All-In-One xStorage ESS (Energy Storage Solution)

xStorage Hybrid Inverter
Three-phase LFP Battery Solutions

Powering Business Worldwide

Discover xStorage Hybrid Inverter Three-phase Battery Solutions

- 3 Hybrid Inverters 8kW, 10kW & 12kW
- CATL high performance LFP battery
- 20KW PV input. 10KW charging and 10KW AC output.
- Modular design. The energy storage system can be expanded by multiple of 2 x 5.12kWh units
- 10KW three-phase backup output, on/off grid switching time is less than 20ms.
- EMS included. It is suitable for various applications.
- Easy to install
- 200% DC/AC ratio
- DO/DI support
- Unbalanced output

Safety

CATL LFP Battery Stable and safe Module, pack, system, triple protection

Simple

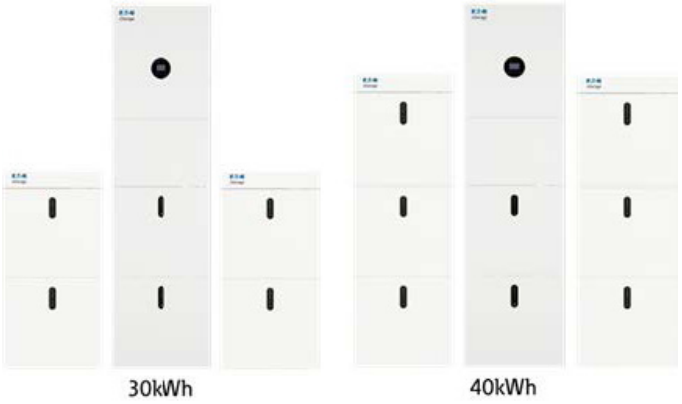
Modular design Plug and play Mobile APP Monitoring

Efficient

Supporting 200% oversized PV power
On & OFF Grid parallel system

Configurations

All installation can evolve if your needs or your usages change, you can add a battery when you want.



Battery Model	XSTHSBP-5.1-16S-100A-F (Battery 5.12kWh with BMS & HF)
Physical	
Battery type	LFP (LiFePO4)
System Weight	54KG
Dimension (W x H x D)	540*490*240
IP Protection	IP65
Warranty	5 Years Product Warranty, 10 Years Performance
Electrical	
Energy Capacity	5.12kwh
Usable Capacity	4.6kwh
Depth of Discharge (DoD)	90%
Rated Voltage	51.2V
Operating Voltage Range	44.8-56.5V
Internal Resistance	<20mΩ
Cycle Life	10000 cycles
Operation	
Max. Charge/Discharge Current	50A/100A
Rated DC power	4096W
Max. Charge/Discharge Power	2825W/4096W
Operating Temperature Range	-10 to 50°C charging -10 to 50°C discharging
Humidity	0~95% (No condensation)
BMS	
Module connection in parallel	Max. 8
Capacity	200-800Ah
Power Consumption	<2W
Communication	CAN & RS485
Monitoring Parameters	System voltage, current, cell voltage, cell temperature, PCBA temperature measurement
Certificate	
Safety (Cell)	Pack: IEC/EN 62619;UN38.3 Cell: IEC/EN 62619;UN38.3;UL1973

