



Main

| | |
|-----------------------------|--|
| Range of Product | Modicon Power Supply |
| Product or Component Type | Power supply |
| Power supply type | Regulated switch mode |
| Variant option | Optimized |
| Enclosure Material | Plastic |
| Nominal input voltage | 100...240 V AC single phase 100...240 V AC 2 phases 140...340 V DC |
| Rated power in W | 75 W |
| Output voltage | 12 V DC |
| Power supply output current | 6.25 A |

Complementary

| | |
|---------------------------------|---|
| Nominal network frequency | 50...60 Hz |
| Network system compatibility | TN TT IT |
| Maximum leakage current | 1 mA 240 V AC |
| Input protection type | Integrated fuse (not interchangeable) 5 A External protection (recommended) 20 A Curve C External protection (recommended) 13 A Curve B External protection (recommended) 10 A Curve C |
| Inrush current | 40.0 A 115 V 80.0 A 230 V |
| Power factor | 0.55 at 115 V AC 0.45 at 230 V AC |
| Efficiency | 87 % 230 V AC |
| Output voltage adjustment | 11...14 V |
| Power dissipation in W | 16 W |
| Current consumption | < 1.8 A 115 V AC < 1 A 230 V AC < 0.8 A 140 V DC |
| Turn-on time | < 1.2 s |
| Holding time | > 20 ms 115 V AC > 40 ms 230 V AC |
| Startup with capacitive loads | 5000 µF |
| Residual ripple | < 120 mV |
| Expected capacitor life time | 10 year(s) |
| Meantime between failure [MTBF] | 700000 h at 77 °F (25 °C), full load conforming to SR 332 |
| Output protection type | Against overload and short-circuits automatic reset Against over temperature manual reset Against overvoltage manual reset |
| Connections - terminals | Screw connection 0.5...2.5 mm ² , AWG 20...AWG 14) output Screw connection 0.75...2.5 mm ² , AWG 18...AWG 14) input |
| Line and load regulation | < 0.5 %line < 1 %load |
| Status LED | Output voltage 1 LED Green) |
| Depth | 4.02 in (102 mm) |
| Height | 4.87 in (123.6 mm) |
| Width | 1.06 in (27 mm) |

The information provided in this documentation contains general descriptions and/or technical characteristics of the performance of the products contained herein. This documentation is not intended as a substitute for and is not to be used for determining suitability or reliability of these products for specific user applications. It is the duty of any such user or integrator to perform the appropriate and complete risk analysis, evaluation and testing of the products with respect to the relevant specific application or use thereof. Neither Schneider Electric Industries SAS nor any of its affiliates or subsidiaries shall be responsible or liable for misuse of the information contained herein.

| | |
|------------------|--|
| Net Weight | 0.49 lb(US) (0.22 kg) |
| Output coupling | Parallel Serial |
| Mounting support | Top hat type TH35-15 rail IEC 60715 Top hat type TH35-7.5 rail IEC 60715 Double-profile DIN rail |
| Supply | SELV EN/IEC 60950-1 SELV EN/IEC 60204-1 SELV IEC 60364-4-41 |

