

RI-ENERGYSET-3P-ESS-125-261



All in one 3 Phase outdoor or indoor battery and inverter cabinet 125kW/261kWh

Product Description

The RI-ENERGYSET-3P-ESS-125-261 series form part of Rayleigh Instruments growing family of renewable energy products.

This all in one outdoor (or indoor) battery and inverter solution is an ideal option to bulky 'lorry container' BESS solutions. It not only offers the benefit of a more manageable size, it also offers future scalability.

- Versatile option to bulky battery container units
- All-in-one design with fully integrated Inverter
- Liquid Cooled
- Safe and reliable operation
- Fire suppression system design
- Integrated BMS/EMS suitable for various applications
- Simple, user friendly operation and cloud control
- Expandable as required
- Efficient PV integration, supporting DC coupling or AC coupling
- Support 110% long-term overload
- 3L/N/PE output, transformerless design
- Support 100% unbalanced loads

Technical Data - Battery Cabinet Parameters

RI-ENERGYSET-3P-ESS-125-261	
System	
Rated AC Power [kW]	125
Max. AC Apparent Power [kVA]	138
Rated AC Voltage [V]	400, 3L/N/PE
AC Voltage Range [V]	400 ±10%
Rated Frequency [Hz]	50
Max. AC Current [A]	200
Adjustable Power Factor [cosΦ]	0.99 (-1...1)
THDi (@Rated Output) [On-grid]	< 3%
THDv (@Linear Load) [Off-grid]	< 3%
System Efficiency	88%
Battery	
Battery Technology	LFP (LiFePO4)
Nominal Energy of Module [kWh]	52
Module Configuration	1P52S
Number of Modules	5
Nominal Energy [kWh]	261
Nominal Voltage [V]	832
Voltage Range [V]	650...949
Max. Charging / Discharging Current [A]	200
General Data	
Ambient Temperature Range [°C]	-25...+55
Relative Humidity	5...95%
Operation Altitude [m]	4000 (>2000 Derating)
Cooling	Liquid
User interface	WEB + APP
Communication	WiFi / 4G / Ethernet
Communication protocol	Modbus RTU, Modbus TCP
Weight [kg]	2600
Dimensions (W * H * D) [mm]	1100 x 2260 x 1400
Topology	Transformerless
Ingress Protection	IP54 (Battery IP55)
Fire Protection	Pack/Cluster: Aerosol, Water Interface Reserved

Protection

Battery Reverse Polarity Protection	Integrated
AC Overcurrent Protection	Integrated
AC Short-circuit Protection	Integrated
AC Overvoltage Protection	Integrated
DC Surge Protection	Integrated (Type II)
AC Surge Protection	Integrated (Type II)
Emergency Stop	Integrated

Conformity

Grid Regulation	IEC 61727,62116, EN50549-1/-10
Safety Regulation	CE-LVD, CE-EMC, UN38.3

Model Selection Table

Description	Model
Call for Details	RI-ENERGYSET-3P-ESS-125-261