



## Main

|                                       |   |
|---------------------------------------|---|
| Range of product                      | Phaseo  |
| Product or component type             | Power supply  |
| Power supply type                     | Regulated switch mode   |
| Input voltage                         | 400...500 V AC three phase , terminal(s): L1, L2, L3  |
| Output voltage                        | 24 V DC   |
| Rated power in W                      | 480 W   |
| Power supply output current           | 20 A  |
| Output protection type                | Thermal<br>Against overvoltage<br>Against short-circuits , protection technology: automatic reset<br>Against overload , protection technology: 33 V |
| Ambient air temperature for operation | -20...50 °C without derating<br>50...60 °C with rated power derating 12 W per °C  |

## Complementary

|                                     |  |
|-------------------------------------|--|
| Input voltage limits                | 340...550 V  |
| Network frequency                   | 47...63 Hz   |
| Inrush current                      | <= 10 A  |
| Cos phi                             | > 0.75   |
| Efficiency                          | > 93...< 94 %  |
| Output voltage limits               | 100...116 % adjustable   |
| Power dissipation in W              | 30 W<br>36 W   |
| Current consumption                 | 1.1 A at 500 V<br>1.3 A at 400 V   |
| Line and load regulation            | +/- 0.5 %  |
| Residual ripple                     | <= 50 mV   |
| Holding time                        | >= 20 ms at 500 V<br>>= 20 ms at 400 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 <sup>2</sup> AWG gauge24...10<br>Screw type terminals for input ground connection , connection capacity: 1 x 0.5...1 x 4 mm <sup>2</sup> AWG gauge24...10<br>Screw type terminals for output connection , connection capacity: 2 x 0.5...2 x 4 mm <sup>2</sup> AWG gauge24...10<br>Screw type terminals for diagnostic relay , connection capacity: 2 x 0.5...2 x 4 mm <sup>2</sup> AWG gauge24...10 |
| Marking                             | CE   |
| Mounting support                    | 35 x 15 mm symmetrical DIN rail<br>35 x 7.5 mm symmetrical DIN rail  |
| Operating position                  | Vertical   |
| Output coupling                     | Parallel<br>Series   |

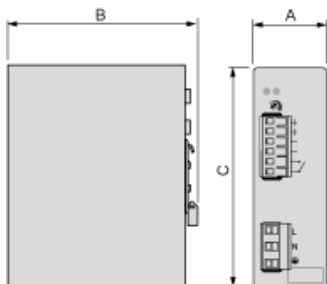
|                |  |
|----------------|--|
| Name of test   | Electrostatic discharges conforming to EN/IEC 61000-4-2<br>Induced electromagnetic field conforming to EN/IEC 61000-4-6<br>Magnetic field conforming to EN 61000-4-8<br>Primary outage conforming to IEC 61000-4-11<br>Radiated electromagnetic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

## Environment

|  |  |
|--|--|
| Product certifications                     | CSA C22-2 No 14<br>CULus 508   |
| Environmental characteristic               | EMC conforming to EN 50081-1<br>EMC conforming to EN 50082-2<br>EMC conforming to EN/IEC 61000-6-2<br>Safety conforming to EN/IEC 60950<br>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<br>0...95 % in storage   |
| Class of protection against electric shock | Class I conforming to VDE 0106-1   |
| Dielectric strength                        | 2000 V between input and ground<br>3000 V between input and output<br>500 V between output and ground  |

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

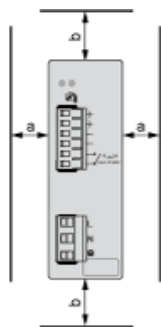
Dimensions



| 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...

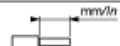

Clearance



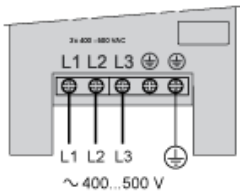
| mm/inch      | a       | b        |
|--------------|---------|----------|
| ABL4RSM24035 | 10/0.39 | 50/1.97  |
| ABL4RSM24050 | 10/0.39 | 50/1.97  |
| ABL4RSM24100 | 20/0.79 | 100/3.94 |
| ABL4RSM24200 | 20/0.79 | 100/3.94 |
| ABL4WSR24200 | 10/0.39 | 50/1.97  |
| ABL4WSR24300 | 10/0.39 | 50/1.97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

Wiring Requirements

Cable Types and Wire Sizes

|  | ABL4RSM24035<br>ABL4RSM24050<br>ABL4RSM24100 | ABL4RSM24200<br>ABL4WSR24●●● |
|--|--|------------------------------|
| mm <sup>2</sup> /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



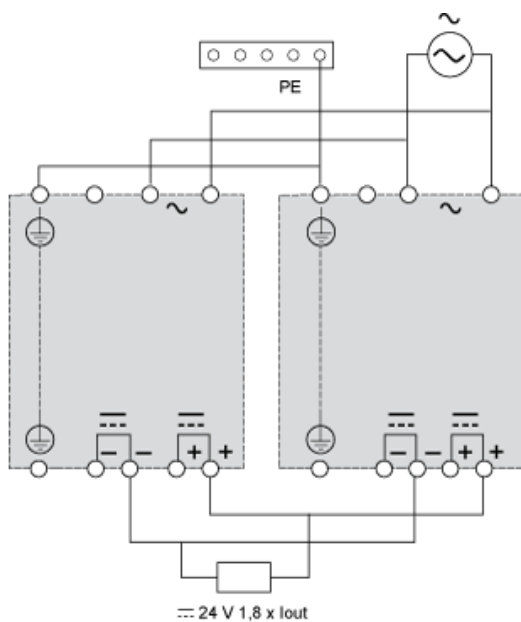
Outputs Connected in Parallel

Paralleling

- Use maximum of 2 power supplies with the same reference.
- For correct current share ( $\pm 20\%$ ) between devices in parallel, adjust VOUT  $\pm 20$  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

