

Polar

C&I PV+BESS

THESS-125-242

THESS-125-262

THESS-250-484


THESS-250-524





Product Overview


The modular C&I energy storage system is designed using a modular and combined approach. The independent design of battery cabinets and power supply cabinets enhances the system's safety and reliability. The equipment can be integrated with photovoltaic (PV) systems to form a solar + storage solution, improving the self-consumption rate of solar power and reducing electricity costs. The system is widely used in various scenarios such as peak shaving and valley filling for C&I applications, emergency backup power, smart microgrids, and renewable energy integration in distribution networks.


 Modular design, flexible configuration.

 Safe and Reliable: Independent battery cabinet and power supply cabinet design, ensure system safety.

 Standardized expansion, flexible configuration, multiple application scenarios.

 Intelligent O&M: full life cycle monitoring & management controlled by cloud platform.

 Photovoltaic access to improve energy efficiency and reduce electricity costs.

 On and Off grid seamless switching: guaranteeing stable operation of the critical loads.



Model	THESS-125-242	THESS-125-262	THESS-250-484	THESS-250-524
AC (Grid tied)				
Rated Power *	125kW	125kW	250kW	250kW
Rated Voltage	400V			
Rated Current	180A	180A	360A	360A
AC System Wiring Type	3L/N/PE			
Voltage Range	400Vac (-15%~+10%)			
Frequency	50Hz/60Hz			
THDI	<3% (Rated power)			
Power Factor	>0.99			
Power Factor Range	±1			
Overload Capability	110% overload (10 min), 120% overload (1 min)			
AC (Off-grid)				
Rated Power	125kW	125kW	250kW	250kW
Rated Voltage	400V			
Rated Current	180A	180A	360A	360A
Frequency	50Hz/60Hz			
THDU	<3% (Linear load)			
DC (Battery and PV)				
Max. PV Open-circuit Voltage	1000V			
Rated PV Power	120kWp	120kWp	240kWp	240kWp
PV Voltage Range	400~650VDC	400~700VDC	400~650VDC	400~700VDC
PV MPPT NO.	60kW*2	60kW*2	60kW*4	60kW*4
Cell Type	LFP 3.2V/315Ah			
Grouping Method	240S1P	260S1P	240S2P	260S2P
Charge/Discharge Ratio	≤0.5P			
Battery Rated Voltage	768V	832V	768V	832V
Battery Voltage Range	672~864VDC	728~936VDC	672~864VDC	728~936VDC
Basic Parameters				
On/off Grid Switch Function	Optional			

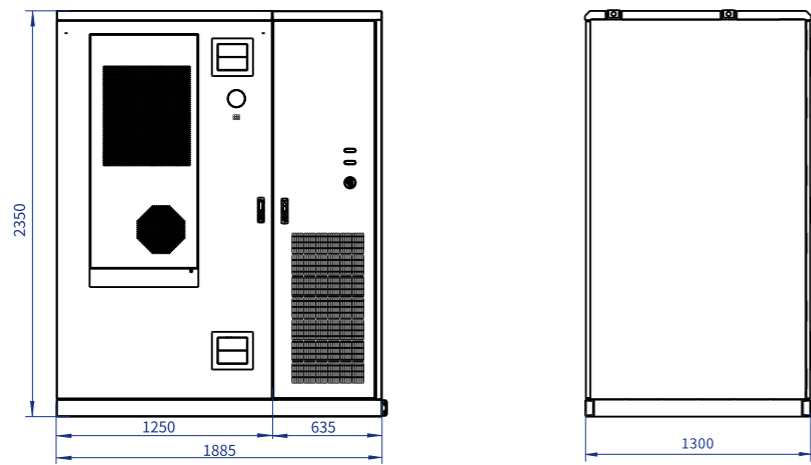
Model	THESS-125-242	THESS-125-262	THESS-250-484	THESS-250-524
On/off Grid Switch Time	<20ms			
Noise Level	<75dB			
IP protection Level	IP54			
Anti-corrosion Protection	C3			
Operating Temperature	-20°C~55°C			
Fire Protection	Aerosols			
Cooling	Forced air + Smart AC	Liquid cooling	Forced air + Smart AC	Liquid cooling
Relative Humidity	0 ~ 95%, without condensation			
Max. Altitude	≤4000m (Derated above 2000m)			
Dimensions (WxDxH)	1885x1300x2350mm	1585x1300x2350mm	3764x1300x2350mm	3164x1300x2350mm
Weight	3010kg	2900kg	5420kg	5200kg
Certificates	Battery: IEC61000-6-2/4, IEC62477-1, IEC62619, UL973, UL9540A, UN38.3 PCS: IEC62477-1, EN61000-6-2/4, EN50549-1/10			

