

LUNA2000-4.5MWH-2H1

Smart String ESS Technical Specifications (Preliminary)

Battery Container	
Model	LUNA2000-4.5MWH-2H1
DC Rated Voltage	1,331.2 V
DC Max. Voltage	1,500 V
Nominal Energy Capacity	4,472 kWh
Charge & Discharge Rate	≤ 0.5 C
Rated Power	2,236 kW
Dimension (W x H x D)	6,058 x 2,896 x 2,438 mm
Weight	≤ 41 t
Operation Temperature Range	-30° C ~ 55° C
Storage Temperature Range	-40° C ~ 60° C
Relative Humidity	0 ~ 100% (Non-condensing)
Max. Operating Altitude	4,000 m
Cooling Method	Liquid Cooling
Fire Suppression System	Water Sprinkler, Novec 1230 (Optional)
Communication Interface	Ethernet / SFP
Communication Protocol	Modbus TCP
Protection Degree	IP55
Anti-corrosion Degree	C5-Medium

Standards Compliance

RoHS, IEC62477-1, IEC62040-1, IEC61000-6-2, IEC62933-5-2, UL9540A, , IEC62619, UN38.3, etc.

Battery Pack	
Cell Material	LFP
Number of Cell	104
Nominal Capacity	280 Ah / 93.18 kWh
Protection Degree	IP65

LUNA2000-213KTL-H0

Smart PCS Technical Specifications (Preliminary)

Efficiency	
Max. Efficiency	99.01%
DC Side	
Rated DC Voltage	1,331 V
Max. DC Voltage	1,500 V
Operating DC Voltage Range	1,100 V ~ 1,500 V
Max. DC Current	237 A
Max. Number of Inputs	1
AC Side	
Rated AC Active Power	213,000 W @40°C; 192,000 W @50°C
Rated AC Voltage	800 V
Rated AC Grid Frequency	50 Hz / 60 Hz
Max. AC Current	186 A
Adjustable Power Factor Range	Yes
Max. Total Harmonic Distortion	THD _i ≤ 1.5% (Rated)
Protection	
AC Overcurrent Protection	Yes
DC Reverse-polarity Protection	Yes
Insulation Resistance Detection	Yes
Residual Current Protection	Yes
DC Surge Protection ¹	Type II
AC Surge Protection ¹	Type II
Communication	
Display	LED Indicators, WLAN + APP
USB	Yes
Ethernet	Yes
General	
Dimension (W x H x D)	875 x 865 x 365 mm
Weight	≤ 110 kg
Operating Temperature Range	-25°C ~ 60°C
Cooling Method	Smart Air Cooling
Max. Operating Altitude without Derating	4,000 m
Relative Humidity	0 ~ 100% (Non-condensing)
DC Connector	OT / DT Terminal
AC Connector	OT / DT Terminal
Protection Degree	IP66
Anti-corrosion Degree	C5-Medium
Topology	Transformerless
Standards Compliance	
RoHS, IEC 62477-1, IEC 61000-6-2, IEC 60529, VDE 4120, EN 50549, etc.	