



#### ■ Features :

- Universal AC input / Full range
- 3 pole AC inlet IEC320-C14
- 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)
- Pass LPS
- LED indicator for power on
- No load power consumption<0.3W
- Meet EISA 2007(Energy Independence and Security Act)
- 2 years warranty

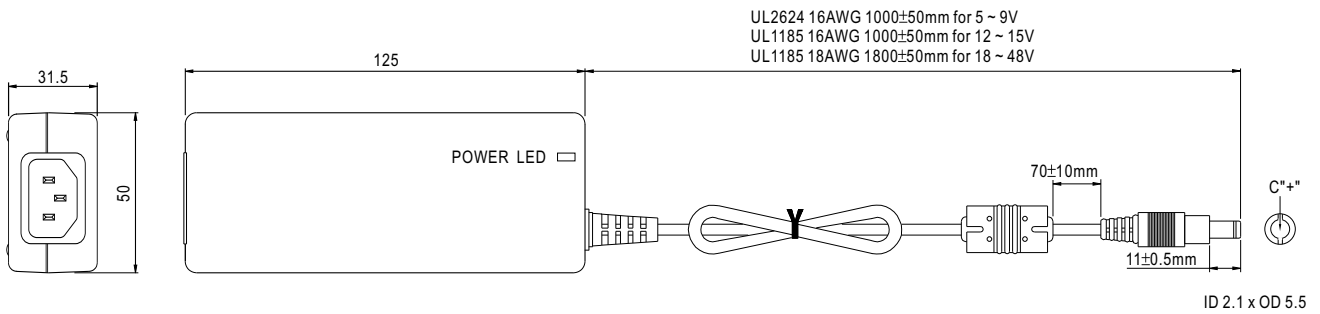


#### SPECIFICATION

| ORDER NO.                 |                                             | GS60A05-P1J                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | GS60A07-P1J   | GS60A09-P1J   | GS60A12-P1J  | GS60A15-P1J    | GS60A18-P1J  | GS60A24-P1J  | GS60A48-P1J  |
|---------------------------|---------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|---------------|--------------|----------------|--------------|--------------|--------------|
| OUTPUT                    | SAFETY MODEL NO.                            | GS60A05                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | GS60A07       | GS60A09       | GS60A12      | GS60A15        | GS60A18      | GS60A24      | GS60A48      |
|                           | DC VOLTAGE <small>Note.2</small>            | 5V                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 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.) <small>Note.3</small> | 100mVp-p                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 100mVp-p      | 100mVp-p      | 100mVp-p     | 100mVp-p       | 150mVp-p     | 180mVp-p     | 240mVp-p     |
|                           | VOLTAGE TOLERANCE <small>Note.4</small>     | ±5.0%                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | ±5.0%         | ±5.0%         | ±3.0%        | ±3.0%          | ±3.0%        | ±3.0%        | ±2.5%        |
|                           | LINE REGULATION <small>Note.5</small>       | ±1.0%                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | ±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%        |
|                           | SETUP, RISE TIME <small>Note.7</small>      | 1000ms, 30ms / 230VAC 1000ms, 30ms / 115VAC at full load                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |               |               |              |                |              |              |              |
| INPUT                     | HOLD UP TIME (Typ.)                         | 50ms / 230VAC 15ms / 115VAC at full load                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |               |               |              |                |              |              |              |
|                           | VOLTAGE RANGE                               | 90 ~ 264VAC 135 ~ 370VDC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |               |               |              |                |              |              |              |
|                           | FREQUENCY RANGE                             | 47 ~ 63Hz                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |               |               |              |                |              |              |              |
|                           | EFFICIENCY (Typ.)                           | 81%                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 85.5%         | 87.5%         | 88%          | 88.5%          | 88.5%        | 90%          | 92%          |
|                           | AC CURRENT (Typ.)                           | 1.4A / 115VAC 1A / 230VAC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |               |               |              |                |              |              |              |
|                           | INRUSH CURRENT (max.)                       | 65A / 230VAC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |               |               |              |                |              |              |              |
| PROTECTION                | LEAKAGE CURRENT(max.)                       | 0.75mA / 240VAC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |               |               |              |                |              |              |              |
|                           | OVERLOAD                                    | 105 ~ 150% rated output power<br>Protection type : Hiccup mode, recovers automatically after fault condition is removed                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |               |               |              |                |              |              |              |
|                           | OVER VOLTAGE                                | 5.25 ~ 6.75V                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 7.88 ~ 10.13V | 9.45 ~ 12.15V | 12.6 ~ 16.2V | 15.75 ~ 20.25V | 18.9 ~ 24.3V | 25.2 ~ 32.4V | 50.4 ~ 64.8V |
|                           | OVER TEMPERATURE                            | RTH2 > 70℃<br>Protection type : Shut down o/p voltage, re-power on to recover                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |               |               |              |                |              |              |              |
