18W AC-DC High Reliability Industrial Adaptor

GST18A 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
- 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

GST18A is a highly reliable, 18W 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 5VDC and 48VDC that can satisfy the demands for various types of consumer electronic devices.

With the efficiency up to 89% and the extremely low no-load power consumption below 0.075W, GST18A 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.GST18A is certified for the international safety regulations.

Model Encoding

GST 18 A 05 - P1J

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

18W AC-DC High Reliability Industrial Adaptor

GST18A series

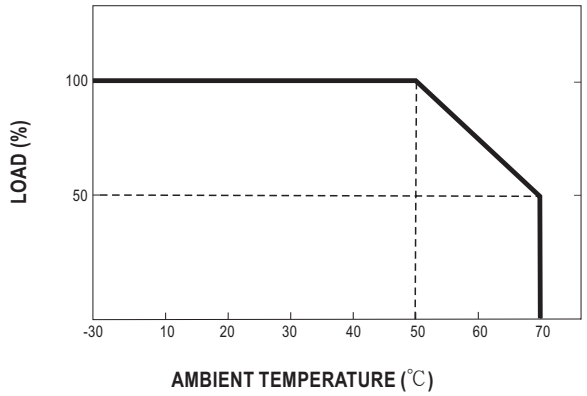
SPECIFICATION

ORDER NO.		GST18A05-P1J	GST18A07-P1J	GST18A09-P1J	GST18A12-P1J	GST18A15-P1J	GST18A18-P1J	GST18A24-P1J	GST18A28-P1J	GST18A48-P1J
OUTPUT	SAFETY MODEL NO.	GST18A05	GST18A07	GST18A09	GST18A12	GST18A15	GST18A18	GST18A24	GST18A28	GST18A48
	DC VOLTAGE Note.2	5V	7.5V	9V	12V	15V	18V	24V	28V	48V
	RATED CURRENT	3.0A	2.0A	2.0A	1.50A	1.20A	1.0A	0.75A	0.64A	0.375A
	CURRENT RANGE	0 ~ 3.0A	0 ~ 2.0A	0 ~2.0A	0 ~ 1.50A	0 ~ 1.20A	0 ~ 1.0A	0 ~ 0.75A	0 ~ 0.64A	0 ~ 0.375A
	RATED POWER (max.)	15W	15W	18W	18W	18W	18W	18W	18W	18W
	RIPPLE & NOISE (max.) Note.3	80mVp-p	80mVp-p	80mVp-p	80mVp-p	100mVp-p	150mVp-p	150mVp-p	150mVp-p	150mVp-p
	VOLTAGE TOLERANCE Note.4	±5.0%	±5.0%	±5.0%	±3.0%	±3.0%	±3.0%	±2.0%	±2.0%	±2.0%
	LINE REGULATION Note.5	±1.0%	±1.0%	±1.0%	±1.0%	±1.0%	±1.0%	±1.0%	±1.0%	±1.0%
	LOAD REGULATION Note.6	±5.0%	±5.0%	±5.0%	±3.0%	±3.0%	±3.0%	±2.0%	±2.0%	±2.0%
	SETUP, RISE, HOLD UP TIME	1000ms, 30ms, 50ms/230VAC 1500ms, 30ms, 15ms/115VAC at full load								
INPUT	VOLTAGE RANGE Note.7	85 ~ 264VAC								
	FREQUENCY RANGE	47 ~ 63Hz								
	EFFICIENCY (Typ.)	81%	85%	85%	86%	87%	88%	88%	88.5%	89%
	AC CURRENT	0.5A / 115VAC 0.3A / 230VAC								
	INRUSH CURRENT (max.)	Cold start 35A / 115VAC 65A / 230VAC								
	LEAKAGE CURRENT(max.)	0.75mA / 240VAC								
PROTECTION	OVERLOAD	110 ~ 150% rated output power								
		Protection type : Hiccup mode, recovers automatically after fault condition is removed								
	OVER VOLTAGE	110 ~ 140% rated output voltage								
		Protection type : Clamp by zener diode, output short								
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:4242VDC , I/P-FG:2121VDC								
	ISOLATION RESISTANCE	I/P-O/P, I/P-FG: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 3, 8KV air; Level 2, 4KV 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 4, 2KV/Line-Line , 4KV/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	500Khrs min. MIL-HDBK-217F(25℃)								
	DIMENSION	93*54*36mm (L*W*H)								
	PACKING	209g; 60pcs/13.5Kg/1.12CUFT								
CONNECTOR	PLUG	See page 4~5 ; Other type available by customer requested								
	CABLE	See page 4~5 ; Other type available by customer requested								

