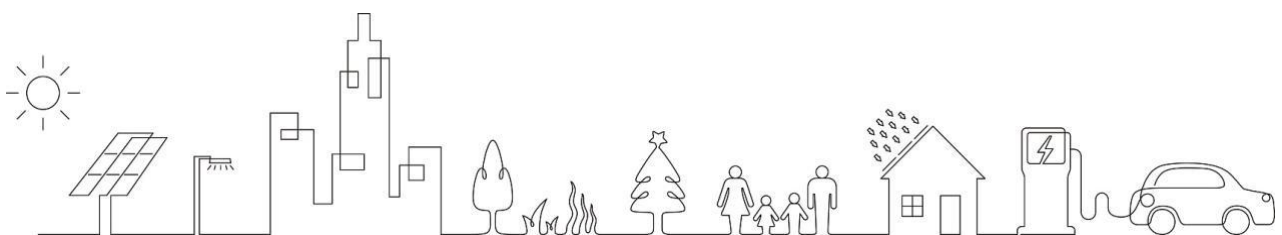


Tensorpack M Energy Storage System Specification



Product Introduction

Tensorpack M Hybrid Energy Storage System (ESS) is an all-in-one solar-plus-storage solution designed for commercial and industrial applications. It integrates a battery cabinet with a hybrid inverter in a single system, enabling seamless transition between grid-tied and off-grid modes in under 20 ms for uninterrupted power. The system is fully scalable to meet growing energy demands. Ideal for businesses seeking a robust, self-sustaining energy solution.

This datasheet provides detailed technical specifications to support engineers, and users in design, deployment, and operation.

Key Features

- **Ultimate Integration**
High-performance batteries and hybrid inverter combined in a single compact cabinet—minimizing footprint, external cabling, and compatibility issues.
- **Flexible Scalability**
Modular design enables easy battery stacking or system parallelization for seamless capacity expansion (“pay-as-you-grow”).
- **Resilient Energy Hub**
Supports direct PV input and UPS-level grid-to-off-grid switching for uninterrupted power and enhanced energy independence.
- **Simplified Deployment**
Factory pre-wired and pre-tested for plug-and-play installation—reducing on-site labor, commissioning time, and engineering dependency.

Product Family Overview

50kW Power Platform: 120kWh	3
50kW Power Platform: 217/241kWh	5
100kW Power Platform: 217/241/265kWh	7
125kW Power Platform: 265kWh	9

