

Titan-S105/232/100-LS

Outdoor Cabinet Liquid-cooled PV Energy Storage System

Titan-S105/232/100-LS is a new outdoor cabinet liquid-cooled PV energy storage system developed by Leoch. It adopts ALL-in-one integrated design and integrates battery energy storage unit, intelligent converter, battery management system, STS, photovoltaic controller, temperature control system, fire protection system, energy management system and other equipment. It meets the requirements of off-grid operation and seamless switching, and features high charging and discharging and thermal management efficiency, multiple safety designs and a small footprint. It supports various EMS energy strategies, can participate in power market transactions (VPP), and can be used in various industrial and commercial application scenarios such as peak shaving and valley filling, emergency backup, demand control, optical storage and charging, and microgrids.



Highly Integrated

ALL-in-one integrated design, simple installation and maintenance, saving space and cost



Safe And Reliable

multiple fire protection design, cell level temperature detection + PACK level + cabinet level aerosol fire extinguishing + water fire protection + explosion-proof pressure



Modular Design

More flexible configuration, multiple parallel connections, fast response, and ensuring continuous uninterrupted power supply for critical loads.



Intelligent Operation and Maintenance

The entire network's energy storage is visible and manageable, improving system reliability, stability, operation and maintenance efficiency, and optimizing system performance



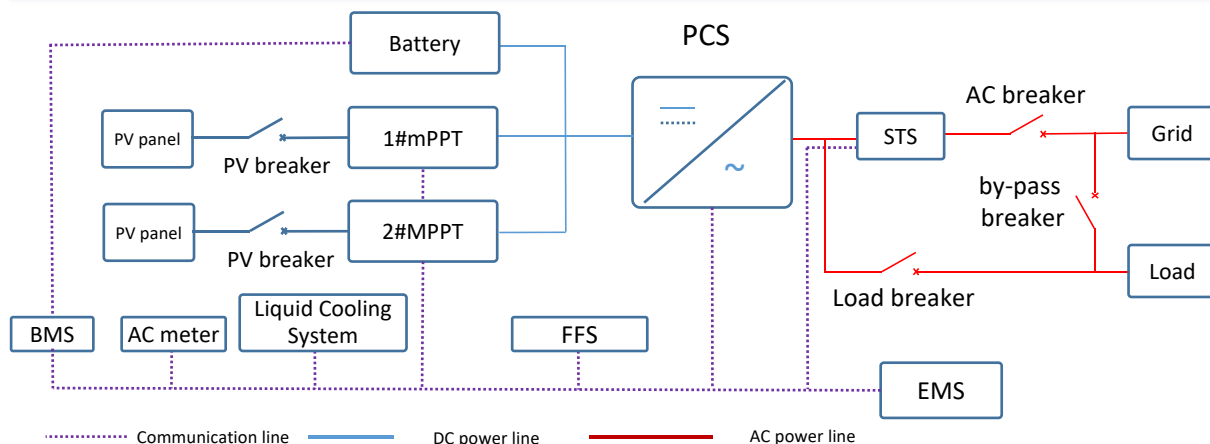
Rich Configuration

supports simultaneous access to load, battery, power grid or diesel generator, and photovoltaic



Extreme Temperature Control

Precise liquid cooling temperature control, cell temperature difference $\leq 1^{\circ}\text{C}$, system temperature difference $\leq 3^{\circ}\text{C}$. The system has higher efficiency and longer service life.



Outdoor Cabinet Liquid-cooled PV Energy Storage System



System model	Titan-S105/232/100-LS
Battery Parameters	
Cell Type	LFP3.2V/280Ah
Battery PACK Type	1P 52S
Cluster Configuration	1P260S
Nominal Energy	232.96kWh
Battery Voltage Range	728V~936V
Charge-Discharge Efficiency	≥95 %
AC Parameters (Grid mode)	
Rated Power	105kW
Rated Voltage	400V,3P4W
Rated Current	152A
Overload Capacity	110% long term
Rated Grid Frequency	50Hz/60Hz
Power Factor	0.99
Power Factor Range	1 (lead) ~ 1 (lag)
Current Distortion rate	<3% (Rated power)
DC Component	0.5%
AC Parameters (Islanded mode)	
Rated Power	105kW
Rated Voltage	400V, 3P4W
Rated Current	152A
Rated Frequency	50Hz/60Hz
THDu	≤3% (linear load)
Three-phase unbalance	100%
System Parameters	
Charge and Discharge Rate	≤0.5C
Dimensions (W*D*H)	1570*1360*2335 (mm)
Weight	About 2.969 t
IP Level	IP55
Altitude	2000 meters (>2000m derate for use)
Operating Temperature	-25°C~55°C
Relative Humidity	0~95% (no condensation)
Operating Noise	≤75dB
Cooling method (PCS)	Intelligent air cooling
Cooling method (battery compartment)	Intelligent liquid cooling
Fire Fighting System	PACK level + tank level aerosol fire fighting + water fire fighting + explosion-proof pressure relief
Communication Interface	RS485, CAN, Ethernet, dry contact
Crtifications	IEC61000, IEC62619, IEC62477, UN38.3
STS Parameters (optional)	
Rated Power	200kW (grid side 200kW, load side 100kW)
Switching Time	≤20ms
Photovoltaic parameters (optional)	
Maximum photovoltaic input power	50kW/100kW
MPPT voltage range	200~720V
Number of MPPTs	1/2
Number of photovoltaic input channels	1/2
Maximum input current	100A/200A