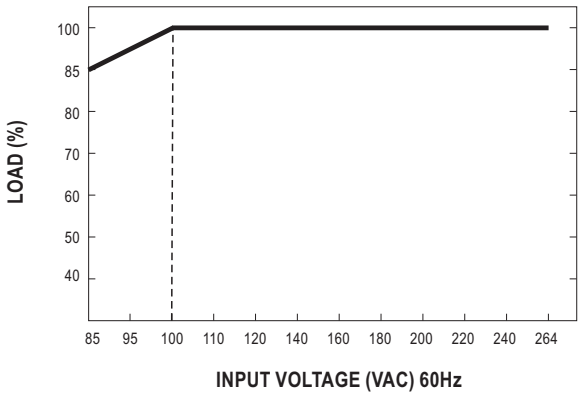
NOTE

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.Load regulation is measured from 10% to 100% rated load.
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. GST18A □ -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

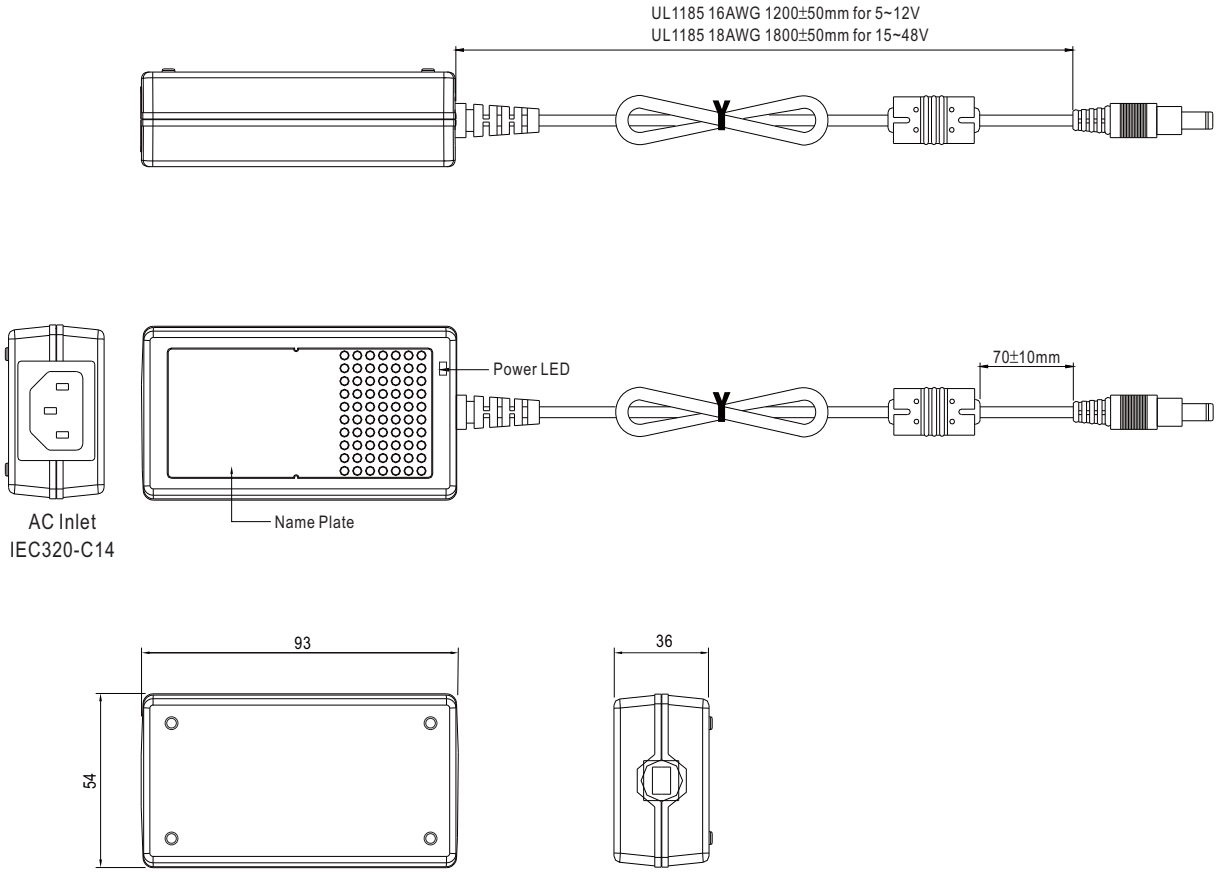


■ Static Characteristics



■ Mechanical Specification

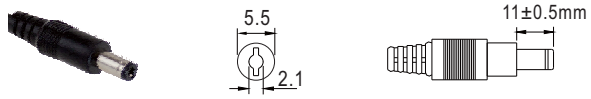
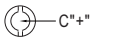
Unit:mm



