



## ■ Features

- 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°C working temperature
- Fully enclosed plastic case
- LED indicator for power on
- 3 years warranty

## ■ Applications

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

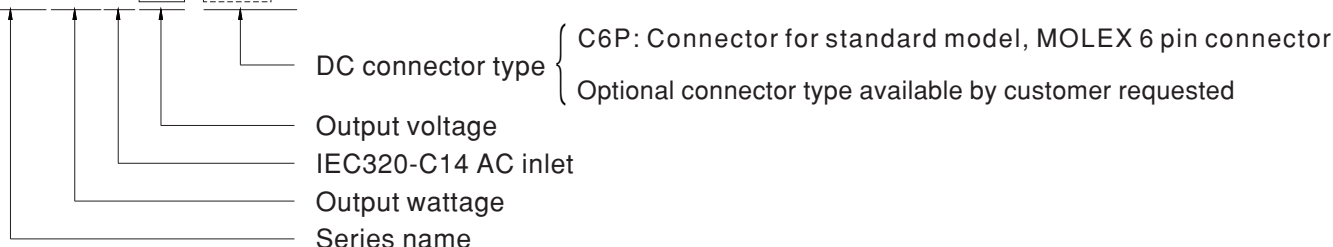
## ■ Description

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**

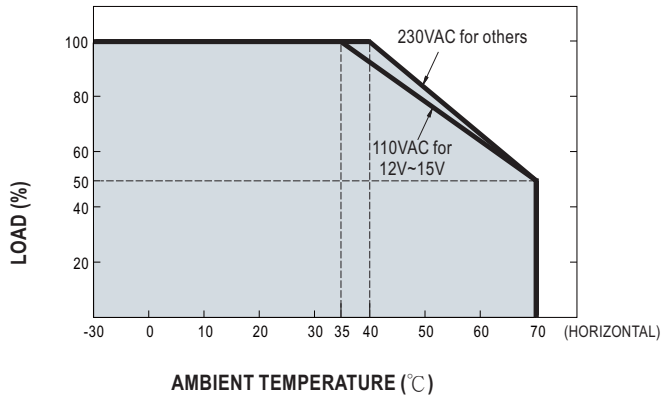




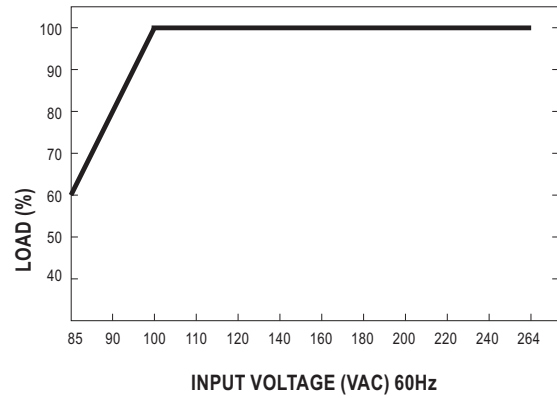
## SPECIFICATION

| ORDER NO.                 |                                             | GST280A12-C6P                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | GST280A15-C6P | GST280A20-C6P | GST280A24-C6P | GST280A48-C6P |
|---------------------------|---------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|---------------|---------------|---------------|
| OUTPUT                    | SAFETY MODEL NO.                            | GST280A12                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | GST280A15     | GST280A20     | GST280A24     | GST280A48     |
|                           | DC VOLTAGE <small>Note.2</small>            | 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.) <small>Note.3</small> | 120mVp-p                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 120mVp-p      | 150mVp-p      | 280mVp-p      | 280mVp-p      |
|                           | VOLTAGE TOLERANCE <small>Note.4</small>     | ± 5.0%                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | ± 5.0%        | ± 4.0%        | ± 3.0%        | ± 2.0%        |
|                           | LINE REGULATION <small>Note.5</small>       | ± 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 <small>Note.6</small>      | 2000ms, 20ms / 230VAC      2000ms, 20ms / 115VAC at full load                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |               |               |               |               |
| INPUT                     | HOLD UP TIME (Typ.)                         | 16ms / 230VAC      16ms / 115VAC at full load                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |               |               |               |               |
|                           | VOLTAGE RANGE <small>Note.7</small>         | 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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |               |               |               |               |
| PROTECTION                | LEAKAGE CURRENT(max.)                       | 1.5mA / 240VAC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |               |               |               |               |
|                           | OVERLOAD                                    | 105 ~ 135% rated output power<br>Protection type : Hiccup mode, recovers automatically after fault condition is removed                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |               |               |               |               |
|                           | OVER VOLTAGE                                | 105 ~ 135% rated output voltage<br>Protection type : Shut down o/p voltage, re-power on to recover                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |               |               |               |               |
| ENVIRONMENT               | OVER TEMPERATURE                            | Shut down o/p voltage, re-power on to recover                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |               |               |               |               |
|                           | WORKING TEMP.                               | -30 ~ +70°C (Refer to "Derating Curve")                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |               |               |               |               |
|                           | WORKING HUMIDITY                            | 20% ~ 90% RH non-condensing                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |               |               |               |               |
|                           | STORAGE TEMP., HUMIDITY                     | -40 ~ +85°C, 10 ~ 95% RH                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |               |               |               |               |
|                           | TEMP. COEFFICIENT                           | ± 0.03% / °C (0~40°C)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |               |               |               |               |
| SAFETY & EMC<br>(Note. 8) | VIBRATION                                   | 10 ~ 500Hz, 2G 10min./1cycle, period for 60min. each along X, Y, Z axes                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |               |               |               |               |
