160W AC-DC High Reliability Industrial Adaptor GST160A series

IS13252 K60950-1 TPTC004 UL60950-1 EN60950-1 J60950-1 CNS14336 AS/NZS60950-1

GB4943 MS IEC60950-1 (optional) 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,AU/NZ MEPS, EU ErP and CoC Version 5
- Protections: Short circuit / Overload / Over voltage / Over temperature
- -30~+70℃ wide range 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

GST160A is a highly reliable, 160W 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% and the extremely low no-load power consumption below 0.15W,GST160A 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.GST160A is certified for the international safety regulations.

Model Encoding

GST 160A 12 -R7B

- R7B: Standard model,Power DIN 4Pin with lock type
- Other options available by customer requested (see Page 4~5)

DC plug type

Output voltage

IEC320-C14 AC inlet

Rated wattage

Series name

MEAN WELL

160W AC-DC High Reliability Industrial Adaptor **GST160A series**

SPECIFICATION

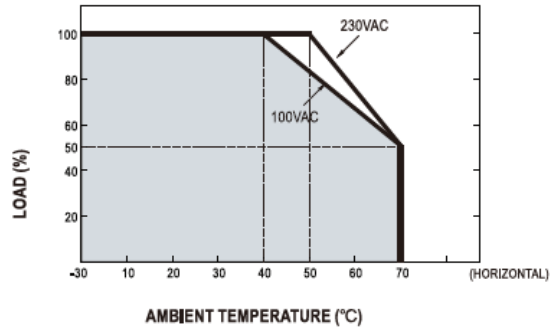
ORDER NO.		GST160A12-R7B	GST160A15-R7B	GST160A20-R7B	GST160A24-R7B	GST160A36-R7B	GST160A48-R7B
OUTPUT	SAFETY MODEL NO.	GST160A12	GST160A15	GST160A20	GST160A24	GST160A36	GST160A48
	DC VOLTAGE Note.2	12V	15V	20V	24V	36V	48V
	RATED CURRENT	11.5A	9.6A	8A	6.67A	4.44A	3.34A
	CURRENT RANGE	0 ~ 11.5A	0 ~ 9.6A	0 ~ 8A	0 ~ 6.67A	0 ~ 4.44A	0 ~ 3.34A
	RATED POWER (max.)	138W	144W	160W	160W	160W	160W
	RIPPLE & NOISE (max.) Note.3	80mVp-p	100mVp-p	120mVp-p	150mVp-p	150mVp-p	200mVp-p
	VOLTAGE TOLERANCE Note.4	±5.0%	±5.0%	±4.0%	±3.0%	±3.0%	±3.0%
	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%	±3.0%	±3.0%
	SETUP, RISE TIME Note.6	2000ms, 50ms / 230VAC 2500ms, 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.)	12V/15V:PF>0.93 / 230VAC 20V,24V,48V:PF>0.94 / 230VAC PF>0.98 / 115VAC at full load					
	EFFICIENCY (Typ.)	90%	91%	93%	93%	92%	94%
	AC CURRENT	1.85A / 115VAC 1A / 230VAC					
	INRUSH CURRENT (max.)	Cold start 95A / 115VAC 120A / 230VAC					
	LEAKAGE CURRENT(max.)	0.75mA / 240VAC					
PROTECTION	OVERLOAD	105 ~ 150% 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	Protection type : Shut down o/p voltage, re-power on to recover					
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		
	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	236.4K hrs min. MIL-HDBK-217F(25℃)		
	DIMENSION	175*72*35mm (L*W*H)		
	PACKING	0.66Kg; 20pcs/ 14.2Kg/ 1.06CUFT		
CONNECTOR	PLUG	See page 4-5 ; Other type available by customer requested		
	CABLE	See page 4-5 ; Other type available by customer requested		

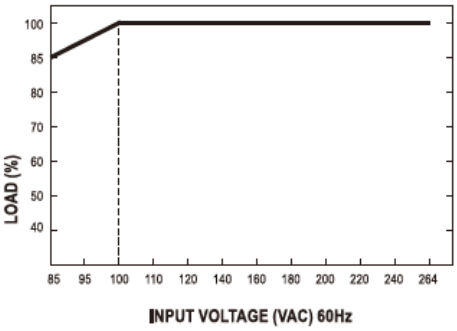
NOTE

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. GST160A □-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

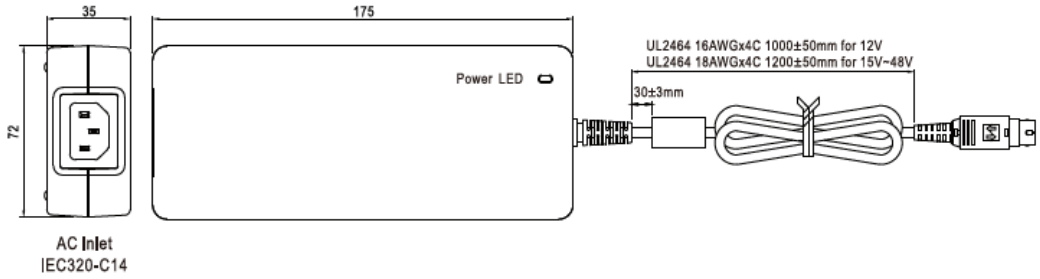


■ Static Characteristics



■ Mechanical Specification

Case No. GS160A
Unit:mm

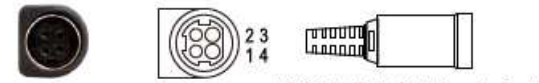
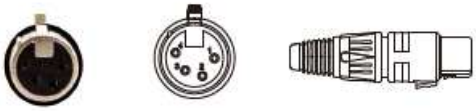
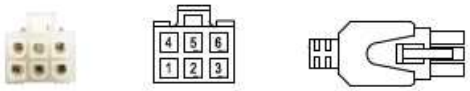
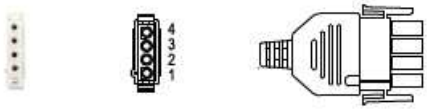
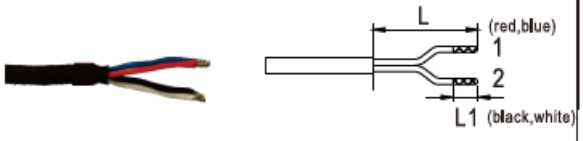


■ DC output plug

- Standard plug: R7B

R7B	Pin Assignment		
 KYCON KPPX-4P equivalent	 AC FG -V connected to AC FG	PIN NO.	OUTPUT
		1	+Vo
		2	-Vo
		3	-Vo
		4	+Vo

Optional DC plug:

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**
	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**
	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