

General Specification	INV ES5 5.12 kWh
Product Type	Rechargeable Li-ion Battery
Model Number	INV ES5 51.2 V/100 Ah
Rated Voltage (V)	51.2 V
Rated Capacity (Ah)	100 Ah
Rated Energy (kWh)	5.12 kWh
Charge-Discharge Rate (C)	0.5 C
Depth of Discharge (%)	80%
Operating Temperature (°C)	-20 to 60 °C
Warranty	5 Years (0.5C Charge/ Discharge, @80% DoD, @25 °C)
Cell Balancing	Active Balancing
Electrical Characteristics	
Max. Charge Voltage (V)	58.4 V
Min. Discharge Voltage (V)	40 V
Max Continuous Charge Current (A)	50 A
Max. Continuous Discharge (A)	50 A
Operating Voltage Range (V)	40 V - 58.4 V ± 0.5
Charge Temp (°C)	0 to 50 °C (<85 % RH)
Discharge Temp (°C)	-20 to 60 °C (<85 % RH)
Protection Feature	
Over Temp Protection	Yes
Overcharge Protection	Yes
Overdischarge Protection	Yes
Short Circuit Protection	Yes
Cell Specification	
Cell Type	LFP Prismatic
Cell Model	3.2 V 100 Ah
Nominal Voltage (V)	3.2 V
Rated Capacity (Ah)	100 Ah
Voltage at End of Charge (V)	3.65 V
Voltage at End of Discharge (V)	2.5 V
Max Charge Rate (C)	0.5C
Max Discharge Rate (C)	0.5C
Cell Weight (kg)	2.3 kg
Pack Specification	
Pack configuration	16S1P
Pack Nominal Voltage (V)	51.2V
Pack Capacity (Ah)	100 Ah
Pack Energy (kWh)	5.12 kWh
Features	
Battery Management System (BMS)	Cell-Level Monitoring: Manages voltage, current, and temperature for every cell/module. State of Health (SOH): Estimates and reports the degradation status. Safety Logic: Executes emergency shutdown on over-current, over-temperature or fault detection.
Enclosure & Protection	IP Rating: IP55 (for outdoor environmental protection).
Safety & Protection	Over Temperature, Overcharge, Overdischarge & Short Circuit Protection
Control & Communication	Monitoring Communication: Standard industrial protocols (eg. RS485, CAN)
Scalability	Upto 6 Batteries can be connected in a single stack. Supports parallel connection of up to 16 batteries for capacity expansion.