

# CELL DATASHEET

The LiFePO<sub>4</sub> cells are the safest type of Lithium cells as they will not overheat, and even if punctured they will not catch on fire. The cathode material in LiFePO<sub>4</sub> cell is not hazardous, and so poses no negative health hazards or environmental hazards. Due to the oxygen being bonded tightly to the molecule, there is no danger of the cell erupting into flames like there is with Lithium-Ion.

## NOMINAL PROPERTIES

Nominal energy capacity	0.176kWh (176Wh)
Usable energy capacity	0.170kWh (170Wh)
Nominal Voltage	3.2V
Nominal Capacity (Ah)	55Ah

## PHYSICAL PROPERTIES

Cell case type (cell enclosure)	Prismatic Aluminium case
Weight	1150g (± 100g)
Dimension (W*H*D)	140mm * 160mm * 23.5mm (±0.5mm)
Humidity (%)	0% ~ 80%
Shelf temperature range	-0°C ~ 35°C (6 months)

## OTHER PROPERTIES

Cell chemistry	Lithium iron Phosphate (LiFePo <sub>4</sub> )
Lifespan (cycle life)	8000 cycles
Life expectation (years)	10+ years @25°C
Certifications	MSDS, UN38.3, RoHS, IEC62619, UL, CE, TÜV
Manufacturer warranty	9MWh per kWh BTT or 5 years (depends on which one comes sooner)

## ELECTRICAL PROPERTIES

Self-discharge (%/month)	≤ 3%/month (25°C)
Energy density	153Wh/kg
Internal resistance	≤0.65mΩ
Voltage difference	<0.05V
SOC (state-of-charge) range	3% ~ 100%
Voltage range	2.5V ~ 3.65V

Charging temperature	-5°C ~ 60°C
Charging cut-off Voltage	2.65V
Recommended charge current (A)	38.5Ah
Maximum charge current (A)	55A
Maximum charge rate (C-rate)	1C @ 25°C
Recommended charge rate (C-rate)	0.7C @ 25°C

Discharging temperature	-20°C ~ 60°C
Discharging cut-off Voltage	2.5V
Recommended discharge current (A)	38.5Ah
Maximum discharge current (A)	110A
Maximum discharge rate (C-rate)	2C @ 25°C
Recommended discharge rate (C-rate)	0.7C @ 25°C
DoD (Depth of Discharge)	97%