

### ■ Features

- **Global certificates**
- Universal AC input / Full range
- 3 pole AC inlet IEC320-C14, Class I power unit
- Built-in active PFC function
- No load power consumption < 0.15W
- **Energy efficiency Level VI**
- Comply with EISA 2007/DoE, NRCAN, AU/NZ MEPS, EU ErP and CoC Version 5
- Protections: Short circuit / Overload / Over voltage / Over temperature
- Fanless design with -30~+70°C working temperature
- Fully enclosed plastic case
- LED indicator for power on
- **Various DC plug quick adapter accessory available**
- 3 years warranty

### ■ Applications

- Consumer electronic devices
- Telecommunication devices
- Office facilities
- Industrial equipments

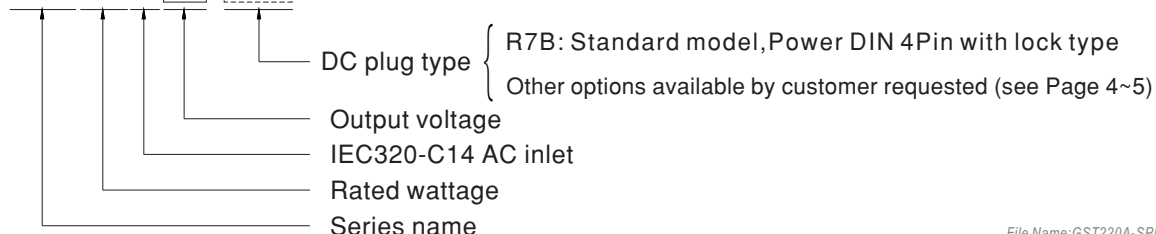
### ■ Description

GST220A is a highly reliable, 220W desktop style single-output green adaptor series. This product is a class I power unit (with FG), equipped with a standard IEC320-C14 AC inlet and adopting the input range from 85VAC to 264VAC. The entire series supplies different models with output voltages ranging between 12VDC and 48VDC that can satisfy the demands for various types of consumer electronic devices.

With the efficiency up to 94.5% and the extremely low no-load power consumption below 0.15W, GST220A is compliant with USA EISA 2007/DoE, Canada NRCAN, Australia and New Zealand MEPS, Korea K-MEPS, EU ErP and 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. GST220A is certified for the international safety regulations.

