Level / Note					
ESD		BS EN/EN61000-4-2			Level 4, 15KV air ; Level 4, 8KV contact					
RF field susceptibility		BS EN/EN61000-4-3			Level 3, 10V/m(80MHz~2.7GHz) Table 9, 9~28V/m(385MHz~6GHz)					
EFT bursts		BS EN/EN61000-4-4			Level 3, 2KV Line-Line, 1KV ineterconnect Lines at 100KHz rate					
Surge susceptibility		BS EN/EN61000-4-5			Level 3, 2KV/Line-Line					
Conducted susceptibility		BS EN/EN61000-4-6			Level 2, 3V					
Magnetic field immunity		BS EN/EN61000-4-8			Level 4, 30A/m					
Voltage dip, interruption	BS EN/EN61000-4-11			>95% dip 0.5 periods, 30% dip 25 periods, >95% interruptions 250 periods						
OTHERS	LIFE	3 years : 100% load 40°C, 8hours / day								
	MTBF	400Khrs min. MIL-HDBK-217F(25°C)								
	DIMENSION	75.5*32*47.5mm (L*W*H)								
	PACKING	200g ; 60pcs / 13kg / CARTON								
CONNECTOR	PLUG	See page 4 - 5 ; other type available by customer requested								
	CABLE	See page 4 - 5 ; other type available by customer requested								
NOTE	<p>1.All parameters are specified at 230VAC input, rated load, 25°C 70% RH ambient.</p> <p>2.DC voltage: The output voltage set at point measure by plug terminal &amp; 50% load.</p> <p>3.Ripple &amp; noise are measured at 20MHz by using a 12" twisted pair terminated with a 0.1µf &amp; 47µf capacitor.</p> <p>4.Tolerance: includes set up tolerance, line regulation, load regulation.</p> <p>5.Line regulation is measured from low line to high line at rated load.</p> <p>6.Load regulation is measured from 10% to 100% rated load.</p> <p>7.Derating may be needed under low input voltage. Please check the derating curve for more details.</p> <p>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> <p>※ Product Liability Disclaimer : For detailed information, please refer to <a href="https://www.meanwell.com/serviceDisclaimer.aspx">https://www.meanwell.com/serviceDisclaimer.aspx</a></p>									

