



ANSI/AAMI ES60601-1/1-11



IEC60601-1/1-11



TPTC004



■ Features

- 2 pole USA plug, Class II power unit
- Medical safety approved (2 x MOPP) according to ANSI/AAMI ES60601-1/1-11
- Extremely low leakage current
- No load power consumption<0.1W
- Energy efficiency Level VI (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

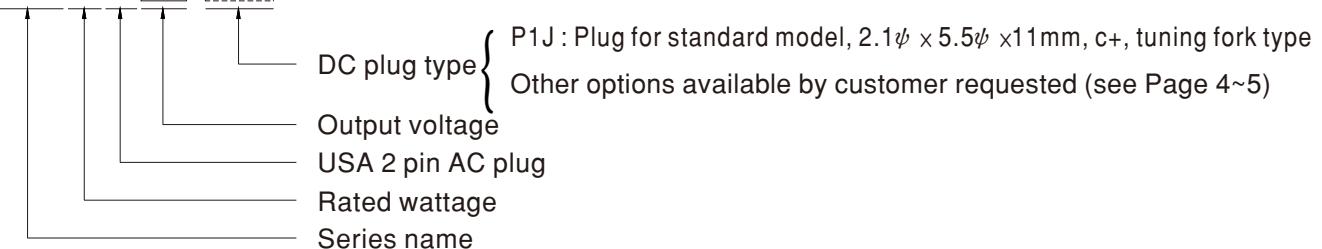
■ Description

GSM36U 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 USA AC 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, GSM36U is compliant with USA EISA 2007/DoE and Canada NRCan; 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. GSM36U is approved with the international medical safety certificates.

■ Model Encoding

GSM36U 05-P1J

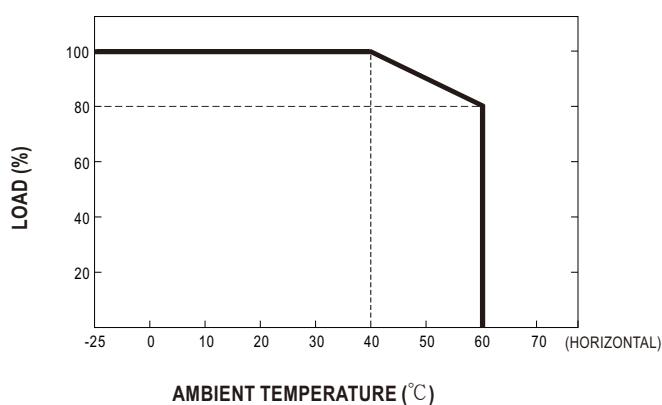




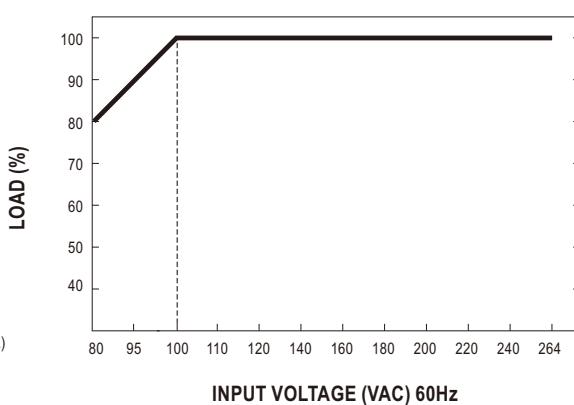
SPECIFICATION

ORDER NO.	GSM36U05-P1J	GSM36U07-P1J	GSM36U09-P1J	GSM36U12-P1J	GSM36U15-P1J	GSM36U18-P1J	GSM36U24-P1J	GSM36U48-P1J						
OUTPUT	SAFETY MODEL NO.	GSM36U05	GSM36U07	GSM36U09	GSM36U12	GSM36U15	GSM36U18	GSM36U24						
	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						
	ripple & 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%						
	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											
INPUT	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											
	LEAKAGE CURRENT(max.)	Touch current < 50μA/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						
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 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	ANSI/AAMI ES60601-1, ES60601-1-11, 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 EMISSION	Parameter		Standard			Test Level / Note							
OTHERS	Conducted emission	FCC PART 15 / CISPR22			Class B									
	Radiated emission	FCC PART 15 / CISPR22			Class B									
	MTBF	657.4K hrs min. MIL-HDBK-217F(25°C)												
CONNECTOR	DIMENSION	79*54*33mm (L*W*H)												
	PACKING	215g ; 60pcs / 13.9Kg / CARTON												
NOTE	PLUG	See page 4~5 ; Other type available by customer requested												
	CABLE	See page 4~5 ; Other type available by customer requested												
1. All parameters are specified at 115VAC 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-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) ※ Product Liability Disclaimer : For detailed information, please refer to https://www.meanwell.com/serviceDisclaimer.aspx														

