

Focus • Innovation • Breakthrough

**Digital Power Empowers
Renewable Energy**

15+ years

With over 15 years of focus on the R&D of PCS products and technologies.

3rd-generation

Global 3rd-generation high-voltage PCS technology

5GW+

Annual planned capacity exceeds 5 GW

About JingTsing

JingTsing Technology Ltd.

JingTsing Technology Co., Ltd. was founded in 2021. As an innovator focusing on third-generation high-voltage energy storage technologies in the field of energy storage power electronics and power conversion, the company has earned authoritative certifications including National High-Tech Enterprise, Beijing's "Specialized, Refined, Differential, and Innovative" Enterprise, and Zhongguancun High-Tech Enterprise, demonstrating its leading position in the industry. Backed by a strong shareholder portfolio, the company is supported by renowned institutions such as Tsinghua Holdings, Zhongguancun Development Group (under the Beijing Municipal Government Guidance Fund), Chaoxi Capital, and Fenghe Capital. These partnerships provide solid financial strength and resource support for the company's long-term development.

The company's founding team is led by academician-level scientists from Tsinghua University, bringing together numerous Tsinghua PhDs and industry veterans with professional experience at global Fortune 500 companies including ABB. This has formed a leading core technology support system in the industry. With 15 years of extensive experience in the R&D, manufacturing, and field deployment of Power Conversion Systems (PCS), the team is among the earliest core teams in China's energy storage sector dedicated to PCS technologies. It has accumulated profound technical expertise and rich engineering practice, laying a solid foundation for the company's technological innovation and product iteration.

The company's core product is the modular liquid-cooled Power Conversion System (PCS), covering multiple platform specifications including 1000V, 1500V/1600V, and 2000V on the DC side. The products have obtained authoritative international certifications in more than 20 countries, including North America, Australia, the UK, Japan, and the EU, granting global market access. We have established in-depth strategic cooperation with a

number of leading energy storage enterprises worldwide, forming a global market layout and a complete industrial ecosystem. Our products are exported to more than 20 countries and regions, further expanding our global market presence.

JingTsing Technology Co., Ltd. self-R&D Power Conversion System (PCS) adopts innovative circuit topologies, liquid cooling and phase-change cooling technologies. Featuring high voltage, high power density, high efficiency, long service life and multi-scenario adaptability, the product is widely applied in utility and C&I energy storage scenarios. With fully independent intellectual property rights, the company has applied for more than 110 global patents covering circuit topology, software algorithms, mechanical structure, thermal management, integrated circuits, EMC and software copyrights, establishing a leading position in high-voltage energy storage technologies.

Based on its advanced third-generation high-voltage PCS technology, the company has built comprehensive core technology reserves and a systematic global patent portfolio, forming a long-term growth engine driven by R&D. JingWan Laboratory, a wholly-owned laboratory of the JingTsing company, is capable of full testing and certification in accordance with UL and IEC standards, and has obtained the authorized witness laboratory qualification by CSA Group and TÜV Rheinland, providing strong support for R&D, performance verification and international certification.

Adhering to the corporate mission of "Focus, Innovation, Breakthrough - Empowering Clean Energy with Digital Power Technology" and the core values of innovation, excellence, technology leadership and value creation, JingTsing Technology Co., Ltd. is committed to advancing the R&D and industrialization of next-generation high-end PCS technologies, supporting the "carbon neutrality" goal and contributing to the building of a clean, low-carbon and efficient new energy system.



Development Milestones

2025

- The 100kW-125kW C&I liquid-cooled PCS series has obtained the German VDE4110 certification issued by TÜV Group.
- The 100kW-125kW C&I liquid-cooled PCS series has received Australian market access certification issued by TÜV Group.
- Products are globally shipped to more than 20 countries and regions across Europe, Asia, Oceania and North America.
- Secured tens of millions of yuan in equity financing from investors including Zhongfazhan Qihang, Changxing Fund, Langfang Talent and Langfang Caixin.
- Globally launched 130kW air-cooled SiC-based PCS with high efficiency and cost-effectiveness, setting a new industry benchmark.
- Successfully delivered a 50MW flywheel energy storage integrated solution.

