SPS-24/5,0

- industrial 120W power supply
- DIN rail mounting
- class II, double isolation (no Earth connection is required)
- universal AC input voltage range
- full power from -30°C to +50°C
- efficiency > 88.5% @ 230V AC
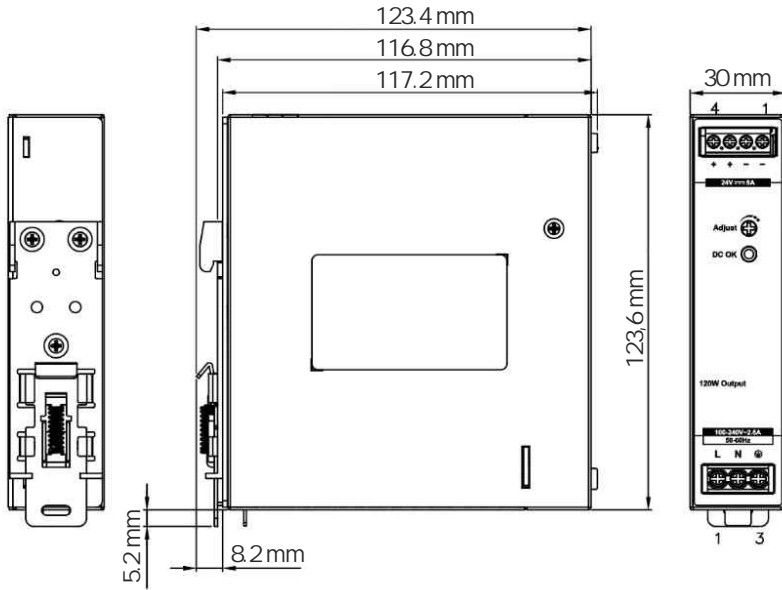- can be installed in compact cabinets
- convection cooling

The SPS-24/5,0 is part of the DIN rail power supply series, which is designed for use in compact cabinets for home automations and the food and beverage industry. DIN rail power supplies offer double isolated input. This means that no Earth connection is required thus resulting in low leakage current. This product provides a universal input voltage range of 90 ÷ 264V AC, and a wide temperature range of -30°C to 70°C. The power supplies are certified to safety standard according to IEC/EN/UL 60950-1, IEC/EN/UL 62368-1 and UL 508. NEC Class 2 and Limited Power Source (LPS) approvals are available for this product.
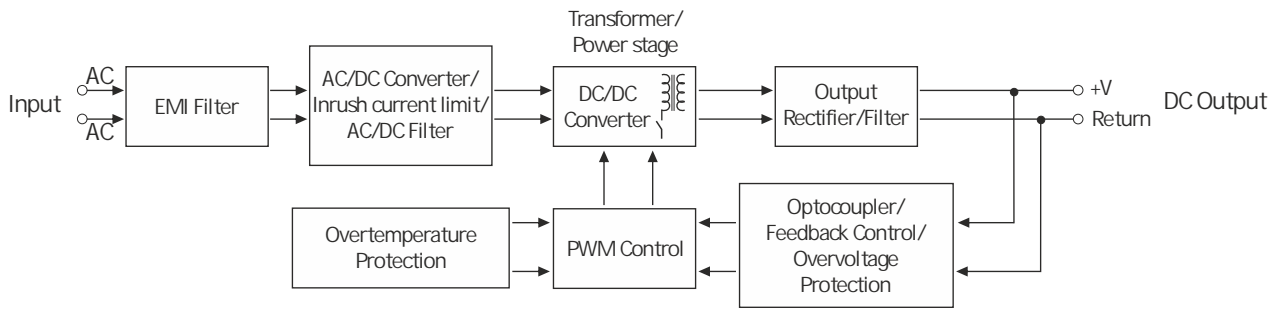
TECHNICAL DATA

