

V5° Gen 2 Rack Battery

Enhanced
Performance & Safety



BMS Optimized
Passive
Balancing

PACK Multi-Layer
Protection

Fire Fire
Suppression



V5° α Plus



Industry-Leading Pack Integration Capabilities

- Powered by Tier 1 automotive-grade battery cells
- Over 20 years of expertise in BMS design



High-Efficiency Passive Balancing Technology

- Cell-level passive balancing
- Integrated current limiter prevents over current events and improves module balancing performance



Built-In Safety Features

- DC circuit breaker ensures safe battery disconnect from system (Emergency Shutdown Function)
- Pre-charge circuit limits inverter inrush current and safeguards critical internal components
- Aerosol fire suppression system

V5° α Plus Enclosures



V5° Bracket

- Indoor rated
- Floor-mounted installation
- Stack up to 6 batteries per group (30.72 kWh)



V-BOX-OC PLUS

- IP55 / NEMA 3 for outdoor applications
- Floor-mounted installation
- Integrated busbar & circuit breaker Holds up to 4 batteries (20.48 kWh)

Electrical

Battery Chemistry	Lithium Iron Phosphate (LFP)
Rated Voltage	51.2 V
Rated Capacity	100 Ah
Rated Energy	5.12 kWh
Recommended Charge / Discharge Current	75 A (3.84 kW)
Maximum Short Circuit Fault Current	1910 A @ 77 ms
Integrated Breaker	Dual pole 125 Vdc / 125 Adc
Scalability	16 pcs (82 kWh) in a group 6 groups (492 kWh) in a system with a Pytes hub

General

Dimensions (W x D x H)	19.05 x 22.76 x 5.51 inch / 484 x 578.2 x 140 mm
Weight	100 lb / 45.34 kg
Ingress Protection Rating	IP 20
Power Terminal	Amphenol Surlok Plus 8.0 mm
Communication	CAN / RS485 / RS232 / Dry Contact / WiFi
Round-Trip Efficiency	≥ 95%
Cycle Life ¹	≥ 6000 cycles
Warranty ²	10 years

Internal Heating Film

Rated Input Voltage	51.2 Vdc
Rated Power	250 W
Control Temperature	On: ≤ 41 °F / 5 °C Off: ≥ 59 °F / 15 °C

Environmental

Charging Temperature ³	32 °F ~ 113 °F / 0 °C ~ 45 °C
Discharging Temperature	14 °F ~ 122 °F / -10 °C ~ 50 °C
Recommended Operating Altitude	≤ 9843 ft / 3000 m
Relative Humidity	0~95%, non-condensing

Compliance

Certifications	UL 9540 Ed.3, UL 9540A, UL 1973, UN 38.3
Listings	CEC, SGIP, OGPe

1. Operating conditions: 77 °F ± 7 °F / 25 °C ± 4 °C, 0.5 C/0.5 C @ 90% DOD, ret @70% (EOL). Total throughput energy: (51.2 V×100 Ah / 1000 × 80% × 6000 / 1000) × 90%= 22 MWh.

2. 10 years or 6000 cycles (whichever comes first).

3. When the ambient temperature is between -0.4 °F ~ 41 °F / -18 °C ~ 5 °C, the heating film will activate to warm the battery until the temperature reaches the battery charging temperature range. External charging source (PV, grid, generator) is required for heating film operation.

