TPS-MPU24S Series

Single Output Open Frame Power Supply

Features

- Compact size, standard dimensions
- Natural air cooling at 24W
- Isolation Voltage: 3000VAC
- Regulated output、low ripple
- Output short-circuit/overcurrent/overpower protection
- High efficiency, high reliability, operable at -25°C
- Fanless, silent design

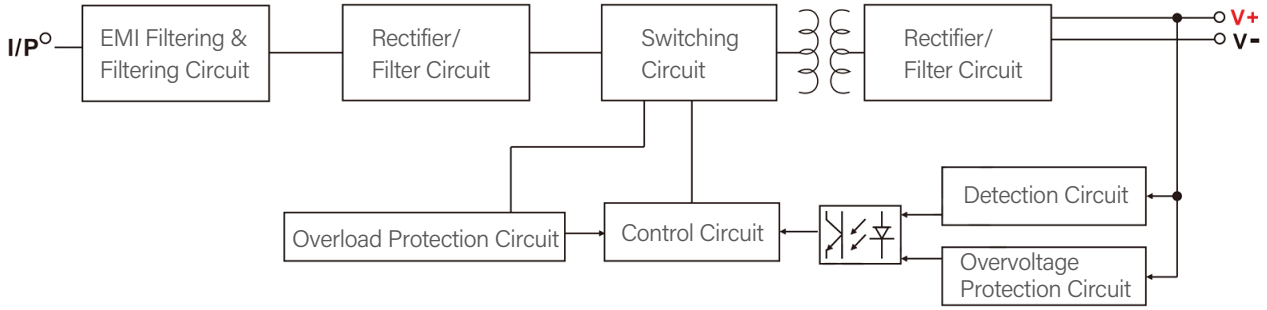
Specifications

Model		TPS-MPU24S-5V	TPS-MPU24S-12V	TPS-MPU24S-24V
Output	Output voltage	5V	12V	24V
	Rated current (Natural cooling)	3.5A	2A	1A
	Current range (Natural Cooling)	0～3.5A	0～2A	0～1A
	Rated Power (Natural cooling)	17.5W	24W	24W
	Efficiency (Typ.)	80%	85%	84%
	Ripple (Max.)	20mVp-P	40mVp-p	40mVp-p
	Adjustable voltage range	±1.0%	±1.0%	±1.0%
	Voltage accuracy	±0.5%	±0.5%	±0.5%
	Line regulation	±1.0%	±1.0%	±1.0%
	Load regulation	not adjustable		
	Start-up & Rise time	1500ms,30ms/230VAC2500ms,30ms/115VAC (full load)		
Input	Voltage range	90~264VAC or 127~370VDC; if input voltage is below 100V, power should be reduced.		
	Frequency range	47～63Hz		
	AC power (Typ.)	<200mA (＜0.5W at no load)		
	Inrush current (Typ.)	Cold start: 30A/230VAC		
	Leakage current	<2mA/240VAC		
Protection	Overload	115%～180% of rated power		
		Protection Mode: Hiccup mode, automatically recovers after abnormal load conditions are removed		
	Dc short-circuit protection	Hiccup Mode: Automatically recovers after short-circuit removal		
Environmental	Operating Temperature and Humidity	-25~60°C(refer to derating curve") 20～90%RH,non-condensing		
	Storage Temperature and Humidity	-40～85°C,10～95%RH		
Safety and EMC	Safety standard	GB4943.1-2011		
	Withstand voltage	I/P-O/P:3KVAC		
	Insulation resistance	I/P-O/P>100M Ohms/500VDC/25°C/70%RH		
	EMC Emission	Complies with EN55032(CISPR32)Class B,GB 17625.1-2012		
	EMC Immunity	Complies with GB/T9254-2008		
Other	Dimensions (LxWxH)	66.2*30.5*21.2mm (L*W*H)		
	Weight	approximately 39g		

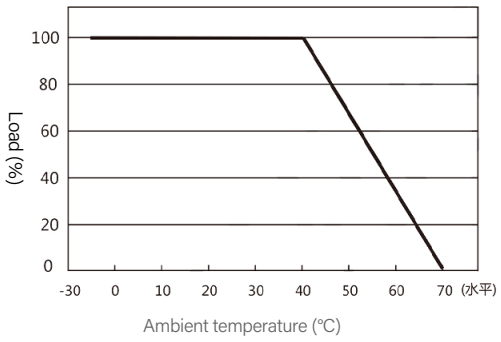
Notes	1. All parameters are measured at a rated input voltage of 220VAC, rated load, 25°C, and 70% humidity. 2. Accuracy includes setup error, voltage regulation, and load regulation. 3. Ripple measurement: Power supply and load are connected with 30cm twisted wires, with 0.1μF and 47μF capacitors at 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 0% to 100% load.

Block Diagram

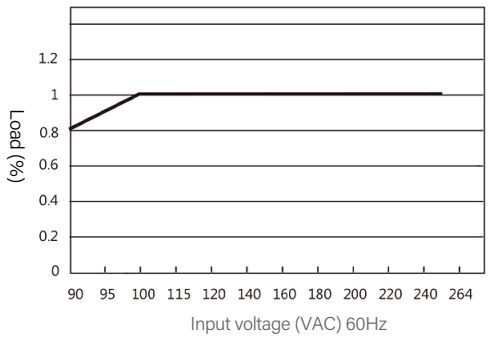
Switching frequency: 65KHz



Mechanical Dimensions

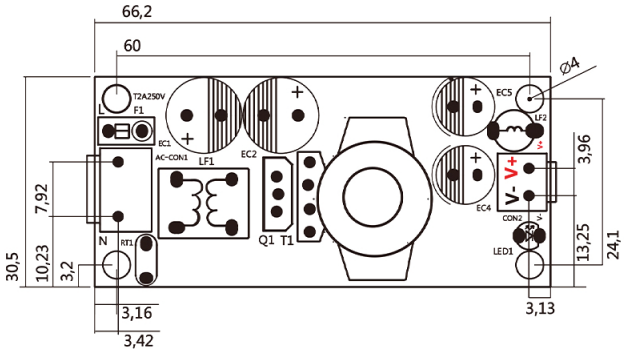


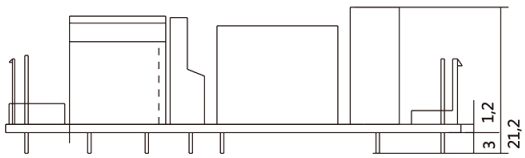
Static characteristic curve



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