# TPS-RPS120S Series

## Single Output Open Frame Power Supply

## Features

- Compact size: 4"x2" standard dimensions
- Natural cooling: 100W under natural cooling; 120W with 10CFM fan cooling
- Isolation withstand voltage: 3000VAC high-voltage isolation power supply
- Regulated output: Low ripple noise
- Output protection: Short circuit, overcurrent, and overvoltage protection
- High efficiency and reliability: LED indicator for power on
- Operating altitude: Can operate below 5000 meters

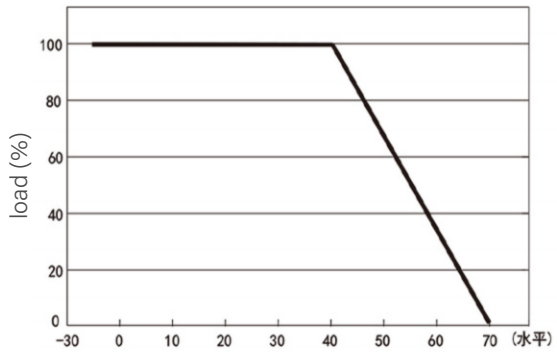
## Specifications

| Model | | TPS-RPS120S-9V | TPS-RPS120S-12V | TPS-RPS120S-18V | TPS-RPS120S-24V | TPS-RPS120S-36V | TPS-RPS120S-48V |
|---|---|---|---|---|---|---|---|
| Output | Output Voltage | 9V | 12V | 18V | 24V | 36V | 48V |
| | Rated Current (Natural Cooling) | 8.3A | 8.3A | 4.17A | 4.17A | 2.1A | 2.1A |
| | Rated Current (20CFM Fan Cooling) | 10A | 10A | 5A | 5A | 2.5A | 2.5A |
| | Current Range (Natural Cooling) | 0~8.3A | 0~8.3A | 0~4.17A | 0~4.17A | 0~2.1A | 0~2.1A |
| | Current Range (20CFM Fan Cooling) | 0~10A | 0~10A | 0~5A | 0~5A | 0~2.5A | 0~2.5A |
| | Rated Power (Natural Cooling) | 75W | 100W | 75W | 100W | 75W | 100W |
| | Rated Power (20CFM Fan Cooling) | 90W | 120W | 90W | 120W | 90W | 120W |
| | Efficiency (YP) | 87% | 88% | 88% | 89% | 89% | 90% |
| | Ripple (Max) | 100mVp-p | 100mVp-p | 150mVp-p | 150mVp-p | 180mVp-p | 180mVp-p |
| | Voltage Adjustment Range | 9~15V | 9~15V | 16~29V | 16~29V | 30~55V | 30~55V |
| | Voltage Accuracy | ±2.0% | ±2.0% | ±2.0% | ±2.0% | ±2.0% | ±2.0% |
| | Line Regulation | ±05o | ±0.5% | ±0.5% | ±0.5% | ±0.5% | ±0.5% |
| | Load Regulation | ±2.0% | ±2.0% | ±2.0% | ±2.0% | ±2.0% | ±2.0% |
| Input | Voltage Range | 90～264VAC or 127～370VDC: Input voltage is below 100W, power needs to be derated. | | | | | |
| | Input Frequency | 47~63Hz | | | | | |
| | AC Current (Typ.) | <1500mA, no-load power consumption less than 0.6W | | | | | |
| | Inrush Current (Typ.) | Cold start: 30A/230VAC | | | | | |
| | Leakage Current | <2mA/240VAC | | | | | |
| Protection | Overload | 115%~180% of rated output power<br>Automatically recovers after the removal of abnormal load conditions | | | | | |
| | Overvoltage | 150%~200% of rated output voltage<br>Automatically recovers after the removal of overvoltage conditions | | | | | |
| Environment | Operating Temperature/Humidity | -30~60°C (Please refer to the "derating curve")<br>20~90%RH, non-condensing | | | | | |
| | Storage Temperature/Humidity | -40~85°C,<br>10~95%RH | | | | | |

| | | |
|---|---|---|
| Safety EMC | Safety Standard | EN 62368-1 |
| | Withstand Voltage | I/P-O/P:3KVAC |
| | Insulation Resistance | I/P-0/P，100M Ohms/500VDC/25℃/70%RH |
| | EMC | EN55032 (CISPR32) Class B. |
| Mechanical Specifications | Dimensions(L*W*H) | 101.6*50.8*32mm |
| | Weight | about 162g |
| Notes | 1. All parameters are measured under the following conditions: rated input voltage of 220V AC, rated load, ambient temperature of 25°C, and humidity of 70%.<br>2. Accuracy: Includes setting error, voltage regulation, and load regulation.<br>3. Ripple testing: Connect the power supply and load with a 30CM twisted pair. The load is connected with a 0.1μF ceramic capacitor and a 47μF capacitor, and measured at the load end using a 20MHz oscilloscope.<br>4. Voltage regulation: Measured with the input voltage varying from low to high under rated load conditions.<br>5. Load regulation: Measured with the output varying from 0% load to 100% load. | |

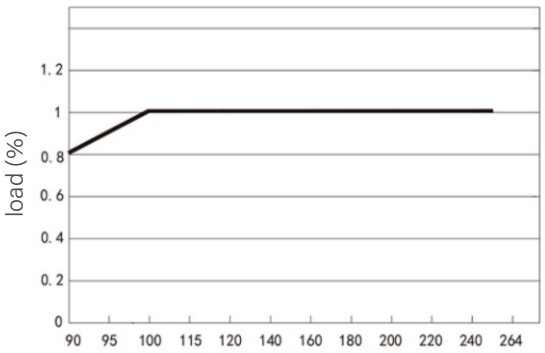
## Product Characteristic Curve

• Derating Curve



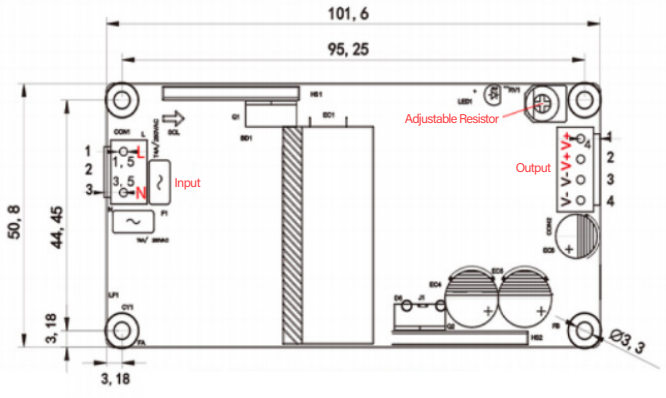

Ambient Temperature (℃)

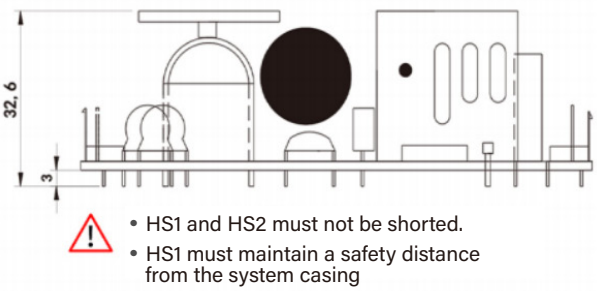
• Static Characteristic Curve




Input Voltage（VAC）60Hz

## Mechanical Dimensions（mm）




- HS1 and HS2 must not be shorted.
- HS1 must maintain a safety distance from the system casing

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