



ANSI/AAMI ES60601-1/-1-11



IEC60601-1/-1-11



TPTC004



### ■ Features

- 2 pole USA plug, Class II power unit
- Medical safety approved (2 × 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 sperately, 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

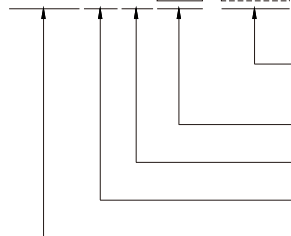
### ■ Description

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 × MOPP), having an ultra low leakage current (<50μA), 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**



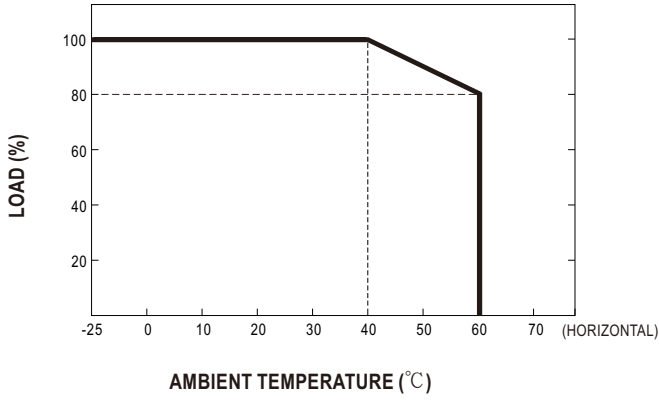
- DC plug type { P1J : Plug for standard model, 2.1φ × 5.5φ × 11mm, c+, tuning fork type  
Other options available by customer requested (see Page 4~5)
- Output voltage
- USA 2 pin AC plug
- Rated wattage
- Series name



**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 <small>Note.2</small>	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.) <small>Note.3</small>	80mVp-p	80mVp-p	80mVp-p	120mVp-p	120mVp-p	150mVp-p	180mVp-p	240mVp-p	
	VOLTAGE TOLERANCE <small>Note.4</small>	±6.0%	±5.0%	±5.0%	±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	±6.0%	±5.0%	±5.0%	±3.0%	±3.0%	±3.0%	±2.0%	±2.0%	
	SETUP, RISE TIME <small>Note.6</small>	500ms, 30ms / 230VAC    1000ms, 30ms / 115VAC at full load								
HOLD UP TIME (Typ.)	16ms / 230VAC    10ms / 115VAC at full load									
INPUT	VOLTAGE RANGE <small>Note.7</small>	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	
		Protection type : Shut down o/p voltage, re-power on to recover								
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	657.4K 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	<p>1. All parameters are specified at 115VAC 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. 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.</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