### ■ Model Encoding

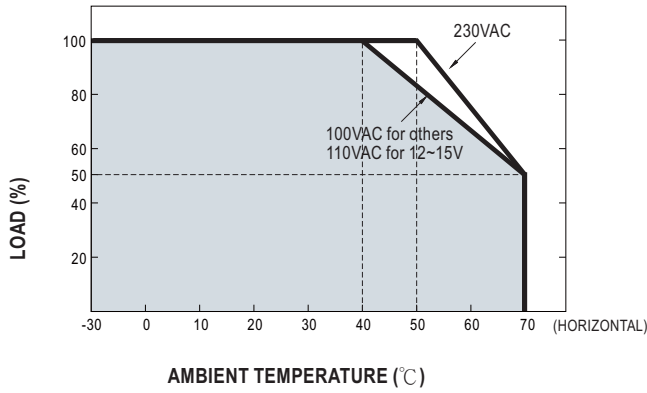
**GST 220A 12 -R7B**



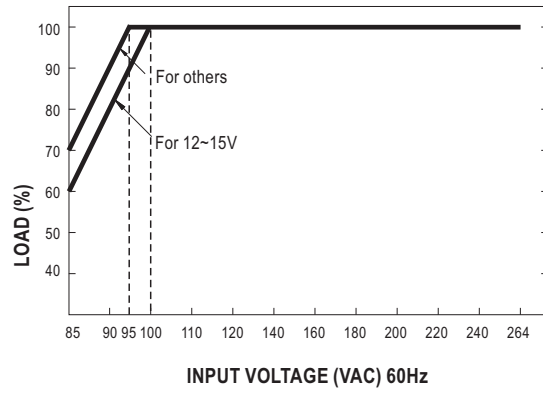
**SPECIFICATION**

ORDER NO.	GST220A12-R7B	GST220A15-R7B	GST220A20-R7B	GST220A24-R7B	GST220A36-R7B	GST220A48-R7B	
OUTPUT	SAFETY MODEL NO.	GST220A12	GST220A15	GST220A20	GST220A24	GST220A36	GST220A48
	DC VOLTAGE <span style="float:right">Note.2</span>	12V	15V	20V	24V	36V	48V
	RATED CURRENT	15A	13.4A	11A	9.2A	6.1A	4.6A
	CURRENT RANGE	0 ~ 15A	0 ~ 13.4A	0 ~ 11A	0 ~ 9.2A	0 ~ 6.1A	0 ~ 4.6A
	RATED POWER (max.)	180W	201W	220W	221W	219.6W	221W
	RIPPLE & NOISE (max.) <span style="float:right">Note.3</span>	80mVp-p	100mVp-p	120mVp-p	150mVp-p	200mVp-p	200mVp-p
	VOLTAGE TOLERANCE <span style="float:right">Note.4</span>	±5.0%	±5.0%	±4.0%	±3.0%	±2.0%	±2.0%
	LINE REGULATION <span style="float:right">Note.5</span>	±1.0%	±1.0%	±1.0%	±1.0%	±1.0%	±1.0%
	LOAD REGULATION	±5.0%	±5.0%	±4.0%	±3.0%	±2.0%	±2.0%
	SETUP, RISE TIME <span style="float:right">Note.6</span>	2000ms, 50ms / 230VAC    2000ms, 50ms / 115VAC at full load					
HOLD UP TIME (Typ.)	20ms / 230VAC    20ms / 115VAC at full load						
INPUT	VOLTAGE RANGE <span style="float:right">Note.7</span>	85 ~ 264VAC    120 ~ 370VDC					
	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%	93%	94.5%
	AC CURRENT (Typ.)	4A / 115VAC    2A / 230VAC					
	INRUSH CURRENT (max.)	Cold start 95A / 115VAC    120A / 230VAC					
	LEAKAGE CURRENT(max.)	0.75mA / 240VAC					
PROTECTION	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 : Hiccup mode @ 10%load					
	OVER TEMPERATURE	Shut down o/p voltage, recovers automatically after temperature goes down					
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)					
SAFETY & EMC (Note. 10)	VIBRATION	10 ~ 500Hz, 2G 10min./1cycle, period for 60min. each along X, Y, Z axes					
	SAFETY STANDARDS <span style="float:right">Note. 8</span>	UL62368-1, CSA C22.2 No.62368-1, TUV BS EN/EN62368-1, BSMI CNS14336, CCC GB4943.1, PSE J62368-1, AS/NZS 60950.1, BIS IS13252, KC K60950-1, EAC TP TC 004 approved; SIRIM MS IEC60950-1 (optional) approved (UL62368-1, CSA C22.2 No.62368-1, TUV EN62368-1, BSMI CNS14336, CCC GB4943.1, PSE J62368-1, AS/NZS 60950.1 for GST220A36-R7B)					
	WITHSTAND VOLTAGE	I/P-O/P: 3KVAC    I/P-FG: 2KVAC    O/P-FG:SHORT					
	ISOLATION RESISTANCE	I/P-O/P:100M Ohms / 500VDC / 25°C / 70% RH					
	EMC EMISSION	Parameter	Standard			Test Level / Note	
		Conducted emission	BS EN/EN55032(CISPR32),FCC PART 15 / CISPR22 CAN ICES-3(B)/NMB-3(B),CNS13438,GB17625.1 EAC TP TC 020,MSIP KN32			Class B	
		Radiated emission	BS EN/EN55032(CISPR32),FCC PART 15 / CISPR22 CAN ICES-3(B)/NMB-3(B),CNS13438,GB17625.1 EAC TP TC 020,MSIP KN32			Class B	
		Harmonic current	BS EN/EN61000-3-2,GB9254			Class A	
	EMC IMMUNITY	Voltage flicker	BS EN/EN61000-3-3			-----	
		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 2, 3V/m		
EFT bursts		BS EN/EN61000-4-4			Level 2, 1KV		
Surge susceptibility		BS EN/EN61000-4-5			Level 3, 1KV/Line-Line , 2KV/Line-FG		
Conducted susceptibility		BS EN/EN61000-4-6			Level 2, 3V		
OTHERS	MTBF	2006.1K hrs min.    Telcordia SR-332 (Bellcore) ; 209.4K hrs min.    MIL-HDBK-217F (25°C)					
	DIMENSION	210*85*46mm (L*W*H)					
CONNECTOR	PACKING	1.1Kg; 12pcs/14.2Kg/0.81CUFT					
	PLUG	See page 4-5 ; Other type available by customer requested					
NOTE	CABLE	See page 4-5 ; Other type available by customer requested					
	<p>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 &amp; 50% load.                  3. Ripple &amp; noise are measured at 20MHz by using a 12" twisted pair terminated with a 0.1 f &amp; 47 f 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 voltage. Please check the derating curve for more details.                  8. The demand for Malaysia safety is processed with the order no. GST220A □ -SIRIM by request. Please contact MEAN WELL for details.                  9. 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).                  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 <a href="http://www.meanwell.com">http://www.meanwell.com</a>)</p> <p>※ Product Liability Disclaimer : For detailed information, please refer to <a href="https://www.meanwell.com/serviceDisclaimer.aspx">https://www.meanwell.com/serviceDisclaimer.aspx</a></p>						

