280W AC-DC High Reliability Industrial Adaptor GST280A series

(optional)

Features

- **Global certificates**
- Universal AC input / Full range
- 3 pole AC inlet IEC320-C14
- 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
- Class I power (with earth pin)
- 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

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 and 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. GST280A is certified for the international safety regulations.

Model Encoding

GST 280A 12 -C6P

- DC connector type
  - C6P: Connector for standard model, MOLEX 6 pin connector
  - Optional connector type available by customer requested
- Output voltage
- IEC320-C14 AC inlet
- Output wattage
- Series name

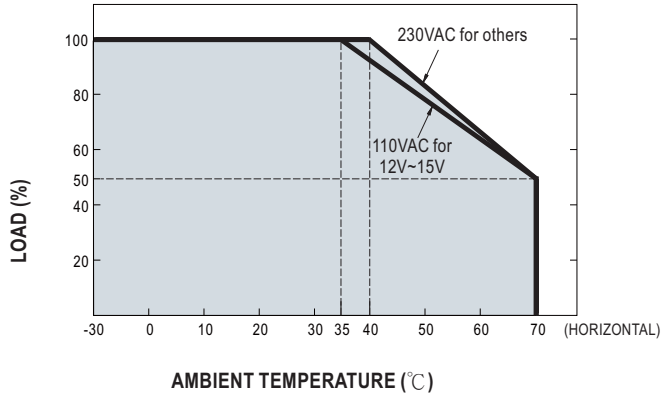
SPECIFICATION

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	280mVp-p	280mVp-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.)	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				
	TEMP. COEFFICIENT	±0.03% / ℃ (0~40℃)				
	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-F/G: 2KVAC O/P-F/G: SHORT				
	ISOLATION RESISTANCE	I/P-O/P:100M Ohms / 500VDC / 25℃/ 70% RH				
	EMC EMISSION	Compliance to EN55022 class B, EN61000-3-2,3, FCC PART 15 / CISPR22 class B, CAN ICES-3(B)/NMB-3(B),CNS13438 class B, GB9254, GB17625.1, EAC TP TC 020, MSIP KN32				
	EMC IMMUNITY	Compliance to EN61000-4-2,3,4,5,6,8,11, light industry level, criteria A, MSIP KN35				
OTHERS	MTBF	181.24Khrs min. MIL-HDBK-217F(25℃)				
	DIMENSION	220*95*46mm (L*W*H)				
	PACKING	1.25Kg; 12pcs/16Kg/1.27CUFT				
CONNECTOR	PLUG	See page 3 ; Other type available by customer requested				
	CABLE	See page 3 ; Other type available by customer requested				

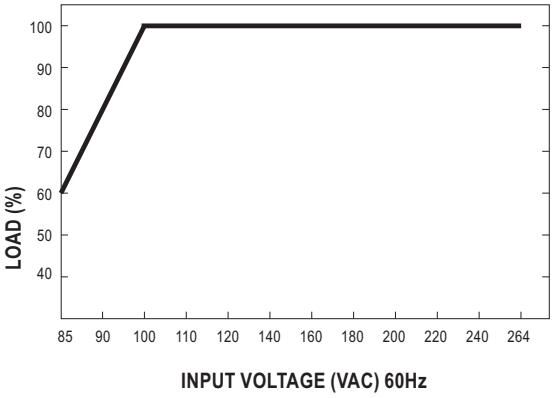
NOTE

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 0.1uf & 47uf 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 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

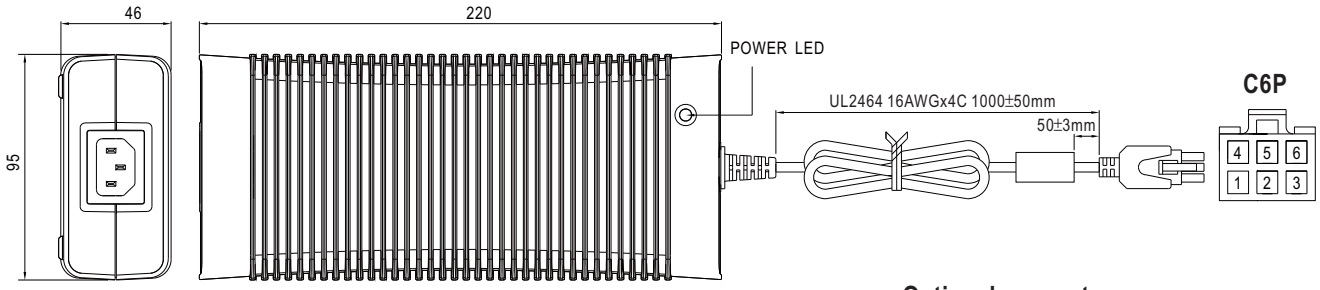


■ Static Characteristics



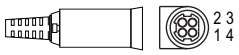
■ Mechanical Specification

Case No. GS280A Unit:mm

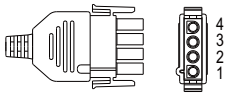


Optional connectors:

R7BF



C4P



MIC4

■ Connector Assignment

◎ Standard connector: C6P

Output connector : MOLEX 39-01-2060 (4.2mm) equivalent
Mating connector (customer side, not provided with the power supply) : MOLEX 39-01-2061(4.2mm) equivalent

C6P

PIN NO.	OUTPUT
1,2,3	+V
4,5,6	-V

-V connected to AC FG

◎ Optional connectors: C4P, R7BF, MIC4

① Output connector : Housing AMP 1-480702-0 with inner pin 9848TP (6.35mm) equivalent
Mating connector (customer side, not provided with the power supply) : Housing AMP 1-480703-0 with inner pin 9848TR (6.35mm) equivalent

C4P

PIN NO.	OUTPUT
1,2	+V
3,4	-V

-V connected to AC FG

② Output connector : KYCON KPJX-CM-4S equivalent
Mating connector (customer side, not provided with the power supply) :KYCON KPPX-4P equivalent

R7BF

PIN NO.	OUTPUT
1,4	+V
2,3	-V

-V connected to AC FG

③ Output connector : NEUTRIK XLR NC4FX equivalent
Mating connector (customer side, not provided with the power supply) :NEUTRIK XLR NC4MX equivalent

MIC4

PIN NO.	OUTPUT
1,2	+V
3,4	-V

-V connected to AC FG

■ Installation Manual

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