

Industrial DIN rail power supply RPS-120



New

RPS-120: DIN rail power supply for automation systems, in metal cover. They are designed for direct mounting on 35 mm DIN rail mount, EN 50022 (wires connection: input - 2 terminals, output - 4 terminals).


Features of RPS-120:

- AC input range selectable by switch,
- protections: short circuit, overload, overvoltage, overtemperature,
- cooling by free air convection,
- LED indicator for power on,
- 100% full load burn-in test,
- fixed switching frequency at 55 kHz,
- high efficiency and low dissipation,
- low noise and interference,
- 3 years warranty.

Compliance with safety standards: UL508, UL60950-1, TUV EN60950 Approved.

Compliance with EMC standards ①:

- EMI conduction & radiation: EN55011, EN55022 (CISPR22) Class B,
- harmonic current: EN61000-3-2,-3, Class A,
- EMS immunity: EN61000-4-2,3, 4,5,6,8,11, ENV50204, EN61000-6-2 (EN50082-2) Heavy industry level, criteria A.

Recognitions and certifications: 

① The power supply is considered a component which will be installed into a final equipment. The final equipment must be re-confirmed that it still meets EMC directives.



 NEW product

RPS-120-12
RPS-120-24

 Project part - financed by the EUROPEAN UNION
European Regional Development Fund

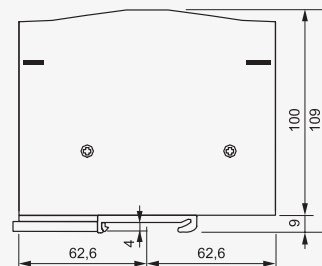
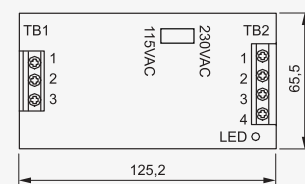
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Type	RPS-120-12	RPS-120-24
Output circuit		
DC voltage	12 V	24 V
Rated current	10 A	5 A
Current range	0...10 A	0...5 A
Rated power	120 W	120 W
Max. ripple & noise ②	80 mVp-p	80 mVp-p
Voltage adjustment range	12...14 V	24...28 V
Voltage tolerance ③	± 2%	± 1%
Line regulation	± 0,5%	± 0,5%
Load regulation	± 1%	± 1%
Setup	500 ms 115 V AC	500 ms 230 V AC
Voltage increase time	70 ms 115 V AC	70 ms 230 V AC
Voltage support time	30 ms 115 V AC ④	30 ms 230 V AC ④
Input circuit		
Voltage range	88...132 V AC / 176...264 V AC change by switch 120...370 V DC	
Frequency range	47...63 Hz	
Efficiency (typical)	80%	84%
AC current	2,8 A 115 V AC 1,7 A 230 V AC	
Max. inrush current	cold start: 30 A 115 V AC 60 A 230 V AC	
Leakage current	< 3,5 mA 240 V AC	
General data		
Protection	105...150% of rated load	
• overload ⑤		
• overvoltage ⑥	15...16,5 V	29...33 V
• overtemperature ⑦	+85 °C ± 5 °C (TSW1)	+90 °C ± 5 °C (TSW1)
Min. insulation resistance	between input and output: 100 MΩ 500 V DC	
Insulation dielectric strength	between input and output: 3 000 V AC between input and ground: 1 500 V AC 1 minute	
Dimensions (L x W x H)	65,5 x 125,2 x 109 mm	
Weight	800 g	
Ambient temperature		
• storage	-20...+85 °C	
• operating ⑧	-10...+60 °C	
Humidity		
• storage	10...95% RH	
• operating	20...90% RH non-condensing	
Temperature impact	± 0,03% / °C 0...+50 °C	
Vibration resistance	2 g 10 min. / 1 cycle, period for 60 min. each along X, Y, Z axes 10...500 Hz	
MTBF	136,8 K hrs min. MIL-HDBK-217F +25 °C	

Dimensions



Terminal Pin No. / Assignment (TB1)

Pin No.	Assignment
1	FG ⊕
2	AC/N
3	AC/L

Terminal Pin No. / Assignment (TB2)

Pin No.	Assignment
1,2	DC OUTPUT +V
3,4	DC OUTPUT -V

All parameters NOT specially mentioned are measured at 230 V AC input, rated load and +25 °C of ambient temperature.

② Ripple & noise are measured at 20 MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0,1 uf & 47 uf parallel capacitor. ③ Tolerance: includes set up tolerance, line regulation and load regulation. ④ At full load.

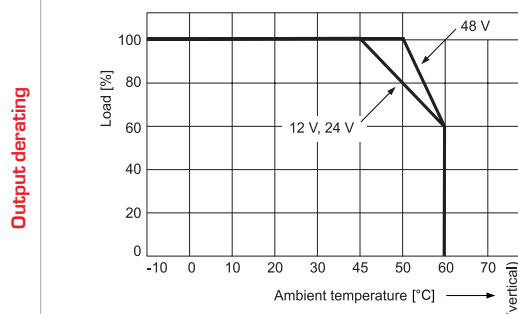
⑤ Protection type: constant current limiting, recovers automatically after fault condition removed.

⑥ Protection type: shut down output voltage, re-power on to recover.

⑦ Protection type: shut down output voltage, recovers automatically after temperature goes down.

⑧ Refer to output load derating curve.

Charts



Static characteristics (output voltage 24 V DC)