■ Derating Curve

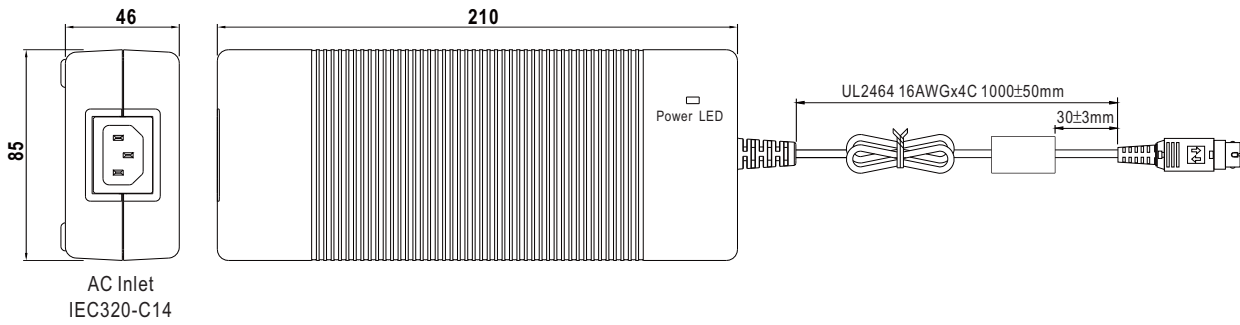


■ Static Characteristics



■ Mechanical Specification

Case No. 961A Unit:mm



■ DC output plug

◎ Standard plug: R7B

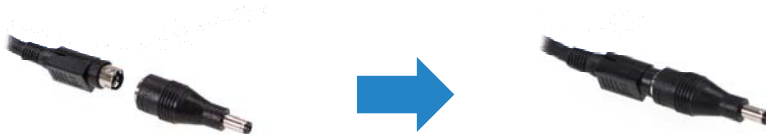
R7B		Pin Assignment											
			<table border="1"> <thead> <tr> <th>PIN NO.</th> <th>OUTPUT</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>+Vo</td> </tr> <tr> <td>2</td> <td>-Vo</td> </tr> <tr> <td>3</td> <td>-Vo</td> </tr> <tr> <td>4</td> <td>+Vo</td> </tr> </tbody> </table>	PIN NO.	OUTPUT	1	+Vo	2	-Vo	3	-Vo	4	+Vo
PIN NO.	OUTPUT												
1	+Vo												
2	-Vo												
3	-Vo												
4	+Vo												
KYCON KPPX-4P equivalent													

◎ DC plug changeable through:


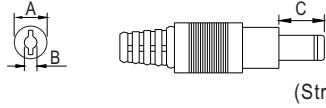


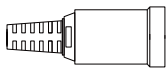





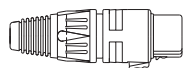


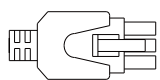
- (1) Customization of the standard part with an optional DC plug according to the table (MOQ applicable)
- (2) Quick adapter accessory (sold separately without MOQ)

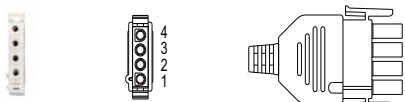
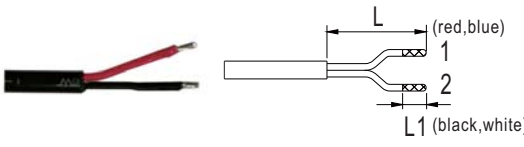
Please refer to below table and online selection guide : [https://www.meanwell.com/upload/pdf/DC\\_plug.pdf](https://www.meanwell.com/upload/pdf/DC_plug.pdf)

Example quick adapter accessory:



◎ Optional DC plug: (Available in customized cable or quick adapter)

Tuning Fork Style	Type No.	A OD	B ID	C L	Quick Adapter Accessory	
  (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.	Pin Assignment				
   KYCON KPJX-CM-4S equivalent	R7BF	PIN No.	Output		None	
		1	+Vo			
		2	-Vo			
		3	-Vo			
<th>DIN 5 Pin (male)</th> <th>Type No.</th> <th colspan="2">Pin Assignment</th> <th></th> <th></th>	DIN 5 Pin (male)	Type No.	Pin Assignment			
	   KYCON KPJX-CM-5S equivalent	R1B	PIN No.	Output		None
			1	-Vo		
			2	-Vo		
			3	+Vo		
4			-Vo			
<th>NEUTRIK XLR NC4FX equivalent</th> <th>Type No.</th> <th colspan="2">Pin Assignment</th> <th></th> <th></th>	NEUTRIK XLR NC4FX equivalent	Type No.	Pin Assignment			
	   KYCON KPJX-CM-4S equivalent	MIC4	PIN No.	Output		None
			1	+Vo		
			2	+Vo		
3			-Vo			
<th>MOLEX 39-01-2060 (4.2mm) equivalent</th> <th>Type No.</th> <th colspan="2">Pin Assignment</th> <th></th> <th></th>	MOLEX 39-01-2060 (4.2mm) equivalent	Type No.	Pin Assignment			
	   KYCON KPJX-CM-6S equivalent FG not connected to output connector	C6P	PIN No.	Output		None
			1	+Vo		
			2	+Vo		
			3	+Vo		
			4	-Vo		
5			-Vo			
6	-Vo					

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