

C&I Series



BATTERY ENERGY STORAGE SOLUTION (BESS)



INV-ESS-512-100Ah

INV-ESS-563.2-314Ah

INV-ESS-665.6-100Ah

Key Features:

-  Cell-level Voltage, Current & Temperature Monitoring With SoH Reporting.
-  Supports Modbus TCP/IP, RS485 & CAN Communication
-  IP54-rated Enclosure For Outdoor Protection.
-  High-performance System Design For Stable Continuous Operation.
-  Efficient Thermal Management With Cooling Fans On Each Module.
-  Complete Safety Protection – Over-temp, Overcharge, Over-discharge & Short-circuit Protection.

General Specification	INV-ESS-512-100Ah	INV-ESS-563.2-314Ah	INV-ESS-665.6-100Ah
Product Type	Rechargeable Li-ion Battery		
Model Number	512V / 100Ah	563.2V / 314Ah	665.6V / 100Ah
Rated Voltage	512 V	563.2V	665.6V
Rated Capacity (Ah)	100Ah	314Ah	100Ah
Rated Energy (kWh)	51.20kWh	176.84kWh	66.56kWh
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)		
Cooling method	Forced Air Cooling (Fans on each pack)		
Electrical Characteristics			
Max. Charge Voltage (V)	584V	642.4V	759.2V
Min. Discharge Voltage (V)	448V	492.8V	582.4V
Max Continuous Charge Current (A)	50A	157A	50A
Max. Continuous Discharge (A)	50A	157A	50A
Operating Voltage Range (V)	448V - 584V ± 0.5	492.8V - 642.4V ± 0.5	582.4V - 759.2V ± 0.5
Protection Feature			
Over Temp Protection	Yes		
Overcharge Protection	Yes		
Overdischarge Protection	Yes		
Short Circuit Protection	Yes		
Cell Specification			
Cell Type	LFP Prismatic		
Cell Model	3.2V 100Ah	3.2V 314Ah	3.2V 100Ah
Nominal Voltage (V)	3.2V		
Rated Capacity (Ah)	100Ah	314Ah	100Ah
Voltage at End of Charge (V)	3.65V		
Voltage at End of Discharge (V)	2.5V		
Max Charge Rate (C)	0.5C		
Max Discharge Rate (C)	0.5C		
Cell Weight (kg)	2.1kg	5.6kg	2.1kg
Pack Specification			
Pack configuration	16S1P		
Pack Nominal Voltage (V)	51.2V		
Pack Capacity (Ah)	100Ah	314Ah	100Ah
Pack Energy (kWh)	5.12kWh	16.07kWh	5.12kWh
Rack Specification			
Total Packs	10 Packs	11 Packs	13 Packs
Rack Nominal Voltage (V)	512 V	563.2V	665.6 V
Rack Capacity (Ah)	100Ah	314Ah	100Ah
Rack Energy (kWh)	51.20kWh	176.84kWh	66.56kWh
Cabinet Specification			
No of Racks	1		
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: IP54 (for outdoor environmental protection). Integrated Thermal Management: Ensure cells operate within the optimal temperature.		
Safety & Protection	Over Temperature, Overcharge, Overdischarge & Short Circuit protection.		
Control & Communication	Monitoring Communication: Standard Industrial protocols (eg. Modbus TCP/IP , RS485)		