



Main

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| Range of Product | Modicon Power Supply |
| Product or Component Type | Power supply |
| Power supply type | Regulated switch mode |
| Variant option | Modular |
| Enclosure Material | Plastic |
| Nominal input voltage | 100...240 V AC single phase 100...240 V AC phase to phase |
| Kw Rating | 12 W |
| Output voltage | 12 V DC |
| Power supply output current | 1 A |

Complementary

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| Efficiency at full load | 90...264 V AC |
| Nominal network frequency | 50...60 Hz |
| Network system compatibility | TN TT IT |
| Maximum leakage current | 0.25 mA 240 V AC |
| Input protection type | Integrated fuse (not interchangeable) 3.15 A External protection (recommended) 20 A Curve B External protection (recommended) 20 A Curve C External protection (recommended) 2 A Curve B External protection (recommended) 2 A Curve C |
| Inrush current | 15 A 115 V 30 A 230 V |
| Power factor | 0.51 at 115 V AC 0.40 at 230 V AC |
| Efficiency | 80 % 115 V AC 80 % 230 V AC |
| Power dissipation in W | 3 W |
| Current consumption | < 0.4 A 115 V AC < 0.25 A 230 V AC |
| Turn-on time | < 2 s |
| Holding time | > 10 ms 115 V AC > 60 ms 230 V AC |
| Startup with capacitive loads | 3000 µF |
| Residual ripple | < 100 mV |
| Meantime between failure [MTBF] | 3000000 H at 77 °F (25 °C), full load 1000000 h at 131 °F (55 °C), 80 % load |
| 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...1.5 mm ² , AWG 20...AWG 16) without wire end ferrule input/output Screw connection 0.5...1 mm ² , AWG 20...AWG 18) with wire end ferrule input/output |
| Line and load regulation | < 0.5 % network in line < 1 % network 0 to 100 % load |
| Status LED | 1 LED (Green) output voltage |
| Depth | 2.19 in (55.6 mm) |
| Height | 3.58 in (91 mm) |

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| Width | 0.71 in (18 mm) |
| Net Weight | 0.22 lb(US) (0.101 kg) |
| Output coupling | Serial |
| Mounting support | Top hat type TH35-15 rail IEC 60715 Top hat type TH35-7.5 rail IEC 60715 Double-profile DIN rail Panel mounting |
| Supply | SELV IEC 60950-1 SELV IEC 60204-1 SELV IEC 60364-4-41 |
| Dielectric strength | 3000 V AC input/output |
| Service life | 10 year(s) |
| Overvoltage category | II |

Environment

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|---------------------------------------|--|
| Standards | IEC 62368-1 EN/IEC 61010-1 EN 61010-2-201 EN/IEC 61204-3 IEC 61000-6-1 IEC 61000-6-2 IEC 61000-6-3 IEC 61000-6-4 IEC 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[RETURN]CUL Listed[RETURN]CUL Recognized[RETURN]RCM[RETURN]CB Scheme[RETURN]EAC[RETURN]KC[RETURN]NEC class 2 |
| Operating altitude | < 6561.68 ft (2000 m) overvoltage category III 2000 m...5000 m overvoltage category II |
| Shock resistance | 150 m/s ² 11 ms |
| IP degree of protection | IP20 |
| Ambient air temperature for operation | -13...131 °F (-25...55 °C) without current derating mounting position A < 6561.68 ft (2000 m) 131...158 °F (55...70 °C) with current derating of 2.67 % per °C mounting position A < 6561.68 ft (2000 m) |
| Electrical shock protection class | Class II without PE connection |
| Pollution degree | 2 |
| Vibration resistance | 3 mm 2...9 Hz)IEC 60721-3-3 10 m/s ² 9...200 Hz)IEC 60721-3-3 |

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| Electromagnetic immunity | <p>Immunity to electrostatic discharge - test level: 8 kV (contact discharge) conforming to IEC 61000-4-2</p> <p>Immunity to electrostatic discharge - test level: 15 kV (air discharge) conforming to IEC 61000-4-2</p> <p>Electromagnetic field immunity test - test level: 15 V/m (80 MHz...2 GHz) conforming to IEC 61000-4-3</p> <p>Electromagnetic field immunity test - test level: 5 V/m (2...2.7 GHz) conforming to IEC 61000-4-3</p> <p>Electromagnetic field immunity test - test level: 5 V/m (2.7...6 GHz) conforming to IEC 61000-4-3</p> <p>Immunity to fast transients - test level: 4 kV (on input-output) conforming to IEC 61000-4-4</p> <p>Surge immunity test - test level: 4 kV (between power supply and earth) conforming to IEC 61000-4-5</p> <p>Surge immunity test - test level: 3 kV (between phases) conforming to IEC 61000-4-5</p> <p>Immunity to conducted disturbances - test level: 15 V (0.15...80 MHz) conforming to IEC 61000-4-6</p> <p>Immunity to magnetic fields - test level: 30 A/m (50...60 Hz) conforming to IEC 61000-4-8</p> <p>Immunity to voltage dips - test level: 100 % (1 cycle) conforming to IEC 61000-4-11</p> <p>Immunity to voltage dips - test level: 60 % (10 cycles) conforming to IEC 61000-4-11</p> <p>Immunity to voltage dips - test level: 30 % (25 cycles) conforming to IEC 61000-4-11</p> <p>Disturbing field emission conforming to EN 55016-2-3</p> <p>Limits for harmonic current emissions conforming to IEC 61000-3-2</p> <p>Conforming to EN 55016-1-2</p> <p>Conforming to EN 55016-2-1</p> |
| Electromagnetic emission | <p>Conducted emissions IEC 61000-6-3</p> <p>Radiated emissions IEC 61000-6-4</p> |

