

# Product datasheet

Specifications



Regulated switch power supply, modicon power supply, with auto reset, 1 or 2 phase, 100...240V AC, 24V, 2.5A

ABL7RM24025

! Discontinued

! Discontinued on: Nov 12, 2020 AD

## Main

|                             |                                                                                                     |
|-----------------------------|-----------------------------------------------------------------------------------------------------|
| Range of product            | Modicon Power Supply                                                                                |
| Product or component type   | Power supply                                                                                        |
| Power supply type           | Regulated switch mode                                                                               |
| Nominal input voltage       | 100...240 V AC phase to phase, terminal(s): L1-L2<br>100...240 V AC single phase, terminal(s): N-L1 |
| Rated power in W            | 60 W                                                                                                |
| Output voltage              | 24 V DC                                                                                             |
| Power supply output current | 2.5 A                                                                                               |
| Anti-harmonic filter        | Low frequency harmonic currents                                                                     |

## Complementary

|                           |                                                                                                                                                                                                         |
|---------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Input voltage limits      | 85...264 V AC                                                                                                                                                                                           |
| Input protection type     | Integrated fuse (not interchangeable)                                                                                                                                                                   |
| Inrush current            | 90 A                                                                                                                                                                                                    |
| Power factor              | 0.5 at 24 V DC                                                                                                                                                                                          |
| Efficiency                | 84 %                                                                                                                                                                                                    |
| Output voltage adjustment | 22.2...28.8 V adjustable                                                                                                                                                                                |
| Power dissipation in W    | 11.4 W                                                                                                                                                                                                  |
| Current consumption       | 0.7 A 240 V AC                                                                                                                                                                                          |
| Provided equipment        | Power factor correction filter conforming to IEC 61000-3-2                                                                                                                                              |
| Residual ripple           | 200 mV                                                                                                                                                                                                  |
| Output protection type    | Against undervoltage, protection technology: tripping if $U < 19\text{ V}$<br>Against short-circuits                                                                                                    |
| Connections - terminals   | Screw type terminals: 2 x 0.14...2 x 2.5 mm <sup>2</sup> , (AWG 26...AWG 14) for input connection<br>Screw type terminals: 4 x 0.14...4 x 2.5 mm <sup>2</sup> , (AWG 26...AWG 14) for output connection |
| Status LED                | 1 LED (green) output voltage                                                                                                                                                                            |
| Depth                     | 59 mm                                                                                                                                                                                                   |
| Height                    | 100 mm                                                                                                                                                                                                  |
| width                     | 74 mm                                                                                                                                                                                                   |
| Net weight                | 0.255 kg                                                                                                                                                                                                |

Disclaimer: This documentation is not intended as a substitute for and is not to be used for determining suitability or reliability of these products for specific user applications

|                     |                                                                                                        |
|---------------------|--------------------------------------------------------------------------------------------------------|
| Output coupling     | Series<br>Parallel                                                                                     |
| Marking             | CE                                                                                                     |
| Mounting support    | 35 x 7.5 mm symmetrical DIN rail<br>panel 2 screws, diameter : 4 mm<br>35 x 15 mm symmetrical DIN rail |
| Operating position  | Vertical                                                                                               |
| Supply              | SELV conforming to IEC 60950-1<br>SELV conforming to IEC 60204-1<br>SELV conforming to IEC 60364-4-41  |
| Dielectric strength | 3000 V with between input and output                                                                   |

## Environment

|                                       |                                                                                                                                                                                  |
|---------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Standards                             | CSA C22.2 No 60950-1<br>UL 508<br>EN/IEC 62368-1                                                                                                                                 |
| Product certifications                | EAC<br>CULus 508<br>TUV 60950-1<br>RCM<br>KC                                                                                                                                     |
| Environmental characteristic          | EMC conforming to EN 55022 class B<br>EMC conforming to IEC 61000-6-3<br>EMC conforming to IEC 61000-6-2<br>EMC conforming to EN/IEC 61204-3<br>Safety conforming to IEC 60950-1 |
| Operating altitude                    | 2000 m                                                                                                                                                                           |
| IP degree of protection               | IP20 conforming to IEC 60529                                                                                                                                                     |
| Ambient air temperature for operation | -25...55 °C without derating mounting position A < 2000 m<br>55...70 °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             | 6.8 cm  |
| Package 1 Width              | 8.3 cm  |
| Package 1 Length             | 10.8 cm |
| Package 1 Weight             | 318 g   |

## Contractual warranty

|          |           |
|----------|-----------|
| Warranty | 18 months |
|----------|-----------|

# Environmental Data

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.