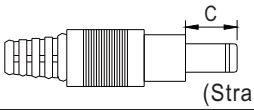
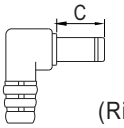
Costruzioni Elettroniche Elettromeccaniche & Affini s.r.l. - 10132 TORINO - C.so Casale, 413 - Tel. 0118987106 / 0115534597 - fax 0115534597 - e_mail cea@cea.to - URL http://www.cea.to

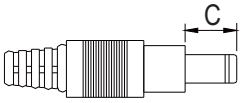
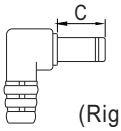
■ DC output plug

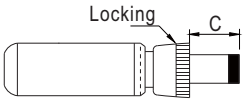
◎ Standard plug: P1J

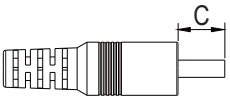
P1J	Pin Assignment
	 Outside  Inside -V not connected to AC FG(standard) -V connected to AC FG(optional)

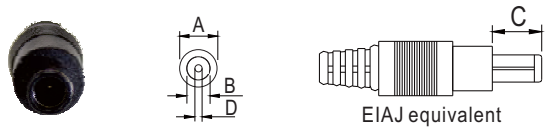
◎ Optional DC plug:

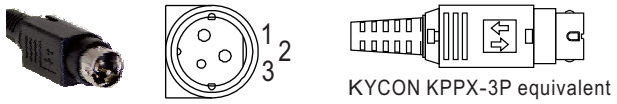
Tuning Fork Style		Type No.	A OD	B ID	C L
	 (Straight)	P1I	5.5	2.1	9.5
		P1L	5.5	2.5	9.5
		P1M	5.5	2.5	11.0
	 (Right-angled)	P1IR	5.5	2.1	9.5
		P1JR	5.5	2.1	11.0
		P1LR	5.5	2.5	9.5
		P1MR	5.5	2.5	11.0

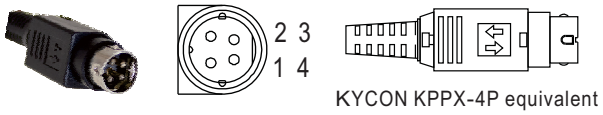
Barrel Style		Type No.	A OD	B ID	C L
	 (Straight)	P2I	5.5	2.1	9.5
		P2J	5.5	2.1	11.0
		P2L	5.5	2.5	9.5
		P2M	5.5	2.5	11.0
	 (Right-angled)	P2IR	5.5	2.1	9.5
		P2JR	5.5	2.1	11.0
		P2LR	5.5	2.5	9.5
		P2MR	5.5	2.5	11.0

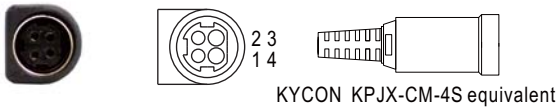
Lock Style		Type No.	A OD	B ID	C L
	 SWITCHCRAFT original or equivalent	P2S(S761K)	5.53	2.03	12.06
		P2K(761K)	5.53	2.54	12.06
		P2C(S760K)	5.53	2.03	9.52
		P2D(760K)	5.53	2.54	9.52

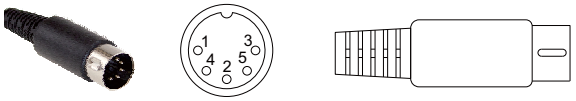
Min. Pin Style		Type No.	A OD	B ID	C L
	 EIAJ equivalent	P3A	2.35	0.7	11.0
		P3B	4.0	1.7	11.0
		P3C	4.75	1.7	11.0

Center Pin Style	Type No.	A OD	B ID	C L	D Center Pin
 EIAJ equivalent	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
 KYCON KPPX-3P equivalent	R6B	1	+Vo
		2	-Vo
		3	+Vo

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