TPS-MPT120S High Voltage Series

Single Output Open Frame Power Supply



Features

- Wide Input Voltage Range: 176VAC-500VAC
- Isolated Withstand: 3000VAC
- Output Adjustable Voltage
- -25°C~+60°C
- Output short-circuit, over current, over voltage protection
- Input undervoltage,over temperature protection

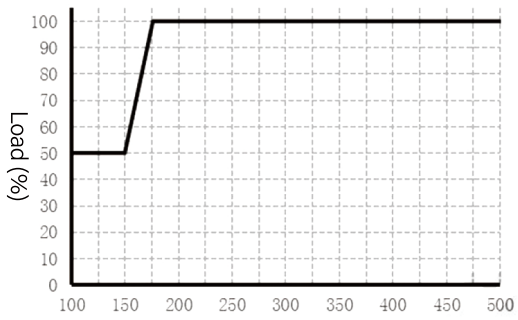
Specifications

Model		TPS-MPT120S-12V	TPS-MPT120S-24V	TPS-MPT120S-48V
Output	Output voltage	12V	24V	48V
	Rated current (176-500VAC)	10A	5A	2.5A
	Current range (Natural Cooling)	0-10A	0-5A	0-2.5A
	Rated Power (Natural cooling)	120W	120W	120W
	Efficiency (Typ.)	87%	87%	88%
	Ripple (Max.)	≤50mVp-p	≤100mVp-p	≤100mVp-p
	Adjustable voltage range	10~15V	22~27V	46~52V
	Voltage accuracy	±3%	±2%	±2%
	Line regulation	±1%	±1%	±1%
	Load regulation	±1%	±1%	±1%
	Start-up, Rise and Hold time	≤1S/10mS/30mS/230VAC		
Input	Voltage range	176~500VAC or 249~707VDC, 50% power derating at 100~176VAC (141~249VDC)		
	Frequency range	Rated frequency 50/60Hz, operation frequency range 47-63Hz		
	Power factor	≥0.5		
	Inrush current (Typ.)	70A		
	Input current	≤1.2A/176VAC		
	Input power	≤140W		
	Standby power consumption	≤0.6W		
	Leakage current (Typ.)	0.25mA		
Protection	Output overcurrent protection	110%-170% of output rated current， hiccup mode, automatically recovers when current falls below 105% of rated output.		
	Output overvoltage protection	110%-130% of output rated voltage， output shuts down and recovers on restart.		
	Output short-circuit protection	hiccup mode, automatically recovers when short circuit is removed.		
	Over temperature protection	hiccup mode, automatically recovers when temperature decreases.		
Environmental	Operating Temperature and Humidity	-25~+60°C, 20%~90%RH non-condensing (refer to temperature derating curve)		
	Storage Temperature and Humidity	-40~+85°C, 10%~95%RH		
	Temperature coefficient	±0.03%/°C (0-50°C)		
	Vibration	10-500Hz,2G for 10 minutes per cycle, 60 minutes on each of the X, Y, and Z axes.		

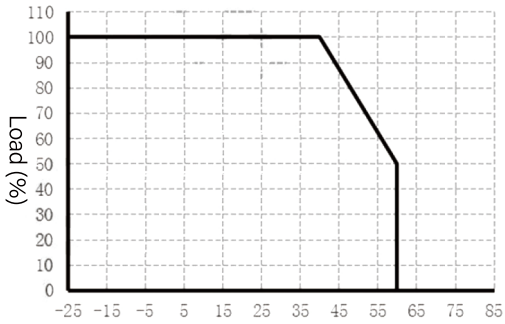
Safety and EMC	Safety standard	IEC62368-1
	Withstand voltage	I/P-O/P:3000VAC,I/P-FG:1500VAC,O/P-FG:500V; tested for one minute with leakage current less than 5mA.
	Insulation resistance	1/P-0/P, I/P-FG, 0/P-FG: >100M Ohm/500VDC
	EMC	CISPR32/EN55032 CLASS A,EN61000-4-2/3/4/6 CLASS B
Other	Dimensions (LxWxH)	126×62×35mm
	Weight	approximately 290g
Notes	1. All parameters are measured at a rated input voltage of 380VAC, rated load, 25°C, and 70% humidity. 2. Accuracy includes setup error, voltage regulation, and load regulation. 3. Ripple measurement: Power supply and load are connected with 30cm twisted wires, with 0.1μF and 47μF capacitors at the load end, measured by a 20MHz oscilloscope. 4. Voltage adjustment rate is measured by changing the input voltage from low to high with rated load. 5. Load regulation is measured from 1% to 100% load.	

Characteristic Curves

Input voltage-Load Derating Curve

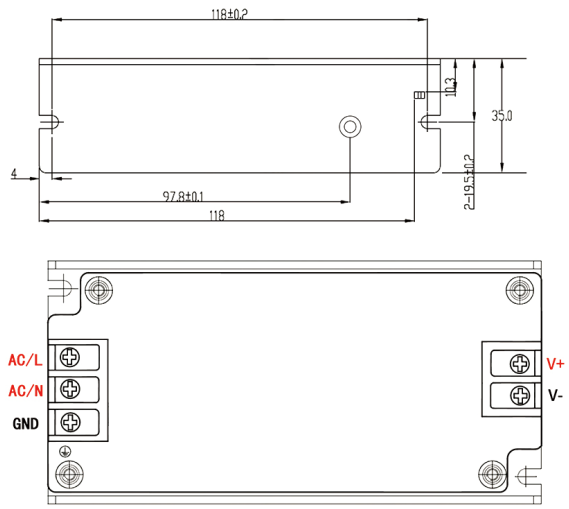


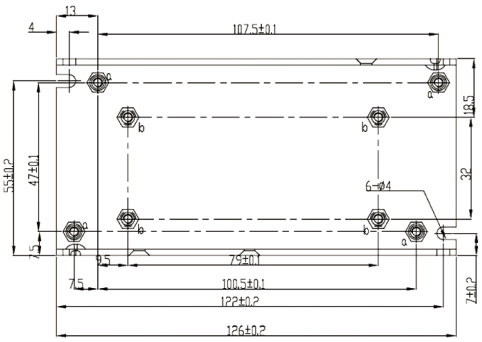
Temperature-Load Derating Curve



Mechanical Dimensions

mm





This electronic device must not be disposed of in the household waste at the end of its service life. For your return, there are free collection points for electrical appliances and, if necessary, additional points of acceptance for the reuse of the devices in your area.The addresses an be obtained from your city or cummunal administration. If the old electrical or electronic device contains personal data, you are esponsible for deleting it before you return it. Further information: www.elektrogesetz.de