220W AC-DC High Reliability Industrial Adaptor GST220A series

UL60950-1 EN60950-1 J60950-1 CNS14336 AS/NZS60950-1 GB4943

IS13252 (except for 36V) K60950-1 (except for 36V) TPTC004 (except for 36V) MS IEC60950-1 (optional) (except for 36V) IEC60950-1

Energy Verified Rendement Énergétique Vérifié

ECO Household Automate Industrial Security Network Telecom

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,Korea K-MEPS, AU/NZ MEPS,EU ErP and CoC Version 5
- Protections: Short circuit / Overload / Over voltage /Over temperature
- Fanless design with -30~+70℃ 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

- DC plug type: R7B: Standard model,Power DIN 4Pin with lock type; Other options available by customer requested (see Page 4~5)
- Output voltage
- IEC320-C14 AC inlet
- Rated wattage
- Series name

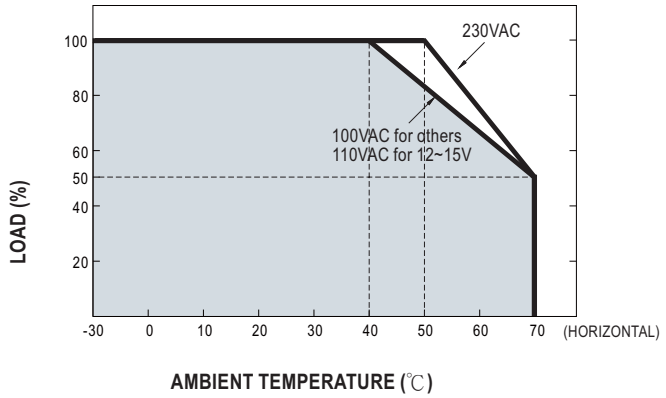
SPECIFICATION

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 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 60 / 115AC 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℃ (Refer to "Derating Curve")					
	WORKING HUMIDITY	20% ~ 90% RH non-condensing					
	STORAGE TEMP., HUMIDITY	-40 ~ +85℃, 10 ~ 95% RH non-condensing					
	TEMP. COEFFICIENT	±0.03% / ℃ (0~50℃)					
	VIBRATION	10 ~ 500Hz, 2G 10min./1cycle, period for 60min. each along X, Y, Z axes					
SAFETY & EMC (Note. 9)	SAFETY STANDARDS Note. 8	UL60950-1, CSA C22.2, TUV EN60950-1, BSMI CNS14336, CCC GB4943, PSE J60950-1, AS/NZS 60950.1 , BIS IS13252, KC K60950-1, EAC TP TC 004 approved; SIRIM MS IEC60950-1 (optional) approved (UL60950-1, CSA C22.2, TUV EN60950-1, BSMI CNS14336, CCC GB4943, 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℃/ 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℃)					
	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

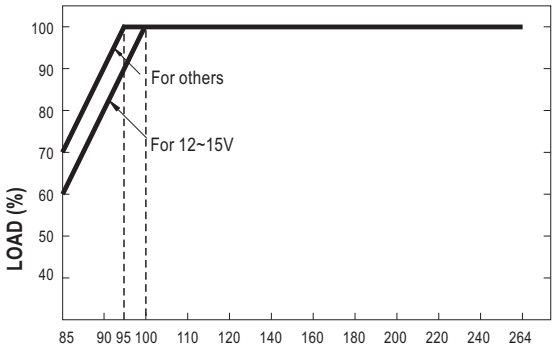
1. All parameters are specified at 230VAC input, rated load, 25℃ 70% RH ambient.
2. DC voltage: The output voltage set at point measure by plug terminal & 50% load.
3. Ripple & noise are measured at 20MHz by using a 12" twisted pair terminated with a 0.1μf & 47μf capacitor.
4. Tolerance: includes set 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 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 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)

■ Derating Curve



AMBIENT TEMPERATURE (℃)

