### Product data sheet Characteristics

## ABL8MEM12020

Regulated switch power supply, modicon power supply, 1 or 2 phase, 100...240V AC, 12V, 2A





### Mair

| Main                        |  |  |  |
|-----------------------------|--|--|--|
| Range of product            | Modicon Power Supply   |  |  |
| Product or component type   | Power supply   |  |  |
| Power supply type           | Regulated switch mode  |  |  |
| Nominal input voltage       | 100240 V AC phase to phase, terminal(s): L1-L2<br>100240 V AC single phase, terminal(s): N-L1<br>120250 V DC |  |  |
| Rated power in W            | 25 W   |  |  |
| Output voltage              | 1215 V DC  |  |  |
| Power supply output current | 2.1 A  |  |  |
|                             |  |  |  |

#### Complementary

| e emprementary            |   |  |  |
|---------------------------|---|--|--|
| Input voltage limits      | 85264 V AC  |  |  |
| Input protection type     | Integrated fuse (not interchangeable)   |  |  |
| Inrush current            | 20 A  |  |  |
| Power factor              | 0.5 at 1215 V DC  |  |  |
| Efficiency                | 80 %  |  |  |
| Output voltage adjustment | 11.415 V adjustable   |  |  |
| Power dissipation in W    | 6.2 W   |  |  |
| Current consumption       | 0.35 A 240 V AC<br>0.6 A 100 V AC   |  |  |
| Residual ripple           | 250 mV  |  |  |
| Output protection type    | Against short-circuits  |  |  |
| Connections - terminals   | Screw type terminals: 2 x 0.142 x 2.5 mm <sup>2</sup> , (AWG 26AWG 14) for input con-<br>nection<br>Screw type terminals: 4 x 0.144 x 2.5 mm <sup>2</sup> , (AWG 26AWG 14) for output con-<br>nection |  |  |
| Status LED                | 1 LED (green) output voltage  |  |  |
| Depth                     | 59 mm   |  |  |
| Height                    | 100 mm  |  |  |
| Width                     | 54 mm   |  |  |
| Net weight                | 0.195 kg  |  |  |
| Output coupling           | Parallel<br>Series  |  |  |
| Marking                   | CE  |  |  |
| Mounting support          | 35 x 7.5 mm symmetrical DIN rail<br>35 x 15 mm symmetrical DIN rail<br>Panel 2 screws, diameter : 4 mm  |  |  |
| 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 output  |  |  |
|                           |   |  |  |

The information provided in this documentation contains general descriptions and/or technical characteristics of the performance of the products for submined herein. This documentation is not intended as a substitute for and is not to be used for determining substitity or reliability of these products for specific use applications. It is the ducty of any such user or integrator to perform the appropriate and complete risk analysis, evaluation and testing of the products for specific user applications. Neither Schneider Electric Inductive SSA nor any of its affiliates or substitiantes shall be responsible or liable for misues of the information contrained herein.

#### Environment

| Standards                             | UL 508<br>CSA C22.2 No 60950-1<br>EN/IEC 62368-1  |  |
|---------------------------------------|---|--|
| Product certifications                | EAC[RETURN]RCM[RETURN]KC[RETURN]TUV<br>60950-1[RETURN]CCSAus[RETURN]CSA 22-2 No 950[RETURN]CULus 5  |  |
| 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 |  |
| Operating altitude                    | 2000 m  |  |
| IP degree of protection               | IP20 conforming to EN/IEC 60529   |  |
| Ambient air temperature for operation | -2555 °C without derating mounting position A < 2000 m<br>5570 °C with derating factor mounting position A < 2000 m   |  |

### Packing Units

| Unit Type of Package 1       | PCE |
|------------------------------|-----|
| Number of Units in Package 1 | 1   |

### 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)  |  |  |
| Mercury free               | Yes   |  |  |
| China RoHS Regulation      | China RoHS Declaration  |  |  |
| RoHS exemption information | ₽ Yes   |  |  |
| Environmental Disclosure   | Product Environmental Profile   |  |  |
| Circularity Profile        | End Of Life Information   |  |  |
| PVC free                   | Yes   |  |  |
| California proposition 65  | WARNING: This product can expose you to chemicals including: Lead and lead compounds, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov |  |  |

#### Contractual warranty

Warranty

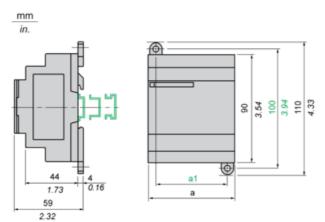
18 months

## Product data sheet Dimensions Drawings

# ABL8MEM12020

#### Regulated Switch Mode Power Supplies

#### Dimensions

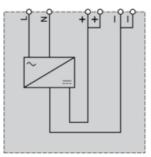


|              | a in mm | a in in. | a1 in mm | a1 in in. |
|--------------|---------|----------|----------|-----------|
| ABL8MEM05040 | 54      | 2.12     | 42       | 1.65      |
| ABL8MEM12020 | 54      | 2.12     | 42       | 1.65      |
| ABL8MEM24003 | 36      | 1.41     | 24       | 0.94   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

## ABL8MEM12020

#### Regulated Switch Mode Power Supply

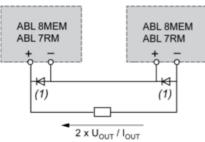
#### Internal Wiring Diagram



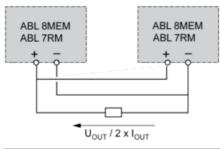
#### Regulated Switch Mode Power Supplies

#### 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. |

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

## ABL8MEM12020

#### **Regulated Switch Mode Power Supplies**

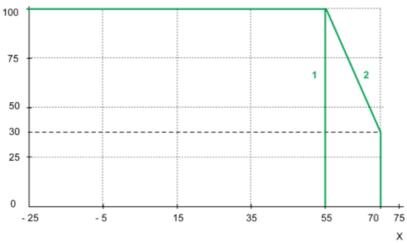
#### Derating

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.

P/Pn (%)



X Maximum operating temperature (°C)

(1) With an ABL7RM24025

(2) With an ABL8MEM .....