Product data sheet
Characteristics

ABL7RM24025
regulated SMPS with auto reset - 1 or 2-phase - 100...240 V AC - 24 V - 2.5 A

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, terminal(s): L1-L2 100...240 V AC single phase, terminal(s): N-L1
Input voltage limits	85...264 V AC
Rated power in W	60 W
Output voltage	24 V DC
Power supply output current	2.5 A

Complementary

Input protection type	Integrated fuse (not interchangeable)
Inrush current	90 A
[Ue] rated operational voltage	0.5
Efficiency	84 %
Output voltage adjustment	22.2...28.8 V adjustable
Power dissipation in W	11.4 W
Current consumption	0.7 A at 240 V
Provided equipment	Power factor correction filter conforming to IEC 61000-3-2
Residual ripple	200 mV
Output protection type	Against undervoltage, protection technology: tripping if U < 19 V Against short-circuits
Connections - terminals	For input connection: screw type terminals, connection capacity: 2 x 0.14...2 x 2.5 mm² AWG 26...AWG 14 For output connection: screw type terminals, connection capacity: 4 x 0.14...4 x 2.5 mm² AWG 26...AWG 14
Status LED	1 LED (green)output voltage:
Depth	59 mm
Height	100 mm

Width	74 mm
Net weight	0.255 kg
Output coupling	Series Parallel
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

Environment

Standards	CSA C22.2 No 60950-1 UL 508
Product certifications	EAC CULus 508 TUV 60950-1 RCM KC
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
Operating altitude	2000 m
IP degree of protection	IP20 conforming to EN/IEC 60529
Ambient air temperature for operation	-25…55 °C (without) 55…70 °C (with derating factor)
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
REACh free of SVHC	Yes
EU RoHS Directive	Pro-active compliance (Product out of EU RoHS legal scope) EU RoHS Declaration
Toxic heavy metal free	Yes
Mercury free	Yes
RoHS exemption information	Yes
China RoHS Regulation	China RoHS declaration
Environmental Disclosure	Product Environmental Profile
Circularity Profile	End of Life Information

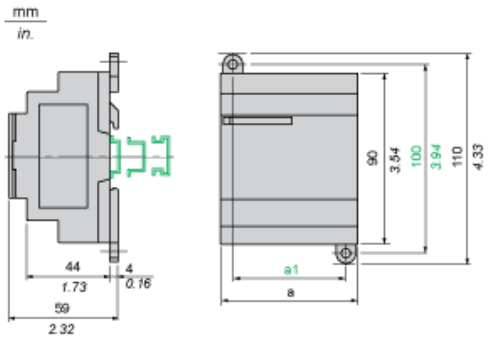
Contractual warranty

Warranty	18 months

ABL7RM24025

Regulated Switch Mode Power Supplies

Dimensions

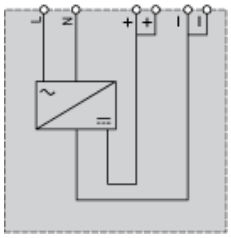


	a in mm	a in in.	a1 in mm	a1 in in.
ABL8MEM05040	54	2.12	42	1.65
ABL8MEM12020	54	2.12	42	1.65
ABL8MEM24003	36	1.41	24	0.94
ABL8MEM24006	36	1.41	24	0.94
ABL8MEM24012	54	2.12	42	1.65
ABL7RM24025	74	2.91	60	2.36

ABL7RM24025

Regulated Switch Mode Power Supply

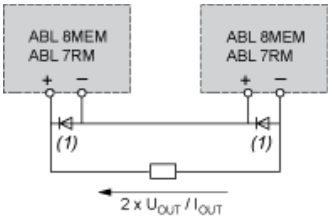
Internal Wiring Diagram



Regulated Switch Mode Power Supplies

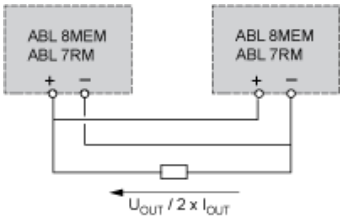
Series or Parallel Connection

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.

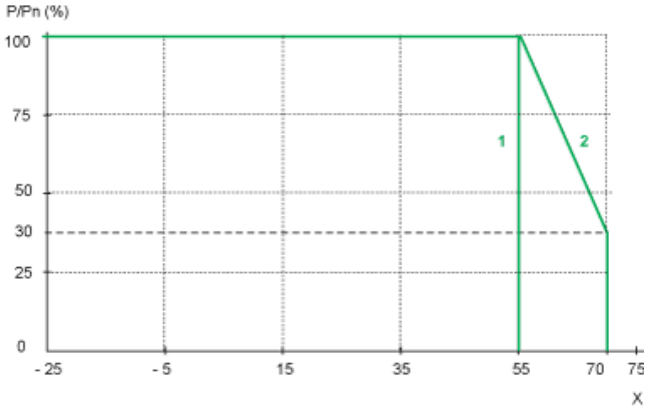
Regulated Switch Mode Power Supplies

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•••••