

BAT500J Super Cap



Maintenance free Super Capacitor technology
Hi-Tech Power Boost for Out: 12 or 24 V 500J
Protection: Over-current, Over-voltage, Over-charge,
Deep-discharge, Short circuit
High reliability: 500.000 charging cycle
Auto Testing for the capacity State
Large temperature Range
ADELBus “CAN” connection
Manual Power Off Button
Multicolor Indicator
IP20, Din Rail and Wall Mount, Compact design

Feature

Battery Bank for DC-UPS “All In One”. Super Cap technology, maintenance-free. For 12V or 24V field. Simple connection with screw terminals for Wall mount or DIN rail. The device integrates CAN protocol communication to transfer and receive all data over ADELBUS.

Technical Data

Nominal Input Voltage	12 or 24 VDC
Automatic determination of input voltage	At first power-up
Rated Charging Voltage at 12 Vdc	> 0.5V the Power supply Voltage
Rated Charging Voltage at 24 Vdc	> 1V the Power supply Voltage
Efficiency	>96%
Charging Current Max	350 mA
Internal Protection Fuse	8 A
External Protection Fuse (recommended)	6 A
Output Short Circuit and Overload	Automatic Protection
Communication	ADELBUS (CAN open)
Power Consumption	70 W
Internal Consumption in Buffer Mode	0.05 W

Capacity

Capacitor Type	EDLC
Energy	500 J
Life Cycle	500.000 charge cycles (50°C)
Typical Charging Time (recover to 90% capacity)	120 sec. max
First charging time from warehouse	25 min max
Device Protection	Over-Charge, Short Circuit, Balancer.

12V system “DC Output”

Output Voltage	12 Vdc $\pm$ 5%
Max. Power	72 W

12V system “Charging Data”

End-of-charge	35 mA
Absorption charging current (Max.)	0.6 A

12V system “Discharging Data”

Nominal Discharging current	5 A
Max. permissible Discharging current	6 A

24V system “DC Output”

Output Voltage	24 Vdc $\pm$ 5%
Max. Power	72 W

24V system “Charging Data”

End-of-charge	35 mA
Absorption charging current (Max.)	0.3 A

24V system “Discharging Data”

Nominal Discharging current	2.5 A
Max. permissible Discharging current	3 A

Indicators LED and Command

STATUS	BACKUP STATE
Capacity full	LED Green ON
Capacity > 90%	LED Green ON
Not Charging	LED OFF
In Charging	LED Green Flashing
Low Capacity	LED OFF
Fault	LED Red ON

ADELBUS

STATUS	ADELBUS
CAN Active	LED Green ON or Flashing
Awaiting configuration	RED / GREEN Flashing
CAN bus Error	LED Red ON

Command

Push Button to turn ON and OFF the Battery Bank	Press for 1 sec. Release the button
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General Data

Protection Degree (EN/IEC 60529)	IP 20
Protection Class	III
Screw type terminals:	0.2 - 2.5 mm ² (24 – 12 AWG)
Torque:	0.6 - 0.8 Nm
Dimension (WxHxD) DIN 43880	54 x 90 x 55 mm
Surge Protection	1.5 KV
Weight	0.4 kg
DIN Rail	Yes
Wall mount	Yes

Data and Communications

Remote monitoring data:	AUX1
Protocol:	ADELBUS (CAN)

Climatic Data

Operating ambient temperature	-30 ... 60 °C
Recommended storage temperature	25 °C $\pm$ 5%
Humidity at 25 °C, no condensation	95 %

Norms and certifications

CE marking according to EMC Directive 2014/30/UE and Low Voltage Directive 2014/35/UE.

Electrical Safety

In compliance with UL508, EN IEC 61010-2-201:2018
According to EN 60950-1/VDE 0805 (SELV) and EN 50178/VDE 0160 (PELV).
EN IEC 62368-1: 2014/AC:2015

Buffering time

Load	Sec. (12V)	Sec. (24V)
Load 0.5 A	70	36
Load 1 A	40	18
Load 1.5 A	36	14
Load 2 A	24	10
Load 2.5 A	18	8

Mounting instruction

DIN Rail Mount and Wall Mount

