


 Energy Verified
Rendement
Énergétique Vérifié


BS EN/EN60601-1 ANSI/AAMI ES60601-1 IEC60601-1



TPTC004



■ Features

- 3 pole AC inlet IEC320-C14, Class I power unit
- Medical safety approved (2 x MOPP) according to ANSI/AAMI ES60601-1 and IEC/BS EN/EN60601-1
- Extremely low leakage current
- No load power consumption<0.15W
- Energy efficiency level VI and meet CoC Version 5
- -30~+70°C wide range working temperature
- Protections: Short circuit / Overload / Over voltage / Over temperature
- LED indicator for power on
- Lifetime > 80 K hours
- **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

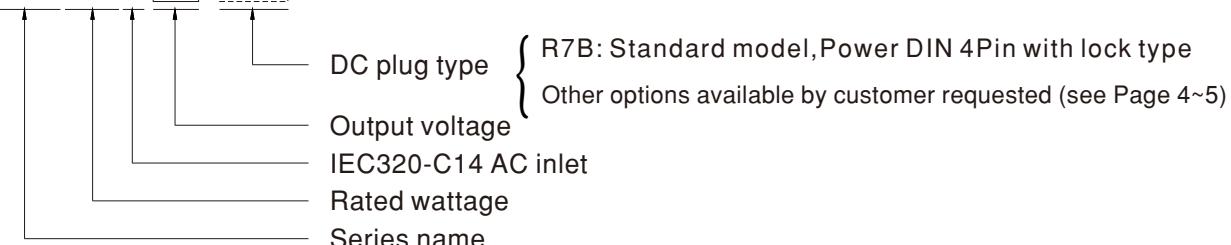
■ Description

GSM220A is a highly reliable, 220W desktop style single-output green medical adaptor series. This product is equipped with a 3-pin (with FG) standard IEC320-C14 power plug, adopting the input range from 80VAC to 264VAC. The entire series supplies different output voltages between 12VDC 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 (<100 μ A), fitting the medical devices in direct electrical contact with the patients.

With the efficiency up to 94.5% and the extremely low no-load power consumption below 0.15W, GSM220A 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. GSM220A is approved with the international medical safety certificates.

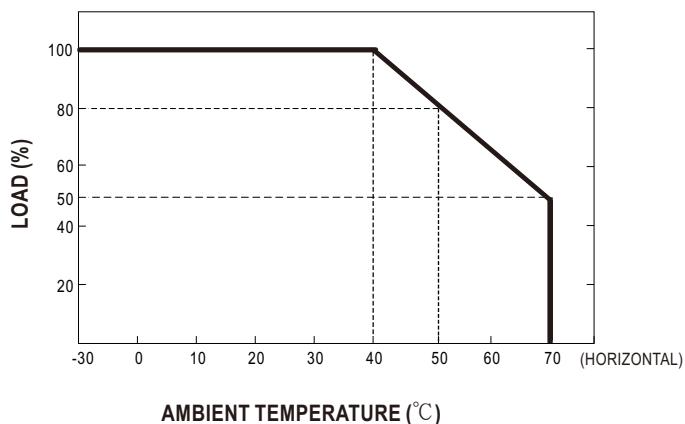
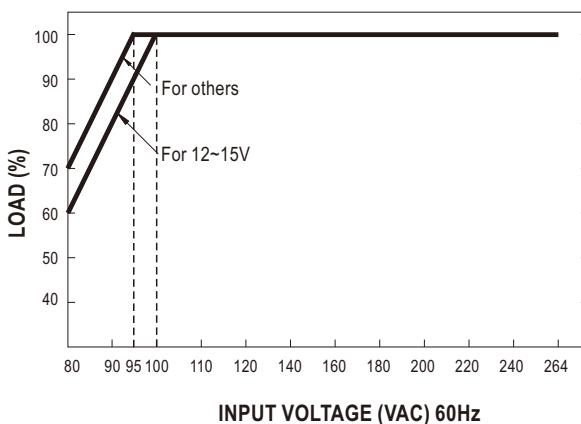
■ Model Encoding