| ENVIRONMENT               | WORKING TEMP.                               | -30 ~ +50℃ (Refer to "Derating Curve")                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |               |               |              |                |              |              |              |
|                           | WORKING HUMIDITY                            | 20% ~ 90% RH non-condensing                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |               |               |              |                |              |              |              |
|                           | STORAGE TEMP., HUMIDITY                     | -40 ~ +85℃, 10 ~ 95% RH                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |               |               |              |                |              |              |              |
|                           | TEMP. COEFFICIENT                           | ±0.03% / °C (0 ~ 50℃)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |               |               |              |                |              |              |              |
|                           | VIBRATION                                   | 10 ~ 500Hz, 2G 10min./1cycle, period for 60min. each along X, Y, Z axes                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |               |               |              |                |              |              |              |
| SAFETY & EMC<br>(Note. 6) | SAFETY STANDARDS                            | UL60950-1, TUV EN60950-1, BSMI CNS14336, CCC GB4943, J60950-1(except for 48V) approved                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |               |               |              |                |              |              |              |
|                           | WITHSTAND VOLTAGE                           | I/P-O/P:3KVAC I/P-FG:1.5KVAC O/P-FG:0.5KVAC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |               |               |              |                |              |              |              |
|                           | ISOLATION RESISTANCE                        | I/P-O/P, I/P-FG, O/P-FG:100M Ohms / 500VDC / 25℃ / 70% RH                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |               |               |              |                |              |              |              |
|                           | EMC EMISSION                                | Compliance to EN55022 class B, EN61000-3-2,3, FCC PART 15 / CISPR22 class B, CNS13438 class B, GB9254 class B, GB17625.1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |               |               |              |                |              |              |              |
|                           | EMC IMMUNITY                                | Compliance to EN61000-4-2,3,4,5,6,8,11, light industry level, criteria A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |               |               |              |                |              |              |              |
| OTHERS                    | MTBF                                        | 711Khrs min. MIL-HDBK-217F(25℃)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |               |               |              |                |              |              |              |
|                           | DIMENSION                                   | 125*50*31.5mm (L*W*H)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |               |               |              |                |              |              |              |
|                           | PACKING                                     | 0.305Kg; 40pcs/13.02Kg/1.05CUFT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |               |               |              |                |              |              |              |
| CONNECTOR                 | PLUG                                        | Standard type P1J: 2.1φ * 5.5φ * 11mm, tuning fork type, center positive for stock ; Other type available by customer requested                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |               |               |              |                |              |              |              |
|                           | CABLE                                       | See page 2 ; 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℃ 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. 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.</li> <li>7. 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> </ol> |               |               |              |                |              |              |              |

## Mechanical Specification

Case No. 974A Unit:mm

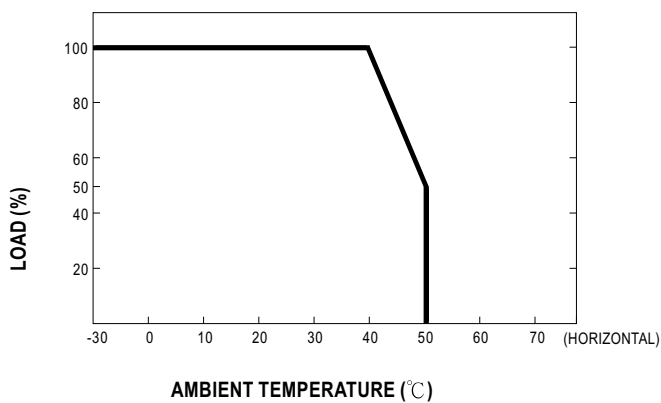


## Plug Assignment

Standard plug: P1J

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

## Derating Curve



## Static Characteristics