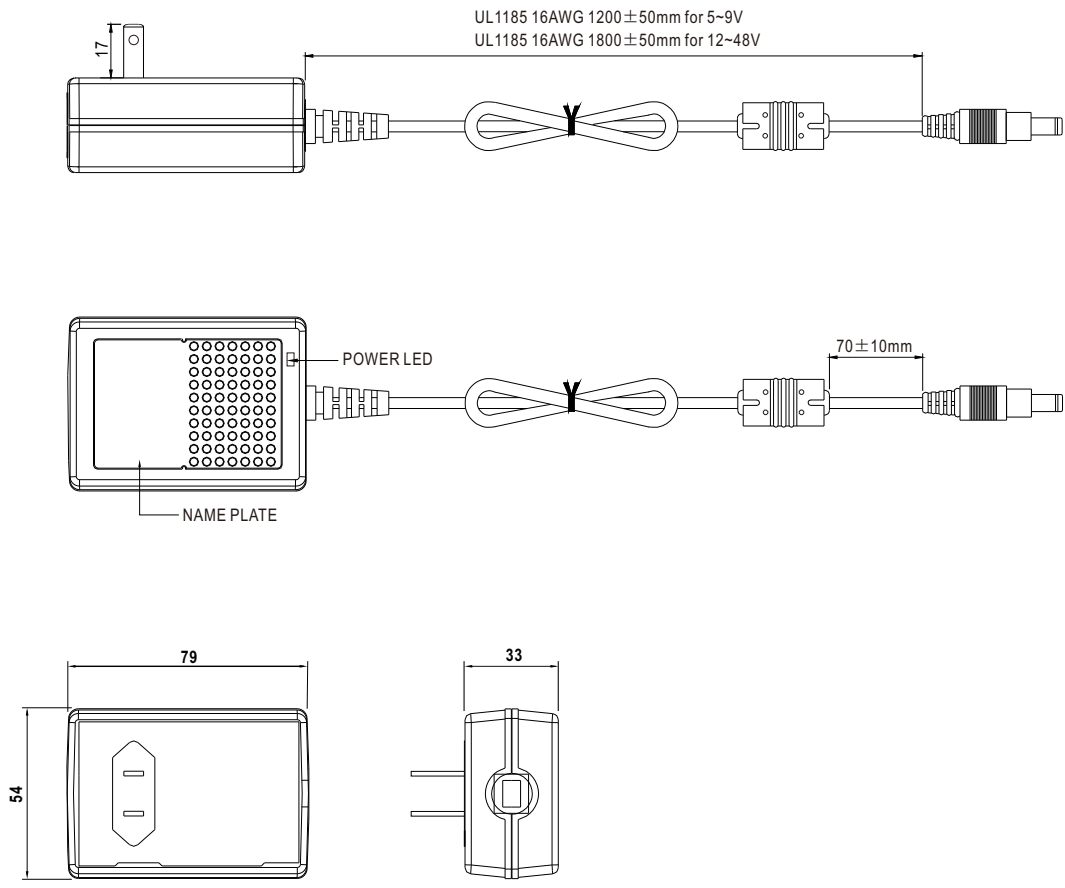


■ Static Characteristics



■ Mechanical Specification

Unit:mm



■ DC output plug

◎ Standard plug: P1J

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		
	P1I (Straight)	5.5	2.1	9.5	Available (Current rating: 7.5A max.)	
	P1L (Straight)	5.5	2.5	9.5		
	P1M (Straight)	5.5	2.5	11.0		
	P1IR (Right-angled)	5.5	2.1	9.5		
	P1JR (Right-angled)	5.5	2.1	11.0		
	P1LR (Right-angled)	5.5	2.5	9.5		
	P2I (Straight)	5.5	2.1	9.5	None	
	P2J (Straight)	5.5	2.1	11.0		
	P2L (Straight)	5.5	2.5	9.5		
	P2M (Straight)	5.5	2.5	11.0		
	P2IR (Right-angled)	5.5	2.1	9.5		
	P2JR (Right-angled)	5.5	2.1	11.0		
	P2LR (Right-angled)	5.5	2.5	9.5	None	
	P2MR (Right-angled)	5.5	2.5	11.0		
	Lock Style	Type No.	A	B		C
			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		
Center Pin Style	Type No.	A	B	C	D	Available (Current rating: 7.5A max.)
	P4A	5.5	3.4	11.0	1.0	
	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.)		
	R6B	PIN No.	Output			
		1	+Vo			
		2	-Vo			
3	+Vo					
Min. DIN 4 Pin with Lock (male)	Type No.	Pin Assignment		Available (Current rating: 7.5A max.)		
	R7B	PIN No.	Output			
		1	+Vo			
		2	-Vo			
		3	-Vo			
4	+Vo					
Min. DIN 4 Pin with Lock (female)	Type No.	Pin Assignment		None		
	R7BF	PIN No.	Output			
		1	+Vo			
		2	-Vo			
		3	-Vo			
4	+Vo					
DIN 5 Pin (male)	Type No.	Pin Assignment		Available (Current rating: 7.5A max.)		
	R1B	PIN No.	Output			
		1	-Vo			
		2	-Vo			
		3	+Vo			
		4	-Vo			
5	+Vo					
Stripped and tinned leads	Type No.	Pin Assignment		None		
<p>Length of Land L1 by request (MW's standard length, L: 25 mm, L1: 5 mm)</p>	by customer	PIN No.	Output			
		1	+Vo			
2	-Vo					

**Installation Manual**

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