



HE602030 NCA

Lithium Ion Cell
High Energy

3.6 V / 55 Ah / 198 Wh

Physical and Mechanical Characteristics

Diameter	60 mm
Length	232 mm (203 mm without terminals)
Weight	1.4 kg
Volume	0.57 l
Material	Stainless steel housing Positive terminal: Al M12 length: 10 mm Negative terminal: Cu M12 length: 10 mm

Chemical Characteristics

Cathode	Lithium nickel cobalt oxide
Anode	Graphite

Electrical Characteristics

Reference temperature 23°C +/- 3°C

Nominal operating voltage	3.6 V
Nominal capacity at 0.2 C	55 Ah
AC Impedance (1 kHz)	≤ 0.5 mOhm
DC Resistance (ESR) <small>2s pulse discharge @ 20°C / 50% SOC</small>	≤ 1.5 mOhm
Specific energy @ 0.2 C	132 Wh/kg
Energy density @ 0.2 C	345 Wh/l
Specific power <small>2s pulse discharge @ 50% SOC, 60C</small>	1,460 W/kg
Power density <small>2s pulse discharge @ 50% SOC, 60C</small>	3,830 W/l

Operating Conditions

Reference temperature 23°C +/- 3°C

Recommended charge method	Constant current / constant voltage
End of charge	$I \leq C/100$
Recommended charge voltage	4.1 V
Maximum charge voltage	4.2 V

Operating Conditions

Reference temperature 23°C +/- 3°C

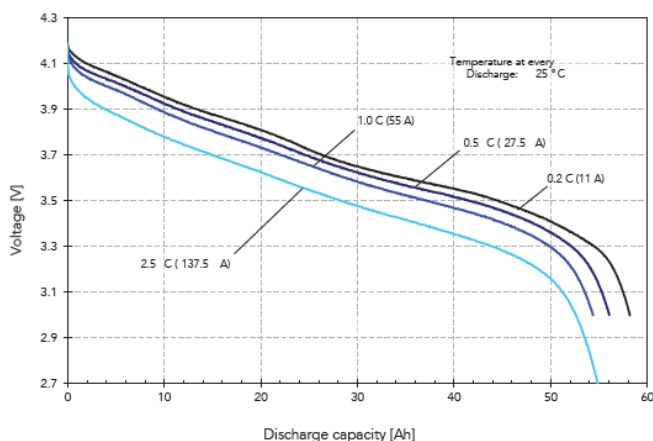
Recommended charge current	Up to 11 A (0.2 C)
Maximum continuous charge current	Up to 55 A (1 C)
Maximum pulse charge current (15 s) (Max SOC 70%, average current <120 A)	110 A (2 C)
Recommended voltage limit for discharge	3.0 V
Lower voltage limit for discharge	2.7 V (at high current or low temperature)
Lower voltage limit for pulse discharge	2.0 V
Recommended discharge current	Up to 27.5 A (0.5 C)
Maximum continuous discharge current	Up to 110 A (2 C)
Maximum pulse discharge current (2 s)	Up to 880 A (16 C)
Operating temperature	-30°C to +60°C
Recommended charge temperature	0°C to +40°C
Recommended storage	+10°C to +25°C, 30-50% SOC
Cycle life @ 20°C and 100% DoD, 0.5 C	> 1,000 cycles to 80% of nominal capacity
Cycle life @ 20°C and 80% DoD, 0.5 C	> 2,000 cycles to 80% of nominal capacity

Features and Benefits

Stainless steel construction avoids corrosion and provides shock resistance	M10 terminals allow easy assembly and provide low resistance interface
Ultra high maximum pulse discharge to meet exceptional peak demands	Large cell size reduces the number of interconnections and the demand of battery management systems
Suitable for low temperature operation	Tested and certified to UN 38.3

Charts

Voltage vs discharge capacity for various discharge currents



Voltage vs discharge capacity for various temperatures

