

Industrial DIN rail power supply RPS-30



New

RPS-30: DIN rail power supply for automation systems, in plastic 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-30:

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

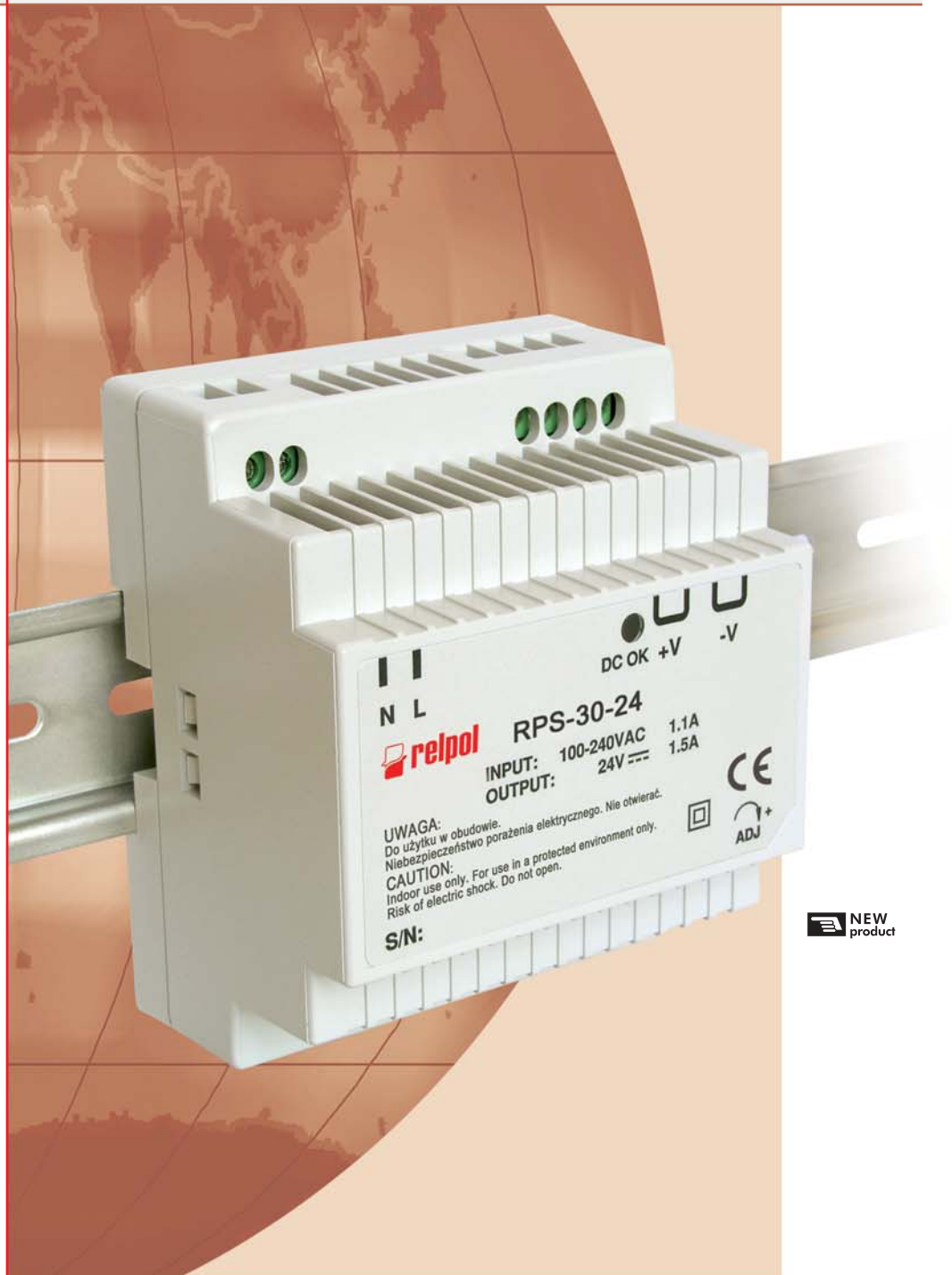
Compliance with safety standards: UL60950-1, TUV EN60950-1 Approved, Design refer to EN50178.

Compliance with EMC standards ①:

- EMI conduction & radiation: EN55011, EN55022 (CISPR22) Class B,
- harmonic current: EN61000-3-2,-3,
- EMS immunity: EN61000-4-2,3, 4,5,6,8,11, ENV50204, EN55024, EN61000-6-2, EN61204-3 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-30-12
RPS-30-24

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

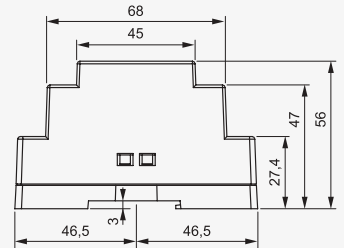
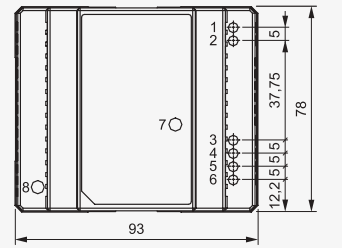
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Type	RPS-30-12	RPS-30-24
Output circuit		
DC voltage	12 V	24 V
Rated current	2 A	1,5 A
Current range	0...2 A	0...1,5 A
Rated power	24 W	36 W
Max. ripple & noise ②	120 mVp-p	150 mVp-p
Voltage adjustment range	10,8...13,2 V	21,6...26,4 V
Voltage tolerance ③	± 1%	± 1%
Line regulation	± 1%	± 1%
Load regulation	± 1%	± 1%
Setup	100 ms 115 V AC	100 ms 230 V AC
Voltage increase time	30 ms 115 V AC	30 ms 230 V AC
Voltage support time	18 ms 115 V AC ④	50 ms 230 V AC ④
Input circuit		
Voltage range	85...264 V AC	120...370 V DC
Frequency range	47...63 Hz	
Efficiency (typical)	81%	83%
AC current	1,1 A 115 V AC	0,6 A 230 V AC
Max. inrush current	cold start: 30 A 115 V AC 40 A 230 V AC	
General data		
Protection	105...155% rated output power	
• overload ⑤	105...155% rated output power	
• overvoltage ⑥	13,8...16,2 V	27,6...32,4 V
Oversvoltage category	isolation Class: II PN-EN 60664-1	
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)	78 x 93 x 56 mm	
Weight	270 g	
Ambient temperature	-40...+85 °C	
• storage	-40...+85 °C	
• operating ⑦	load 100%: -20...+50 °C load 80%: -20...+60 °C	
Humidity	10...95% RH	
• 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	441,5 K hrs min. MIL-HDBK-217F +25 °C	

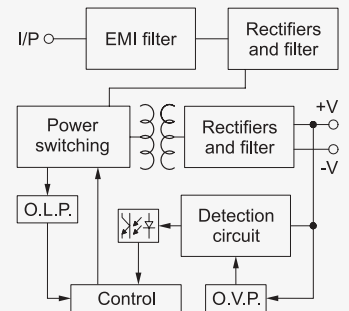
Dimensions



Terminal Pin No. / Assignment

Pin No.	Assignment	Pin No.	Assignment
1	AC/N	5,6	-V
2	AC/L	7	LED
3,4	+V	8	+V ADJ.

Block diagram



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: fold back current limiting, recovers automatically after fault condition is removed.

⑥ Protection type: shut down output voltage, re-power on to recover. ⑦ Refer to output load derating curve.

Chart

