Product data sheet
Characteristics

ABLM1A24012
Regulated Power Supply, 100 to 240V AC, 24V, 1.2A, single phase, Modular



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
Input voltage	100...240 V AC single phase 100...240 V AC phase to phase
Rated power in W	30 W
Output voltage	24 V DC
Power supply output current	1.25 A

Complementary

Input voltage limits	90...264 V AC
Network frequency limits	50…60 Hz
Earthing system	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) 4 A Curve B External protection (recommended) 4 A Curve C
Inrush current	25 A at 115 V 50 A at 230 V
Power factor	0.48 at 115 V AC 0.38 at 230 V AC
Efficiency	87 % at 115 V AC 87 % at 230 V AC
Output voltage limits	24...28 V
Power dissipation in W	5 W
Current consumption	< 0.8 A 115 V AC < 0.6 A 230 V AC
Response time	< 2 s
Holding time	> 20 ms 115 V AC > 60 ms 230 V AC
Load capacitance	3000 MF
Residual ripple	< 100 mV
Meantime between failure [MTBF]	2500000 H at 25 °C, full load 1000000 H at 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: 0.5...1.5 mm², (20 AWG...16 AWG) without wire end ferrule for input/output Screw connection: 0.5...1 mm², (20 AWG...18 AWG) with wire end ferrule for input/output
Line and load regulation	< 0.5 % at in line < 1 % at 0 to 100 % load
Status LED	1 LED (green) output voltage
Depth	55.6 Mm
Height	91 Mm
Width	36 Mm
Net weight	0.170 Kg
Output coupling	Serial Parallel
Mounting support	Top hat type TH35-15 rail conforming to IEC 60715 Top hat type TH35-7.5 rail conforming to IEC 60715 Double-profile DIN rail panel mounting
Supply	SELV conforming to IEC 60950-1 SELV conforming to IEC 60204-1 SELV conforming to IEC 60364-4-41
Dielectric strength	3000 V AC input/output
Service life	10 Year(S)
Overvoltage category	II

Environment

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
Product certifications	CE[RETURN]CUL listed[RETURN]CUL recognized[RETURN]RCM[RETURN]CB Scheme[RET
Operating altitude	< 2000 m overvoltage category III 2000 m...5000 m overvoltage category II
Shock resistance	150 m/s² for 11 ms
IP degree of protection	IP20
Ambient air temperature for operation	-25…55 °C without current derating mounting position A < 2000 m 55…70 °C with current derating of 2.67 % per °C mounting position A < 2000 m
Electrical shock protection class	Class II without PE connection
Pollution degree	2
Vibration resistance	3 mm (f= 2…9 Hz) conforming to IEC 60721-3-3 10 m/s² (f= 9…200 Hz) conforming to IEC 60721-3-3
Electromagnetic compatibility	Immunity to electrostatic discharge - test level: 8 kV (contact discharge) conforming to IEC 610 Immunity to electrostatic discharge - test level: 15 kV (air discharge) conforming to IEC 61000- Electromagnetic field immunity test - test level: 15 V/m (80 MHz...2 GHz) conforming to IEC 61 Electromagnetic field immunity test - test level: 5 V/m (2...2.7 GHz) conforming to IEC 61000-4 Electromagnetic field immunity test - test level: 5 V/m (2.7...6 GHz) conforming to IEC 61000-4 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 610 Surge immunity test - test level: 3 kV (between phases) conforming to IEC 61000-4-5 Immunity to conducted disturbances - test level: 15 V (0.15...80 MHz) conforming to IEC 61000 Immunity to magnetic fields - test level: 30 A/m (50...60 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 conforming to IEC 61000-6-3 Radiated emissions conforming to IEC 61000-6-4

Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	5.000 Cm
Package 1 Width	6.000 Cm
Package 1 Length	11.000 Cm
Package 1 Weight	172.000 G
Unit Type of Package 2	S02
Number of Units in Package 2	29
Package 2 Height	15.000 Cm
Package 2 Width	30.000 Cm
Package 2 Length	40.000 Cm
Package 2 Weight	5.317 Kg
Unit Type of Package 3	P12
Number of Units in Package 3	464
Package 3 Height	45.000 Cm
Package 3 Width	80.000 Cm

Package 3 Length	120.000 Cm
Package 3 Weight	97.312 Kg

Offer Sustainability

Recyclability potential, in %	15
Total lifecycle Carbon footprint	184 kg CO2 eq.
Carbon footprint of the manufacturing phase [A1 to A3]	6.26347190363907
Carbon footprint of the manufacturing phase [A1 to A3]	6 kg CO2 eq.
Carbon footprint of the distribution phase [A4]	0.060095014925914465
Carbon footprint of the distribution phase [A4]	0.1 kg CO2 eq.
Carbon footprint of the installation phase [A5]	0
Carbon footprint of the installation phase [A5]	0 kg CO2 eq.
Carbon footprint of the use phase [B2, B3, B4, B6]	177.03879763778556
Carbon footprint of the use phase [B2, B3, B4, B6]	177 kg CO2 eq.
Mercury free	Yes
Sustainable packaging	No
Carbon footprint of the end-of-life phase [C1 to C4]	1.0041049636062265
Carbon footprint of the end-of-life phase [C1 to C4]	1 kg CO2 eq.
Environmental Disclosure	Product Environmental Profile
Total lifecycle Carbon footprint	184
Packaging made with recycled cardboard	No
Packaging without single use plastic	Yes
SCIP Number	12ea84a2-1fbd-460a-b051-6fc2e008caa0
REACh Regulation	Reference contains Substances of Very High Concern above the threshold
EU RoHS Directive	Compliant By Exemption
California proposition 65	WARNING: This product can expose you to chemicals including: Lead and lead compounds, which
End of life manual availability	End Of Life Information
Take-back	No
WEEE Label	The product must be disposed on European Union markets following specific waste collection and

Contractual warranty

Warranty (in months)	18

Product Life Status : Commercialised