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● SMART  
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# STORION-G2-H50

COMMERCIAL &  
INDUSTRIAL SERIES

## POWER

50 kW Hybrid Inverter

## CAPACITY

- 6.9 kWh Battery Module  
55.29 / 110.59 kWh
- 8.0 kWh Battery Module  
104.83 / 209.66 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
- **Off-Grid: Max 3 Systems in Parallel**  
**On-Grid: Max 5 Systems in Parallel**  
Max power 150 kW by parallel operation off-grid(In development)  
Max power 250kW by parallel operation on-grid

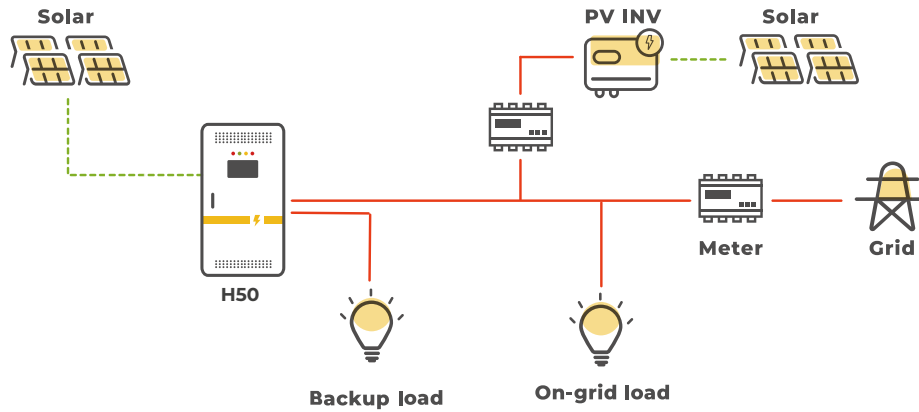
# STORION-G2-H50



## System Functions

- Backup
- Max 5 Systems in Parallel
- Peak Shaving and Load Shifting
- Timed Charge and Discharge

## System Diagram





Model	STORION-G2-H50
<b>System Technical Specifications</b>	
Battery Chemistry	LiFePO4
Battery Energy Range	55.3 kWh~104.83 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
<b>PV Side</b>	
Max. input power	75 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 / 40A / 40 A
<b>AC Data (Grid)</b>	
Rated Output Power	50 kW
Max. Input Power	60 kW
Rated Grid Voltage	3L / N / PE 220 V / 380 V; 230 V / 400 V
Grid Frequency	50 / 60 Hz
Rated Current	83 A
Output THDi	<3%
AC PF	0.8 leading ... 0.8 lagging
<b>AC Data (Backup)</b>	
Rated Output Power	50 kW
Max Output Apparent Power	55 kVA
Rated Grid Voltage	3L / N / PE 220 V / 380 V; 230 V / 400 V
Grid Frequency	50 / 60 Hz
Max Current	83 A
<b>General Data</b>	
Dimensions (L x W x H)	(950+300) x900 x 2050 mm
Weight	STORION-H50: 912 kg (with 8*M7790-S) /1237 kg (with 13*M38210-SC)
Operating Temperature Range	STORION-H50: -10°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
Noise	≤ 65 dB
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-H50



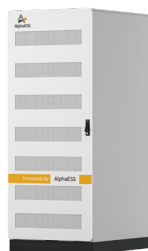
Model		STORION-G2-H50	
Battery Cluster System			
Item	Data		
		M7790-S 1C	M38210-SC 0.5C
Battery Chemistry		LiFePO4	LiFePO4
Pack		3.2 V / 90 Ah@1P24S	3.2 V / 105 Ah@2P12S
Internal Resistance		≤10 mΩ	≤10 mΩ
Nominal Capacity		6.912 kWh	8.064 kWh
Rated Voltage		76.8 V	38.4 V
Operating Voltage		72 V ~ 84.48 V	36 V ~ 43.2 V
Max. Charging/Discharging Current		90 A	105 A
System Cycle Life		6000***	6000***
Operating Temperature Range		-10 °C ~ 50 °C****	-10 °C ~ 50 °C****
IP Protection		IP21	IP21
Communication		CAN	CAN
Dimensions (W x D x H)		326 x 654 x 250 mm	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
Dimensions (L×W×H)	80×72×101 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)



Battery	M7790-S	M38210-SC
Cluster Capacity	55.3 kWh	104.8 kWh
Max. Charging/Discharging Current	90 A	105 A
Battery Cluster Voltage Range	576 V ~ 675.8 V	468 V ~ 561.6 V
Battery Rack	2 x 7	
Fire-Fighting System	Smoke detect	
Dimensions (L×W×H)	740 x 900 x 2050 mm	
Weight	790 kg	1115 kg

\*\*\*Under specific test conditions.