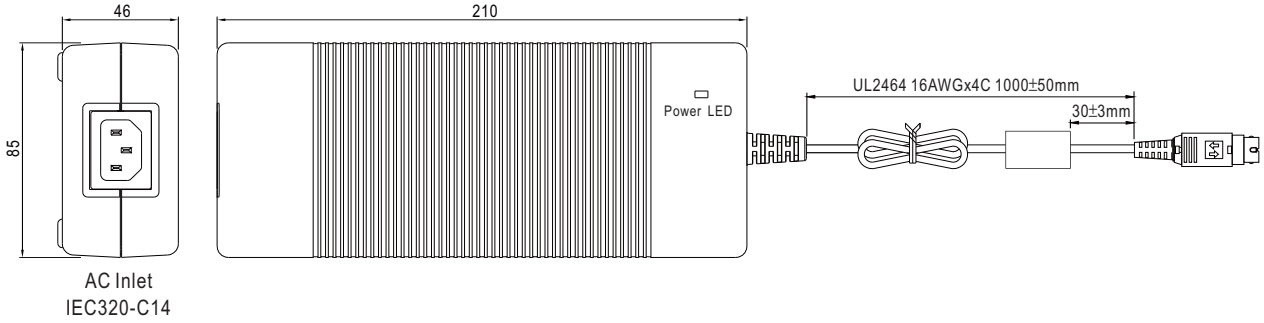
■ Static Characteristics



INPUT VOLTAGE (VAC) 60Hz

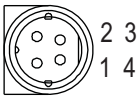
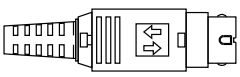
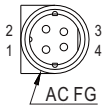
■ Mechanical Specification

Case No. 961A Unit:mm



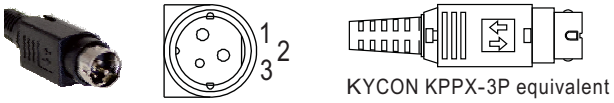
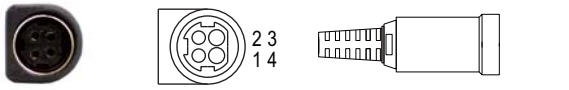
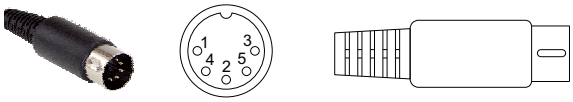
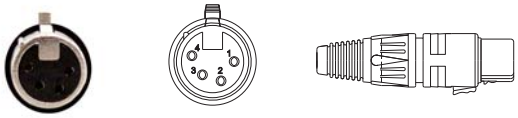
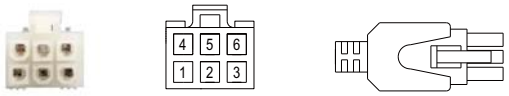
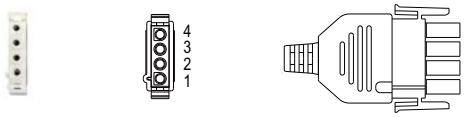
■ DC output plug

◎ Standard plug: R7B

R7B	Pin Assignment	
  KYCON KPPX-4P equivalent	 -V connected to AC FG	PIN NO. / OUTPUT

PIN NO.	OUTPUT
1	+Vo
2	-Vo
3	-Vo
4	+Vo

◎ Optional DC plug:

Min. DIN 3 Pin with Lock (male)	Type No.	Pin Assignment	
		PIN No.	Output
 KYCON KPPX-3P equivalent	R6B	1	+Vo
		2	-Vo
		3	+Vo
Min. DIN 4 Pin with Lock (female)	**Type No.**	**Pin Assignment**	
		PIN No.	Output
 KYCON KPJX-CM-4S equivalent	R7BF	1	+Vo
		2	-Vo
		3	-Vo
		4	+Vo
DIN 5 Pin (male)	**Type No.**	**Pin Assignment**	
		PIN No.	Output
	R1B	1	-Vo
		2	-Vo
		3	+Vo
		4	-Vo
		5	+Vo
NEUTRIK XLR NC4FX equivalent	**Type No.**	**Pin Assignment**	
		PIN No.	Output
	MIC4	1	+Vo
		2	+Vo
		3	-Vo
		4	-Vo
MOLEX 39-01-2060 (4.2mm) equivalent	**Type No.**	**Pin Assignment**	
		PIN No.	Output
 FG not connected to output connector	C6P	1	+Vo
		2	+Vo
		3	+Vo
		4	-Vo
		5	-Vo
		6	-Vo
AMP 1-480702-0 (6.35mm) equivalent	**Type No.**	**Pin Assignment**	
		PIN No.	Output
 FG not connected to output connector	C4P	1	+Vo
		2	+Vo
		3	-Vo
		4	-Vo

Stripped and tinned leads	Type No.	Pin Assignment	
		PIN No.	Output
 Length of Land L1 by request (MW's standard length, L: 25 mm, L1: 5 mm)	by customer	1	+Vo
		2	-Vo

■ Installation Manual

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