

直流2000V液冷储能变流器(PCS)

行业领先2000V液冷模块化储能变流器平台，额定功率500kW，转换效率高达99%，直流输入范围宽，功率密度较高，适用于发电侧、电网侧等电芯储能系统，构成簇级管理模式，让储能系统运行更加安全可靠，降本增效。

高效液冷

液冷散热，IGBT均温效果好

最高转换效率99%，CEC效率高达98.5%

性能更优

直流电压高达2250V，适配高功率密度电芯

交流1000V / 1140V，灵活匹配升压变压器

多元智能

具备PQ解耦控制、虚拟同步机、黑启动等功能

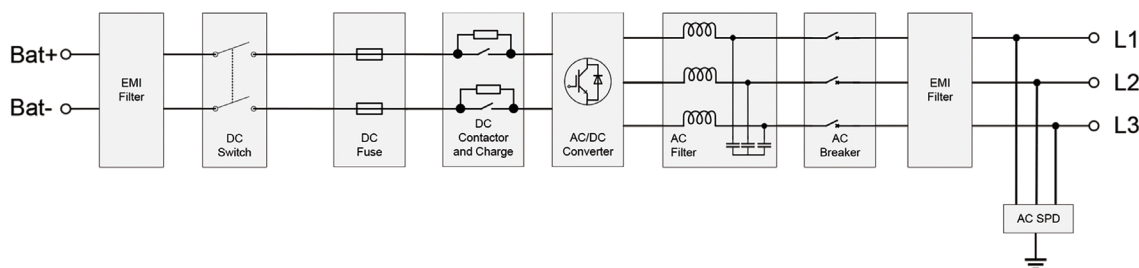
支持恒功率、恒压、恒流充放电模式，自研上位机软件

降本增效

系统效率提升0.5%，成本降低8%

支持高/低电压穿越，具有构网型功能

电路框图



JTES-500K-W

源网侧液冷储能变流器(PCS)

产品参数

型号简称

JTES-500K-W

JTES-572K-W

直流侧参数

最大输入电压	2000V	2250V
最大直流电流	345A	
直流电压范围	1450-2000V	1600-2250V

电网侧参数（并网）

额定功率	500kW	572kW
最大功率	550kW	630kW
电网电压	1000Vac	1140Vac
电网连接类型	3P+PE	
额定交流电流	289A	289A
最大输出电流	318A (1.1 倍额定)	318A (1.1 倍额定)
额定电网频率	50Hz / 60Hz	
额定功率下 THDi	< 3.0%	
直流分量	< 0.5%	
功率因数	> 0.99 (额定功率) / -1 ~ +1	
过载能力	1.1 倍额定长期	

电网侧参数（离网）

输出额定功率	500kW	572kW
输出额定电压	1000V	1140V
额定电网频率	50Hz / 60Hz	
额定功率下 THDu	< 3.0% (线性负载)	

系统特性

最大转换效率	99.00%
冷却方式	液冷 (50% 乙二醇 +50% 水)
通讯接口	CAN / Ethernet/ RS-485
允许环境温度	-30°C ~ +60°C
允许相对湿度	0% ~ 95% (无冷凝)
入口不降容水温	50°C
海拔高度	4000m (>2000m 降额)
噪音	< 70dB (距离设备水平位置 1m 处)
安装方式	机架式

机械参数

外形尺寸	H400mm x W650mm x D1150mm
重量	260kg
防护等级	IP54

DC2000V 3rd Generation Energy Storage PCS

Industry-leading 2000V liquid-cooled modular PCS platform, rated 500kW, efficiency up to 99%. Wide DC input range, high power density. Suitable for generation-side and grid-side energy storage systems. Cluster-level management ensures safer, more reliable operation, lower cost and higher efficiency.

High-efficiency Liquid Cooling

Liquid cooling, excellent IGBT temperature uniformity. Max conversion efficiency 99%, CEC efficiency 98.5%.

Diverse Intelligence

PQ decoupling, VSG, black start supported. Constant power/voltage/current charge/discharge; self-developed host software.

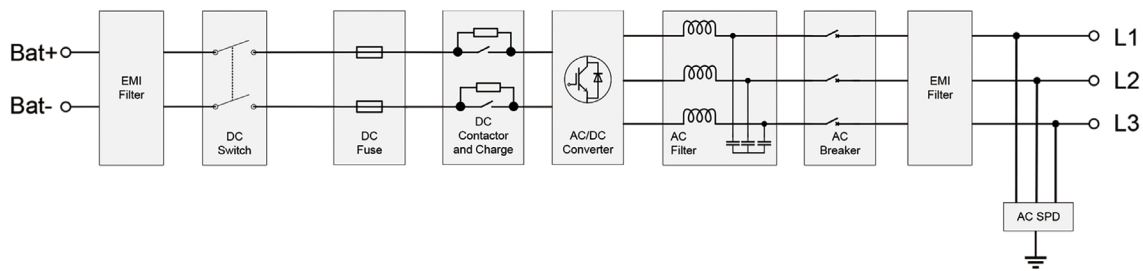
Better Performance

DC voltage up to 2250V, compatible with high-power-density cells. AC 1000V/1140V, flexible for step-up transformers.

Cost down, efficiency up

System efficiency increased by 0.5%, cost reduced by 8%. Supports high/low voltage ride-through, grid-forming capability.

Circuit Diagram



JTES-500K-W Utility-Scale HV Liquid-Cooled Energy Storage PCS

PARAMETER LIST

Model

JTES-500K-W

JTES-572K-W

DC PARAMETERS

Maximum DC Voltage	2000V	2250V
Maximum DC Current	345A	
Battery Pack Voltage Range	1450-2050V	1600-2250V

AC PARAMETERS (On-Grid)

Rated power	500kW	572kW
Maximum AC Power	550kW	630kW
Rated Grid Voltage	1000Vac	1140Vac
Grid Connection Type	3P+PE	
Rated AC Current	289A	289A
Maximum Output Current	318A (110% rated)	318A (110% rated)
Rated Grid Frequency	50Hz / 60Hz	
THDi At Rated Power	< 3.0%	
DC Component	< 0.5%	
Power Factor Range	> 0.99 (Rated power) / -1 ~ +1	
Continuous Overload	110% Rated long term	

AC PARAMETERS (Off-Grid)

Rated power	500kW	572kW
Rated Grid Voltage	1000V	1140V
Rated Grid Frequency	50Hz / 60Hz	
THDu At Rated Power	< 3.0%(linear load)	

SYSTEM CHARACTERISTICS

Maximum Efficiency	99.00%
Cooling	Liquid (50% Ethylene glycol+50% water)
Communication	CAN / Ethernet/ RS-485
Operating Temperature range	-30°C ~ +60°C
Relative humidity	0% ~ 95% (No condensation)
Maximum Inlet Temperature	50°C
Maximum Altitude	4000m (Derating >2000m)
Noises	< 70dB (1m away from the horizontal position of the device)
Installation	Rackmount

MECHANICAL PARAMETERS

Dimension	H400mm x W650mm x D1150mm
Weight	260kg
Enclosure	IP54