



(Cable connection)



(USB connection)



■ Features

- Universal AC input / Full range
- Medical safety approved (2 x MOPP) according to BS EN/EN60601-1/BS EN/EN60601-1-11
- Extremely low leakage current
- No load power consumption < 0.075W (< 0.1W for 18V/48V)
- **Energy efficiency Level VI**
- -20~+70°C wide range working temperature
- Class II power (no earth pin)
- Protections: Short circuit / Overload / Over voltage
- Fully enclosed plastic case
- Various DC plug quick adapter accessory available (Plug kit sold separately, please refer to : 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

■ GTIN CODE

MW Search: <https://www.meanwell.com/serviceGTIN.aspx>

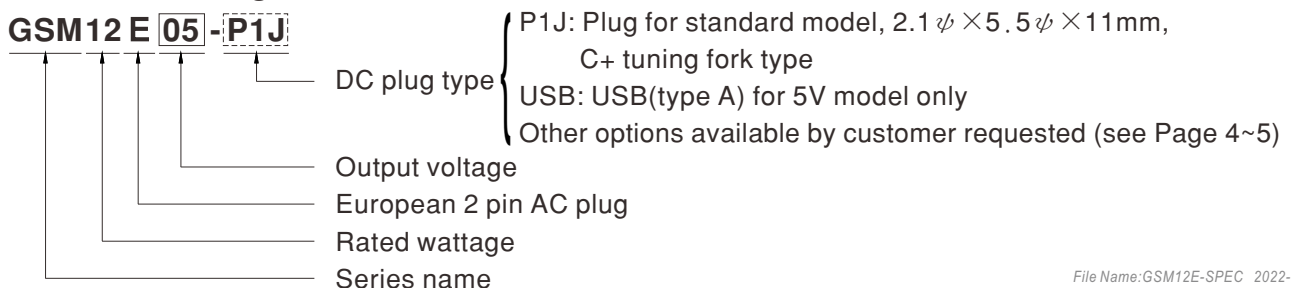
■ Description

GSM12E is a highly reliable, 12W wall-mounted style single-output green medical adaptor series, which is compact and convenient for carry. This product is equipped with the standard 2-pin European plug. GSM12E is a class II power unit (no FG), accepting the input range from 80VAC to 264VAC that it can satisfy the demands for various types of medical electrical 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 working efficiency up to 87% and the extremely low no-load power consumption below 0.075W (< 0.1W for 18V/48V), GSM12E is compliant with EU ErP and meet CoC version 5 (Except for 18V/48V). 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 hazard.

■ Model Encoding

GSM12E 05 - P1J





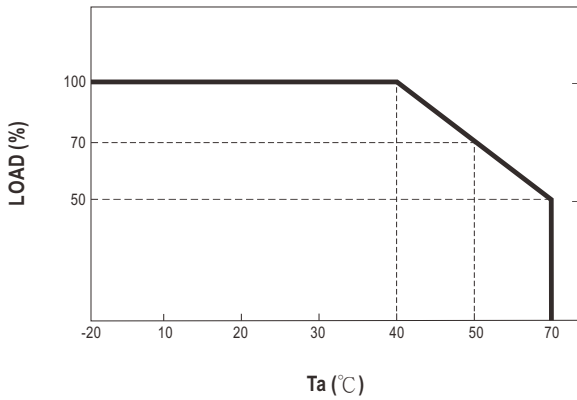
12W AC-DC Reliable Green Medical Adaptor