GSM220A [12]-R7B

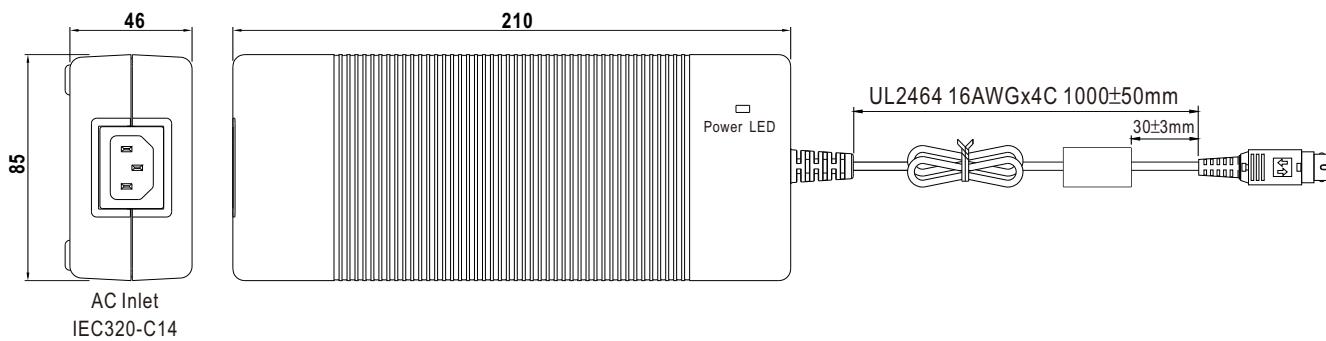


SPECIFICATION

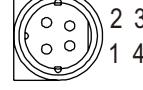
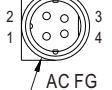
ORDER NO.	GSM220A12-R7B	GSM220A15-R7B	GSM220A20-R7B	GSM220A24-R7B	GSM220A48-R7B						
OUTPUT	SAFETY MODEL NO.	GSM220A12	GSM220A15	GSM220A20	GSM220A24						
	DC VOLTAGE Note.2	12V	15V	20V	24V						
	RATED CURRENT	15A	13.4A	11A	9.2A						
	CURRENT RANGE	0 ~ 15A	0 ~ 13.4A	0 ~ 11A	0 ~ 9.2A						
	RATED POWER (max.)	180W	201W	220W	221W						
	RIPLE & NOISE (max.) Note.3	80mVp-p	80mVp-p	120mVp-p	120mVp-p						
	VOLTAGE TOLERANCE Note.4	±5.0%	±5.0%	±4.0%	±3.0%						
	LINE REGULATION Note.5	±1.0%	±1.0%	±1.0%	±1.0%						
	LOAD REGULATION	±5.0%	±5.0%	±4.0%	±3.0%						
	SETUP, RISE TIME Note.6	2000ms, 50ms / 230VAC	2000ms, 50ms / 115VAC	at full load							
INPUT	HOLD UP TIME (Typ.)	20ms / 230VAC	20ms / 115VAC	at full load							
	VOLTAGE RANGE Note.7	80 ~ 264VAC									
	FREQUENCY RANGE	47 ~ 63Hz									
	POWER FACTOR (Typ.)	PF>0.91 / 230VAC	PF>0.98 / 115VAC	at full load							
	EFFICIENCY (Typ.)	90%	90%	92%	93.5%						
	AC CURRENT (Typ.)	4A / 115VAC	2A / 230VAC								
PROTECTION	INRUSH CURRENT (max.)	Cold start	90A / 115VAC	110A / 230VAC							
	LEAKAGE CURRENT(max.)	Earth leakage current < 115 μA/264VAC , Touch current <100 μA/264VAC									
	OVERLOAD	105 ~ 135% rated output power Protection type : Hiccup mode, recovers automatically after fault condition is removed									
	OVER VOLTAGE	105 ~ 135% rated output voltage Protection type : Shut down o/p voltage, re-power on to recover									
ENVIRONMENT	OVER TEMPERATURE	Shut down o/p voltage, recovers automatically after temperature goes down									
	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 (0~40°C)									
	VIBRATION	10 ~ 500Hz, 2G 10min./1cycle, period for 60min. each along X, Y, Z axes									
SAFETY & EMC (Note. 10)	OPERATING ALTITUDE Note.8	3000 meters									
	SAFETY STANDARDS	IEC60601-1,TUV BS EN/EN60601-1,ANSI/AAMI ES60601-1(3.1 version),CAN/CSA-C22.2 No. 60601-1:14 - Edition 3,EAC TP TC 004 approved									
	ISOLATION LEVEL	Primary-Secondary: 2xMOPP, Primary-Earth: 1xMOPP									
	WITHSTAND VOLTAGE Note.9	I/P-O/P:4KVAC I/P-FG:2KVAC O/P-FG:0.5KVAC									
	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)	Class B							
		Radiated emission	BS EN/EN55011 (CISPR11), FCC PART 15 / CISPR22, CAN ICES-3(B)/NMB-3(B)	Class B							
		Harmonic current	BS EN/EN61000-3-2	Class A							
		Voltage flicker	BS EN/EN61000-3-3	-----							
	BS EN/EN60601-1-2, BS EN/EN61204-3										
	EMC IMMUNITY	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 , 2KV/Line-FG							
		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										
OTHERS	MTBF	210.79K hrs min. MIL-HDBK-217F(25°C)									
	DIMENSION	210*85*46mm (L*W*H)									
CONNECTOR	PACKING	1.1Kg; 12pcs/14.2Kg/0.87CUFT									
	PLUG	See page 4~5 ; Other type available by customer requested									
	CABLE	See page 4~5 ; Other type available by customer requested									
NOTE	1. All parameters are specified at 230VAC input, rated load, 25°C 70% RH ambient. 2. DC voltage: The output voltage set at point measure by plug terminal & 50% load. 3. Ripple & noise are measured at 20MHz by using a 12" twisted pair terminated with a 0.1μf & 47μf capacitor. 4. Tolerance: includes set up tolerance, line regulation, load regulation. 5. Line regulation is measured from low line to high line at rated load. 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. 7. Derating may be needed under low input voltages. Please check the derating curve for more details. 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). 9. Optional for 1.5KVAC with BF rated. 10. 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)										
	※ Product Liability Disclaimer : For detailed information, please refer to https://www.meanwell.com/serviceDisclaimer.aspx										

