



180W Level VI Desktop Type Power Supply

ENP-180 series



UL60950-1

IEC60950-1



■ Features

- Universal AC input / Full range
- Built-in active PFC function
- Energy efficiency Level VI
- No load power consumption <0.15W
- Comply with EISA 2007/DoE, NRCan and EU ErP
- 125% peak load capability
- Fanless design, cooling by free air convection
- Protection: Short circuit / Overload / Over voltage / Over temperature
- 3 years warranty

■ Applications

- Land mobile radio system
- Surveillance system
- TV antenna facility

■ Description

ENP-180 series is a 180W desktop type power supply working perfectly for communication related applications. Observing the standard 7" width size in the land mobile radio field, it provides the most frequently used voltage in the communication field. With the rugged mechanical design along with the high efficiency circuitry, it operates for the ambient temperature range -30°C~+70°C under free air convection.

■ Model Encoding

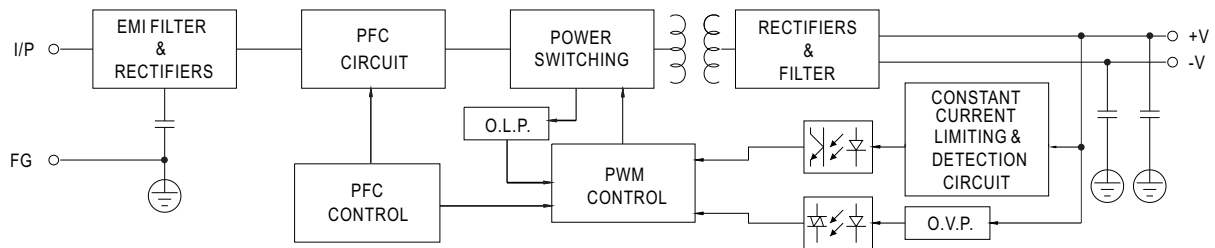
ENP - 180 - 24

Nominal voltage
Rated wattage
Series name

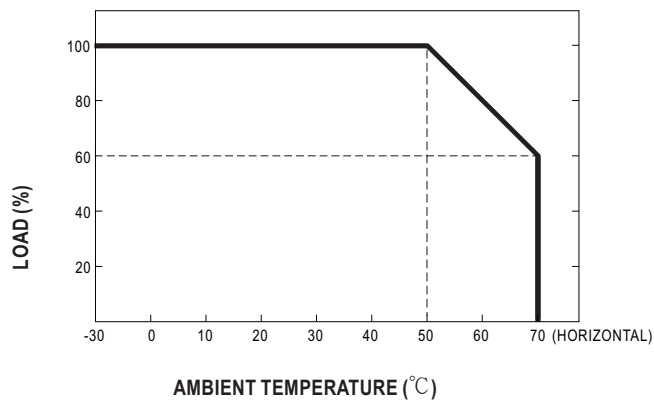
SPECIFICATION

MODEL		ENP-180-12		ENP-180-24		ENP-180-48		
OUTPUT	DC VOLTAGE		13.8V		27.6V		55.2V	
	RATED CURRENT		13A		6.5A		3.3A	
	CURRENT	RATED	0 ~ 13A		0 ~ 6.5A		0 ~ 3.3A	
		PEAK <small>Note.2</small>	16.3A		8.1A		4.1A	
	WATTAGE	RATED	179W		179W		182W	
		PEAK <small>Note.2</small>	225W		224W		226W	
	RIPPLE & NOISE (max.) <small>Note.3</small>		150mVp-p		150mVp-p		350mVp-p	
	VOLTAGE ADJ. RANGE		11.5 ~ 15V		23.5 ~ 30V		47.5 ~ 58.8V	
	VOLTAGE TOLERANCE <small>Note.4</small>		± 1.0%		± 1.0%		± 1.0%	
	LINE REGULATION <small>Note.5</small>		± 0.5%		± 0.5%		± 0.5%	
	LOAD REGULATION <small>Note.6</small>		± 2.0%		± 1.0%		± 0.5%	
INPUT	SETUP, RISE TIME <small>Note.7</small>		1000ms, 100ms at full load					
	HOLD UP TIME (Typ.)		20ms at full load					
	VOLTAGE RANGE <small>Note.8</small>		90 ~ 264VAC 127 ~ 370VDC					
	FREQUENCY RANGE		47 ~ 63Hz					
	POWER FACTOR (Typ.)		PF>0.98/115VAC, PF>0.95/230VAC at full load					
	EFFICIENCY (Typ.)		91%		93.5%		94%	
	AC CURRENT (Typ.)		1.9A/115VAC 0.95A/230VAC					
	INRUSH CURRENT (Typ.)		COLD START 70A at 230VAC					
	LEAKAGE CURRENT		<3.5mA / 240VAC					
	NO LOAD POWER CONSUMPTION		<0.15W					
	PROTECTION	SHORT CIRCUIT		Protection type : Constant current limiting, recovers automatically after fault condition is removed				
OVERLOAD		Normally works within 110 ~ 125% rated output power for more than 3 seconds and switches to constant current limiting, with auto-recovery after the peak load condition is removed						
