



## ■ Features

- Universal AC input / Full range
- 3 pole AC inlet IEC320-C14
- Built-in active PFC function
- No load power consumption<0.15W
- **Energy efficiency Level VI**
- Comply with EISA 2007/DoE,NRCan, AU/NZ MEPS,EU ErP and CoC Version 5
- 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

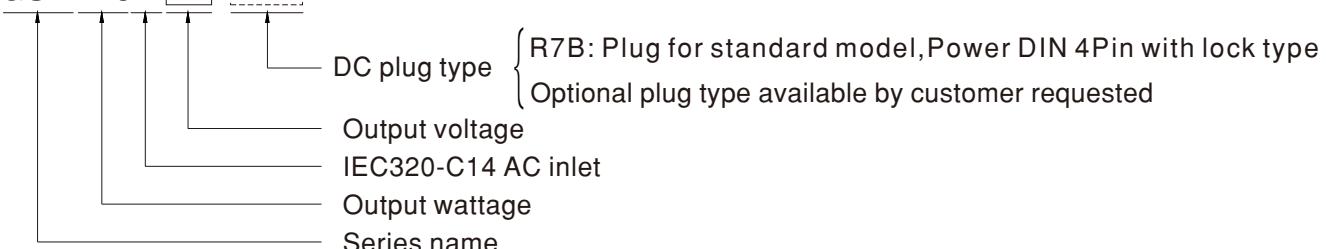
## ■ Description

GST220A is a highly reliable, 220W 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 12VDC and 48VDC that can satisfy the demands for various types of consumer electronic devices.

With the efficiency up to 94.5% and the extremely low no-load power consumption below 0.15W, GST220A is compliant with USA EISA 2007/DoE, Canada NRCan, Australia and New Zealand 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. GST220A is certified for the international safety regulations.

## ■ Model Encoding

**GST 220A [12]-[R7B]**



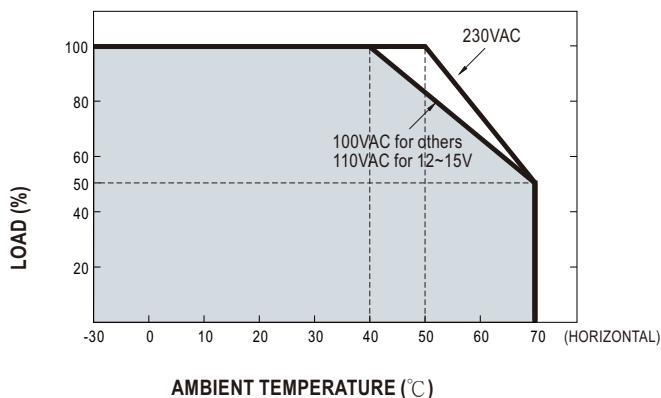
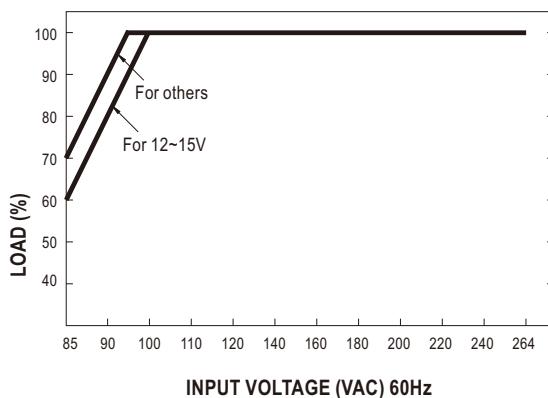
## ■ Applications