Environment

| | |
|--|--|
| Standards | EN 62368-1 EN/IEC 61010-1 EN 61010-2-201 EN/IEC 61204-3 EN 61000-6-1 EN 61000-6-2 EN 61000-6-3 EN 61000-6-4 EN 61000-3-2 EN 61000-3-3 UL 62368-1 UL 61010-1 UL 61010-2-201 CSA C22.2 No 62368-1 CSA C22.2 No 61010-1 CSA C22.2 No 61010-2-201 EN/IEC 62368-1 |
| Product certifications | CE CUL Listed CUL Recognized RCM CB Scheme EAC KC NEC class 2 |
| Environmental characteristic | 3M4 IEC 60721-3-3 |
| Operating altitude | < 5000 m |
| Shock resistance | 100 m/s ² 11 ms |
| IP degree of protection | IP20 |
| Ambient air temperature for operation | -4...14 °F (-20...-10 °C) with current derating of 1 % per °C) 104...158 °F (40...70 °C) with current derating of 1.8 % per °C) 122...158 °F (50...70 °C) with current derating of 2.5 % per °C) |
| Ambient Air Temperature for Storage | -40...185 °F (-40...85 °C) |
| Relative Humidity | 0...95 % without condensation |
| Overvoltage category | II |
| Electrical energy source class conforming to IEC 62368-1 | ES1 |
| Electrical shock protection class | Class I |
| Pollution degree | 2 |
| Vibration resistance | 3 mm 2...9 Hz)IEC 60068-2-6 10 m/s ² 9...200 Hz)IEC 60068-2-6 |
| Electromagnetic immunity | Immunity to electrostatic discharge 6 kV contact discharge) EN/IEC 61000-4-2 Immunity to electrostatic discharge 9 kV air discharge) EN/IEC 61000-4-2 Immunity to conducted RF disturbances 10 V/m 80 MHz...2 GHz) EN/IEC 61000-4-3 Immunity to conducted RF disturbances 5 V/m 2...2.7 GHz) EN/IEC 61000-4-3 Immunity to conducted RF disturbances 3 V/m 2.7...6 GHz) EN/IEC 61000-4-3 Immunity to fast transients 4 kV on input-output) EN/IEC 61000-4-4 Surge immunity test 3 kV between power supply and earth) EN/IEC 61000-4-5 Surge immunity test 1.5 kV between phases) EN/IEC 61000-4-5 Immunity to conducted RF disturbances 10 V 0.15...80 MHz) EN/IEC 61000-4-6 Immunity to magnetic fields 30 A/m 50...60 Hz) EN/IEC 61000-4-8 Immunity to voltage dips EN/IEC 61000-4-11 Disturbing field emission EN 55016-2-3 Limits for harmonic current emissions EN 61000-3-2 Conducted disturbance emission EN 55016-1-2 Conducted disturbance emission EN 55016-2-1 |
| Electromagnetic emission | Conducted emissions EN 61000-6-3 Radiated emissions EN 61000-6-4 |

Ordering and shipping details

| | |
|-----------------------|-----------------------------------|
| Category | 22525-ABL8 AND ABL7 POWER SUPPLIE |
| Discount Schedule | CP12 |
| GTIN | 3606481500199 |
| Nbr. of units in pkg. | 1 |
| Package weight(Lbs) | 10.79 oz (306.0 g) |
| Returnability | Yes |
| Country of origin | TH |

Packing Units

| | |
|------------------------------|-------------------------|
| Unit Type of Package 1 | PCE |
| Package 1 Height | 1.46 in (3.7 cm) |
| Package 1 width | 5.51 in (14 cm) |
| Package 1 Length | 6.30 in (16 cm) |
| Unit Type of Package 2 | S03 |
| Number of Units in Package 2 | 22 |
| Package 2 Weight | 16.03 lb(US) (7.271 kg) |
| Package 2 Height | 11.81 in (30 cm) |
| Package 2 width | 11.81 in (30 cm) |
| Package 2 Length | 15.75 in (40 cm) |

Offer Sustainability

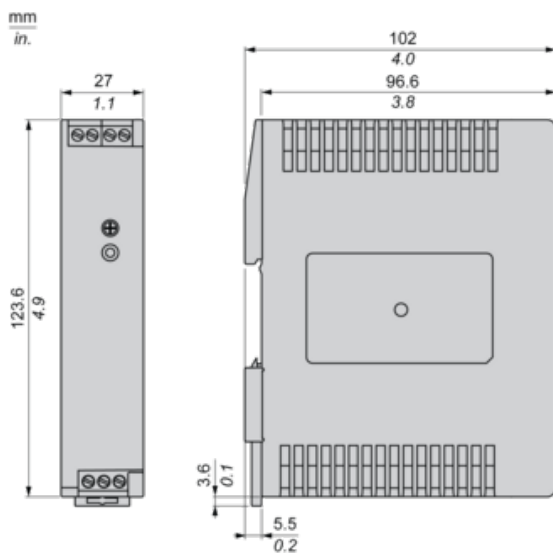
| | |
|----------------------------|---|
| Sustainable offer status | Green Premium product |
| California proposition 65 | WARNING: This product can expose you to chemicals including: Lead and lead compounds, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov |
| 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 |
| Environmental Disclosure | Product Environmental Profile |
| Circularity Profile | End Of Life Information |
| WEEE | The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins. |

Electrical Safety

- If the unit is use in a manner not specified by the manufacturer, the protection provided by the equipment may be impaired.
- For means of disconnection a switch or circuit breaker, located near the product, must be included in the installation. A marking as disconnecting device for the product is required.
- The device has an internal fuse. The unit is tested and approved with branch circuit protective device up to 20A. This circuit breaker can be used as disconnecting device.
- The power supply is only suitable for audio, video, information, communication, industrial and control equipment.

