

■ Features

■ Applications

- **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 < 0.15W
- **Energy efficiency Level VI**
- Comply with EISA 2007/DoE, NRCAN, AU/NZ MEPS, EU ErP and CoC Version 5
- 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
- **Various DC plug quick adapter accessory available**
(Plug kit sold separately, please refer to : https://www.meanwell.com/upload/pdf/DC_plug.pdf)
- 3 years warranty

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

■ GTIN CODE

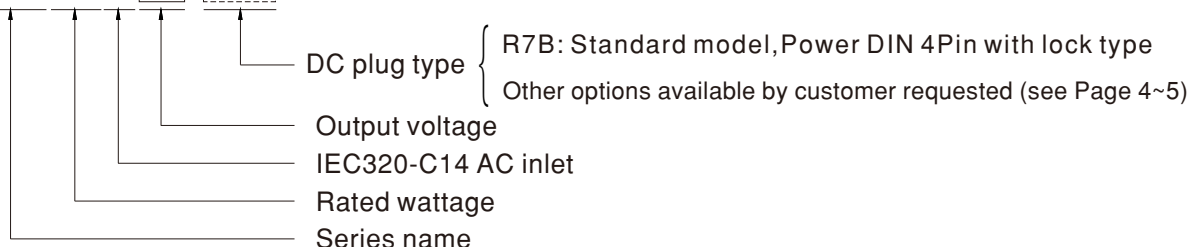
MW Search: <https://www.meanwell.com/serviceGTIN.aspx>

■ 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, 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. GST220A is certified for the international safety regulations.

