

GSM18B Series

18W AC-DC Reliable Green Medical Adaptor



Features

- 2 pole AC inlet IEC320-C8, Class II power unit
- Medical safety approved (2 × MOPP) according to ANSI/AAMI ES60601-1/-1-11, BS EN/EN60601-1/-1-11
- Extremely low leakage current
- No load power consumption < 0.1W
- Energy efficiency Level VI and meet CoC version 5 (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 separately, please refer to : 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>

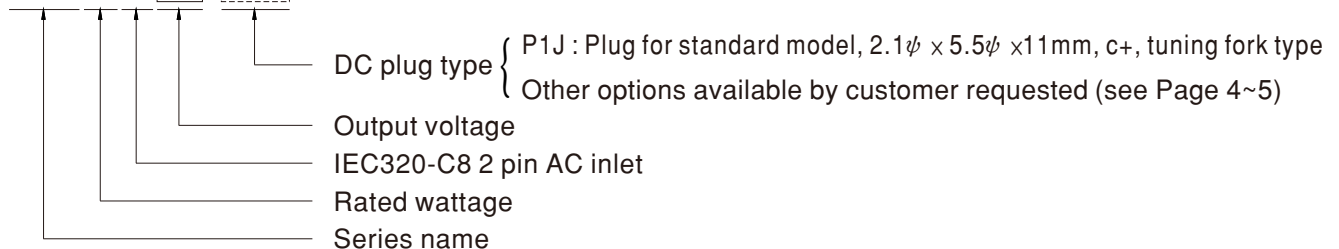
Description

GSM18B is a highly reliable, 18W desktop style single-output green medical adaptor series. This product is equipped with a 2-pin (no FG) standard IEC320-C8 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, GSM18B is compliant with USA EISA 2007/DoE, Canada NRCAN, Australia and New Zealand MEPS, EU ErP and meet Code of Conduct (CoC) Version 5; 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. GSM18B is approved with the international medical safety certificates.

