

GST220A Series

220W AC-DC Reliable Green Industrial Adapter



■ 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**
(Plug kit sold separately, please refer to : https://www.meanwell.com/upload/pdf/DC_plug.pdf)
- 3 years warranty

■ Applications

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

■ GTIN CODE

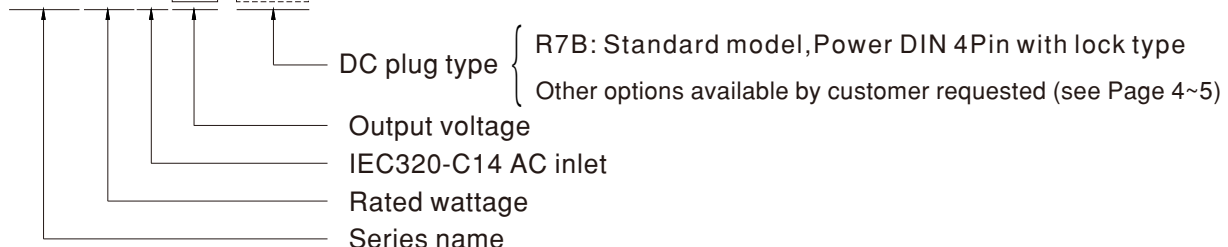
MW Search: <https://www.meanwell.com/serviceGTIN.aspx>

■ 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



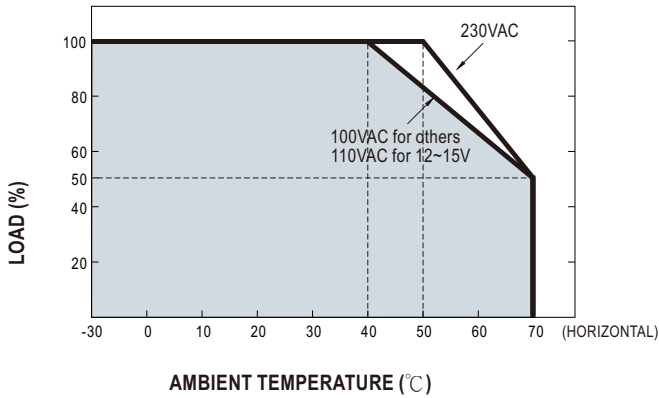
ORDER NO.		GST220A12-R7B	GST220A15-R7B	GST220A20-R7B	GST220A24-R7B	GST220A36-R7B	GST220A48-R7B	
OUTPUT	SAFETY MODEL NO.	GST220A12	GST220A15	GST220A20	GST220A24	GST220A36	GST220A48	
	DC VOLTAGE Note.2	12V	15V	20V	24V	36V	48V	
	RATED CURRENT	15A	13.4A	11A	9.2A	6.1A	4.6A	
	CURRENT RANGE	0 ~ 15A	0 ~ 13.4A	0 ~ 11A	0 ~ 9.2A	0 ~ 6.1A	0 ~ 4.6A	
	RATED POWER (max.)	180W	201W	220W	221W	219.6W	221W	
	RIPPLE & NOISE (max.) Note.3	80mVp-p	100mVp-p	120mVp-p	150mVp-p	200mVp-p	200mVp-p	
	VOLTAGE TOLERANCE Note.4	±5.0%	±5.0%	±4.0%	±3.0%	±2.0%	±2.0%	
	LINE REGULATION Note.5	±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 Note.6	2000ms, 50ms / 230VAC 2000ms, 50ms / 115VAC at full load						
HOLD UP TIME (Typ.)	20ms / 230VAC 20ms / 115VAC at full load							
INPUT	VOLTAGE RANGE Note.7	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. 10)	SAFETY STANDARDS Note. 8	UL62368-1, CSA C22.2 No.62368-1, TUV BS EN/EN62368-1, BSMI CNS15598-1, CCC GB4943.1, PSE J62368-1, AS/NZS 62368.1, BIS IS13252, KC K60950-1, EAC TP TC 004 approved (UL62368-1, CSA C22.2 No.62368-1, TUV EN62368-1, BSMI CNS15598-1, CCC GB4943.1, PSE J62368-1, AS/NZS 62368.1 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), CNS15936, 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), CNS15936, GB17625.1 EAC TP TC 020, MSIP KN32				Class B	
		Harmonic current	BS EN/EN61000-3-2, GB9254				Class A	
		Voltage flicker	BS EN/EN61000-3-3				-----	
	EMC IMMUNITY	BS EN/EN55035						
		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		
Magnetic field immunity		BS EN/EN61000-4-8				Level 2, 3A/m		
Voltage dips, interruption	BS EN/EN61000-4-11				>95% dip 0.5 periods, 30% dip 25 periods, >95% interruptions 250 periods			
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)						
	PACKING	1.1Kg; 12pcs/14.2Kg/0.81CUFT						
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 μF & 47 μF 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 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). 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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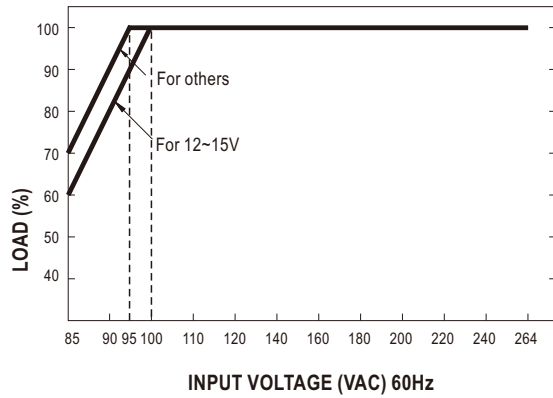
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Derating Curve



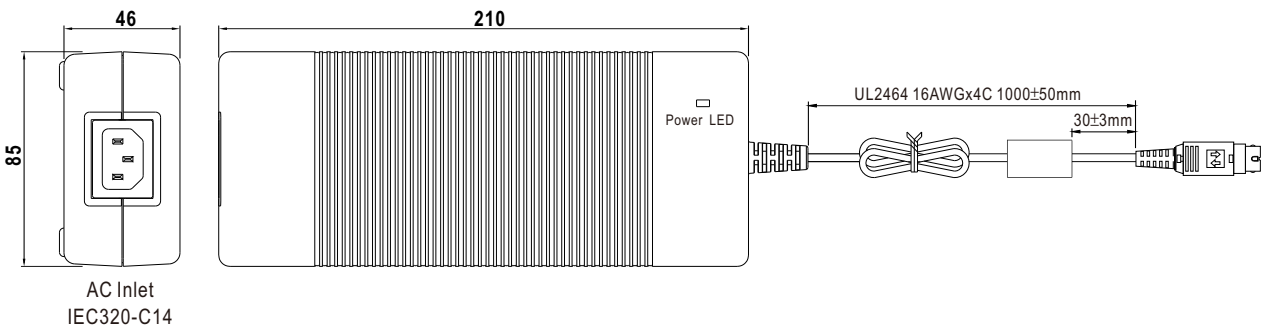
Static Characteristics



Mechanical Specification

(Unit: mm, tolerance ± 1mm)

Case No. 961A



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												

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☉ 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:



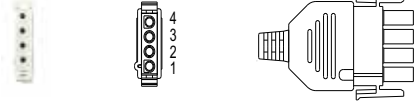
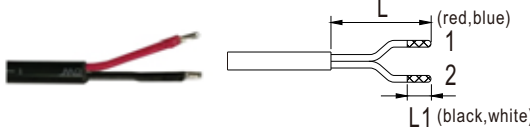
☉ Optional DC plug: (Available in customized cable or quick adapter)

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

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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	

■ Installation Manual

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