Product datasheet

Specifications





battery control module - 24..28.8 V DC - 24 V - 40 A - for regulated SMPS

ABL8BBU24400

Main

Range Of Product	Phaseo
Product Or Component Type	Battery control module
Input Voltage	2428.8 V DC
Output Voltage	(Ubattery-0.5) V in battery mode DC (Uin-0.25) V in nominal mode DC
Maximum Output Current	40 A

Complementary

Against short-circuits, protection technology: power-supplied mode Connections - Terminals For diagnostic relay: removable screw terminal block, connection capacity: 1 x 0 mm ² For input connection: screw type terminals, connection capacity: 2 x 0.52 x 10 AWG 20AWG 8 For output connection: screw type terminals, connection capacity: 2 x 0.52 x 1 mm ² AWG 20AWG 8 Fixing Mode By clips on 35 mm symmetrical DIN rail, operating position: horizontal By clips on 35 mm symmetrical DIN rail, operating position: vertical Marking CE Name Of Test Electrostatic discharges conforming to IEC 61000-4-2 Emission conforming to IEC 61000-4-3 level 3 Radiated electromagnetic field conforming to IEC 61000-4-3 level 3 Radiated electromagnetic field conforming to IEC 61000-4-3 level 3 Surge conforming to IEC 61000-4-4 level 3 Surge conforming to IEC 61000-4-5 level 2 Conducted/radiated emissions conforming to EN 55022 class B, 20 % Local Signalling 1 C/O relay for alarm status 1 C/O relay for power supply status LCD screen for module status	Input Voltage Limits	2230 V
Number Of Output Channels 1 Current Consumption 0.6 A on load 0.1 mA no load <= 40.6 A	Maximum Power Dissipation In W	12 W
Current Consumption 0.6 A on load 0.1 mA no load <= 40.6 A	Activation Threshold	Adjustable 2236 V
0.1 mA no load <= 40.6 A	Number Of Output Channels	1
Against short-circuits, protection technology: battery-backed mode, automatic re Against short-circuits, protection technology: power-supplied mode Connections - Terminals For diagnostic relay: removable screw terminal block, connection capacity: 1 x 0 mm² For input connection: screw type terminals, connection capacity: 2 x 0.52 x 10 AWG 20AWG 8 For output connection: screw type terminals, connection capacity: 2 x 0.52 x 11 mm² AWG 20AWG 8 Fixing Mode By clips on 35 mm symmetrical DIN rail, operating position: horizontal By clips on 35 mm symmetrical DIN rail, operating position: vertical Marking CE Name Of Test Electrostatic discharges conforming to IEC 61000-4-2 Emission conforming to IEC 61000-4-3 level 3 Radiated electromagnetic field conforming to IEC 61000-4-3 level 3 Radiated electromagnetic field conforming to IEC 61000-4-3 level 3 Surge conforming to IEC 61000-4-5 level 2 Conducted/radiated emissions conforming to IEC 61000-4-5 level 3 Surge conforming to IEC 61000-4-5 level 2 Conducted/radiated emissions conforming to 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	Current Consumption	0.1 mA no load
For insploted foldy instruction output formation output, in a formation output, in a formation output, in a formation output, instruction output, instruction, instruction output, instruction, instruction, instruction output, instruction, instructin, instruction, instruction, instruction, ins	Output Protection Type	Against short-circuits, protection technology: battery-backed mode, automatic reset
By clips on 35 mm symmetrical DIN rail, operating position: vertical Marking CE Name Of Test Electrostatic discharges conforming to IEC 61000-4-2 Emission conforming to IEC 61000-6-3 Induced electromagnetic field conforming to IEC 61000-4-6 level 3 Radiated electromagnetic field conforming to IEC 61000-4-3 level 3 Rapid transient conforming to IEC 61000-4-4 level 3 Surge conforming to IEC 61000-4-5 level 2 Conducted/radiated emissions conforming to 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	Connections - Terminals	For input connection: screw type terminals, connection capacity: 2 x 0.52 x 10 mm ² AWG 20AWG 8 For output connection: screw type terminals, connection capacity: 2 x 0.52 x 10
Name Of Test Electrostatic discharges conforming to IEC 61000-4-2 Emission conforming to IEC 61000-6-3 Induced electromagnetic field conforming to IEC 61000-4-6 level 3 Radiated electromagnetic field conforming to IEC 61000-4-3 level 3 Rapid transient conforming to IEC 61000-4-4 level 3 Surge conforming to IEC 61000-4-5 level 2 Conducted/radiated emissions conforming to EN 55022 class B, 20 % Local Signalling 1 C/O relay for alarm status 1 C/O relay for power supply status 1 C/O relay for power supply status LCD screen for module status 1 C/O relay for power supply status	Fixing Mode	
Encarbative Encoded and goes contraining to EC 01000-4-2 Emission conforming to IEC 61000-6-3 Induced electromagnetic field conforming to IEC 61000-4-6 level 3 Radiated electromagnetic field conforming to IEC 61000-4-3 level 3 Rapid transient conforming to IEC 61000-4-4 level 3 Surge conforming to IEC 61000-4-5 level 2 Conducted/radiated emissions conforming to EN 55022 class B, 20 % Local Signalling 1 C/O relay for alarm status 1 C/O relay for power supply status LCD screen for module status	Marking	CE
1 C/O relay for battery status 1 C/O relay for power supply status LCD screen for module status	Name Of Test	Emission conforming to IEC 61000-6-3 Induced electromagnetic field conforming to IEC 61000-4-6 level 3 Radiated electromagnetic field conforming to IEC 61000-4-3 level 3 Rapid transient conforming to IEC 61000-4-4 level 3 Surge conforming to IEC 61000-4-5 level 2
Net Weight 0.7 kg	Local Signalling	1 C/O relay for battery status 1 C/O relay for power supply status
	Net Weight	0.7 kg

