



Shenzhen Polinovel Tech Co., Ltd

768V/280Ah 215KWH-100KW
Outdoor Cabinet Battery Energy Storage System
Design Reference



CBS215

Cost Reference & Important Notes

215kwh cost reference: 29572~32143US\$

Important Notes:

1. This design is only for reference, and the customer's technical configuration is subject to final communication;
2. For preliminary design and quotation, please help provide the following key information:
 - 2.1. Will the system be installed outdoors or indoors?
 - 2.2. What is the total power of the load and what device is included (Inductive load devices: e.g. motors, air conditioners, etc. Resistive load device: e.g. electric water heaters, rice cookers, etc.)?
 - 2.3. Is the system off-grid or on-grid? What is the grid standard (e.g. 3-phase, 380v)? What to use to charge the battery (e.g. the pv solar, diesel generator, or state grid etc.). What is the output standard (e.g. single-phase, 220v)?
 - 2.4. We appreciate it, if you could provide more information about your esteemed company.
 - 2.5. More project information, the more detailed it is, the better we can give you the most appropriate design plan.

After you provide the above information, we can proceed with preliminary technical design and quotation. We do not intend to create barriers to collaboration. On the contrary, we place a strong emphasis on collaboration, so project evaluations are taken seriously. We hope to get your understanding and cooperation. After we confirm all the technical details and sign the contract, our company will make a formal design document and send it to you for confirmation before starting production.

Product Introduction

The system integrates of 1 battery unit, 1 PCS (Power Conversion System) , 1 EMS (Energy Management System), 1 power distribution unit, 1 liquid cooling system, 1 fire extinguishing system and 1 auxiliary system etc.

It is easy to transport, install, use and maintain. This product can be used in new energy storage, smooth load fluctuations, peak shaving and frequency regulation for power grid, peak shaving and valley filling in industrial and commercial energy storage, improve power supply reliability of micro-grids and isolated grids.



Equipment Configuration List

Item	Specification	Description	Quantity
Battery unit	215kwh/100kw	/	1 set
Cluster	1P240S	280ah LFP cell	1 set
Module	1P48S	BMU, cables	1 unit
DC accessories	/	BCU, cables	1 unit
PCS	100kw	/	1 set
EMS	With display screen	Display screen, controller	1 set
Power distribution unit	/	/	1 set
Liquid cooling system	5kw	/	1 set
Fire extinguishing system	4kg	/	1 set
Auxiliary system	/	Lighting, ventilation temperature and humidity control	1 set
STS ON/OFF grid switching equipment	300kw	Switch time ≤20 milliseconds (Optional)	1 set
MPPT	50kw	1 line MPPT, isolating switch (Optional)	1 set

System Parameter

Item	Specification
Grid standard	3L+N+PE
Rated power	100kw
Grid voltage range	230/400vac (-15% to +15%)
Rated current	190a
Maximum conversion efficiency	97%
Over-loading ability	110% 1min
Rated frequency	50hz/60hz
Grid frequency range	±3hz
Grid total distortion rate	≤3 fully loading

Three-phase unbalance degree	100%
Power factor	-1-1

Battery Parameter

Item	Specification
Cell material	Lifepo4
Rated capacity	280ah
Rated voltage	768v
Rated energy	215kwh
Operating voltage range	624-864v
Series and parallel connection	1P240S
Charge and discharge rate	≤0.5C

Other Parameter

Item	Specification
Cooling system	Liquid cooling
Fire extinguishing system	Perfluoro
Operating temperature	-20℃~50℃
Noise	≤60dB
IP grade	IP54
Size (W*D*H)	1195*1400*2140mm
Weight	≤2.7ton



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