Neuron™

LFP CHEMISTRY LITHIUM BATTERY

DATA SHEET

NUE060200EV

WARRANTY 36 MONTHS

APPLICATION SCOPE

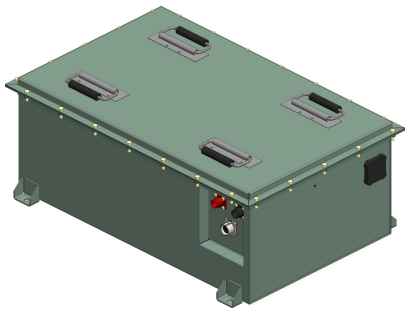
The specification describes the “60.8V-200Ah-Li-FePO4” Batteries for L5 Application designed and supplied by NEURON ENERGY PVT. LTD. Battery Packs integrated with Smart BMS with CAN and RS485/UART communication and equipped with advance features and all type protection. This battery pack offers the best performance and TCO

APPLICABLE STANDARDS (REFERENCE STANDARD)

General specification of lithium-ion battery for Mobility Application; safety requirements of Lithium Batteryas per AIS:048 as amended up to date

APPEARANCE REQUIREMENTS AND DIMENSION FIGURE

Item	Details
Length * width * height (L*W*H)	(715x478x271 +H) mm
Connector for Charging/ Discharging and Communication	HVP 200A CNLINKO LP-24 Pin
Weight of Battery (Approx)	120 Kg
IP Rating	IP 67



GENERAL CHARACTERISTICS

Nominal Voltage (V)	60.8
Capacity (Ah)	200.0
No. of cell in series	19
No. of cell in parallel	2
Total No. of cell	38
Cell Type	Prismatic-(100Ah)
Chemistry	LFP

ELECTRICAL CHARACTERISTICS

Maximum cut-off voltage (V)	69.35
Minimum cut-off voltage (V)	53.2
Charging Voltage (V)	68.4(As per charging profile)
Charging Mode	CC-CV
Recommended charging current (A)	60.0
Maximum charging current (A)	100.0
Max. Continuous Discharge Current (A)	100.0
Peak discharging current for 10sec.(A)	200.0
Cell Discharging Protection level (V)	2.8
Cell charging protection level (V)	3.65
Balancing current (mA)	50
Cycle Life @ 0.5C/1.0C @ 25	1500
DOD Level (%)	90%

PROTECTIONS

Cell under voltage protection	Yes
Cell over voltage Protection	Yes
Over Current Protection	Yes
Short circuit protection	Yes
Temperature protection	Yes

TEMPERATURE CHARACTERISTICS

Working Temperature (°C)	0°C – 50°C
Storage Temperature (°C)	0°C - 45°C

COMMUNICATION

CAN based Telematics System	Optional
RS485/UART Communication	Yes
Communication with charger	Yes

CELL SPECIFICATION

PARAMETER	SPECIFICATION	REMARKS
Typical capacity	≥ 100 Ah	At 1C Discharge Current
Operating Voltage (V)	2.50 - 3.65 V	0°C – 60° C
	2.00 - 3.35 V	-20°C - 0°C
Impedance (1Khz)	≤0.5 mΩ	
Shipping Capacity	10 - 30 % SOC	
Weight	2.25 Kg	
Self-Discharge	≤ 3.5 % per month	

BMS PARAMETER

FEATURE	TEST ITEMS	SPECIFICATION			UNIT
		Min	Typical	Max	
Operating Voltage	Voltage Range	53.2		69.35	V
Operating Current (continuous)	Recharge Current			60	A
	Discharge Current			200	A
Charge Protection	Charger Voltage (CC-CV)		68.40		V
	Overcharge protection voltage		3.65		V
	Overcharge protection delay time		1		S
	Overcharge protection recovery voltage		3.55		V
Discharge Protection	Over discharge protection voltage		2.8		V
	Over discharge protection delay time		1		S
	Over discharge protection recovery voltage		2.9		V
	Over discharge protection recovery conditions				
Equalization function	Equalization turn-on voltage		3.40		V
	Equalization current		50		mA
Temperature(built-in)	Temperature protection value			85±5	LI
	Temperature protection release value			60±15	LI
Internal resistance	Discharge circuit internal resistance	/	5	20	mR
Self-consumption	Operating mode	/	50	100	uA
Operating temperature	Normal working range	-20		70	LI
Storage temperature	Humidity below 90%	-40		85	LI

BMS FEATURES

- BMS provides complete management and protection for the battery
- Voltage, Current, Temperature warning and protection
- Maximum operating current can be customized
- Short protection function
- Balance function Control and balance the voltage between cells during charging and idle
- It can be connected to the display screen to display the SOC and various working conditions of the battery
- Communication function (Bluetooth, CAN, RS485)
- Connect to computer through PC BMS software and dedicated cable
- PC BMS software could realize: Monitor all parameters of battery Monitor battery status protection, errors