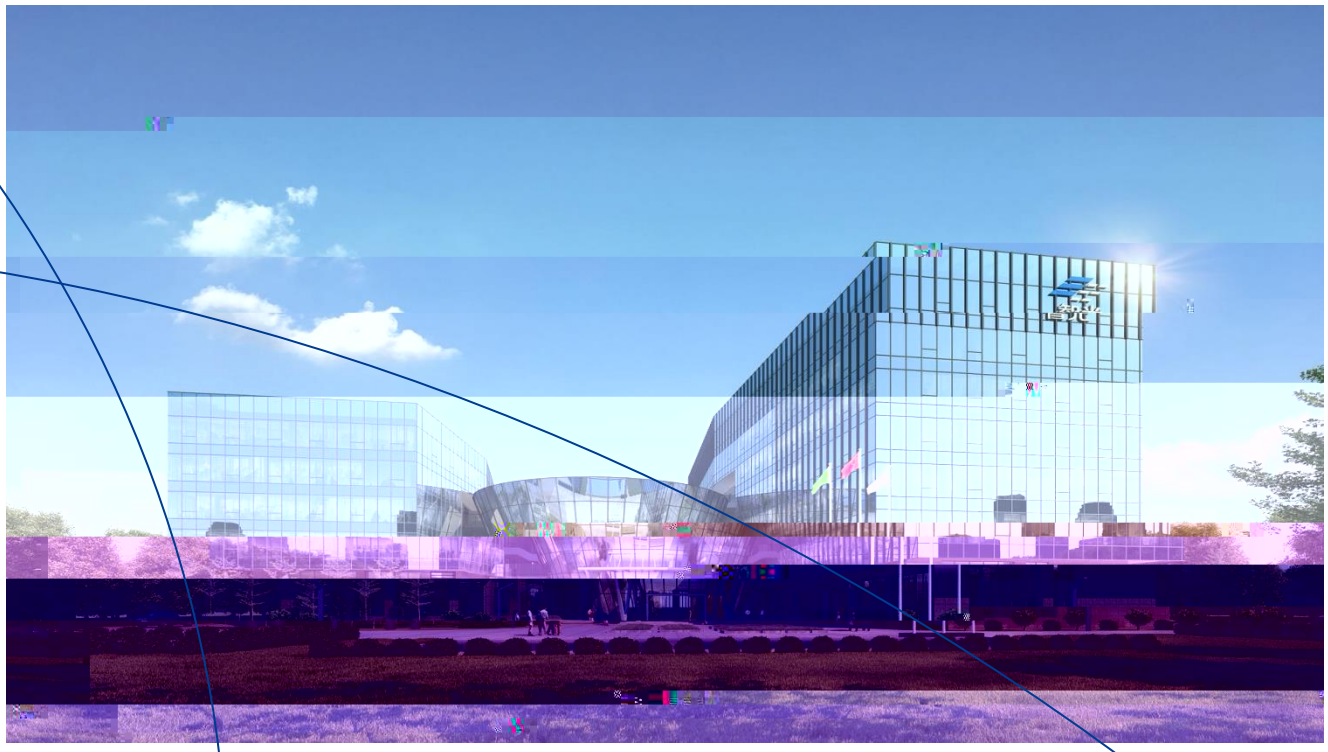
2.5MW/5MWh BESS Specifications



Guangzhou Zhiguang Electric Co., Ltd.

Jan. 2025

Figrue1. 2.5MW/5MWh BESS Diagram

Figrue 2. 5MWh Battery system

Battery Type	LFP cell, 314Ah
configuration	12*(8*1P52S)
Cooling Method	Liquid Cooling
Coolant	50% Ethylene glycol aqueous solution
Operating Ambient Temperature	-25 ^{O}C ~ +55 ^{O}C
Storage Temperature	-30^{O}C ~ +60 ^{O}C

Application altitude	≤2000m
Protection Level	IP54
Weight	~44t
Size	6058mm(W)*2438mm(D)*2896mm(H)
Color	RAL7042
Fire protection	Aerosol + water firefighting + explosion-proof fan (combustible gas)
Rated Energy	5015.9616kWh
Rated Voltage	1331.2VDC
Voltage Range	1164.8~1476.8VDC
Communication method	CAN, RS485, TCP/IP
Communication port	RS485, Fiber ST
Cell	UN38.3, IEC 62620 , IEC62619
Container	UN3536 , IEC62619 , EN61000 , EN62477, IEC63056 , IEC 62933-5-2

