

YOUR
SMART
ENERGY

STORION-G2-H30

COMMERCIAL &
INDUSTRIAL SERIES

POWER

30 kW Hybrid Inverter

CAPACITY

8.0 kWh Battery Module
64.5 ~ 104.8 kWh



KEY FEATURES

- **All in One Design**
The cabinet contains batteries, PCS, DC/DC, STS, and EMS, but only occupies a small area.
- **Support Multi-Direction Roof**
PV Input: 4*MPPT with 200V ~ 850V MPPT Voltage
- **Multiple System Operation Monitoring**
Local SCADA Monitoring & Remote Commercial and Industrial Cloud
- **Max 5 systems in on-grid parallel, 3 systems in off-grid parallel**
Single system switching time $\leq 20\text{ms}$, parallel system switching time $\leq 100\text{ms}$

STORION-G2-H30



System Functions

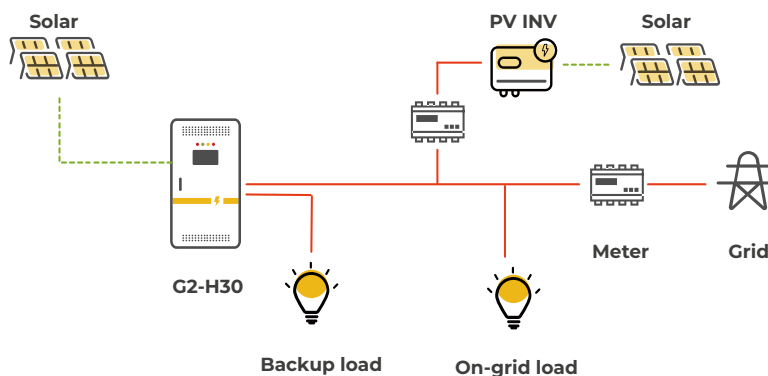
Backup

Max 5 Systems in Parallel

Peak Shaving and Load Shifting

Timed Charge and Discharge

System Diagram



Model

STORION-G2-H30

System Technical Specifications

Battery Chemistry

LiFePO4

Battery Energy Range

64.5 ~ 104.8 kWh

Depth of Discharge(DOD)

90% (On-Grid), 85% (Off-Grid)

IP Protection

IP20

Standard Battery Cluster

1*

Warranty

5 Years Product Warranty, 10 Years Battery Performance Warranty

PV Side

Max. Input power

45 kW

Start-up Voltage

135 V

MPPT Voltage Range

200 ~ 850 V

Number of MPPT

4

Number of Strings for Each MPPT

2

Max. Input Current

30 A / 30 A / 30 A / 30 A

Max. Short-circuit Current

40 A / 40 A / 40 A / 40 A

AC Data(Grid)

Rated Output Power

30 kW

Max. Input Power

36 kW

Rated Grid Voltage

3L / N / PE 220 V / 380 V; 230 V / 400 V

Grid Frequency

50 / 60 Hz

Rated Current

50 A

Output THDi

< 3%

AC PF

0,8 leading ... 0,8 lagging

AC Data (Backup)

Rated Output Power

30 kW

Max Output Apparent Power

33 kVA

Rated Grid Voltage

3L / N / PE 220 V / 380 V; 230 V / 400 V

Grid Frequency

50 / 60 hz

Max Current

50 A

General Data

Dimensions(W x D x H)

(950 + 300) x 900 x 2050 mm

Weight

912 ~ 1237 kg (with M38210-SC)

Operating Temperature Range

-20 °C ~ 50 °C (PCS > 45°C derating)

Relative Humidity

0 ~ 95% (No Condensation)

Max. Working Altitude

3000 m / 9842 ft (> 3000 m derating)

Cooling Method

Forced Air-Cooling

Communication Interfaces

RS485, CAN, Modbus TCP, Ethernet

Display

SCADA

Certifications

IEC 62477, IEC 61000, IEC 62109, EN 50549-1, VDE 4105, G99, G100, C10/C11**, TOR Erzeuger**, NC RFG, UNE 217001/2**, CEI-021/016

* Max support 2 battery clusters, extra battery cabinet is needed.

** The certification process is ongoing.

STORION-G2-H30



Model		STORION-G2-H30
Battery Cluster System		
Item	Data	
Battery Module		M38210-SC 0.5C
Battery Chemistry		LiFePO4
Pack		3.2 V / 105 Ah@1P24S
Internal Resistance		≤ 10 mΩ
Nominal Capacity		8064 kWh
Rated Voltage		38.4 V
Operating Voltage		36 V ~ 43.2 V
Max. Charging/Discharging Current		105 A
System Cycle Life		6000*
Operating Temperature Range		-10 °C ~ 50 °C**
IP Protection		IP21
Communication		CAN
Dimensions (W x D x H)		325 x 658 x 232 mm
String Pack QTY		8 - 13
Certifications		IEC 62619, IEC 62477, IEC 61000
Meter (Optional)		
	Model	DTSU666
	Rated Voltage	230V AC / 400V 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	ALPBC-105
	Battery	M38210-SC
	Cluster Capacity	64.5~104.8 kWh
	Max. Charging / Discharging Current	105 A
	Battery Cluster Voltage Range	468 V ~ 561.6 V
	Battery Rack	2 x 7
	Fire-Fighting System	Aerosol+Smoke/Temperature
	Dimensions (W×D×H)	740 x 900 x 2050 mm
	Weight	790 ~ 1115 kg

