

AESS Air-cooled

250kW Specification



**AESS
Battery ESS**



Model

645 kWh

860 kWh

Battery Cell Data

Battery Chemistry	Lithium Iron Phosphate (LFP)	
Cell Cycle Life	8000 Cycles, 0.5C 25°C, 70% EOL	
Cell Specification	3.2V/280Ah	

Battery Rack Data

Type	Rack II	
Nominal Voltage	768 V	
Voltage Range	672 - 864 V	
DC Energy Capacity	645.12 kWh	860.16 kWh
Number of Racks	3	4

Bi-Directional Power Conversion System (PCS)

Rated Power	250 kW	
Maximum Power	275 kW	
Max Charging/Discharging Current	440 A	
Battery Switch-off Mode	Switch	
Rated On-Grid Voltage	380VAC or 400VAC	
Rated On-Grid Frequency	50/60 Hz(±2.5%) or 60 Hz(±0.5%)	
Rated Off-Grid Voltage	380VAC(±10% configurable) or 400VAC(±10% configurable)	
Rated Off-Grid Frequency	50/60Hz or 60 Hz	
Power Factor	Listed: 0.8~1 leading or lagging Actual: 0.1~1 leading or lagging	
Off-Grid Overload Capacity	105%~115% 10 min	
	115%~125%, 1 min	
	125%~150%, 200 ms	
THDi	<3%	
Peak Efficiency	98.20%	
CEC Measured Efficiency	97% w/o transformer	

DC/DC for PV Input

Rated Power	400 kW	
PV Voltage Range	250 - 800 V	
Current to DC Bus	1040 A	
Peak Efficiency	98.60%	
Protection	OTP, OVP/UVP, EPO, Fan/Relay Failure, OLP	
Configurable Protection Limits	Upper/Lower Voltage, Battery EOD voltage	
Compliances	CE LVD IEC 62109/62477, CE EMC IEC 61000, UL1741	



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General Specifications

Cooling	Forced air cooling for power electronics 7.5 kW Air-conditioned for battery system with heater and dehumidifier	
Noise	70 dB	
Enclosure	NEMA 3R	
Max elevation	3000 m/10000 ft (> 3000 m/10000 ft De-rating)	
Operating ambient temperature	-20°C to 50°C (De-rating over 45°C)	
Humidity	0~95% (No condensing)	
Size (W×H×D)	6058×2591×2438 mm/20×8.6×8 ft	
Weight	≤10.5T	≤12.5T

Other

Fire Fighting System	Smoke detector and heat detector, Fire Suppression via NOVEC 1230 or FM200 or water	
Salt spray prevention	Optional salt spray prevention version with special coating and filter	
Certifications	UL9540 (On Demand), UL1973, UL9540A	
AC Connection	3-Phase 3-Wire+PE at Inverter Connection/3-Phase 4-Wire+PE at System Connection	
AC System Output Voltage	480 VAC	
Isolation	Isolation Transformer	

Images are representative and may not match the final product. Specifications are subject to change without notification

