

"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 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

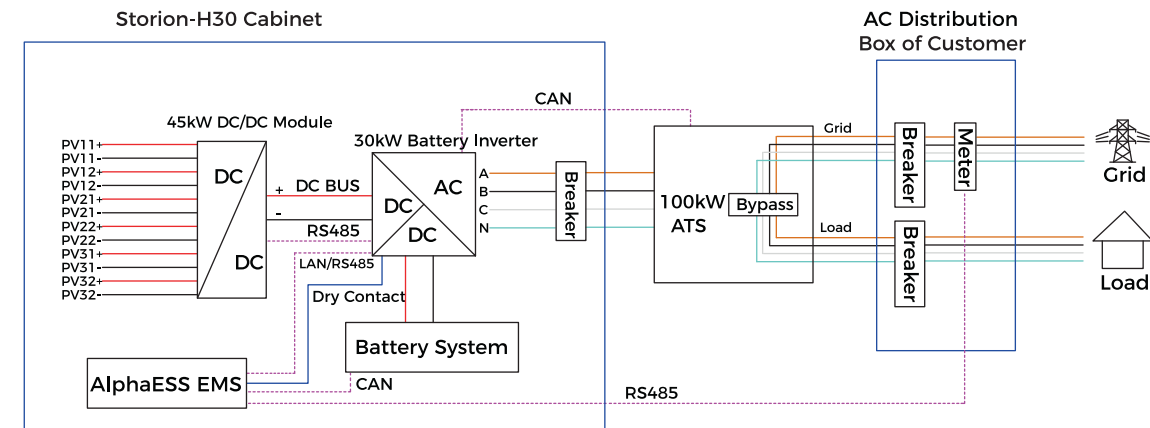
STORION H30



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	

