Product data sheet

Specifications



regulated power supply, Phaseo, 100 to 240 V, 24 V, 1.2 A

ABL8MEM24012

Discontinued on: Dec 1, 2020

Discontinued

Product availability: Stock - Normally stocked in distribution facility

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 L1-L2 100...240 V AC single phase N-L1 120...250 V DC
Rated power in W	30 W
Output voltage	24 V DC
Power supply output current	1.2 A

Complementary

Efficiency at full load	85...264 V AC
Input protection type	Integrated fuse (not interchangeable)
Inrush current	20 A
Power factor	0.5 at 24 V DC
Efficiency	82 %
Output voltage adjustment	22.2...28.8 V adjustable
Power dissipation in W	6.6 W
Current consumption	0.4 A 240 V AC 0.65 A 100 V AC
Residual ripple	250 mV
Output protection type	Against short-circuits
Connections - terminals	Screw type terminals 2 x 0.14...2 x 2.5 mm², 26 AWG...14 AWG) input connection Screw type terminals 4 x 0.14...4 x 2.5 mm², 26 AWG...14 AWG) output connection
Status LED	1 LED (Green) output voltage
Depth	2.3 in (59 mm)
Height	3.9 in (100 mm)
Width	2.1 in (54 mm)
Net Weight	0.430 lb(US) (0.195 kg)
Output coupling	Parallel Series
Marking	CE

Price is “List Price” and may be subject to a trade discount – check with your local distributor or retailer for actual price.

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

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
Supply	SELV IEC 60950-1 SELV IEC 60204-1 SELV IEC 60364-4-41
Dielectric strength	3000 V with between input and output

Environment

Standards	UL 508 CSA C22.2 No 60950-1 EN/IEC 62368-1
Product certifications	TUV 60950-1 EAC RCM KC CCSAus CSA 22-2 No 950 CULus 508
Environmental characteristic	EMC conforming to EN 55022 Class B EMC conforming to IEC 61000-6-3 EMC conforming to IEC 61000-6-2 EMC conforming to EN/IEC 61204-3 Safety conforming to IEC 60950-1
Operating altitude	6561.68 ft (2000 m)
IP degree of protection	IP20 conforming to IEC 60529
Ambient air temperature for operation	-13…131 °F (-25…55 °C) without derating mounting position A < 6561.68 ft (2000 m) 131…158 °F (55…70 °C) with derating factor mounting position A < 6561.68 ft (2000 m)

Ordering and shipping details

Category	US1CP1222525
Discount Schedule	CP12
GTIN	00785901551508
Returnability	No

Packing Units

Unit Type of Package 1	PCE
Nbr. of units in pkg.	1
Package 1 Height	2.6 in (6.5 cm)
Package 1 Width	2.8 in (7 cm)
Package 1 Length	3.9 in (10 cm)
Package weight(Lbs)	8.08 oz (229 g)
Unit Type of Package 2	S03
Number of Units in Package 2	56
Package 2 Height	11.8 in (30 cm)
Package 2 Width	11.8 in (30 cm)
Package 2 Length	15.7 in (40 cm)
Package 2 Weight	29.469 lb(US) (13.367 kg)

Unit Type of Package 3	P06
Number of Units in Package 3	488
Package 3 Height	31.5 in (80 cm)
Package 3 Width	31.5 in (80 cm)
Package 3 Length	23.6 in (60 cm)
Package 3 Weight	257.5 lb(US) (116.8 kg)

Contractual warranty

Warranty (in months)	18

Environmental Data

Schneider Electric aims to achieve Net Zero status by 2050 through supply chain partnerships, lower impact materials, and circularity via our ongoing “Use Better, Use Longer, Use Again” campaign to extend product lifetimes and recyclability.

