

# HP 601300 NCA

## 27 Ah/ 98 Wh

### Lithium Ion Cell



#### Physical and mechanical characteristics

Diameter	60 mm
Height	159 mm (130 mm without terminals)
Terminals	Positive terminal Al M12 L: 9 mm Negative terminal Cu M12 L: 9 mm
Weight	approx. 980 g
Volume without terminals	0.37 l
Case material	Stainless Steel

#### Chemical characteristics

Positive electrode	Lithium nickel cobalt oxide
Negative electrode	Graphite

#### Electrical characteristics\*

Nominal voltage	3.6 V
Nominal capacity at 0.2 C	27 Ah
Minimum capacity	25 Ah
AC Impedance (1 kHz)	≤ 0.5 mOhm
DC Resistance (ESR) (2 s pulse discharge @ 20 C/ 50% SOC)	≤ 2 mOhm
Specific energy at 0.2 C	99 Wh/kg
Energy density at 0.2 C	264 Wh/l
Specific power (2 s pulse discharge @ 27.8 C/ 100% SOC)	1910 W/kg
Power density (2 s pulse discharge @ 27.8 C/ 100% SOC)	5100 W/l

#### Operating conditions\*

Recommended charge method	Constant current - constant voltage
End of Charge	$I \leq C/100$
Maximum charge voltage	4.2 V
Recommended charge current	up to 27 A (1 C)
Continuous charge current	up to 108 A (4 C)
Maximum pulse charge current (15 s) (Max. SOC 80 %, average current < 108 A)	162 A (6 C)
Recommended voltage limit for discharge	3 V
Lower voltage limit for discharge	2.7 V
Lower voltage limit for pulse discharge	2 V
Recommended discharge current	up to 54 A (2 C)
Maximum discharge current	up to 270 A (10 C)
Maximum pulse discharge current (2 s)	up to 750 A (27.8 C)
Operating temperature	- 30°C to + 60°C
Recommended charge temperature	0°C to + 40°C
Storage and transport temperature	- 40°C to + 60°C
Cycle life at 20°C and 100% DOD (0.5C charge; 0.5 C discharge)	> 1000 cycles to 80% nominal capacity > 2000 cycles to 60% nominal capacity

\* Reference temperature 20°C

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