280W AC-DC High Reliability Industrial Adaptor GST280A series

User's Manual

Video



IS13252 K60950-1 TPTC004 UL62368-1 BS EN/EN62368-1 J60950-1 R33100 RoHS AS/NZS60950-1

GB4943.1 MS IEC60950-1 (optional) IEC62368-1 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<0.5W
- **Energy efficiency Level VI**
- Comply with EISA 2007/DoE,NRCan,AU/NZ MEPS,EU ErP
- 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

GTIN CODE

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

Description

GST280A is a highly reliable, 280W 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 85 VAC 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 0.5W, GST280A is compliant with USA EISA 2007/DoE, Canada NRCan, Australia and New Zealand MEPS,Korea K-MEPS,EU ErP. 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. GST280A is certified for the international safety regulations.

Model Encoding

GST 280A 12 -C6P

- DC connector type: C6P: Standard model, 6 pin connector; Other options available by customer requested (see Page 4)
- Output voltage
- IEC320-C14 AC inlet
- Rated wattage
- Series name

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SPECIFICATION

ORDER NO.		GST280A12-C6P	GST280A15-C6P	GST280A20-C6P	GST280A24-C6P	GST280A48-C6P
OUTPUT	SAFETY MODEL NO.	GST280A12	GST280A15	GST280A20	GST280A24	GST280A48
	DC VOLTAGE Note.2	12V	15V	20V	24V	48V
	RATED CURRENT	21A	17A	13A	11.67A	5.84A
	CURRENT RANGE	0 ~ 21A	0 ~ 17A	0 ~ 13A	0 ~ 11.67A	0 ~ 5.84A
	RATED POWER (max.)	252W	255W	260W	280.08W	280.32W
	RIPPLE & NOISE (max.) Note.3	120mVp-p	120mVp-p	150mVp-p	200mVp-p	200mVp-p
	VOLTAGE TOLERANCE Note.4	±5.0%	±5.0%	±4.0%	±3.0%	±2.0%
	LINE REGULATION Note.5	±1.0%	±1.0%	±1.0%	±1.0%	±1.0%
	LOAD REGULATION	±5.0%	±5.0%	±4.0%	±3.0%	±2.0%
	SETUP, RISE TIME Note.6	2000ms, 20ms / 230VAC 2000ms, 20ms / 115VAC at full load				
	HOLD UP TIME (Typ.)	16ms / 230VAC 16ms / 115VAC at full load				
INPUT	VOLTAGE RANGE Note.7	85 ~ 264VAC 120 ~ 370VDC				
	FREQUENCY RANGE	47 ~ 63Hz				
	POWER FACTOR (Typ.)	PF>0.95 / 230VAC PF>0.98 / 115VAC at full load				
	EFFICIENCY (Typ.)	89.5%	90%	92%	93%	94%
	AC CURRENT (Typ.)	3A / 115VAC 1.5A / 230VAC				
	INRUSH CURRENT (max.)	Cold start 95A / 115VAC 120A / 230VAC				
	LEAKAGE CURRENT(max.)	1.5mA / 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 : 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% / ℃ (0~40℃)				
	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 CNS14336, CCC GB4943.1, 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-F/G: 2KVAC O/P-F/G: SHORT				
	ISOLATION RESISTANCE	I/P-O/P:100M Ohms / 500VDC / 25℃/ 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),CNS13438,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),CNS13438,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	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	1625.8K hrs min. Telcordia SR-332 (Bellcore) ; 181.2K hrs min. MIL-HDBK-217F (25℃)
	DIMENSION	220*95*46mm (L*W*H)
	PACKING	1.25Kg; 12pcs/16Kg/1.09CUFT
CONNECTOR	PLUG	See page 4 ; Other type available by customer requested
	CABLE	See page 4 ; Other type available by customer requested

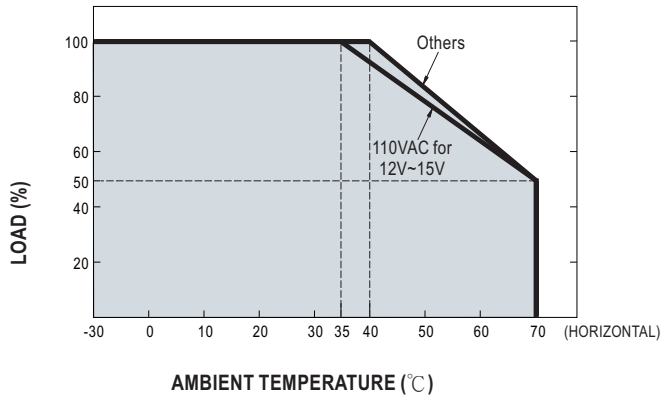
NOTE

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 0.1 μF & 47 μF 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. GST280A□-SIRIM by request. Please contact MEAN WELL for details.
9. The ambient temperature derating of 3.5℃/1000m with fanless models and of 5℃/1000m with fan models for operating altitude higher than 2000m(6500ft).
10. 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)

