

Regulated Power Supply, 100 to 240V AC, 12V, 1A, single phase, Modular

ABLM1A12010

Product availability: Stock - Normally stocked in distribution facility

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	100240 V AC single phase 100240 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	90264 V AC
Nominal network frequency	5060 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	<2s
Holding time	> 10 ms 115 V AC > 60 ms 230 V AC
Startup with capacitive loads	3000 μF
Residual ripple	< 100 mV

Price is "List Price" and may be subject to a trade discount – check with your local distributor or retailer for actual price.

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, protection technology: automatic reset Against over temperature, protection technology: manual reset Against overvoltage, protection technology: manual reset				
Connections - terminals	Screw connection 0.51.5 mm², AWG 20AWG 16) without wire end ferrule input/output Screw connection 0.51 mm², AWG 20AWG 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	2.2 in (55.6 mm)				
Height	3.6 in (91 mm)				
Width	0.7 in (18 mm)				
Net Weight	0.223 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	П				

Environment

Ambient air temperature for operation	-13131 °F (-2555 °C) without current derating mounting position A < 6561.68 ft (2000 m) 131158 °F (5570 °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 (f= 29 Hz) conforming to IEC 60721-3-3 10 m/s² (f= 9200 Hz) conforming to IEC 60721-3-3			
Electromagnetic immunity	Immunity to electrostatic discharge - test level: 8 kV (contact discharge) conforming to IEC 61000-4-2 Immunity to electrostatic discharge - test level: 15 kV (air discharge) conforming to			
	IEC 61000-4-2 Electromagnetic field immunity test - test level: 15 V/m (80 MHz2 GHz) conforming to IEC 61000-4-3			
	Electromagnetic field immunity test - test level: 5 V/m (22.7 GHz) conforming to IEC 61000-4-3			
	Electromagnetic field immunity test - test level: 5 V/m (2.76 GHz) conforming to IEC 61000-4-3			
	Immunity to fast transients - test level: 4 kV (on input-output) conforming to IEC 61000-4-4			
	Surge immunity test - test level: 4 kV (between power supply and earth) conforming to IEC 61000-4-5			
	Surge immunity test - test level: 3 kV (between phases) conforming to IEC 61000-4-5 Immunity to conducted disturbances - test level: 15 V (0.1580 MHz) conforming to IEC 61000-4-6			
	Immunity to magnetic fields - test level: 30 A/m (5060 Hz) conforming to IEC 61000-4-8			
	Immunity to voltage dips - test level: 100 % (1 cycle) conforming to IEC 61000-4-11 Immunity to voltage dips - test level: 60 % (10 cycles) conforming to IEC 61000-4-11 Immunity to voltage dips - test level: 30 % (25 cycles) conforming to IEC 61000-4-11 Disturbing field emission conforming to EN 55016-2-3			
	Limits for harmonic current emissions conforming to IEC 61000-3-2 conforming to EN 55016-1-2 conforming to EN 55016-2-1			
Electromagnetic emission	Conducted emissions IEC 61000-6-3 Radiated emissions IEC 61000-6-4			

Ordering and shipping details

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Category	US1CP1222525	
Discount Schedule	CP12	
GTIN	3606481500113	
Returnability	Yes	
Country of origin	IN	

Packing Units

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Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	1.18 in (3.000 cm)
Package 1 Width	3.74 in (9.500 cm)
Package 1 Length	5.39 in (13.700 cm)
Package 1 Weight	4.021 oz (114.000 g)
Unit Type of Package 2	S02
Number of Units in Package 2	28
Package 2 Height	5.91 in (15.000 cm)
Package 2 Width	11.81 in (30.000 cm)
Package 2 Length	15.75 in (40.000 cm)

Package 2 Weight

8.051 lb(US) (3.652 kg)



Schneider Electric aims to achieve Net Zero status by 2050 through supply chain partnerships, lower impact materials, and circularity via our ongoing "Use Better, Use Longer, Use Again" campaign to extend product lifetimes and recyclability.

Environmental Data explained >

How we assess product sustainability >

∇ Environmental footprint	
Carbon footprint (kg CO2 eq, Total Life cycle)	130
Environmental Disclosure	Product Environmental Profile

Use Better

⊗ Materials and Substances	
Packaging made with recycled cardboard	No
Packaging without single use plastic	No
EU RoHS Directive	Pro-active compliance (Product out of EU RoHS legal scope)
SCIP Number	86cefe39-f12b-4dc7-bf4d-ccd095c653fe
REACh Regulation	REACh Declaration
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

Use Again

○ Repack and remanufacture	
Circularity Profile	End of Life Information
Take-back	No
WEEE	The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins.

Product data sheet

ABLM1A12010

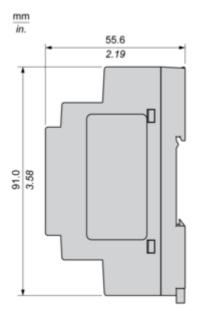
Dimensions Drawings

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

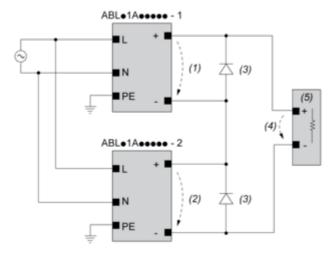




Connections and Schema

Connections and Schema

Series Connection



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

Connections and Schema

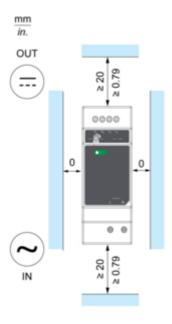
		(1)		
		<40°C	<50°C	<70°C
ABLM1A24004		60°C	75°C	75°C
ABLM1A12010		60°C	75°C	90°C
ABLM1A24006		60°C	75°C	90°C
ABLM1A05036	Input	60°C	75°C	90°C
ADEM INOSOSO	Output	75°C	90°C	90°C
ABLM1A12021		60°C	75°C	90°C
ABLM1A24012		60°C	75°C	90°C
ABLM1A12042		60°C	75°C	90°C
ABLM1A24025		60°C	75°C	90°C

(1): Ambient

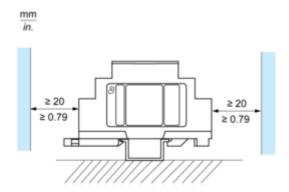
Mounting and Clearance

Mounting

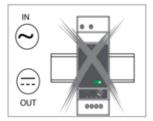
Mounting Position A

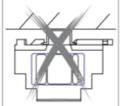


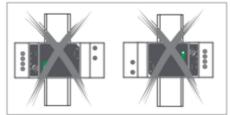
Mounting Position B



Incorrect Mounting





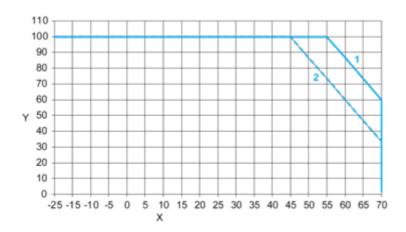


Product data sheet

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Performance Curves

Performance Curve



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

Image of product / Alternate images

Alternative











