



BYD Modular Outdoor Energy Storage System

**800kW
PCS**

800kW PCS Cabinet Unit

*Conceptual Design

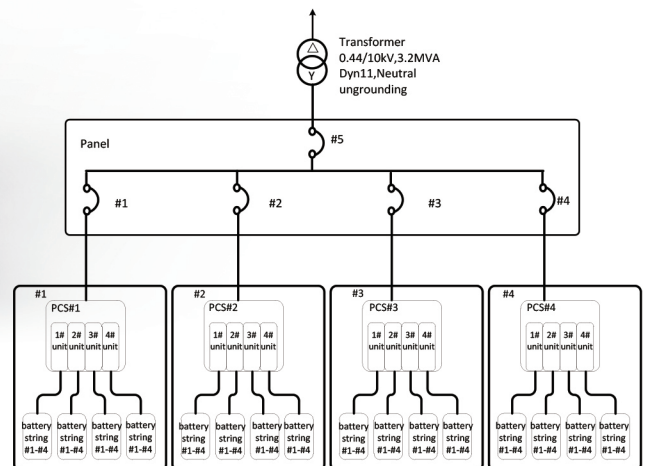


Introduction

In order to meet the requirements of energy storage market, BYD successfully developed 800kVA outdoor modularized PCS (Power Conversion System) that use the advanced three-level inverter technology and modular structure design. It has high conversion efficiency, low output harmonic containing rate, big permissible working environment temperature range, and mainly used for energy conversion, power and frequency regulating function.

System Topology

The recommended connect method of this PCS :



- Wide DC input voltage range/ up to Max 1000Vdc
- Thin film capacitor enabled improving of the service life
- Maximum efficiency is up to 98.25%
- Modular design, easy to maintenance
- Small current harmonic

Build Your Dreams



BYD Modular Outdoor ESS 800kW PCS Unit Specification

*Conceptual Design

System parameter

No.	Type	BEM800KTL-E-R1	Remark
DC Side Parameter			
1	DC Voltage	630~850Vdc	
2	Max. DC Current	1256A	
3	DC Max. input current for each way	314A	
AC Side Parameter			
4	Nominal AC Voltage	400Vac	
5	Voltage Range	360Vac~440Vac	
6	Max. AC Current	1155A	
7	Nominal Power	800kVA	
8	Nominal Grid Frequency	50Hz	
9	Grid Frequency Range	47~52Hz	complying with G59/3
10	Power Factor	1(lagging)~1(leading)	
11	THD	<3%	@Nominal Power
System Parameter			
12	Insulation Method	Without Transformer	
13	Max. Efficiency	98.4%	
14	European Efficiency	98.2%	
15	Enclosure Protection Grade	IP54	
16	Permissible Environment Temperature	-25~+50℃	
17	Permissible Humidity	5~95%	No condensing
18	Permissible Altitude	≤2000m	
19	Noise	<70dBA	@1 meter, sound pressure
20	Cooling Method	Forced Wind Cooling	
21	Display	HMI	
22	Communication Interface	Ethernet	
23	Dimension (W×D×H)	1510mm×1250mm×2300mm	
24	Weight	About 1700kg	
Project Function			
25	Short Cut Protection	√	
26	Over Load Protection	√	
27	Hardware Over Voltage/Current Protection	√	
28	Voltage Abnormity Protection	√	
29	Over Temperature Protection	√	
30	Direct Current Electrode Positive Protection	√	
31	LVRT	√	
32	Islanding Protection	√	
Reference standards and certification			
33	EMC	EN61000-6-2:2005	
34		EN61000-6-4:2007+A1:2011	
35		EN 61000-3-11 : 2000	
36		EN 61000-3-12 : 2011	
37	Safety	EN 62477-1:2012+A11:2014	
38	Certification	CE, G59/3	

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