



18W AC-DC Single Output Medical Adaptor

**GSM18U** series



### ■ Features

- Universal AC input / Full range
- 2 pole USA plug
- High efficiency up to 88%
- Low leakage current <math><50\mu\text{A}</math>
- Protections: Short circuit / Overload / Over voltage
- Fully enclosed plastic case
- Medical safety approved (2 × MOPP between primary to secondary)
- Class II power (without earth pin)
- LED indicator for power on
- No load power consumption <math><0.1\text{W}</math>
- ErP step2 compliant (level V)
- Meet EISA 2007 (Energy Independence and Security Act)
- Optional lock type DC plug
- 3 years warranty

### ■ Applications

- Blood glucose meter
- Blood pressure meter
- Nebulizer
- Inhaler
- Portable medical device

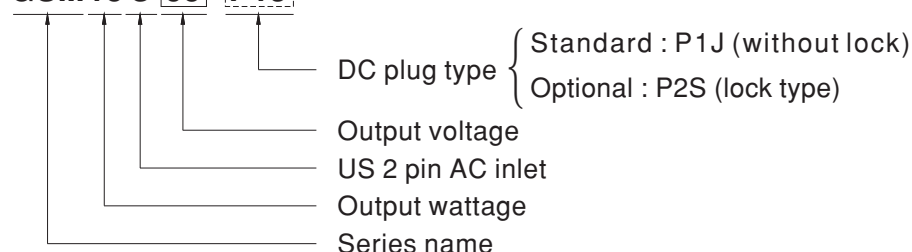
### ■ Description

GSM18U is a highly reliable, 18W single-output green medical adaptor series. This product is equipped with a 2-pin (no FG) standard US 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 (<math><50\mu\text{A}</math>), 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, the design of GSM18U observes the latest energy regulation (level V); 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. GSM18U is approved with the international medical safety certificates.