Model Encoding

GSM18B 05 - P1J



SPECIFICATION

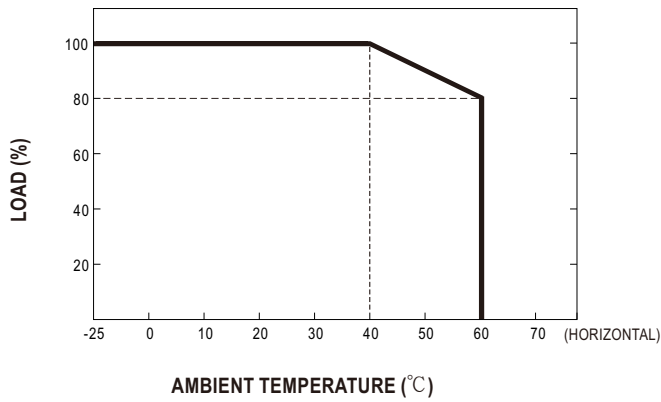
ORDER NO.	GSM18B05-P1J	GSM18B07-P1J	GSM18B09-P1J	GSM18B12-P1J	GSM18B15-P1J	GSM18B18-P1J	GSM18B24-P1J	GSM18B48-P1J			
OUTPUT	SAFETY MODEL NO.	GSM18B05	GSM18B07	GSM18B09	GSM18B12	GSM18B15	GSM18B18	GSM18B24	GSM18B48		
	DC VOLTAGE Note.2	5V	7.5V	9V	12V	15V	18V	24V	48V		
	RATED CURRENT	3A	2A	2A	1.5A	1.2A	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.) Note.3	60mVp-p	80mVp-p	80mVp-p	120mVp-p	120mVp-p	150mVp-p	180mVp-p	240mVp-p		
	VOLTAGE TOLERANCE Note.4	±5.0%	±5.0%	±5.0%	±3.0%	±3.0%	±3.0%	±2.0%	±2.0%		
	LINE REGULATION Note.5	±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 Note.6	500ms, 30ms / 230VAC 100ms, 30ms / 115VAC at full load									
HOLD UP TIME (Typ.)	16ms / 230VAC 16ms / 115VAC at full load										
INPUT	VOLTAGE RANGE Note.7	80 ~ 264VAC 113 ~ 370VDC									
	FREQUENCY RANGE	47 ~ 63Hz									
	EFFICIENCY (Typ.)	80%	83%	84%	85%	85.5%	86%	87%	88%		
	AC CURRENT (Typ.)	0.5A / 115VAC		0.25A / 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 ~ 10.13V	9.45 ~ 12.6V	12.6 ~ 17.2V	15.75 ~ 20.25V	18.9 ~ 24.3V	25.2 ~ 32.4V	50.4 ~ 64.8V		
		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	IEC 60601-1:2005+A1+A2; IEC 60601-1-11:2015+A1, TUV BS EN/ EN 60601-1:2006+A1+A12+A2; BS EN/ EN 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			
		Conducted emission	BS EN/EN55011(CISPR11),FCC PART 15 / CISPR22, CAN ICES-3(B)/NMB-3(B),MSIP KN32					Class B			
		Radiated emission	BS EN/EN55011(CISPR11),FCC PART 15 / CISPR22, CAN ICES-3(B)/NMB-3(B),MSIP KN32					Class B			
		Harmonic current	BS EN/EN61000-3-2					Class A			
		Voltage flicker	BS EN/EN61000-3-3					-----			
	EMC IMMUNITY	BS EN/EN60601-1-2, BS EN/EN61204-3									
Parameter		Standard					Test Level / Note				
ESD		BS EN/EN61000-4-2					Level 4, 15KV air ; Level 4, 8KV contact				
RF field susceptibility		BS EN/EN61000-4-3					Level 3, 10V/m(80MHz~2.7GHz) Table 9, 9~28V/m(385MHz~5.78GHz)				
EFT bursts		BS EN/EN61000-4-4					Level 3, 2KV				
Surge susceptibility		BS EN/EN61000-4-5					Level 3, 1KV/Line-Line				
Conducted susceptibility		BS EN/EN61000-4-6					Level 3, 10V				
Magnetic field immunity		BS EN/EN61000-4-8					Level 4, 30A/m				
Voltage dip, interruption		BS EN/EN61000-4-11					100% dip 1 periods, 30% dip 25 periods, 100% interruptions 250 periods				
OTHERS	MTBF	3889.1K hrs min. Telcordia SR-332 (Bellcore) ; 794.6K hrs min. MIL-HDBK-217F (25°C)									
	DIMENSION	79*54*33mm (L*W*H)									
	PACKING	205g ; 60pcs / 13.3Kg / 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"> All parameters are specified at 230VAC input, rated load, 25°C 70% RH ambient. DC voltage: The output voltage set at point measure by plug terminal & 50% load. Ripple & noise are measured at 20MHz by using a 12" twisted pair terminated with a 0.1 µ F & 47 µ F capacitor. Tolerance: includes set up tolerance, line regulation, load regulation. Line regulation is measured from low line to high line at rated load. 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. Derating may be needed under low input voltage. Please check the derating curve for more details. 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 https://www.meanwell.com/Upload/PDF/EMI_statement_en.pdf) <p>※ Product Liability Disclaimer : For detailed information, please refer to https://www.meanwell.com/serviceDisclaimer.aspx</p>										

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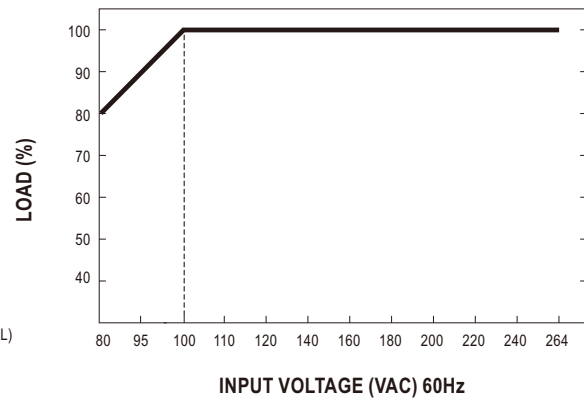
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Derating Curve