■ Derating Curve

■ Static Characteristics

■ Mechanical Specification

Case No. 961A Unit:mm


■ DC output plug

◎ Standard plug: R7B

R7B		Pin Assignment	
  KYCON KPPX-4P equivalent		 Outer shell connected to AC FG -V not connected to AC FG	
		PIN NO.	OUTPUT
		1	+Vo
		2	-Vo
		3	-Vo
		4	+Vo

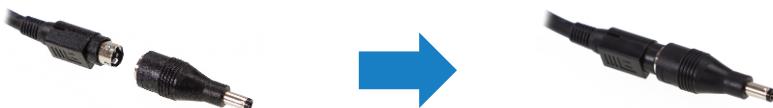
◎ DC plug changeable through:

(1) Customization of the standard part with an optional DC plug according to the table (MOQ applicable)

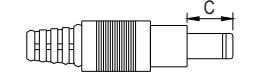
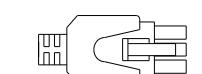
(2) Quick adapter accessory (sold separately without MOQ)

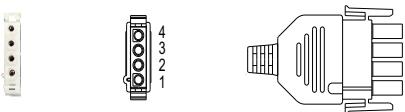
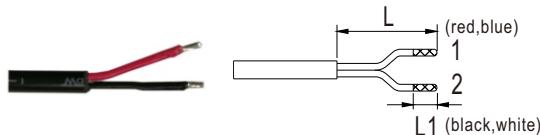
Please refer to below table and online selection guide : https://www.meanwell.com/upload/pdf/DC_plug.pdf

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)	P1J	5.5	2.1	11.0	Available for 48V (Current rating: 7.5A max.)
	P1M	5.5	2.5	11.0	
   Min. DIN 4 Pin with Lock (female)	Type No. R7BF	Pin Assignment		None	
		PIN No.	Output		
		1	+Vo		
		2	-Vo		
		3	-Vo		
   DIN 5 Pin (male)	Type No. R1B	Pin Assignment		None	
		PIN No.	Output		
		1	-Vo		
		2	-Vo		
		3	+Vo		
   NEUTRIK XLR NC4FX equivalent	Type No. MIC4	Pin Assignment		None	
		PIN No.	Output		
		1	+Vo		
		2	+Vo		
		3	-Vo		
   MOLEX 39-01-2060 (4.2mm) equivalent	Type No. C6P	Pin Assignment		None	
		PIN No.	Output		
		1	+Vo		
		2	+Vo		
		3	+Vo		
		4	-Vo		
		5	-Vo		
FG not connected to output connector		6	-Vo		

AMP 1-480702-0 (6.35mm) equivalent	Type No.	Pin Assignment		Quick Adapter Accessory
		PIN No.	Output	
 FG not connected to output connector	C4P	1	+Vo	None
		2	+Vo	
		3	-Vo	
		4	-Vo	
Stripped and tinned leads	Type No.	Pin Assignment		None
		PIN No.	Output	
 Length of Land L1 by request (MW's standard length, L: <u>25</u> mm, L1: <u>5</u> mm)	by customer	1	+Vo	None
		2	-Vo	

■ Installation Manual

Please refer to : <http://www.meanwell.com/manual.html>