

(V for 5~9V)



BS EN/EN60601-1-1-11 IEC60601-1-1-11 TPTC004



IEC60601-1-1-11 TPTC004



■ Features

- 2 pole EURO plug, Class II power unit
- Medical safety approved (2 x MOPP) according to BS EN/EN60601-1-1-11
- Extremely low leakage current
- No load power consumption<0.1W
- Energy efficiency Level VI and meet CoC version 5 (except 5~9V for Level V)
- -25~+60°C wide range working temperature
- Protections: Short circuit / Overload / Over voltage
- LED indicator for power on
- 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

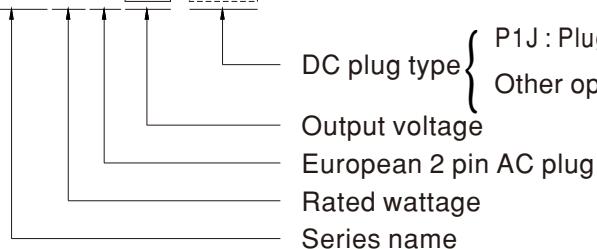
■ Description

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 x MOPP), having an ultra low leakage current (<50 μ 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

GSM36 E 05 -P1J


 P1J : Plug for standard model, 2.1 ϕ x 5.5 ϕ x 11mm, c+, tuning fork type
 Other options available by customer requested (see Page 4~5)

Output voltage

European 2 pin AC plug

Rated wattage

Series name



36W AC-DC Reliable Green Medical Adaptor

GSM36E series

SPECIFICATION

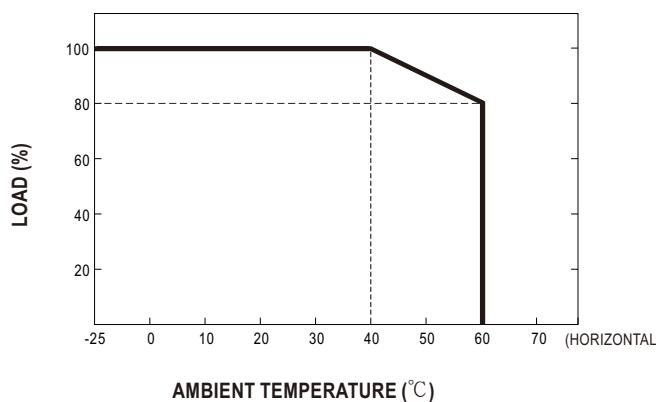
ORDER NO.	GSM36E05-P1J	GSM36E07-P1J	GSM36E09-P1J	GSM36E12-P1J	GSM36E15-P1J	GSM36E18-P1J	GSM36E24-P1J	GSM36E48-P1J														
OUTPUT	SAFETY MODEL NO.	GSM36E05	GSM36E07	GSM36E09	GSM36E12	GSM36E15	GSM36E18	GSM36E24														
	DC VOLTAGE Note.2	5V	7.5V	9V	12V	15V	18V	24V														
	RATED CURRENT	4.5A	4.32A	4A	3A	2.4A	2A	1.5A														
	CURRENT RANGE	0 ~ 4.5A	0 ~ 4.32A	0 ~ 4A	0 ~ 3A	0 ~ 2.4A	0 ~ 2A	0 ~ 1.5A														
	RATED POWER (max.)	22.5W	32.4W	36W	36W	36W	36W	36W														
	RIPLPE & NOISE (max.) Note.3	80mVp-p	80mVp-p	80mVp-p	120mVp-p	120mVp-p	150mVp-p	180mVp-p														
	VOLTAGE TOLERANCE Note.4	±6.0%	±5.0%	±5.0%	±3.0%	±3.0%	±3.0%	±2.0%														
	LINE REGULATION Note.5	±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%														
INPUT	SETUP, RISE TIME Note.6	500ms, 30ms / 230VAC	1000ms, 30ms / 115VAC	at full load																		
	HOLD UP TIME (Typ.)	16ms / 230VAC	10ms / 115VAC	at full load																		
PROTECTION	VOLTAGE RANGE Note.7	80 ~ 264VAC	113 ~ 370VDC																			
	FREQUENCY RANGE	47 ~ 63Hz																				
	EFFICIENCY (Typ.)	80%	83%	84%	86%	87%	87%	87%														
	AC CURRENT (Typ.)	0.9A / 115VAC	0.45A / 230VAC																			
	INRUSH CURRENT (Typ.)	55A / 230VAC	30A / 115VAC																			
ENVIRONMENT	LEAKAGE CURRENT(max.)	Touch current < 50μA/264VAC																				
	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													
	Protection type : Shut down o/p voltage, re-power on to recover																					
SAFETY & EMC (Note. 8)	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 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 STANDARDS	TUV BS EN/EN60601-1 / BS EN/EN60601-1-11, EAC TP TC 004 approved																				
	ISOLATION LEVEL	Primary-Secondary: 2xMOPP																				
	WITHSTAND VOLTAGE	I/P-O/P:4KVAC																				
	ISOLATION RESISTANCE	I/P-O/P:100M Ohms / 500VDC / 25°C / 70% RH																				
EMC IMMUNITY	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			-----																	
	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																	
OTHERS	Surge susceptibility	BS EN/EN61000-4-5			Level 3, 1KV/Line-Line																	
	Conducted susceptibility	BS EN/EN61000-4-6			Level 3, 10V																	
CONNECTOR	Magnetic field immunity	BS EN/EN61000-4-8			Level 4, 30A/m																	
	Voltage dip, interruption	BS EN/EN61000-4-11			100% dip 1 periods, 30% dip 25 periods, 100% interruptions 250 periods																	
NOTE	MTBF	657.4K hrs min. MIL-HDBK-217F(25°C)																				
	DIMENSION	79*54*33mm (L*W*H)																				
	PACKING	230g ; 60pcs / 14.8Kg / 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	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. 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-confirmed 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)																					
	※ Product Liability Disclaimer : For detailed information, please refer to https://www.meanwell.com/serviceDisclaimer.aspx																					