2024

- Recognized as a Beijing “Specialized, Refined, Differential, and Innovative” Small and Medium Enterprise.
- Jingwan Laboratory® accredited as a TÜV Rheinland Witness Test Laboratory.
- 100kW-125kW C&I liquid-cooled PCS series certified UL by CSA Group.
- 1600V-450kW high-voltage liquid-cooled PCS series certified UL by CSA Group.
- 100kW-125kW C&I liquid-cooled PCS series obtained TÜV European market access certification.
- Participated in drafting the group standard Technical Requirements for High-Voltage Power Conversion Systems.
- Designated as a Beijing Intellectual Property Pilot Unit.

2023

- Secured tens of millions of yuan in Angel+ Round equity financing from Zhongguancun Development Group.
- Awarded Zhongguancun High-Tech Enterprise.
- Jingwan Laboratory® accredited as a CSA Group Witness Test Laboratory.
- Obtained tens of millions of yuan in Strategic Round equity financing from SPARKEDGE CAPITAL.
- Recognized as a National High-Tech Enterprise.

2022

- Obtained seed round equity financing from Tsinghua Holdings.
- Obtained tens of millions RMB angel round equity financing from Fenghe Capital.
- Awarded ISO certifications: ISO9001, ISO14001 and ISO45001.

2021

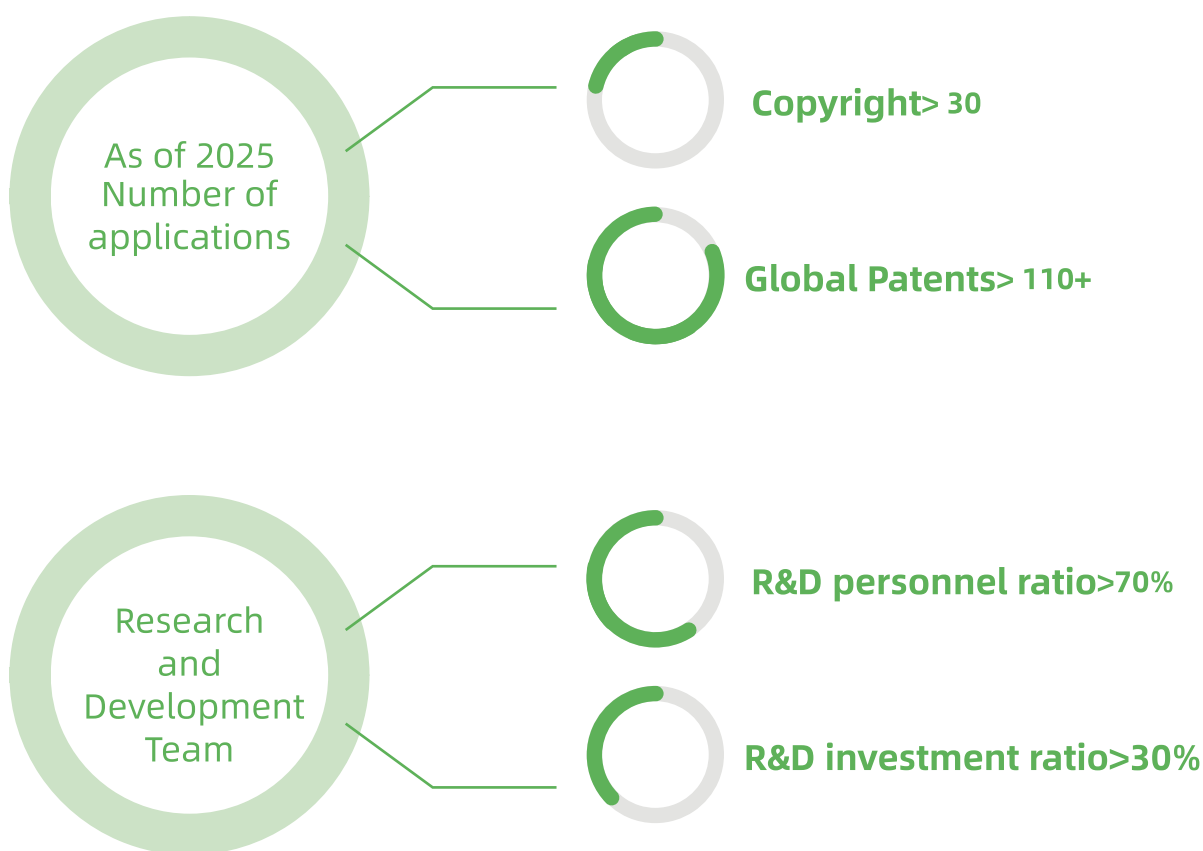
- JingTsing Technology Co., Ltd. Founded



