

ABL1RPM24042

regulated SMPS - single phase - 100..240 V input -
24 V output - 100 W



Main

Range of product	Phaseo Dedicated
Product or component type	Power supply
Power supply type	Regulated switch mode
Rated power in W	100 W
Input voltage	AC single phase DC
Output voltage	24 V DC
Power supply output current	4.2 A
Operating position	Any position
Vibration resistance	2 gn (f = 9...150 Hz) conforming to EN/IEC 61131-2 3.5 mm (f = 5...9 Hz) conforming to EN/IEC 61131-2
Name of test	Conducted interference conforming to EN 61000-4-8 level 4 Conducted/radiated emissions conforming to EN 55022 Class B Conducted/radiated emissions conforming to EN/IEC 55011 Electrostatic discharges conforming to EN/IEC 61000-4-2 level 3 Emission conforming to EN/IEC 61000-6-3 Induced electromagnetic field conforming to EN/IEC 61000-4-6 level 3 Primary outage conforming to IEC 61000-4-11 Radiated electromagnetic field conforming to EN/IEC 61000-4-3 level 3 Rapid transient conforming to IEC 61000-4-4 level 3 Surge conforming to EN/IEC 61000-4-5

Complementary

Input voltage limits	85...264 V
Network frequency	47...63 Hz
Inrush current	<= 50 A at 115 V AC <= 100 A at 230 V AC
Cos phi	0.7...0.95
Efficiency	> 80 %
Power dissipation in W	25 W
Current consumption	0.7 A at 240 V 1.7 A at 100 V
Input protection type	Integrated fuse (not interchangeable)
Output voltage limits	21.6...26.4 V
Line and load regulation	+/- 3 %
Holding time	>= 10 ms at 100 V >= 40 ms at 240 V
Output protection type	Against overload, protection technology: 1.1...1.5 x In Against overvoltage, protection technology: tripping if U > 1.25 x Un Against short-circuits, protection technology: automatic reset Thermal
Connections - terminals	Screw type terminals for ground connection, connection capacity: 1 x 4 mm ² AWG 12 Screw type terminals for input connection, connection capacity: 2 x 4 mm ² AWG 12 Screw type terminals for output connection, connection capacity: 4 x 4 mm ² AWG 12
Marking	CE
Mounting support	Panel Reversible mounting bracket
Operating altitude	2000 m

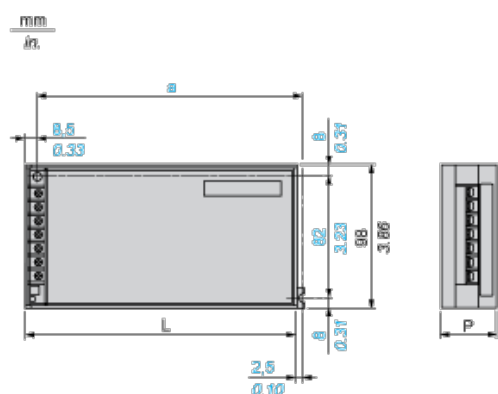
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Output coupling	Parallel Series
Overvoltage category	II
Meantime between failure (MTBF)	> 100000 h at 40 °C
Status LED	1 LED green for output voltage
Product weight	0.64 kg

Environment

product certifications	CCSAus CSA 22-2 No 60950-1 TUV 60950-1 UL 508 RCM EAC KC
environmental characteristic	EMC conforming to EN 50081-1 EMC conforming to EN 50082-2 EMC conforming to EN 61000-6-3 EMC conforming to EN/IEC 61000-6-2 Safety conforming to EN/IEC 60950-1 Safety conforming to SELV Low frequency harmonic currents conforming to EN/IEC 61000-3-2
IP degree of protection	IP20 conforming to EN/IEC 60950
ambient air temperature for operation	0...45 °C without derating factor 45...60 °C with derating factor
ambient air temperature for storage	-25...85 °C
relative humidity	20...90 %
overvoltage category	Class I conforming to VDE 0106-1
pollution degree	2
dielectric strength	1500 V between input and ground 3000 V between input and output 500 V between output and ground

Dimensions



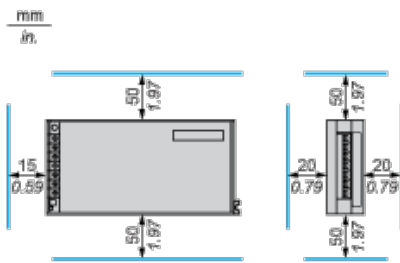
Dimensions in mm

a	L	P
194	200	38

Dimensions in in.

