



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

## ■ GTIN CODE

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

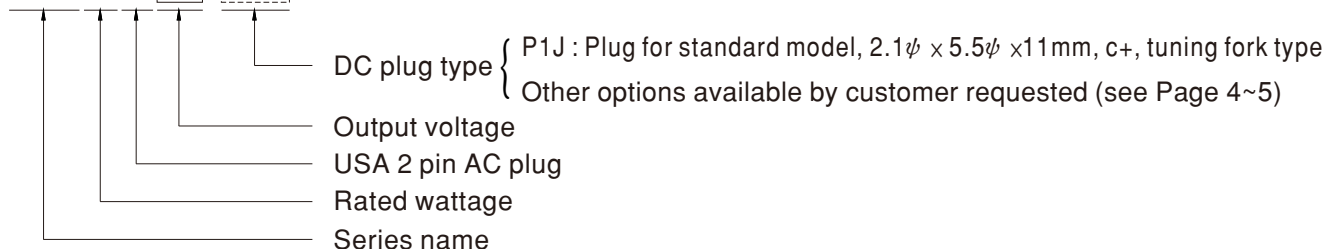
## ■ Description

GSM25U is a highly reliable, 25W 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, GSM25U 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. GSM25U is approved with the international medical safety certificates.

## ■ Model Encoding

**GSM25U 05 -P1J**

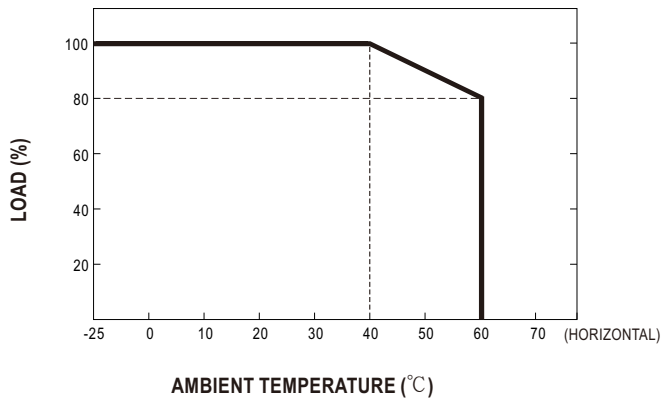




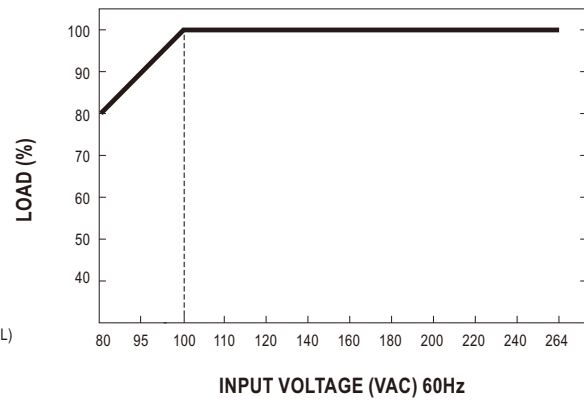
**SPECIFICATION**

ORDER NO.		GSM25U05-P1J	GSM25U07-P1J	GSM25U09-P1J	GSM25U12-P1J	GSM25U15-P1J	GSM25U18-P1J	GSM25U24-P1J	GSM25U48-P1J	
OUTPUT	SAFETY MODEL NO.	GSM25U05	GSM25U07	GSM25U09	GSM25U12	GSM25U15	GSM25U18	GSM25U24	GSM25U48	
	DC VOLTAGE <small>Note.2</small>	5V	7.5V	9V	12V	15V	18V	24V	48V	
	RATED CURRENT	4A	2.93A	2.77A	2.08A	1.66A	1.38A	1.04A	0.52A	
	CURRENT RANGE	0 ~ 4A	0 ~ 2.93A	0 ~ 2.77A	0 ~ 2.08A	0 ~ 1.66A	0 ~ 1.38A	0 ~ 1.04A	0 ~ 0.52A	
	RATED POWER (max.)	20W	22W	25W	25W	25W	25W	25W	25W	
	RIPPLE & NOISE (max.) <small>Note.3</small>	60mVp-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      16ms / 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.)	0.7A / 115VAC      0.35A / 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	IEC 60601-1:2005+A1+A2; IEC 60601-1-11:2015+A1, ANSI/AAMI ES60601-1:2005+A2; ANSI/AAMI HA60601-1-11+A1 CAN/CSA C22.2 No. 60601-1:2014+A2; CSA C22.2 NO. 60601-1-11:2015+A1, 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	MTBF	3887.1K hrs min.    Telcordia SR-332 (Bellcore) ; 791.9K 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	<ol style="list-style-type: none"> <li>All parameters are specified at 115VAC input, rated load, 25°C 70% RH ambient.</li> <li>DC voltage: The output voltage set at point measure by plug terminal &amp; 50% load.</li> <li>Ripple &amp; noise are measured at 20MHz by using a 12" twisted pair terminated with a 0.1 µ F &amp; 47 µ F capacitor.