		Constant current limiting, if >125% rated power, with auto-recovery after the overload condition is removed						
OVER VOLTAGE		15.5 ~ 18.2V		31 ~ 36.5V		62.1 ~ 72.9V		
		Protection type : Shut down o/p voltage, re-power on to recover						
ENVIRONMENT	OVER TEMPERATURE		Shut down O/P voltage, recovers automatically after temperature goes down					
	WORKING TEMP.		-30 ~ +70℃ (Refer to "Derating Curve")					
	WORKING HUMIDITY		20 ~ 95% RH non-condensing					
	STORAGE TEMP., HUMIDITY		-40 ~ +85℃, 10 ~ 95% RH non-condensing					
	TEMP. COEFFICIENT		± 0.05%/℃ (0 ~ 50℃)					
SAFETY & EMC (Note 9)	VIBRATION		10 ~ 500Hz, 2G 10min./1cycle, 60min. each along X, Y, Z axes					
	SAFETY STANDARDS		IEC60950-1, UL60950-1, EAC TP TC 004 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		Parameter		Standard		Test Level / Note	
			Conducted		EN55032 (CISPR32) / FCC PART15 (CISPR22)		Class B	
			Radiated		EN55032 (CISPR32) / FCC PART15 (CISPR22)		Class B	
			Harmonic Current		EN61000-3-2		-----	
			Voltage Flicker		EN61000-3-3		-----	
	EMC IMMUNITY		EN55024					
			Parameter		Standard		Test Level / Note	
			ESD		EN61000-4-2		Level 3, 8KV air ; Level 2, 4KV contact	
			Radiated		EN61000-4-3		Level 2, 3V/m	
			EFT / Burst		EN61000-4-4		Level 2, 1KV	
			Surge		EN61000-4-5		Level 2, 1KV/Line-Line, Level 3, 2KV/Line-Earth	
			Conducted		EN61000-4-6		Level 2, 3Vrms	
			Magnetic Field		EN61000-4-8		Level 1, 1A/m	
			Voltage Dips and Interruptions		EN61000-4-11		>95% dip 0.5 periods, 30% dip 25 periods, >95% interruptions 250 periods	
	OTHERS	MTBF		170.6K hrs min. MIL-HDBK-217F (25℃)				
DIMENSION		192*178*45.5mm (L*W*H)						
PACKING		1.15Kg; 10pcs/12.5Kg / 1.34CUFT						
NOTE		1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25℃ of ambient temperature. 2. Peak current or peak power up to 3 seconds is provided. 3. Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf & 47uf parallel capacitor. 4. Tolerance : includes set up tolerance, line regulation and load regulation. 5. Line regulation is measured from low line to high line at rated load. 6. Load regulation is measured from 0% to 100% rated load. 7. Length of set up time is measured at cold first start. Turning ON/OFF the power supply very quickly may lead to increase of the set up time. 8. Derating may be needed under low input voltages. Please 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) 10. The ambient temperature derating of 3.5℃/1000m with fanless models and of 5℃/1000m with fan models for operating altitude higher than 2000m(6500ft).						

