Product data sheet
Characteristics

ABL8MEM05040
regulated SMPS - 1 or 2-phase - 100..240 V AC - 5 V - 4 A

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, terminal(s): L1-L2 100...240 V AC single phase, terminal(s): N-L1 120...250 V DC
Output voltage	5 V DC
Rated power in W	20 W
Input protection type	Integrated fuse (not interchangeable)
Power supply output current	4 A
Output protection type	Against short-circuits
Ambient air temperature for operation	-25...55 °C without 55...70 °C with

Complementary

Input voltage limits	85...264 V
Network frequency	47...63 Hz
Inrush current	<= 20 A
Cos phi	> 0.5
Efficiency	75 %
Output voltage limits	4.75...6.25 V adjustable
Power dissipation in W	6.7 W
Current consumption	0.35 A at 240 V 0.55 A at 100 V
Line and load regulation	+/- 3 %
Residual ripple	250 mV
Holding time	>= 10 ms at 100 V
Connections - terminals	Screw type terminals for input connection, connection capacity: 2 x 0.14...2 x 2.5 mm² AWG 26...AWG 14 Screw type terminals for output connection, connection capacity: 4 x 0.14...4 x 2.5 mm² AWG 26...AWG 14
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
Operating altitude	2000 m
Output coupling	Series Parallel
Name of test	Harmonic current emission conforming to EN/IEC 61000-3-2 Conducted emissions on the power line conforming to EN 55022 Class B Electrostatic discharges conforming to EN/IEC 61000-4-2 Emission conforming to EN 50081-1 Induced electromagnetic field conforming to EN/IEC 61000-4-6 Primary outage conforming to IEC 61000-4-11 Radiated electromagnetic field conforming to EN/IEC 61000-4-3 Radiated emissions conforming to EN 55022 Class B Rapid transient conforming to IEC 61000-4-4 Surge conforming to EN/IEC 61000-4-5
Status LED	1 LED green for output voltage
Depth	59 mm
Height	100 mm
Width	54 mm
Product weight	0.195 kg
Compatibility code	ABL8M

Environment

Product certifications	EAC RCM KC TUV 60950-1
Standards	CSA C22.2 No 60950-1 UL 508
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
IP degree of protection	IP20 conforming to EN/IEC 60529
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	Between input and output

Contractual warranty

Warranty period	18 months

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Regulated Switch Mode Power Supplies

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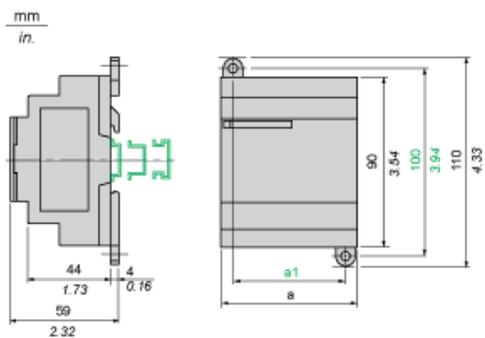
	a in mm	a in in.	a1 in mm	a1 in in.
ABL8MEM05040	54	2.12	42	1.65
ABL8MEM12020	54	2.12	42	1.65
ABL8MEM24003	36	1.41	24	0.94
ABL8MEM24006	36	1.41	24	0.94
ABL8MEM24012	54	2.12	42	1.65
ABL7RM24025	74	2.91	60	2.36

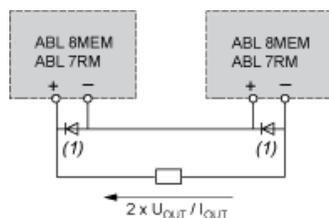Regulated Switch Mode Power Supply

Internal Wiring Diagram
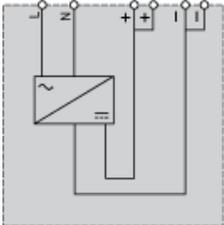
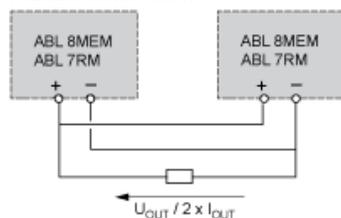## Regulated Switch Mode Power Supplies

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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.

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.
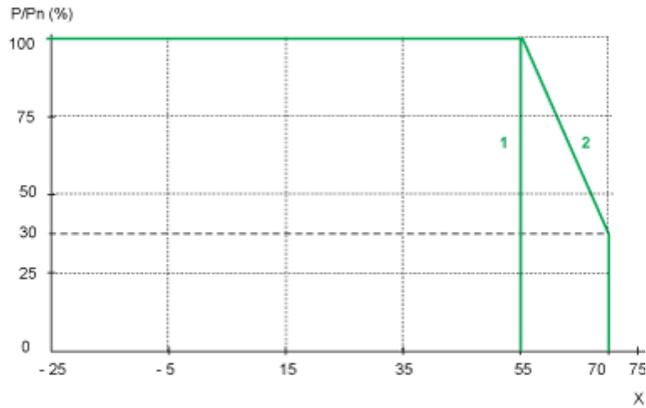
X	Maximum operating temperature (°C)
(1)	With an ABL7RM24025
(2)	With an ABL8MEM•••••