Hybrid Inverter Model	XSTHS3P-8K	XSTHS3P-10K /XSTHS3P-10KBE	XSTHS3P-12K
PV String Input			
Max. Continuous PV Input Power	16kW	20kW	20kW
Max. DC Voltage	1100V		
Nominal Voltage	720V		
MPPT Voltage Range	140V-1000V		
MPPT Voltage Range (Full Load)	380V-850V	420V-850V	480V-850V
Start Voltage 1	200V		
Number of MPPT	2		
Strings Per MPPT	1		
Max. Input Current Per MPPT	15A		
Max. Short-circuit Current Per MPPT	20A		
AC Output (Grid)			
Nominal AC Output Power	8kW	10kW	12kW
Max. AC Apparent Power	8.8kVA	11KVA / 10KVA**	13.2kVA
Nominal AC Voltage	400Vac (3P+N+PE); 3*230Vac (between L1/N, L2/N, L3/N)		
AC Grid Frequency Range	50 / 60Hz±5Hz		
Nominal Output Current	11.6A	14.5A	17.4A
Max. Output Current	12.8A	16A	19.2A
Power Factor (cosφ)	0.8leading-0.8lagging*		
THDi	< 3%		
Battery Input			
Battery Type	LFP (LiFePO4)		
Nominal Battery Voltage	51.2V		
Charging Voltage Range	44-58V		
Max. Charging Current	160A	160A	160A
Max. Discharging Current	160A	200A	200A
Battery Capacity	200/400/600/800Ah		
Charging Rate for Li-ion Battery	discharge rate is 0.8C, charge rate is 0,5C		
AC Output (Backup)			
Nominal AC Output Power	7.36kW	9.2kW	9.2kW
Max. AC Output Power	8kVA	10kVA	10kVA
Nominal Output Current	10.7A	13.3A	13.3A
Max. Output Current	11.6A	14.5A	14.5A
Nominal Output Voltage	400Vac (3P+N+PE); 3*230Vac (between L1/N, L2/N, L3/N)		
Nominal Output Frequency	50/60Hz		
Output THDv (@Linear Load)	< 2% (Linear Load)		
Efficiency			
Max. PV Efficiency	97.60%		
Euro. PV Efficiency	97.00%		
Protection			
Anti-islanding Protection	Yes		
Output Over Current Protection	Yes		
DC Reverse Polarity Protection	Yes		
String Fault Detection	Yes		
AC/DC Surge Protection	AC Type III; DC Type II		
Insulation Detection	Yes		
AC Short Circuit Protection	Yes		

* 0.95leading-0.95lagging for Germany. 1. Minimum voltage for inverter to start power output.
** Only for Belgium

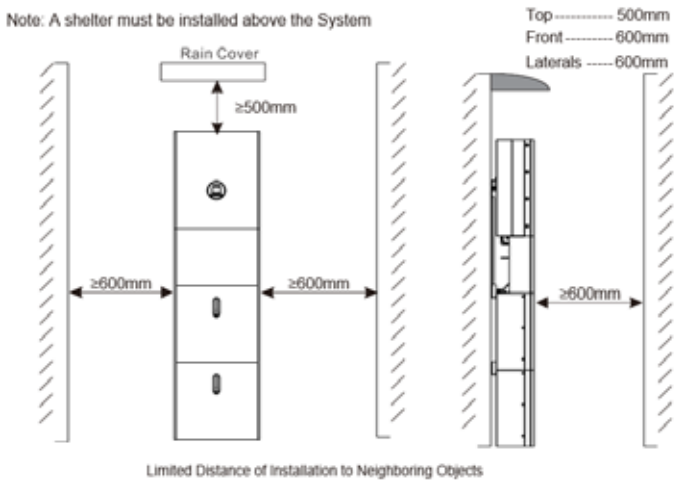
General Specifications	
Dimensions W x H x D	540*980*240mm
Weight	42 kg
Operating Temperature Range	-25 ~ +60 (derating +45)
Cooling Type	Natural Convection
Noise (dB)	<45dB
System Consumption	Standby by PV 20W - Standby during the night 35W
Max. Operation Altitude	2000m
Operation Humidity	0~95% (No Condensation)
IP Class	IP65
Topology	Battery Isolation
Communication	RS485/CAN2.0/WIFI/4G
Display	LCD / APP
Certification	
Certificate	CE
Environment	RoHS, REACH
Grid Code Compliance	Refer to the Grid Code Compliance List
Standard	IEC/EN 62109-1&2; IEC/EN61000-6-1; IEC/EN61000-6-2; EN61000-6-3; IEC/EN61000-6-4;IEC/EN61000-3-11; EN61000-3-12;IEC60529;IEC 60068; IEC61683; IEC62116; IEC61727; EN50549-1