Research and Development

Driven by technological innovation

Our R&D team boasts strong academic backgrounds and is among the earliest teams in the industry dedicated to energy storage conversion technologies. We provide customized PCS products and tailored development solutions to meet diverse customer needs. With the mission of “Focus, Innovation, Breakthrough - Empowering Clean Energy with Digital Power Technology” , the company upholds a market-oriented and technology-driven spirit. We are committed to accelerating the R&D and large-scale application of key high-voltage PCS technologies, building a clean, low-carbon and efficient energy system, and helping China’s energy storage industry better embrace the world.



The founding team comprises Tsinghua PhDs and senior experts with experience at Fortune 500 company ABB.

CSA and TÜV Authorized Laboratory

Jingwan Laboratory is one of the most advanced laboratories in the world's third-generation energy storage and conversion technology, and has obtained the authorized witness laboratory qualification both of CSA Group and TÜV Rheinland in Germany.

Jingwan Laboratory brings together many top scientific and technological talents, experts, scholars, in accordance with ISO/IEC17025 international standards for management, with the ability to complete most of the UL1741, IEEE1547, IEC/EN62477-1, EN50549 certification experiments, and has supporting advanced experimental equipments and related instruments, with the continuous upgrading of products, the laboratory will continue to expand.

Technology and Products

Behind every product lies our unwavering pursuit of technological innovation and superior quality.

JingTsing grasps the more front-end technology trend, and constantly develops and improves the platform products, with the current industry-leading high DC voltage level, high power density, modular rack, full liquid cooling energy storage converter products, with a high degree of technological leadership, most of the company's products have obtained authoritative domestic and international certifications including UL, IEEE, IEC, TÜV, and CE.



The third generation of high voltage liquid cooling energy storage 2000V PCS products

01 Technological innovation, market leadership

In the field of high-voltage PCS technology, JingTsing technology Ltd has strategically positioned itself as a pioneer in the global third-generation 2000V energy storage technology. The introduction of this technology marks the company's entrance into the forefront of global energy storage PCS technological innovation

02 Increased power density

Compared with mainstream 1500V products, 2000V high-voltage energy storage PCS products are expected to increase power density by more than 32%. This means that the new product is able to handle more power conversion tasks in the same physical space, increasing the overall energy density of the energy storage system.

03 System efficiency improvement

The new generation is expected to improve system efficiency by more than 0.5 percent. While the improvement may seem small, this translates into significant energy savings and cost reductions in long-term operation and large-scale applications.

04 Reduced system costs

Through technological innovation and optimization, JingTsing's 2000V high-voltage energy storage PCS products are expected to reduce system costs by more than 8%. This will help to further promote the popularization and application of energy storage systems.

Fully liquid-cooled PCS products

01 Perfectly adapted to the liquid-cooled battery PACK module to achieve a full liquid-cooled solution

The product is perfectly adapted to the liquid-cooled battery PACK module, which means that it can not only effectively dissipate heat and ensure the temperature control of the battery module during efficient operation, but also reduce heat accumulation in the system, thereby enhancing the stability and safety of the energy storage system.

