



Features

- 2 pole AC inlet IEC320-C8, Class II power unit
- Medical safety approved (2 x MOPP) according to ANSI/AAMI ES60601-1/-1-11 and IEC/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)
- Comply with Korea K-MEPS(only GSM40B48-P1J)
- -30~+70°C wide range working temperature
- Protections: Short circuit / Overload / Over voltage
- LED indicator for power on
- Lifetime > 90 K hours
- Various DC plug quick adapter accessory available
- 3 years warranty

Applications

- Mobile clinical workstation
- Oral irrigator
- Portable hemodialysis machine
- Breath Machine
- Medical computer monitor

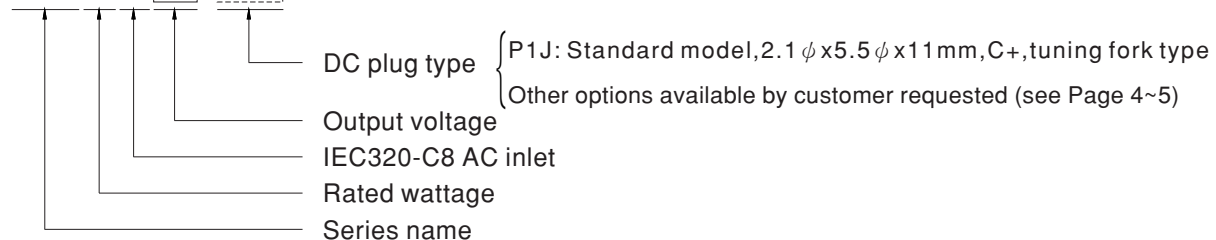
Description

GSM40B is a highly reliable, 40W 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 medical electrical devices. The circuitry design meets the international medical standards (2*MOPP), having an ultra low leakage current (<50μ A), fitting the medical devices in direct electrical contact with the patients.

With the efficiency up to 91% and the extremely low no-load power consumption below 0.1W, GSM40B 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. GSM40B is approved with the international medical safety certificates.