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

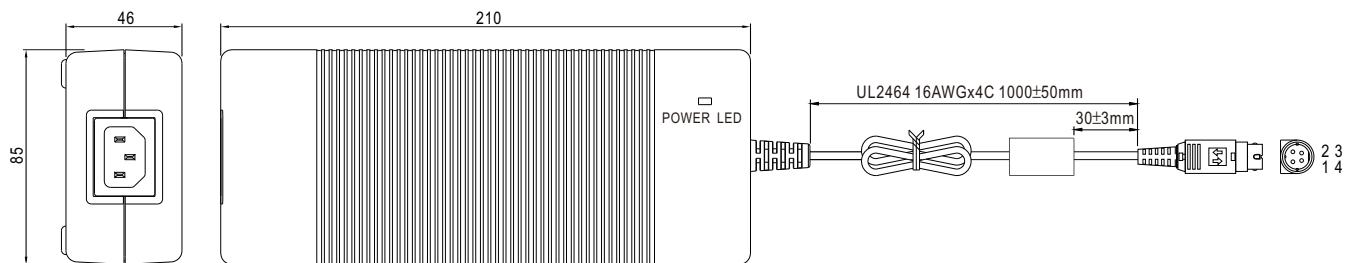
## SPECIFICATION

| ORDER NO.              | GST220A12-R7B               |  | GST220A15-R7B                      |           | GST220A20-R7B |           | GST220A24-R7B |  | GST220A48-R7B |  |
|------------------------|-----------------------------|--|------------------------------------|-----------|---------------|-----------|---------------|--|---------------|--|
| OUTPUT                 | SAFETY MODEL NO.            | GST220A12  | GST220A15                          | GST220A20 | GST220A24     | GST220A48 |               |  |               |  |
|                        | DC VOLTAGE Note.2           | 12V  | 15V                                | 20V       | 24V           | 48V       |               |  |               |  |
|                        | RATED CURRENT               | 15A  | 13.4A                              | 11A       | 9.2A          | 4.6A      |               |  |               |  |
|                        | CURRENT RANGE               | 0 ~ 15A  | 0 ~ 13.4A                          | 0 ~ 11A   | 0 ~ 9.2A      | 0 ~ 4.6A  |               |  |               |  |
|                        | RATED POWER (max.)          | 180W   | 201W                               | 220W      | 221W          | 221W      |               |  |               |  |
|                        | RIPLE & NOISE (max.) Note.3 | 80mVp-p  | 100mVp-p                           | 150mVp-p  | 180mVp-p      | 240mVp-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%     |               |  |               |  |
| INPUT                  | SETUP, RISE TIME Note.6     | 2000ms, 50ms / 230VAC  | 2000ms, 50ms / 115VAC at full load |           |               |           |               |  |               |  |
|                        | HOLD UP TIME (Typ.)         | 20ms / 230VAC  | 20ms / 115VAC at full load         |           |               |           |               |  |               |  |
| PROTECTION             | VOLTAGE RANGE Note.7        | 85 ~ 264VAC  | 120 ~ 370VDC                       |           |               |           |               |  |               |  |
|                        | FREQUENCY RANGE             | 47 ~ 63Hz  |                                    |           |               |           |               |  |               |  |
|                        | POWER FACTOR (Typ.)         | PF>0.91 / 230VAC   | PF>0.98 / 115VAC at full load      |           |               |           |               |  |               |  |
|                        | EFFICIENCY (Typ.)           | 90%  | 90%                                | 92%       | 93.5%         | 94.5%     |               |  |               |  |
|                        | AC CURRENT (Typ.)           | 4A / 115VAC  | 2A / 230VAC                        |           |               |           |               |  |               |  |
|                        | INRUSH CURRENT (max.)       | 120A / 230VAC  |                                    |           |               |           |               |  |               |  |
| ENVIRONMENT            | LEAKAGE CURRENT(max.)       | 0.75mA / 240VAC  |                                    |           |               |           |               |  |               |  |
|                        | OVERLOAD                    | 105 ~ 135% rated output power  |                                    |           |               |           |               |  |               |  |
|                        |                             | Protection type : Hiccup mode, recovers automatically after fault condition is removed   |                                    |           |               |           |               |  |               |  |
| SAFETY & EMC (Note. 8) | OVER VOLTAGE                | 105 ~ 135% rated output voltage  |                                    |           |               |           |               |  |               |  |
|                        |                             | Protection type : Hiccup mode @ 10%load  |                                    |           |               |           |               |  |               |  |
| OTHERS                 | OVER TEMPERATURE            | Shut down o/p voltage, recovers automatically after temperature goes down  |                                    |           |               |           |               |  |               |  |
|                        | 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 (0~50°C)   |                                    |           |               |           |               |  |               |  |
| CONNECTOR              | 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, AS/NZS 60950.1 approved                                    |                                    |           |               |           |               |  |               |  |
|                        | WITHSTAND VOLTAGE           | I/P-O/P: 3KVAC I/P-FG: 2KVAC O/P-FG: 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, CAN ICES-3(B)/NMB-3(B), CNS13438 class B, GB9254, GB17625.1 |                                    |           |               |           |               |  |               |  |
| NOTE                   | EMC IMMUNITY                | Compliance to EN61000-4-2,3,4,5,6,8,11, light industry level, criteria A   |                                    |           |               |           |               |  |               |  |
|                        | MTBF                        | 209.4K hrs min. MIL-HDBK-217F(25°C)  |                                    |           |               |           |               |  |               |  |
|                        | DIMENSION                   | 210*85*46mm (L*W*H)  |                                    |           |               |           |               |  |               |  |
|                        | PACKING                     | 1.1Kg; 12pcs/14.2Kg/0.96CUFT   |                                    |           |               |           |               |  |               |  |
| CONNECTOR              | PLUG                        | See page 3 ; Other type available by customer requested  |                                    |           |               |           |               |  |               |  |
|                        | CABLE                       | See page 3 ; Other type available by customer requested  |                                    |           |               |           |               |  |               |  |

1. All parameters are specified at 230VAC input, rated load, 25°C 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 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. 961A Unit:mm


**■ Plug Assignment**

Output plug (Power DIN 4 pin with lock type) : KYCON KPPX-4P equivalent

Mating plug (customer side, not provide with power supply) : KYCON KPJX-CM-4S equivalent

| R7B |  | PIN NO. | OUTPUT |
|-----|--|---------|--------|
|     |  |         |        |
| 2   |  | 1,4     | +V     |
| 1   |  | 2,3     | -V     |

AC FG  
-V connected to AC FG

**■ Installation Manual**

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