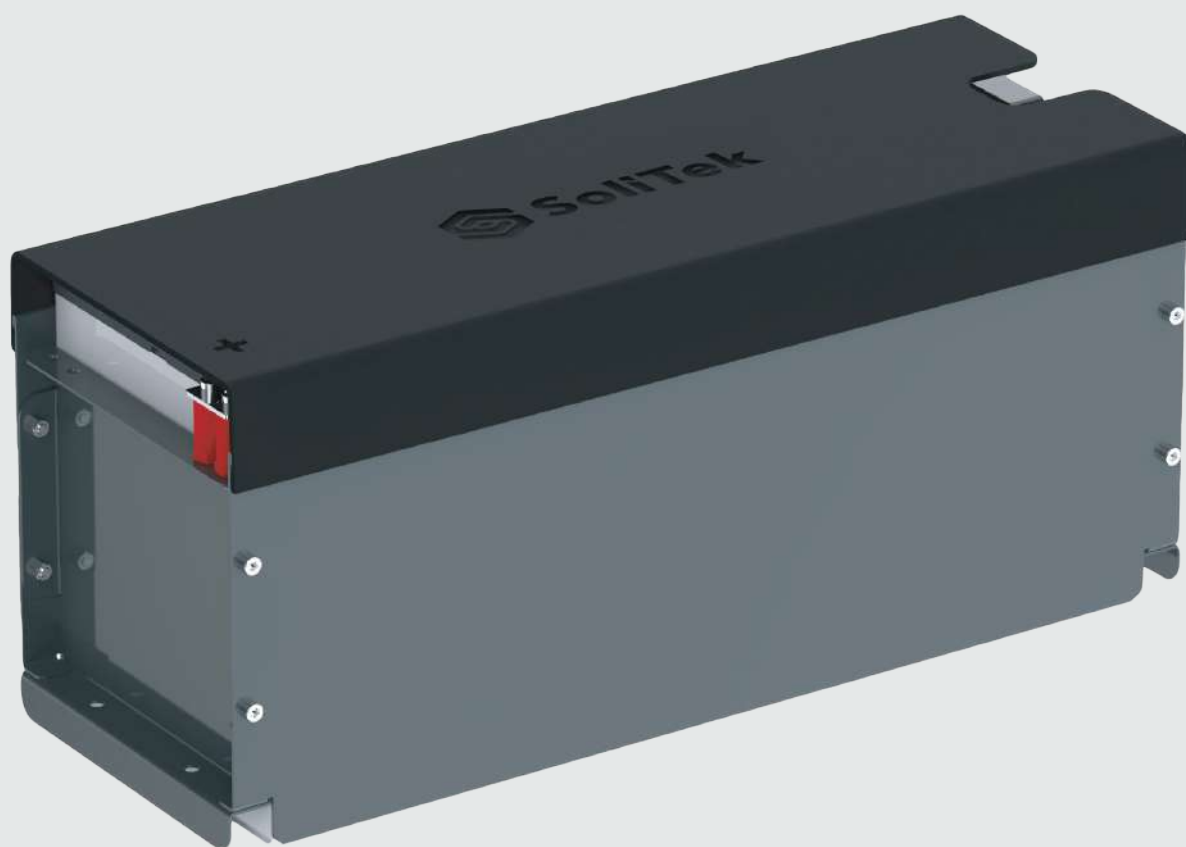# Battery Module

16s100Ah

Safest
electrochemistry: LFP
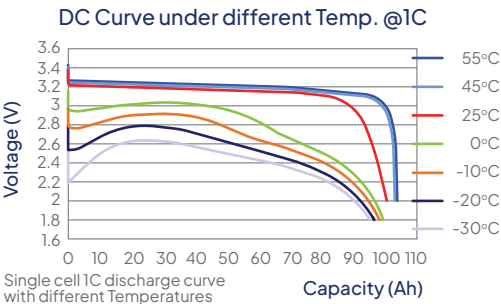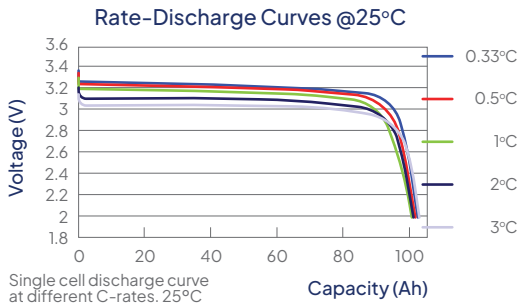
High quality cell:
top 5 manufacturer

Automated module
assembly production line

Designed and
assembled in Europe

Technical information

SoliTek

Module Information

Module	5.12kWhLFP100	Nominal	5.12 kWh
Lithium cell type	LiFePO4 3.2V 100Ah	Nominal voltage	51.2 Vdc
Cells combination	16S1P	Voltage operation range	32 – 58.4 Vdc
Nominal capacity	100Ah (1C)	SOC-OCV	Curves available for BMS implementation

Charge

Standard charge at 25°C	Standard CC&CV charge curve: Constant current: 50 A until 3.65Vdc. Constant voltage: 3.65Vdc until current less 5 A.
Temperature range	0 to 55°C

Discharge

Standard discharge current	1C (100A)	Temperature range	-30 to 60°C

DC Curve under different Temp. @1C — Single cell 1C discharge curve with different Temperatures (55°C, 45°C, 25°C, 0°C, -10°C, -20°C, -30°C)

Rate-Discharge Curves @25°C — Single cell discharge curve at different C-rates. 25°C (0.33°C, 0.5°C, 1°C, 2°C, 3°C)

Protection thresholds

Overcurrent protection	Fuse 150A (built-in the module)	Over-voltage trip threshold	3.8Vdc Power off
		Over-voltage alarm threshold	3.7 Vdc Power off for more than 5 s
High temperature trip threshold	60°C	Maximum working voltage	3.65 Vdc
High temperature alarm threshold	55°C	Minimum working voltage	2.5 Vdc (0° to 55°); 2 Vdc (-30°C to 0°C)
Low temperature alarm threshold	-20°C	Under-voltage alarm threshold	2.2 Vdc (0° to 55°); 1.9 Vdc (-30°C to 0°C)
Low temperature alarm threshold	-30°C	under-voltage trip threshold	2.0 Vdc (0° to 55°); 1.8 Vdc (-30°C to 0°C)

Module dimensions

Weight	38.2 Kg	Width	200.4mm
Length	511.1mm	Height	228.1mm

Working and storage environment

Optimal working temperature	+10°C to +35 °C	Storage SoC	30 up to 50 %
Storage temperature	≤35°C	Working/storage relative humidity	<85 %RH

Lifetime

Cycle life	6000 @25°C, 0.5 charge and 1C discharge, 100%DOD; 2500 @45°C, 0.5 charge and 1C discharge, 100%DOD
Calendar life	15 years @ 25°C. 70% EOL

Module measurements

Temperature sensors	3 NTC	Voltage	Voltage measurement in each cell. 16 in total
Communication connector	Molex 24 pins		

Power terminals

Negative terminal	2 x M5	Positive terminal	2 x M5 (fuse terminal)

Certifications

Test certification	IEC 62619, UN38.3