Model Encoding

GSM40B 05 -P1J

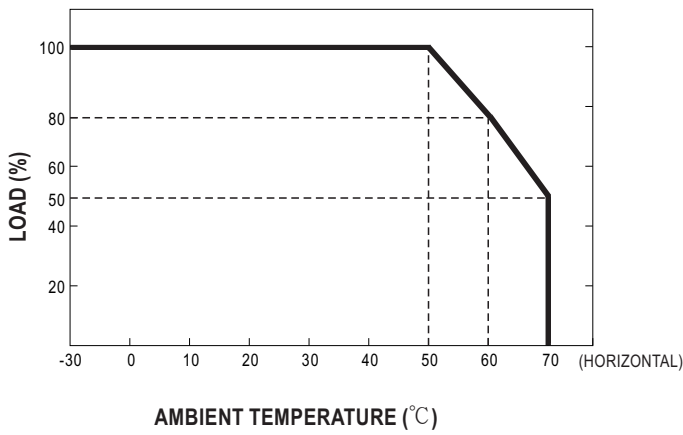


File Name: GSM40B-SPEC 2021-07-21

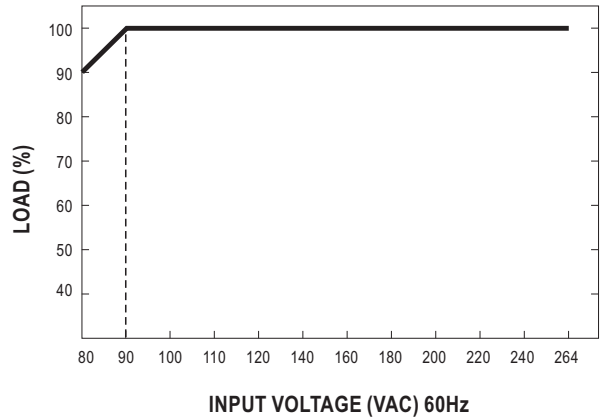
SPECIFICATION

ORDER NO.	GSM40B05-P1J	GSM40B07-P1J	GSM40B09-P1J	GSM40B12-P1J	GSM40B15-P1J	GSM40B18-P1J	GSM40B24-P1J	GSM40B48-P1J		
OUTPUT	SAFETY MODEL NO.	GSM40B05	GSM40B07	GSM40B09	GSM40B12	GSM40B15	GSM40B18	GSM40B24	GSM40B48	
	DC VOLTAGE <small>Note.2</small>	5V	7.5V	9V	12V	15V	18V	24V	48V	
	RATED CURRENT	5A	5.34A	4.45A	3.34A	2.67A	2.22A	1.67A	0.84A	
	CURRENT RANGE	0 ~ 5A	0 ~ 5.34A	0 ~ 4.45A	0 ~ 3.34A	0 ~ 2.67A	0 ~ 2.22A	0 ~ 1.67A	0 ~ 0.84A	
	RATED POWER (max.)	25W	40W	40W	40W	40W	40W	40W	40W	
	RIPPLE & NOISE (max.) <small>Note.3</small>	80mVp-p	80mVp-p	100mVp-p	100mVp-p	100mVp-p	120mVp-p	150mVp-p	150mVp-p	
	VOLTAGE TOLERANCE <small>Note.4</small>	± 5.0%	± 5.0%	± 5.0%	± 3.0%	± 3.0%	± 3.0%	± 2.5%	± 2.5%	
	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%	± 2.5%	± 2.5%	
	SETUP, RISE TIME <small>Note.6</small>	1000ms, 30ms / 230VAC 1500ms, 30ms / 115VAC at full load								
HOLD UP TIME (Typ.)	50ms / 230VAC 24ms / 115VAC at full load									
INPUT	VOLTAGE RANGE <small>Note.7</small>	80 ~ 264VAC								
	FREQUENCY RANGE	47 ~ 63Hz								
	EFFICIENCY (Typ.)	81%	85.5%	86%	88%	88.5%	89%	90%	91%	
	AC CURRENT (Typ.)	1A / 115VAC 0.5A / 230VAC								
	INRUSH CURRENT (Typ.)	Cold start 30A / 115VAC 60A / 230VAC								
	LEAKAGE CURRENT(max.)	Touch current < 50 μ A/264VAC								
PROTECTION	OVERLOAD	105 ~ 160% rated output power Protection type : Hiccup mode, recovers automatically after fault condition is removed								
	OVER VOLTAGE	5.2 ~ 7.0V	7.8 ~ 10.2V	9.4 ~ 12.2V	12.6 ~ 16.2V	15.7 ~ 20.3V	18.9 ~ 24.3V	25.2 ~ 32.4V	50.4 ~ 64.8V	
ENVIRONMENT	WORKING TEMP.	-30 ~ +70°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 ~ 50°C)								
	VIBRATION	10 ~ 500Hz, 2G 10min./1cycle, period for 60min. each along X, Y, Z axes								
	OPERATING ALTITUDE <small>Note.8</small>	3000 meters								
SAFETY & EMC (Note 9)	SAFETY STANDARDS	IEC60601-1/IEC60601-1-11, BS EN/EN60601-1/ BS EN/EN60601-1-11, ANSI/AAMI ES60601-1 / ES60601-1-11(3.1 version), PSE J60950-1(48V only), KC K60950-1(48V only), CAN/CSA-C22.2 No. 60601-1:14 - Edition 3, 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	740K hrs min. MIL-HDBK-217F(25°C)								
	DIMENSION	125*50*31.5mm (L*W*H)								
	PACKING	0.29Kg; 40pcs/12.6Kg/1.04CUFT								
CONNECTOR	PLUG	See page 4~5 ; Other type available by customer requested								
	CABLE	See page 4~5 ; Other type available by customer requested								
NOTE	<p>1. All parameters are specified at 230VAC input, rated load, 25°C 70% RH ambient.</p> <p>2. DC voltage: The output voltage set at point measure by plug terminal & 50% load.</p> <p>3. Ripple & noise are measured at 20MHz by using a 12" twisted pair terminated with a 0.1 f & 47 f capacitor.</p> <p>4. Tolerance: includes set up tolerance, line regulation, load regulation.</p> <p>5. Line regulation is measured from low line to high line at rated load.</p> <p>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.</p> <p>7. Derating may be needed under low input voltages. Pleas check the derating curve for more details.</p> <p>8. The ambient temperature derating of 3.5°C/1000m with fanless models and of 5°C/1000m with fan models for operating altitude higher than 2000m(6500ft).</p> <p>9. 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 http://www.meanwell.com)</p> <p>※ Product Liability Disclaimer : For detailed information, please refer to https://www.meanwell.com/serviceDisclaimer.aspx</p>									

