



Main

Range of product	Phaseo
Product or component type	Power supply
Power supply type	Regulated switch mode
Input voltage	300...370 V DC 120...230 V AC single phase , terminal(s): N-L1 120...230 V AC phase to phase , terminal(s): L1-L2
Output voltage	24 V DC
Rated power in W	480 W
Power supply output current	20 A
Output protection type	Thermal Against overvoltage Against short-circuits , protection technology: automatic reset Against overload , protection technology: 33 V
Ambient air temperature for operation	-20...45 °C without derating 45...60 °C with rated power derating 8 W per °C

Complementary

Input voltage limits	90...132 V 185...264 V
Network frequency	47...63 Hz
Inrush current	<= 35 A
Cos phi	> 0.75
Efficiency	> 90...< 92 %
Output voltage limits	100...116 % adjustable
Power dissipation in W	43 W 55 W
Current consumption	4.4 A at 230 V 8.4 A at 120 V
Line and load regulation	+/- 0.5 %
Residual ripple	<= 50 mV
Holding time	>= 12 ms at 120 V >= 30 ms at 230 V
Permissible temporary current boost	1.5 x In for 5 seconds
Connections - terminals	Screw type terminals for input connection , connection capacity: 2 x 0.5...2 x 4 mm ² AWG gauge24...10 Screw type terminals for input ground connection , connection capacity: 1 x 0.5...1 x 4 mm ² AWG gauge24...10 Screw type terminals for voltage selection connection , connection capacity: 2 x 0.5...2 x 4 mm ² AWG gauge24...10 Screw type terminals for output connection , connection capacity: 2 x 0.5...2 x 4 mm ² AWG gauge24...10 Screw type terminals for diagnostic relay , connection capacity: 2 x 0.5...2 x 4 mm ² AWG gauge24...10
Marking	CE
Mounting support	35 x 15 mm symmetrical DIN rail 35 x 7.5 mm symmetrical DIN rail
Operating position	Vertical
Output coupling	Series Redundant parallel (internal diode)

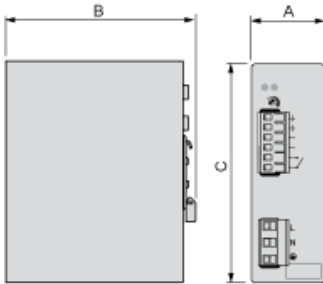
Name of test	Electrostatic discharges conforming to EN/IEC 61000-4-2 Induced electromagnetic field conforming to EN/IEC 61000-4-6 Magnetic field conforming to EN 61000-4-8 Primary outage conforming to IEC 61000-4-11 Radiated electromagnetic field conforming to EN/IEC 61000-4-3 Radiated emissions conforming to EN 55011 class A Rapid transient conforming to IEC 61000-4-4 Surge conforming to EN/IEC 61000-4-5 Conducted emissions on the power line conforming to EN 55011 class A
Status LED	1 LED green for output voltage (> 21.6 V) 1 LED red for overload, overtemperature, overvoltage
Product weight	1.3 kg

Environment

Product certifications	CSA C22-2 No 14 CULus 508
Environmental characteristic	EMC conforming to EN 50081-1 EMC conforming to EN 50082-2 EMC conforming to EN/IEC 61000-6-2 Safety conforming to EN/IEC 60950 Safety conforming to SELV
IP degree of protection	IP20 conforming to EN/IEC 60529
Ambient air temperature for storage	-25...80 °C
Relative humidity	0...90 % during operation 0...95 % in storage
Class of protection against electric shock	Class I conforming to VDE 0106-1
Dielectric strength	1500 V between input and ground 3000 V between input and output 500 V between output and ground

ABL4RSM240.../4RSM24100/4WSR24... Power Supplies

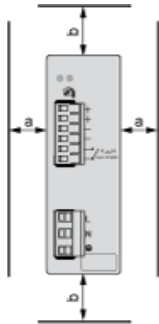
Dimensions



mm/inch	A	B	C
ABL4RSM24035	39/1.53	128/5.04	115/4.53
ABL4RSM24050	39/1.53	128/5.04	115/4.53
ABL4RSM24100	63.5/2.49	140/5.51	118/4.65
ABL4RSM24200	63.5/2.49	140/5.51	118/4.65
ABL4WSR24200	80/3.15	139/5.47	127/5.0
ABL4WSR24300	80/3.15	139/5.47	127/5.0
ABL4WSR24400	80/3.15	139/5.47	127/5.0

ABL4RSM240.../4RSM24100/4WSR24...




Clearance



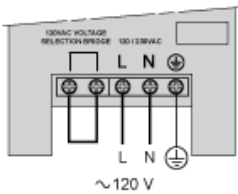
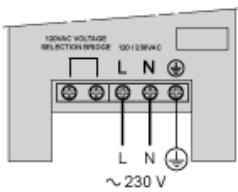
mm/inch	a	b
ABL4RSM24035	10/0.39	50/1.97
ABL4RSM24050	10/0.39	50/1.97
ABL4RSM24100	20/0.79	100/3.94
ABL4RSM24200	20/0.79	100/3.94
ABL4WSR24200	10/0.39	50/1.97
ABL4WSR24300	10/0.39	50/1.97
ABL4WSR24400	10/0.39	50/1.97

Wiring Requirements

Cable Types and Wire Sizes

	ABL4RSM24035 ABL4RSM24050 ABL4RSM24100	ABL4RSM24200 ABL4WSR24●●●
mm ² /AWG	0,2...2,5 / 24...12	0,05...6 / 24...10
 mm/in	7 / 0.27	8 / 0.31
 Nm/lb-in	0,8 / 7.0	1,1 / 9.0

Input Voltage



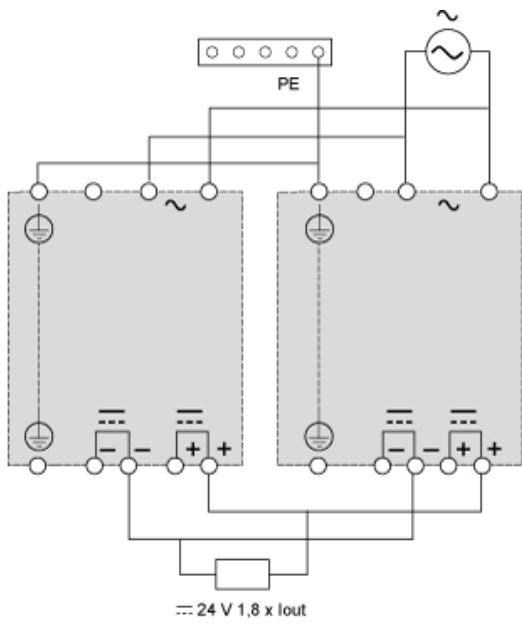
Outputs Connected in Parallel

Paralleling

- Use maximum of 2 power supplies with the same reference.
- For correct current share ($\pm 20\%$) between devices in parallel, adjust VOUT ± 20 mV applying a load $> P_{NOM} \times 0.2$ to all ABL4 before connecting them in parallel.

SELV: Safety Extra Low Voltage

Safety Extra Low Voltage in accordance to IEC/EN 60950 and IEC/EN 50178 standards.



PELV: Protection Extra Low Voltage

