

"BIGGER & STRONGER"

Commercial & Industrial Solution Supports Your Business

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

 @AlphaEnergyStorageSystem  @AlphaESS  @alpha_ess  @AlphaESS  www.alphaess.com

Alpha ESS Co., Ltd.

Tel: +86 513 8060 6891
Email: info@alpha-ess.com
Website: www.alphaess.com
Add: No. 1086 Bihua Road, Tongzhou District,
Nantong City, Jiangsu Province, China

Alpha ESS International Pte. Ltd.

Tel: +65 6513 1125 / +65 6513 1126
Email: Singapore@alpha-ess.com
Add: 2 Corporation Road #01-06A Corporation
Place 618494 Singapore

Alpha ESS Australia Pty. Ltd.

Tel: +61 02 9000 7676
Email: techsupport@alphaess.au
Website: www.alphaess.au
Add: 8/15-21 Gibbes Street, Chatswood,
NSW 2067 Australia

Alpha ESS Europe GmbH

Tel: +49 6196 7863485
Email: europe@alpha-ess.de
Website: www.alphaess.de
Add: Horizon Tower 17.OG, Alfred-Herrhausen-Allee 3-5,
65760 Eschborn, Germany

Alpha ESS UK Ltd.

Tel: +44 330 043 2610
Email: info@alpha-ess.com
Add: Drake house, Long street, Dursley, gl11 4hh UK

Alpha ESS Italy S.r.l.

Tel: +39 339 462 4288
Email: info@alphaess.it
Add: Via Del Molinuzzo 83, 59100 Prato (PO), Italy

Alpha ESS USA, Inc.

Tel: +1 408 368 7828
Email: usa@alpha-ess.com
Add: Unit 5 2180 S Ivanhoe St, Denver, CO 80222 USA

Alpha ESS Korea Co., Ltd.

Email: info@alpha-ess.com
Add: 2F, 19-4, Nohyeong 11-gil, Jeju-si, Jeju-do,
Republic of Korea

Alpha ESS Benelux B.V.

Email: contact@alphaess.nl
Add: High Tech Campus 41, 5656AE Eindhoven, Netherlands



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

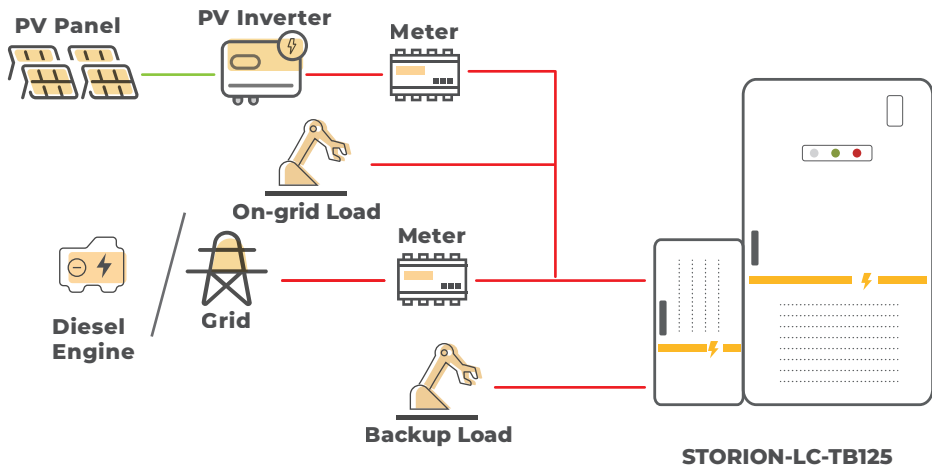
- All-in-One Design
- Pre-installed System, Minimizing Installation Time
- UL9540A Certified, Three-level Intelligent Fire Suppression System
- Active Cell Balancing, Maximizing Life Cycle and System Efficiency
- Seamless Backup Supply with STS Cabinet (< 20ms Switch Time)
- Intelligent Liquid-cooling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



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STORION-LC-TB125



Model		STORION-LC-TB125			
Battery Cluster System					
Data					
Item					
Battery Module		M166314-S			
Battery Chemistry		LiFePO4			
Pack Configuration		3.2 V / 314 Ah @ 1P52S			
Internal Resistance		≤10 mΩ			
Nominal Capacity		52.124 kWh			
Rated Voltage		166.4 V			
Operating Voltage Range		140.4 ~ 187.2 V			
Rated Charing/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.



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