Specifications





(!) Discontinued

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

ABL1RPM24042

! Discontinued on: 20 Dec 2020

(!

! End-of-service on: 6 Jan 2021

### Main

| Range Of Product            | Phaseo Dedicated  |  |
|-----------------------------|---|--|
| Product Or Component Type   | Power supply  |  |
| Power Supply Type           | Regulated switch mode   |  |
| Rated Power In W            | 100 W   |  |
| Main Input Voltage          | 100240 V AC single phase<br>120370 V DC   |  |
| Output Voltage              | 24 V DC   |  |
| Power Supply Output Current | 4.2 A   |  |
| Operating Position          | Any position  |  |
| Vibration Resistance        | 2 gn (f= 9150 Hz) conforming to EN/IEC 61131-2<br>3.5 mm (f= 59 Hz) conforming to EN/IEC 61131-2  |  |
| Name Of Test                | Conducted interference conforming to EN 61000-4-8 level 4 Electrostatic discharges conforming to EN/IEC 61000-4-2 level 3 Induced electromagnetic field conforming to EN/IEC 61000-4-6 level 3 Radiated electromagnetic field conforming to EN/IEC 61000-4-3 level 3 Rapid transient conforming to IEC 61000-4-4 level 3 Conducted/radiated emissions conforming to EN 55022 class B Conducted/radiated emissions conforming to EN/IEC 55011 Emission conforming to EN/IEC 61000-6-3 Primary outage conforming to IEC 61000-4-11 Surge conforming to EN/IEC 61000-4-5 |  |

# Complementary

| Input Voltage Limits     | 85264 V                               |
|--------------------------|---------------------------------------|
| Network Frequency        | 4763 Hz                               |
| Inrush Current           | 50 A at 115 V AC<br>100 A at 230 V AC |
| Cos Phi                  | 0.70.95                               |
| Efficiency               | 80 %                                  |
| Power Dissipation In W   | 25 W                                  |
| Current Consumption      | 0.7 A at 240 V<br>1.7 A at 100 V      |
| Input Protection Type    | Integrated fuse (not interchangeable) |
| Output Voltage Limits    | 21.626.4 V                            |
| Line And Load Regulation | +/- 3 %                               |

| Holding Time                          | >= 10 ms at 100 V<br>>= 40 ms at 240 V   |  |
|---------------------------------------|--|--|
| Output Protection Type                | Against overload, protection technology: 1.11.5 x In Against overvoltage, protection technology: tripping if U > 1.25 x Un Against short-circuits, protection technology: automatic reset Thermal  |  |
| Connections - Terminals               | For ground connection: screw type terminals, connection capacity: 1 x 4 mm² AWG 12  For input connection: screw type terminals, connection capacity: 2 x 4 mm² AWG 12  For output connection: screw type terminals, connection capacity: 4 x 4 mm² AWG 12      |  |
| Marking                               | CE   |  |
| Mounting Support                      | Reversible mounting bracket<br>Panel   |  |
| Operating Altitude                    | 2000 m   |  |
| Output Coupling                       | Parallel<br>Series   |  |
| Overvoltage Category                  | II   |  |
| Meantime Between Failure [Mtbf]       | 100000 h at 40 °C  |  |
| Status Led                            | 1 LED (green) output voltage   |  |
| Net Weight                            | 0.64 kg  |  |
| Environment                           |  |  |
| Product Certifications                | TUV 60950-1 RCM UL 508 cCSAus CSA 22-2 No 60950-1 KC EAC   |  |
| 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 | 045 °C (without derating)<br>4560 °C (with derating factor)  |  |
| Ambient Air Temperature For Storage   | -2585 °C   |  |
| Relative Humidity                     | 2090 %   |  |
| Overvoltage Category                  | Class I conforming to VDE 0106-1   |  |
| Pollution Degree                      | 2  |  |
| Dielectric Strength                   | 1500 V between input and ground<br>3000 V between input and output<br>500 V between output and ground  |  |
| Packing Units                         |  |  |
| Unit Type Of Package 1                | PCE  |  |
| Number Of Units In Package 1          | 1  |  |
| Package 1 Height                      | 5.3 cm   |  |
| Package 1 Width                       | 12 cm  |  |
| Package 1 Length                      | 23.5 cm  |  |

Package 1 Weight 727 g

# **Contractual warranty**

Warranty 18 months



**Green Premium<sup>TM</sup> label** is Schneider Electric's commitment to delivering products with best-inclass environmental performance. Green Premium promises compliance with the latest regulations, transparency on environmental impacts, as well as circular and low-CO<sub>2</sub> products.