|                           | SAFETY STANDARDS                            | UL60950-1, CSA C22.2, TUV EN60950-1, BSMI CNS14336, CCC GB4943, PSE J60950-1 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°C / 70% RH                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |               |               |               |               |
|                           | EMC EMISSION                                | Compliance to EN55022 class B, EN61000-3-2,3, FCC PART 15 / CISPR22 class B, CNS13438 class B, GB9254 GB17625.1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |               |               |               |               |
| OTHERS                    | EMC IMMUNITY                                | Compliance to EN61000-4-2,3,4,5,6,8,11, light industry level, criteria A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |               |               |               |               |
|                           | MTBF                                        | 181.24Khrs min. MIL-HDBK-217F(25°C)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |               |               |               |               |
|                           | DIMENSION                                   | 220*95*46mm (L*W*H)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |               |               |               |               |
| CONNECTOR                 | PACKING                                     | 1.25Kg; 12pcs/16Kg/1.27CUFT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |               |               |               |               |
|                           | PLUG                                        | See page 3 ; Other type available by customer requested                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |               |               |               |               |
|                           | CABLE                                       | See page 3 ; Other type available by customer requested                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |               |               |               |               |
| NOTE                      |                                             | <ol style="list-style-type: none"><li>1. All parameters are specified at 230VAC input, rated load, 25°C 70% RH ambient.</li><li>2. DC voltage: The output voltage set at point measure by plug terminal &amp; 50% load.</li><li>3. Ripple &amp; noise are measured at 20MHz by using a 12" twisted pair terminated with a 0.1uf &amp; 47uf capacitor.</li><li>4. Tolerance: includes set up tolerance, line regulation, load regulation.</li><li>5. Line regulation is measured from low line to high line at rated load.</li><li>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.</li><li>7. Derating may be needed under low input voltage. Please check the derating curve for more details.</li><li>8. 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."<br/>(as available on <a href="http://www.meanwell.com">http://www.meanwell.com</a>)</li></ol> |               |               |               |               |

### Derating Curve

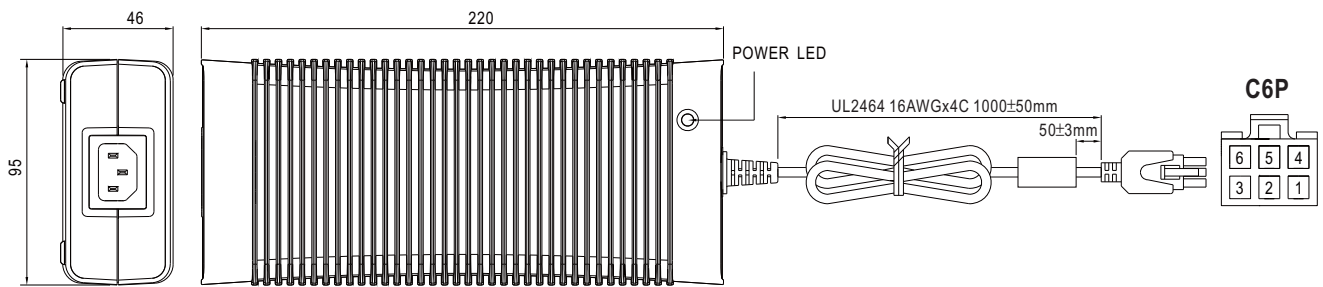


### Static Characteristics



### Mechanical Specification

Case No. GS280A Unit:mm

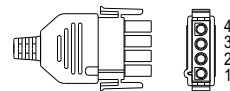


### Optional connectors:

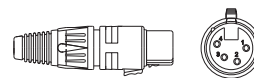
#### R7BF



#### C4P



#### MIC4

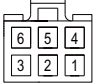


## ■ Connector Assignment

### ◎ Standard connector: C6P

Output connector : MOLEX 39-01-2060 (4.2mm) equivalent

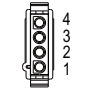
Mating connector (customer side, not provided with the power supply) : MOLEX 39-01-2061(4.2mm) equivalent

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

### ◎ 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     | -V connected to AC FG |
|                                                                                   |                                                                                   | 3,4     | -V     |                       |

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     | -V connected to AC FG |
|                                                                                     |                                                                                     | 2,3     | -V     |                       |

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     | -V connected to AC FG |
|                                                                                     |                                                                                     | 3,4     | -V     |                       |

## ■ Installation Manual

Please refer to : <http://www.meanwell.com/webnet/search/InstallationSearch.html>