Product data sheet
Characteristics

ABL7RM24025
regulated SMPS with auto reset - 1 or 2-phase - 200...240 V AC - 24 V - 2.5 A

Main

Commercial Status	Commercialised
Range of product	Phaseo
Product or component type	Power supply
Power supply type	Regulated switch mode
Input voltage	200...240 V AC single phase, terminal(s): N-L1 200...240 V AC phase to phase, terminal(s): L1-L2
Output voltage	24 V DC
Rated power in W	60 W
PFC filter	With PFC filter conforming to IEC 61000-3-2
Input protection type	Integrated fuse (not interchangeable)
Power supply output current	2.5 A
Output protection type	Against undervoltage, protection technology: tripping if U < 19 V Against short-circuits

Complementary

Input voltage limits	170...264 V
Network frequency	47...63 Hz
Inrush current	<= 90 A for 1 ms
Cos phi	> 0.5
Efficiency	> 84 %
Output voltage limits	22.2...28.8 V adjustable
Power dissipation in W	11.4 W
Current consumption	0.7 A at 240 V
Line and load regulation	+/- 3 %
Residual ripple	200 mV
Holding time	>= 150 ms at 230 V
Connections - terminals	Screw type terminals for output connection, connection capacity: 4 x 0.14...4 x 2.5 mm²AWG gauge26...14 Screw type terminals for input connection, connection capacity: 2 x 0.14...2 x 2.5 mm²AWG gauge26...14
Marking	CE
Mounting support	35 x 15 mm symmetrical DIN rail 35 x 7.5 mm symmetrical DIN rail Panel 2 screws, diameter : 4 mm
Operating position	Vertical
Output coupling	Parallel Series
Name of test	Harmonic current emission conforming to EN/IEC 61000-3-2 Surge conforming to EN/IEC 61000-4-5 Rapid transient conforming to IEC 61000-4-4 Radiated emissions conforming to EN 55022 Class B Radiated electromagnetic field conforming to EN/IEC 61000-4-3 Primary outage conforming to IEC 61000-4-11 Induced electromagnetic field conforming to EN/IEC 61000-4-6 Emission conforming to EN 50081-1 Electrostatic discharges conforming to EN/IEC 61000-4-2 Conducted emissions on the power line conforming to EN 55022 Class B
Status LED	1 LED green for output voltage
Depth	59 mm
Height	100 mm

Width	60 mm
Product weight	0.255 kg

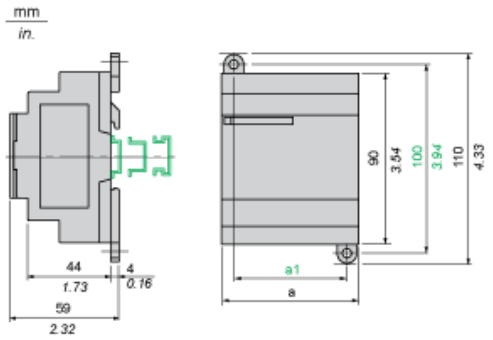
Environment

Product certifications	C-Tick CULus 508 TUV 60950-1
Environmental characteristic	Safety conforming to SELV Safety conforming to EN/IEC 60950-1 EMC conforming to EN/IEC 61204-3 EMC conforming to EN/IEC 61000-6-2 EMC conforming to EN 61000-6-3 EMC conforming to EN 55022 Class B
IP degree of protection	IP20 conforming to EN/IEC 60529
Ambient air temperature for storage	-40...70 °C
Relative humidity	0...95 % in storage 0...90 % during operation
Class of protection against electric shock	Class II conforming to VDE 0106-1
Dielectric strength	3000 V between input and output

ABL7RM24025

Regulated Switch Mode Power Supplies

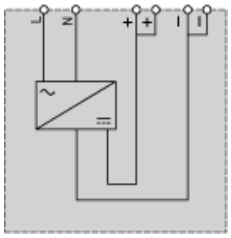
Dimensions



	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

Regulated Switch Mode Power Supply

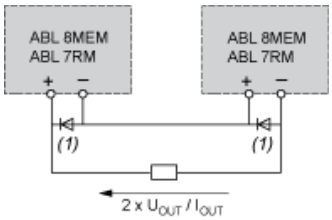
Internal Wiring Diagram



Regulated Switch Mode Power Supplies

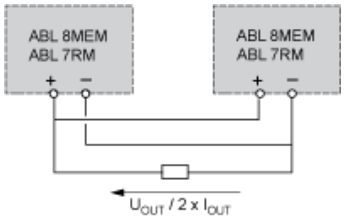
Series or Parallel Connection

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.

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

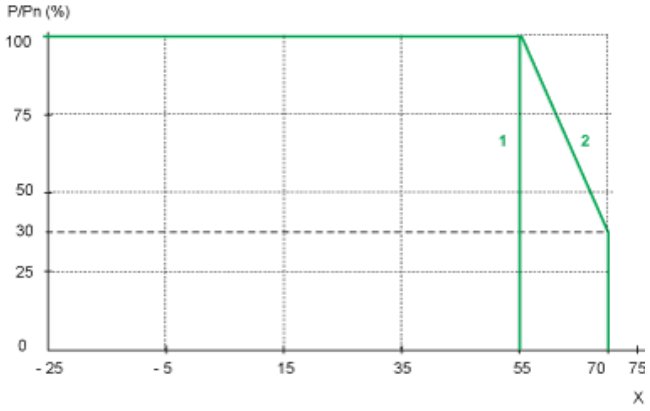
Regulated Switch Mode Power Supplies

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•••••