



User Manual 用户手册



PROPOWER Series industrial power supply

150W single-module output rail-type industrial power supply

Model: PP-150-24

1. Product Features

- Full range of AC input: 90 - 264VAC
- Protection types: Short circuit / Overload / Overvoltage / Overtemperature
- Installation rails: TS-35/7.5 or 15
- Narrow width: 30mm
- 100% full-load aging test
- High reliability
- 3-year warranty
- Compliant with IEC/EN/UL 62368-1

2. Electrical Specifications

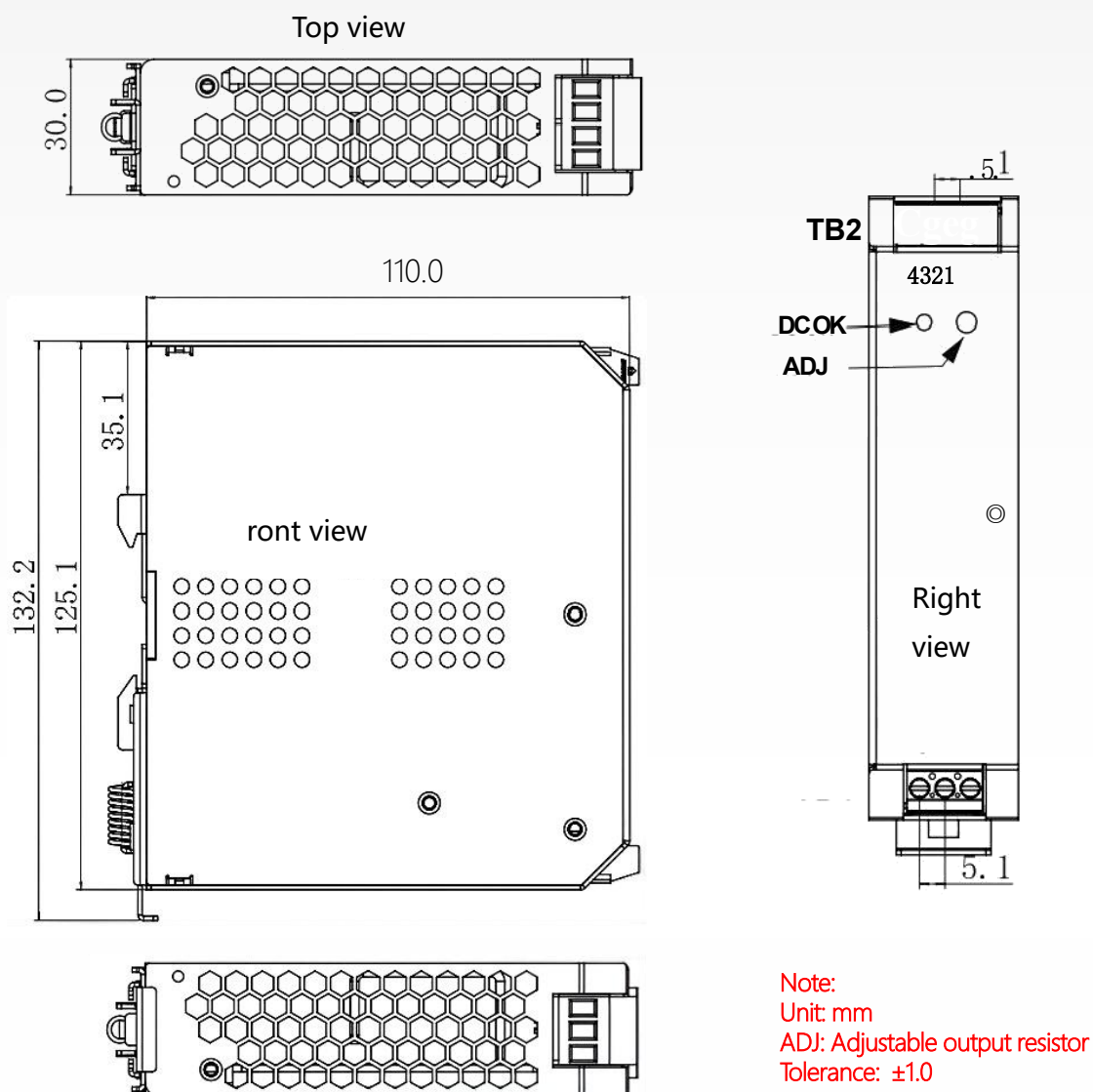
Electrical specifications				
Model number		PP-150-12	PP-150-24	PP-150-48
Input	Voltage range	90 - 264VAC 127 - 370VDC (refer to 'static characteristic curve')		
	Frequency range	47 ~ 63Hz		
	Efficiency (typical value)	86%	89%	91%
	AC current (typical value)	2.8A/115VAC 1.6A/230VAC		
	Surge current (typical value)	30A/115VAC 55A / 230VAC (cold start)		
	Leakage current	<1mA/240VAC		
Output	Direct current voltage	12V	24V	48V
	Rated current	10A	6.25A	3.13A
	Current range	0 ~ 10A	0 ~ 6.25A	0 ~ 3.13A
	Rated power	120W	150W	150.24W
	Ripple and noise (maximum value)	100mVp-p	120mVp-p	150mVp-p
	Voltage adjustment range	12 ~ 14V	24 ~ 28V	48 ~ 55V
	Voltage accuracy	±1%	±1%	±1%
	Linear adjustment rate	±0.5%	±0.5%	±0.5%
	Load adjustment rate	±1.5%	±1%	±1%
	Start-up, rise time	500ms,50ms/230VAC 500ms,50ms/115VAC		
	Hold time (typical value)	30ms/230VAC 7ms/115VAC		
	Protection	Overload	105% to 135% of the rated output power	
Protection mode: Constant current limit (output voltage > 50% Vo), otherwise it will hiccup. The system will recover automatically after the abnormal condition is removed.				
Overvoltage		15 ~ 18V	29 ~ 33V	56 ~ 65V
		Protection mode: Power off, resume after reboot		
Overtemperature		Protection mode: Power off, resume after reboot		

