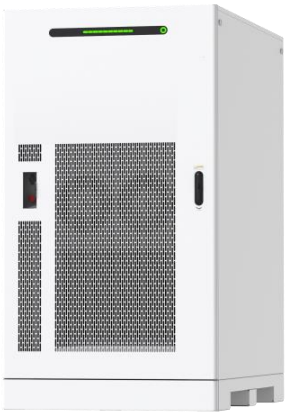
HUAWEI LUNA2000-241-2S1

C&I Hybrid Cooling Grid Forming ESS

HUAWEI



More Energy | Simple O&M | Safe & Reliable

Energy Storage System Parameters	
Model type	LUNA2000-241-2S1
Rated capacity	241.0kWh
Maximum cycle efficiency	91.3%
Depth of charge and discharge	0~100%
Dimensions (W x D x H)	1150mm×1800mm×2100mm
Weight	< 2.8 T
Operating temperature range	-30 °C ~ 55 °C (> 50°C Derating)
Storage temperature range	-35 °C ~ 60 °C
Operating humidity range	0 ~ 100%RH (non-condensing)
Maximum operating altitude	4,000 m
System temperature control mode	Hybrid cooling
Balance mode	Active balance
SOC calibration mode	Automatic
Fire suppression mode	Pack-level oxygen barrier, Directional gas exhaust, Top explosion vent, Aerosol
Auxiliary power supply	176~300 Vac, single phase, ≤5 kW
Power consumption standby	≤150 W
Communication port	Ethernet / Optical fiber
Communication protocol	Modbus TCP
Protection degree	IP55
EMC protection rating	Class B
Noise (rated operating condition)	≤65 dB(A)
Lightning protection	Type II (AC port)
Protection mode	Anti-islanding protection, residual current detection, insulation resistance detection, AC overcurrent protection, and AC cable connection protection
Environment	RoHS6
Certification standards	UL9540A; UN38.3; IEC 62477-1; IEC 62040-1; IEC 61000-6-1/2/3/4; IEC 62619; IEC 60529; VDE-AR-E 2510-2/50; IEC 62933-5-1/2; IEC 61727; EN 50549; GB/T 34120
Battery Parameters (DC)	
Cell material	LFP
Rated battery capacity	314Ah
System battery configuration	240S1P
Number of battery packs	4
Operating voltage range	648~852 V
Rated DC current	140 A
PCS Parameters (AC)	
PCS model type	PCS2000-108K-MB1
Rated output power	108 kW
Rated AC current	155.9 A
AC voltage & frequency	380 / 400 / 415 V (3P4W) , 50 / 60 Hz
Adjustable power factor range	-1 ... +1
AC current harmonics THDi (rated output power @on-grid)	≤1.5 %
AC Voltage harmonics THDu (linear load @off-grid)	≤2.0 %

Note:

* Rated operating condition: In the on-grid scenario, the ambient temperature is 25°C, and the AC output voltage is 400 Vac.