Through full liquid cooling technology, PCS products can maintain stable performance in various working environments, whether it is high or low temperature environment, which can ensure the efficient operation of energy storage systems.



02 Integrates high-voltage switchgear function, modular design for lower integration costs

This feature significantly reduces customers' system integration costs, saves internal space, and enables a more compact and efficient system layout.

03 Meets international technical standards across multiple regions

Our products not only comply with technical standards such as Chinese GB standard, European CE standard and North American UL standard, but also far exceed the industry average in technical indicators including voltage level and power density.

DC1000V/AC400V or 480V Liquid-Cooled PCS

The main function is to realize the AC and DC bidirectional conversion of electric energy in the energy storage system, to control the charging and discharging process of the energy storage battery pack, to achieve accurate control, optimal management and efficient utilization of electric energy, and to provide a strong guarantee for industrial and commercial energy storage systems.

Efficient and reliable

Liquid-cooled heat dissipation, longer device life. IGBT, reactors, capacitors and other key components have a good temperature equalization effect.

Quality assurance

High-standard quality control system. UL, CE, multi-country grid-connected performance certification.

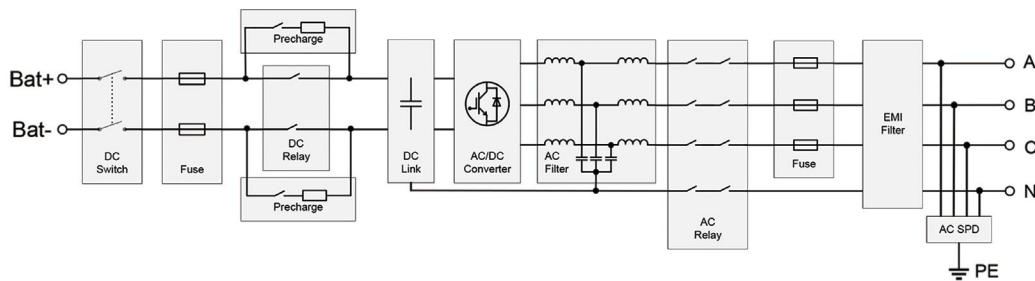
Reliable performance

50° C high temperature stable operation without degrading, friendly system matching. Modular parallel up to 16 units, protect customer's income.

Flexible Adaptation

Supports linkage with BMS and EMS to realize multiple protection. Incorporate high-voltage switch box design.

Circuit Diagram



JTES-100K/125K-W C&I Smart String Liquid-Cooled PCS



PARAMETER LIST

Model

JTES-100K-W

JTES-125K-W

DC PARAMETERS

Maximum DC Voltage	1000V		1000V	
Maximum DC Current	162A	157A	202A	196A
Full-load DC voltage range	680-1000V	700-1000V	680-1000V	700-1000V

AC PARAMETERS (On-Grid)

Rated power	100kW		125kW	
Maximum Power	110kW		137.5kW	
Rated Grid Voltage	400V (-15% ~ +10%)	480V (-12% ~ +10%)	400V (-15% ~ +10%)	480V (-12% ~ +10%)
Grid Connection Type	3P+N+PE		3P+N+PE	
Rated AC Current	144A	120A	180A	150A
Maximum Output Current	173A(120% rated)	144A(120% rated)	216A(120% rated)	180A(120% rated)
Rated Grid Frequency	50Hz / 60Hz		50Hz / 60Hz	
THDi At Rated Power	< 3.0%		< 3.0%	
DC Component	< 0.5%		< 0.5%	
Power Factor Range	>0.99 (Rated power) / -1 ~ +1		>0.99 (Rated power) / -1 ~ +1	
Continuous Overload	110% Rated long term; 120% Rated operation 1min		110% Rated long term; 120% Rated operation 1min	
Charge/discharge switching time	≤ 20ms		≤ 20ms	

