Product data sheet
Characteristics

ABL8MEM24003
regulated SMPS - 1 or 2-phase - 100..240 V AC - 24 V - 0.3 A

Product availability: Stock - Normally stocked in distribution facility

Main

Range of product	Phaseo
Product or component type	Power supply
Power supply type	Regulated switch mode
Input voltage	100...240 V AC phase to phase L1-L2 100...240 V AC single phase N-L1 120...250 V DC
Output voltage	24 V DC
Rated power in W	7 W
Input protection type	Integrated fuse (not interchangeable)
Power supply output current	0.3 A
Output protection type	Thermal Against short-circuits
Ambient air temperature for operation	-13…131 °F (-25…55 °C) without) 131…158 °F (55…70 °C) with derating factor)

Complementary

Input voltage limits	85...264 V
Network frequency	47...63 Hz
Inrush current	20 A
Cos phi	0.5
Efficiency	78 %
Output voltage limits	22.2...28.8 V adjustable
Power dissipation in W	2 W
Current consumption	0.18 A 240 V 0.25 A 100 V
Line and load regulation	+/- 3 %
Residual ripple	250 mV
Holding time	>= 10 ms 100 V >= 150 ms 230 V
Connections - terminals	Input connection screw type terminals 2 x 0.14...2 x 2.5 mm² AWG 26...AWG 14 Output connection screw type terminals 2 x 0.14...2 x 2.5 mm² AWG 26...AWG 14
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
Operating altitude	6561.68 ft (2000 m)
Output coupling	Parallel Series
Name of test	Electrostatic discharges EN/IEC 61000-4-2 Induced electromagnetic field EN/IEC 61000-4-6 Primary outage IEC 61000-4-11 Radiated electromagnetic field EN/IEC 61000-4-3 Rapid transient IEC 61000-4-4 Surge EN/IEC 61000-4-5 Conducted emissions on the power line EN 55022 class B Emission EN 50081-1 Radiated emissions EN 55022 class B Harmonic current emission EN/IEC 61000-3-2
Status LED	Output voltage 1 LED green)

Depth	2.32 in (59 mm)
Height	3.94 in (100 mm)
Width	1.42 in (36 mm)
Product weight	0.22 lb(US) (0.1 kg)

Environment

MTBF reliability	With MIL-HDBK-217F
Product certifications	KC TUV 60950-1 RCM EAC CCSAus CSA 22-2 No 950 CULus 508
Standards	UL 508 CSA C22.2 No 60950-1
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 Safety SELV
IP degree of protection	IP20 EN/IEC 60529
Ambient air temperature for storage	-40…158 °F (-40…70 °C)
Relative humidity	0…90 % during operation 0…95 % in storage
Overvoltage category	Class II VDE 0106-1
Dielectric strength	3000 V between input and output

Ordering and shipping details

Category	22525 - ABL8 AND ABL7 POWER SUPPLIE
Discount Schedule	CP12
GTIN	00785901477099
Package weight(Lbs)	0.13 kg (0.28 lb(US))
Returnability	Yes
Country of origin	CN

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) EU RoHS Declaration
Mercury free	Yes
RoHS exemption information	Yes
China RoHS Regulation	China RoHS Declaration
Circularity Profile	End Of Life Information

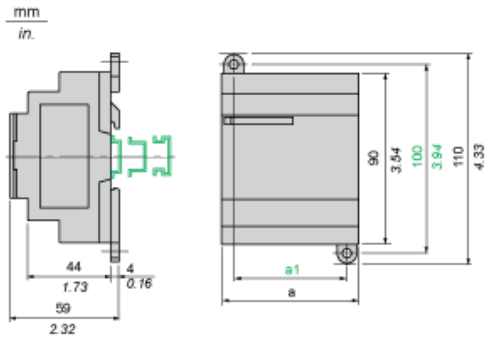
Contractual warranty

Warranty	18 months

ABL8MEM24003

Regulated Switch Mode Power Supplies

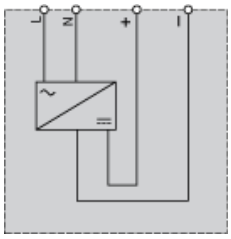
Dimensions



	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

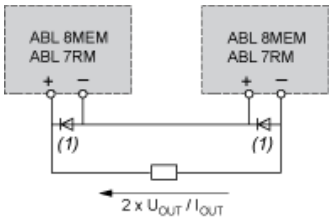
Internal Wiring Diagram



Regulated Switch Mode Power Supplies

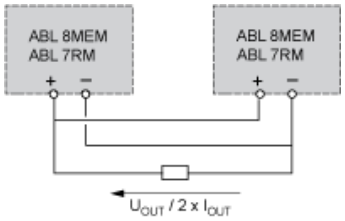
Series or Parallel Connection

Series Connection



(1) Two Shottky diodes 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.

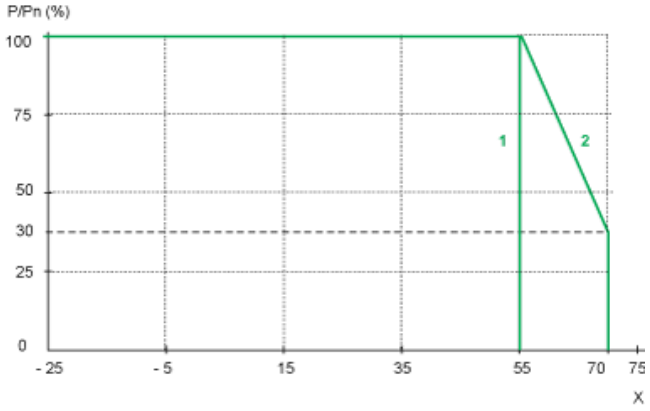
Regulated Switch Mode Power Supplies

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•••••