Full Sizing and weight

Configuration	Description	Dimensions (mm) Width x Heigh x Depth	Weight	Width Space of reservation to install, 600mm on both sides. (Space inside walls)
XSTHS3P080BP10V1	XSTS 3P 8kW 10kWh V1	540 x 2210 x 270	107	1740
XSTHS3P080BP20V1	XSTS 3P 8kW 20kWh V1	1380 x 2210 x 270	229	2580
XSTHS3P080BP30V1	XSTS 3P 8kW 30kWh V1	2220 x 2210 x 270	350	3420
XSTHS3P080BP40V1	XSTS 3P 8kW 40kWh V1	2220 x 2210 x 270	645	3420
XSTHS3P100BP10V1	XSTS 3P 10kW 10kWh V1	540 x 2210 x 270	107	1740
XSTHS3P100BP20V1	XSTS 3P 10kW 20kWh V1	1380 x 2210 x 270	229	2580
XSTHS3P100BP30V1	XSTS 3P 10kW 30kWh V1	2220 x 2210 x 270	350	3420
XSTHS3P100BP40V1	XSTS 3P 10kW 40kWh V1	2220 x 2210 x 270	645	3420
XSTHS3P120BP10V1	XSTS 3P 12kW 10kWh V1	540 x 2210 x 270	107	1740
XSTHS3P120BP20V1	XSTS 3P 12kW 20kWh V1	1380 x 2210 x 270	229	2580
XSTHS3P120BP30V1	XSTS 3P 12kW 30kWh V1	2220 x 2210 x 270	350	3420
XSTHS3P120BP40V1	XSTS 3P 12kW 40kWh V1	2220 x 2210 x 270	645	3420

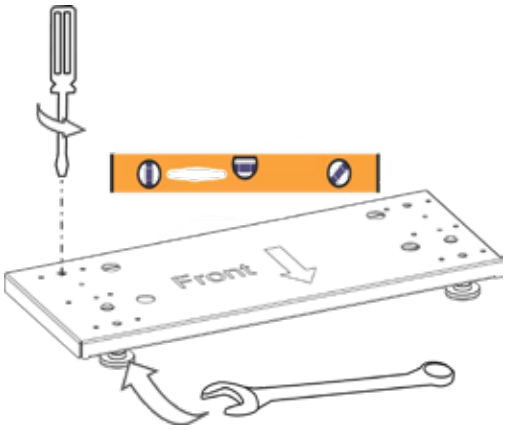
* Configutations are only use for quotations, product are sold individually

Dimensions

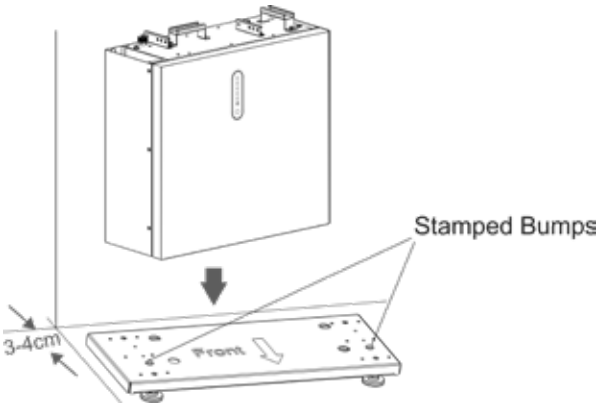


Mounting Steps

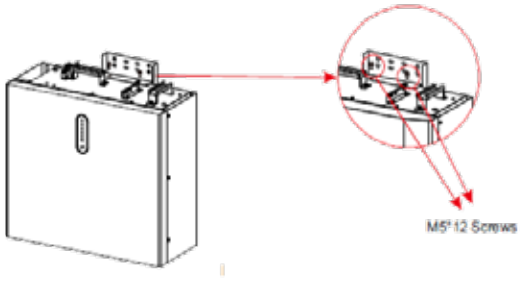
Step 1: Positioning and adjusting the bottom support