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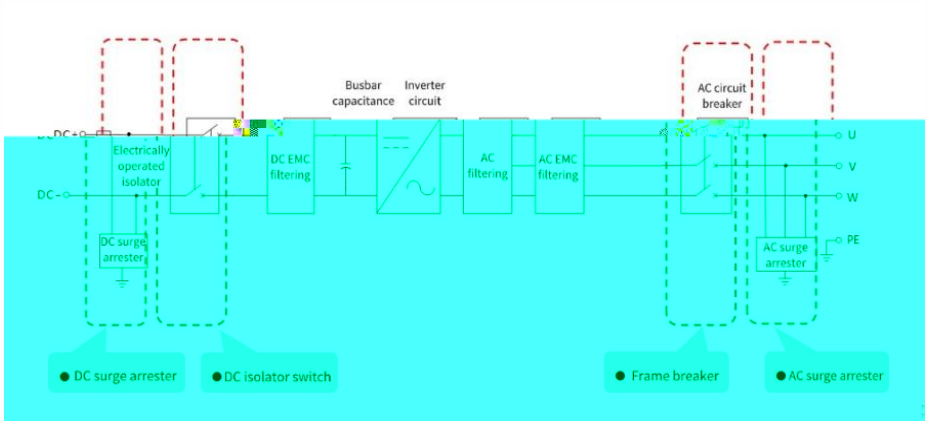
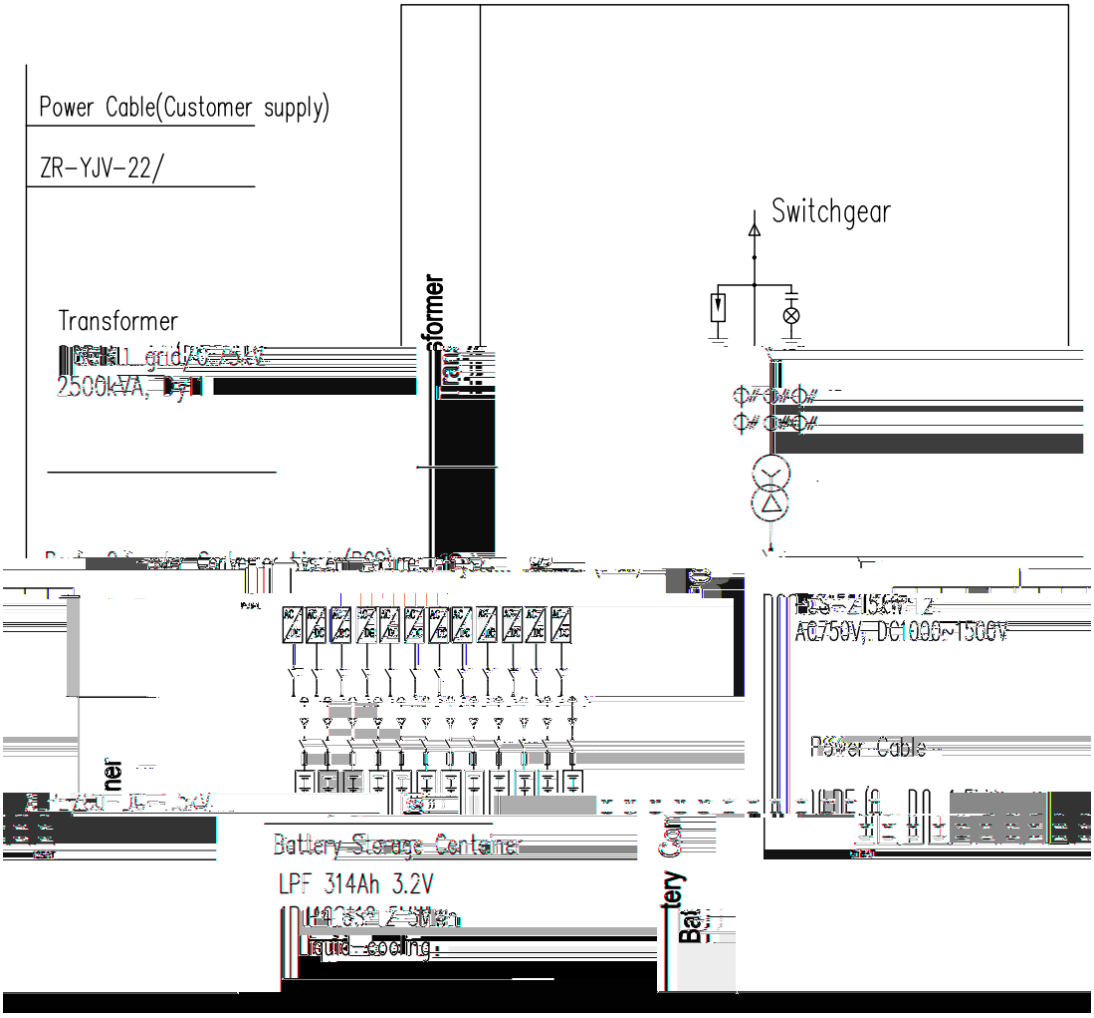
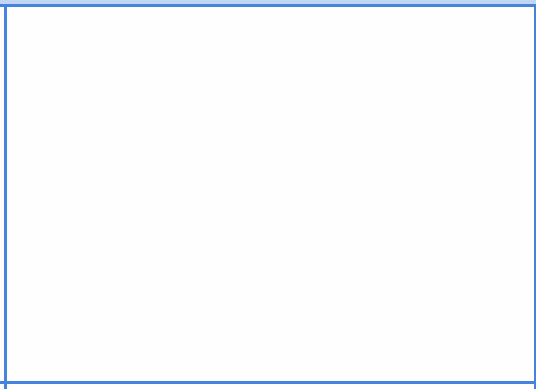
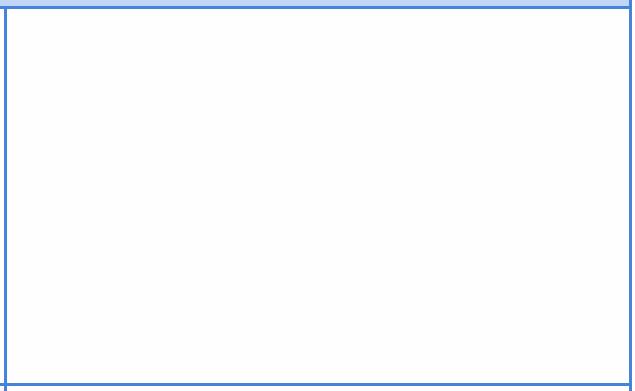
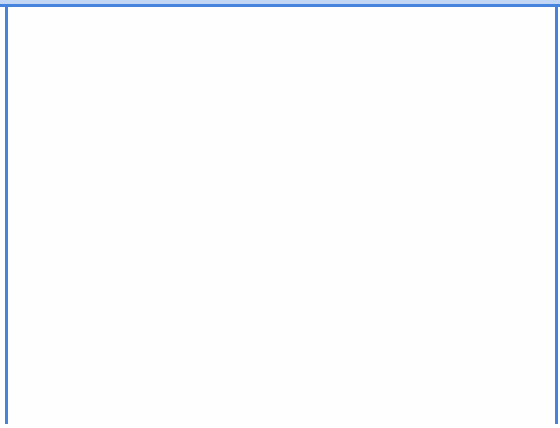
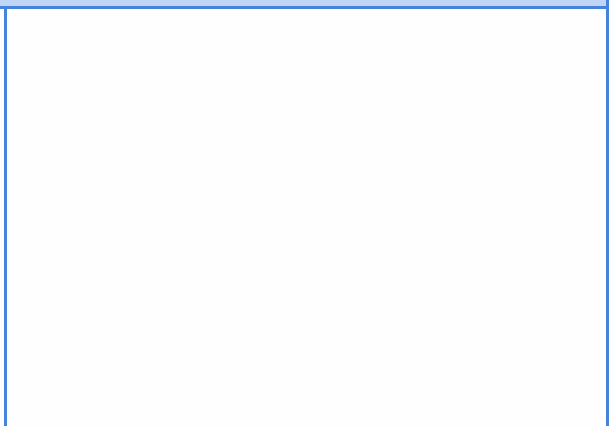
Figure 3. 2.5MVA Transformer+12*215kW PCS+MV cabinet