Disclaimer. This documentation is not intended as a substitute for and is not to be used for determining suitability or reliability of these products for specific user applications

Product Certifications	RCM
	EAC
Standards	UL 508
	CSA C22.2 No 60950-1
Ambient Air Temperature For Operation	-2560 °C
Ambient Air Temperature For Storage	-4085 °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	090 % during operation
	095 % during storage
Mtbf Reliability	707945 H at 24 V DC with UTE C80-810 calculation method
Vibration Resistance	2 gn (f= 11.9150 Hz) conforming to IEC 61131-2
	3.5 mm (f= 311.9 Hz) conforming to IEC 61131-2

Packing Units

v	
Unit Type Of Package 1	PCE
Number Of Units In Package 1	1
Package 1 Height	11.2 cm
Package 1 Width	18 cm
Package 1 Length	18.5 cm
Package 1 Weight	1.349 kg
Unit Type Of Package 2	S04
Number Of Units In Package 2	8
Package 2 Height	30 cm
Package 2 Width	40 cm
Package 2 Length	60 cm
Package 2 Weight	12.11 kg

Contractual warranty

Warranty

18 months

Sustainability Screen Premium

Green PremiumTM 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-CO₂ 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

Mercury Free
Rohs Exemption Information Yes
Pvc Free

Certifications & Standards

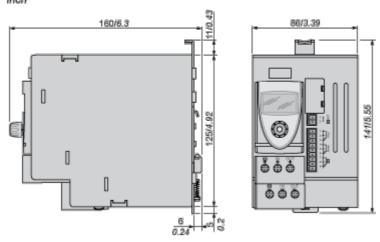
Reach Regulation	REACh Declaration	
Eu Rohs Directive	Pro-active compliance (Product out of EU RoHS legal scope)	
China Rohs Regulation	China RoHS declaration	
Environmental Disclosure	Product Environmental Profile	
Circularity Profile	End of Life Information	

Dimensions Drawings

24 Vdc/40 A Battery Control Module

Dimensions

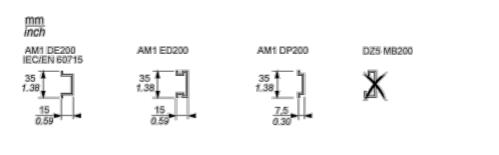
mm inch



Mounting and Clearance

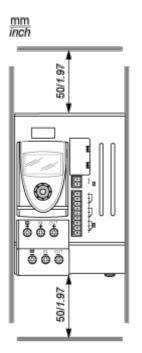
24 Vdc Battery Control Module

Mounting



24 Vdc Battery Control Module

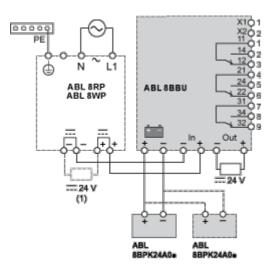
Clearance



Connections and Schema

24 Vdc Battery Control Module

Wiring Diagram



(1) See table below for the maximum unstored charge capacity (μF)

ABL	Max. Unstored Charge Capacity (uF)
8RPS24030	30 000
8RPS24050	50 000
8RPS24100	100 000
8RPM24200	100 000
8WPS24200	100 000
8WPS24400	100 000

24 Vdc Battery Control Module

Outputs States (U = 24 Vdc: I > 5 mA, U = 230 Vac: I < 500 mA)

	No power from the power supply	11 14 120	Power from the power supply
²¹ 0 240 220	Alarm or device not supplied	21 28 22 22 0	No alarm
³¹ 0 340 320	No power from the battery pack	31 380 1320	Power from the battery pack

Inputs States (Dry Contact)

	Operational battery		Battery inhibited	
--	---------------------	--	-------------------	--

Wiring Requirements

Cable Types and Wire Sizes

10 mm ∮≤4 mm ² □ □ □	p ⊂ 17 mm ø>4 mm²	ABL 8RPS24030 8RPS24050 8RPS24100	ABL 8RPM24200 8WPS24200 8WPS24400
ABL 8BBU24200	In + /	14 mm ²	4 10 mm ²
	🚞 + /	6 mm ²	-
	Out + /-	6 mm²	-
ABL 8BBU24400	<u>in + / -</u>	14 mm ²	4 10 mm ²
	🚞 + / -	10 mm ²	-
	Out + /-	10 mm ²	-
0+		10 mm ²	
6,35 mm		-	
OFF / PSU / Alarm /		0,141 mm	2

UL

0.39 in. Ø ≤ 12 AWG	Ø> 12 AWG	ABL 8RPS24030 8RPS24050 8RPS24100	ABL 8RPM24200 8WPS24200 8WPS24400
ABL 8BBU24200	ln + /-	1612 AWG	126 AWG
	🚞 + /	10 AWG	-
	04+1-	10 AWG	-
ABL 8BBU24400	In + /	1612 AWG	126 AWG
	🚞 + /	6 AWG	-
	Out + /-	6 AWG	-
0+		6 AWG	
	0.25 in.	-	
OFF / PSU / Alarm /		26 16 AWG	