

## ■ 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
- 3 years warranty

## ■ Applications

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

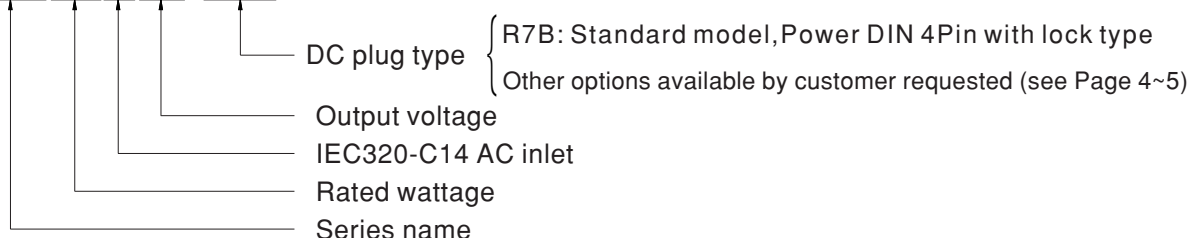
## ■ Description

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

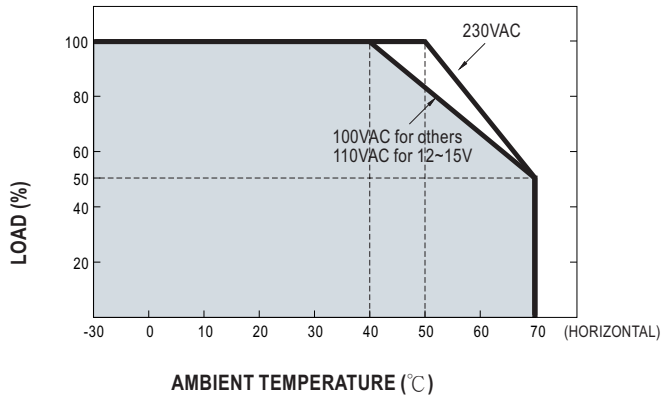
**GST 220A 12 - R7B**



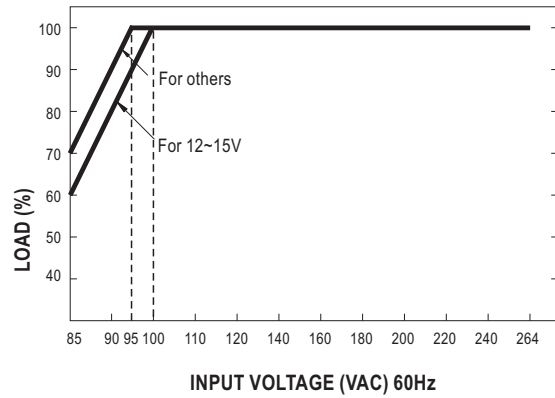
**SPECIFICATION**

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 <small>Note.2</small>	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.) <small>Note.3</small>	80mVp-p	100mVp-p	120mVp-p	150mVp-p	200mVp-p	200mVp-p	
	VOLTAGE TOLERANCE <small>Note.4</small>	±5.0%	±5.0%	±4.0%	±3.0%	±2.0%	±2.0%	
	LINE REGULATION <small>Note.5</small>	±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 <small>Note.6</small>	2000ms, 50ms / 230VAC    2000ms, 50ms / 115VAC at full load						
HOLD UP TIME (Typ.)	20ms / 230VAC    20ms / 115VAC at full load							
INPUT	VOLTAGE RANGE <small>Note.7</small>	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)						
	VIBRATION	10 ~ 500Hz, 2G 10min./1cycle, period for 60min. each along X, Y, Z axes						
SAFETY & EMC (Note. 9)	SAFETY STANDARDS <small>Note. 8</small>	UL62368-1, CSA C22.2 No.62368-1, TUV EN62368-1, BSMI CNS14336, CCC GB4943.1, PSE J60950-1, 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 J60950-1, 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	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	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	EN61000-3-2,GB9254				Class A	
	Voltage flicker	EN61000-3-3				-----		
	EMC IMMUNITY	Parameter	Standard				Test Level /Note	
		ESD	EN61000-4-2				Level 4, 15KV air; Level 4, 8KV contact	
RF field susceptibility		EN61000-4-3				Level 2, 3V/m		
EFT bursts		EN61000-4-4				Level 2, 1KV		
Surge susceptibility		EN61000-4-5				Level 3, 1KV/Line-Line , 2KV/Line-FG		
Conducted susceptibility		EN61000-4-6				Level 2, 3V		
Magnetic field immunity		EN61000-4-8				Level 2, 3A/m		
Voltage dips , interruption		EN61000-4-11				>95% dip 0. 5 periods, 30% dip 25 periods, >95% interruptions 250 periods		
OTHERS	MTBF	209.4K hrs min. MIL-HDBK-217F(25°C)						
	DIMENSION	210*85*46mm (L*W*H)						
	PACKING	1.1Kg; 12pcs/14.2Kg/0.96CUFT						
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 &amp; 50% load.</p> <p>3. Ripple &amp; noise are measured at 20MHz by using a 12" twisted pair terminated with a 0.1<sup>μ</sup>f &amp; 47<sup>μ</sup>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 voltage. Please check the derating curve for more details.</p> <p>8. The demand for Malaysia safety is processed with the order no. GST220A □ -SIRIM by request. Please contact MEAN WELL for details.</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 <a href="http://www.meanwell.com">http://www.meanwell.com</a>)</p>							