Communication	
Display	Touch Screen
Communication	RS485 / LAN
Communication Protocol	Modbus

* Note: If you need to increase the system power and battery power, please consult the manufacturer,
Max. battery power not to exceed 0.5P,
PCS power can be selected from 100kW, 110kW, 125kW.

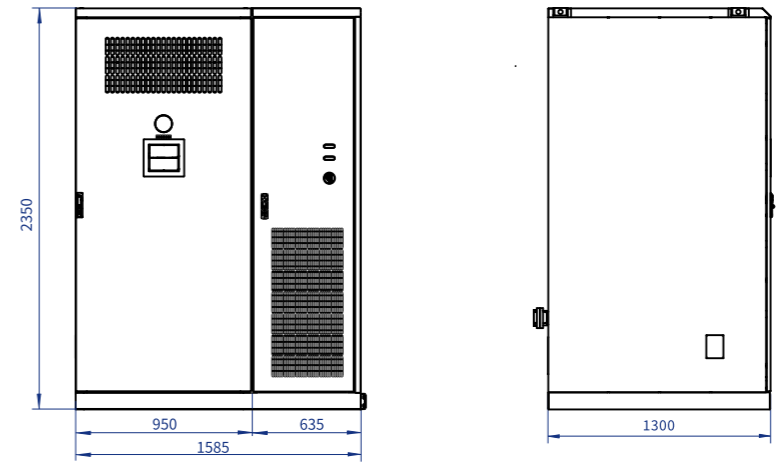
 **Product Dimensions**

THESS-125-242 Dimensions: 1885mmx1300mmx2350mm Weight: 3010kg

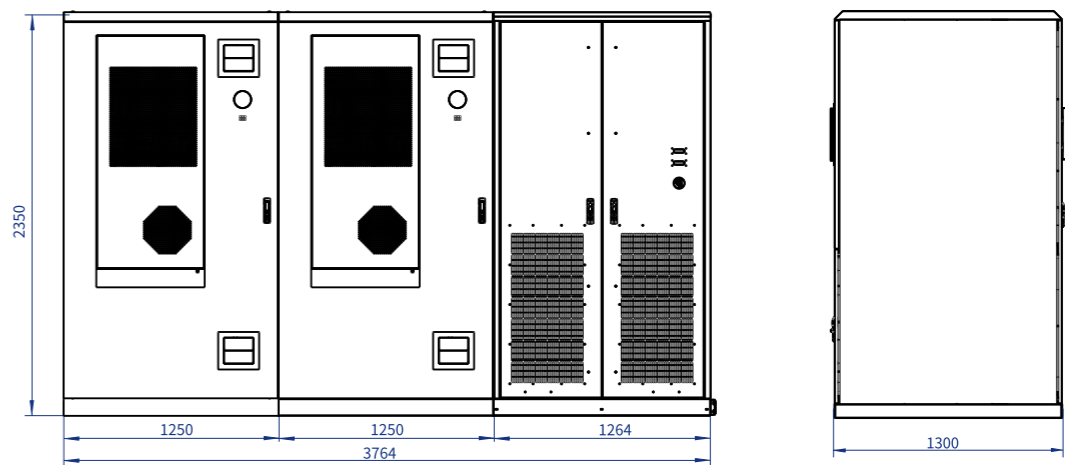


 **Product Dimensions**

THESS-125-262 Dimensions: 1585mmx1300mmx2350mm Weight: 2900kg



THESS-250-484 Dimensions: 3764mmx1300mmx2350mm Weight: 5420kg



THESS-250-524 Dimensions: 3164mmx1300mmx2350mm Weight: 5200kg

