



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

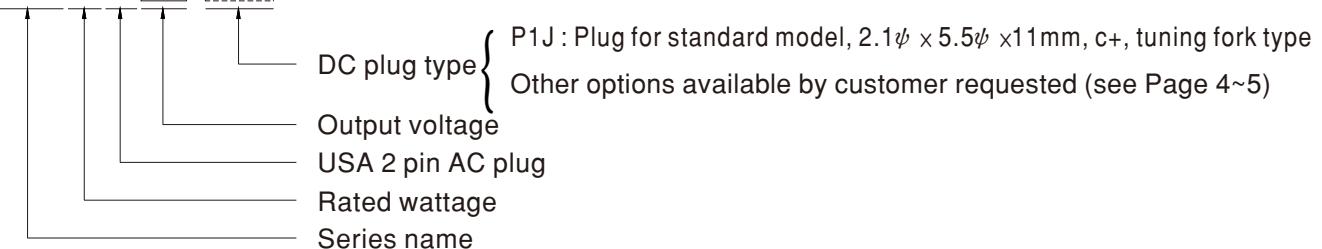
■ Description

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

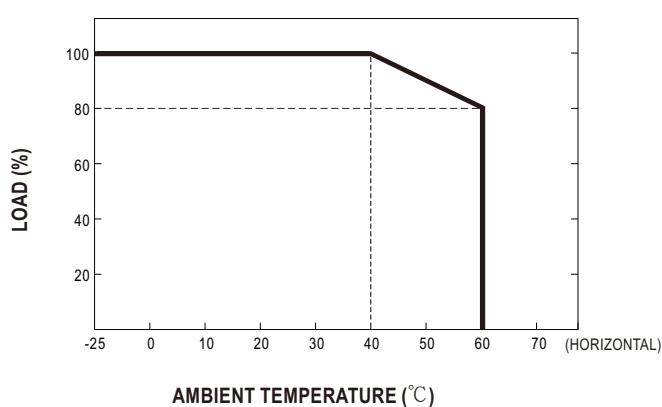
GSM36 U 05 - P1J



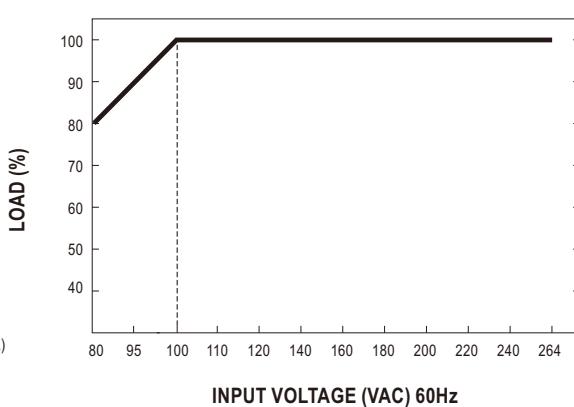
SPECIFICATION

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	GSM36U48							
	DC VOLTAGE Note.2	5V	7.5V	9V	12V	15V	18V	24V	48V							
	RATED CURRENT	4.5A	4.32A	4A	3A	2.4A	2A	1.5A	0.75A							
	CURRENT RANGE	0 ~ 4.5A	0 ~ 4.32A	0 ~ 4A	0 ~ 3A	0 ~ 2.4A	0 ~ 2A	0 ~ 1.5A	0 ~ 0.75A							
	RATED POWER (max.)	22.5W	32.4W	36W	36W	36W	36W	36W	36W							
	ripple & noise (max.) Note.3	80mVp-p	80mVp-p	80mVp-p	120mVp-p	120mVp-p	150mVp-p	180mVp-p	240mVp-p							
	VOLTAGE TOLERANCE Note.4	±6.0%	±5.0%	±5.0%	±3.0%	±3.0%	±3.0%	±2.0%	±2.0%							
	LINE REGULATION Note.5	±1.0%	±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%	±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%	88%							
	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	50.4 ~ 64.8V							
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									
		Conducted emission	FCC PART 15 / CISPR22				Class B									
		Radiated emission	FCC PART 15 / CISPR22				Class B									
OTHERS	MTBF	3777.8K hrs min. Telcordia SR-332 (Bellcore) ; 651.4K hrs min. MIL-HDBK-217F (25°C)														
	DIMENSION	79*54*33mm (L*W*H)														
	PACKING	215g ; 60pcs / 13.9Kg / 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 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

