



User Manual 用户手册



PROPOWER Series industrial power supply

500W single-output industrial power supply with PFC function
and rail-type design

Model: PP-500-24

1. Product Features

- Full range of AC input: 90~264VAC
- Built-in active PFC function
- Protection types: short circuit / overload / overvoltage / overtemperature
- Installation rails: TS-35/7.5 or 15
- Narrow width: 50mm
- 100% full-load aging test
- Power-on LED indicator
- DC OK relay contacts (optional)
- Redundancy function (PP-500R)
- High efficiency / high reliability
- 3-year warranty
- Compliant with IEC/EN/UL 62368-1

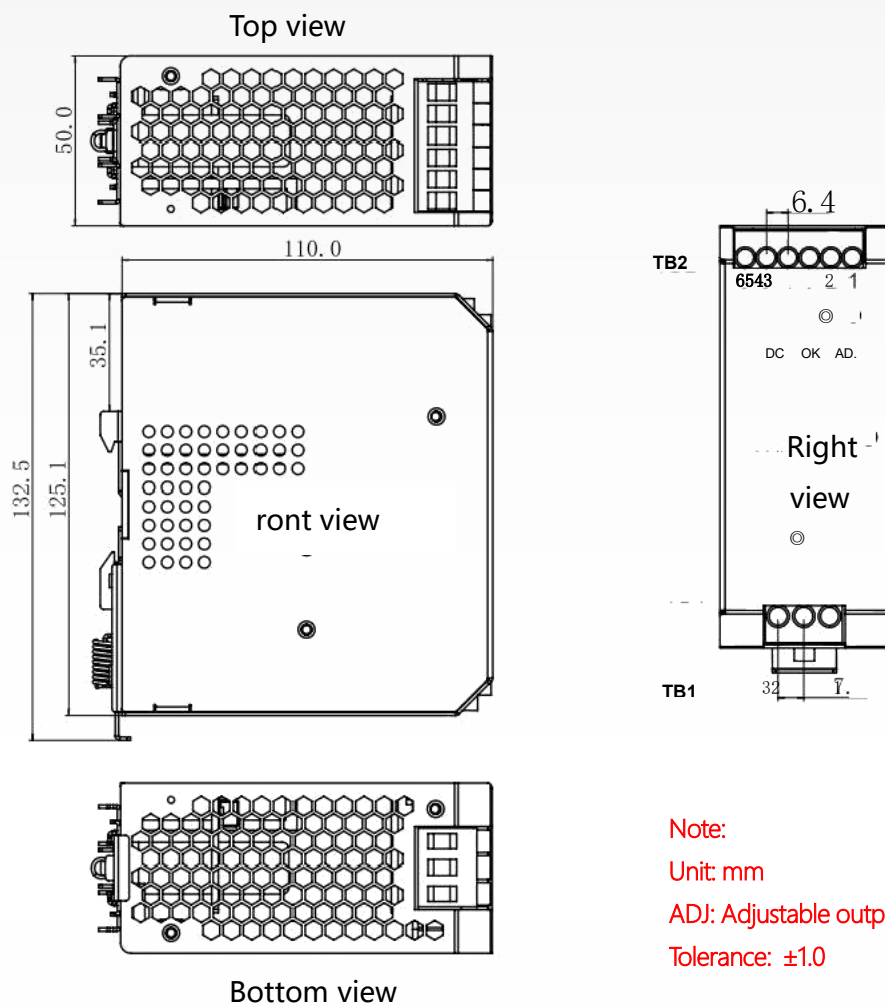
2.Electrical Specifications

Electrical specifications		
Model number		PP-500-24
Input	Voltage range	90 - 264VAC 127 - 370VDC (refer to 'Static Characteristic Curve')
	Frequency range	47 ~ 63Hz
	Power factor (typical value)	PF > 0.98 for 115VAC PF > 0.95 for 230VAC at full load
	Efficiency (typical value)	93.5%
	AC current (typical value)	5A/115VAC 3.2A/230VAC
	Surge current (typical value)	20A/115VAC 40A/230VAC (cold start)
	Leakage current	<2mA/240VAC
Output	Direct current voltage	24V
	Rated current	20.8A
	Current range	0 ~ 20.8A
	Rated power	499.2W
	Ripple and noise (maximum value)	150mVp-F
	Voltage adjustment range	24 ~ 28V
	Voltage accuracy	±1%
	Linear adjustment rate	±0.5%

	Load adjustment rate	$\pm 1\%$	
	Startup time (rise)	1500ms,50ms/230VAC	3000ms,50ms/115VAC
	Hold time (typical value)	4ms/230VAC	14ms/115VAC
Protection	Overload	110% to 140% of the rated output power	
		Protection mode: Overload > 0.2 seconds, power off, resumes after reboot	
	Overvoltage	29 ~ 35V	
		Protection mode: Power off, resumes after reboot	
	Over temperature	Protection mode: Power off, resumes after temperature drops	
Function	DC OK signal (optional)	Contact specification (maximum value): 30VDC/1A resistive load	
	Redundant PP-500R	Protection for parallel redundant use: In parallel redundant applications, when one power supply malfunctions and shuts down, the other power supply will automatically activate. This can prevent system failure and enhance system reliability.	
Environment	Operating temperature and humidity	-30 to +60°C (refer to the "deduction curve"), 20 to 90% RH without condensation	
	Storage temperature and humidity	-40 ~ +85°C, 10 ~ 95%RH	
	Temperature coefficient	$\pm 0.03\%/^{\circ}\text{C}$ (0 ~ 50°C)	
	Vibration resistance	10 ~ 500Hz, 2G 10min./1 cycle, each along X、Y、Z axes	
Other	Size	50*125.1*110mm(W*H*D)	