AC PARAMETERS (Off-Grid)

Rated power	100kW		125kW	
Rated Grid Voltage	400V	480V	400V	480V
Rated Grid Frequency	50Hz / 60Hz		50Hz / 60Hz	
THDu At Rated Power	< 3.0%(linear load)		< 3.0%(linear load)	
Off-Grid three-phase unbalance	100%		100%	

SYSTEM CHARACTERISTICS

Maximum Efficiency	98.60%	98.60%
CEC Efficiency	98.00%	98.00%
Cooling	Liquid (50% Ethylene glycol+50% water)	Liquid (50% Ethylene glycol+50% water)
Communication	CAN / Ethernet/ RS-485	CAN / Ethernet/ RS-485
Operating Temperature range	-30℃ ~ +60℃	-30℃ ~ +60℃
Relative humidity	0% ~ 95% (No condensation)	0% ~ 95% (No condensation)
Maximum Inlet Temperature	50℃	50℃
Maximum Altitude	≤ 2000m	≤ 2000m
Noises	< 65dB (1m away from the horizontal position of the device)	< 65dB (1m away from the horizontal position of the device)
Installation	Rackmount/Vertical(optional)	Rackmount/Vertical(optional)
Standard	Compliant with multi-national grid-connection standards including UL1741, IEEE1547, IEC/EN62477, EN50549.	

MECHANICAL PARAMETERS

Dimension	H240mm x W680mm x D850mm		H240mm x W680mm x D850mm	
Weight	105kg		117.5kg/124kg	
Enclosure	IP65		IP65	

DC1500V /AC690V Liquid-Cooled PCS

Integrated design, fully compliant with DC cabinet installation requirements. Designed in accordance with UL/CE standards, featuring liquid cooling, wide water temperature range, and reduced losses for energy storage systems. Compatible with battery cells, one cluster management per string, and flexibly adaptable to 2H/4H energy storage solutions.

High-efficiency Liquid Cooling

Liquid cooling for extended component lifespan and enhanced product reliability. Equipped with IGBT modules, peak efficiency up to 98.8%, CEC efficiency 98.3%.

Better Performance

Stable operation at inlet water temperature of 55°C .DSP+FPGA core control for superior performance.

Diverse Intelligence

Fast active/reactive power response, supporting VSG/PQ/VF operating modes. Cluster-level management suppresses inter-cluster circulating current and improves available capacity.

Quality Assurance

High-standard quality control with full-process quality supervision. Dual AC relay redundant design, compliant with certification requirements.

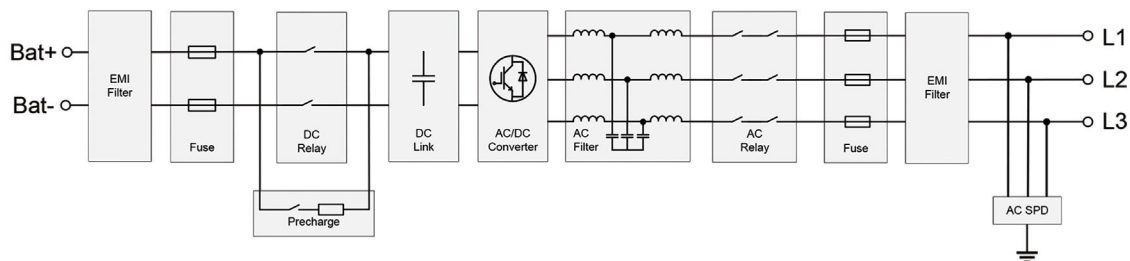
High Integration

Supports communication with BMS and EMS, with integrated multi-protection functions. Combines functions of DC pre-charging circuit, fuse and other high-voltage switchgear.

Exquisite Adaptation

Supports parallel operation of multiple units, with islanded/grid-connected modes. Compact structure and size, suitable for integrated design of DC cabinets.

