



#### Features :

- Universal AC input / Full range
- 3 pole AC inlet IEC320-C14
- Built-in active PFC function, PF>0.97
- · Protections: Short circuit / Overload / Over voltage / Over temperature
- · Fully enclosed plastic case
- Approvals: UL / CUL / TUV / BSMI / CCC / CB / FCC / CE
- Class I power ( with earth pin)
- LED indicator for power on
- No load power consumption<0.5W
- ErP step2 compliant
- Meet EISA 2007(Energy Independence and Security Act)
- · 2 years warranty











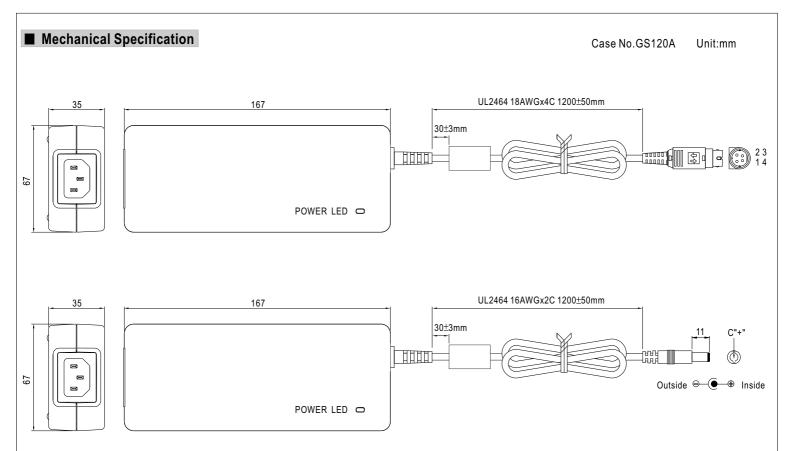


### **SPECIFICATION**

| ORDER NO.        |                              |            | GS120A12-R7B  | GS120A15-R7B               | GS120A20-□<br>□=R7B,P1M | GS120A24-<br>=R7B,P1M | GS120A48<br>=R7B,P1M |
|------------------|------------------------------|------------|---|----------------------------|-------------------------|-----------------------|----------------------|
|                  | SAFETY MODEL NO.             |            | GS120A12  | GS120A15                   | GS120A20                | GS120A24              | GS120A48             |
| OUTPUT           | DC VOLTAGE                   |            | 12V   | 15V                        | 20V                     | 24V                   | 48V                  |
|                  | RATED CURRENT                |            | 8.5A  | 7A                         | 6A                      | 5A                    | 2.5A                 |
|                  | CURRENT RANGE                |            | 0 ~ 8.5A  | 0 ~ 7A                     | 0 ~ 6A                  | 0 ~ 5A                | 0 ~ 2.5A             |
|                  | RATED POWER (max.)           |            | 102W  | 105W                       | 120W                    | 120W                  | 120W                 |
|                  | RIPPLE & NOISE (max.) Note.2 |            | 80mVp-p   | 120mVp-p                   | 150mVp-p                | 180mVp-p              | 240mVp-p             |
|                  | VOLTAGE TOLERANCE Note.3     |            | ±5.0%   | ±5.0%                      | ±5.0%                   | ±3.0%                 | ±2.0%                |
|                  | LINE REGULATION              | Note.4     | ±1.0%   | ±1.0%                      | ±1.0%                   | ±1.0%                 | ±1.0%                |
|                  | LOAD REGULATION              |            | ±5.0%   | ±5.0%                      | ±4.0%                   | ±3.0%                 | ±2.0%                |
|                  | SETUP, RISE TIME Note.6      |            | 2000ms, 30ms / 230VAC 2500ms, 30ms / 115VAC at full load  |                            |                         |                       |                      |
|                  | HOLD UP TIME (Typ.)          |            | 20ms / 230VAC 20ms / 115VAC at full load  |                            |                         |                       |                      |
|                  | VOLTAGE RANGE Note.7         |            | 85 ~ 264VAC 120 ~ 370VDC  |                            |                         |                       |                      |
|                  | FREQUENCY RANGE              |            | 47 ~ 63Hz   |                            |                         |                       |                      |
|                  | POWER FACTOR (Typ.)          |            | PF>0.97 / 230VAC  | PF>0.99 / 115VAC at full I | oad                     |                       |                      |
| INPUT            | EFFICIENCY (Turn )           | R7B        | 87.5%   | 89%                        | 89%                     | 90%                   | 91%                  |
| INPUI            | EFFICIENCY (Typ.)            | P1M        |   |                            | 88.5%                   | 89.5%                 | 90.5%                |
|                  | AC CURRENT                   |            | 1.4A / 115VAC 0.7A / 230VAC   |                            |                         |                       |                      |
|                  | INRUSH CURRENT (max.)        |            | 70A / 230VAC  |                            |                         |                       |                      |
|                  | LEAKAGE CURRENT(max.)        |            | 0.75mA / 240VAC   |                            |                         |                       |                      |
| PROTECTION       | OVERLOAD                     |            | 105 ~ 160% rated output power   |                            |                         |                       |                      |
|                  |                              |            | Protection type : Hiccup mode, recovers automatically after fault condition is removed  |                            |                         |                       |                      |
|                  | OVER VOLTAGE                 |            | 105 ~ 135% rated output voltage   |                            |                         |                       |                      |
