■ 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 / PSE / 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
- ErP step2 compliant (level V)
- NRCan compliant
- MEPS compliant
- Meet EISA 2007 (Energy Independence and Security Act)
- 2 years warranty

(except for 48V)

SPECIFICATION

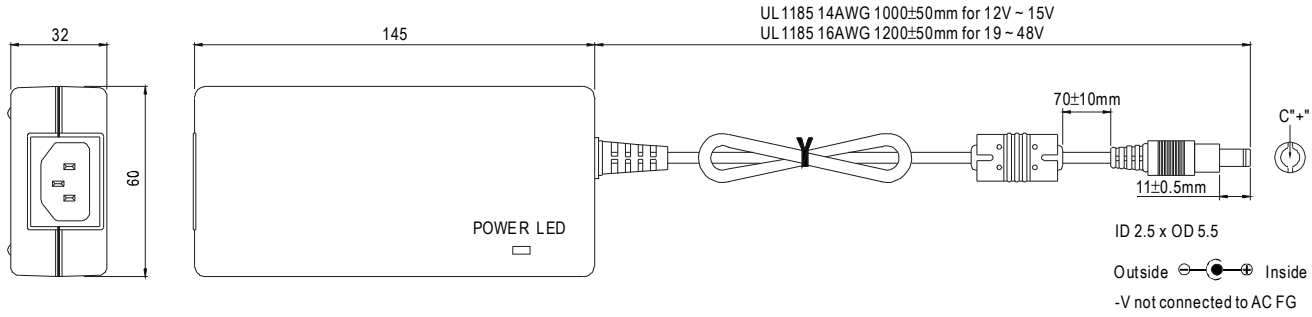
ORDER NO.		GS90A12-P1M	GS90A15-P1M	GS90A19-P1M	GS90A24-P1M	GS90A48-P1M
OUTPUT	SAFETY MODEL NO.	GS90A12	GS90A15	GS90A19	GS90A24	GS90A48
	DC VOLTAGE Note.2	12V	15V	19V	24V	48V
	RATED CURRENT	6.67A	6A	4.74A	3.75A	1.87A
	CURRENT RANGE	0 ~ 6.67A	0 ~ 6A	0 ~ 4.74A	0 ~ 3.75A	0 ~ 1.87A
	RATED POWER (max.)	80W	90W	90W	90W	90W
	RIPPLE & NOISE (max.) Note.3	80mVp-p	100mVp-p	150mVp-p	180mVp-p	240mVp-p
	VOLTAGE TOLERANCE Note.4	±5.0%	±5.0%	±4.0%	±3.0%	±2.0%
	LINE REGULATION Note.5	±1.0%	±1.0%	±1.0%	±1.0%	±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				
	HOLD UP TIME (Typ.)	20ms / 230VAC 20ms / 115VAC at full load				
INPUT	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				
	EFFICIENCY (Typ.)	88%	89%	89%	89.5%	91%
	AC CURRENT (Typ.)	2A / 115VAC 1A / 230VAC				
	INRUSH CURRENT (max.)	70A / 230VAC				
	LEAKAGE CURRENT(max.)	1mA / 240VAC				
PROTECTION	OVERLOAD	110 ~ 150% 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	RTH30 > 100℃				
		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% / ℃ (0~40℃)				
	VIBRATION	10 ~ 500Hz, 2G 10min./1cycle, period for 60min. each along X, Y, Z axes				
SAFETY & EMC (Note. 7)	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:2KVAC 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, GB17625.1				
	EMC IMMUNITY	Compliance to EN61000-4-2,3,4,5,6,8,11, light industry level, criteria A				
OTHERS	MTBF	348.7K hrs min. MIL-HDBK-217F(25℃)				
	DIMENSION	145*60*32mm (L*W*H)				
	PACKING	0.45Kg; 30pcs/14.05Kg/1CUFT				
CONNECTOR	PLUG	Standard type P1M: 2.5φ * 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

1. All parameters are specified at 230VAC input, rated load, 25℃ 70% RH ambient.
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. GS90A Unit:mm

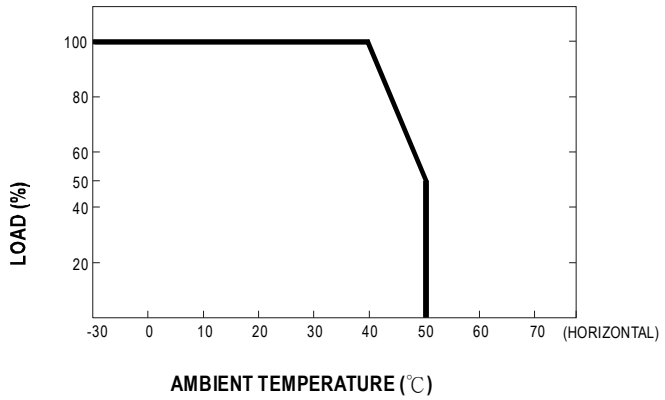


■ Plug Assignment

Standard plug: P1M

P1M	
P/N	OUTPUT
CENTER	+

■ Derating Curve



■ Static Characteristics