



### Main

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 2 phases
Input voltage limits	90...264 V AC
Kw Rating	15 W
Output voltage	24 V DC
Power supply output current	0.625 A

### Complementary

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	81 % 115 V AC 81 % 230 V AC
Power dissipation in W	3.5 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
Expected capacitor life time	10 year(s)
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 <sup>2</sup> , AWG 20...AWG 16) without wire end ferrule input/output Screw connection 0.5...1 mm <sup>2</sup> , AWG 20...AWG 18) with wire end ferrule input/output
Line and load regulation	< 0.5 %line < 1 %load
Status LED	Output voltage 1 LED Green)
Depth	2.19 in (55.6 mm)

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Height	3.58 in (91 mm)
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 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
Operating altitude	< 6561.68 ft (2000 m) overvoltage category III 2000 m...5000 m overvoltage category II
Shock resistance	100 m/s <sup>2</sup> 11 ms
IP degree of protection	IP20
Ambient air temperature for operation	-13...131 °F (-25...55 °C) without current derating) 131...158 °F (55...70 °C) with current derating of 2.67 % 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 II without PE connection
Pollution degree	2
Vibration resistance	3 mm 2...9 Hz)IEC 60721-3-3 10 m/s <sup>2</sup> 9...200 Hz)IEC 60721-3-3
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 Electromagnetic field immunity test 10 V/m 80 MHz...2 GHz) EN/IEC 61000-4-3 Electromagnetic field immunity test 5 V/m 2...2.7 GHz) EN/IEC 61000-4-3 Electromagnetic field immunity test 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 disturbances 10 Vrms 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 100 % 1 cycle) EN/IEC 61000-4-11 Immunity to voltage dips 60 % 10 cycles) EN/IEC 61000-4-11 Immunity to voltage dips 30 % 25 cycles) 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
Dielectric strength	3000 V AC input/output

## Ordering and shipping details

Category	22525 - ABL8 AND ABL7 POWER SUPPLIE
Discount Schedule	CP12
GTIN	3606481500120
Nbr. of units in pkg.	1
Package weight(Lbs)	4.09 oz (116 g)
Returnability	Yes
Country of origin	TH

## Packing Units

Unit Type of Package 1	PCE
Package 1 Height	1.18 in (3 cm)
Package 1 width	3.74 in (9.5 cm)
Package 1 Length	5.31 in (13.5 cm)
Unit Type of Package 2	S02
Number of Units in Package 2	28
Package 2 Weight	7.70 lb(US) (3.492 kg)
Package 2 Height	5.91 in (15 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 <a href="http://www.P65Warnings.ca.gov">www.P65Warnings.ca.gov</a>
REACH Regulation	<a href="#">REACH Declaration</a>
EU RoHS Directive	Pro-active compliance (Product out of EU RoHS legal scope) <a href="#">EU RoHS Declaration</a>
Mercury free	Yes
RoHS exemption information	<a href="#">Yes</a>
China RoHS Regulation	<a href="#">China RoHS Declaration</a>
Environmental Disclosure	<a href="#">Product Environmental Profile</a>
Circularity Profile	<a href="#">End Of Life Information</a>
WEEE	The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins.

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## Electrical Safety

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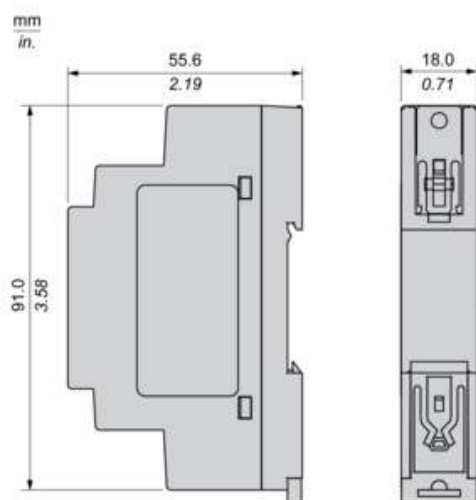
- If the unit is use in a manner not specified by the manufacturer, the protection provided by the equipment may be impaired.
- For means of disconnection a switch or circuit breaker, located near the product, must be included in the installation. A marking as disconnecting device for the product is 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.

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## Dimensions

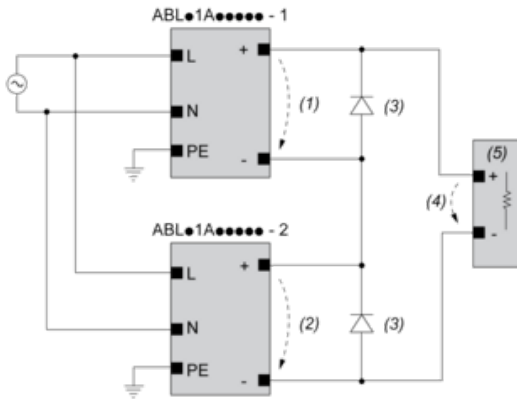
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### Side and Rear View



Connections and Schema

Series Connection



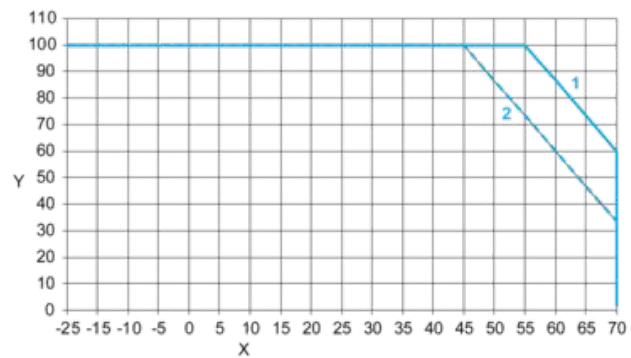
- (1) :  $V_{out1}$
- (2) :  $V_{out2}$
- (3) : 2 x Diode,  $V_{RRM} > 2 \times V_{out1/2}$ ,  $I_F > 2 \times I_{nom1/2}$
- (4) :  $V_{Load} = 2 \times V_{out}$
- (5) : Load

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

Performance Curve



X : Ambient Temperature (°C)

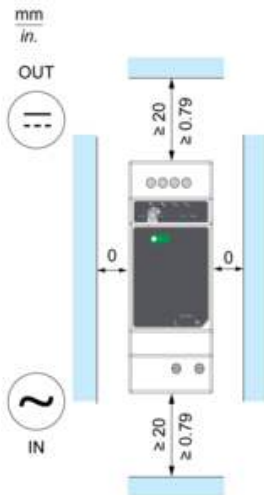
Y : Percentage of Max Load (%)

1 : Mounting A & B, altitude 2000M

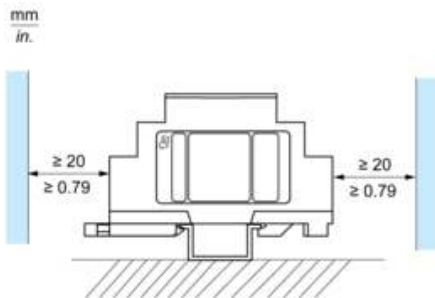
2 : Mounting A & B, altitude 5000M

Mounting

Mounting Position A



Mounting Position B



Incorrect Mounting