**Guide to assessing product sustainability** is a white paper that clarifies global eco-label standards and how to interpret environmental declarations.

Learn more about Green Premium >

Guide to assess a product's sustainability >





Transparency RoHS/REACh

## Well-being performance

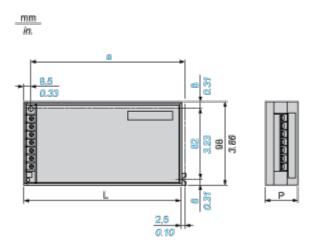
| <b>⊘</b> | Mercury Free               |     |
|----------|----------------------------|-----|
| <b>9</b> | Rohs Exemption Information | Yes |
| <b>9</b> | Pvc Free                   |     |

### **Certifications & Standards**

| Reach Regulation         | REACh Declaration  |  |
|--------------------------|--|--|
| Eu Rohs Directive        | Pro-active compliance (Product out of EU RoHS legal scope) |  |
| China Rohs Regulation    | China RoHS declaration                                     |  |
| Environmental Disclosure | Product Environmental Profile                              |  |
| Circularity Profile      | End of Life Information                                    |  |

## **Dimensions Drawings**

## **Dimensions**



| Dimo   | nsions | in   | mm     |
|--------|--------|------|--------|
| DILLIE | HOIUHO | 1111 | 111111 |

| а   | L   | Р  |
|-----|-----|----|
| 194 | 200 | 38 |

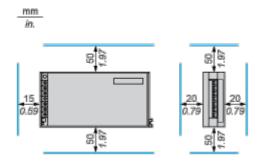
#### Dimensions in in.

| Difficitations in in. |      |      |
|-----------------------|------|------|
| а                     | L P  |      |
| 7.64                  | 7.87 | 1.50 |

# **ABL1RPM24042**

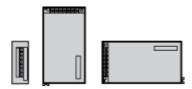
Mounting and Clearance

## Clearance



### **Mounting Way**

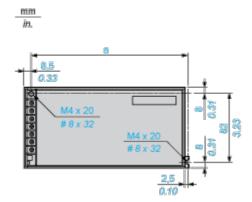
#### **Mounting on Vertical Plane**



### **Mounting on Horizontal Plane**



## Direct Mounting by 2 M4 x 20 Screws



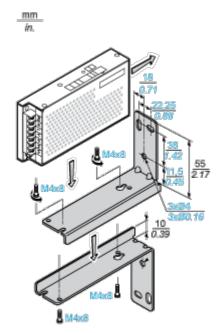
#### Dimensions in mm

| а   |  |
|-----|--|
| 194 |  |

#### Dimensions in in

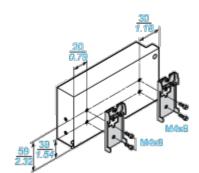
| а    |  |
|------|--|
| 7.64 |  |

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



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





## Mounting by the Back



#### Dimensions in mm

| b  | С  |
|----|----|
| 38 | 58 |

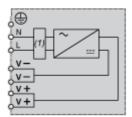
## Dimensions in in.

| b    | С    |
|------|------|
| 1.50 | 2.28 |

# ABL1RPM24042

Connections and Schema

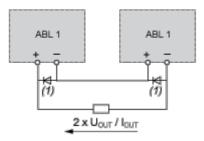
## **Internal Wiring Diagram**



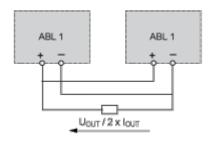
(1) Filter

### **Series or Parallel Connection**

#### **Series Connection**



#### **Parallel Connection**



(1) 8 A/100 V Shottky diode

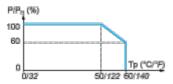
13

## **ABL1RPM24042**

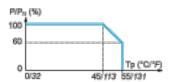
#### Performance Curves

# **Derating Curves**

## **Mounting on Vertical Plane**



#### **Mounting on Horizontal Plane**



### **Load Limits Curve**