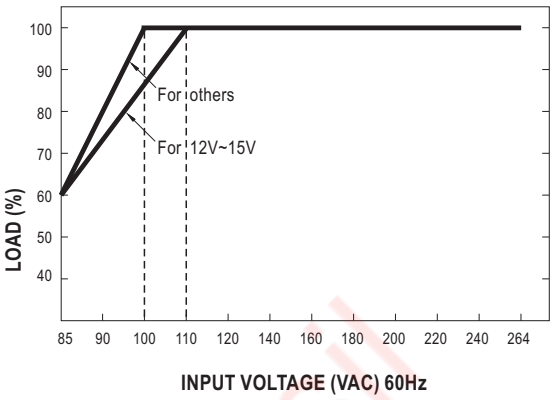
※ Product Liability Disclaimer : For detailed information, please refer to https://www.meanwell.com/serviceDisclaimer.aspx

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■ Derating Curve

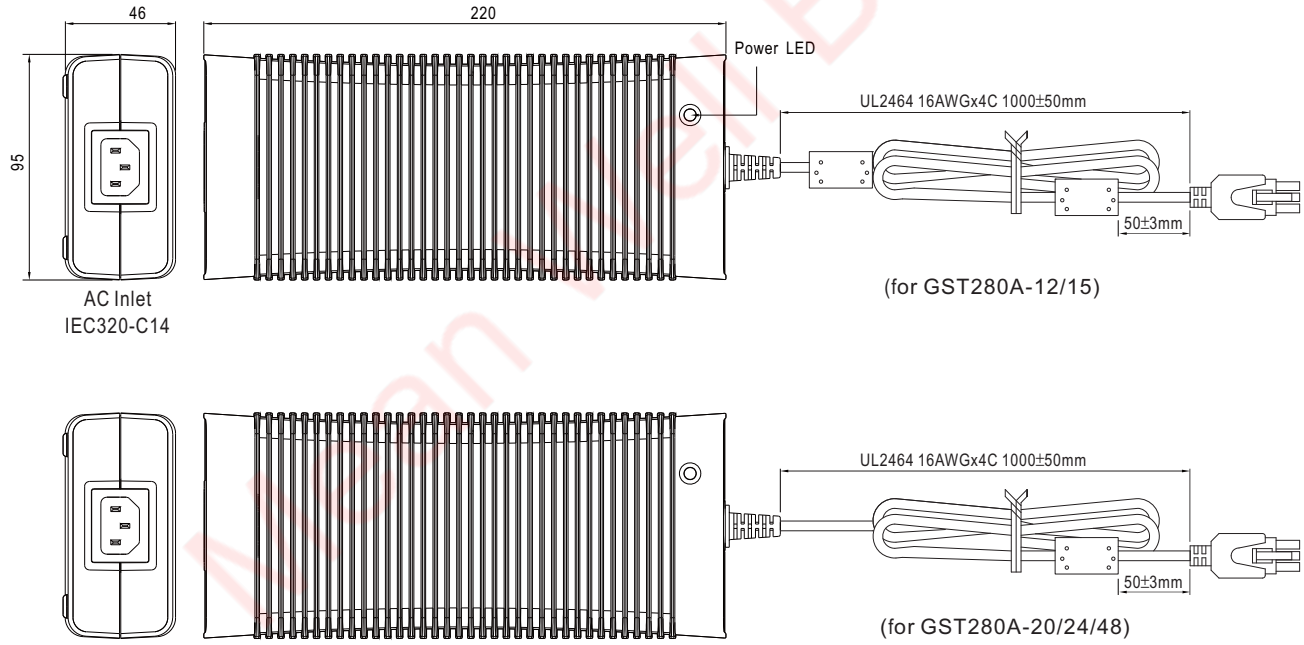


■ Static Characteristics



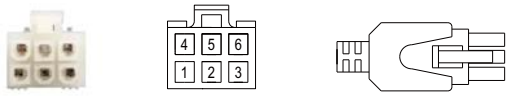
■ Mechanical Specification

Case No. GS280A Unit:mm



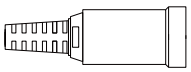
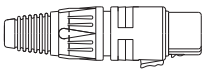
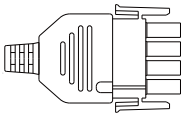
■ DC output plug

◎ Standard plug: C6P : MOLEX 39-01-2060 equivalent

C6P	Pin Assignment		
	 -V connected to AC FG	PIN NO.	OUTPUT
		1,2,3	+Vo
		4,5,6	-Vo

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◎ 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
NEUTRIK XLR NC4FX equivalent	**Type No.**	**Pin Assignment**	
		PIN No.	Output
  	MIC4	1	+Vo
		2	+Vo
		3	-Vo
		4	-Vo
AMP 1-480702-0 (6.35mm) equivalent	**Type No.**	**Pin Assignment**	
		PIN No.	Output
  	C4P	1	+Vo
		2	+Vo
		3	-Vo
		4	-Vo

■ Installation Manual

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

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