



5MW/10MWh BESS Specification



TIANJIN PALMBRI INDUSTRY & TRADE Co.,Ltd.

No. 1988 of Yingbin Avenue, Free trade Zone of Tianjin (CBD), 300450, Tianjin, China

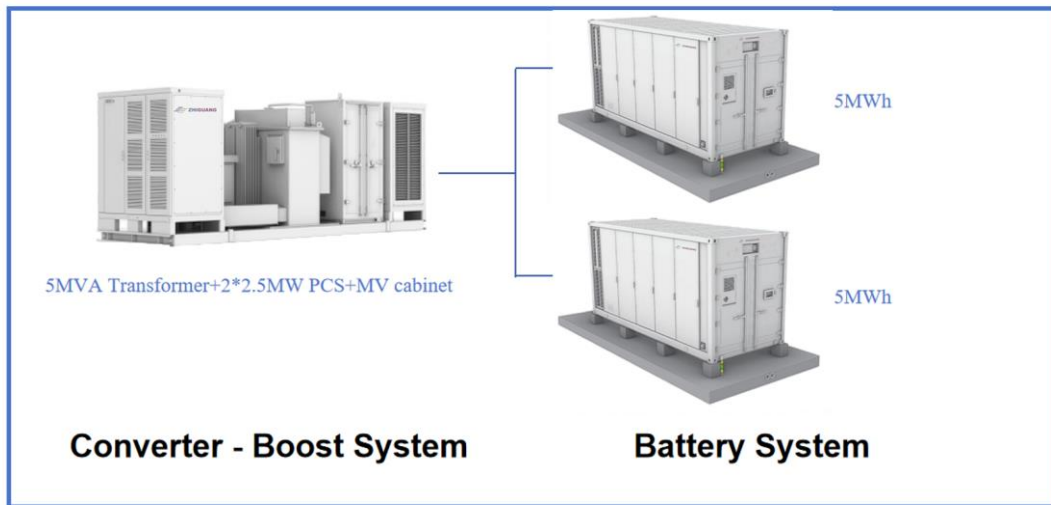
+86 153 2010 1753

info@palmbrienergy.com

info@palmbri.com

www.palmbrienergy.com

➤ 5MW/10MWh BESS



5MW/10MWh BESS Diagram

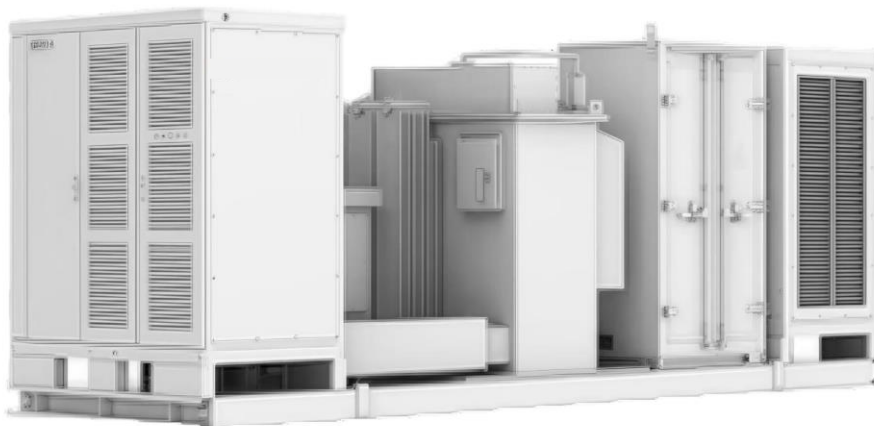
➤ 5MWh Battery System



5MWh Battery System

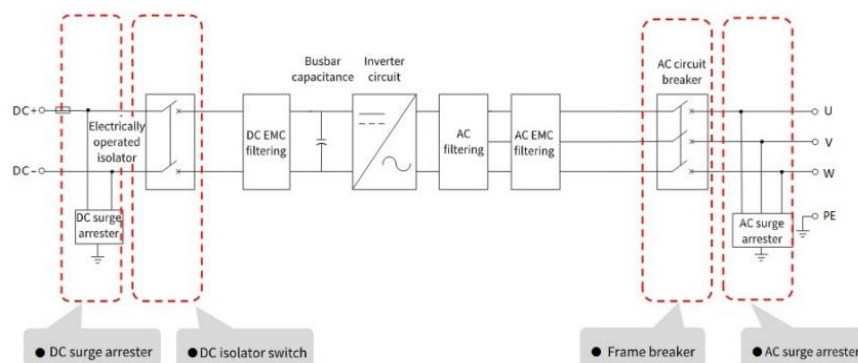
5MWh liquid-cooled energy storage container (10MW system contain 2*5MWh containers)	
General	
Battery Type	LFP cell 314Ah
Configuration	12*(4*1P104S)
Cooling Method	Liquid Cooling
Coolant	50% Ethylene glycol aqueous solution
Operating Ambient Temperature	-25 °C...+55 °C
Storage Temperature	-30°C...+60 °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)
Electrical	
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
Fulfill standard	
Cell	UN38.3, IEC 62620, IEC62619
Container	UN3536, IEC62619, EN61000, EN62477, IEC63056, IEC 62933-5-2