■ Derating Curve



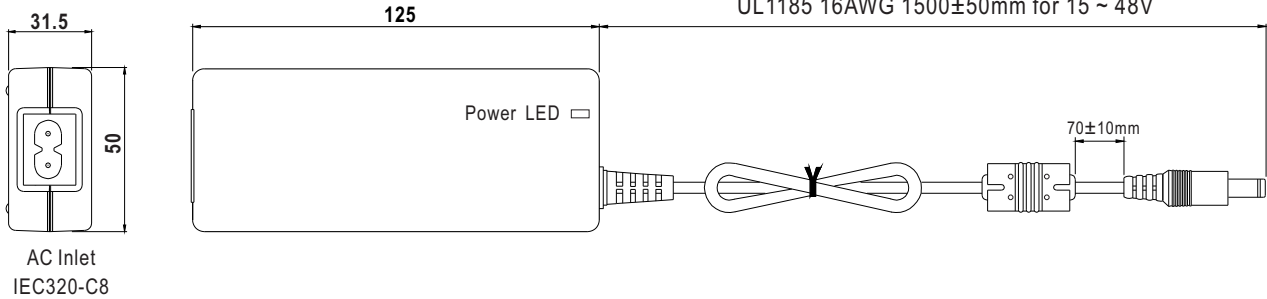
■ Static Characteristics



■ Mechanical Specification

Case No. GS60B Unit:mm

UL2464 16AWG 1000±50mm for 5 ~ 7.5V
UL1185 16AWG 1000±50mm for 9 ~ 12V
UL1185 16AWG 1500±50mm for 15 ~ 48V



■ 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)


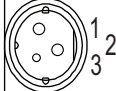
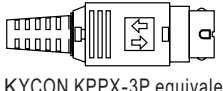

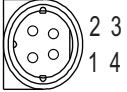
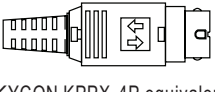


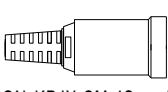


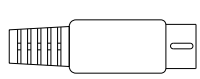

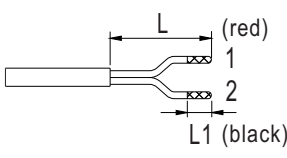
Please refer to below table and online selection guide : https://www.meanwell.com/upload/pdf/DC_plug.pdf

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			
		(Straight)	P1I	5.5	2.1	9.5	Available (Current rating: 7.5A max.)	
			P1L	5.5	2.5	9.5		
		(Right-angled)	P1M	5.5	2.5	11.0		
			P1IR	5.5	2.1	9.5		
			P1JR	5.5	2.1	11.0		
			P1LR	5.5	2.5	9.5		
			P1MR	5.5	2.5	11.0		
Barrel Style		Type No.	A	B	C	Quick Adapter Accessory		
			OD	ID	L			
		(Straight)	P2I	5.5	2.1	9.5	None	
			P2J	5.5	2.1	11.0		
		(Right-angled)	P2L	5.5	2.5	9.5		
			P2M	5.5	2.5	11.0		
			P2IR	5.5	2.1	9.5		
			P2JR	5.5	2.1	11.0		
			P2LR	5.5	2.5	9.5		
			P2MR	5.5	2.5	11.0		
Lock Style		Type No.	A	B	C	Quick Adapter Accessory		
			OD	ID	L			
		Floating Locking SWITCHCRAFT original or equivalent	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	Quick Adapter Accessory	
			OD	ID	L	Center Pin		
		EIAJ equivalent	P4A	5.5	3.4	11.0	1.0	Available (Current rating: 7.5A max.)
			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		Quick Adapter Accessory
		PIN No.	Output	
   <p>KYCON KPPX-3P equivalent</p>	R6B	1	+Vo	Available (Current rating: 7.5A max.)
		2	-Vo	
		3	+Vo	
Min. DIN 4 Pin with Lock (male)	Type No.	Pin Assignment		Available (Current rating: 7.5A max.)
   <p>KYCON KPPX-4P equivalent</p>	R7B	1	+Vo	
		2	-Vo	
		3	-Vo	
		4	+Vo	
Min. DIN 4 Pin with Lock (female)	Type No.	Pin Assignment		None
   <p>KYCON KPJX-CM-4S equivalent</p>	R7BF	1	+Vo	
		2	-Vo	
		3	-Vo	
		4	+Vo	
DIN 5 Pin (male)	Type No.	Pin Assignment		Available (Current rating: 7.5A max.)
  	R1B	1	-Vo	
		2	-Vo	
		3	+Vo	
		4	-Vo	
		5	+Vo	
Stripped and tinned leads	Type No.	Pin Assignment		None
  <p>Length of Land L1 by request (MW's standard length, L: <u>25</u> mm, L1: <u>5</u> mm)</p>	by customer	1	+Vo	
		2	-Vo	