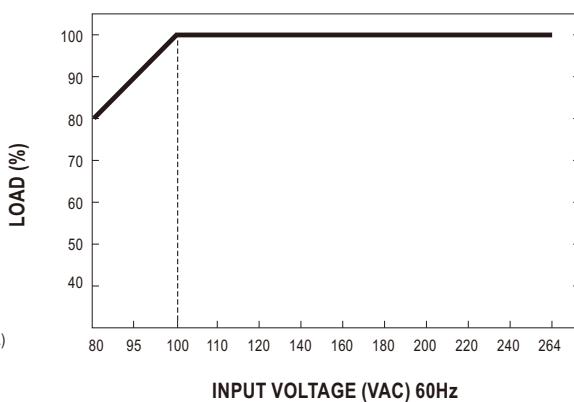
36W AC-DC Reliable Green Medical Adaptor

GSM36E series

■ Derating Curve

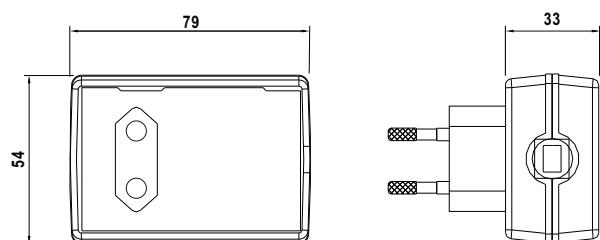
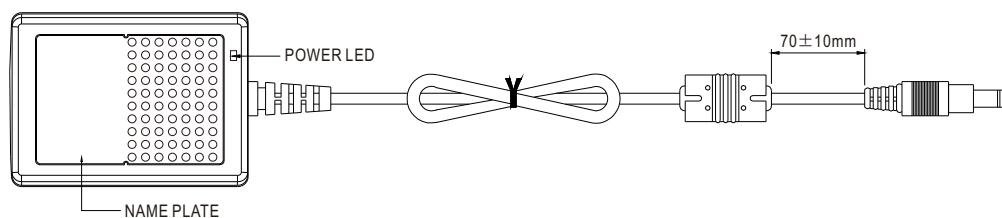
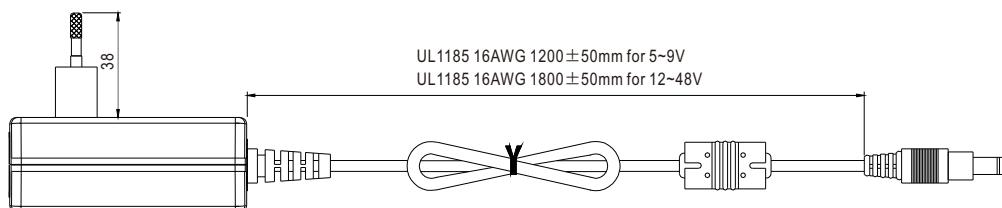


