

DC1500V /AC690V Liquid-Cooled PCS

Designed for power source and grid side long-duration energy storage systems, it is compatible with large-capacity cells of 600Ah and above, adopting a "one cluster, one management" control architecture. It supports flexible configuration for various long-duration storage demands including 2H/4H/8H, with a compact design tailored to integrated AC-DC cabinet layout for easy system integration.

Flexible Compatibility

Compatible with >600Ah cells for 2/4/8H systems
 Integrated PCS+PDU, fits integrated AC/DC enclosures

Grid-Forming Support

Adaptive impedance & inertia control, stable at $SCR \geq 1.2$
 Supports HVRT/LVRT, black start & multi-modes

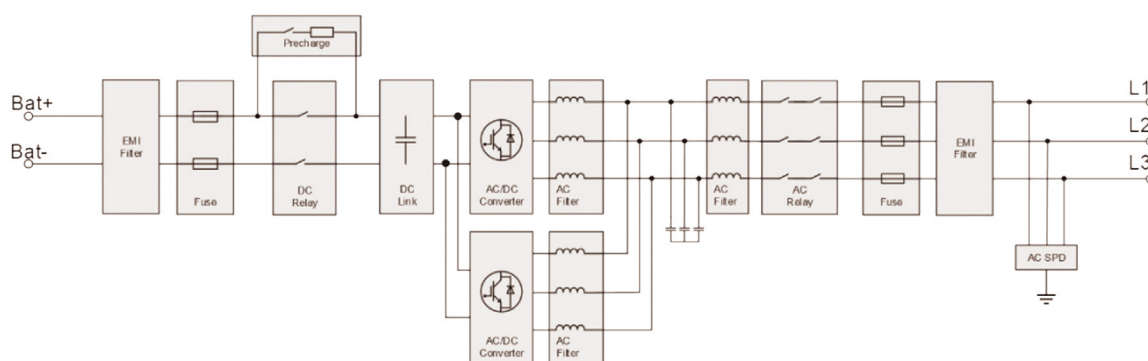
Smart & High-Efficiency

Hybrid SiC module, rated full-load efficiency up to 98.5%
 DSP+FPGA dual architecture, high-precision & high-dynamic response control

High-Efficiency Liquid Cooling

IP65 High Protection, Liquid-Cooled, Reliable
 Supports BMS/EMS Communication, Multi-level Protection & Control

Circuit Diagram



JTES-430K-W Utility-Scale String Liquid-Cooled PCS

PARAMETER LIST

Model

JTES-430K-W

DC PARAMETERS

Maximum DC Voltage	1500V
Maximum DC Current	450A
Battery Pack Voltage Range	1050-1500V

AC PARAMETERS (On-Grid)

Rated power	430kW
Maximum AC Power	473kW
Rated Grid Voltage	690V (-12% ~ +10%)
Grid Connection Type	3P+PE
Rated AC Current	360A
Maximum Output Current	432A(120% 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;120% Rated operation 1min
Charge/discharge switching time	≤ 20ms

AC PARAMETERS (Off-Grid)

Rated power	430kW
Rated Grid Voltage	690V
Rated Grid Frequency	50Hz / 60Hz
THDu At Rated Power	< 3.0%(linear load)

SYSTEM CHARACTERISTICS

Maximum Efficiency	99.10%
Full-load efficiency	98.50%
Cooling	Liquid (50% Ethylene glycol+50% water)
Communication	CAN / Ethernet/ RS-485/Fiber optic, etc.
Operating Temperature range	-30°C ~ +60°C
Relative humidity	0% ~ 95% (No condensation)
Maximum Inlet Temperature	≤ 55°C
Maximum Altitude	4000m (Derating >2000m)
Noises	< 70dB (1m away from the horizontal position of the device)
Installation	Rackmount

MECHANICAL PARAMETERS

Dimension	H220mm x W600mm x D1350mm
Weight	< 150kg
Enclosure	IP65

