

# Product data sheet

## Characteristics

# ABL8REM24030

regulated SMPS - 1 or 2-phase - 100..240 V  
AC - 24 V - 3 A



Local distributor code: 389706685  
EAN Code: 3389119405584



### 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<br>110...220 V DC |
| Rated power in W            | 72 W  |
| Output voltage              | 24 V DC   |
| Power supply output current | 3 A   |

### Complementary

|                           |  |
|---------------------------|--|
| Input voltage limits      | 85...264 V AC<br>100...250 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 | 100...120 % adjustable   |
| Power dissipation in W    | 12.7 W   |
| Current consumption       | 0.83 A 240 V AC<br>1.46 A 100 V AC   |
| Output protection type    | Against overload, protection technology: $1.1 \times I_n$<br>Against overvoltage, protection technology: tripping if $U > 1.5 \times U_n$<br>Against short-circuits, protection technology: automatic reset<br>Against undervoltage, protection technology: tripping if $U < 0.8 \times U_n$   |
| Connections - terminals   | Screw type terminals: $2 \times 0.14...2 \times 2.5 \text{ mm}^2$ , (AWG 26...AWG 14) for input connection<br>Screw type terminals: $1 \times 0.14...1 \times 2.5 \text{ mm}^2$ , (AWG 26...AWG 14) for input ground connection<br>Screw type terminals: $2 \times 0.14...2 \times 2.5 \text{ mm}^2$ , (AWG 26...AWG 14) for output connection<br>Screw type terminals: $1 \times 0.14...1 \times 2.5 \text{ mm}^2$ , (AWG 26...AWG 14) for output ground connection |
| Status LED                | 1 LED (green) output voltage<br>1 LED (orange) input voltage   |
| Depth                     | 120 mm   |
| Height                    | 120 mm   |
| Width                     | 27 mm  |
| Net weight                | 0.52 kg  |
| Output coupling           | Parallel<br>Series   |
| Marking                   | CE   |
| Mounting support          | 35 x 15 mm symmetrical DIN rail<br>35 x 7.5 mm symmetrical DIN rail<br>75 x 7.5 mm symmetrical DIN rail  |

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|                     |  |
|---------------------|--|
| Operating position  | Vertical   |
| Supply              | SELV conforming to EN/IEC 60950-1<br>SELV conforming to EN/IEC 60204-1<br>SELV conforming to IEC 60364-4-41  |
| Dielectric strength | 3000 V with between input and ground<br>3000 V with between input and output<br>500 V with between output and ground<br>500 V with between outputs |

## Environment

|                                       |   |
|---------------------------------------|---|
| Standards                             | UL 508<br>CSA C22.2 No 60950-1<br>EN/IEC 62368-1  |
| Product certifications                | CSA 22-2 No 950[RETURN]EAC[RETURN]RCM[RETURN]KC[RETURN]UL   |
| Environmental characteristic          | EMC conforming to EN 50081-1<br>EMC conforming to EN 50082-2<br>EMC conforming to EN 55024<br>Safety conforming to EN/IEC 60950 |
| Operating altitude                    | 2000 m  |
| IP degree of protection               | IP20 conforming to EN/IEC 60529   |
| Ambient air temperature for operation | 0...50 °C without derating mounting position A < 2000 m<br>50...60 °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             | 4.1 cm  |
| Package 1 Width              | 13.8 cm |
| Package 1 Length             | 14.7 cm |
| Package 1 Weight             | 280 g   |

## Offer Sustainability

|                            |   |
|----------------------------|---|
| Sustainable offer status   | Green Premium product   |
| REACH Regulation           |  <a href="#">REACH Declaration</a>             |
| EU RoHS Directive          | Pro-active compliance (Product out of EU RoHS legal scope)  |
| Mercury free               | Yes   |
| China RoHS Regulation      |  <a href="#">China RoHS Declaration</a>        |
| RoHS exemption information |  <a href="#">Yes</a>                           |
| Environmental Disclosure   |  <a href="#">Product Environmental Profile</a> |
| Circularity Profile        |  <a href="#">End Of Life Information</a>       |
| PVC free                   | Yes   |

