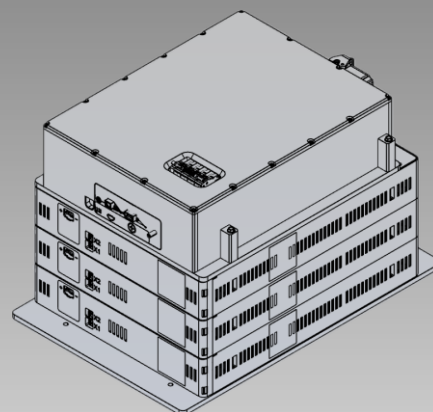


BEN BM01 Battery System

614 V | 14.4 Ah | LiFePO4

This energy storage solution with integrated battery management system is designed for industrial applications in tough environments

Part no.: 4260629980206



BEN

BATTERY MANAGEMENT SYSTEMS

developed by e.bs kumkeo

ELECTRICAL DATA

System voltage	480 – 691 V DC
Nominal voltage	614 V
Nominal energy	8.8 kWh
Max. charge current	8 A
Max. peak charge current	14.4 A (max. 10 sec)
Max. discharge current	20 A
Max. peak discharge current	43.2 A (max. 10 sec)

MECHANICAL DATA

Dimensions battery system	670 mm x 445 mm x 415 mm
E-box	588 mm x 440 mm x 150 mm
Battery module	560 mm x 440 mm x 85 mm
Base plate	670 mm x 445 mm x 10 mm
Battery modules	3
Single battery module	25 kg
Total weight	100 kg

SYSTEM INTERFACES

PROFINET	1x M12 4-Pin D-Coded female
Battery poles	Housing Han 10B 80 Han hinged frame plus Han 70A crimp module
Control contacts	Han E module, crimp female
External BCU Power Supply	Han E module, crimp male

PROFINET

Device function	PROFINET IO device
Transfer rate	100Mbps
Update rate	100ms (RT, adjustable)
PROFINET IO version	2.32 / 2.35
Supported protocols	SNMP, LLDP
Supported MIBs	MIB2
Real-time class	RT_CLASS_1
Netload class	II
Conformance class	B

AMBIENT CONDITIONS

Vibration & Shock EN IEC 60721-3-2 EN IEC 60721-3-3	Transport (2M5) Operation (3M2)
Basic module certification	UN38.3
Ambient temperature - charge - discharge	-10°C to 58°C* -18°C to 65°C* * full temperature range with current derating
Ambient temperature storage at least - 3 days - 1 month - 3 months - 1 year	-40°C to 60°C -20°C to 60°C -20°C to 40°C -20°C to 20°C
Relative humidity - Without restriction - Reduced lifetime - Max 4h/day or 30 days/Year	0% to 70%, no condensation 70% to 85% 85% to 95%
Altitude for operation	< 4000m above sea level
Protection rating	IP20 (as per DIN EN 60529)
Protection class	II
Insulation DIN EN IEC 60664-1	6 kV

COMPLIANCE WITH EMC DIRECTIVE

Discharge of static electricity According to EN 61000-4-2	Contact discharge: 6kV Air discharge: 8kV Performance Criteria B
Electromagnetic fields According to EN 61000-4-3	80MHz to 1GHz 10V/m 1.4GHz to 1.6GHz and 1.8GHz to 2.2GHz 1.4GHz to 6GHz 3V/m Performance Criteria A
Fast transients (burst) According to EN 61000-4-4	Signal ports: ±1kV 5kHz repetition frequency External 24V DC input: ±2kV 5/50ns 5kHz repetition frequency Ethernet ports: ±1kV 5/50ns 5kHz repetition frequency Battery output: ±1kV 5/50ns 5kHz repetition frequency Performance Criteria B
Conducted disturbances According to EN 61000-4-6	150kHz to 80MHz 10V/m 80%AM (1kHz)
Power frequency field According to EN 61000-4-8	Battery output: 10A/m

TRANSPORT

Points according to ADR	705
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