



## 36W AC-DC Single Output Medical Type

# GSM36B series



### ■ Features :

- Universal AC input / Full range
- 2 pole AC inlet IEC320-C8
- High efficiency up to 88%
- Low leakage current <50 $\mu$ A
- Protections: Short circuit / Overload / Over voltage
- Fully enclosed plastic case
- Medical safety approved (2  $\times$  MOPP between primary to secondary)
- Class II power (without earth pin)
- LED indicator for power on
- No load power consumption <0.1W
- ErP step2 compliant (level V)
- Meet EISA 2007 (Energy Independence and Security Act)
- Optional lock type DC plug
- 3 years warranty

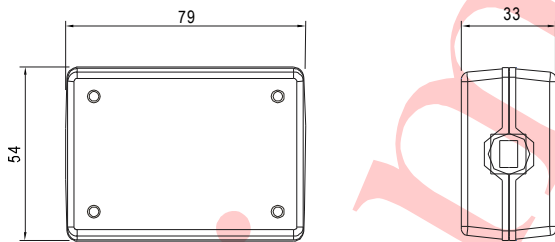
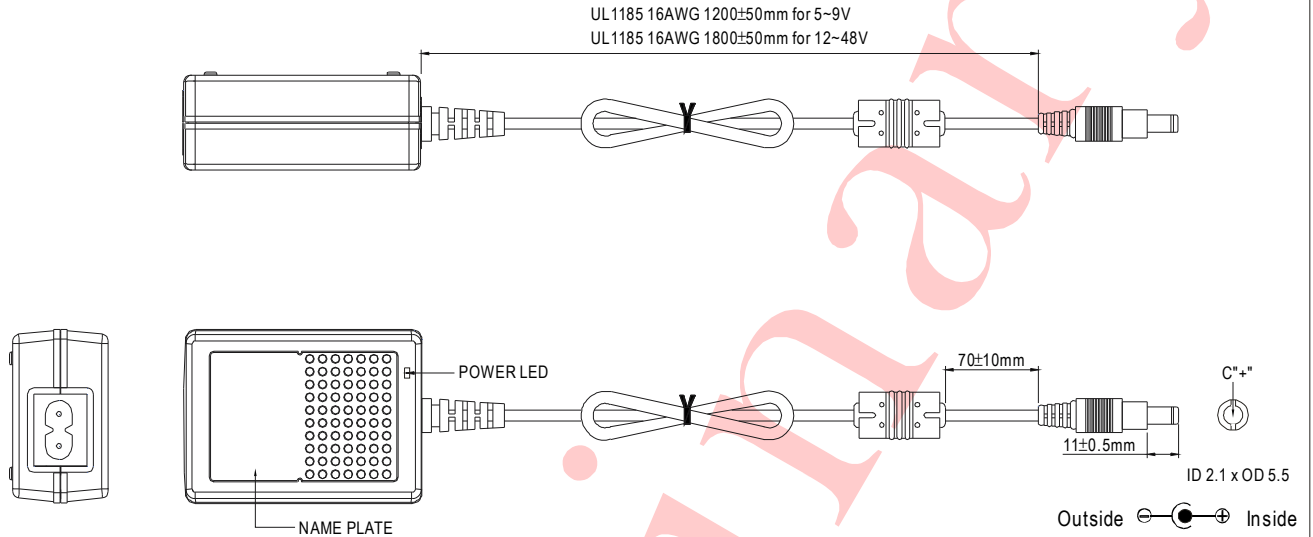


