

Technical Data



Connection to Mains (ACin)

Input Voltage V_{in} ^g

- Switch at 230V 115V
- Nominal AC 230 V AC115 V
- Frequency 47-63 Hz
- AC continuously 176-264 85-132 V
- DC continuously 210-375 -^f V

Input Current I_{in}

- Nominal < 1.1 A < 2.0 A
- Inrush current < 15 A < 15 A (typ., at cold start)

Power factor (PFC):
Unit does not fulfill EN 61000-3-2

External Fusing
not necessary (internal fuse^d); recommended (for feed lines): 1-pole protective line circuits with C characteristic, fuse value 10A

Connector cables^d

- flexible cable 1.5 ... 4 mm²
- solid cable 1.5 ... 6 mm²
- stripping at cable end 6 mm (maximum!)

Size, Weight

| | |
|----------|-------------------|
| Width w | 65 mm |
| Height h | 125 mm |
| Depth d | 103 mm + DIN rail |
| Weight | 620 g |

Standards, Certifications

The unit fulfills all following standards:

EMC:
EN50081-1 and -2 (Emissions)
EN50082-1 and -2 (Immunity)
VDE 0160/W2 (Transient protect.)

Safety (certifications):
EN 60950, EN 50178,
EN 55011, UL 1950, UL 508,
CUL CSA-C22.2 No. 950-M90,
UL Limited Power Source Class 2

CE-Marking in compliance with EMC directive and low-voltage directive.

Notes:

- unless specified otherwise on the unit
- for <1 minute also permissible at 60 °C
- Single operation, 100 MHz band width, 50Ω measurement
- See supplementary sheet „Installation and Operation“ for further details
- Hiccup mode = Switch-off and periodical restart attempts
- not permissible
- Instructions apply to full nominal load; permitted input voltage for small or medium loads: see „Output“

Output (DCout)

Rated Voltage V_{out} 24 V +5% -1%

- Accuracy of regulation 2 %
- Ripple/Noise^c < 20 mV_{pp}

Permissible Load I_{out} @ $T_{amb} = -10^{\circ}C...+60^{\circ}C$

| AC/DCin | Selector | I _{out} |
|-------------|----------|------------------|
| 176-264 VAC | 230V | 4 A |
| 95-176 VAC | | 3 A |
| 85-132 VAC | 115V | 4 A |
| 210-375 VDC | 230V | 4 A |
| 150-210 VDC | | 3 A |
| 100-150 VDC | | 2 A |

- Unit is a „UL Limited Power Source Class 2“ (P_{out} < 100 W and I_{out} < 8 A)
- Current limitation typ. 4...7.5 A at 60°C (see curve in Fig. 1)
- Overload/Short circuit No switch-off, unit characteristic operation continues
- Derating (T_{amb}=60°-70°C) typ. 3 W/K

Characteristic curve: see Fig. 1
Parallel/serial operation: cf. separate application sheet (available upon request)

Connector cables^d

- flexible cable 1.5 ... 4 mm²
- solid cable 1.5 ... 6 mm²
- stripping at cable end 6 mm (maximum!)

Spacing for cooling

The maximum temperature at side walls must not exceed 90°C (measurement on metal directly). Recommended respective distances:

- left/right 15 mm each
- above/below 25 mm each

Environmental Data

Ambient temperature T_{amb}

- Storage/ Shipment -25°C...+85°C
- Full nominal load -10°C...60°C
- Derated 60°C...70°C

Degree of protection: IP20 (EN60529),
Protect from moisture (also dewing)!

Safety/Protection

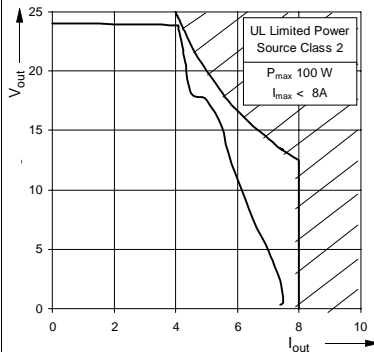
Read safety instructions!
See attached sheet
„Installation and Operation“



Safety and protection

| | |
|---|---|
| • Overvoltage protection (second. side) | ✓ (Hiccup mode ^g) up to typ. 29V |
| • Resistant to overload | ✓ |
| • Resistant to sustained short-circuit | ✓ |
| • Resistant to open-circuit | ✓ |
| • Overtemperature protect. | ✓ (Hiccup mode ^g) up to typ. 26 V T4A (IEC127), terminal L ^d |
| • Power-back immunity | |
| • Internal input fuse | |
| • Protection class | 1 (IEC 536) |
| • Extra low safety potential | SELV (EN60950, VDE 0100 Part 410), PELV (VDE 0160) |

Fig. 1: V_{out} vs. I_{out} (typ.)



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SDN4-24-100

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SDN Series