



■ 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

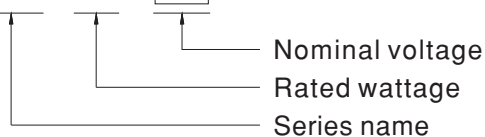
- Land mobile radio system
- Surveillance system
- TV antenna facility

■ 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

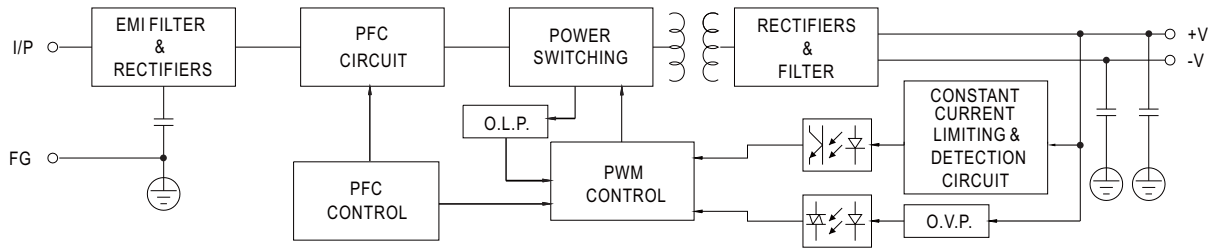
ENP - 180 - 24



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%		
SETUP, RISE TIME <small>Note.7</small>	1000ms, 100ms at full load							
HOLD UP TIME (Typ.)	20ms at full load							
INPUT	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						
OVER TEMPERATURE	Shut down O/P voltage, recovers automatically after temperature goes down							
ENVIRONMENT	WORKING TEMP.	-30 ~ +70°C (Refer to "Derating Curve")						
	WORKING HUMIDITY	20 ~ 95% RH non-condensing						
	STORAGE TEMP., HUMIDITY	-40 ~ +85°C, 10 ~ 95% RH non-condensing						
	TEMP. COEFFICIENT	±0.05%/°C (0 ~ 50°C)						
	VIBRATION	10 ~ 500Hz, 2G 10min./1cycle, 60min. each along X, Y, Z axes						
SAFETY & EMC (Note 9)	SAFETY STANDARDS	IEC62368-1, UL62368-1, EAC TP TC 004 approved; Meet BS EN/EN62368-1						
	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°C / 70% RH						
	EMC EMISSION	Parameter	Standard		Test Level / Note			
		Conducted	BS EN/EN55032 (CISPR32) / FCC PART15 (CISPR22)		Class B			
		Radiated	BS EN/EN55032 (CISPR32) / FCC PART15 (CISPR22)		Class B			
		Harmonic Current	BS EN/EN61000-3-2		-----			
	Voltage Flicker	BS EN/EN61000-3-3		-----				
	EMC IMMUNITY	BS EN/EN55024						
		Parameter	Standard		Test Level / Note			
ESD		BS EN/EN61000-4-2		Level 3, 8KV air ; Level 2, 4KV contact				
Radiated		BS EN/EN61000-4-3		Level 2, 3V/m				
EFT / Burst		BS EN/EN61000-4-4		Level 2, 1KV				
Surge		BS EN/EN61000-4-5		Level 2, 1KV/Line-Line, Level 3, 2KV/Line-Earth				
Conducted		BS EN/EN61000-4-6		Level 2, 3Vrms				
Magnetic Field		BS EN/EN61000-4-8		Level 1, 1A/m				
Voltage Dips and Interruptions	BS EN/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°C)						
	DIMENSION	192*178*45.5mm (L*W*H)						
	PACKING	1.15Kg; 10pcs/12.5Kg /1.34CUFT						
NOTE	<p>1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25°C of ambient temperature.</p> <p>2. Peak current or peak power up to 3 seconds is provided.</p> <p>3. Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf & 47uf parallel capacitor.</p> <p>4. Tolerance : includes set up tolerance, line regulation and load regulation.</p> <p>5. Line regulation is measured from low line to high line at rated load.</p> <p>6. Load regulation is measured from 0% to 100% rated load.</p> <p>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.</p> <p>8. Derating may be needed under low input voltages. Please check the derating curve for more details.</p> <p>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)</p> <p>10. The ambient temperature derating of 3.5°C/1000m with fanless models and of 5°C/1000m with fan models for operating altitude higher than 2000m(6500ft).</p> <p>※ Product Liability Disclaimer : For detailed information, please refer to https://www.meanwell.com/serviceDisclaimer.aspx</p>							

