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## **■** Features

- Universal AC input / Full range
- 3 pole AC inlet IEC320-C14
- No load power consumption<0.075W</li>
- · 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
- Fully enclosed plastic case
- · Pass LPS
- Fanless design with -30~+70°C working temperature
- · LED indicator for power on
- · 3 years warranty

# Applications

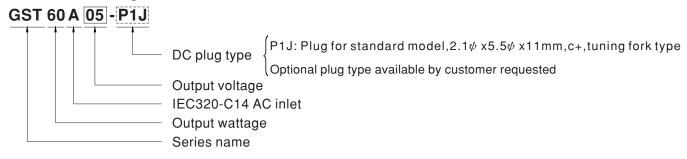
- · Consumer electronic devices
- Telecommunication devices
- · Office facilities
- · Industrial equipments

#### Description

GST60A is a highly reliable, 60W 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 90VAC to 264VAC. The entire series supplies different models with output voltages ranging between 5VDC and 48VDC that can satisfy the demands for various types of consumer electronic devices.

With the efficiency up to 92% and the extremely low no-load power consumption below 0.075W, GST60A 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.GST60A is certified for the international safety regulations.

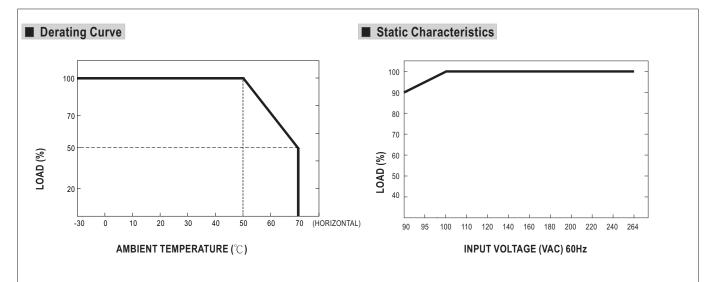
### Model Encoding



#### **SPECIFICATION**

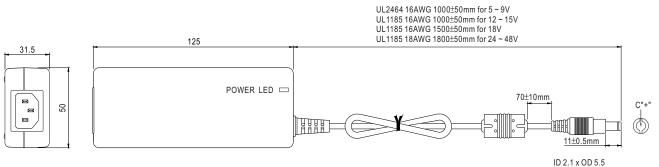
| ORDER NO.                    |  | GST60A05-P1J   | GST60A07-P1J      | GST60A09-P1J     | GST60A12-P1J | GST60A15-P1J   | GST60A18-P1J | GST60A24-P1J | GST60A48-P1  |
|------------------------------|--|--|-------------------|------------------|--------------|----------------|--------------|--------------|--------------|
|                              | SAFETY MODEL NO.   | GST60A05   | GST60A07          | GST60A09         | GST60A12     | GST60A15       | GST60A18     | GST60A24     | GST60A48     |
| ОИТРИТ                       | DC VOLTAGE Note.2  |  | 7.5V              | 9V               | 12V          | 15V            | 18V          | 24V          | 48V          |
|                              | RATED CURRENT  | 6A   | 6A                | 6A               | 5A           | 4A             | 3.33A        | 2.5A         | 1.25A        |
|                              | CURRENT RANGE  | 0 ~ 6A   | 0 ~ 6A            | 0 ~ 6A           | 0 ~ 5A       | 0 ~ 4A         | 0 ~ 3.33A    | 0 ~ 2.5A     | 0 ~ 1.25A    |
|                              | RATED POWER (max.)   | 30W  | 45W               | 54W              | 60W          | 60W            | 60W          | 60W          | 60W          |
|                              | ,  |  |                   |                  |              |                |              |              |              |
|                              | RIPPLE & NOISE (max.) Note.3   |  | 150mVp-p          | 150mVp-p         | 150mVp-p     | 150mVp-p       | 150mVp-p     | 180mVp-p     | 240mVp-p     |
|                              | VOLTAGE TOLERANCE Note.4   |  | ±5.0%             | ±5.0%            | ±3.0%        | ±3.0%          | ±3.0%        | ±3.0%        | ±2.5%        |
|                              | LINE REGULATION Note.5   |  | ±1.0%             | ±1.0%            | ±1.0%        | ±1.0%          | ±1.0%        | ±1.0%        | ±1.0%        |
|                              | LOAD REGULATION  | ±5.0%  | ±5.0%             | ±5.0%            | ±3.0%        | ±3.0%          | ±3.0%        | ±3.0%        | ±2.5%        |
|                              |  | 1000ms, 50ms / 230VAC 1000ms, 50ms / 115VAC at full load   |                   |                  |              |                |              |              |              |
|                              | HOLD UP TIME (Typ.)  | 50ms / 230VAC 15ms / 115VAC at full load   |                   |                  |              |                |              |              |              |
| INPUT                        | VOLTAGE RANGE Note.7   | 90 ~ 264VAC 135 ~ 370VDC   |                   |                  |              |                |              |              |              |
|                              | FREQUENCY RANGE  | 47 ~ 63Hz  |                   |                  |              |                |              |              |              |
|                              | EFFICIENCY (Typ.)  | 85.5%  | 88.5%             | 89%              | 89.5%        | 89.5%          | 89.5%        | 90.5%        | 92%          |
|                              | AC CURRENT (Typ.)  | 1.4A / 115VAC 1A / 230VAC  |                   |                  |              |                |              |              |              |
|                              | INRUSH CURRENT (max.)  | 65A / 230VAC   |                   |                  |              |                |              |              |              |
|                              | LEAKAGE CURRENT(max.)  | 0.75mA/240VAC  |                   |                  |              |                |              |              |              |
| PROTECTION                   | 105 ~ 150% rated output power  |  |                   |                  |              |                |              |              |              |