■ Model Encoding

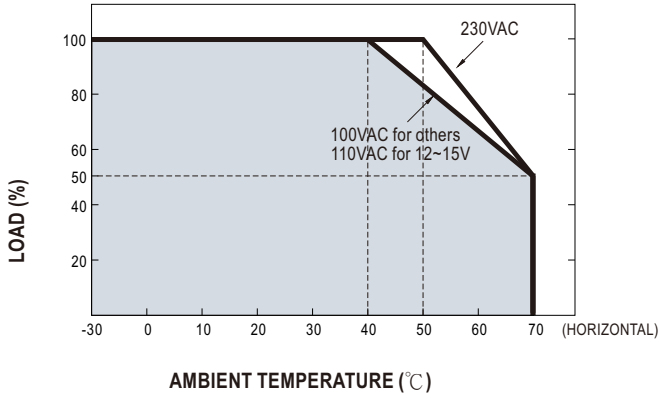
GST 220A 12 -R7B



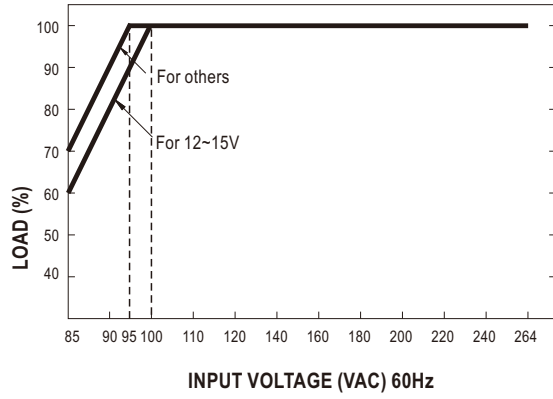
SPECIFICATION

| ORDER NO. | | GST220A12-R7B | GST220A15-R7B | GST220A20-R7B | GST220A24-R7B | GST220A36-R7B | GST220A48-R7B | |
|----------------------------|--|---|--|---------------|---|---|-------------------|--|
| OUTPUT | SAFETY MODEL NO. | GST220A12 | GST220A15 | GST220A20 | GST220A24 | GST220A36 | GST220A48 | |
| | DC VOLTAGE Note.2 | 12V | 15V | 20V | 24V | 36V | 48V | |
| | RATED CURRENT | 15A | 13.4A | 11A | 9.2A | 6.1A | 4.6A | |
| | CURRENT RANGE | 0 ~ 15A | 0 ~ 13.4A | 0 ~ 11A | 0 ~ 9.2A | 0 ~ 6.1A | 0 ~ 4.6A | |
| | RATED POWER (max.) | 180W | 201W | 220W | 221W | 219.6W | 221W | |
| | RIPPLE & NOISE (max.) Note.3 | 80mVp-p | 100mVp-p | 120mVp-p | 150mVp-p | 200mVp-p | 200mVp-p | |
| | VOLTAGE TOLERANCE Note.4 | ± 5.0% | ± 5.0% | ± 4.0% | ± 3.0% | ± 2.0% | ± 2.0% | |
| | LINE REGULATION Note.5 | ± 1.0% | ± 1.0% | ± 1.0% | ± 1.0% | ± 1.0% | ± 1.0% | |
| | LOAD REGULATION | ± 5.0% | ± 5.0% | ± 4.0% | ± 3.0% | ± 2.0% | ± 2.0% | |
| | 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 | | | | | | | |
| INPUT | 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% | 93% | 94.5% | |
| | AC CURRENT (Typ.) | 4A / 115VAC 2A / 230VAC | | | | | | |
| | INRUSH CURRENT (max.) | Cold start 95A / 115VAC 120A / 230VAC | | | | | | |
| | LEAKAGE CURRENT(max.) | 0.75mA / 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 : Hiccup mode @ 10%load | | | | | | |
| | OVER TEMPERATURE | Shut down o/p voltage, recovers automatically after temperature goes down | | | | | | |
| ENVIRONMENT | 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 non-condensing | | | | | | |
| | TEMP. COEFFICIENT | ±0.03% / °C (0~50°C) | | | | | | |
| | 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 CNS15598-1, CCC GB4943.1, PSE J62368-1, AS/NZS 62368.1, BIS IS13252, KC K60950-1, EAC TP TC 004 approved (UL62368-1, CSA C22.2 No.62368-1, TUV EN62368-1, BSMI CNS15598-1, CCC GB4943.1, PSE J62368-1, AS/NZS 62368.1 for GST220A36-R7B) | | | | | | |
| | 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 | Parameter | Standard | | | | Test Level / Note | |
| | | Conducted emission | BS EN/EN55032(CISPR32), FCC PART 15 / CISPR22 CAN ICES-3(B)/NMB-3(B), CNS15936, 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), CNS15936, 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 | BS EN/EN55035 | | | | | | |
| | | 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 | 2006.1K hrs min. Telcordia SR-332 (Bellcore) ; 209.4K hrs min. MIL-HDBK-217F (25°C) | | | | | | |
| | DIMENSION | 210*85*46mm (L*W*H) | | | | | | |
| | PACKING | 1.1Kg; 12pcs/14.2Kg/0.81CUFT | | | | | | |
| CONNECTOR | PLUG | See page 4~5 ; Other type available by customer requested | | | | | | |
| | CABLE | See page 4~5 ; Other type available by customer requested | | | | | | |
| NOTE | <p>1. All parameters are specified at 230VAC input, rated load, 25°C 70% RH ambient.</p> <p>2. DC voltage: The output voltage set at point measure by plug terminal & 50% load.</p> <p>3. Ripple & noise are measured at 20MHz by using a 12" twisted pair terminated with a 0.1 μF & 47 μF capacitor.</p> <p>4. Tolerance: includes set up tolerance, line regulation, load regulation.</p> <p>5. Line regulation is measured from low line to high line at rated load.</p> <p>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.</p> <p>7. Derating may be needed under low input voltage. Please check the derating curve for more details.</p> <p>8. The ambient temperature derating of 3.5°C/1000m with fanless models and of 5°C/1000m with fan models for operating altitude higher than 2000m(6500ft).</p> <p>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 https://www.meanwell.com/Upload/PDF/EMI_statement_en.pdf)</p> <p>※ Product Liability Disclaimer : For detailed information, please refer to https://www.meanwell.com/serviceDisclaimer.aspx</p> | | | | | | | |

Derating Curve



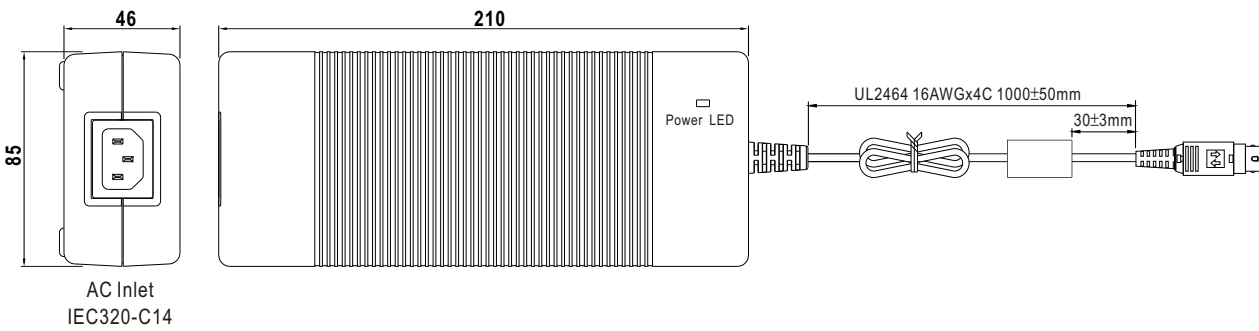
Static Characteristics



Mechanical Specification

(Unit: mm, tolerance ± 1 mm)