### ■ Model Encoding

**GSM18U 05 - P1J**





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**SPECIFICATION**

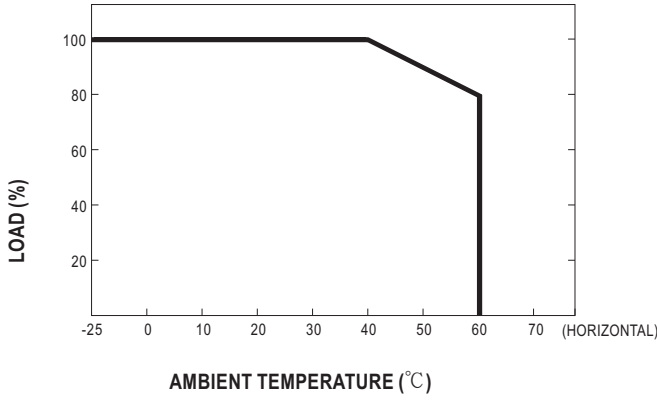
ORDER NO.	GSM18U05-P1J	GSM18U07-P1J	GSM18U09-P1J	GSM18U12-P1J	GSM18U15-P1J	GSM18U18-P1J	GSM18U24-P1J	GSM18U48-P1J		
OUTPUT	<b>SAFETY MODEL NO.</b>	GSM18U05	GSM18U07	GSM18U09	GSM18U12	GSM18U15	GSM18U18	GSM18U24	GSM18U48	
	<b>DC VOLTAGE</b> Note.2	5V	7.5V	9V	12V	15V	18V	24V	48V	
	<b>RATED CURRENT</b>	3A	2A	2A	1.5A	1.2A	1A	0.75A	0.375A	
	<b>CURRENT RANGE</b>	0 ~ 3A	0 ~ 2A	0 ~ 2A	0 ~ 1.5A	0 ~ 1.2A	0 ~ 1A	0 ~ 0.75A	0 ~ 0.375A	
	<b>RATED POWER (max.)</b>	15W	15W	18W	18W	18W	18W	18W	18W	
	<b>RIPPLE &amp; NOISE (max.)</b> Note.3	60mVp-p	80mVp-p	80mVp-p	120mVp-p	120mVp-p	150mVp-p	180mVp-p	240mVp-p	
	<b>VOLTAGE TOLERANCE</b> Note.4	±5.0%	±5.0%	±5.0%	±3.0%	±3.0%	±3.0%	±2.0%	±2.0%	
	<b>LINE REGULATION</b> Note.5	±1.0%	±1.0%	±1.0%	±1.0%	±1.0%	±1.0%	±1.0%	±1.0%	
	<b>LOAD REGULATION</b>	±5.0%	±5.0%	±5.0%	±3.0%	±3.0%	±3.0%	±2.0%	±2.0%	
	<b>SETUP, RISE TIME</b> Note.6	500ms, 30ms / 230VAC      1000ms, 30ms / 115VAC at full load								
<b>HOLD UP TIME (Typ.)</b>	16ms / 230VAC      16ms / 115VAC at full load									
INPUT	<b>VOLTAGE RANGE</b>	80 ~ 264VAC    113 ~ 370VDC								
	<b>FREQUENCY RANGE</b>	47 ~ 63Hz								
	<b>EFFICIENCY (Typ.)</b>	80%	83%	84%	86%	87%	87%	87%	88%	
	<b>AC CURRENT (Typ.)</b>	0.5A / 115VAC    0.25A / 230VAC								
	<b>INRUSH CURRENT (Typ.)</b>	55A / 230VAC    30A / 115VAC								
<b>LEAKAGE CURRENT(max.)</b>	Touch current < 50 $\mu$ A/264VAC									
PROTECTION	<b>OVERLOAD</b>	105 ~ 170% rated output power Protection type : Hiccup mode, recovers automatically after fault condition is removed								
	<b>OVER VOLTAGE</b>	5.25 ~ 7.5V	7.88 ~ 10.13V	9.45 ~ 12.6V	12.6 ~ 17.2V	15.75 ~ 20.25V	18.9 ~ 24.3V	25.2 ~ 32.4V	50.4 ~ 64.8V	
ENVIRONMENT	<b>WORKING TEMP.</b>	-25 ~ +60°C (Refer to "Derating Curve")								
	<b>WORKING HUMIDITY</b>	20% ~ 90% RH non-condensing								
	<b>STORAGE TEMP., HUMIDITY</b>	-40 ~ +85°C, 10 ~ 95% RH								
	<b>TEMP. COEFFICIENT</b>	±0.03% / °C (0~40°C)								
	<b>VIBRATION</b>	10 ~ 500Hz, 2G 10min./1cycle, period for 60min. each along X, Y, Z axes								
SAFETY & EMC (Note. 7)	<b>SAFETY STANDARDS</b>	ANSI/AAMI ES60601-1, ES60601-1-11 approved								
	<b>WITHSTAND VOLTAGE</b>	I/P-O/P:4KVAC								
	<b>ISOLATION RESISTANCE</b>	I/P-O/P:100M Ohms / 500VDC / 25°C / 70% RH								
	<b>EMC EMISSION</b>	Compliance to FCC PART 15 class B								
OTHERS	<b>MTBF</b>	796.7K hrs min. MIL-HDBK-217F(25°C)								
	<b>DIMENSION</b>	79*54*33mm (L*W*H)								
	<b>PACKING</b>	185g ; 60pcs / 12.1Kg / CARTON								
CONNECTOR	<b>PLUG</b>	Standard type P1J: 2.1 $\phi$ * 5.5 $\phi$ * 11mm, tuning fork type, center positive for stock ; Other type available by customer requested								
	<b>CABLE</b>	See page 2 ; 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 0.1uf &amp; 47uf 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>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>)</li> </ol>									