## Contractual warranty

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

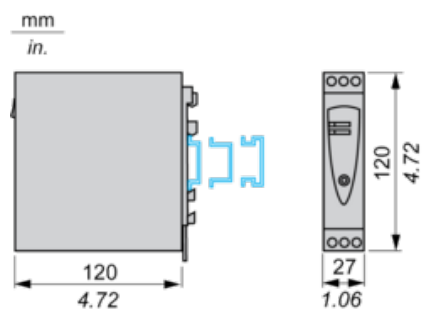
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Regulated Switch Mode Power Supply

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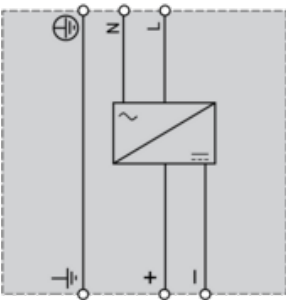
Dimensions and Mounting

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



Regulated Switch Mode Power Supply

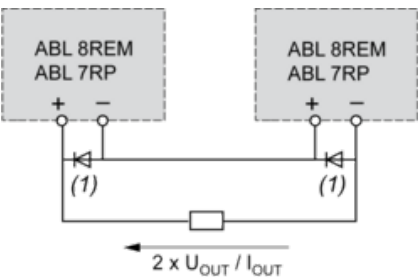
Internal Wiring Diagram



Regulated Switch Mode Power Supplies

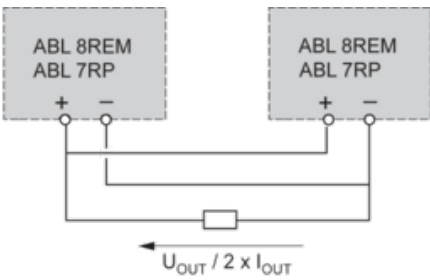
Series or Parallel Connection

Series Connection



(1) Two Schottky diodes I<sub>min</sub> = power supply I<sub>n</sub> and V<sub>min</sub> = 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.

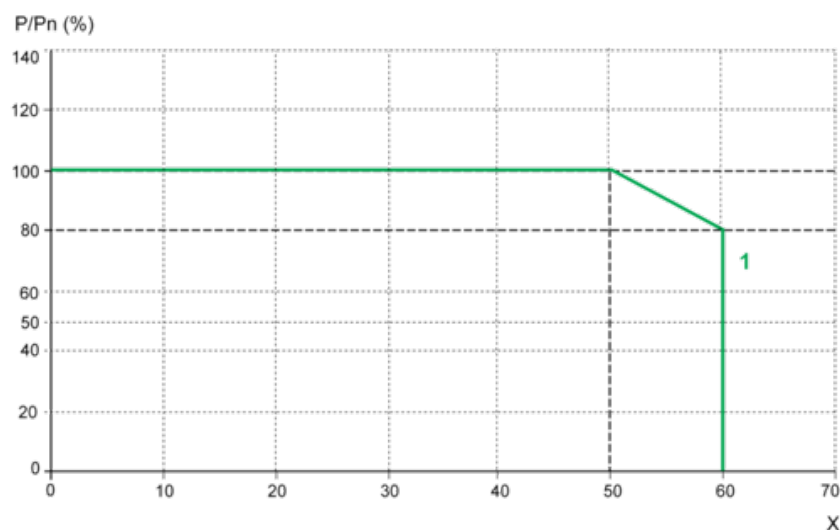
## Regulated Switch Mode Power Supplies

### 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)

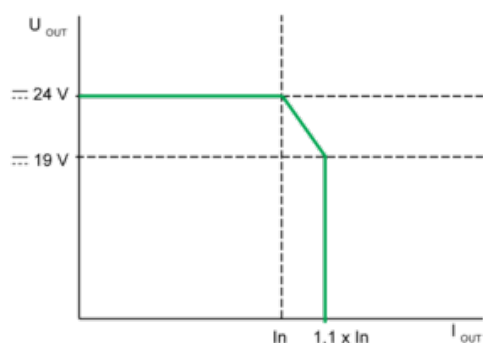
(1) ABL 8REM, ABL 7RP mounted vertically

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

## Regulated Switch Mode Power Supply

### Load Limit



## Regulated Switch Mode Power Supply

## Temporary Overloads