|                              | OVERLOAD   | Protection type: Hiccup mode, recovers automatically after fault condition is removed                            |                   |                  |              |                |              |              |              |
|                              |  | 5.25 ~ 6.75V   |                   | 9.45 ~ 12.15V    |              | 15.75 ~ 20.25V |              | 25.2 ~ 32.4V | 50.4 ~ 64.8V |
|                              | OVER VOLTAGE   |  |                   |                  |              |                |              | 1            |              |
|                              | OVER TEMPERATURE   | Protection type: Shut down o/p voltage, re-power on to recover  Shut down o/p voltage, re-power on to recover    |                   |                  |              |                |              |              |              |
|                              | WORKING TEMP.  |  |                   |                  |              |                |              |              |              |
| ENVIRONMENT                  | WORKING HUMIDITY   | -30 ~ +70°C (Refer to "Derating Curve")  20% ~ 90% RH non-condensing   |                   |                  |              |                |              |              |              |
|                              | STORAGE TEMP., HUMIDITY  | -40 ~ +85°C, 10 ~ 95% RH   |                   |                  |              |                |              |              |              |
|                              | TEMP. COEFFICIENT  |  |                   |                  |              |                |              |              |              |
|                              |  | ±0.03% / °C (0 ~ 40°C)   |                   |                  |              |                |              |              |              |
|                              | VIBRATION  | 10 ~ 500Hz, 2G 10min./1cycle, period for 60min. each along X, Y, Z axes  |                   |                  |              |                |              |              |              |
| SAFETY &<br>EMC<br>(Note. 8) | 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  |                   |                  |              |                |              |              |              |
|                              | ISOLATION RESISTANCE   | I/P-O/P, I/P-FG, O/P-FG: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 |                   |                  |              |                |              |              |              |
|                              | EMC IMMUNITY   | Compliance to EN61000-4-2,3,4,5,6,8,11, light industry level, criteria A   |                   |                  |              |                |              |              |              |
|                              | MTBF   | 709.7K hrs min. MIL-HDBK-217F( $25^{\circ}$ C)   |                   |                  |              |                |              |              |              |
| OTHERS                       | DIMENSION  | 125*50*31.5mm (L*W*H)  |                   |                  |              |                |              |              |              |
|                              | PACKING  | 0.305Kg; 40pcs/13.02Kg/1.05CUFT  |                   |                  |              |                |              |              |              |
| CONNECTOR                    | PLUG   | See page 3; Other type available by customer requested   |                   |                  |              |                |              |              |              |
|                              | CABLE  | See page 3; O  | ther type availab | le by customer r | equested     |                |              |              |              |
| NOTE                         | <ol> <li>All parameters are specified at 230VAC input, rated load, 25°C 70% RH ambient.</li> <li>DC voltage: The output voltage set at point measure by plug terminal &amp; 50% load.</li> <li>Ripple &amp; noise are measured at 20MHz by using a 12" twisted pair terminated with a 0.1uf &amp; 47uf capacitor.</li> <li>Tolerance: includes set up tolerance, line regulation, load regulation.</li> <li>Line regulation is measured from low line to high line at rated load.</li> <li>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>Derating may be needed under low input voltages. Pleas check the derating curve for more details.</li> <li>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)</li> </ol> |  |                   |                  |              |                |              |              |              |





#### ■ Mechanical Specification

Case No. GS60A Unit:mm



Outside ⊕ ⊕ ⊕ Inside
-V not connected to AC FG

## ■ Plug Assignment

Standard plug: P1J

| P1J    |        |  |  |  |  |
|--------|--------|--|--|--|--|
| P/N    | ОИТРИТ |  |  |  |  |
| CENTER | +      |  |  |  |  |

#### **■** Installation Manual

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