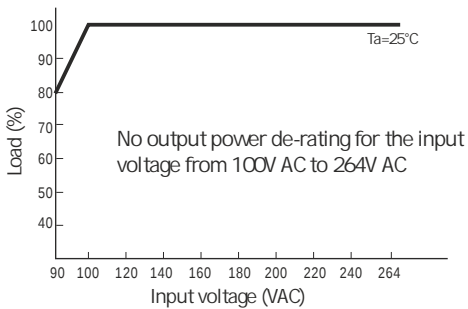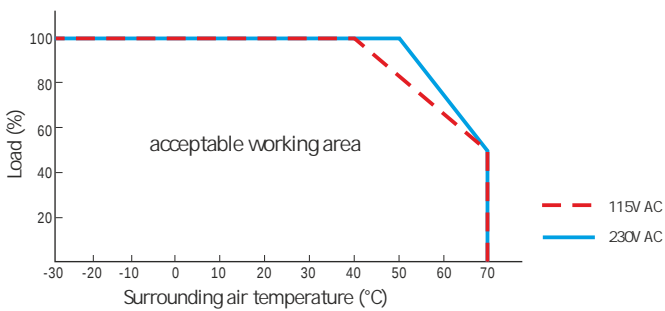|	
Input ratings:	nominal input voltage: 100 ÷ 240V AC (90 ÷ 264V AC) nominal input frequency: 50 ÷ 60 Hz (47 ÷ 63 Hz) input current: < 2.10A @ 115V AC, < 1.30A @ 230V AC efficiency at 100% load: > 88.5% @ 230V AC; 88% @ 115V AC (@ 25%, 50%, 75%, 100% load) max inrush current (cold start): < 35A @ 230V AC leakage current: < 0.50mA @ 240V AC
Output ratings:	nominal output voltage: 24V DC factory set point tolerance: 24V DC ± 1% output current: 5.0A output power: 120W line regulation: < 0.5% @ 115V AC & 230V AC load regulation: < 0.5% (0 ÷ 100% load) rise time: < 30 ms @ nominal input (100% load) start-up time: < 500 ms @ 115V AC & 230V AC hold-up time: > 10 ms @ 115V AC, > 16 ms @ 230V AC (100% load) dynamic response: ± 10% @ 115V AC & 230V AC input, 10 ÷ 100% load
Galvanic isolation	3.0 kV AC (input to output)
Overvoltage	< 33.6 V, over voltage category II
Overload	> 105 ÷ 150% of rated load current, class II protection against shock
Noise	< 25 dBA (1 meter from power supply)
Mounting	standard TS35 DIN rail in accordance with EN 60715
Environment	operating temperature: -30°C ÷ 70°C, storage temperature: -40°C ÷ 85°C, humidity: 20 ÷ 90%, non-condensing
Degree of protection	IP 20
Case cover	SGCC / Aluminum
Dimensions (L x W x D)	123.6 x 30 x 116.8 mm
Weight	450 g

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DIMENSIONS

123.4 mm
116.8 mm
117.2 mm

30 mm

123,6 mm

5.2 mm
8.2 mm

4   1

24V === 5A

Adjust
DC OK

120W Output

100-240V~2.6A
50-60Hz

L   N

1   3

BLOCK DIAGRAM

Input → AC / AC → EMI Filter → AC/DC Converter/ Inrush current limit/ AC/DC Filter → DC/DC Converter (Transformer/ Power stage) → Output Rectifier/Filter → +V / Return → DC Output

Overtemperature Protection → PWM Control ← Optocoupler/ Feedback Control/ Overvoltage Protection

OUTPUT LOAD DE-RATING VS SURROUNDING AIR TEMPERATURE

acceptable working area

- - - 115V AC
——— 230V AC

Load (%)
Surrounding air temperature (°C)

Ta=25°C

No output power de-rating for the input voltage from 100V AC to 264V AC

Load (%)
Input voltage (VAC)

ORDERING

SPS-24/5,0

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SPS-24/5,0.2