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



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# STORION-G2-H50-O

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## POWER

50 kW Hybrid Inverter

## CAPACITY

- 6.9 kWh Battery Module  
55.29 / 110.59 kWh
- 8.0 kWh Battery Module  
96.76 / 193.52 kWh



## KEY FEATURES

- **All in One Design**  
The cabinet contains batteries, PCS, DC/DC, STS, HVAC 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  $\leq 100\text{ms}$

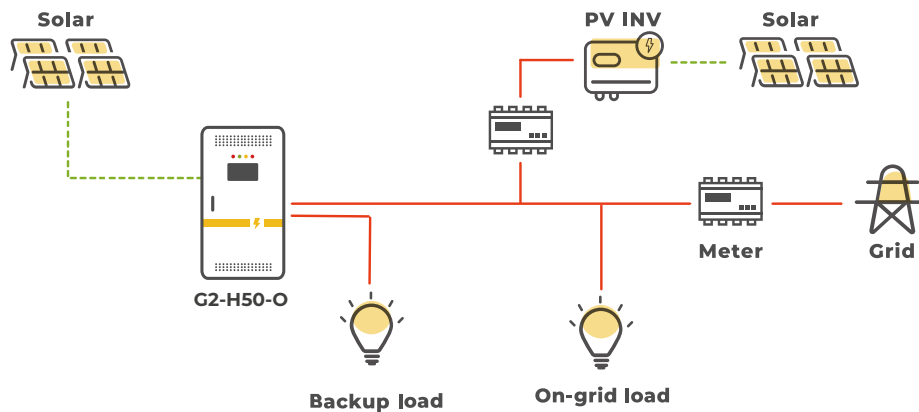
# STORION-G2-H50-O



## System Functions

- Backup
- Max 5 Systems in Parallel
- Peak Shaving and Load Shifting
- Timed Charge and Discharge

## System Diagram





Model	STORION-G2-H50-O
<b>System Technical Specifications</b>	
Battery Chemistry	LiFePO4
Battery Energy Range	55.29 kWh / 96.76 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
<b>PV Side</b>	
Max. input power	75 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 / 40A / 40 A
<b>AC Data (Grid)</b>	
Rated Output Power	50 kW
Max. Input Power	60 kW
Rated Grid Voltage	3L / N / PE 220 V / 380 V; 230 V / 400 V
Grid Frequency	50 / 60 Hz
Rated Current	83 A
Output THDi	<3%
AC PF	0.8 leading ... 0.8 lagging
<b>AC Data (Backup)</b>	
Rated Output Power	50 kW
Max Output Apparent Power	55 kVA
Rated Grid Voltage	3L / N / PE 220 V / 380 V; 230 V / 400 V
Grid Frequency	50 / 60 Hz
Max Current	83 A
<b>General Data</b>	
Dimensions (L x W x H)	900 x (1200+300) x 2160 mm
Weight	1071 kg (with 8*M7790-S) / 1355 kg (with 12*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	HVAC
Fire-Fighting System	Aerosol+Smoke/Temperature Detect
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-H50-O



Model		STORION-G2-H50-O	
Battery Cluster System			
Item	Data		
Battery Module		M7790-S 1C	M38210-SC 0.5C
Battery Chemistry		LiFePO4	LiFePO4
Pack		3.2 V / 90 Ah@1P24S	3.2 V / 105 Ah@2P12S
Internal Resistance		≤10 mΩ	≤10 mΩ
Nominal Capacity		6.912 kWh	8.064 kWh
Rated Voltage		76.8 V	38.4 V
Operating Voltage		72 V ~ 84.48 V	36 V ~ 43.2 V
Max. Charging/Discharging Current		90 A	105 A
System Cycle Life		6000***	6000***
Operating Temperature Range		-10 °C ~ 50 °C****	-10 °C ~ 50 °C****
IP Protection		IP21	IP21
Communication		CAN	CAN
Dimensions (W x D x H)		326 x 654 x 250 mm	325 x 658 x 232 mm
String Pack QTY		8	12*****
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## 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	M7790-S	M38210-SC
Cluster Capacity	55.29 kWh	96.76 kWh
Max. Charging/Discharging Current	90 A	105 A
Battery Cluster Voltage Range	576 V ~ 675.8 V	432 V ~ 518.4 V
Battery Rack	2 x 6	
Fire-Fighting System	Aerosol+Smoke/Temperature Detect	
Dimensions (W×D×H)	1200 x 900 x 2160 mm	
Weight	980 kg	1240 kg

\*\*\*Under specific test conditions.

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

\*\*\*\*\*When operating with 12 or more 38210-SC batteries, the system is capable of achieving a maximum charging and discharging power of 50 kW.



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