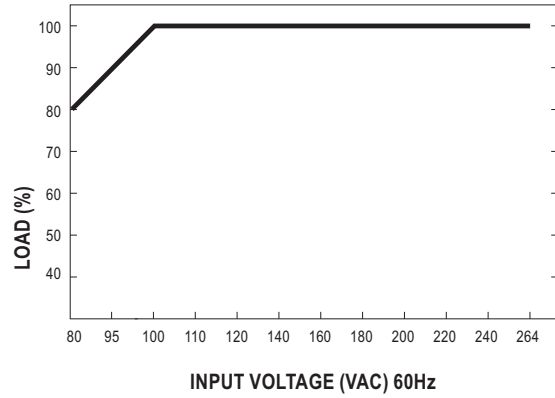
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■ Derating Curve

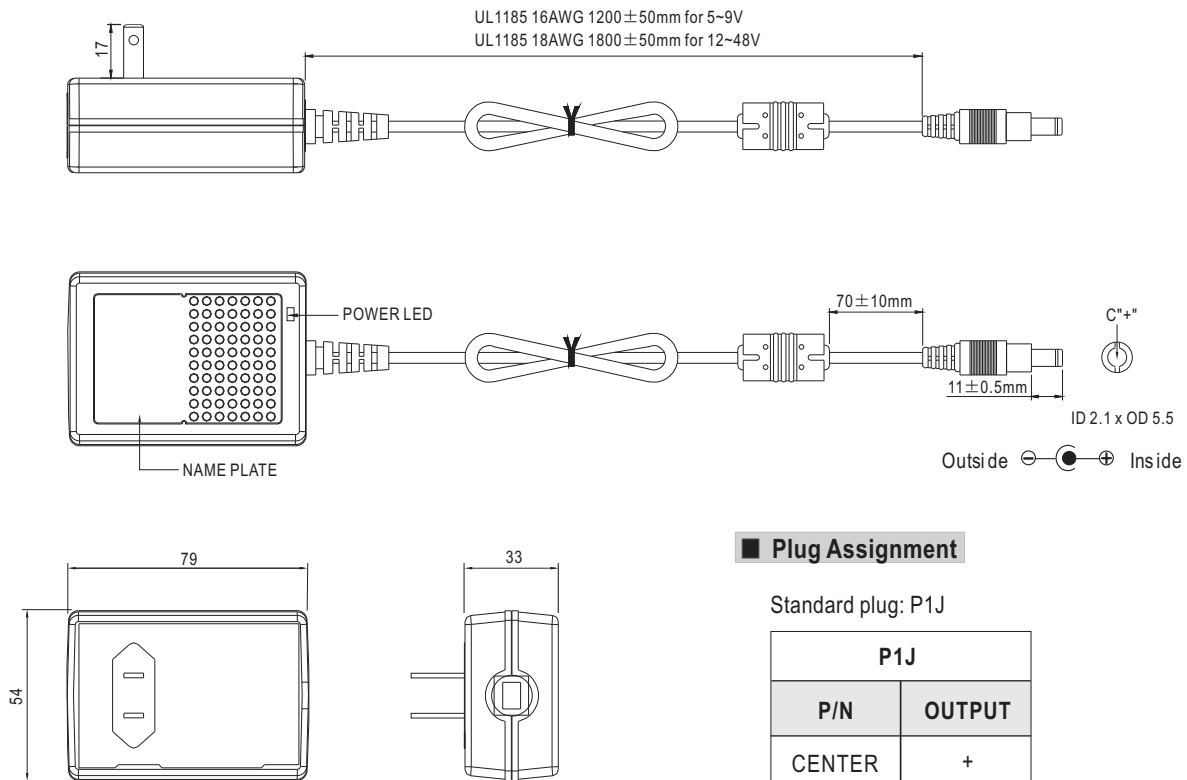


■ Static Characteristics



■ Mechanical Specification

Unit:mm



■ Plug Assignment

Standard plug: P1J

P1J	
P/N	OUTPUT
CENTER	+

Optional lock type plug: P2S

SWITCHCRAFT S761K plug equivalent

■ Installation Manual

Please refer to : <http://www.meanwell.com/webnet/search/InstallationSearch.html>