Circuit Diagram



JTES-215K-W Utility-Scale String Liquid-Cooled PCS

PARAMETER LIST

Model

JTES-215K-W

DC PARAMETERS

Maximum DC Voltage	1500V
Maximum DC Current	225A
Battery Pack Voltage Range	1050-1500V

AC PARAMETERS (On-Grid)

Rated power	215kW
Maximum AC Power	236.5kW
Rated Grid Voltage	690V (-12% ~ +10%)
Grid Connection Type	3P+PE
Rated AC Current	180A
Maximum Output Current	216A(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	215kW
Rated Grid Voltage	690V
Rated Grid Frequency	50Hz / 60Hz
THDu At Rated Power	< 3.0%(linear load)

SYSTEM CHARACTERISTICS

Maximum Efficiency	98.80%
CEC Efficiency	98.30%
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	55°C
Maximum Altitude	4000m (Derating >2000m)
Noises	< 70dB (1m away from the horizontal position of the device)
Installation	Rackmount/Vertical

MECHANICAL PARAMETERS

Dimension	H197mm x W740mm x D800mm
Weight	132kg
Enclosure	IP65

DC1000V/AC400V SiC Air-Cooled PCS

Drawing on years of liquid-cooling R&D experience, Jingqing Shudian has developed intelligent SiC-based air-cooled PCS. While controlling overall system cost, it achieves high-precision real-time control, dynamic optimized management and efficient conversion of electric energy, providing cost-effective solutions for industrial and commercial energy storage systems.

SiC 130: Reliable, Stable.

Hybrid SiC, 2-level 4-leg topology, efficiency up to 99%. Full-load at 50°C , higher uptime and utilization.

Flexible & Easy to Replace.

Integrates pre-charge, fuse, contactor and other DC HV devices. Multiple communication ports for flexible BMS/EMS interaction.

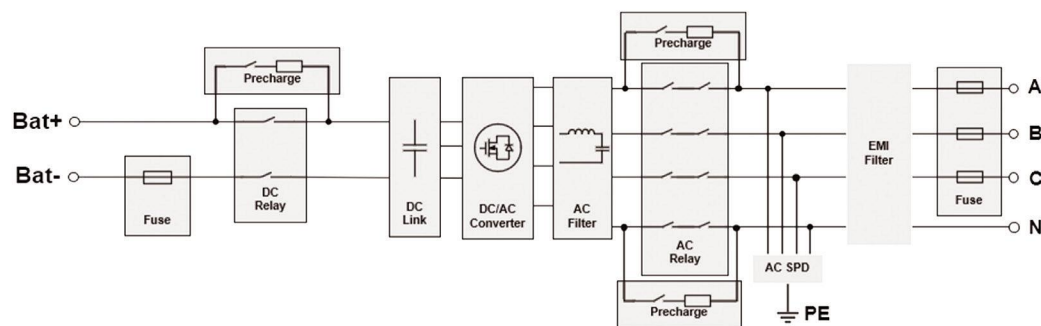
Grid-Friendly, Powerful Control.

Dual AC/DC power supply, reduced losses at discharge end. Supports HVRT/LVRT, compatible with PQ/VF/VSG modes.

Full-featured, Stable Operation.

Supports 16 PQ units & 8 VF units operating in parallel. Dual safety: leakage current monitoring + startup insulation self-test.