50kW Power Platform: 120kWh

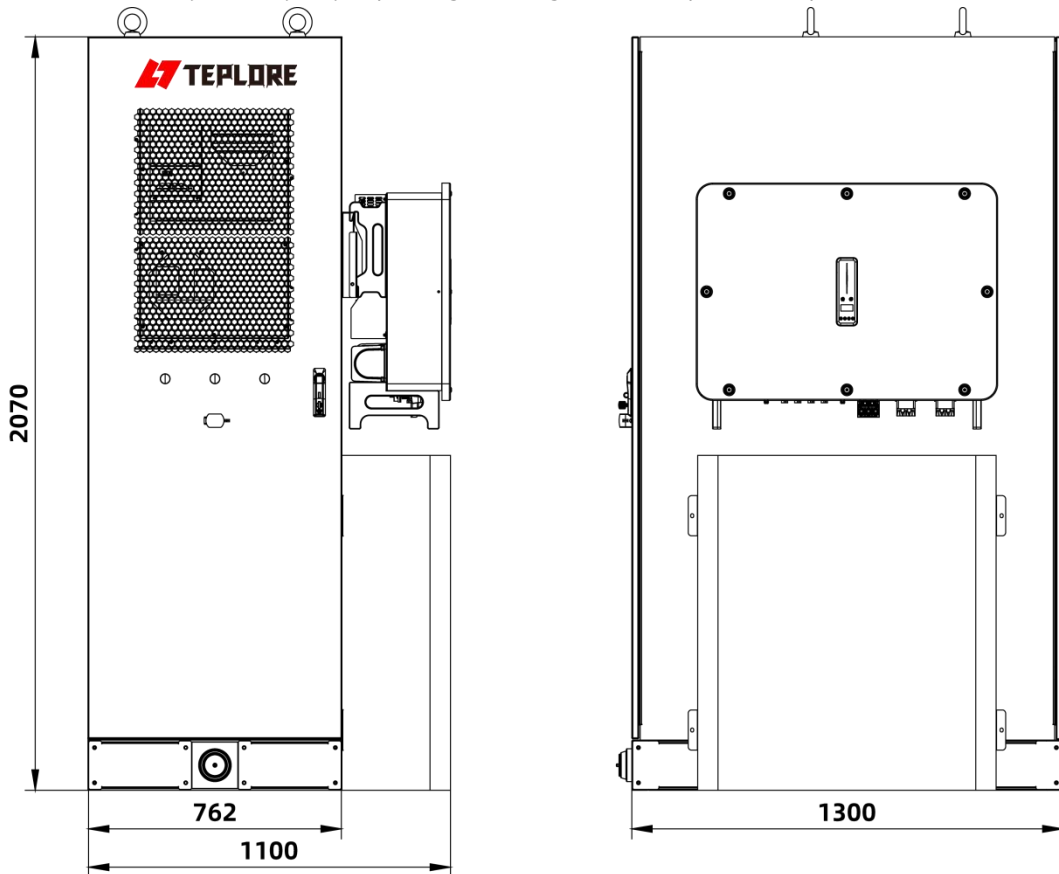
Specification	50kW/120kWh
DC Side	
Rated Energy	120kWh
Rated Voltage	384V
Voltage Range	336V ~ 432V
Battery Type	LFP314Ah
Configuration	1P120S
Number of Packs	5
C Rate	≤ 0.5C
Grid Side	
Rated Output Power	50kW
Maximum Output Apparent Power	55kVA
Rated AC Voltage	3L/N/PE, 220/380V; 230/400V; 240/415V
Rated AC Frequency	50Hz/60Hz
PV Input	
Maximum Input Power	75kW
Start-up Voltage	135V
Maximum PV Input Voltage*	1000V*
Rated PV Input Voltage	620V
MPPT Voltage Range	200 ~ 850V
Number of MPP Trackers	4
Number of PV Inputs per MPPT	2
Maximum Input Current	(40 x 4) A
Maximum Short-circuit Current	(50 x 4) A
Back-up Side	
Rated Output Power	50kW
Maximum Output Apparent Power	55kVA
Maximum Output Current	83A
On/Off-grid Switching Time	< 20ms
Rated Output Voltage	3/N/PE, 220/380V; 230/400V; 240/415V
Rated Output Frequency	50Hz/60Hz
Peak Output Apparent Power	60kVA (for up to 10s)
Voltage Harmonic Distortion	<3% @Linear load
Generator Side	
Maximum Input Apparent Power	60kVA
Maximum Charging Power of Batter	50kW
Rated AC Voltage	3/N/PE, 220/380V; 230/400V; 240/415V
Rated AC Frequency	50Hz/60Hz
Maximum input current	87A

Specification		50kW/120kWh
System Parameters		
Operating Temperature		-30°C ~ +55°C
Storage Temperature		-30°C ~ +60°C
Humidity		0%~100% (Non Condensing)
Altitude		≤ 2000m
IP Rating	Battery Cabinet	IP55
	Inverter	IP65
Battery Cabinet Corrosion Protection		C4
Thermal Management		Smart Air Cooling
Dimension (W×D×H)	Without Inverter	762mmx1300mmx2070mm
	With Inverter	1100mmx1300mmx2070mm
Weight**	Without Inverter	1400kg
	With Inverter	1500kg

Note:

*PV maximum DC input voltage is 850V, otherwise inverter will be waiting.

*Weights are for reference only and may vary depending on configuration, or optional components.



