

Schneider Series Service Manual

ABL8BBU24200

1. Description

The ABL8BBU24200 is a battery control module by Schneider Electric within the Modicon series, designed for efficient power management. It operates in two modes: nominal and battery. This module features a wide input voltage range of 24 to 28.8V DC and can support a maximum output current of 20 Amps, ensuring robust performance across various applications.

2. Specifications

Specification	Value
Manufacturer	Schneider Electric
Product	Line Modicon
Part	Number ABL8BBU24200
EAN	3389119406826
Weight	1.13 lbs (0.51 kg)
Product	Battery Control Module
Modes	Nominal Mode, Battery Mode
Input	Voltage 24 to 28.8V DC
Output	Voltage in Nominal Mode 0.25V DC
Output	Voltage in Battery Mode 0.5V DC
Maximum	Output Current 20 Amps
Input	Voltage Limits 22 to 30V DC
Maximum	Power Dissipation 7W
Adjustable	Activation Threshold 22 to 36V
Number	of Outputs 1 Output
Current	Consumption (Load) 0.6 Amps
Current	Consumption (No Load) 0.1 mA
Maximum	Altitude 2000 meters
Operating	Temperature -25 to 60 degrees Celsius
Storage	Temperature -40 to 85 degrees Celsius
Range	of Product
Phaseo	
Product	or Component Type
Battery	control module
Input	voltage
24...28.8	V DC
Output	voltage
(Ubattery-0.5)	V battery mode DC
(Uin-0.25)	V nominal mode DC
Maximum	output current
20	A
Complementary	
Input	voltage limits
22...30	V
Maximum	power dissipation in W
7	W
Activation	threshold
Adjustable	22...36 V
Number	of output c

3. Product Information

The ABL8BBU24200 is a battery control module by Schneider Electric within the Modicon series, designed for efficient power management. It operates in two modes: nominal and battery. This module features a wide input voltage range of 24 to 28.8V DC and can support a maximum output current of 20 Amps, ensuring robust performance across various applications.

Technical specifications for ABL8BBU24200

Manufacturer Schneider Electric

Product Line Modicon

Part Number ABL8BBU24200

EAN 3389119406826

Weight 1.13 lbs (0.51 kg)

Product Battery Control Module

Modes Nominal Mode, Battery Mode

Input Voltage 24 to 28.8V DC

Output Voltage in Nominal Mode 0.25V DC

Output Voltage in Battery Mode 0.5V DC

Maximum Output Current 20 Amps

Input Voltage Limits 22 to 30V DC

Maximum Power Dissipation 7W

Adjustable Activation Threshold 22 to 36V

Number of Outputs 1 Output

Current Consumption (Load) 0.6 Amps

Current Consumption (No Load) 0.1 mA

Maximum Altitude 2000 meters

Operating Temperature -25 to 60 degrees Celsius

Storage Temperature -40 to 85 degrees Celsius

Range of Product

Phaseo

Product or Component Type

Battery control module

Input voltage

24...28.8 V DC

Output voltage

(Ubattery-0.5) V battery mode DC

(Uin-0.25) V nominal mode DC

Maximum output current

20 A

Complementary

Input voltage limits

22...30 V

Maximum power dissipation in W

7 W

Activation threshold

Adjustable 22...36 V

Number of output channels

1

Current consumption

0.6 A on load

0.1 mA no load

<= 40.6 A

Output protection type

Against overload, protection technology: 1.5 x In

Against short-circuits, protection technology: battery-backed mode, automatic reset

Against short-circuits, protection technology: power-supplied mode

Connections - terminals

For diagnostic relay: removable screw terminal block, connection capacity: 1 x 0.75 mm²

For input connection: screw type terminals, connection capacity: 2 x 0.5...2 x 10 mm² AWG 20...AWG 8

For output connection: screw type terminals, connection capacity: 2 x 0.5...2 x 10 mm² AWG 20...AWG 8

Fixing mode

By clips 35 mm symmetrical DIN rail horizontal

By clips 35 mm symmetrical DIN rail vertical

Operating altitude
6561.68 ft (2000 m)

Marking
CE

Name of test
Electrostatic discharges IEC 61000-4-2
Emission IEC 61000-6-3
Induced electromagnetic field IEC 61000-4-6 level 3
Radiated electromagnetic field IEC 61000-4-3 level 3
Rapid transient IEC 61000-4-4 level 3
Surge IEC 61000-4-5 level 2
Conducted/radiated emissions EN 55022 Class B, 20 %

Local signalling
1 C/O relay for alarm status
1 C/O relay for battery status
1 C/O relay for power supply status
LCD screen for module status

Width
2.4 in (60 mm)

Height
4.9 in (125 mm)

Depth
6.3 in (160 mm)

Net Weight
1.1 lb(US) (0.5 kg)

Environment
Product Certifications
RCM
EAC

Standards
UL 508
CSA C22.2 No 60950-1
Ambient Air Temperature for Operation
-13...140 °F (-25...60 °C)
Ambient Air Temperature for Storage
-40...185 °F (-40...85 °C)
Environmental characteristic
EMC conforming to IEC 61000-6-3
EMC conforming to IEC 61000-6-2
Safety conforming to IEC 60950-1
Safety conforming to EN/IEC 61204-3
IP degree of protection
IP20 conforming to IEC 60529
Dielectric strength
500 V between input and ground
500 V between output and ground
Overvoltage category
Class II conforming to VDE 0106-1
Relative Humidity
0...90 % during operation
0...95 % during storage
MTBF reliability
718708 H at 24 V DC with UTE C80-810 calculation method
Vibration resistance
2 gn (f= 11.9...150 Hz) conforming to IEC 61131-2
3.5 mm (f= 3...11.9 Hz) conforming to IEC 61131-2
Ordering and shipping details
Category
US1CP1222525

Discount Schedule

CP12

GTIN

3389119406826

Returnability

Yes

Packing Units

Unit Type of Package 1

PCE

Nbr. of units in pkg.

1

Package 1 Height

3.543 in (9.000 cm)

Package 1 Width

7.677 in (19.500 cm)

Package 1 Length

7.677 in (19.500 cm)

Package weight(Lbs)

3.236 lb(US) (1.468 kg)

Description

The Schneider Electric ABL8BBU24200 functions as a battery control module within the Modicon product line. It is designed to operate effectively under different conditions, offering nominal and battery modes. The input voltage specification ranges from 24 to 28.8V DC, providing flexibility for various installation setups. For nominal operations, it outputs at 0.25V DC, while in battery mode, the output voltage adjusts to 0.5V DC. The device can handle a maximum output current of 20 Amps, making it suitable for demanding applications. The module maintains a broad input voltage tolerance, with limits from 22 to 30V DC. It features an adjustable activation threshold set between 22 and 36V, allowing users to fine-tune performance according to specific requirements. The ABL8BBU24200 is designed to have one output and exhibits a current consumption of 0.6 Amps when loaded, or a mere 0.1 mA under no-load conditions.

With a robust design, the module is operable at altitudes reaching 2000 meters and can withstand operating temperatures from -25 to 60 degrees Celsius. For storage purposes, it is rated for temperatures as low as -40 degrees Celsius to as high as 85 degrees Celsius, ensuring reliability in extreme environments.