



### Main

|                                       |   |
|---------------------------------------|---|
| Range of product                      | Phaseo  |
| Product or component type             | Power supply  |
| Power supply type                     | Regulated switch mode   |
| Input voltage                         | 100...240 V AC phase to phase, terminal(s): L1-L2<br>100...240 V AC single phase, terminal(s): N-L1 |
| Output voltage                        | 24 V DC   |
| Rated power in W                      | 60 W  |
| Provided equipment                    | Power factor correction filter conforming to IEC 61000-3-2  |
| Input protection type                 | Integrated fuse (not interchangeable)   |
| Power supply output current           | 2.5 A   |
| Output protection type                | Against short-circuits<br>Against undervoltage, protection technology: tripping if $U < 19$ V       |
| Ambient air temperature for operation | -25...55 °C without<br>55...70 °C with  |

### Complementary

|                          |   |
|--------------------------|---|
| Input voltage limits     | 170...264 V   |
| Network frequency        | 47...63 Hz  |
| Inrush current           | $\leq 90$ A for 1 ms  |
| Cos phi                  | $> 0.5$   |
| Efficiency               | 84 %  |
| Output voltage limits    | 22.2...28.8 V adjustable  |
| Power dissipation in W   | 11.4 W  |
| Current consumption      | 0.7 A at 240 V  |
| Line and load regulation | $\pm 3$ %   |
| Residual ripple          | 200 mV  |
| Holding time             | $\geq 150$ ms at 230 V  |
| Connections - terminals  | Screw type terminals for input connection, connection capacity: $2 \times 0.14...2 \times 2.5$ mm <sup>2</sup> AWG 26...AWG 14<br>Screw type terminals for output connection, connection capacity: $4 \times 0.14...4 \times 2.5$ mm <sup>2</sup> AWG 26...AWG 14 |
| Marking                  | CE  |
| Mounting support         | 35 x 15 mm symmetrical DIN rail   |

|                      |  |
|----------------------|--|
|                      | 35 x 7.5 mm symmetrical DIN rail<br>Panel 2 screws, diameter : 4 mm  |
| Operating position   | Vertical   |
| Operating altitude   | 2000 m   |
| Output coupling      | Parallel<br>Series   |
| Name of test         | Harmonic current emission conforming to EN/IEC 61000-3-2<br>Conducted emissions on the power line conforming to EN 55022 Class B<br>Electrostatic discharges conforming to EN/IEC 61000-4-2<br>Emission conforming to EN 50081-1<br>Induced electromagnetic field conforming to EN/IEC 61000-4-6<br>Primary outage conforming to IEC 61000-4-11<br>Radiated electromagnetic field conforming to EN/IEC 61000-4-3<br>Radiated emissions conforming to EN 55022 Class B<br>Rapid transient conforming to IEC 61000-4-4<br>Surge conforming to EN/IEC 61000-4-5 |
| Status LED           | 1 LED green for output voltage   |
| Depth                | 59 mm  |
| Height               | 100 mm   |
| Width                | 74 mm  |
| Product weight       | 0.255 kg   |
| Anti-harmonic filter | Low frequency harmonic currents  |
| Compatibility code   | ABL7R  |

## Environment

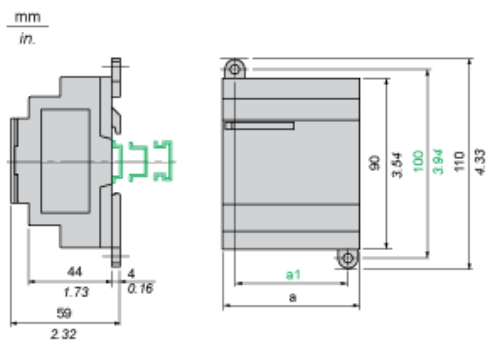
|                                     |  |
|-------------------------------------|--|
| Product certifications              | EAC<br>KC  |
| Standards                           | UL 508<br>CSA C22.2 No 60950-1   |
| Environmental characteristic        | EMC conforming to EN 55022 Class B<br>EMC conforming to EN 61000-6-3<br>EMC conforming to EN/IEC 61000-6-2<br>EMC conforming to EN/IEC 61204-3<br>Safety conforming to EN/IEC 60950-1<br>Safety conforming to SELV |
| IP degree of protection             | IP20 conforming to EN/IEC 60529  |
| Ambient air temperature for storage | -40...70 °C  |
| Relative humidity                   | 0...90 % during operation<br>0...95 % in storage   |
| Overvoltage category                | Class II conforming to VDE 0106-1  |
| Dielectric strength                 | Between input and output   |

## Contractual warranty

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

Regulated Switch Mode Power Supplies

Dimensions



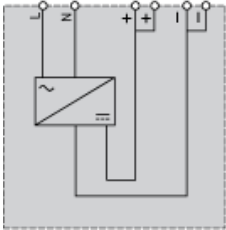
|              | a in mm | a in in. | a1 in mm | a1 in in. |
|--------------|---------|----------|----------|-----------|
| ABL8MEM05040 | 54      | 2.12     | 42       | 1.65      |
| ABL8MEM12020 | 54      | 2.12     | 42       | 1.65      |
| ABL8MEM24003 | 36      | 1.41     | 24       | 0.94   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

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Regulated Switch Mode Power Supply

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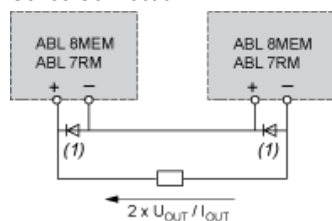
Internal Wiring Diagram



Regulated Switch Mode Power Supplies

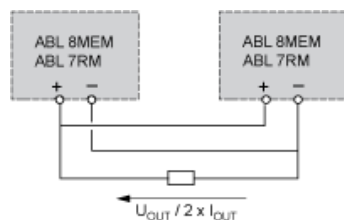
Series or Parallel Connection

Series Connection



(1) Two Schottky 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. |

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

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Regulated Switch Mode Power Supplies

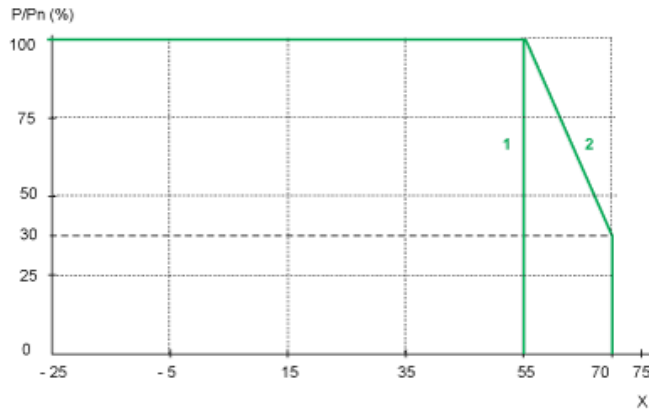
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Derating

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•••••