

Technical Specifications

WaterWorld 48-6500

Specifications of the WaterWorld 48-6500 lithium battery are listed below.



General Features

Net capacity	6500 Wh
Nominal voltage	51.2 V
Final charging voltage	58.4 V
Final discharging voltage	43.2 V
Maximum discharge rate	100 A
Weight	60 kg
Dimensions (LxBxH)	650 mm x 253 mm x 213 mm
Volume	35.6 L
Battery chemistry	Lithium iron phosphate (LFP) LiFePO ₄

Use Information

Ambient temperature, discharging	-10°C up to +45°C
Ambient temperature, charging	-2°C up to +40°C
Ambient temperature, storage	-25°C up to +55°C
Typical storage time at 50% SOC	40 weeks without any load (battery turned off)
Max connections	Up to 1 Series 4 Parallel
Max quick charge	100 A
Protection class	IP67

Battery Composition

Battery enclosure material	Aluminium
Cell type	Cylindrical
Capacity per cell	6 Ah
Nominal voltage per cell	3.2 V
Cell connection	16S 22P

Information System in Combination with WW Drivetrain

Accurate SOC presentation	Yes
Battery status indicator	Yes
Error identification	Yes

Battery Management and Safety

On-off switch	Yes
Cell balancing	Yes
High current and short-circuit protection	Yes
Deep discharge protection	Yes, cut off at 43.2 V
Protection against polarity reversal	Yes
Individual cell string voltage monitoring	Yes
Current interruption device (CID) for each cell	Yes
Safety vent for each cell	Yes
Cell temperature monitoring	Yes
Temperature monitoring of battery electronics	Yes
Low temperature shut off	Yes
High temperature shut off	Yes

Lifetime Data

Cycle lifetime	>4000 cycles with 80% discharge depth at 25 °C to capacity loss of 20%
Average annual capacity loss	Approximately 2% at 25°C ambient temperature

Benchmark Information

Energy density (weight)	108 Wh/kg
Energy density (volume)	182 Wh/L
Power density (weight)	108 W/kg
Power density (volume)	182 W/L