■ Derating Curve

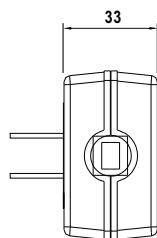
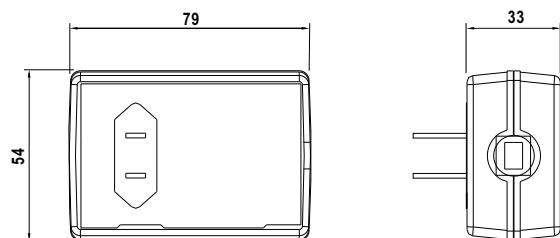
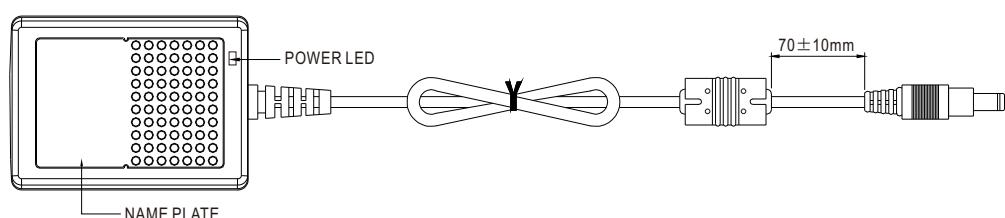
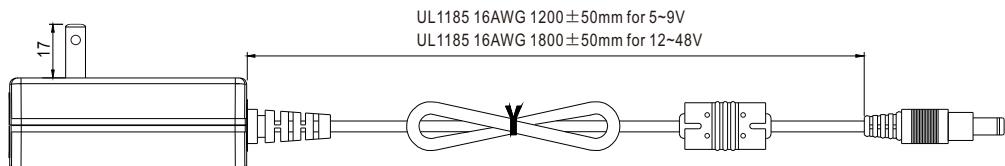


■ Static Characteristics



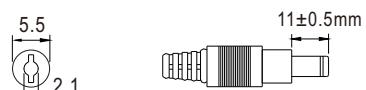
■ Mechanical Specification

Unit:mm



■ DC output plug

- ◎ Standard plug: P1J

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)

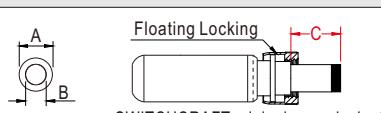
(2) Quick adapter accessory (sold separately without MOQ)

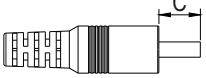
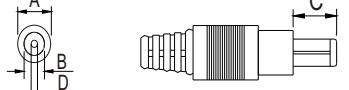
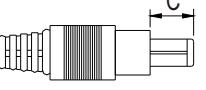
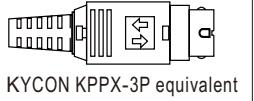
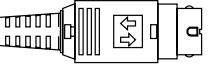
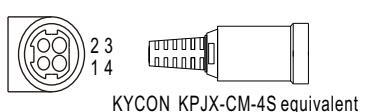
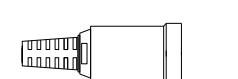
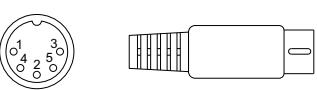
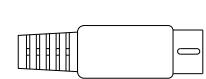
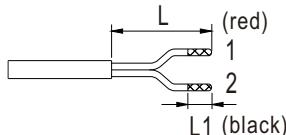
Please refer to below table and online selection guide : https://www.meanwell.com/upload/pdf/DC_plug.pdf

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	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	
	P2LR	5.5	2.5	9.5	
Lock Style	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	
	P2D(760K)	5.53	2.54	9.52	
					

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		
	Type No.	A	B	C	Available (Current rating: 7.5A max.)	
	P4A	5.5	3.4	11.0		
	P4B	6.5	4.4	11.0		
	P4C	7.4	5.1	11.0	0.6	
	Type No.	Pin Assignment			Available (Current rating: 7.5A max.)	
	R6B	PIN No.	Output			
		1	+Vo			
		2	-Vo			
		3	+Vo			
	Type No.	Pin Assignment			Available (Current rating: 7.5A max.)	
	R7B	PIN No.	Output			
		1	+Vo			
		2	-Vo			
		3	-Vo			
		4	+Vo			
	Type No.	Pin Assignment			None	
	R7BF	PIN No.	Output			
		1	+Vo			
		2	-Vo			
		3	-Vo			
	Type No.	Pin Assignment			Available (Current rating: 7.5A max.)	
	R1B	PIN No.	Output			
		1	-Vo			
		2	-Vo			
		3	+Vo			
	Type No.	Pin Assignment			None	
	by customer	PIN No.	Output			
		1	+Vo			
Length of Land L1 by request (MW's standard length, L: <u>25</u> mm, L1: <u>5</u> mm)		2	-Vo			

■ Installation Manual

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