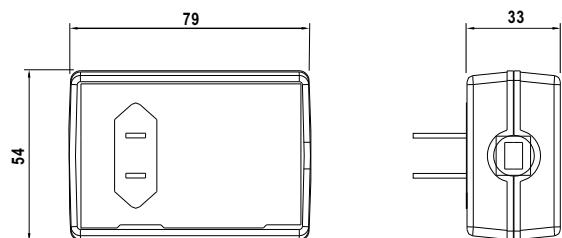
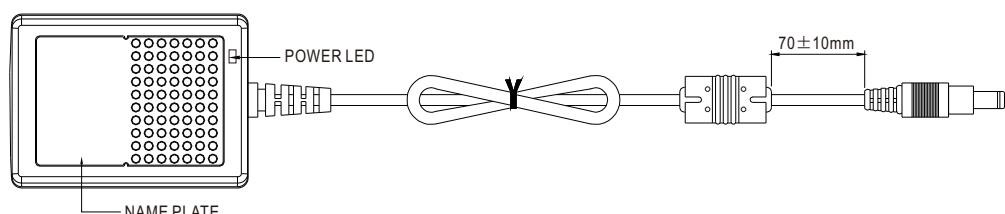
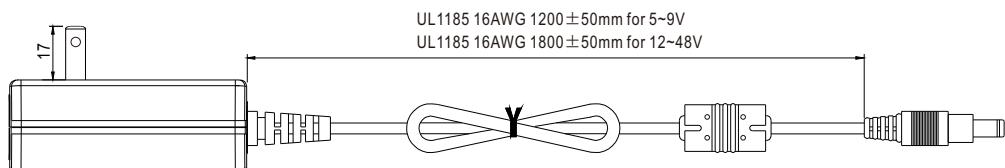


■ Static Characteristics



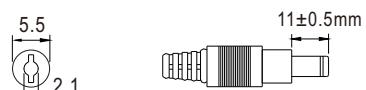
■ Mechanical Specification

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)

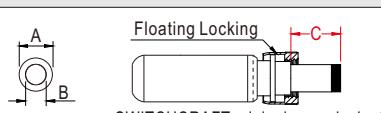
(2) Quick adapter accessory (sold separately without MOQ)

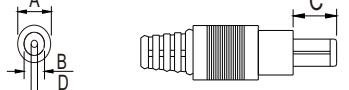
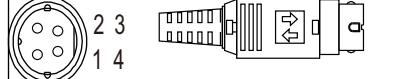
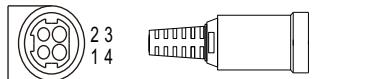
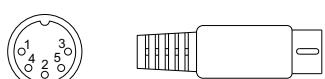
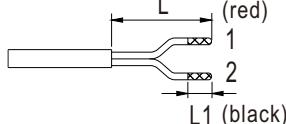
Please refer to below table and online selection guide : https://www.meanwell.com/upload/pdf/DC_plug.pdf

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	
  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	R6B	1	+Vo		Available (Current rating: 7.5A max.)
		2	-Vo		
		3	+Vo		
  KYCON KPPX-4P equivalent	R7B	1	+Vo		Available (Current rating: 7.5A max.)
		2	-Vo		
		3	-Vo		
  KYCON KPJX-CM-4S equivalent	R7BF	1	+Vo		None
		2	-Vo		
		3	-Vo		
 	R1B	1	-Vo		Available (Current rating: 7.5A max.)
		2	-Vo		
		3	+Vo		
  Length of Land L1 by request (MW's standard length, L: <u>25</u> mm, L1: <u>5</u> mm)	by customer	1	+Vo		None
		2	-Vo		

■ Installation Manual

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