

Liquid Cooled Module Product Series

TLM-166.4-280-Y

TLM-166.4-280-Y1

TLM-166.4-315-Y



TLM-166.4-280-Y



TLM-166.4-280-Y1



TLM-166.4-315-Y



Product Overview

The liquid-cooled battery module product series consists of modules built with 52 lithium iron phosphate (LiFePO₄) cells in a 1P52S configuration. These modules offer high energy density, a wide operating temperature range, long cycle life, and excellent safety performance. Each module integrates data harnesses and a Battery Management Module (BMM) for voltage and temperature monitoring. The design also includes connectors, a liquid cooling plate, structural mounting components, and a fire detection and pre-warning module (Pack-level fire protection). The modular architecture allows for easy transportation, installation, and maintenance.



Liquid Cooling: Advanced liquid cooling technology with anti-condensation coating.



Safety Assurance: Equipped with Pack-level fire protection.



Modular Design: Easy to expand and maintain.



Long Lifespan: Operating temperature difference ≤3°C, extending battery life.



Model	TLM-166.4-280-Y	TLM-166.4-280-Y1	TLM-166.4-315-Y
Cell capacity	280Ah	280Ah	315Ah
Series-Parallel Configuration	1P52S		
Nominal voltage	DC 166.4V		
Nominal energy	46.59kWh	46.59kWh	52.416kWh
Discharge cutoff voltage	130V or any battery cell in the module reaches 2.5V		
Chargingcut-off voltage	189.8V Any single cell in the module reaches 3.65V		
Nominal current	140A	140A	157A
Working temperature	Recommended operating temperature: 10°C~45°C, charge temperature range: 0~55°C, discharge temperature range:: -20~55°C		
Storage temperature range	Short-term storage (1 month): -20~45°C, long-term storage(6 months): 0~25°C		
Positive/negative terminal connection method	Quick connector		
Communication Interface	CAN		
Shipment SOC (State of Charge)	30% (25±2°C)		
Cycle life	≥ 6000 cycles		
Above sea level	≤ 4000 m		
Thermal management mode	Liqukd cooling		
IP grade	IP67		
Dimensions (W×D×H)	782×1087×240 mm	808×1181×242.5 mm	776×1150×240 mm
Weight	335±5kg	340±5kg	345±5kg
Certifications	CE, UN38.3, ROHS2.0	/	UN38.3, UL9540A, CE, ROHS2.0 (under certification)