



Features :

- · Universal AC input / Full range
- 3 pole AC inlet IEC320-C14
- . Built-in active PFC function, PF>0.91
- 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<0.5W
- Meet EISA 2007(Energy Independence and Security Act)













SPECIFICATION ORDER NO. GS90A12-P1M GS90A15-P1M GS90A19-P1M GS90A24-P1M GS90A48-P1M SAFETY MODEL NO. GS90A15 GS90A12 GS90A19 GS90A24 GS90A48 **DC VOLTAGE** Note.2 12V 15V 19V 24V 48V RATED CURRENT 3.75A 6.67A 6A 4.74A 1.87A **CURRENT RANGE** 0 ~ 6.67A 0 ~ 6A 0 ~ 4.74A 0 ~ 3.75A 0 ~ 1.87A RATED POWER (max.) 80W 90W 90W 90W 90W OUTPUT RIPPLE & NOISE (max.) Note.3 a-aVm08 100mVp-p 150mVp-p 180mVp-p 240mVp-p **VOLTAGE TOLERANCE Note.4** +5.0% ±5.0% ±4.0% ±3.0% ±2.0% LINE REGULATION ±1.0% ±1.0% ±1.0% ±1.0% Note.5 ±1.0% LOAD REGULATION Note.6 ±5.0% ±5.0% ±4.0% ±3.0% ±2.0% SETUP, RISE TIME Note.8 1000ms, 20ms / 230VAC 1000ms, 20ms / 115VAC at full load 20ms / 115VAC at full load HOLD UP TIME (Typ.) 20ms / 230VAC **VOLTAGE RANGE** Note.9 90 ~ 264VAC 127 ~ 370VDC FREQUENCY RANGE 47 ~ 63Hz POWER FACTOR (Typ.) PF>0.91 / 230VAC PF>0.95 / 115VAC at full load INPLIT **EFFICIENCY (Typ.)** 89% 89.5% 91% 1A / 230VAC AC CURRENT (Typ.) 2A / 115VAC **INRUSH CURRENT (max.)** 70A / 230VAC LEAKAGE CURRENT(max.) 1mA / 240VAC 110 ~ 150% rated output power OVERLOAD Protection type: Hiccup mode, recovers automatically after fault condition is removed 105 ~ 135% rated output voltage **PROTECTION OVER VOLTAGE** Protection type: Shut down o/p voltage, re-power on to recover RTH30 > 100°C **OVER TEMPERATURE** Protection type: Shut down o/p voltage, re-power on to recover WORKING TEMP. -30 ~ +50°C (Refer to "Derating Curve") **WORKING HUMIDITY** 20% ~ 90% RH non-condensing **ENVIRONMENT** STORAGE TEMP., HUMIDITY -40 ~ +85°C, 10 ~ 95% RH TEMP. COEFFICIENT ±0.03% / °C (0~50°C) VIBRATION 10 ~ 500Hz, 2G 10min./1cycle, period for 60min. each along X, Y, Z axes UL60950-1, TUV EN60950-1, BSMI CNS14336, CCC GB4943, J60950-1(except for 48V) approved SAFETY STANDARDS WITHSTAND VOLTAGE I/P-FG:1.5KVAC I/P-O/P: 3KVAC O/P-FG:0.5KVAC **SAFETY & ISOLATION RESISTANCE** I/P-O/P, I/P-FG, O/P-FG:100M Ohms / 500VDC / 25° C / 70% RH **EMC** (Note. 7) Compliance to EN55022 class B, EN61000-3-2,3, FCC PART 15 / CISPR22 class B, CNS13438 class B, GB9254 class B, GB17625.1 **EMC EMISSION EMC IMMUNITY** Compliance to EN61000-4-2,3,4,5,6,8,11, light industry level, criteria A MTBF 348.7Khrs min. MIL-HDBK-217F(25°C) DIMENSION 145*60*32mm (L*W*H) OTHERS 0.45Kg; 30pcs/14.05Kg/1CUFT **PACKING** Standard type P1M: $2.5\phi * 5.5\phi * 11$ mm, tuning fork type, center positive for stock; Other type available by customer requested **PLUG** CONNECTOR CABLE See page 2; Other type available by customer requested

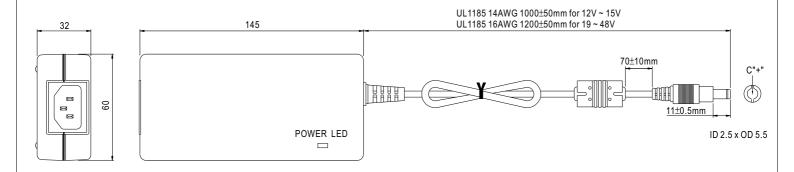
NOTE

- 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. Load regulation is measured from 10% to 100% rated load
- 7. 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
- 8. 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.
- 9. Derating may be needed under low input voltages. Pleas check the derating curve for more details.



■ Mechanical Specification

Case No. 978A Unit:mm



■ Plug Assignment

Standard plug: P1M

P1M	
P/N	OUTPUT
CENTER	+