### SPECIFICATION

ORDER NO.	GSM36B05-P1J	GSM36B07-P1J	GSM36B09-P1J	GSM36B12-P1J	GSM36B15-P1J	GSM36B18-P1J	GSM36B24-P1J	GSM36B48-P1J		
OUTPUT	<b>SAFETY MODEL NO.</b>	GSM36B05	GSM36B07	GSM36B09	GSM36B12	GSM36B15	GSM36B18	GSM36B24	GSM36B48	
	<b>DC VOLTAGE</b> Note.2	5V	7.5V	9V	12V	15V	18V	24V	48V	
	<b>RATED CURRENT</b>	4.5A	4.32A	4A	3A	2.4A	2A	1.5A	0.75A	
	<b>CURRENT RANGE</b>	0 ~ 4.5A	0 ~ 4.32A	0 ~ 4A	0 ~ 3A	0 ~ 2.4A	0 ~ 2A	0 ~ 1.5A	0 ~ 0.75A	
	<b>RATED POWER (max.)</b>	22.5W	32.4W	36W	36W	36W	36W	36W	36W	
	<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	$\pm 6.0\%$	$\pm 5.0\%$	$\pm 5.0\%$	$\pm 3.0\%$	$\pm 3.0\%$	$\pm 3.0\%$	$\pm 2.0\%$	$\pm 2.0\%$	
	<b>LINE REGULATION</b> Note.5	$\pm 1.0\%$	$\pm 1.0\%$	$\pm 1.0\%$	$\pm 1.0\%$	$\pm 1.0\%$	$\pm 1.0\%$	$\pm 1.0\%$	$\pm 1.0\%$	
	<b>LOAD REGULATION</b>	$\pm 6.0\%$	$\pm 5.0\%$	$\pm 5.0\%$	$\pm 3.0\%$	$\pm 3.0\%$	$\pm 3.0\%$	$\pm 2.0\%$	$\pm 2.0\%$	
	<b>SETUP, RISE TIME</b> Note.6	500ms, 30ms / 230VAC    1000ms, 30ms / 115VAC at full load								
INPUT	<b>HOLD UP TIME (Typ.)</b>	16ms / 230VAC    16ms / 115VAC at full load								
	<b>VOLTAGE RANGE</b>	80 ~ 264VAC    113 ~ 370VDC								
	<b>FREQUENCY RANGE</b>	47 ~ 63Hz								
	<b>EFFICIENCY (Typ.)</b>	80.5%	83%	84%	86%	87%	87%	87%	88%	
	<b>AC CURRENT (Typ.)</b>	0.9A / 115VAC    0.45A / 230VAC								
	<b>INRUSH CURRENT (Typ.)</b>	55A / 230VAC    30A / 115VAC								
PROTECTION	<b>LEAKAGE CURRENT(max.)</b>	Touch current < 50 $\mu$ A/264VAC								
	<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 ~ 10.5V	9.45 ~ 13V	12.6 ~ 16.8V	15.75 ~ 20.25V	18.9 ~ 25.2V	25.2 ~ 32.4V	50.4 ~ 64.8V	
ENVIRONMENT	Protection type : Shut down o/p voltage, re-power on to recover									
	<b>WORKING TEMP.</b>	-25 ~ +60 $^{\circ}$ C (Refer to "Derating Curve")								
	<b>WORKING HUMIDITY</b>	20% ~ 90% RH non-condensing								
	<b>STORAGE TEMP., HUMIDITY</b>	-40 ~ +85 $^{\circ}$ C, 10 ~ 95% RH								
	<b>TEMP. COEFFICIENT</b>	$\pm 0.03\%$ / $^{\circ}$ C (0~40 $^{\circ}$ C)								
SAFETY & EMC (Note. 7)	<b>VIBRATION</b>	10 ~ 500Hz, 2G 10min./1cycle, period for 60min. each along X, Y, Z axes								
	<b>SAFETY STANDARDS</b>	ANSI/AAMI ES60601-1, TUV EN60601-1 / 60601-1-11 approved								
	<b>WITHSTAND VOLTAGE</b>	I/P-O/P:4KVAC								
	<b>ISOLATION RESISTANCE</b>	I/P-O/P:100M Ohms / 500VDC / 25 $^{\circ}$ C / 70% RH								
	<b>EMC EMISSION</b>	Compliance to EN55011(CISPR11) class B, EN61000-3-2,3, FCC PART 15 class B								
OTHERS	<b>EMC IMMUNITY</b>	Compliance to EN61000-4-2,3,4,5,6,8,11, EN55024, EN60601-1-2, EN61204-3 medical level, criteria A								
	<b>MTBF</b>	K hrs min. MIL-HDBK-217F(25 $^{\circ}$ C)								
	<b>DIMENSION</b>	79*54*33mm (L*W*H)								
	<b>PACKING</b>	Kg; 60pcs/ Kg/ CUFT								
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>1. All parameters are specified at 230VAC input, rated load, 25<math>^{\circ}</math>C 70% RH ambient.</li> <li>2. DC voltage: The output voltage set at point measure by plug terminal &amp; 50% load.</li> <li>3. Ripple &amp; noise are measured at 20MHz by using a 12" twisted pair terminated with a 0.1<math>\mu</math>f &amp; 47<math>\mu</math>f capacitor.</li> <li>4. Tolerance: includes set up tolerance, line regulation, load regulation.</li> <li>5. Line regulation is measured from low line to high line at rated load.</li> <li>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.</li> <li>7. 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.</li> </ol>									

■ Mechanical Specification

Unit:mm



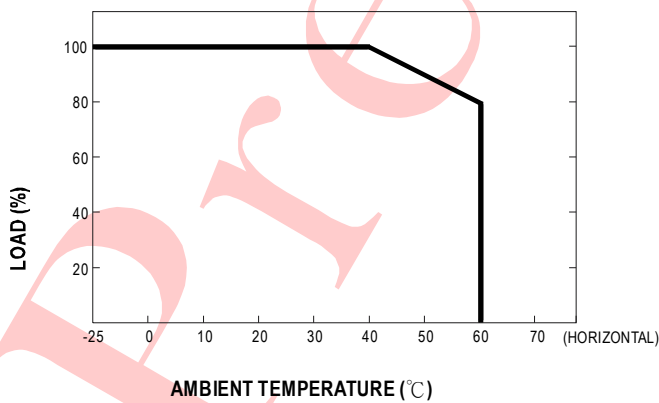
■ Plug Assignment

Standard plug: P1J

P1J	
P/N	OUTPUT
CENTER	+

Optional lock type plug: P2S  
SWITCHCRAFT S761K plug equivalent

■ Derating Curve



■ Static Characteristics

