"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: deutschland@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.co.uk
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

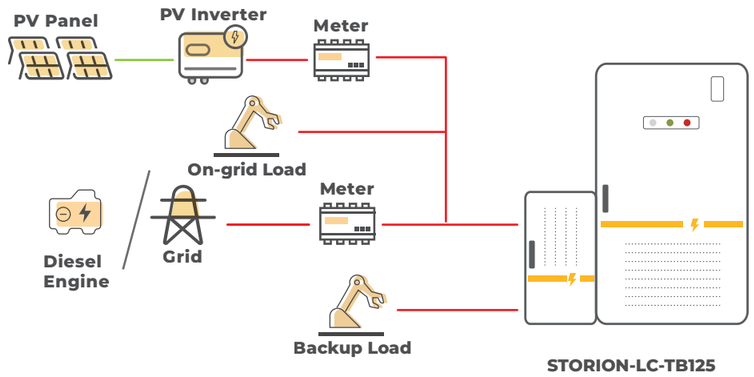
COBALT-FREE

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 ℃ ~ 50 ℃ (> 45℃ 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, C10/11

* 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	
Data / Item	
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 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	~ 220 kg
Dimension (W x D x H)	703 x 960 x 1433 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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