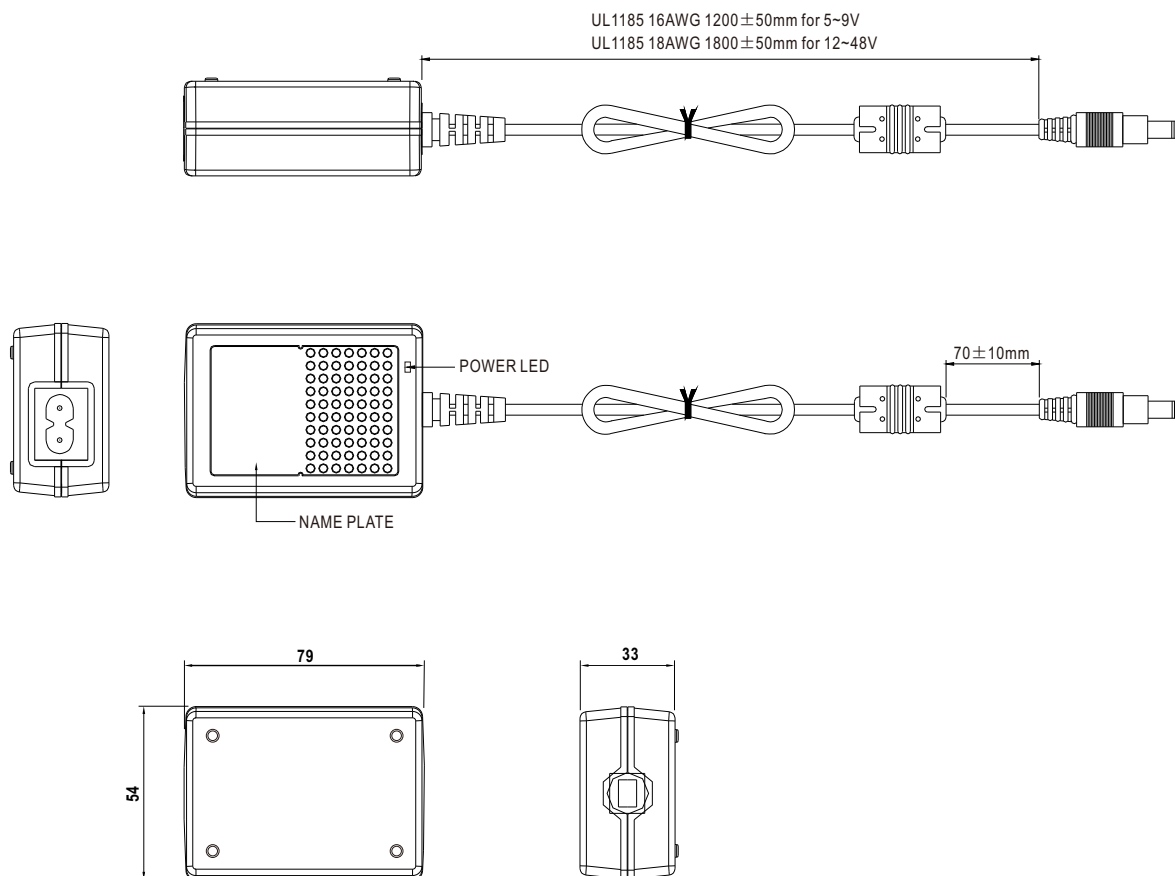
Static Characteristics



Mechanical Specification

(Unit: mm , tolerance ± 1 mm)

Case No. GSM36B



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

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	
	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>