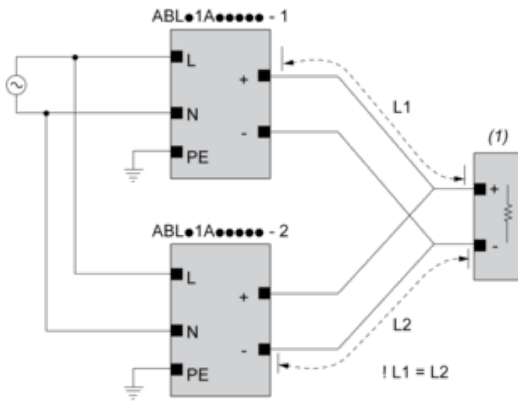
Dimensions

Front and Side Views



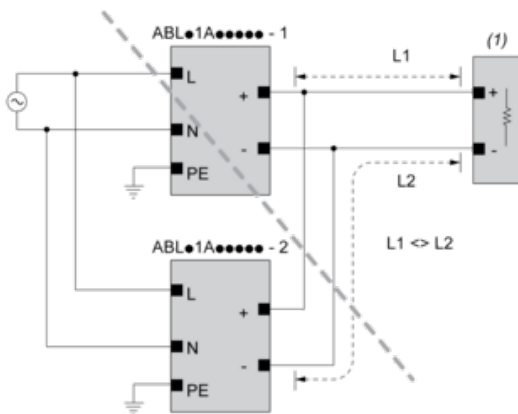
Connections and Schema

Correct Parallel Connection



(1) : Load

Incorrect Parallel Connection



(1) : Load

$ABLx1Axxxxx-1 = ABLx1Axxxxx-2$

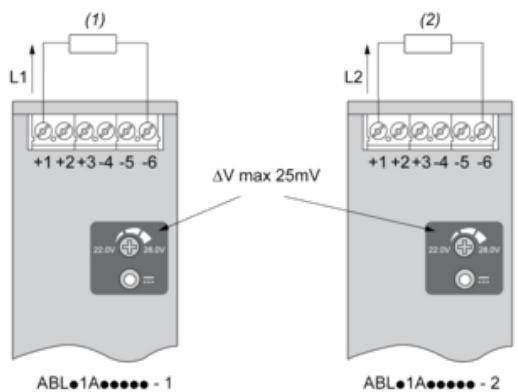
max 2 x ABLx1Axxxxx

$L1 = L2$

ΔV max 25 mV

$L_{Load} < 90\% \cdot 2 \cdot L_{nom}$

Output Voltage Balancing



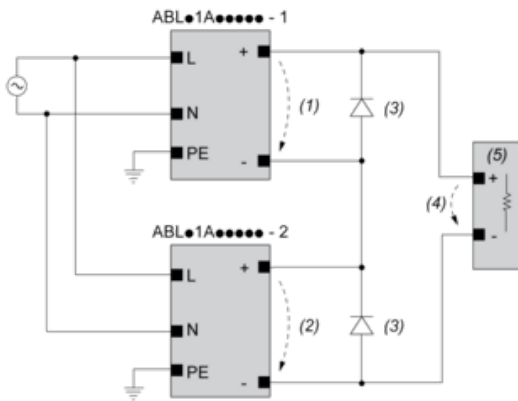
(1) : R_{Load1}

(2) : R_{Load2}

$R_{Load1} = R_{Load2}$

$I_1 = I_2 = \sim I_{nom}$

Series Connection



(1) : V_{out1}

(2) : V_{out2}

(3) : 2 x Diode, $V_{RRM} > 2 \times V_{out1/2}$, $I_F > 2 \times I_{nom1/2}$

(4) : $V_{Load} = 2 \times V_{out}$

(5) : Load

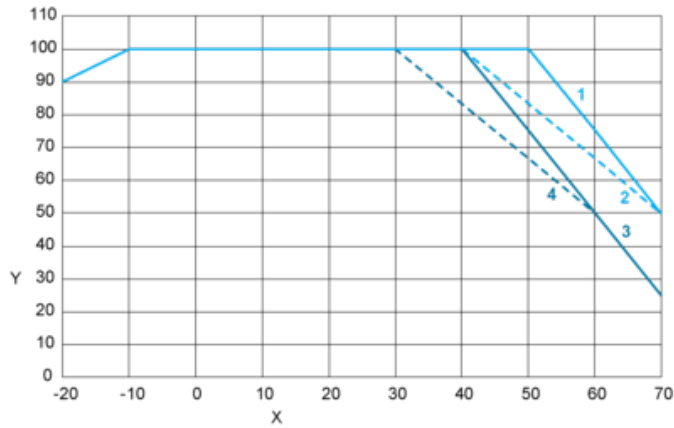
Connections and Schema

| | (1) | | |
|-------------|-------|-------|-------|
| | <40°C | <50°C | <70°C |
| ABLS1A24021 | 50°C | 60°C | 75°C |
| ABLS1A24038 | 50°C | 60°C | 75°C |