Ordering and shipping details

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|-------------------|-----------------------------------|
| Category | 22525-ABL8 AND ABL7 POWER SUPPLIE |
| Discount Schedule | CP12 |
| GTIN | 3606481500113 |
| Returnability | Yes |
| Country of origin | TH |

Packing Units

| | |
|------------------------------|------------------------|
| Unit Type of Package 1 | PCE |
| Number of Units in Package 1 | 1 |
| Package 1 Height | 1.18 in (3 cm) |
| Package 1 Width | 3.74 in (9.5 cm) |
| Package 1 Length | 5.39 in (13.7 cm) |
| Package 1 Weight | 4.02 oz (114 g) |
| Unit Type of Package 2 | S02 |
| Number of Units in Package 2 | 28 |
| Package 2 Height | 5.91 in (15 cm) |
| Package 2 Width | 11.81 in (30 cm) |
| Package 2 Length | 15.75 in (40 cm) |
| Package 2 Weight | 8.11 lb(US) (3.68 kg) |
| Unit Type of Package 3 | P12 |
| Number of Units in Package 3 | 896 |
| Package 3 Height | 29.53 in (75.0 cm) |
| Package 3 Width | 47.24 in (120.0 cm) |
| Package 3 Length | 31.50 in (80.0 cm) |
| Package 3 Weight | 279.99 lb(US) (127 kg) |

Offer Sustainability

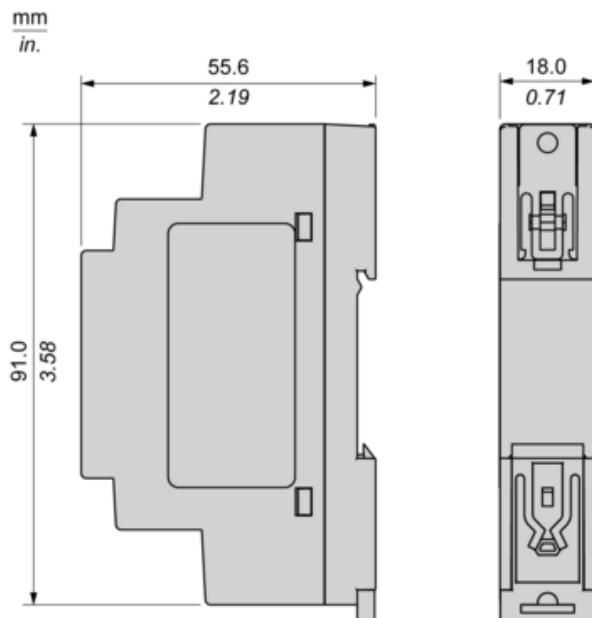
| | |
|----------------------------|---|
| Sustainable offer status | Green Premium product |
| California proposition 65 | WARNING: This product can expose you to chemicals including: Lead and lead compounds, which is known to the State of California to cause cancer and birth defects or other reproductive 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) |
| Mercury free | Yes |
| China RoHS Regulation | China RoHS Declaration |
| RoHS exemption information | Yes |
| 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.