Temperature	-20°C ~ 60°C(De-rating over 50°C)
Protection class	Class I
Cooling Method	Air Cooling
Degree of protection	IP66
Altitude	≤4000m（＞3000m derating）
Humidity	0% ~ 95% (Non condensing)
Maximum battery voltage	1500 Vd.c.
Operating voltage range	1100~1500 Vd.c.
Rated voltage	1331.2Vd.c.
Max continuous discharge/charging current	199Ad.c.
Rated voltage	3~PE 750 Va.c.
Rated frequency	50Hz / 60Hz
Rated power	215kVA
Power factor (at rated power)	>0.99
Power factor adjustable range	-1 ~ 1
Total current waveform distortion rate	＜3 % (Under rated power conditions)
CE certification in accordance of IEC standards and, Grid Compliance	
Rated frequency	50Hz/60Hz
Rated power	2500kVA
Rated voltage	Grid/0.75KV
ambient temperature	-25°C ~ 40°C


Power Cable(Customer supply)
ZR-YJV-22/
Transformer
2500kVA,
Switchgear
Battery Storage Container
LPF 314Ah 3.2V
Power Cable

Power Generation Scenario		
Site pictures		
Project	Guangdong Thermal Power Auxiliary Frequency Modulation Energy Storage Project	Shandong Reservoir Photovoltaic Energy Storage
Capacity	60MW/60MWh	44MW/88MWh
Functions	AGC frequency regulation, reducing oscillation probability, improving operational reliability and safety	Energy integration, system frequency regulation, peak valley arbitrage

Power Grid Scenario		
Site pictures		
Project		