

"BIGGER & STRONGER"

Commercial & Industrial Solution Supports Your Business

AlphaESS is a world-leading energy storage solution and service provider covering the full power range.

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YOUR
SMART
ENERGY

STORION-LC-TB125

Liquid-Cooling Outdoor Cabinet

POWER

125 kW

CAPACITY

261.2 kWh per Cabinet

Extendable to 522.4 kWh per System



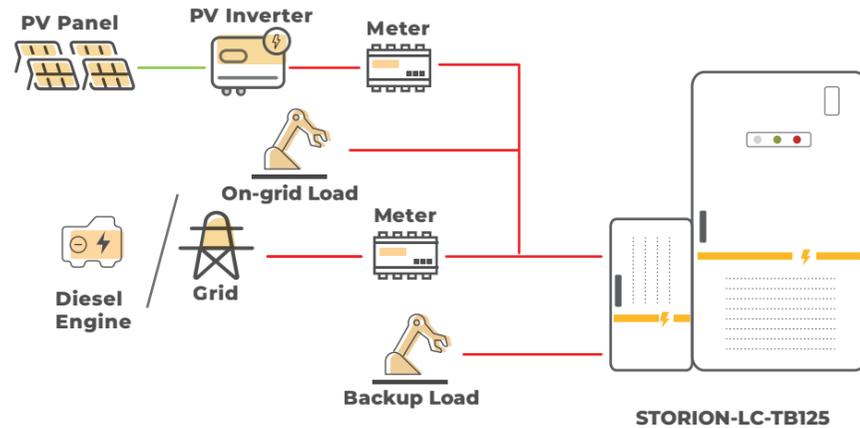
KEY FEATURES

- All-in-One Design
- Pre-installed System, Minimizing Installation Time
- UL9540A Certified, Three-level Intelligent Fire Suppression System
- Active Cell Balancing, Maximizing Life Cycle and System Efficiency
- Seamless Backup Supply with STS Cabinet (< 20ms Switch Time)
- Intelligent Liquid-cooling Temperature Control System
- Max. 50 Units in Parallel (On-Grid Mode)

STORION-LC-TB125



System Diagram



STORION-LC-TB125	
System Parameter	
Battery Chemistry	LiFePO4
Energy Capacity	261.2 kWh per Cabinet
Warranty	5 Years Product Warranty, 10 Years Battery Warranty
AC side (on-grid)	
Nominal Output Power	125 kW
Max. Output Apparent Power	137.5 kVA
Nominal Grid Voltage	400 V(±15%), 3L/N/PE
Nominal Grid Frequency	50/60 Hz (± 5 Hz)
Max.THDr of current	< 3 % (Nominal Power)
AC Power Factor	1.0 leading ~ -1.0 lagging
AC side (off-grid)	
Nominal Output Power	125 kW
Nominal Voltage	400 V 3L / N / PE
Frequency	50 / 60 Hz
Overload	110% Continuous; 120% 1 min
Backup Switch Time (with extra STS)	< 20ms
Max.THDr of voltage	< 3 % (Linear Power)
Efficiency	
Max. Efficiency	99%
European Efficiency	97.65%
System Efficiency (RTE)AC ↔ DC	90.6%
General Parameter	
Dimension(W x D x H)	1003 x 1500 x 2482 mm *
Battery Modules Connection	5 Modules in Series
Weight	2.9 t *
Corrosion Protection Class	C4
Ingress Protection	IP55
Noise Emission	< 70dB @1m **
Operating Ambient Temperature Range	-20 °C ~ 50 °C (> 45 °C Derating)
Operating Humidity Range	0 ~ 95 % RH
Max Operating Altitude	3000 m(> 2000 m Derating)
Fire-fighting System	Aerosol (Pack & Rack)+ Sprinkler + Smoke / Temperature Detection
Communication	CAN, RS485, USB, LAN, WIFI
Dispatching Protocol	Modbus TCP, API
Compliance	IEC 62477, IEC 61000, IEC 62109, IEC 61727, IEC 62116, EN 50549-1&2&10, VDE 4105/4110/4120, G99, TOR, C10/I1

* The dimension and weight do not include STS cabinet.
 ** < 70dB @ 1m when STS cabinet is installed.



STORION-LC-TB125



Model		STORION-LC-TB125
Battery Cluster System		
Item	Data	
Battery Module	M166314-S	
Battery Chemistry	LiFePO4	
Pack Configuration	3.2 V / 314 Ah @ 1P52S	
Internal Resistance	≤10 mΩ	
Nominal Capacity	52.24 kWh	
Rated Voltage	166.4 V	
Operating Voltage Range	140.4 ~ 187.2 V	
Rated Charging/Discharging Power	26.062 kW (0.5 P)	
Cycle Life	8000 @EOL 70% *	
Operating Ambient Temperature Range	-30 °C ~ 55 °C **	
Ingress Protection	IP67	
Communication	CAN	
Dimensions (W x D x H)	810 × 1125.5 × 237.5 mm	
Weight	333 kg	
Compliance	IEC 62619, IEC 62477, IEC 61000, UL9540A	

Meter (Optional)		Model	DTSU666
	Rated Voltage	230 V AC / 400 V AC	
	Accuracy Class	±1%	
	Communication	RS485, Modbus RTU	
	Dimensions (W×D×H)	72 × 80 × 101 mm	
	CT Model	AKH-0.66, K-30×20	
	CT Current Ratio	400 / 5 A	
	CT Perforation Size	32×22 mm	

Expansion Battery Cluster (Optional)		Model	STORION-LC261
	Battery	M166314-S	
	Cluster Capacity	261.2 kWh per Cabinet	
	Rated Charging/Discharging Power	130.6 kW(0.5P)	
	Battery Cluster Voltage Range	702 ~ 936 V	
	Battery Rack	5 Modules in series	
	Fire-Fighting System	Aerosol (Pack & Rack)+ Sprinkler + Smoke / Temperature Detection	
	Dimensions (W×D×H)	1003 x 1500 x 2482 mm	
Weight	2.7 t		

STS (Optional)		Model	ALPSTS-300-O
	Nominal Power	300 kW	
	Nominal Frequency	50/60 Hz	
	On- / Off- grid switching time	<20 ms	
	Weight	~ 120 kg	
	Dimension (W x D x H)	473 x 752 x 1080 mm	
	Max. Operating Altitude	3000 m (>2000 m derating)	
	Ingress Protection	IP55	
Corrosion Protection Class	C4		

*Under specific test conditions.
 **Max. charge/discharge current derating may occur with changes in temperature and SoC.