■ Static Characteristics



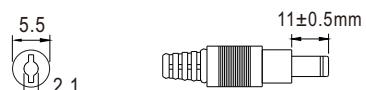
■ Mechanical Specification

Unit:mm



■ DC output plug

- ◎ Standard plug: P1J

P1J	Pin Assignment
	
5.5 2.1 	Outside  Inside

- ◎ DC plug changeable through:

(1) Customization of the standard part with an optional DC plug according to the table (MOQ applicable)

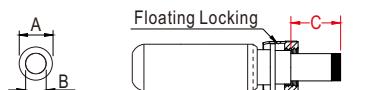
(2) Quick adapter accessory (sold separately without MOQ)

Please refer to below table and online selection guide : https://www.meanwell.com/upload/pdf/DC_plug.pdf

Example quick adapter accessory:



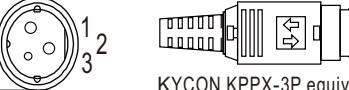
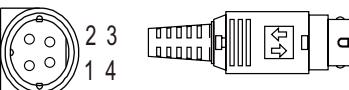
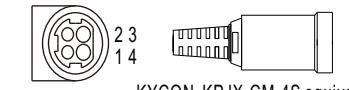
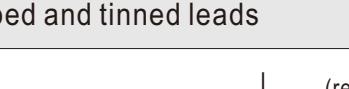
- ◎ Optional DC plug: (Available in customized cable or quick adapter)

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	
 	Type No.	A	B	C	None
		OD	ID	L	
	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	
 	Type No.	A	B	C	None
		OD	ID	L	
	P2S(S761K)	5.53	2.03	12.06	
	P2K(761K)	5.53	2.54	12.06	
	P2C(S760K)	5.53	2.03	9.52	
 SWITCHCRAFT original or equivalent		P2D(760K)	5.53	2.54	9.52



36W AC-DC Reliable Green Medical Adaptor

GSM36E series

Min. Pin Style	Type No.	A	B	C	Quick Adapter Accessory	
		OD	ID	L		
  EIAJ equivalent	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		
  EIAJ equivalent	Type No.	A	B	C	Available (Current rating: 7.5A max.)	
	P4A	OD	ID	L		
		5.5	3.4	11.0		
  KYCON KPPX-3P equivalent	Type No.	Pin Assignment			Available (Current rating: 7.5A max.)	
	R6B	PIN No.	Output			
		1	+Vo			
  KYCON KPPX-4P equivalent	Type No.	Pin Assignment			Available (Current rating: 7.5A max.)	
	R7B	PIN No.	Output			
		1	+Vo			
		2	-Vo			
		3	-Vo			
  KYCON KPJX-CM-4S equivalent	Type No.	Pin Assignment			None	
	R7BF	PIN No.	Output			
		1	+Vo			
		2	-Vo			
 	Type No.	Pin Assignment			Available (Current rating: 7.5A max.)	
	R1B	PIN No.	Output			
		1	-Vo			
		2	-Vo			
		3	+Vo			
  Length of Land L1 by request (MW's standard length, L: <u>25</u> mm, L1: <u>5</u> mm)	Type No.	Pin Assignment			None	
	by customer	PIN No.	Output			
		1	+Vo			
		2	-Vo			

■ Installation Manual

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