



120W Level VI Desktop Type Power Supply

ENP-120 series



Front



User's Manual



Back



UL62368-1

TPTC004

IEC62368-1



## ■ 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

## ■ GTIN CODE

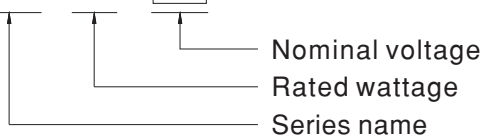
MW Search: <https://www.meanwell.com/serviceGTIN.aspx>

## ■ Description

ENP-120 series is a 120W 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

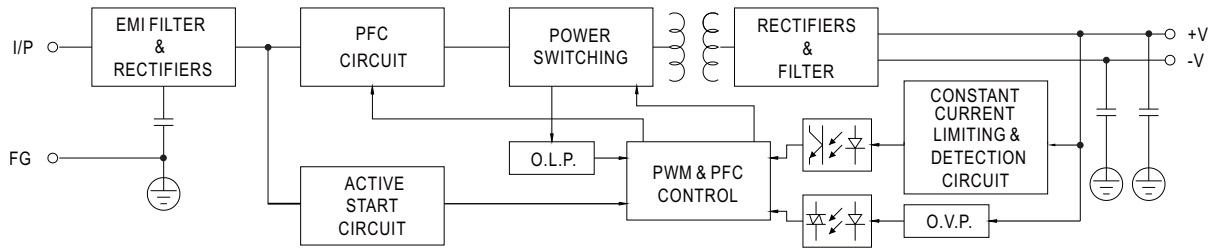
ENP - 120 - 24



**SPECIFICATION**

MODEL		ENP-120-12	ENP-120-24	ENP-120-48	
OUTPUT	DC VOLTAGE	13.8V	27.6V	55.2V	
	RATED CURRENT	8.7A	4.3A	2.2A	
	CURRENT	RATED	0 ~ 8.7A	0 ~ 4.3A	0 ~ 2.2A
		PEAK <small>Note.2</small>	10.9A	5.38A	2.75A
	WATTAGE	RATED	120W	119W	121W
		PEAK <small>Note.2</small>	150.4W	148.5W	151.8W
	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.)	89.5%	91%	91.5%	
	AC CURRENT (Typ.)	1.25A/115VAC 0.63A/230VAC			
	INRUSH CURRENT (Typ.)	COLD START 65A 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	
OVER TEMPERATURE	Protection type : Shut down o/p voltage, re-power on to recover				
ENVIRONMENT	WORKING TEMP.	Shut down O/P voltage, recovers automatically after temperature goes down			
	WORKING HUMIDITY	-30 ~ +70°C (Refer to "Derating Curve")			
	STORAGE TEMP., HUMIDITY	20 ~ 95% RH non-condensing			
	TEMP. COEFFICIENT	-40 ~ +85°C, 10 ~ 95% RH non-condensing			
	VIBRATION	±0.05%/°C (0 ~ 50°C)			
SAFETY & EMC (Note 9)	SAFETY STANDARDS	10 ~ 500Hz, 2G 10min./1cycle, 60min. each along X, Y, Z axes			
	WITHSTAND VOLTAGE	IEC62368-1, UL62368-1, EAC TP TC 004 approved; Meet BS EN/EN62368-1			
	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	-----	
	EMC IMMUNITY	Voltage Flicker	BS EN/EN61000-3-3	-----	
		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	1997.9K hrs min. Telcordia SR-332 (Bellcore) ; 257.1K hrs min. MIL-HDBK-217F (25°C)			
	DIMENSION	192*178*45.5mm (L*W*H)			
	PACKING	0.98Kg; 10pcs/10.8Kg /1.38CUFT			
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 &amp; noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1 μ F &amp; 47 μ F 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 <a href="https://www.meanwell.com/Upload/PDF/EMI_statement_en.pdf">https://www.meanwell.com/Upload/PDF/EMI_statement_en.pdf</a>)</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 <a href="https://www.meanwell.com/serviceDisclaimer.aspx">https://www.meanwell.com/serviceDisclaimer.aspx</a></p>				

■ Block Diagram



■ Derating Curve



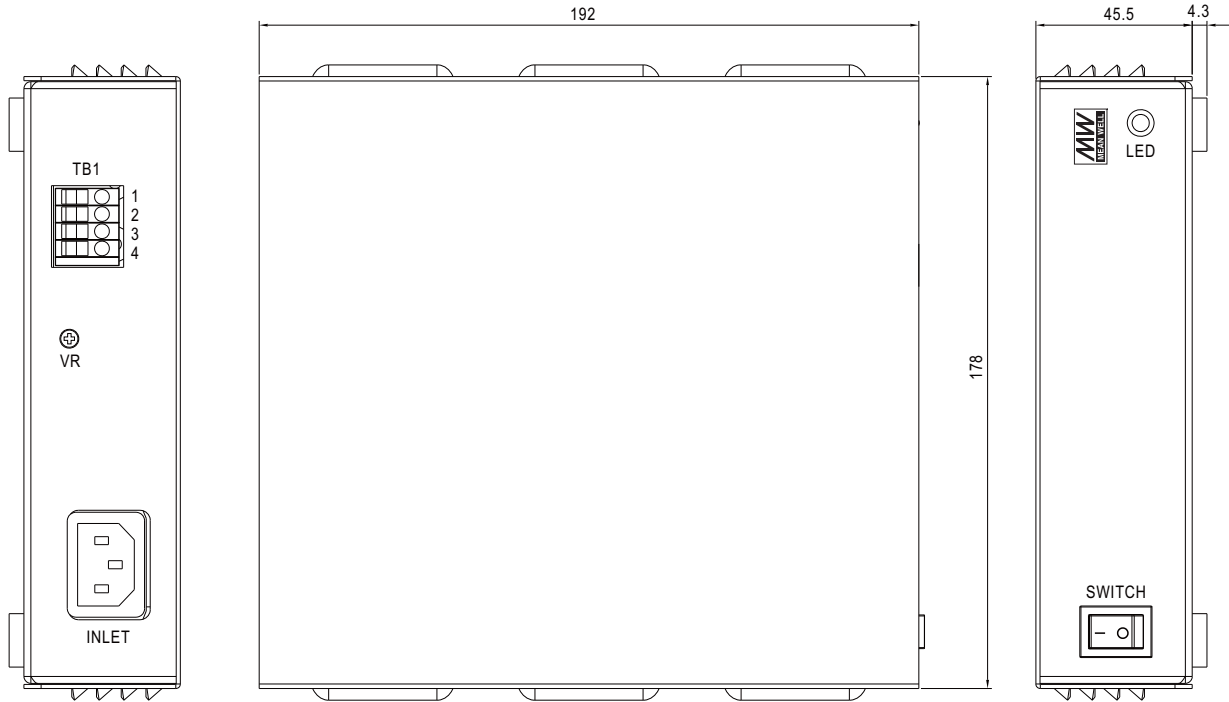
■ Static Characteristics



**Mechanical Specification**

(Unit: mm , tolerance  $\pm 1$ mm)

Case No. 252A



**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 mm<sup>2</sup> (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>