➤ Converter - Boost System



5MVA Transformer+2*2.5MW PCS+MV cabinet

Energy storage converter circuit block diagram



Parameters of 2.5MW PCS

General	
Temperature	-20°C to +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)
Battery side	
Maximum battery voltage	1500Vd.c.
Operating voltage range	1100~1500 Vd.c.
Rated voltage	1331.2Vd.c.
Max continuous discharge/charging current	2388Ad.c.
Grid side	
Rated voltage	3~PE 750 Va.c.
Rated frequency	50Hz/60Hz
Rated power	2580kVA
Power factor (at rated power)	>0.99
Power factor adjustable range	-1~+1
Total current waveform distortion rate	<3 %(Under rated power conditions)

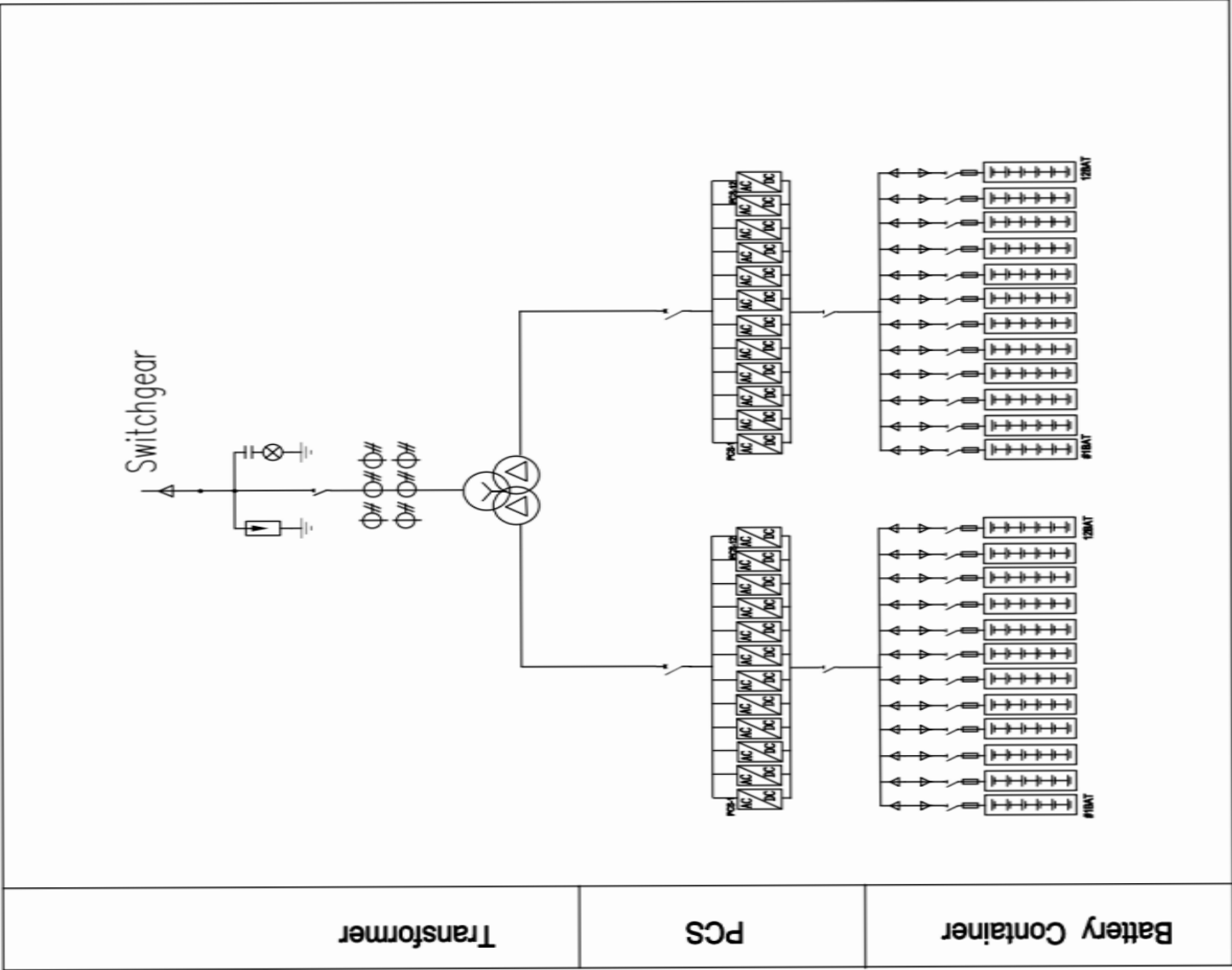
Certification

CE certification in accordance of IEC standards and, Grid Compliance

Parameters of 5MVA Transformer

Rated frequency	50Hz/60Hz
Rated power	5000kVA
Rated voltage	Grid/0.75KV
ambient temperature	-25°C to +40°C

➤ 5MW/10MWh BESS SLD



Power Cable(Customer supply)

ZR-YJV-22/

Transformer
SCB11 grid/0.75kV
5000kVA, Dy11

Power Converter System cabinet (PCS)

PCS-2*(215kW*12)
AC750V, DC1000~1500V

Power Cable

XLPE/Cu-DC-1.5kV

Battery Storage Container

LPF 314Ah 3.2V
1P416S*12*2 10MWh
Liquid-cooling