

# PROTOTYPE Datasheet

## 42 Ah HE - 602040 LFP

### Lithium Ion Cell

<b>IEC identification</b>	IFR60/232
<b>Physical and mechanical characteristics</b>	
Diameter	60 ± 0.5 mm
Height	232 ± 1 mm (204 ± 1 mm without terminals)
Terminals	Positive terminal - Al M12 L: 14 mm Negative terminal - Cu M12 L: 14 mm
Weight	approx. 1450 g
Volume without terminals	0.58 l
Case material	Stainless Steel
<b>Chemical characteristics</b>	
Positive electrode	LiFePO <sub>4</sub>
Negative electrode	graphite
<b>Electrical characteristics*</b>	
Nominal voltage	3.2 V
Nominal capacity at 0.2 C	42 Ah
Minimum capacity	36 Ah
AC Impedance (1 kHz)	< 2 mOhm
Specific energy at 0.2 C	93 Wh/kg
Energy density at 0.2 C	233 Wh/l
Specific power (10 s pulse discharge @ 15 C/ 90% SOC)	1300 W/kg
Power density (10 s pulse discharge @ 15 C/ 90% SOC)	3270 W/l
<b>Operating conditions*</b>	
Recommended charge method	Constant current - constant voltage
Maximum charge voltage	3.8 V
Recommended charge current	21 A (0.5 C)
Maximum charge current	160 A (3.8 C)
Maximum pulse charge current (10 s)	250 A (6 C)
Recommended voltage limit for discharge	2.5 V
Lower voltage limit for discharge	2 V
Lower voltage limit for pulse discharge	1.5 V
Recommended discharge current	up to 21 A (0.5 C)
Maximum discharge current	160 A (3.8 C)
Maximum pulse discharge current (10 s)	630 A (15 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 (0.5 C charge; 0.5 C discharge)	> 500 cycles to 80% nominal capacity > 2000 cycles to 60% nominal capacity

\* Reference temperature 20°C

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