</li> <li>Tolerance: includes set up tolerance, line regulation, load regulation.</li> <li>Line regulation is measured from low line to high line at rated load.</li> <li>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.</li> <li>Derating may be needed under low input voltage. Please check the derating curve for more details.</li> <li>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="https://www.meanwell.com/Upload/PDF/EMI_statement_en.pdf">https://www.meanwell.com/Upload/PDF/EMI_statement_en.pdf</a>)</li> </ol> <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



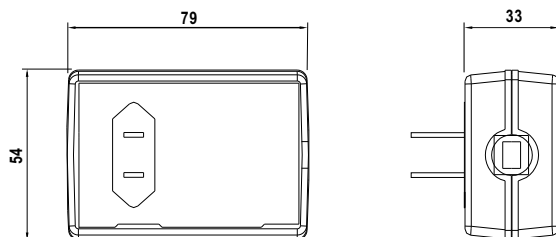
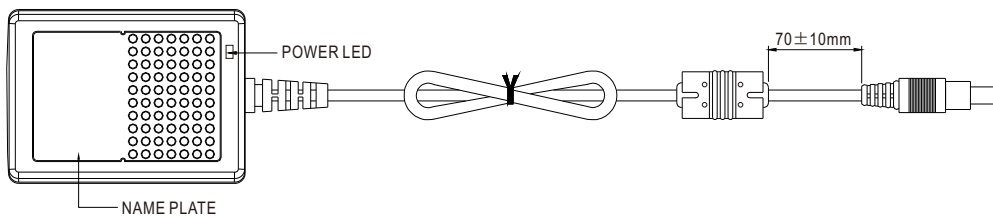
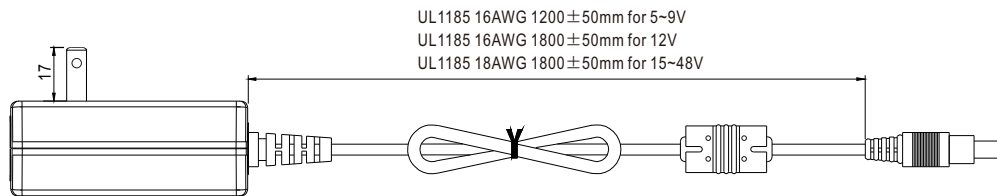
### Static Characteristics



### Mechanical Specification

(Unit: mm, tolerance  $\pm 1$ mm)

Case No. GSM36



■ 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	
P1MR (Right-angled)	5.5	2.5	11.0		
Barrel Style	Type No.	A	B	C	Quick Adapter Accessory
		OD	ID	L	
	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	
	P2MR (Right-angled)	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	

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		
Center Pin Style	Type No.	A	B	C	D	Available (Current rating: 7.5A max.)
 EIAJ equivalent	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.)		
 KYCON KPPX-3P equivalent	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.)		
 KYCON KPPX-4P equivalent	R7B	PIN No.	Output			
		1	+Vo			
		2	-Vo			
		3	-Vo			
4	+Vo					
Min. DIN 4 Pin with Lock (female)	Type No.	Pin Assignment		None		
 KYCON KPJX-CM-4S equivalent	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		
 Length of Land L1 by request (MW's standard length, L: 25 mm, L1: 5 mm) ( NOTE: The wire color is for reference only, please refer to the actual product)	by customer	PIN No.	Output			
		1	+Vo			
		2	-Vo			

■ Installation Manual

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