



## ■ Features

- Universal AC input / Full range
- 2 pole USA plug
- Medical safety approved (2 × MOPP between primary to secondary)
- Suitable for BF application with appropriate system consideration
- Low leakage current <math><50\mu\text{A}</math>
- No load power consumption <math><0.1\text{W}</math>
- Energy efficiency Level VI (except 5~9V for Level V)
- Comply with EISA 2007/DoE and NRCan
- High efficiency up to 88%
- High operating temperature up to +60°C
- Class II power (without earth pin)
- Protections: Short circuit / Overload / Over voltage
- Fully enclosed plastic case
- LED indicator for power on
- Optional lock type DC plug
- 100% full load burn-in test
- 3 years warranty

## ■ Applications

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

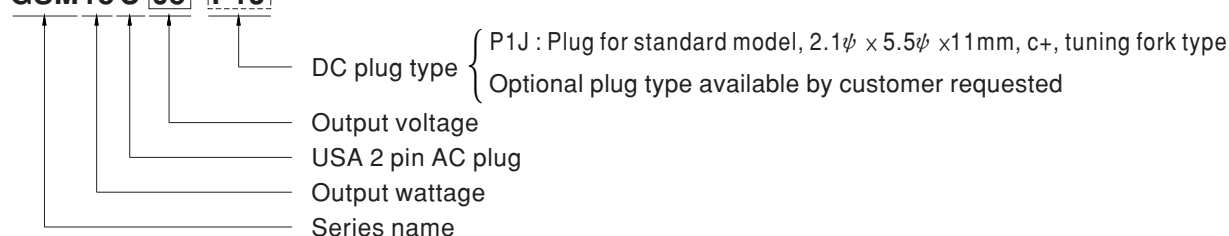
## ■ Description

GSM18U is a highly reliable, 18W 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 (<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, GSM18U 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. GSM18U is approved with the international medical safety certificates.

## ■ Model Encoding

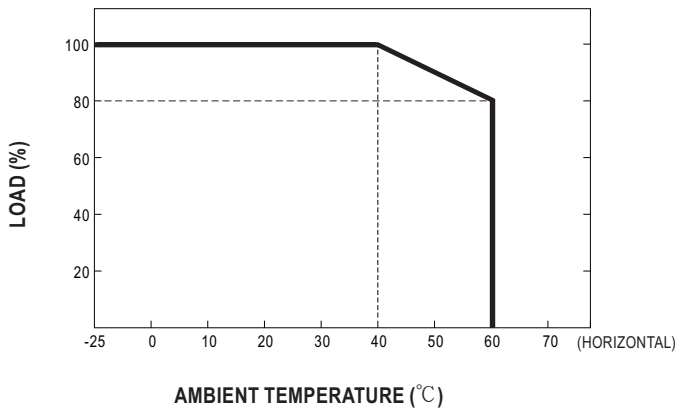
**GSM18U 05 -P1J**



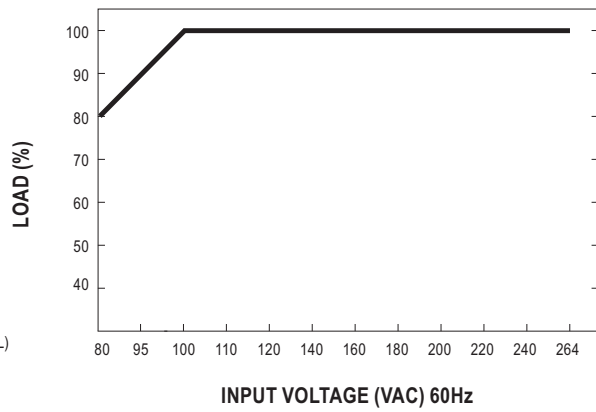
## SPECIFICATION

ORDER NO.	GSM18U05-P1J	GSM18U07-P1J	GSM18U09-P1J	GSM18U12-P1J	GSM18U15-P1J	GSM18U18-P1J	GSM18U24-P1J	GSM18U48-P1J		
OUTPUT	SAFETY MODEL NO.	GSM18U05	GSM18U07	GSM18U09	GSM18U12	GSM18U15	GSM18U18	GSM18U24	GSM18U48	
	DC VOLTAGE <small>Note.2</small>	5V	7.5V	9V	12V	15V	18V	24V	48V	
	RATED CURRENT	3A	2A	2A	1.5A	1.2A	1A	0.75A	0.375A	
	CURRENT RANGE	0 ~ 3A	0 ~ 2A	0 ~ 2A	0 ~ 1.5A	0 ~ 1.2A	0 ~ 1A	0 ~ 0.75A	0 ~ 0.375A	
	RATED POWER (max.)	15W	15W	18W	18W	18W	18W	18W	18W	
	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>	±5.0%	±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	±5.0%	±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.)	0.5A / 115VAC		0.25A / 230VAC						
	INRUSH CURRENT (Typ.)	55A / 230VAC		30A / 115VAC						
LEAKAGE CURRENT(max.)	Touch current < 50 $\mu$ A/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 ~ 10.13V	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	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								
	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								
	WITHSTAND VOLTAGE	I/P-O/P:4KVAC								
	ISOLATION RESISTANCE	I/P-O/P:100M Ohms / 500VDC / 25°C / 70% RH								
	EMC EMISSION	Compliance to FCC PART 15 class B								
OTHERS	MTBF	796.7K hrs min. MIL-HDBK-217F(25°C)								
	DIMENSION	79*54*33mm (L*W*H)								
	PACKING	185g ; 60pcs / 12.1Kg / CARTON								
CONNECTOR	PLUG	See page 3 ; Other type available by customer requested								
	CABLE	See page 3 ; 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>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."</li> </ol>									

■ Derating Curve



■ Static Characteristics



■ Mechanical Specification

Unit:mm