Dimension (Unit:mm)

50kW Power Platform: 217/241kWh

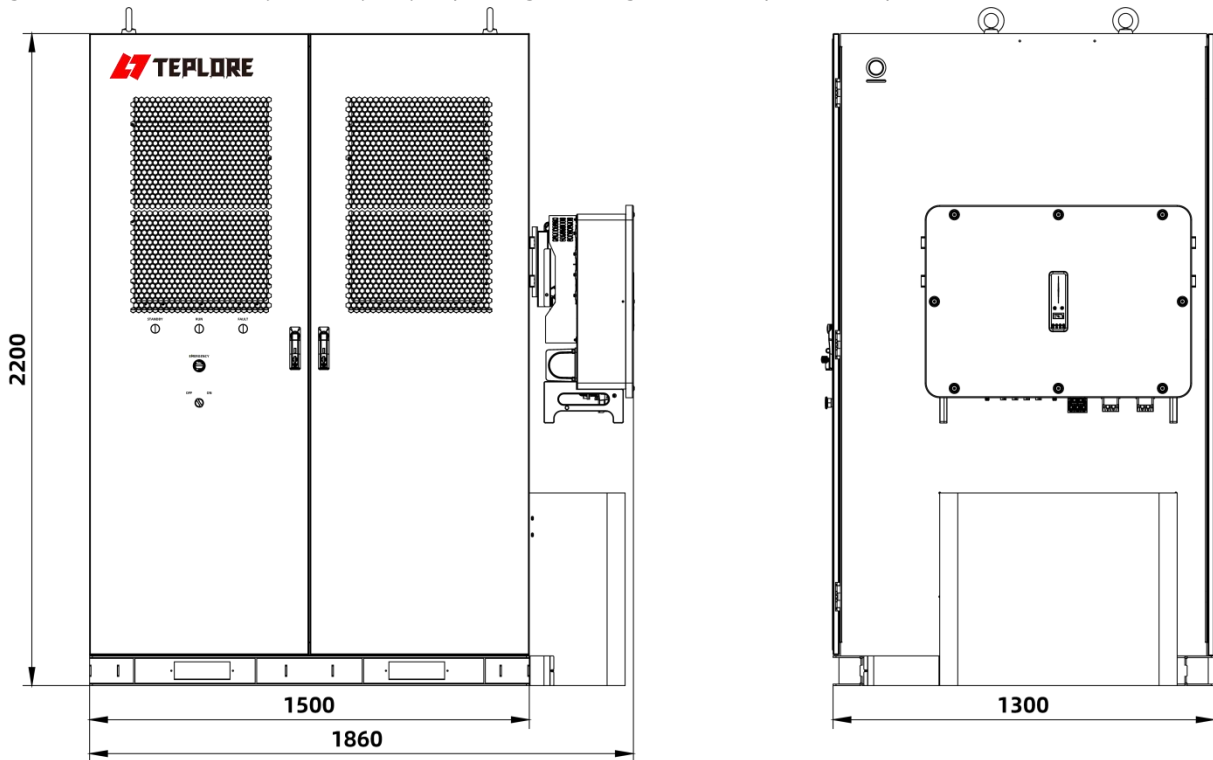
Specification	50kW/217kWh	50kW/241kWh
DC Side		
Rated Energy	217kWh	241kWh
Rated Voltage	691.2V	768V
Voltage Range	604.8V ~ 777.6V	672.0V ~ 864.0V
Battery Type	LFP 314Ah	
Configuration	1P216S	1P240S
Number of Packs	9	10
C Rate	≤ 0.5C	
Grid Side		
Rated Output Power	50kW	
Maximum Output Apparent Power	55kVA	
Rated AC Voltage	3L/N/PE, 220/380V; 230/400V; 240/415V	
Rated AC Frequency	50Hz/60Hz	
PV Input		
Maximum Input Power	75kW	
Start-up Voltage	135V	
Maximum PV Input Voltage*	1000V*	
Rated PV Input Voltage	620V	
MPPT Voltage Range	200 ~ 850V	
Number of MPP Trackers	4	
Number of PV Inputs per MPPT	2	
Maximum Input Current	(40 x 4) A	
Maximum Short-circuit Current	(50 x 4) A	
Back-up Side		
Rated Output Power	50kW	
Maximum Output Apparent Power	55kVA	
Maximum Output Current	83A	
On/Off-grid Switching Time	< 20ms	
Rated Output Voltage	3/N/PE, 220/380V; 230/400V; 240/415V	
Rated Output Frequency	50Hz/60Hz	
Peak Output Apparent Power	60kVA (for up to 10s)	
Voltage Harmonic Distortion	<3% @Linear load	
Generator Side		
Maximum Input Apparent Power	60kVA	
Maximum Charging Power of Batter	50kW	
Rated AC Voltage	3/N/PE, 220/380V; 230/400V; 240/415V	
Rated AC Frequency	50Hz/60Hz	
Maximum input current	87A	