Case No. 961A



DC output plug

☉ Standard plug: R7B

| R7B | | Pin Assignment | | | | | | | | | | | |
|---------|--------------------------|---|---------|--------|---|-----|---|-----|---|-----|---|-----|--|
| | | | | | | | | | | | | | |
| | KYCON KPPX-4P equivalent | -V connected to AC FG | | | | | | | | | | | |
| | | <table border="1"> <thead> <tr> <th>PIN NO.</th> <th>OUTPUT</th> </tr> </thead> <tbody> <tr><td>1</td><td>+Vo</td></tr> <tr><td>2</td><td>-Vo</td></tr> <tr><td>3</td><td>-Vo</td></tr> <tr><td>4</td><td>+Vo</td></tr> </tbody> </table> | PIN NO. | OUTPUT | 1 | +Vo | 2 | -Vo | 3 | -Vo | 4 | +Vo | |
| PIN NO. | OUTPUT | | | | | | | | | | | | |
| 1 | +Vo | | | | | | | | | | | | |
| 2 | -Vo | | | | | | | | | | | | |
| 3 | -Vo | | | | | | | | | | | | |
| 4 | +Vo | | | | | | | | | | | | |

⦿ DC plug changeable through:

- (1) Customization of the standard part with an optional DC plug according to the table (MOQ applicable)
- (2) Quick adapter accessory (sold separately without MOQ)

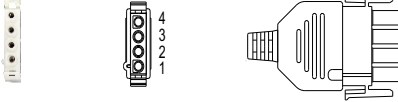
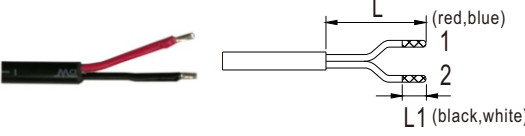
Please refer to below table and online selection guide : https://www.meanwell.com/upload/pdf/DC_plug.pdf

Example quick adapter accessory:



⦿ Optional DC plug: (Available in customized cable or quick adapter)

| Tuning Fork Style | Type No. | A | B | C | Quick Adapter Accessory |
|---|----------|----------------|--------|------|--|
| | | OD | ID | L | |
| (Straight) | P1J | 5.5 | 2.1 | 11.0 | Available for 48V (Current rating: 7.5A max.) |
| | P1M | 5.5 | 2.5 | 11.0 | |
| Min. DIN 4 Pin with Lock (female) | Type No. | Pin Assignment | | None | |
| KYCON KPJX-CM-4S equivalent | R7BF | PIN No. | Output | | |
| | | 1 | +Vo | | |
| | | 2 | -Vo | | |
| | | 3 | -Vo | | |
| 4 | +Vo | | | | |
| DIN 5 Pin (male) | Type No. | Pin Assignment | | None | |
| R1B | PIN No. | Output | | | |
| | 1 | -Vo | | | |
| | 2 | -Vo | | | |
| | 3 | +Vo | | | |
| | 4 | -Vo | | | |
| 5 | +Vo | | | | |
| NEUTRIK XLR NC4FX equivalent | Type No. | Pin Assignment | | None | |
| MIC4 | PIN No. | Output | | | |
| | 1 | +Vo | | | |
| | 2 | +Vo | | | |
| | 3 | -Vo | | | |
| 4 | -Vo | | | | |
| MOLEX 39-01-2060 (4.2mm) equivalent | Type No. | Pin Assignment | | None | |
| C6P FG not connected to output connector | PIN No. | Output | | | |
| | 1 | +Vo | | | |
| | 2 | +Vo | | | |
| | 3 | +Vo | | | |
| | 4 | -Vo | | | |
| | 5 | -Vo | | | |
| 6 | -Vo | | | | |

| AMP 1-480702-0 (6.35mm) equivalent | Type No. | Pin Assignment | | Quick Adapter Accessory |
|--|-------------|----------------|--------|-------------------------|
| | | PIN No. | Output | |
|  <p>FG not connected to output connector</p> | C4P | 1 | +Vo | None |
| | | 2 | +Vo | |
| | | 3 | -Vo | |
| | | 4 | -Vo | |
| Stripped and tinned leads | Type No. | Pin Assignment | | None |
|  <p>Length of Land L1 by request (MW's standard length, L: <u>25</u> mm, L1: <u>5</u> mm) (NOTE: The wire color is for reference only, please refer to the actual product)</p> | by customer | PIN No. | Output | |
| | | 1 | +Vo | |
| | | 2 | -Vo | |

■ Installation Manual

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