

Regulated switch power supply, modicon power supply, 1 or 2 phase, 100...240V AC, 24V, 5A

ABL8REM24050

! Discontinued on: Nov 10, 2024

! Discontinued

Main

| Range of product | Modicon Power Supply | |
|-----------------------------|--|--|
| Product or component type | Power supply | |
| Power supply type | Regulated switch mode | |
| Nominal input voltage | 100240 V AC phase to phase, terminal(s): L1-L2 100240 V AC single phase, terminal(s): N-L1 110220 V DC | |
| Rated power in W | 120 W | |
| Output voltage | 24 V DC | |
| Power supply output current | 5 A | |

Complementary

| Input voltage limits | 85264 V AC 100250 V AC | |
|---------------------------|--|--|
| Input protection type | Integrated fuse (not interchangeable) | |
| Inrush current | 30 A | |
| Power factor | 0.65 at 24 V DC | |
| Efficiency | 85 % | |
| Output voltage adjustment | 100120 % adjustable | |
| Power dissipation in W | 21.2 W | |
| Current consumption | 1.2 A 240 V AC 1.9 A 100 V AC | |
| Output protection type | Against overload, protection technology: 1.1 x ln Against overvoltage, protection technology: tripping if U > 1.5 x Un Against short-circuits, protection technology: automatic reset Against undervoltage, protection technology: tripping if U < 0.8 x Un | |
| Connections - terminals | Screw type terminals: 2 x 0.142 x 2.5 mm², (AWG 26AWG 14) for input connection Screw type terminals: 4 x 0.144 x 2.5 mm², (AWG 26AWG 14) for output connection Screw type terminals: 1 x 0.141 x 2.5 mm², (AWG 26AWG 14) for input ground connection Screw type terminals: 2 x 0.142 x 2.5 mm², (AWG 26AWG 14) for output ground connection | |
| Status LED | 1 LED (green) output voltage 1 LED (orange) input voltage | |
| Depth | 120 mm | |
| Height | 120 mm | |
| Width | 54 mm | |

Price is "List Price" and may be subject to a trade discount – check with your local distributor or retailer for actual price.

| Net weight | 1 kg |
|---------------------|--|
| Output coupling | Series Parallel |
| Marking | CE |
| Mounting support | 35 x 15 mm symmetrical DIN rail 75 x 7.5 mm symmetrical DIN rail 35 x 7.5 mm symmetrical DIN rail |
| Operating position | Vertical |
| Supply | SELV conforming to IEC 60950-1 SELV conforming to IEC 60204-1 SELV conforming to IEC 60364-4-41 |
| Dielectric strength | 3000 V with between input and ground 3000 V with between input and output 500 V with between output and ground 500 V with between outputs |

Environment

| Standards | UL 508 CSA C22.2 No 60950-1 EN/IEC 62368-1 | |
|---------------------------------------|--|--|
| Product certifications | RCM EAC KC CCSAus UL | |
| Environmental characteristic | EMC conforming to EN 50081-1 EMC conforming to EN 50082-2 EMC conforming to EN 55024 Safety conforming to EN/IEC 60950 | |
| Operating altitude | 2000 m | |
| IP degree of protection | IP20 conforming to IEC 60529 | |
| Ambient air temperature for operation | 050 °C without derating mounting position A < 2000 m 5060 °C with derating factor mounting position A < 2000 m | |

Packing Units

| Unit Type of Package 1 | PCE |
|------------------------------|---------|
| Number of Units in Package 1 | 1 |
| Package 1 Height | 6.7 cm |
| Package 1 Width | 13.3 cm |
| Package 1 Length | 14.5 cm |
| Package 1 Weight | 803 g |

Contractual warranty

Warranty 18 months



Schneider Electric aims to achieve Net Zero status by 2050 through supply chain partnerships, lower impact materials, and circularity via our ongoing "Use Better, Use Longer, Use Again" campaign to extend product lifetimes and recyclability.

Environmental Data explained >

How we assess product sustainability >

∅ Environmental footprint

Environmental Disclosure

Product Environmental Profile

Use Better

| ⊗ Materials and Substances | |
|-----------------------------------|--|
| EU RoHS Directive | Pro-active compliance (Product out of EU RoHS legal scope) |
| SCIP Number | Fe64e454-324e-4d95-961c-5ccceb461cf0 |
| PVC free | Yes |

Use Again

| ○ Repack and remanufacture | |
|----------------------------|-------------------------|
| Circularity Profile | End of Life Information |

Product datasheet

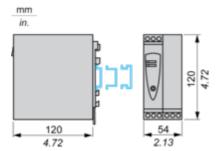
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Dimensions Drawings

Regulated Switch Mode Power Supply

Dimensions and Mounting

Mounting on 35 mm/1.37 in. or 75 mm/2.95 in. Rail



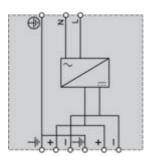
Product datasheet

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Connections and Schema

Regulated Switch Mode Power Supply

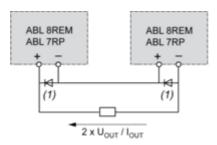
Internal Wiring Diagram



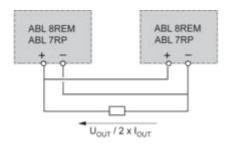
Regulated Switch Mode Power Supplies

Series or Parallel Connection

Series Connection



(1) Two Shottky diodes Imin = power supply In and Vmin = 50 V Parallel Connection



| Family | Series | Parallel |
|--------------|-----------------|-----------------|
| ABL 8REM/7RP | 2 products max. | 2 products max. |

NOTE: Series or parallel connection is only recommended for products with identical references.

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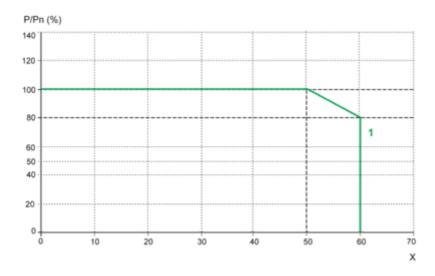
Performance Curves

Regulated Switch Mode Power Supplies

Derating

The ambient temperature is a determining factor that limits the power an electronic power supply can deliver continuously. If the temperature around the electronic components is too high, their life will be significantly reduced. The nominal ambient temperature for the Optimum range of Phaseo power supplies is 50 °C. Above this temperature, derating is necessary up to a maximum temperature of 60 °C.

The graph below shows the power as a percentage of the nominal power that the power supply can deliver continuously, depending on the ambient temperature.



X Maximum operating temperature (°C)

(1) ABL 8REM, ABL 7RP mounted vertically

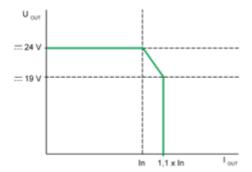
Derating should be considered in extreme operating conditions:

- Intensive operation (output current permanently close to the nominal current, combined with a high ambient temperature)
- Output voltage set above 24 Vdc (to compensate for line voltage drops, for example)
- Parallel connection to increase the total power

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Regulated Switch Mode Power Supply

Load Limit



Product datasheet

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Regulated Switch Mode Power Supply

Temporary Overloads