Table 1 Power Supply Specifications Parameters

3.Institutional dimension drawing



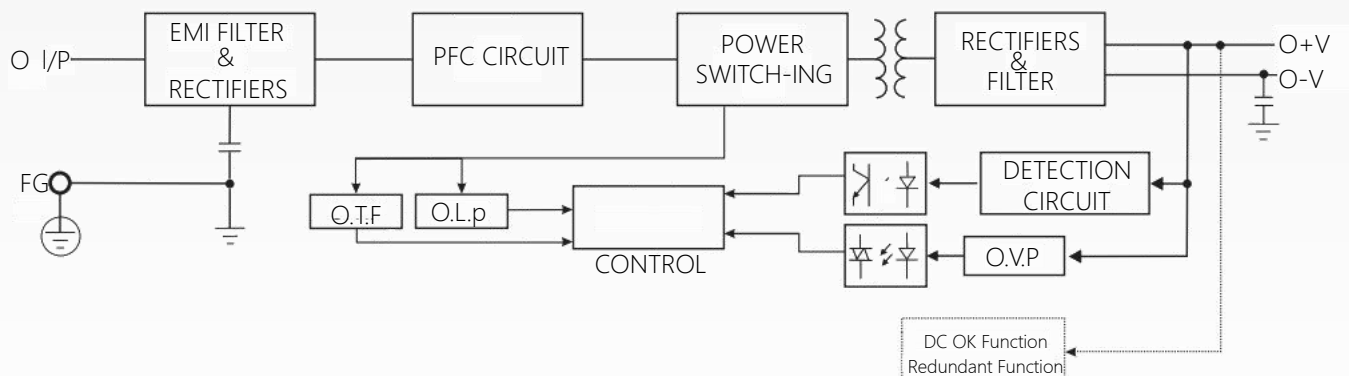
Install the guide rails: TS35/7.5 or TS35/15

Terminal platform position definition

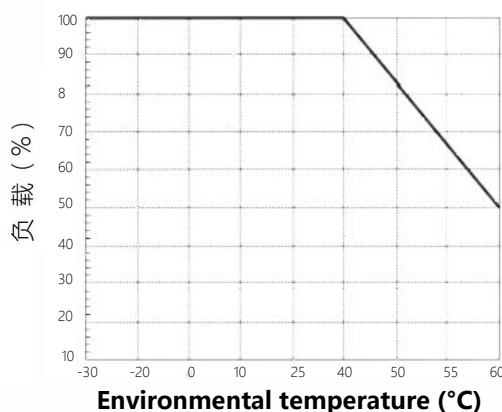
TB1		TB2	
Pin Number	Pin Function	Pin Number	Pin Function
1	AC/L	1,2	Relay contacts (optional)
2	AC/N	3,4	DC output -V
3	FG	5,6	DC output +V

4.curve

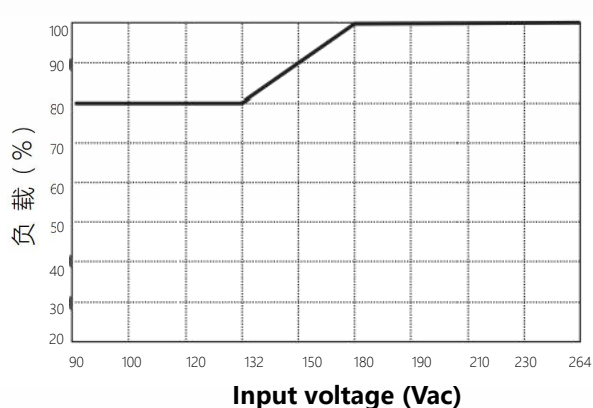
Block diagram



Reduction curve



Static characteristic curve

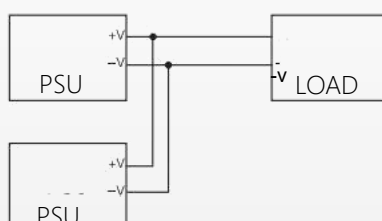


3.2 DC OK relay contacts (optional)

Contact closure	Power on / DC ok
Contact opening	Power off / DC fail
Contact specification (maximum value)	30V/1A resistive load

3.3 Redundant Function (PP-500R)

1. The PP-500R has built-in redundancy function and can be connected in parallel with two individual units.
2. When operating in parallel, the maximum load should not exceed the rated power of any power supply.



Official website



先进自动化控制及工业网络技术



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