Product data sheet
Characteristics

ABLS1A24021
Regulated Power Supply, 100 to 240V AC, 24V, 2.1A, single phase, Optimized



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
Input voltage	100...240 V AC single phase 100...240 V AC phase to phase
Rated power in W	50 W
Output voltage	24 V DC
Power supply output current	2.1 A

Complementary

Input voltage limits	85...264 V AC
Network frequency limits	50…60 Hz
Earthing system	TN TT IT
Maximum leakage current	1 MA 240 V AC
Input protection type	Integrated fuse (not interchangeable) 3.15 A External protection (recommended) 20 A Curve C External protection (recommended) 10 A Curve B External protection (recommended) 6 A Curve C
Inrush current	35.0 A at 115 V 75.0 A at 230 V
Power factor	0.45 at 115 V AC 0.35 at 230 V AC
Efficiency	86 % at 115 V AC 88 % at 230 V AC
Output voltage limits	24...28 V
Power dissipation in W	7.5 W
Current consumption	< 1.1 A 115 V AC < 0.65 A 230 V AC
Response time	< 3 s
Holding time	> 20 ms 100 V AC > 100 ms 230 V AC
Load capacitance	3000 MF
Residual ripple	< 75 mV
Meantime between failure [MTBF]	2000000 H at 25 °C, full load conforming to SR 332 900000 H at 55 °C, 80 % load conforming to SR 332

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...2.5 mm², (20 AWG...14 AWG) for input/output
Line and load regulation	< 0.5 % at 0 to 100 % load at 25 °C < 1 % at full voltage range in line at 25 °C
Status LED	1 LED (green) output voltage
Depth	89.5 Mm
Height	75 Mm
Width	30 Mm
Net weight	0.180 Kg
Output coupling	Parallel Serial
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
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 with input to output
Service life	10 Year(S)
Overvoltage category	II

Environment

Standards	IEC 62368-1 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 CSA C22.2 No 62368-1 UL 508 CSA C22.2 No 107.1
Product certifications	CE[RETURN]CUL listed[RETURN]CUL recognized[RETURN]RCM[RETURN]CB Scheme[RETUR
Operating altitude	< 2000 m
Shock resistance	150 m/s² for 11 ms
IP degree of protection	IP20
Ambient air temperature for operation	-20…-10 °C with current derating of 2 % per °C mounting position A < 2000 m -10…55 °C without derating mounting position A < 2000 m 55…70 °C with current derating of 3.33 % per °C mounting position A < 2000 m
Electrical shock protection class	Class I
Pollution degree	2
Vibration resistance	3 mm (f= 2…9 Hz) conforming to IEC 60068-2-6 10 m/s² (f= 9…200 Hz) conforming to IEC 60068-2-6
Electromagnetic compatibility	Immunity to electrostatic discharge - test level: 8 kV (contact discharge) conforming to IEC 61000- Immunity to electrostatic discharge - test level: 15 kV (air discharge) conforming to IEC 61000-4-2 Immunity to conducted RF disturbances - test level: 15 V/m (80 MHz...2 GHz) conforming to IEC 6 Immunity to conducted RF disturbances - test level: 5 V/m (2...2.7 GHz) conforming to IEC 61000- Immunity to conducted RF disturbances - test level: 5 V/m (2.7...6 GHz) conforming to IEC 61000- 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- Surge immunity test - test level: 3 kV (between phases) conforming to IEC 61000-4-5 Immunity to conducted RF disturbances - test level: 15 V (0.15...80 MHz) conforming to IEC 6100 Immunity to magnetic fields - test level: 30 A/m (50...60 Hz) conforming to IEC 61000-4-8 Immunity to voltage dips 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	3.800 Cm
Package 1 Width	8.600 Cm
Package 1 Length	10.900 Cm
Package 1 Weight	215.000 G
Unit Type of Package 2	S02
Number of Units in Package 2	30
Package 2 Height	15 Cm
Package 2 Width	30 Cm
Package 2 Length	40 Cm
Package 2 Weight	6.977 Kg

Offer Sustainability

Recyclability potential, in %	4
Total lifecycle Carbon footprint	379 kg CO2 eq.
Carbon footprint of the manufacturing phase [A1 to A3]	7.247414258019903
Carbon footprint of the manufacturing phase [A1 to A3]	7 kg CO2 eq.
Carbon footprint of the distribution phase [A4]	0.10244514131518583
Carbon footprint of the distribution phase [A4]	0.1 kg CO2 eq.
Carbon footprint of the installation phase [A5]	0.002733752868396357
Carbon footprint of the installation phase [A5]	0 kg CO2 eq.
Carbon footprint of the use phase [B2, B3, B4, B6]	370.7403539420815
Carbon footprint of the use phase [B2, B3, B4, B6]	371 kg CO2 eq.
Mercury free	Yes
Sustainable packaging	No
Carbon footprint of the end-of-life phase [C1 to C4]	0.6498138709204117
Carbon footprint of the end-of-life phase [C1 to C4]	0.6 kg CO2 eq.
Environmental Disclosure	Product Environmental Profile
Total lifecycle Carbon footprint	379
Packaging made with recycled cardboard	No
Packaging without single use plastic	No
SCIP Number	86cefe39-f12b-4dc7-bf4d-ccd095c653fe
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, w
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 a

Contractual warranty

Warranty (in months)	18

Product Life Status : Commercialised