RTU520 product line

Power supply 520PSD01
Data sheet

Characteristics

The power supply unit 520PSD01 has the following characteristics and functions:

- Cooling by natural convection
- Electronic power limitation on outputs
- Short-circuit proof outputs
- Over-voltage protection of the input
- Reverse voltage protection of the input
- No potential isolation between the input and the outputs
- LEDs for monitoring the output voltages

In interaction with the 520CMD01 the input voltage (24 VDC) is passed through to the I/O modules. During power-on the 520CMD01 is switching the 24 V output voltage active for the I/O modules.

Application

The power supply unit 520PSD01 generates or switches the voltages 24 VDC, ±15 VDC and 5 VDC for the RTU520 system. The output power is sufficient to supply RTU520 with up to 16 I/O modules.

The input voltage of the power supply unit is 24 V DC.

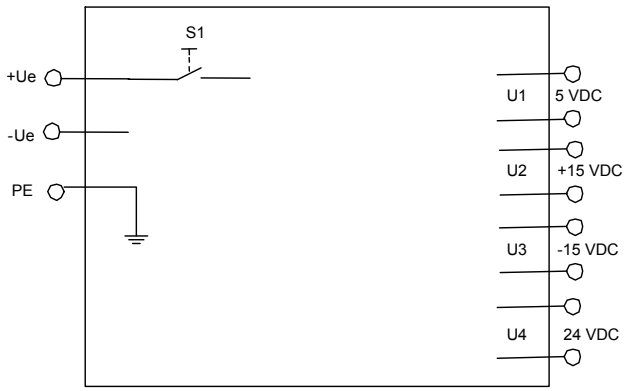

Figure 1: Block diagram 520PSD01

Technical data

In addition to the RTU500 series general technical data, the following applies:

Input	
Input voltage:	24 V DC
Input tolerance range	-20%... +20%
Max. input current	1 A @ 24 V
Starting Current:	< 10 A; 50µs - 1.5ms (Class S1 according to IEC 60870-4)
Efficiency:	85%
Reverse voltage protection	yes

Output	
Total output power	20 W

Output 1	
Voltage	5 VDC
Tolerance	± 5 %
Current max.	1.8 A @ 5 VDC
Residual ripple	≤ 100 mV_{PP}

Output 2, 3	
Voltage	± 15 VDC
Tolerance	± 10 %
Current max.	0.2 A @ 15 VDC
Residual ripple	≤ 200 mV_{PP}

Output 4	
Voltage	24 VDC
Tolerance	± 20 %
Current max.	0.2 A @ 24 VDC
Residual ripple	according to power supply voltage

Mechanical layout	
Dimensions	35 mm x 98 mm x 117 mm (Width x Height x Depth)
Housing type	Plastic housing (V-0), IP20, RAL 7035 light gray
Mounting	DIN rail mounting EN 50022 TS35: 35 mm x 15 mm or 35 mm x 7.5 mm
Weight	0.14 kg

Connection type	
Power supply input	1 x 3 pole 5.08 mm pluggable screw terminals (included in delivery) 0.2... 2.5 mm²/ AWG 24 - AWG 12

Immunity test	
Electrostatic discharge IEC 61000-4-2	8 kV air / 6 kV contact (level 3) Performance criteria A
Radiated Radio-Frequency Electromagnetic Field IEC 61000-4-3	10 V/m (level 3) Performance criteria A
Electrical Fast Transient / Burst IEC 61000-4-4	2 kV (level 3) Performance criteria A
Surge IEC 61000-4-5	4 kV (level 4) Performance criteria A
Conducted Disturbances, induced by Radio-Frequency Fields IEC 61000-4-6	10 V (level 3) Performance criteria A
Damped oscillatory wave IEC 61000-4-18	2.5 / 1 kV (level 3) Performance criteria A

Environmental conditions	
Nominal operating temperature range: Start up: Max. operating temperature, max. 96h: EN 60068-2-1, -2-2, -2-14	-25°C... 70°C -40 °C +85 °C
Relative humidity EN 60068-2-30	5 ... 95 % (non condensing)

Ordering information	
520PSD01 R0001	1KGT031500R0001

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Note:

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