



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 100...240 V AC single phase, terminal(s): N-L1 120...250 V DC |
| Output voltage | 24 V DC |
| Rated power in W | 30 W |
| Input protection type | Integrated fuse (not interchangeable) |
| Power supply output current | 1.2 A |
| Output protection type | Against short-circuits |
| Ambient air temperature for operation | -25...55 °C (without) 55...70 °C (with derating factor) |

Complementary

| | |
|--------------------------|---|
| Input voltage limits | 85...264 V |
| Network frequency | 47...63 Hz |
| Inrush current | 20 A |
| Cos phi | 0.5 |
| Efficiency | 82 % |
| Output voltage limits | 22.2...28.8 V adjustable |
| Power dissipation in W | 6.6 W |
| Current consumption | 0.4 A at 240 V 0.65 A at 100 V |
| Line and load regulation | +/- 3 % |
| Residual ripple | 250 mV |
| Holding time | >= 10 ms at 100 V >= 150 ms at 230 V |

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

| | |
|-------------------------|--|
| Connections - terminals | For input connection: screw type terminals, connection capacity: 2 x 0.14...2 x 2.5 mm ² AWG 26...AWG 14 For output connection: screw type terminals, connection capacity: 4 x 0.14...4 x 2.5 mm ² AWG 26...AWG 14 |
| Marking | CE |
| Mounting support | 35 x 7.5 mm symmetrical DIN rail Panel 2 screws, diameter : 4 mm 35 x 15 mm symmetrical DIN rail |
| Operating position | Vertical |
| Operating altitude | 2000 m |
| Output coupling | Parallel Series |
| Name of test | Electrostatic discharges conforming to EN/IEC 61000-4-2 Induced electromagnetic field conforming to EN/IEC 61000-4-6 Primary outage conforming to IEC 61000-4-11 Radiated electromagnetic field conforming to EN/IEC 61000-4-3 Rapid transient conforming to IEC 61000-4-4 Surge conforming to EN/IEC 61000-4-5 Conducted emissions on the power line conforming to EN 55022 class B Emission conforming to EN 50081-1 Radiated emissions conforming to EN 55022 class B Harmonic current emission conforming to EN/IEC 61000-3-2 |
| Status LED | 1 LED (green)output voltage: |
| Depth | 59 mm |
| Height | 100 mm |
| Width | 54 mm |
| Product weight | 0.195 kg |

Environment

| | |
|-------------------------------------|--|
| MTBF reliability | 406032 H with MIL-HDBK-217F calculation method |
| Product certifications | TUV 60950-1 EAC RCM KC CCSAus CSA 22-2 No 950 CULus 508 |
| Standards | UL 508 CSA C22.2 No 60950-1 |
| Environmental characteristic | EMC conforming to EN 55022 class B EMC conforming to EN 61000-6-3 EMC conforming to EN/IEC 61000-6-2 EMC conforming to EN/IEC 61204-3 Safety conforming to EN/IEC 60950-1 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 0...95 % in storage |
| Overvoltage category | Class II conforming to VDE 0106-1 |
| Dielectric strength | 3000 V between input and output |

Offer Sustainability

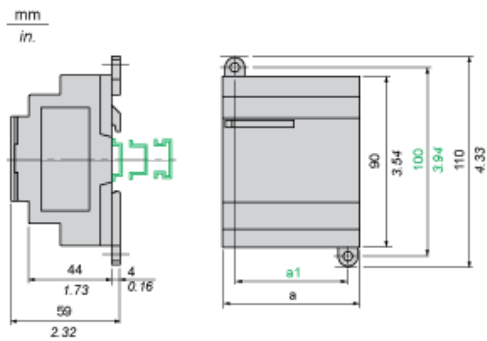
| | |
|----------------------------|---|
| Sustainable offer status | Green Premium product |
| REACH Regulation | REACH Declaration |
| EU RoHS Directive | Pro-active compliance (Product out of EU RoHS legal scope) EU RoHS Declaration |
| Mercury free | Yes |
| RoHS exemption information | Yes |
| China RoHS Regulation | China RoHS declaration |
| Circularity Profile | End of Life Information |

Contractual warranty

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

Regulated Switch Mode Power Supplies

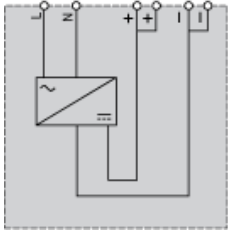
Dimensions



| | 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 |

Regulated Switch Mode Power Supply

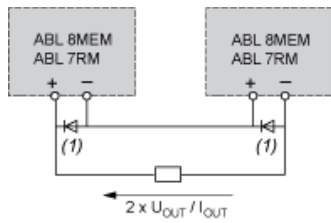
Internal Wiring Diagram



Regulated Switch Mode Power Supplies

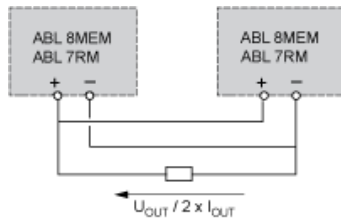
Series or Parallel Connection

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. |

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

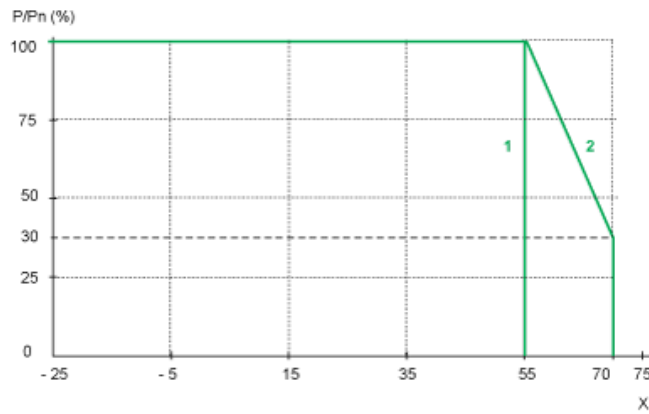
Regulated Switch Mode Power Supplies

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 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*****