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



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

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64.5 ~ 96.7 kWh



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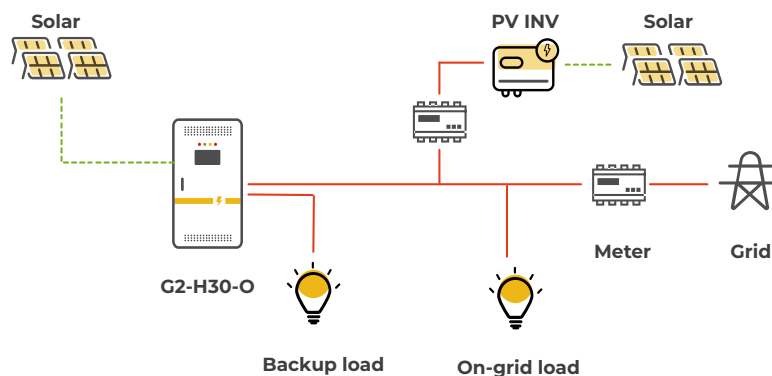
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Peak Shaving and Load Shifting

Timed Charge and Discharge

System Diagram



Model

STORION-G2-H30-O

System Technical Specifications

Battery Chemistry

LiFePO4

Battery Energy Range

64.5 ~ 96.7 kWh

Depth of Discharge(DOD)

90% (On-Grid), 85% (Off-Grid)

IP Protection

IP55

Standard Battery Cluster

1*

Warranty

5 Years Product Warranty, 10 Years Battery Performance Warranty

PV Side

Max. input power

45 kW

Start-up voltage

135 V

MPPT Voltage Range

200 ~ 850 V

Number of MPPT

4

Number of Strings for Each MPPT

2

Max. Input Current

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Max. Short-circuit Current

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AC Data(Grid)

Rated Output Power

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Max. Input Power

36 kW

Rated Grid Voltage

3L / N / PE 220 V / 380 V; 230 V / 400 V

Grid Frequency

50 / 60 Hz

Rated Current

50 A

Output THDi

< 3%

AC PF

0,8 leading ... 0,8 lagging

AC Data (Backup)

Rated Output Power

30 kW

Max Output Apparent Power

33 kVA

Rated Grid Voltage

3L / N / PE 220 V / 380 V; 230 V / 400 V

Grid Frequency

50 / 60 Hz

Max Current

50 A

General Data

Dimensions(W x D x H)

(1200+300) x 900 x 2160 mm

Weight

1072 ~ 1397 kg (with M38210-SC)

Operating Temperature Range

-20 °C ~ 50 °C (PCS > 45°C derating)

Relative Humidity

0 ~ 95% (No Condensation)

Max. Working Altitude

3000 m / 9842 ft (>3000 m derating)

Cooling Method

Forced Air-Cooling

Communication Interfaces

RS485, CAN, Modbus TCP, Ethernet

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** The certification process is ongoing.

STORION-G2-H30-O



Model		STORION-G2-H50-O
Battery Cluster System		
Item	Data	
Battery Module		M38210-SC 0.5C
Battery Chemistry	LiFePO4	
Pack	3.2 V / 105 Ah@2P12S	
Internal Resistance	≤ 10 mΩ	
Nominal Capacity	8064 kWh	
Rated Voltage	38.4 V	
Operating Voltage	36 V ~ 43.2 V	
Max. Charging/Discharging Current	105 A	
System Cycle Life	6000*	
Operating Temperature Range	-10 °C ~ 50 °C**	
IP Protection	IP21	
Communication	CAN	
Dimensions (W x D x H)	325 x 658 x 232 mm	
String Pack QTY	8 - 12	
Certifications	IEC 62619, IEC 62477, IEC 61000	
Meter (Optional)		
	Model	DTSU666
	Rated Voltage	230V AC / 400V 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	ALPBC-105-O
	Battery	M38210-SC
	Cluster Capacity	64.51 ~ 96.76 kWh
	Max. Charging / Discharging Current	105 A
	Battery Cluster Voltage Range	432 V ~ 518.4 V
	Battery Rack	2 x 6
	Fire-Fighting System	Aerosol+Smoke/Temperature
	Dimensions (W×D×H)	1200 x 900 x 2160 mm
	Weight	980 ~ 1240 kg

* Under specific test conditions.

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



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