Circuit Diagram



JTES-SiC130K-A C&I Smart String SiC Air-Cooled PCS

PARAMETER LIST

Model

JTES-SiC130K-A

DC PARAMETERS

Maximum DC Voltage	1000V
Max DC Current	220A
Battery Pack Voltage Range	650-1000V

AC PARAMETERS (On-Grid)

Rated power	130kW
Maximum AC Power	143kW
Rated Grid Voltage	400V (-15% ~ +10%)
Grid Connection Type	3P+N+PE
Rated AC Current	188A
Maximum Output Current	225A(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	130kW
Rated Grid Voltage	400V
Rated Grid Frequency	50Hz / 60Hz
THDu At Rated Power	< 3.0%(linear load)
Off-Grid three-phase unbalance	100%

SYSTEM CHARACTERISTICS

Maximum Efficiency	99.00%
Full-load efficiency	98.00%
Cooling	Intelligent forced air cooling
Communication	CAN / Ethernet/ RS-485
Operating Temperature range	-30°C ~ +60°C
Relative humidity	0% ~ 95% (No condensation)
Max temp. no derating	50°C
Maximum Altitude	≤ 2000m
Noises	< 70dB (1m away from the horizontal position of the device)
Installation	Rackmount
Standard	IEC/EN62477, EN50549, GB34120

MECHANICAL PARAMETERS

Dimension	H230mm x W520mm x D760mm
Weight	≤ 60kg
Enclosure	IP20

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

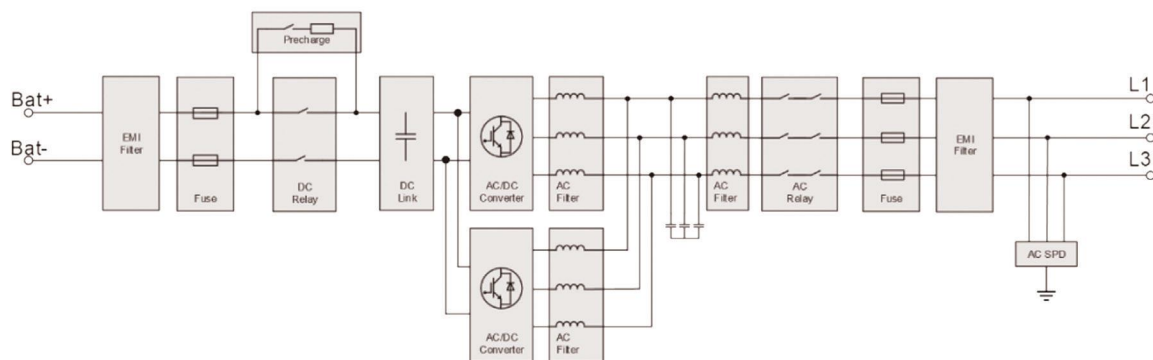
Smart & High-Efficiency

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

DC 1600V Liquid-Cooled PCS

The core equipment of the energy storage system on the power source and grid side has the functions of grid following and grid forming to realize the charging and discharging functions of the battery. The PCS module can be flexibly combined to match high power density cells.

Efficient and reliable

Liquid-cooled heat dissipation, longer device life.
IGBT module with 98.80% conversion efficiency and 98.5% CEC efficiency.

High power density

Power density up to 2.38kW/L.
Dual DSP+CPLD core control.
Modular AC and DC parallel connection up to 8 synchronous controls.

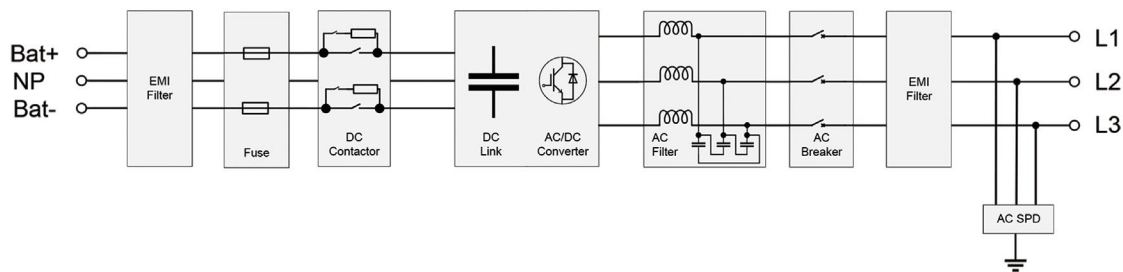
Quality and standards

High-standard quality control system.
UL,CE,multi-country grid-connected performance certification.