■ Derating Curve

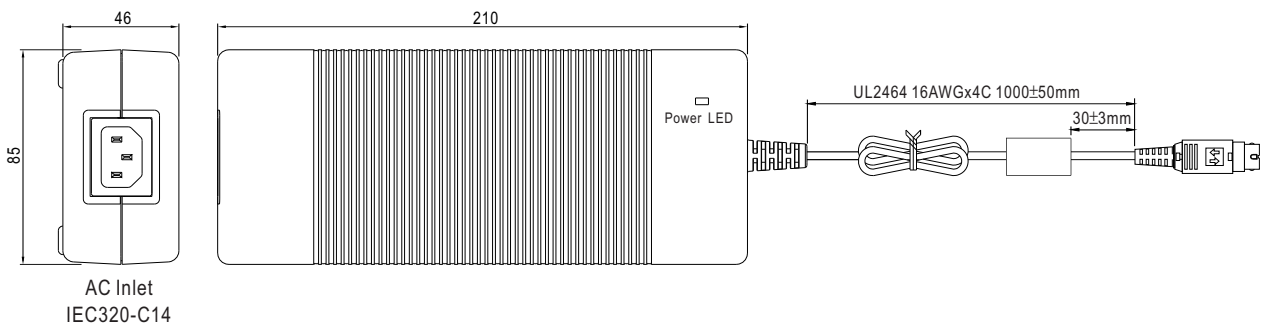


■ Static Characteristics



■ Mechanical Specification

Case No. 961A Unit:mm



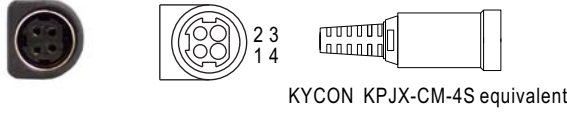
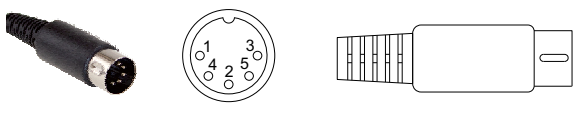

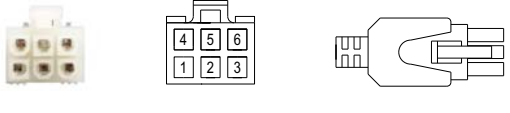
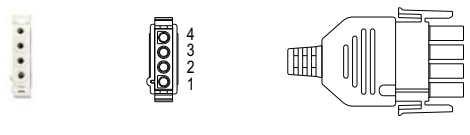
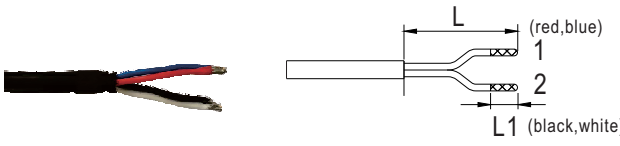
■ DC output plug

☉ Standard plug: R7B

R7B		Pin Assignment											
	KYCON KPPX-4P equivalent												
			<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												

AC FG  
-V connected to AC FG

◎ Optional DC plug:

Min. DIN 4 Pin with Lock (female)	Type No.	Pin Assignment	
		PIN No.	Output
 <p>KYCON KPJX-CM-4S equivalent</p>	R7BF	1	+Vo
		2	-Vo
		3	-Vo
		4	+Vo
DIN 5 Pin (male)	Type No.	Pin Assignment	
	R1B	1	-Vo
		2	-Vo
		3	+Vo
		4	-Vo
		5	+Vo
NEUTRIK XLR NC4FX equivalent	Type No.	Pin Assignment	
	MIC4	1	+Vo
		2	+Vo
		3	-Vo
		4	-Vo
MOLEX 39-01-2060 (4.2mm) equivalent	Type No.	Pin Assignment	
	C6P	1	+Vo
		2	+Vo
		3	+Vo
		4	-Vo
		5	-Vo
		6	-Vo
AMP 1-480702-0 (6.35mm) equivalent	Type No.	Pin Assignment	
	C4P	1	+Vo
		2	+Vo
		3	-Vo
		4	-Vo
Stripped and tinned leads	Type No.	Pin Assignment	
 <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

■ Installation Manual

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