Environmental Data explained >

How we assess product sustainability >

Environmental footprint

Environmental Disclosure	Product Environmental Profile

Use Better

Materials and Substances

SCIP Number	Fe64e454-324e-4d95-961c-5ccceb461cf0
EU RoHS Directive	Compliant By Exemption
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
PVC free	Yes

Use Again

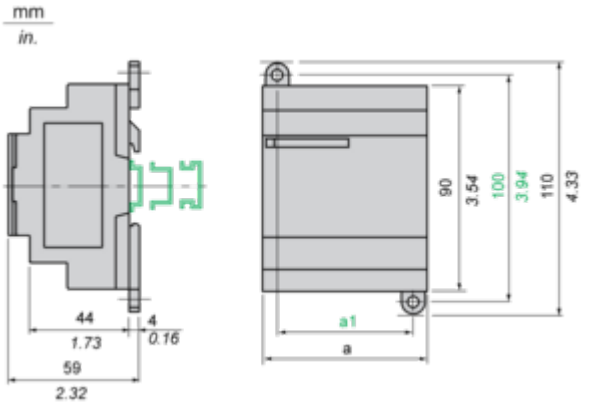
Repack and remanufacture

Circularity Profile	End of Life Information
WEEE Label	The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins.

Dimensions Drawings

Regulated Switch Mode Power Supplies

Dimensions

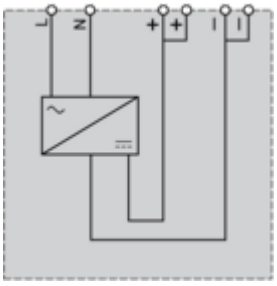


	a in mm	a in in.	a1 in mm	a1 in in.
ABL8MEM05040	54	2.12	42	1.65
ABL8MEM12020	54	2.12	42	1.65
ABL8MEM24003	36	1.41	24	0.94
ABL8MEM24006	36	1.41	24	0.94
ABL8MEM24012	54	2.12	42	1.65
ABL7RM24025	74	2.91	60	2.36

Connections and Schema

Regulated Switch Mode Power Supply

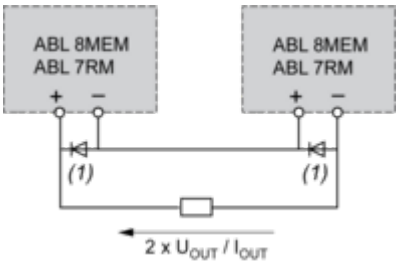
Internal Wiring Diagram



Regulated Switch Mode Power Supplies

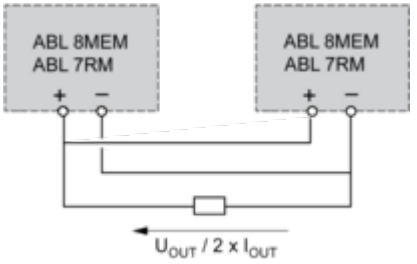
Series or Parallel Connection

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.

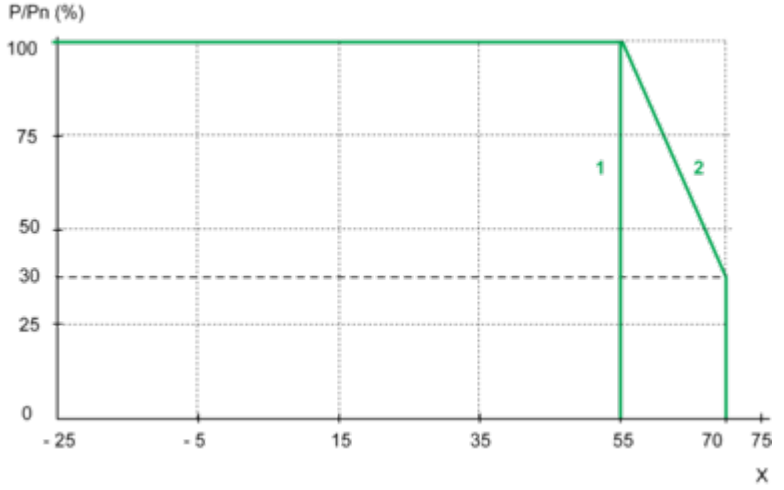
NOTE: Series or parallel connection is only recommended for products with identical references.

Performance Curves

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•••••