

"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: Jiu Hua Road 888, Nantong High-Tech Industrial Development Zone, Nantong, Jiangsu Province, China

Alpha ESS Suzhou Co., Ltd.

Tel: +86 512 6828 7609
Email: info@alpha-ess.com
Website: www.alphaess.com
Add: Building 10-A, Canal Town Industrial Park, 99 Taihu E Rd, Wuzhong District, Suzhou, Jiangsu Province, China

Alpha ESS Shenzhen Co., Ltd.

Tel: +86 0755 2850 3653
Email: service.pps@alpha-ess.com
Website: www.alphaess.com
Add: Bantian Xinghe WORLD B 1302, No. 1 Yabao Rd, Bantian Street, Longgang District, Shenzhen, Guangdong Province, China

Alpha ESS Australia Pty. Ltd.

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

Alpha ESS Europe GmbH

Tel: +49 6103 4591 601
Email: europe@alpha-ess.de
Website: www.alpha-ess.de
Add: Paul-Ehrlich-Straße 1a, Langen, Hessen D-63225 Germany

Alpha ESS Italy S.r.l.

Tel: +39 339 462 4288
Email: info@alpha-ess.it
Add: Via Don Minzoni, 17, Calenzano Firenze 50041 Italy

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 UK Ltd.

Tel: +44 145 354 5222
Email: info@alpha-ess.com
Add: Drake house, Long street, Dursley, gl11 4hh UK

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 USA, Inc.

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



YOUR
SMART
ENERGY

STORION H30 COMMERCIAL & INDUSTRIAL SERIES

POWER
30 kW

CAPACITY
34.6 ~ 55.3 kWh



KEY FEATURES

- **Highly Integrated**
The cabinet contains batteries, PCS, DC/DC, and EMS, but only occupies a small area
- **Quick Installation**
Backplug battery solution greatly reduces on-site installation time and risks
- **Hybrid Input**
PV Input: 3*MPPT with 250V ~ 830V PV Voltage (MPPT 200V ~ 750V)
Battery Input: 150V ~ 750V (350V ~ 750V@full load), 0.25P ~ 1P Charging/Discharging
- **Multiple System Operation Monitoring**
Local SCADA Monitoring & Commercial and Industrial Cloud

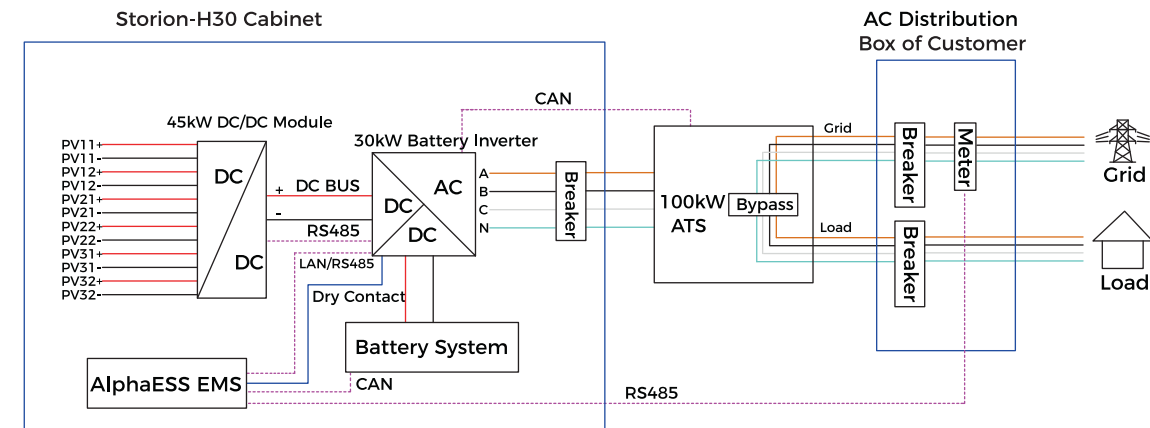
STORION H30



System Functions

- Backup (Optional)
- Radio Ripple Control Receiver
- Peak Shaving and Load Shifting
- Time Period Charge and Discharge

System Topology



Battery Parameters



M7790-S 1C
Intelligent Wind Cooling
Support Quick Insertion

| Item | Data |
|-----------------------------------|-------------------------------|
| Battery Module | M7790-S |
| Battery Type | LiFePO4 |
| Pack | 3.2 V / 90 Ah@1P24S |
| Internal Resistance | ≤10 mΩ |
| Nominal Capacity | 6.912 kWh |
| Rated Voltage | 76.8 V |
| Operating Voltage | 72 V ~ 84.48 V |
| Max. Charging/Discharging Current | 90 A |
| System Cycle Life | 80% EOL with 6000@1C 25°C |
| Communication | CAN |
| Dimension (W x D x H) | 326 x 654 x 250 mm |
| Weight | 64 kg |
| String Pack QTY | 5 ~ 8 |
| Certifications | IEC62619, IEC62477, IEC 61000 |