Specification		50kW/217kWh	50kW/241kWh
System Parameters			
Operating Temperature		-30°C ~ +55°C	
Storage Temperature		-30°C ~ +60°C	
Humidity		0%~100% (Non Condensing)	
Altitude		≤ 2000m	
IP Rating	Battery Cabinet	IP55	
	Inverter	IP65	
Battery Cabinet Corrosion Protection		C4	
Thermal Management		Smart Air Cooling	
Dimension (W×D×H)	Without Inverter	1500mm x 1300mm x 2200mm	
	With Inverter	1860mm x 1300mm x 2200mm	
Weight*	Without Inverter	2380kg	2550kg
	With Inverter	2460kg	2640kg

Note:

*PV maximum DC input voltage is 850V, otherwise inverter will be waiting.

*Weights are for reference only and may vary depending on configuration, or optional components.



Dimension (Unit:mm)

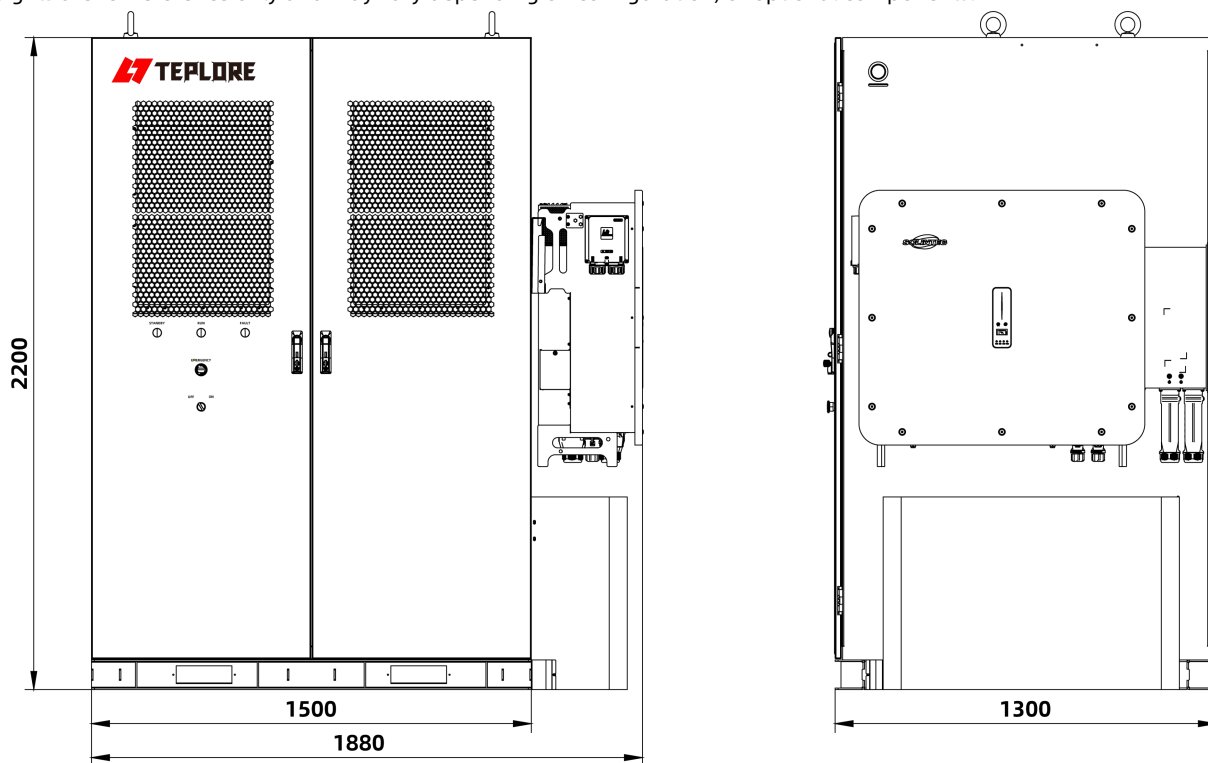
100kW Power Platform: 217/241/265kWh

Specification	100kW/217kWh	100kW/241kWh	100kW/265kWh
DC Side			
Rated Energy	217kWh	241kWh	265kWh
Rated Voltage	691.2V	768V	844.8V
Voltage Range	604.8V ~ 777.6V	672.0V ~ 864.0V	739.2V ~ 950.4V
Battery Type	LFP 314Ah		
Configuration	1P216S	1P240S	1P264S
Number of Packs	9	10	11
C Rate	≤ 0.5C		
Grid Side			
Rated Output Power	100kW		
Maximum Output Apparent Power	100kVA		
Rated AC Voltage	3L/N/PE; 220/380V; 230/400V; 240/415V		
Rated AC Frequency	50Hz/60Hz		