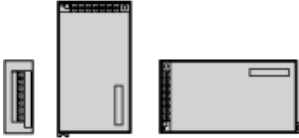
a	L	P
7.64	7.87	1.50

Clearance



Mounting Way

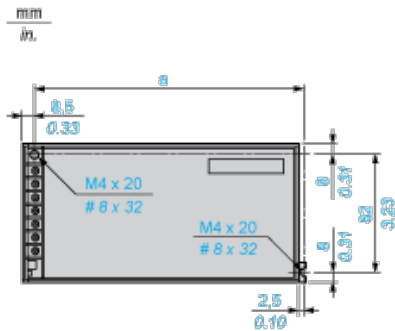
Mounting on Vertical Plane



Mounting on Horizontal Plane



Direct Mounting by 2 M4 x 20 Screws



Dimensions in mm

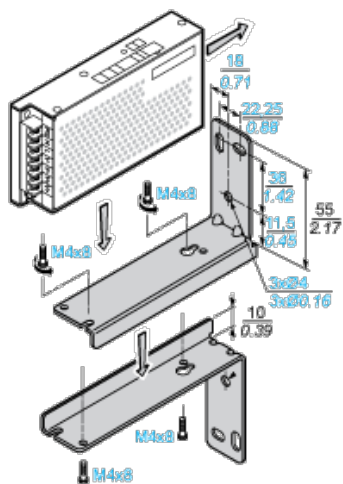
a
194

Dimensions in in

a
7.64

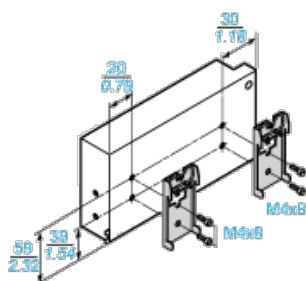
Mounting on the Back on ABL 1A01 Reversible Bracket by Three 4 mm Diameter Screws

mm
in.

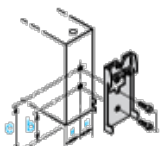


Mounting on ABL 1A02 Clip-on Mounting on 35 mm Rail

mm
in.



Mounting by the Back



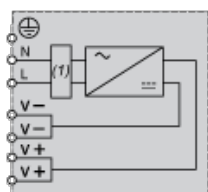
Dimensions in mm

b	c
38	58

Dimensions in in.

b	c
1.50	2.28

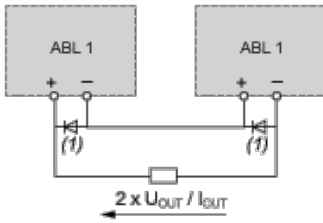
Internal Wiring Diagram



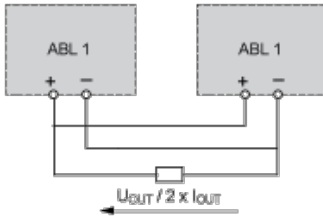
(1) Filter

Series or Parallel Connection

Series Connection



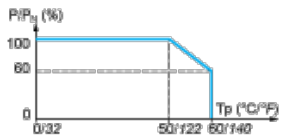
Parallel Connection



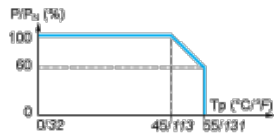
(1) 8 A/100 V Schottky diode

Derating Curves

Mounting on Vertical Plane



Mounting on Horizontal Plane



Load Limits Curve