GSM12E series

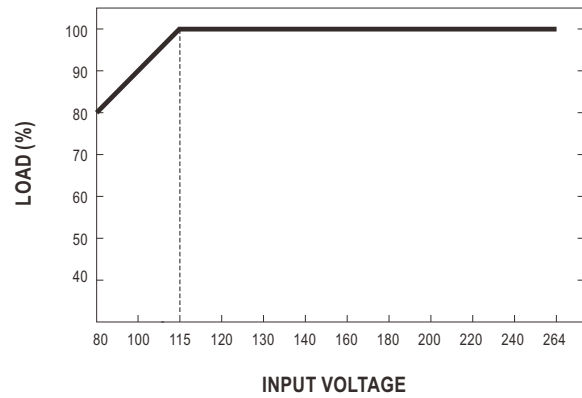
SPECIFICATION

ORDER NO.		GSM12E05-□ □=P1J USB	GSM12E07-P1J	GSM12E09-P1J	GSM12E12-P1J	GSM12E15-P1J	GSM12E18-P1J	GSM12E24-P1J	GSM12E48-P1J		
OUTPUT	SAFETY MODEL NO.	GSM12E05	GSM12E07	GSM12E09	GSM12E12	GSM12E15	GSM12E18	GSM12E24	GSM12E48		
	DC VOLTAGE <small>Note.2</small>	5V	7.5V	9V	12V	15V	18V	24V	48V		
	RATED CURRENT	2.4A	1.6A	1.33A	1A	0.8A	0.66A	0.5A	0.25A		
	CURRENT RANGE	0 ~ 2.4A	0 ~ 1.6A	0 ~ 1.33A	0 ~ 1A	0 ~ 0.8A	0 ~ 0.66A	0 ~ 0.5A	0 ~ 0.25A		
	RATED POWER (max.)	12W	12W	12W	12W	12W	12W	12W	12W		
	RIPPLE & NOISE (max.) <small>Note.3</small>	60mVp-p	60mVp-p	60mVp-p	80mVp-p	80mVp-p	80mVp-p	80mVp-p	100mVp-p		
	VOLTAGE TOLERANCE <small>Note.4</small>	± 5.0%	± 5.0%	± 4.0%	± 3.0%	± 3.0%	± 3.0%	± 2.0%	± 2.0%		
	LINE REGULATION <small>Note.5</small>	± 1.0%	± 1.0%	± 1.0%	± 1.0%	± 1.0%	± 1.0%	± 1.0%	± 1.0%		
	LOAD REGULATION <small>Note.6</small>	± 5.0%	± 5.0%	± 4.0%	± 3.0%	± 3.0%	± 3.0%	± 2.0%	± 2.0%		
SETUP, RISE, HOLD UP TIME	500ms, 30ms, 16ms/230VAC 500ms, 30ms, 16ms/115VAC at full load										
INPUT	VOLTAGE RANGE <small>Note.7</small>	80 ~ 264VAC		113 ~ 370VDC							
	FREQUENCY RANGE	47 ~ 63Hz									
	EFFICIENCY (Typ.)	80%	82%	82%	82.5%	84%	85%	85%	87%		
	AC CURRENT	0.4A / 115VAC		0.2A / 230VAC							
	INRUSH CURRENT (max.)	Cold start 30A / 115VAC		60A / 230VAC							
	LEAKAGE CURRENT(max.)	Touch current < 100µA/264VAC									
PROTECTION	OVERLOAD	110 ~ 200% 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.	-20 ~ +70°C (Refer to "Derating Curve")									
	WORKING HUMIDITY	0 ~ 95% RH non-condensing									
	STORAGE TEMP., HUMIDITY	-20 ~ +85°C, 0 ~ 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 (3.1 version), IS13252(Part1)/IEC60950-1(for USB only), EAC TP TC 004 approved GSM12E05-USB without BS EN/EN60601-1-11									
	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/EN55024, BS EN/EN60601-1-2, BS EN/EN61204-3									
		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~5.78GHz)				
		EFT bursts	BS EN/EN61000-4-4				Level 3, 2KV				
Surge susceptibility		BS EN/EN61000-4-5				Level 3, 1KV/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, 12hours / day									
	MTBF	400Khrs min. MIL-HDBK-217F(25°C)									
	DIMENSION	62.2*27.4*39.7mm (L*W*H)									
	PACKING	100g, 90pcs / 10kg / CARTON for cable connection ; 76g, 150pcs / 12.5kg / CARTON for USB connection									
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. 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 0.1µf & 47µf 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.Load regulation is measured from 10% to 100% rated load. 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 http://www.meanwell.com)</p> <p>※ Product Liability Disclaimer : For detailed information, please refer to https://www.meanwell.com/serviceDisclaimer.aspx</p>										

■ Derating Curve



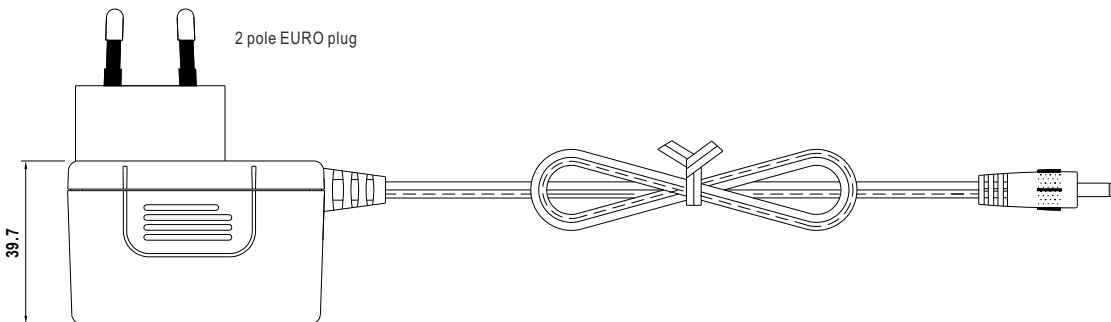
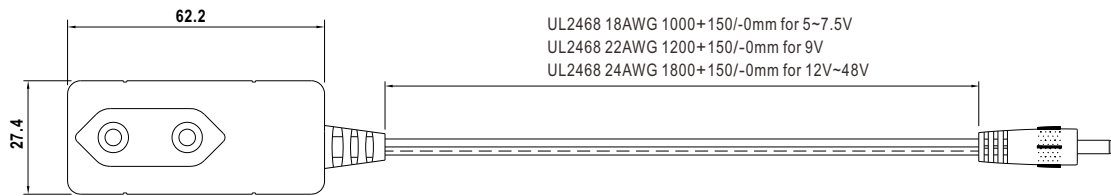
■ Static Characteristics



