

Product data sheet

Specifications



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

ABL8MEM12020

⚠ Discontinued on: 17 February 2021

⚠ Discontinued

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
Kw Rating	25 W
Output voltage	12...15 V DC
Power supply output current	2.1 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 12...15 V DC
Efficiency	80 %
Output voltage adjustment	11.4...15 V adjustable
Power dissipation in W	6.2 W
Current consumption	0.35 A 240 V AC 0.6 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, AWG 26...AWG 14) input connection Screw type terminals 4 x 0.14...4 x 2.5 mm², AWG 26...AWG 14) output connection
Status LED	1 LED (Green) output voltage
Depth	2.32 in (59 mm)
Height	3.94 in (100 mm)
Width	2.13 in (54 mm)
Net Weight	0.43 lb(US) (0.195 kg)
Output coupling	Parallel Series

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
Supply	SELV EN/IEC 60950-1 SELV EN/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	EAC RCM KC TUV 60950-1 CCSAus CSA 22-2 No 950 CULus 508
Environmental characteristic	EMC EN 55022 Class B EMC EN 61000-6-3 EMC EN/IEC 61000-6-2 EMC EN/IEC 61204-3 Safety EN/IEC 60950-1
Operating altitude	6561.68 ft (2000 m)
IP degree of protection	IP20 conforming to EN/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	22525-ABL8 AND ABL7 POWER SUPPLIE
Discount Schedule	CP12
GTIN	00785901608264
Returnability	No
Country of origin	CN

Packing Units

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

Offer Sustainability

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

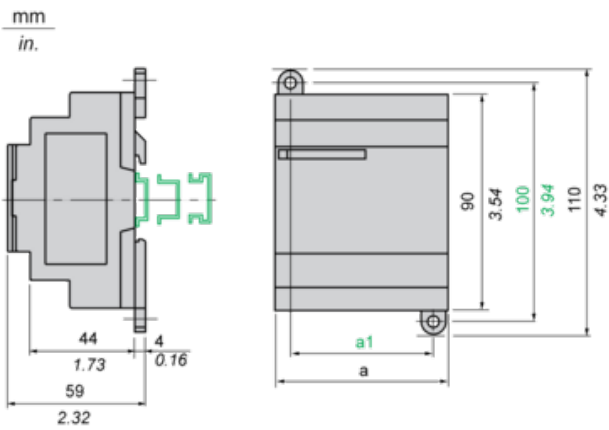
PVC free	Yes
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Contractual warranty

Warranty	18 months
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Regulated Switch Mode Power Supplies

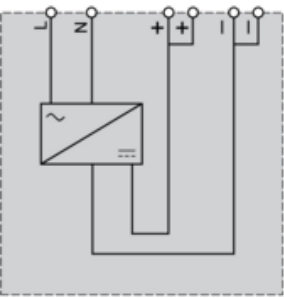
Dimensions



	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

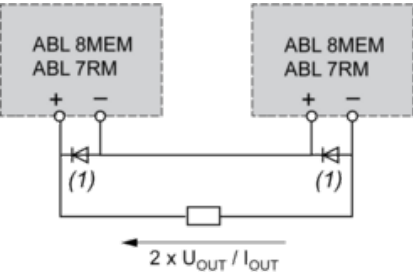
Internal Wiring Diagram



Regulated Switch Mode Power Supplies

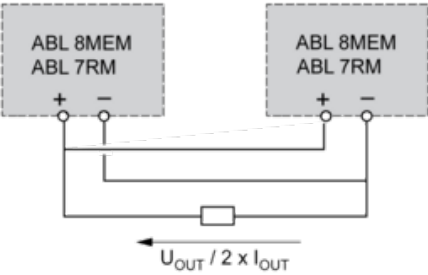
Series or Parallel Connection

Series Connection



(1) Two Shottky 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.

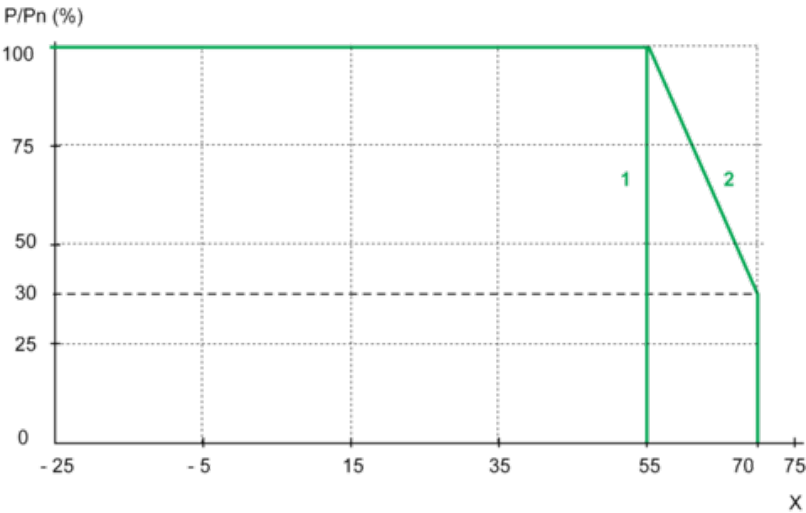
Regulated Switch Mode Power Supplies

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.....

Recommended replacement(s)

ABL8MEM12020 is replaced by:

1x



Regulated Power Supply, 100 to 240V AC, 12V, 2.1A, single phase, Modular
ABLM1A12021