PV Input			
Maximum Input Power	200kW		
Start-up Voltage	180V		
Maximum PV Input Voltage	1000V		
Rated PV Input Voltage	620V		
MPPT Voltage Range	160V ~ 950V		
Number of MPP Trackers	6		
Number of PV Inputs per MPPT	3		
Maximum Input Current	(48×6) A		
Maximum Short-circuit Current	(60×6) A		
Back-up Side			
Rated Output Power	100kW		
Rated Output Voltage	3L/N/PE; 220/380V; 230/400V; 240/415V		
Rated Output Frequency	50Hz/60Hz		
Rated Output Current	152A/144.4A/138.9A		
On/Off-grid Switching Time	< 10ms		
Voltage Harmonic Distortion	<3% @Linear load		
System Parameters			
Operating Temperature	-30°C ~ +55°C		
Storage Temperature	-30°C ~ +60°C		
Humidity	0%~100% (Non Condensing)		
Altitude	≤ 2000m		
IP Rating	Battery Cabinet	IP55	
	Inverter	IP66	
Battery Cabinet Corrosion Protection	C4		
Thermal Management	Smart Air Cooling		

Specification		100kW/217kWh	100kW/241kWh	100kW/265kWh
Dimension (W×D×H)	Without Inverter	1500mm x 1300mm x 2200mm		
	With Inverter	1880mm x 1300mm x 2200mm		
Weight*	Without Inverter	2380kg	2550kg	2720kg
	With Inverter	2520kg	2690kg	2940kg

Note:

*Weights are for reference only and may vary depending on configuration, or optional components.



Dimension (Unit:mm)

