

DATASHEET

B024N059HD02

24V - 60Ah Battery Pack

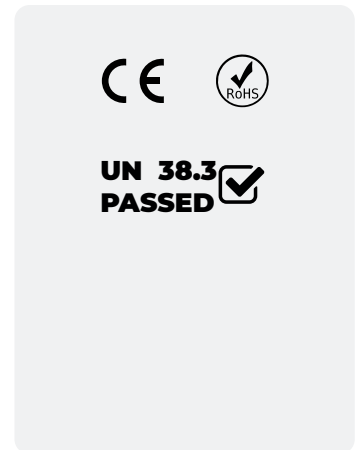
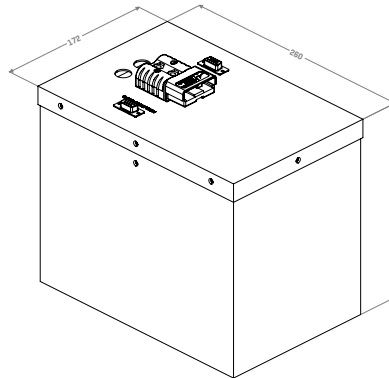
Type: Battery Pack
 Item No.: B024N059HD02
 Revision: v. 4 - September 2020

HIGHLIGHTS

- High Discharge Current
- Rugged Stainless Steel Casing
- CANBus Communication
- Support for LED indicator
- Support for Curtis Indicator

DIMENSIONS

All units are in mm (±0.5mm)



PACK SPECIFICATIONS

Voltage	24V (nominal)
Capacity	59,8 Ah
Cell Configuration	23p7s
Cell Type	18650 / 2600 mAh
BMS	Integrated
Chemistry	NMC
Cycle Life	>1500 cycles @ 80% DoD (At recommended charge/discharge currents)
Self-Discharge	<5% / month
Dimensions	260 x 172 x 231 mm
Weight	12.5Kg
Casing	Stainless Steel
Enclosure	Splash proof (IP54)
Power Connector	Anderson type SB120 Blue
Other Connectors	2 x DE-9
Discharge/Charge temperature range	-10°C - +60°C / 0°C - +55°C
Approvals/Certifications	CE, RoHS, UN38.3

BMS SPECIFICATIONS

Upper Voltage Limit MUST NOT BE EXCEEDED	29.2±0.1 V Recommended upper limit = 28.8V
Lower Voltage Limit MUST NOT BE EXCEEDED	21±0.1 V Recommended lower limit = 22V
Max. cont. charging current	60A Recommended charge current: 30A
Max. cont. discharge current	120A Recommended discharge current: 60A
Peak current	330A (≤1s)
Current consumption	Operational: <17mA Sleep mode: <300µA
Temperature Sensors	#1: Cells #2: Cells 2 #3: Ambient (inside casing) #4: MOSFETs
Signals output (DE-9)	5 x LED Output (3.3V < 1mA per. LED) Curtis Indicator (ICE914Z-2401)

CANBUS & UART SPECIFICATIONS

Bitrate	CANBus: 250 Kbit/s UART: 9600 bit/s
Data	Both Real-time and Event Log can be retrieved
Reflashable Firmware	Yes
Multiple Batteries on the same bus	Yes (Only with CANBus)

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CONNECTOR PINOUT

DE-9 CONNECTOR #1 (COMMUNICATION)

PIN	FUNCTION	NOTES
1	-	
2	CAN-Low	@250Kb/s
3	-	
4	GND-shared	Shared GND for both CAN and UART
5	UART-RX	If enabled
6	-	
7	CAN-High	@250Kb/s
8	UART-3.3V	If enabled
9	UART-TX	If enabled

DE-9 CONNECTOR #2 (SIGNALS)

PIN	FUNCTION	NOTES
1	LED 1	3.3V < 1mA current
2	LED 2	3.3V < 1mA current
3	LED 3	3.3V < 1mA current
4	LED 4	3.3V < 1mA current
5	LED 5	3.3V < 1mA current
6	GND	Shared GND for both LED and Analog BTN, VCC and DA
7	BTN	Shared BTN for both LED and Analog VCC, DA
8	DA	0-5V SoC signal for Curtis indicator (ICE914Z-2401)
9	VCC	Power Supply for Curtis indicator (10V)