| ABLS1A12062 | 50°C | 60°C | 80°C |
| ABLS1A24031 | 50°C | 60°C | 80°C |
| ABLS1A12100 | 60°C | 70°C | 90°C |
| ABLS1A24050 | 60°C | 70°C | 90°C |
| ABLS1A48025 | 60°C | 70°C | 90°C |
| ABLS1A24100 | 60°C | 70°C | 90°C |
| ABLS1A24200 | 95°C | 95°C | 90°C |

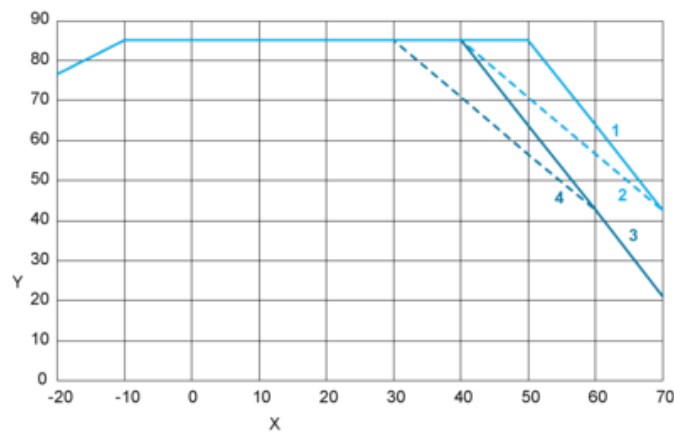
(1) : Ambient

Performance Curve

Mounting Position A



Mounting Position B



X : Surrounding Air Temperature

Y : Percentage of Max Load (%)

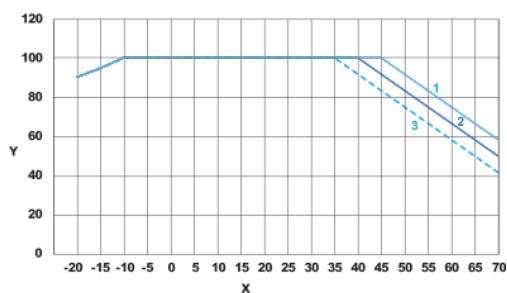
1 : Altitude 2000m, Input voltage = 230 VAC / 325 VDC

2 : Altitude 2000m, 115 VAC / 162 VDC

3 : Altitude 5000m, Input voltage = 230 VAC / 325 VDC

4 : Altitude 5000m, 115 VAC / 162 VDC

DC input voltage



X : Surrounding Air Temperature

Y : Percentage of Maximum Load (%)

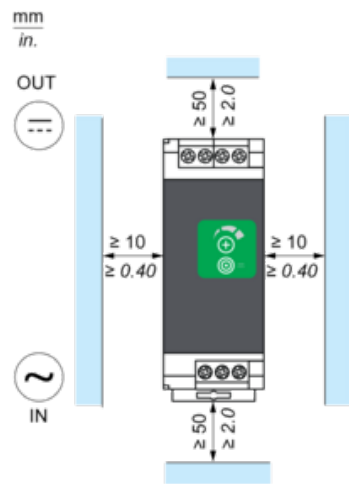
1 : 110 VDC

2 : 90 VDC

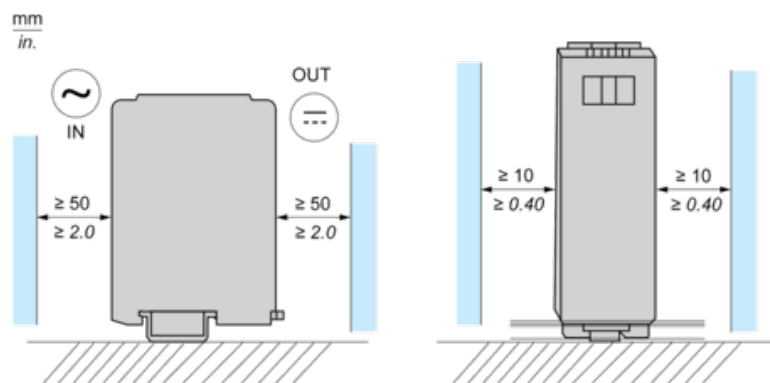
3 : 85 VDC

Mounting

Mounting Position A



Mounting Position B



Incorrect Mounting