|                  |                              |            | Protection type : Shut down o/p voltage, re-power on to recover   |                            |                         |                       |                      |
|                  | OVER TEMPERATURE             |            | RTH2 ≥100 ±10°C   |                            |                         |                       |                      |
|                  | OVER TEMPERATUR              | · <b>C</b> | Protection type : Shut d  | own o/p voltage, re-powe   | er on to recover        | ver                   |                      |
|                  | WORKING TEMP.                |            | -30 ~ +70°C (Refer to "Derating Curve")   |                            |                         |                       |                      |
| ENVIRONMENT      | WORKING HUMIDITY             |            | 20% ~ 90% RH non-condensing   |                            |                         |                       |                      |
|                  | STORAGE TEMP., HUMIDITY      |            | -40 ~ +85°C, 10 ~ 95% RH  |                            |                         |                       |                      |
|                  | TEMP. COEFFICIENT            |            | ±0.03% / °C (0~50°C)  |                            |                         |                       |                      |
|                  | VIBRATION                    |            |   |                            |                         |                       |                      |
|                  | SAFETY STANDARDS             |            | UL60950-1, TUV EN60950-1, BSMI CNS14336, CCC GB4943, J60950-1(except for 48V) approved  |                            |                         |                       |                      |
| SAFETY &         | WITHSTAND VOLTAGE            |            | I/P-O/P: 3KVAC  |                            |                         |                       |                      |
| EMC<br>(Note. 5) | ISOLATION RESISTANCE         |            | I/P-O/P:100M Ohms / 500VDC / 25°C / 70% RH  |                            |                         |                       |                      |
|                  | EMC EMISSION                 |            | Compliance to EN55022(CISPR22) ,EN61204-3 class B, CNS13438 class B, GB9254-1 class B, FCC PART 15, EN61000-3-2,3, GB17625.1              |                            |                         |                       |                      |
|                  | EMC IMMUNITY                 |            | Compliance to EN61000-4-2,3,4,5,6,8,11, light industry level, criteria A  |                            |                         |                       |                      |
|                  | MTBF                         |            | 400.7Khrs min. MIL-HDBK-217F(25°C)  |                            |                         |                       |                      |
| OTHERS           | DIMENSION                    |            | 167*67*35mm (L*W*H)   |                            |                         |                       |                      |
|                  | PACKING                      |            | 0.62Kg; 20pcs/13.4Kg/0.9CUFT  |                            |                         |                       |                      |
| CONNECTOR        | PLUG                         |            | See page 2; Other type available by customer requested  |                            |                         |                       |                      |
|                  | CABLE                        |            | See page 2; Other type available by customer requested  |                            |                         |                       |                      |
| NOTE             | 2.Ripple & noise are         | e measure  | ed at 230VAC input, rated load, 25°C 70% RH ambient.  ured at 20MHz by using a 12" twisted pair terminated with a 0.1uf & 47uf capacitor. |                            |                         |                       |                      |

- 3. Tolerance: includes set up tolerance, line regulation, load regulation.
- 4.Line regulation is measured from low line to high line at rated load.
- 5. The power supply is considered a component which will be installed into a final equipment. The final equipment must be re-confirmed that it still meets EMC directives.
- 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.





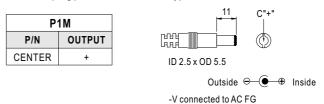
## ■ Plug Assignment

### Standard plug (all models)

| R7B       |         |        |  |  |  |
|-----------|---------|--------|--|--|--|
|           | PIN NO. | OUTPUT |  |  |  |
| 2 (0 0) 3 | 1,4     | +V     |  |  |  |
|           | 2,3     | -V     |  |  |  |
| AC FG     |         |        |  |  |  |

-V connected to AC FG

### Standard plug(For 20V,24V,48V only)



# **■** Derating Curve

### 100 230VAC 80 60 100VAC 50 LOAD (%) 40 20 40 45 50 (HORIZONTAL) -30 10 20 70 AMBIENT TEMPERATURE (°C)

### **■** Static Characteristics