Environment	Operating temperature and humidity	-20 to +70°C (refer to "reduction curve"), 20 to 90% RH without condensation		
	Storage temperature and humidity	-40 ~ +85°C, 10 ~ 95%RH		
	Temperature coefficient	±0.03%/°C(0 ~ 50°C)		
	Vibration resistance	10 ~ 500Hz, 2G 10min./1 cycle, each along X、Y、Z axes		
Safety regulations and electromagnetic compatibility	Safety regulations	Reference UL62368-1, TUV EN62368-1, CCC GB4943.1		
	Pressure resistance and insulation impedance	I/P-O/P: 3KVac; 100MQ/500Vdc/25°C/70%RH		
		I/P-FG: 2KVac; 100MQ/500Vdc/25°C/70%RH		
		O/P-FG: 0.5KVac; 100MQ/500Vdc/25°C/70%RH		
	Electromagnetic compatibility emission	Parameter	Standard	Test Level /Note
		Conducted emission	BS EN/EN55032(CISPR32), FCC PART 15/CISPR22 ,GB9254.	Class B
		Radiated emission	BS EN/EN55032(CISPR32), FCC PART 15/CISPR22 ,GB9254.	Class B
		Harmonic current	BS EN/EN61000-3-2, GB17625.1	Class A(≤80%load
		Voltage flicker	BS EN/EN61000-3-3	
	Electromagnetic compatibility immunity	BS EN/EN55035		
		Parameter	Standard	Test Level /Note
		ESD	BS EN/EN61000-4-2	Level 4, 8KV air; Level 2, 4KV contact, criteria A

		RF field susceptibility	BS EN/EN61000-4-3	Level 3,criteria A
		EFT bursts	BS EN/EN61000-4-4	Level 3,criteria A
		Surge susceptibility	BS EN/EN61000-4-5	Level 3,1KV/L-N,2KV/L/N-FG criteria A
		Conducted susceptibility	BS EN/EN61000-4-6	Level 3,criteria A
		Magnetic field immunity	BS EN/EN61000-4-8	Level 4,criteria A
		Voltage dips and interruptions	BS EN/EN61000-4-11	>95%dip 0.5 periods,30%dip 25 periods,>95%interruptions 250 periods
Other	MTBF	≥400Khrs MIL-HDBK-217F(25°C)		
	Size	30*125.1*110mm(W*H*D)		
	Packaging	0.55Kg;24pcs/14.2Kg/1.34CUFT		
Note	1. Unless otherwise specified, all specification parameters are measured under the input of 230VAC, rated load, 25°C and 70%RH ambient temperature. 2. Ripple and noise measurement method: Use a 12" twisted pair cable, and the terminals should be connected in parallel with 0.1uf and 47uf capacitors. The measurement is conducted within a 20MHz bandwidth. 3. Accuracy: Includes set error, linear adjustment rate and load adjustment rate. 4. Linear adjustment rate measurement method: Test from low voltage to high voltage under the rated load. 5. Load adjustment rate measurement method: From 0% to 100% of the rated load. 6. Startup time is measured under the cold start condition. Frequent and rapid power on/off may increase the startup time. 7. When the working altitude exceeds 2000 meters (6500 feet), the working environment temperature must decrease by 5°C for every 1000 meters. 8. The power supply should be regarded as a part of the system components. All EMC tests will test the sample on a metal iron plate with a thickness of 1mm, a length of 360mm and a width of 360mm. The power supply needs to be combined with the terminal equipment for electromagnetic compatibility-related confirmation. 9. Installation gap: When used at full load, it is recommended to reserve 40mm at the top, 20mm at the bottom, 5mm on each side, and 15mm if the adjacent device is a heat source.			

