60W AC-DC High Reliability Industrial Adaptor

GST60A 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
- No load power consumption< 0.075W
- **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
- Fully enclosed plastic case
- Pass LPS
- -30~+70℃ wide range working temperature
- LED indicator for power on
- 3 years warranty

Applications

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

Description

GST60A is a highly reliable, 60W 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 90VAC to 264VAC. The entire series supplies different models with output voltages ranging between 5VDC and 48VDC that can satisfy the demands for various types of consumer electronic devices.

With the efficiency up to 92% and the extremely low no-load power consumption below 0.075W, GST60A 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.GST60A is certified for the international safety regulations.

Model Encoding

GST 60 A 05 - P1J

- DC plug type
  - P1J: Standard model,2.1 ϕx5.5 ϕx11mm,C+,tuning fork type
  - Other options available by customer requested (see Page 4~5)
- Output voltage
- IEC320-C14 AC inlet
- Rated wattage
- Series name

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SPECIFICATION

ORDER NO.		GST60A05-P1J	GST60A07-P1J	GST60A09-P1J	GST60A12-P1J	GST60A15-P1J	GST60A18-P1J	GST60A24-P1J	GST60A48-P1J
OUTPUT	SAFETY MODEL NO.	GST60A05	GST60A07	GST60A09	GST60A12	GST60A15	GST60A18	GST60A24	GST60A48
	DC VOLTAGE Note.2	5V	7.5V	9V	12V	15V	18V	24V	48V
	RATED CURRENT	6A	6A	6A	5A	4A	3.33A	2.5A	1.25A
	CURRENT RANGE	0 ~ 6A	0 ~ 6A	0 ~ 6A	0 ~ 5A	0 ~ 4A	0 ~ 3.33A	0 ~ 2.5A	0 ~ 1.25A
	RATED POWER (max.)	30W	45W	54W	60W	60W	60W	60W	60W
	RIPPLE & NOISE (max.) Note.3	120mVp-p	120mVp-p	120mVp-p	120mVp-p	120mVp-p	150mVp-p	150mVp-p	200mVp-p
	VOLTAGE TOLERANCE Note.4	±5.0%	±5.0%	±5.0%	±3.0%	±3.0%	±3.0%	±3.0%	±2.5%
	LINE REGULATION Note.5	±1.0%	±1.0%	±1.0%	±1.0%	±1.0%	±1.0%	±1.0%	±1.0%
	LOAD REGULATION	±5.0%	±5.0%	±5.0%	±3.0%	±3.0%	±3.0%	±3.0%	±2.5%
	SETUP, RISE TIME Note.6	1000ms, 50ms / 230VAC 1000ms, 50ms / 115VAC at full load							
	HOLD UP TIME (Typ.)	50ms / 230VAC 15ms / 115VAC at full load							
INPUT	VOLTAGE RANGE Note.7	90 ~ 264VAC 135 ~ 370VDC							
	FREQUENCY RANGE	47 ~ 63Hz							
	EFFICIENCY (Typ.)	85.5%	88.5%	89%	89.5%	89.5%	89.5%	90.5%	92%
	AC CURRENT (Typ.)	1.4A / 115VAC 1A / 230VAC							
	INRUSH CURRENT (max.)	Cold start 35A / 115AC 65A / 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	5.2 ~ 6.8V	7.8 ~ 10.2V	9.4 ~ 12.2V	12.6 ~ 16.2V	15.7 ~ 20.3V	18.9 ~ 24.3V	25.2 ~ 32.4V	50.4 ~ 64.8V
		Protection type : Shut down o/p voltage, re-power on to recover							
	OVER TEMPERATURE	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:0.5KVAC							
	ISOLATION RESISTANCE	I/P-O/P, I/P-FG, O/P-FG:100M Ohms / 500VDC / 25℃/ 70% RH							

	Parameter	Standard	Test Level / Note
EMC EMISSION	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	709.7K hrs min. MIL-HDBK-217F(25℃)
	DIMENSION	125*50*31.5mm (L*W*H)
	PACKING	0.305Kg; 40pcs/13.02Kg/1.05CUFT
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 voltages. Pleas check the derating curve for more details.
8. The demand for Malaysia safety is processed with the order no. GST60A □ -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)

