

HP 601300 LFP

18 Ah/ 58 Wh

Prototype Datasheet

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. 930 g
Volume without terminals	0.37 l
Case material	Stainless Steel

Chemical characteristics

Positive electrode	Lithium iron phosphate
Negative electrode	Graphite

Electrical characteristics*

Nominal voltage	3.2 V
Nominal capacity at 0.2 C	18 Ah
Minimum capacity	17 Ah
AC Impedance (1 kHz)	≤ 0.5 mOhm
DC Resistance (ESR) (2 s pulse discharge @ 20 C/ 50% SOC)	≤ 1 mOhm
Specific energy at 0.2 C	62 Wh/kg
Energy density at 0.2 C	157 Wh/l
Specific power (2 s pulse discharge @ 44 C/ 100% SOC)	2120 W/kg
Power density (2 s pulse discharge @ 44 C/ 100% SOC)	5380 W/l

Operating conditions*

Recommended charge method	Constant current - constant voltage
End of Charge	$I \leq C/10$
Maximum charge voltage	3.8 V
Recommended charge current	up to 18 A (1 C)
Continuous charge current	up to 90 A (5 C)
Maximum pulse charge current (15 s) (Max. SOC 70 %, average current < 90 A)	270 A (15 C)
Recommended voltage limit for discharge	2.5 V
Lower voltage limit for discharge	2.1 V
Lower voltage limit for pulse discharge	2 V
Recommended discharge current	up to 36 A (2 C)
Maximum discharge current	up to 396 A (22 C)
Maximum pulse discharge current (2 s)	up to 792 A (44 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 (1 C charge; 1 C discharge)	> 1000 cycles to 80% nominal capacity > 2000 cycles to 60% nominal capacity

* Reference temperature 20°C

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