Product datasheet Characteristics

ABL8MEM05040

regulated SMPS - 1 or 2-phase - 100..240 V AC -5 V - 4 A



Main

| Main | |
|---------------------------------------|--|
| Range of product | Phaseo |
| Product or component type | Power supply |
| Power supply type | Regulated switch mode |
| Input voltage | 100240 V AC phase to phase, terminal(s): L1-L2 100240 V AC single phase, terminal(s): N-L1 120250 V DC |
| Output voltage | 5 V DC |
| Rated power in W | 20 W |
| Input protection type | Integrated fuse (not interchangeable) |
| Power supply output current | 4 A |
| Output protection type | Against short-circuits |
| Ambient air temperature for operation | -2555 °C without 5570 °C with |
| | |

Complementary

| Phaseo |
|--|
| Power supply |
| Regulated switch mode |
| 100240 V AC phase to phase, terminal(s): L1-L2 100240 V AC single phase, terminal(s): N-L1 120250 V DC |
| 5 V DC |
| 20 W |
| Integrated fuse (not interchangeable) |
| 4 A |
| Against short-circuits |
| -2555 °C without 5570 °C with |
| |
| 85264 V |
| 4763 Hz |
| <= 20 A |
| > 0.5 |
| > 75 % |
| 4.756.25 V adjustable |
| 6.7 W |
| 0.35 A at 240 V 0.55 A at 100 V |
| +/- 3 % |
| 250 mV |
| >= 10 ms at 100 V |
| Screw type terminals for input connection, connection capacity: 2 x 0.142 x 2.5 mm² AWG 26AWG 14 |
| |

| | Screw type terminals for output connection, connection capacity: 4 x 0.144 x 2.5 mm² AWG 26AWG 14 | |
|------------------------------|---|--|
| Marking | CE | |
| Mounting support | 35 x 7.5 mm symmetrical DIN rail 35 x 15 mm symmetrical DIN rail Panel 2 screws, diameter : 4 mm | |
| Operating position | Vertical | |
| Operating altitude | 2000 m | |
| Output coupling | Series Parallel | |
| Name of test | Harmonic current emission conforming to EN/IEC 61000-3-2 Conducted emissions on the power line conforming to EN 55022 Class B Electrostatic discharges conforming to EN/IEC 61000-4-2 Emission conforming to EN 50081-1 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 Radiated emissions conforming to EN 55022 Class B Rapid transient conforming to IEC 61000-4-4 Surge conforming to EN/IEC 61000-4-5 | |
| Status LED | 1 LED green for output voltage | |
| Depth | 59 mm | |
| Height | 100 mm | |
| Width | 54 mm | |
| Product weight | 0.195 kg | |
| Environment | | |
| Product certifications | EAC KC TUV 60950-1 RCM | |
| Standards | CSA C22.2 No 60950-1 UL 508 | |
| 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 | |
| | | |

| Con | tractual | l warranty | V |
|-----|----------|------------|---|
| | | | |

IP degree of protection

Relative humidity

Overvoltage category

Dielectric strength

Ambient air temperature for storage

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

IP20 conforming to EN/IEC 60529

Class II conforming to VDE 0106-1

0...90 % during operation 0...95 % in storage

Between input and output

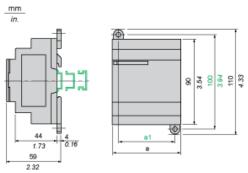
-40...70 °C

Product datasheet Dimensions Drawings

ABL8MEM05040

Regulated Switch Mode Power Supplies

Dimensions



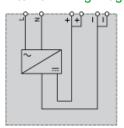
| | a in mm | a in in. | a1 in mm | a1 in in. |
|--------------|---------|----------|----------|-----------|
| ABL8MEM05040 | 54 | 2.12 | 42 | 1.65 |
| ABL8MEM12020 | 54 | 2.12 | 42 | 1.65 |
| ABL8MEM24003 | 36 | 1.41 | 24 | 0.94 |
| ABL8MEM24006 | 36 | 1.41 | 24 | 0.94 |
| ABL8MEM24012 | 54 | 2.12 |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

Product datasheet Connections and Schema

ABL8MEM05040

Regulated Switch Mode Power Supply

Internal Wiring Diagram

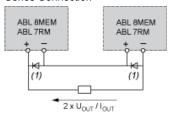


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Regulated Switch Mode Power Supplies

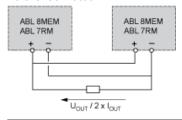
Series or Parallel Connection

Series Connection



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

Parallel Connection



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

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

Product datasheet Performance Curves

ABL8MEM05040

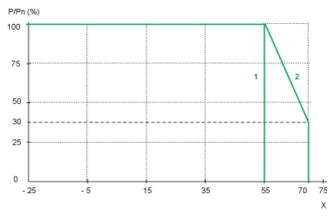
Regulated Switch Mode Power Supplies

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•••••