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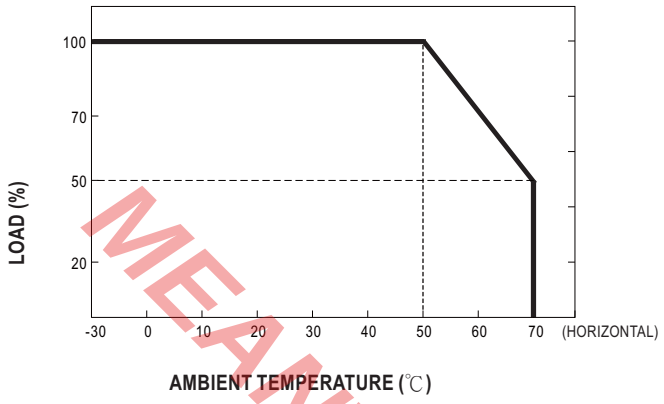
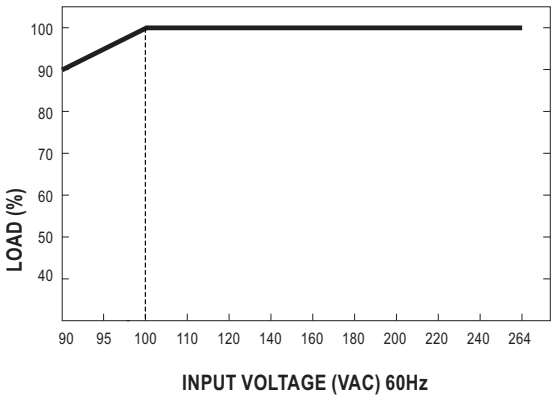
■ Derating Curve

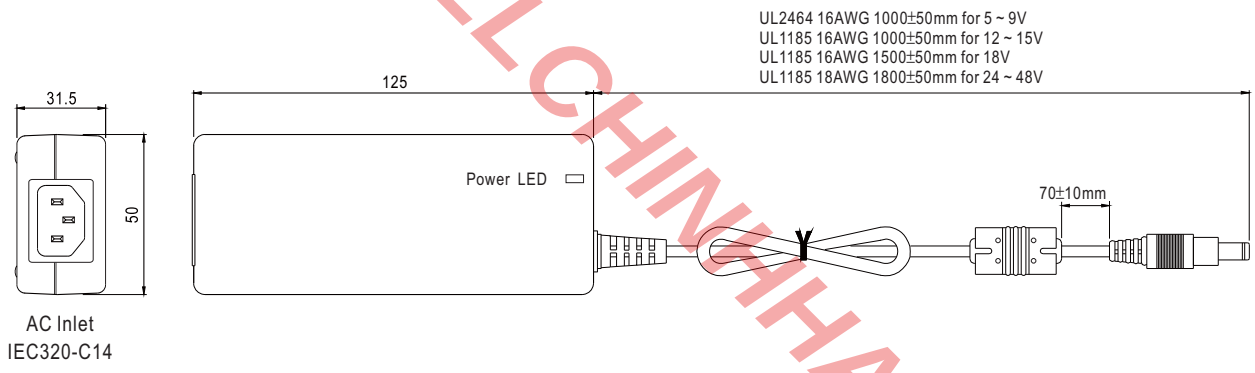


■ Static Characteristics



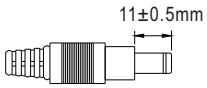
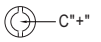
■ Mechanical Specification

