

Outdoor DC Storage Cabinet for Industrial Applications

Orion-UTL-418

The ORION UTL-418 is a high-performance outdoor battery cabinet engineered for utility-scale and commercial installations. With advanced SiC power electronics, modular LFP battery packs, and intelligent BMS control, it delivers dependable, efficient, and safe energy storage in challenging environments. Its IP55 weather-proof design and high-voltage scalability make it ideal for renewable integration, microgrids, and peak-shaving applications, hybrid systems.



UL 9540A certified, no thermal propagation even under cell-level thermal runaway.



Works with string inverters (PCS)
— no circulating current or inter-cluster short-circuit risk.



Liquid cooling maintains cell temperature variation $< 2^{\circ}\text{C}$, extending cycle life by up to 30 %.



Modular design enables deployment across diverse site layouts.



Each unit < 4 tons, allowing efficient onsite crane installation.



Modular structure for quick field servicing and replacement.

Parameter	Specification
Battery Information	
Product Type	Magna-UTL-418
Rated Energy	418 kWh @ 0.5 C
Rated Power	Max 209 kW
Rated Output Voltage	1100 - 1500 V DC
Cell Capacity	314 Ah
Cell Type	LFP (LiFePO ₄)
Configuration	1P 416S
Performance	
Rated Discharge Current	157 A
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Charging Temperature	0 - 45 °C
Discharging Temperature	-20 - 50 °C
Cooling Method	Liquid Cooling
	IP55
Protection Level Functional Safety	Class B
Physical Characteristics	
Net Weight Dimensions (W × D × H)	≈ 4100 kg
	1300 × 1300 × 2365 mm
Environmental Conditions	
Charging Temperature Range	0 - 55°C / -20 - 55°C (with heating function)
Discharging Temperature Range	-20 - 55°C
Protection Level	IP20
Communication & Interface	
Communication Communication Protocols	CAN, 485
Applications	
Utility-scale, Commercial & Industrial	