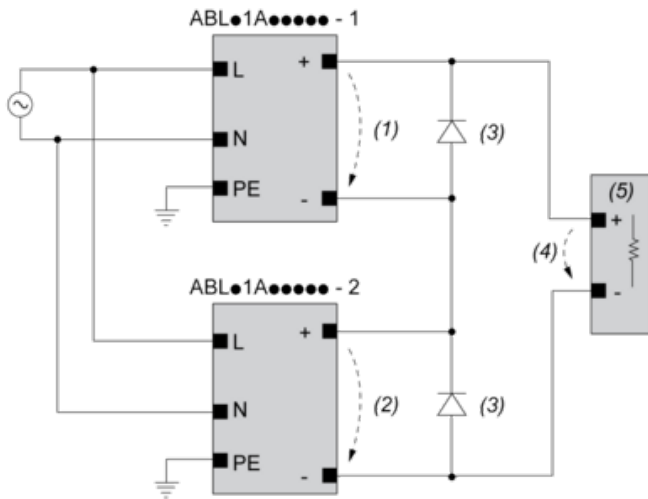
Dimensions

Side and Rear View



Connections and Schema

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

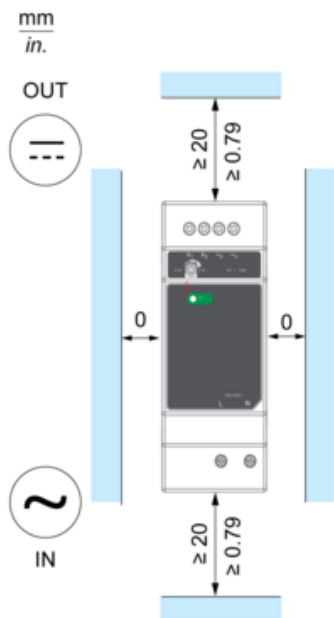
Connections and Schema

| | | (1) | | |
|-------------|--------|-------|-------|-------|
| | | <40°C | <50°C | <70°C |
| ABLM1A24004 | | 60°C | 75°C | 75°C |
| ABLM1A12010 | | 60°C | 75°C | 90°C |
| ABLM1A24006 | | 60°C | 75°C | 90°C |
| ABLM1A05036 | Input | 60°C | 75°C | 90°C |
| | Output | 75°C | 90°C | 90°C |
| ABLM1A12021 | | 60°C | 75°C | 90°C |
| ABLM1A24012 | | 60°C | 75°C | 90°C |
| ABLM1A12042 | | 60°C | 75°C | 90°C |
| ABLM1A24025 | | 60°C | 75°C | 90°C |

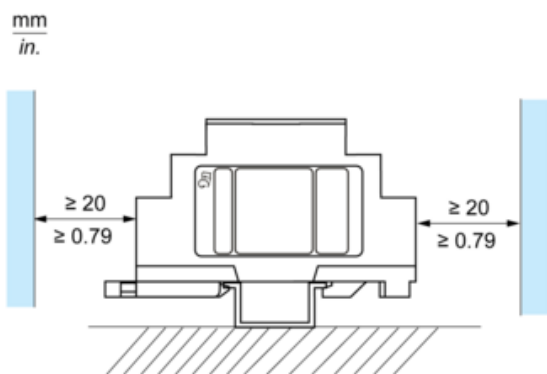
- (1) : Ambient

Mounting

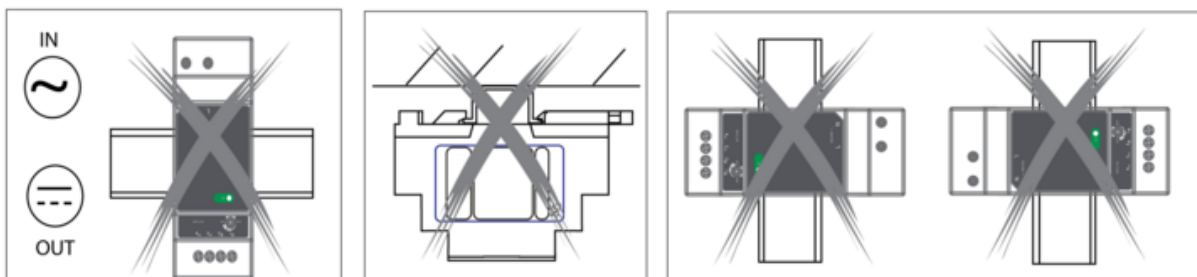
Mounting Position A



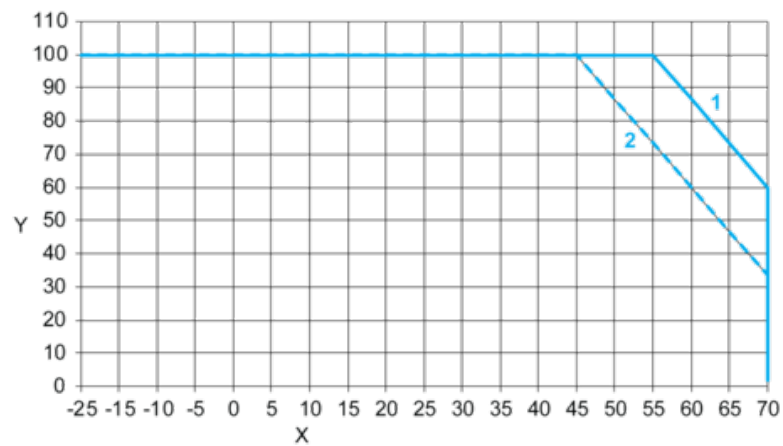
Mounting Position B



Incorrect Mounting



Performance Curve



X : Ambient Temperature (°C)
Y : Percentage of Max Load (%)
1 : Mounting A & B, altitude 2000M
2 : Mounting A & B, altitude 5000M