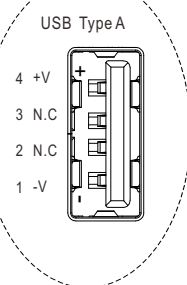
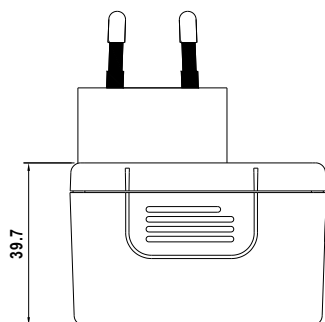
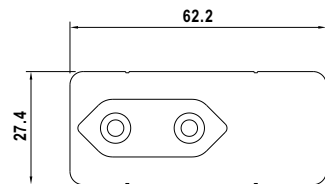
■ Mechanical Specification

Unit:mm

※ Cable Connection



※ USB Connection





■ 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

Example quick adapter accessory:



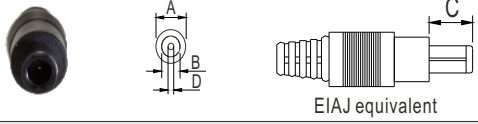
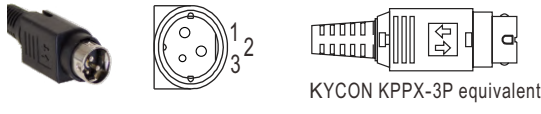
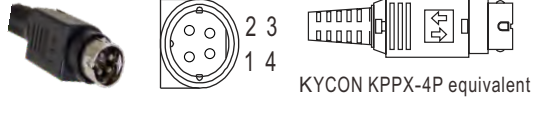
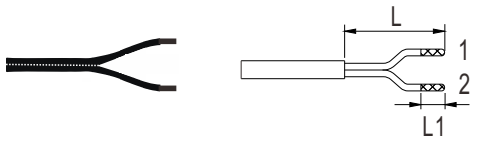
◎ Optional DC plug: (Available in customized cable or quick adapter)

Tuning Fork Style		Type No.	A	B	C	Quick Adapter Accessory
			OD	ID	L	
		P1I	5.5	2.1	9.5	Available (Current rating: 7.5A max.)
		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	Quick Adapter Accessory
			OD	ID	L	
		P2I	5.5	2.1	9.5	None
		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	C	Quick Adapter Accessory
			OD	ID	L	
		P2S(S761K)	5.53	2.03	12.06	None
		P2K(761K)	5.53	2.54	12.06	
		P2C(S760K)	5.53	2.03	9.52	
		P2D(760K)	5.53	2.54	9.52	
SWITCHCRAFT original or equivalent						
Min. Pin Style		Type No.	A	B	C	Quick Adapter Accessory
			OD	ID	L	
		P3A	2.35	0.7	11.0	Available (Current rating: 5A max.)
		P3B	4.0	1.7	11.0	
		P3C	4.75	1.7	11.0	



12W AC-DC Reliable Green Medical Adaptor

GSM12E series

Center Pin Style	Type No.	A	B	C	D	Quick Adapter Accessory	
		OD	ID	L	Center Pin		
 <p>EIAJ equivalent</p>	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		Available (Current rating: 7.5A max.)			
 <p>KYCON KPPX-3P equivalent</p>	R6B	PIN No.	Output				
		1	+Vo				
		2	-Vo				
<th>Min. DIN 4 Pin with Lock (male)</th> <th>Type No.</th> <th colspan="2">Pin Assignment</th> <th colspan="3" rowspan="4"> Available (Current rating: 7.5A max.) </th>	Min. DIN 4 Pin with Lock (male)	Type No.	Pin Assignment		Available (Current rating: 7.5A max.)		
	 <p>KYCON KPPX-4P equivalent</p>	R7B	PIN No.	Output			
			1	+Vo			
			2	-Vo			
3			-Vo				
<th>Stripped and tinned leads</th> <th>Type No.</th> <th colspan="2">Pin Assignment</th> <th colspan="3" rowspan="4"> None </th>	Stripped and tinned leads	Type No.	Pin Assignment		None		
	 <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>