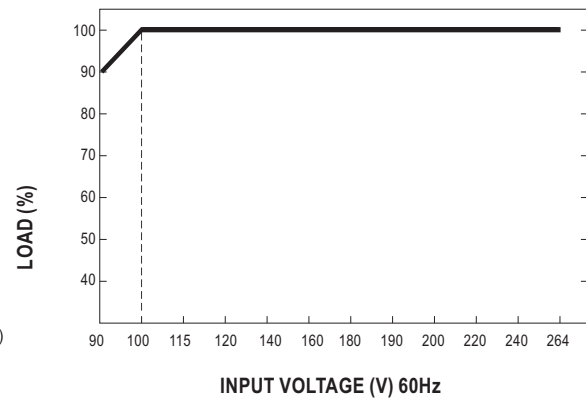
■ Block Diagram



■ Derating Curve

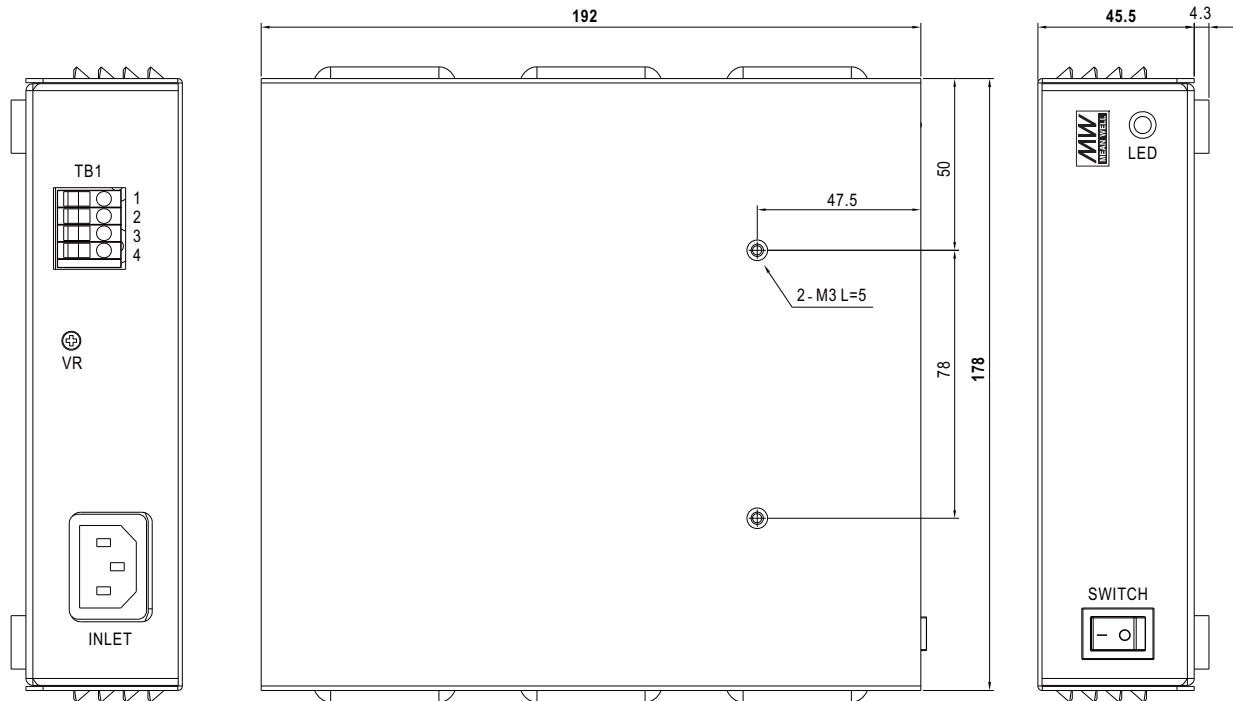


■ Static Characteristics



Mechanical Specification

Case No. 252 Unit:mm



Terminal Pin No. Assignment (TB1):

Pin No.	Assignment
1,2	+V
3,4	-V

Installation Manual

Please refer to : <http://www.meanwell.com/manual.html>