■ Block Diagram



■ Derating Curve

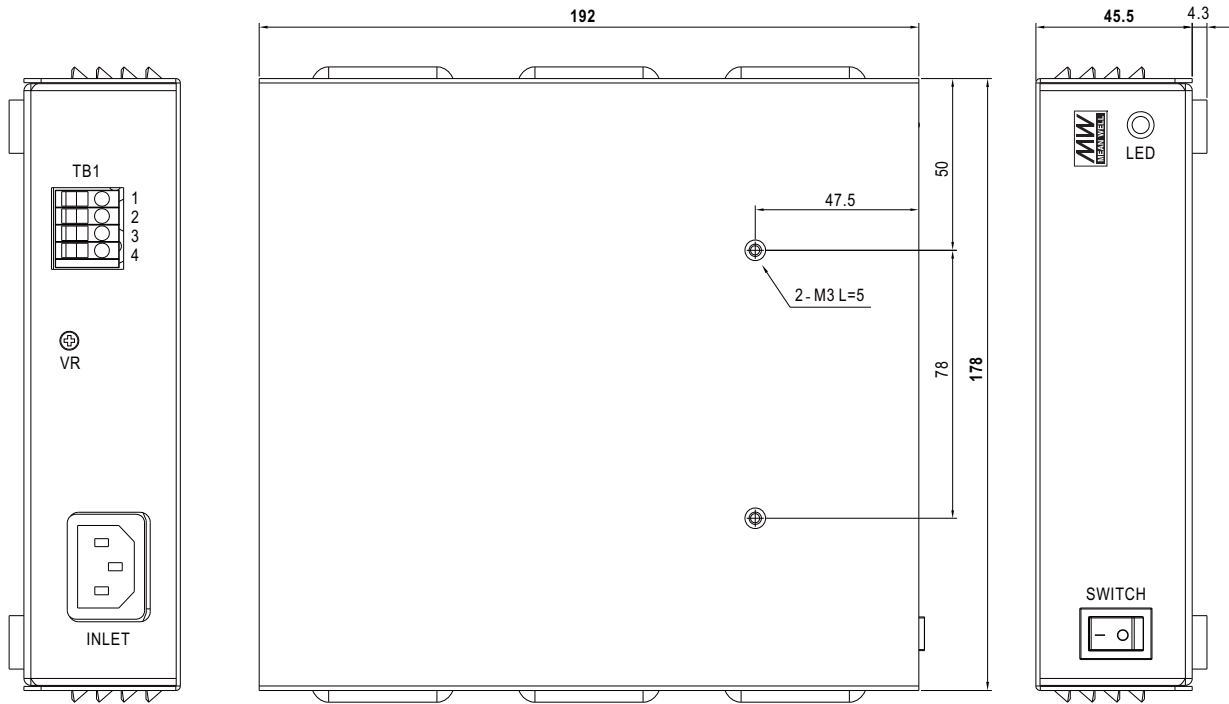


■ Static Characteristics



■ Mechanical Specification

Case No. 252 Unit:mm



Terminal Pin No. Assignment (TB1):

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

Note: Please use wires with a cross section of 0.5 - 4.0 mm² (12~20AWG) for connection.
 Recommended wires strip length is 9 mm and screw torque is 4.0 lb-inch (0.4~0.5Nm).

■ Installation Manual

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