PCS Parameters



30kW High Power Density
Bi-Directional Power
Conversion System
DC Coupled Solution

| Item | Data |
|-----------------------|--|
| Battery Voltage Range | 150 V ~ 750 V (350 V ~ 750 V@full load) |
| Max. Battery Current | 90 A |
| Rated Output Power | 30 kW |
| Rated Grid Voltage | 3L / N / PE 400VAC±15% |
| Grid Frequency | 50 / 60 Hz |
| AC PF | Listed: 0.8 ~ 1 leading or lagging Actual: 0.1 ~ 1 leading or lagging |
| Off-Grid Voltage | 3L / N / PE 400VAC±15% |
| Off-Grid Frequency | 50 / 60 Hz |
| Overload Capacity | 110% ~ 120%, 10min; 120% ~ 150%, 200ms |
| Weight | 33 kg |

STORION H30



DC/DC Parameters



High Power Density
Bi-Directional DC-DC Converter
Modular Design

| Item | Data |
|---------------------------------|--------------------|
| Rated Power | 45 kW |
| PV Input Voltage Range | 250 V ~ 830 V |
| Rated Input Voltage | 600 V |
| MPPT Voltage Range | 200 V ~ 750 V |
| Number of MPPT | 3 |
| Max. Input Current of Each MPPT | 35 A / 35 A / 35 A |
| Output Voltage Range | 700 V ~ 830 V |
| Rated Output Voltage | 700 V |
| Rated Output Current | 65 A |
| Max. Output Current | 75 A |
| Weight | 25 kg |

ATS Parameters (Optional)



ATS Built-In Bypass

| Item | Data |
|-----------------------|------------------------|
| Max. Input Power | 100 kW (Grid & Load) |
| Rated Grid Voltage | 3L / N / PE 400VAC±15% |
| Grid Frequency | 50 / 60 Hz |
| Switching Time | 30ms (Backup) |
| Cooling | Forced Air Cooling |
| Noise | <70dB |
| Dimension (W x D x H) | 440 x 205 x 920 mm |
| IP Protection | IP54 |
| Weight | 32 kg |

| Model | Storion-H30 | Storion-H30-O |
|--|--|-------------------------|
| System Technical Specifications | | |
| DC Data | | |
| Battery Type Chemistry | Lithium Iron Phosphate (LFP) | |
| Depth of Discharge (DoD) | 90% (on-Grid), 85% (off-Grid) | |
| Battery Voltage Range | 150 V ~ 750 V (350 V ~ 750 V@full load) | |
| Battery Energy Range | 34.56 kWh ~ 55.29 kWh | |
| String of Battery | 1 | |
| PV Voltage Range | 250 V ~ 830 V | |
| MPPT Voltage Range | 200 V ~ 830 V | |
| Number of MPPT | 3 | |
| Number of Strings for Each MPPT | 2 | |
| Max. Input Current of Each MPPT | 35 A | |
| AC Data-Grid | | |
| Rated Power | 30 kW | |
| Max. Input Power | 60 kW | |
| Rated Grid Voltage | 3L / N / PE 400VAC±15% | |
| Grid Frequency | 50 / 60Hz | |
| Rated Current | 42 A | |
| Output THDi | <3% | |
| AC PF | Listed: 0.8 ~ 1 leading or lagging; Actual: 0.1 ~ 1 leading or lagging | |
| Peak Efficiency | 97.30% | |
| AC Data-Backup | | |
| Rated Output Power | 30 kW | |
| Rated Output Voltage | 3L / N / PE 400VAC±20% | |
| Frequency | 50 / 60 Hz | |
| Overload Capacity | 110% ~ 120%, 10min; 120%-150%, 200ms | |
| General Data | | |
| Dimension (L x W x H) | 1100 x 900 x 2000 mm | 1200 x 900 x 2160 mm |
| Weight of Whole System | <1.4T (Full Battery) | <1.6T (Full Battery) |
| IP Protection | IP20 | IP54 |
| Operating Temperature Range | 20 ~ 30°C | - 40 ~ 50°C |
| Relative Humidity | 0 ~ 95% (non - condensing) | |
| Max. Working Altitude | 3000 m / 9842 ft | |
| Cooling | Forced Air Cooling | HVAC |
| Communication Interfaces | RS485, CAN, TCP, Ethernet | |
| Fire Protection | Smoke Temperature Composite Detector | Aerosol Fire Protection |
| Certifications | IEC 61000, VDE 4105, TOR R25, EN 50549, G99 | |