■ Derating Curve

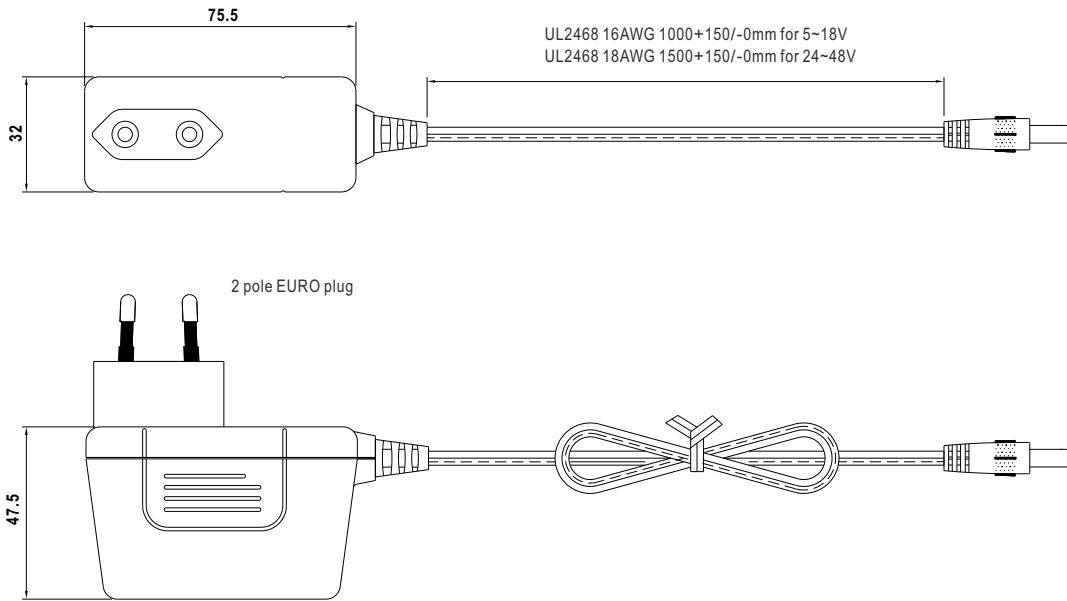


■ Static Characteristics



■ Mechanical Specification

Unit:mm



■ DC output plug

◎ Standard plug: P1J

Unit:mm

P1J	Pin Assignment
	Outside  Inside

◎ DC plug changeable through:

- (1) Customization of the standard part with an optional DC plug according to the table (MOQ applicable)
- (2) Quick adapter accessory (sold separately without MOQ)

Please refer to below table and online selection guide : [https://www.meanwell.com/upload/pdf/DC\\_plug.pdf](https://www.meanwell.com/upload/pdf/DC_plug.pdf)

Example quick adapter accessory:



◎ Optional DC plug: (Available in customized cable or quick adapter)

Tuning Fork Style		Type No.	A	B	C	Quick Adapter Accessory
			OD	ID	L	
		(Straight)				Available (Current rating: 7.5A max.)
		P1I	5.5	2.1	9.5	
		P1L	5.5	2.5	9.5	
		P1M	5.5	2.5	11.0	
		P1IR	5.5	2.1	9.5	
		P1JR	5.5	2.1	11.0	
		P1LR	5.5	2.5	9.5	
P1MR	5.5	2.5	11.0			
Barrel Style		Type No.	A	B	C	None
			OD	ID	L	
		(Straight)				
		P2I	5.5	2.1	9.5	
		P2J	5.5	2.1	11.0	
		P2L	5.5	2.5	9.5	
		P2M	5.5	2.5	11.0	
		P2IR	5.5	2.1	9.5	
		P2JR	5.5	2.1	11.0	
		P2LR	5.5	2.5	9.5	
		P2MR	5.5	2.5	11.0	
		Lock Style		Type No.	A	B
			OD	ID	L	
		Floating Locking SWITCHCRAFT original or equivalent				
		P2S(S761K)	5.53	2.03	12.06	
		P2K(761K)	5.53	2.54	12.06	
		P2C(S760K)	5.53	2.03	9.52	
		P2D(760K)	5.53	2.54	9.52	
Min. Pin Style		Type No.	A	B	C	Available (Current rating: 5A max.)
			OD	ID	L	
		EIAJ equivalent				
		P3A	2.35	0.7	11.0	
		P3B	4.0	1.7	11.0	
		P3C	4.75	1.7	11.0	

Center Pin Style	Type No.	A	B	C	D	Quick Adapter Accessory
		OD	ID	L	Center Pin	
	P4A	5.5	3.4	11.0	1.0	Available (Current rating: 7.5A max.)
	P4B	6.5	4.4	11.0	1.4	
	P4C	7.4	5.1	11.0	0.6	
Min. DIN 3 Pin with Lock (male)	Type No.	Pin Assignment				
	R6B	PIN No.	Output			
		1	+Vo			
		2	-Vo			
		3	+Vo			
Min. DIN 4 Pin with Lock (male)	Type No.	Pin Assignment				
	R7B	PIN No.	Output			
		1	+Vo			
		2	-Vo			
		3	-Vo			
		4	+Vo			
Stripped and tinned leads	Type No.	Pin Assignment				
<p>Length of Land L1 by request (MW's standard length, L: <u>25</u> mm, L1: <u>10</u> mm)</p>	by customer	PIN No.	Output			
		1 (Ribbed)	+Vo			
		2 (Letter)	-Vo			

■ **Installation Manual**

Please refer to : <http://www.meanwell.com/manual.html>