

TRIDENT VERSA sMOD



Trident Versa is Spear Power System's patented commercial off-the-shelf (COTS) battery solution. Spear provides its battery systems to defense, marine, and Industrial markets.

Key components in each system are the scalable Modules (sMOD) and scalable Battery Management System (sBMS). The sMOD provides a common building block for our systems.

Versa systems can be scaled from 50 VDC to 1250 VDC and are available in both air-cooled and liquid-cooled options.

BATTERY MODULE SPECIFICATION

Configuration	2P 24S
Cell Chemistry	NMC
Capacity	126 Ah
Energy	11.1 kWh
Maximum Operating Voltage	100 VDC
Nominal Operating Voltage	88 VDC
Minimum Operating Voltage	72 VDC
Maximum Continuous Charge / Discharge Current	384 A
Maximum Pulse Charge / Discharge Current	768 A
Height	161 mm
Width	440 mm
Length	1,146 mm
Weight (Air-Cooled)	95 kg
Weight (Liquid-Cooled, dry)	100 kg
Maximum Operating Temperature	45°C
Minimum Operating Temperature	-25°C
Maximum Storage Temperature	60°C
Minimum Storage Temperature	-30°C
Relative Humidity	100%

Spear's Versa system is patented for its design for mitigation of thermal event propagation for battery systems. Versa offers NMA Level 1 safety (no fire suppression required) and controlled cell venting without the need for active liquid cooling.

Trident Versa is a light-weight, compact energy storage solution. Spear employs two-sided module cooling to optimize heat transfer between the cells and outer heat exchanging surfaces, resulting in extended battery life.

PERFORMANCE

- 117 Wh / kg
- 351 W / kg
- 137 Wh / L
- 411 W / L

INDUSTRIES SERVED

- Marine
- Rail
- Mining
- Energy Harvesting

CERTIFICATIONS

- UN 38.3
- ABS
- DNV – GL
- Bureau Veritas
- RINA
- Lloyd's Register
- S9310 (pending)

ENVIRONMENTAL

- NMA RSV 12-2016
- UN 38.3 T1 thru T5
- CISPR 16
- IEC 60028-2-6, 64
- IEC 60068-2-1, -2, -30
- IEC 60945, Ed.3
- IEC 61000-4-2 thru -6