MEAN WELL

90W AC-DC Industrial Adaptor

GS90 series

■ Features :

- Universal AC input / Full range
- Built-in active PFC function
- No load power consumption<0.5W
- Energy efficiency Level Ⅴ
- Comply with EISA 2007, NRCan, AU/NZ MEPS and EU ErP
- 3 pole AC inlet IEC320-C14
- Class Ⅰ power (with earth pin)
- Protections: Short circuit / Overload / Over voltage / Over temperature
- Pass LPS
- Fully enclosed plastic case
- LED indicator for power on
- 2 years warranty

(except for 48V)

SPECIFICATION

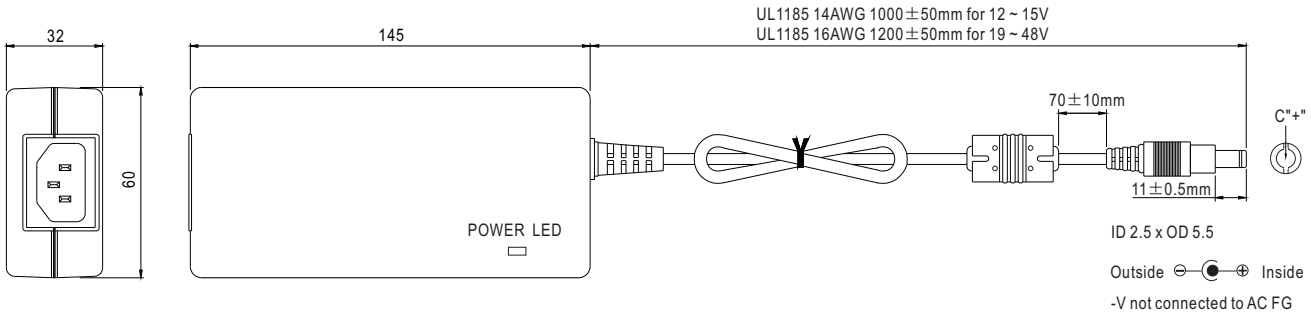
ORDER NO.		GS90A12-P1M	GS90A15-P1M	GS90A19-P1M	GS90A24-P1M	GS90A48-P1M
OUTPUT	SAFETY MODEL NO.	GS90A12	GS90A15	GS90A19	GS90A24	GS90A48
	DC VOLTAGE Note.2	12V	15V	19V	24V	48V
	RATED CURRENT	6.67A	6A	4.74A	3.75A	1.87A
	CURRENT RANGE	0 ~ 6.67A	0 ~ 6A	0 ~ 4.74A	0 ~ 3.75A	0 ~ 1.87A
	RATED POWER (max.)	80W	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.7	1000ms, 20ms / 230VAC 1000ms, 20ms / 115VAC at full load				
	HOLD UP TIME (Typ.)	20ms / 230VAC 20ms / 115VAC at full load				
INPUT	VOLTAGE RANGE Note.8	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	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. 9)	SAFETY STANDARDS	UL60950-1, CSA C22.2, TUV EN60950-1, CCC GB4943, PSE 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 EN55032 class B, EN61000-3-2,3, FCC PART 15 / CISPR22 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	See page 2 ; 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. 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.
8. Derating may be needed under low input voltages. Pleas check the derating curve for more details.
9. 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)

■ Mechanical Specification

Case No. GS90A Unit:mm

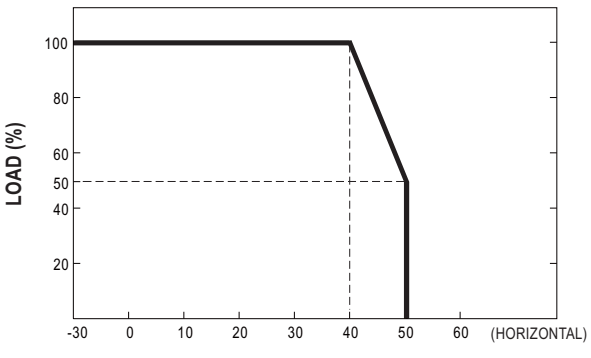


■ Plug Assignment

Standard plug: P1M

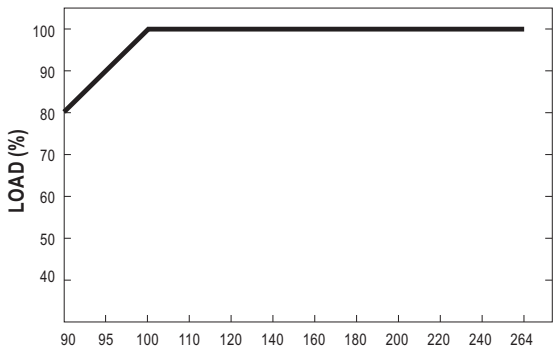
P1M	
P/N	OUTPUT
CENTER	+

■ Derating Curve



AMBIENT TEMPERATURE (℃)

■ Static Characteristics



INPUT VOLTAGE (VAC) 60Hz