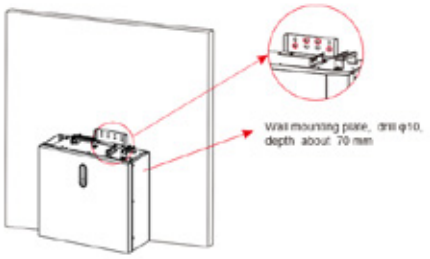
Step 2: Placing the Battery on the Bottom support



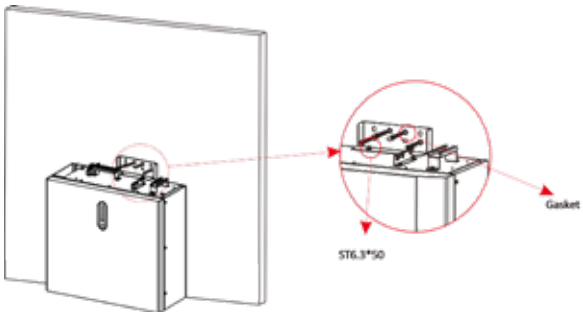
Step 3: Bracket battery pack mounting



Step 4: Trace the Bracket Battery on the wall.

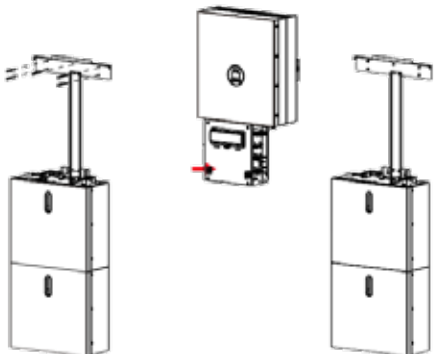


Step 5: Attached the battery pack on the wall.