Case No. GS60A Unit:mm



■ DC output plug

◎ Standard plug: P1J

P1J	Pin Assignment
	 Outside Inside -V not connected to AC FG

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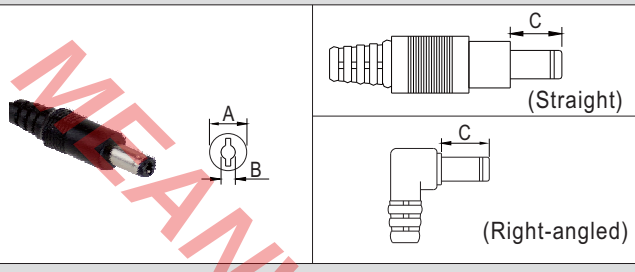
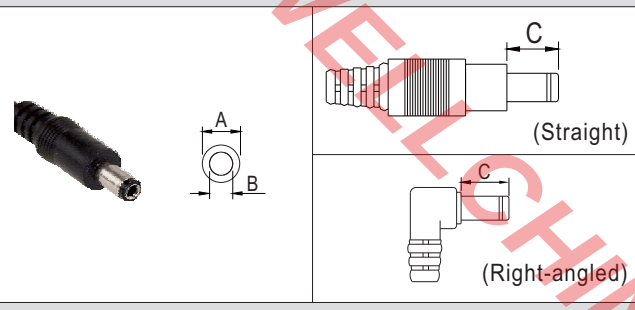
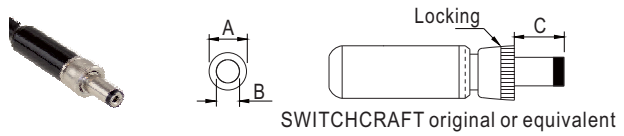
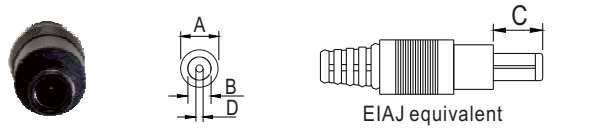
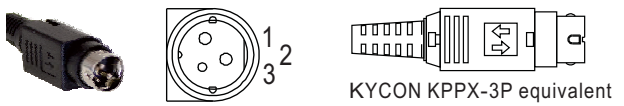
◎ Optional DC plug:

Tuning Fork Style	Type No.	A	B	C
		OD	ID	L
	P1I	5.5	2.1	9.5
	P1L	5.5	2.5	9.5
	P1M	5.5	2.5	11.0
	P1IR	5.5	2.1	9.5
	P1JR	5.5	2.1	11.0
	P1LR	5.5	2.5	9.5
	P1MR	5.5	2.5	11.0

Barrel Style	Type No.	A	B	C
		OD	ID	L
	P2I	5.5	2.1	9.5
	P2J	5.5	2.1	11.0
	P2L	5.5	2.5	9.5
	P2M	5.5	2.5	11.0
	P2IR	5.5	2.1	9.5
	P2JR	5.5	2.1	11.0
	P2LR	5.5	2.5	9.5
	P2MR	5.5	2.5	11.0

Lock Style	Type No.	A	B	C
		OD	ID	L
	P2S(S761K)	5.53	2.03	12.06
	P2K(761K)	5.53	2.54	12.06
	P2C(S760K)	5.53	2.03	9.52
	P2D(760K)	5.53	2.54	9.52

Center Pin Style	Type No.	A	B	C	D
		OD	ID	L	Center Pin
	P4A	5.5	3.4	11.0	1.0
	P4B	6.5	4.4	11.0	1.4
	P4C	7.4	5.1	11.0	0.6

Min. DIN 3 Pin with Lock (male)	Type No.	Pin Assignment	
		PIN No.	Output
	R6B	1	+Vo
		2	-Vo
		3	+Vo

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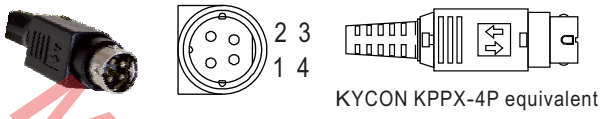
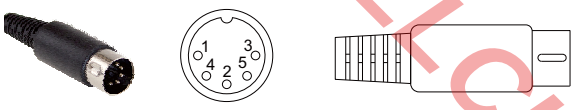
Min. DIN 4 Pin with Lock (male)	Type No.	Pin Assignment	
		PIN No.	Output
 KYCON KPPX-4P equivalent	R7B	1	+Vo
		2	-Vo
		3	-Vo
		4	+Vo

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

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

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