Table 1 Power Supply Specifications Parameters

3.Institutional dimension drawing



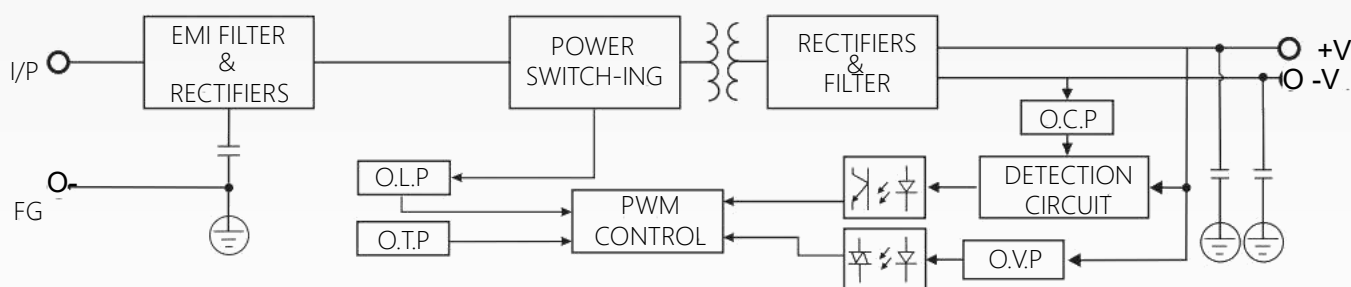
Install the guide rails: TS35/7.5 or TS35/15

Terminal platform position definition

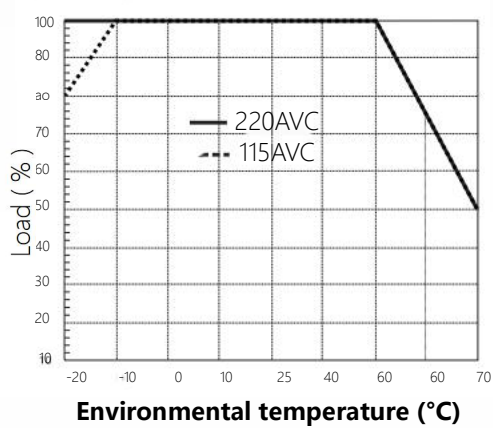
TB1		TB2	
Pin Number	Pin Function	Pin Number	Pin Function
1	AC/L	1,2	DC output -V
2	AC/N	3,4	DC output +V
3	FG		

4.1 curve

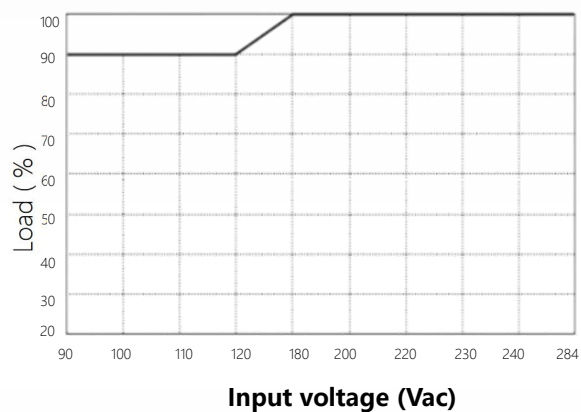
Block diagram



Reduction curve



Static characteristic curve



Official website



先进自动化控制及工业网络技术



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Company Tel: **0510-85888030**