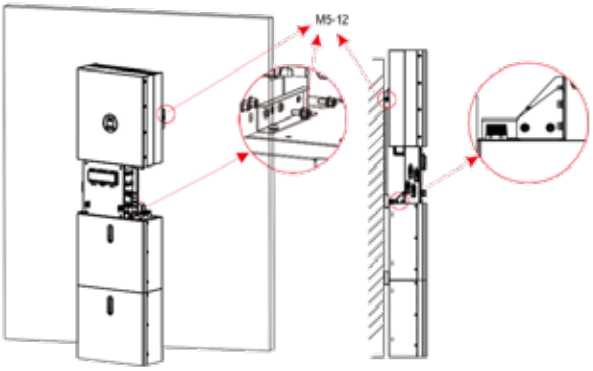


Step 6: Add the 2nd battery pack*

Step 7: Inverter Assembly



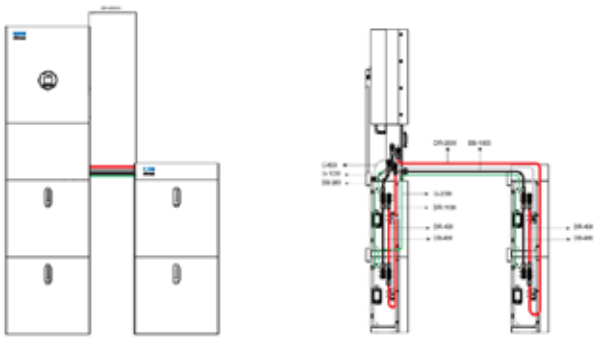
Step 8: Final Assembly



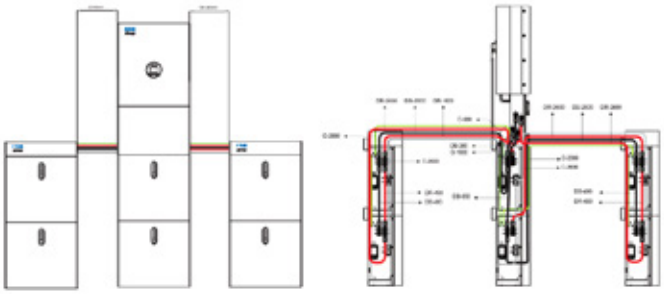
Capacity configurations and scalability

Hybrid Inverter + Pack 10.2

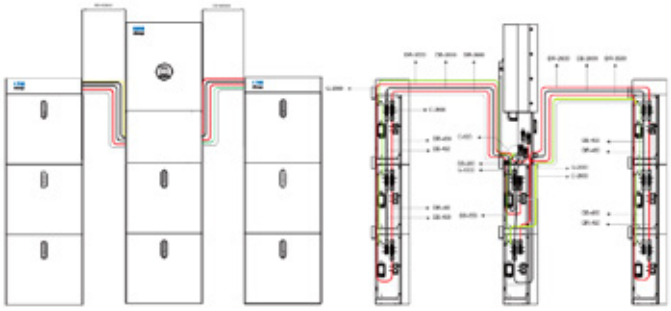
Hybrid Inverter + Pack 20.4



Hybrid Inverter + Pack 30.6



Hybrid Inverter + Pack 40.8



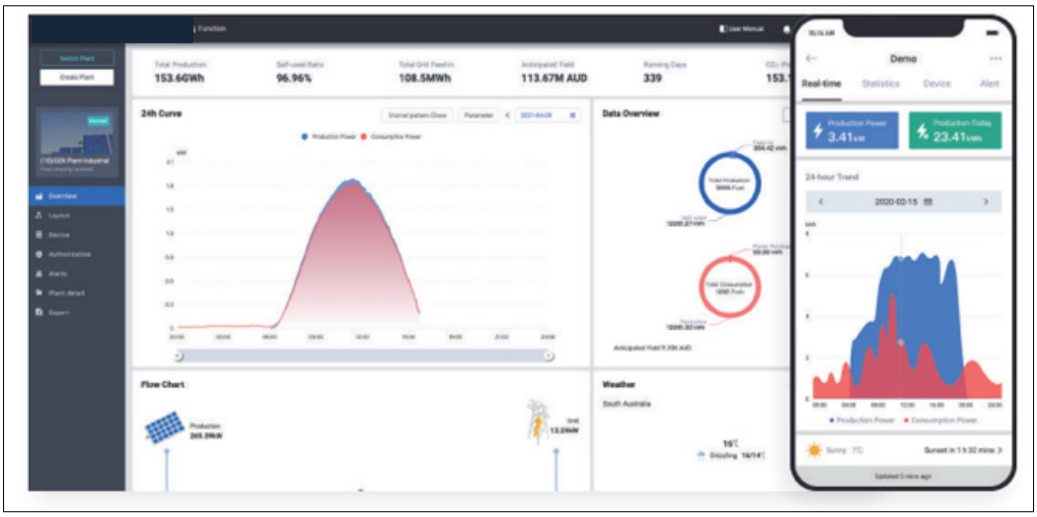
*Between 2 columns, plan to have 200 and 300mm. Add 600mm on both sides (Space inside walls)

Eaton xStorage Solar Software

With the most reliable hardware devices, functional software and outstanding service, Eaton is the right choice for everyone. It meets requirements of device manufacturer, investor, project developer, EPC and plant owner, etc. Moreover, the tailor-made needs can be easily covered under Eaton modular design. My Eaton Solar software consists of two different products – Eaton Business Solar and Eaton Smart Solar. Both products are available in web-based portal and APPs.

Monitoring for Business (a web app and a mobile app), fulfills the needs of technical professionals, making PV plant management easy, effective, and efficient. Besides visualizing real-time data and analyzing performance indexes, i.e., PR, the product enables comparison among different plants, and comparison between plant's actual generation and weather-based simulation. The expanded performance analysis gives extra meaningful messages for plant management.

Monitoring for homeowners (a web app and a mobile app), follow and visualizes all conditions of smart devices at end user's home, the household energy management has never been easier.



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