125kW Power Platform: 265kWh

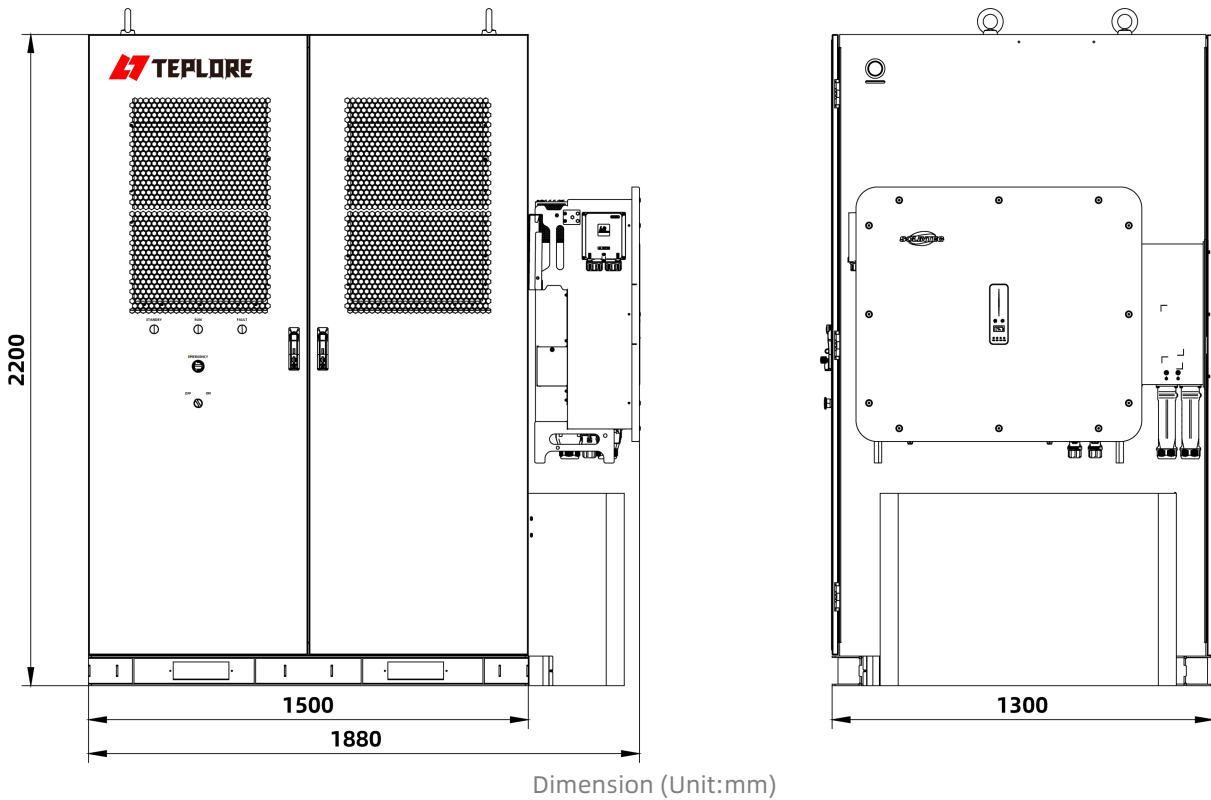
Specification	125kW/265kWh	
DC Side		
Rated Energy	265kWh	
Rated Voltage	844.8V	
Voltage Range	739.2V ~ 950.4V	
Battery Type	LFP314Ah	
Configuration	1P264S	
Number of Packs	11	
C Rate	≤ 0.5C	
Grid Side		
Rated Output Power	125kW	
Maximum Output Apparent Power	125kVA	
Rated Output Voltage	3L/N/PE; 220/380V; 230/400V; 240/415V	
Rated Output Frequency	50Hz/60Hz	
PV Input		
Maximum Input Power	250kW	
Start-up Voltage	135V	
Maximum PV Input Voltage	1000V*	
Rated PV Input Voltage	620V	
Operating Voltage Range	160V ~ 950V	
Number of MPP Trackers	6	
Number of PV Inputs per MPPT	3	
Maximum Input Current	48 A	
Maximum Short-circuit Current	60 A	
Back-up Side		
Rated Output Power	125kW	
Maximum Output Apparent Power	125kVA	
Maximum Output Current	189.4A	
Rated Output Voltage	3L/N/PE, 220/380V; 230/400V; 240/415V	
Rated Output Frequency	50Hz/60Hz	
Voltage Harmonic Distortion	<3% @Linear load	
System Parameters		
Operating Temperature	-30°C ~ +55°C	
Storage Temperature	-30°C ~ +60°C	
Humidity	0%~100% (Non Condensing)	
Altitude	≤ 2000m	
IP Rating	Battery Cabinet	IP55
	Inverter	IP66
Battery Cabinet Corrosion Protection	C4	
Thermal Management	Smart Air Cooling	

Specification		125kW/265kWh
Dimension (W×D×H)	Without Inverter	1500mm x 1300mm x 2200mm
	With Inverter	1880mm x 1300mm x 2200mm
Weight**	Without Inverter	2720kg
	With Inverter	2940kg

Note:

*The maximum DC input voltage is 950V. The inverter will stop operating when the voltage is between 950V and 1000V. The inverter will be damaged if the voltage exceeds 1000V.

**Weights are for reference only and may vary depending on configuration, or optional components.



Contact Information

For more information or assistance, reach out to Teplore through any of the channels below.

Contact Type	Details
General Inquires	info@teplore.com
Sales Cooperation	sales@teplore.com
Technical Support	support@teplore.com
Website	www.teplore.com
Linkedin	www.linkedin.com/company/teplore
Youtube	youtube.com/@Teplore