How this information helps you >

## 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)

China RoHS Regulation

[China RoHS declaration](#)

PVC free

Yes

## Use Again

### Repack and remanufacture

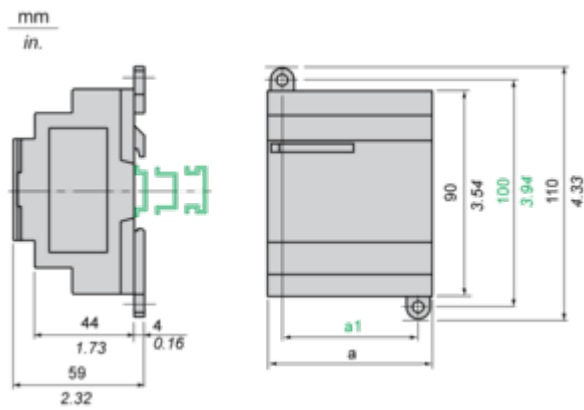
Circularity Profile

[End of Life Information](#)

Dimensions Drawings

Regulated Switch Mode Power Supplies

Dimensions



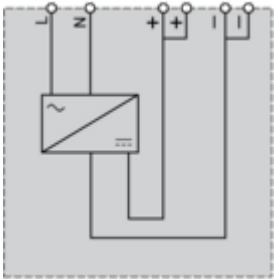
|              | a in mm | a in in. | a1 in mm | a1 in in. |
|--------------|---------|----------|----------|-----------|
| ABL8MEM05040 | 54      | 2.12     | 42       | 1.65      |
| ABL8MEM12020 | 54      | 2.12     | 42       | 1.65      |
| ABL8MEM24003 | 36      | 1.41     | 24       | 0.94      |
| ABL8MEM24006 | 36      | 1.41     | 24       | 0.94      |
| ABL8MEM24012 | 54      | 2.12     | 42       | 1.65      |
| ABL7RM24025  | 74      | 2.91     | 60       | 2.36      |

Connections and Schema

Regulated Switch Mode Power Supply

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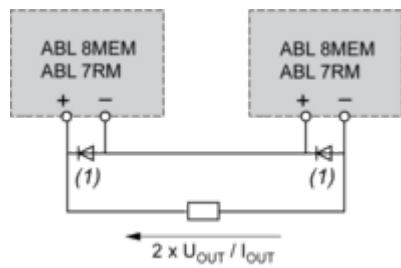
Internal Wiring Diagram



Regulated Switch Mode Power Supplies

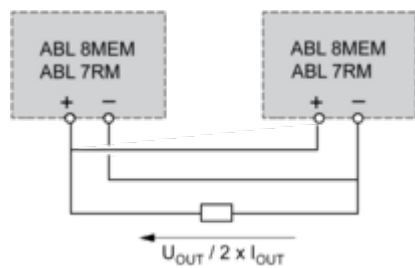
Series or Parallel Connection

Series Connection



(1) Two Shottky diodes  $I_{min}$  = power supply  $I_n$  and  $V_{min}$  = 50 V

Parallel Connection



| Family       | Series          | Parallel        |
|--------------|-----------------|-----------------|
| ABL 7RM/8MEM | 2 products max. | 2 products max. |

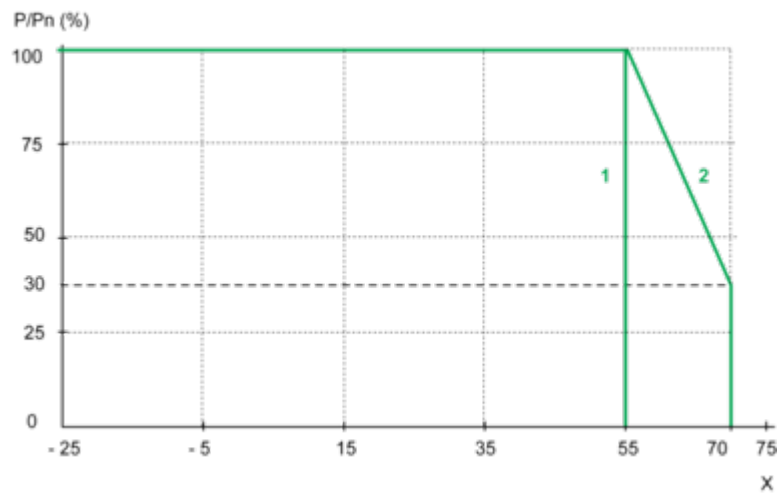
**NOTE:** Series or parallel connection is only recommended for products with identical references.

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 Modular range of Phaseo power supplies is 55°C. Above this temperature, derating is necessary up to a maximum temperature of 70°C (except for the ABL7RM24025 model). 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) With an ABL7RM24025
- (2) With an ABL8MEM.....