Flexible Adaptation

Copper bar plug-in structure design.
Flexible combination of modules up to 3.6MW/7.2MWh.
HVRT / LVRT, PQ / VF / VSG, black start, etc.

Circuit Diagram



JTES-450K-W

Utility-Scale Liquid-Cooled Energy Storage PCS



PARAMETER LIST

Model

JTES-450K-W

DC PARAMETERS

Maximum DC Voltage	1600V	
Maximum DC Current	410A	
Battery Pack Voltage Range	1100-1500V	1100-1600V

AC PARAMETERS (On-Grid)

Rated power	450kW
Maximum AC Power	450kW
Rated Grid Voltage	740V (-12% ~ +10%)
Grid Connection Type	3P+PE
Rated AC Current	352A
Rated Grid Frequency	50Hz/60Hz (±3Hz)
THDi At Rated Power	< 3.0%
DC Component	< 0.5%
Power Factor Range	>0.99 (Rated power) / -1 ~ +1

AC PARAMETERS (Off-Grid)

Rated power	450kW
Rated Grid Voltage	740V
Rated Grid Frequency	50Hz / 60Hz
THDu At Rated Power	< 3.0%(linear load)

SYSTEM CHARACTERISTICS

Maximum Efficiency	98.80%
Cooling	Liquid (50% Ethylene glycol+50% water)
Communication	CAN / Ethernet/ RS-485/Fiber
Operating Temperature range	-30°C ~ +60°C
Relative humidity	0% ~ 95% (No condensation)
Maximum Inlet Temperature	50°C
Maximum Altitude	≤ 2000m
Noises	< 70dB (1m away from the horizontal position of the device)
Installation	Rackmount
Standard	UL1741, IEEE1547, IEC/EN62477, G99

MECHANICAL PARAMETERS

Dimension	H336mm x W450mm x D1249mm
Terminal Form	Copper bar push-in type
Weight	236kg
Enclosure	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.

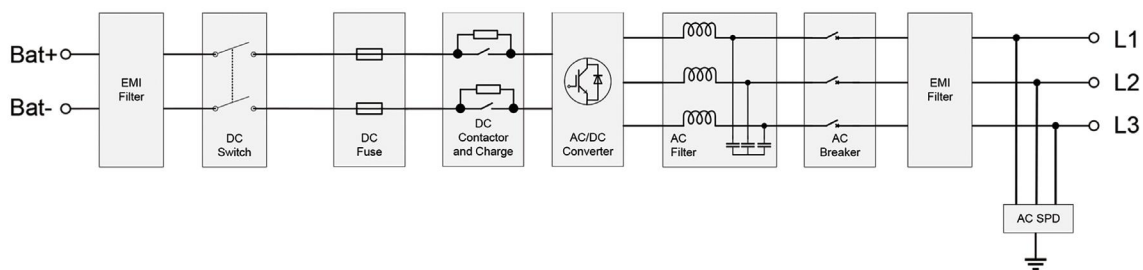
Better Performance

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
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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

NEW

1500V DC/690V AC Grid-Connected Energy Storage System

String-type liquid-cooled AC cabinet, grid-tied/off-grid compatible, flexibly matching DC cabinets. Solves barrel effect and circulating current issues, enabling battery charge/discharge. With 420kW string-type liquid-cooled PCS, modular design, up to 3.36MW AC output. Compatible with >600Ah cells, cluster-level management, suitable for 2H/4H grid-tied energy storage systems.

600Ah+ cells ✓

Modular power construction ✓



Liquid-cooled AC cabinet (3.36MW)

PARAMETER LIST

Model JTES-AC3360K-W(String Liquid-cooled AC Integrated Cabinet)

DC PARAMETERS

Maximum DC Voltage	1500V
Maximum DC Current	400A per unit
Battery Pack Voltage Range	1050-1500V

AC PARAMETERS (On-Grid)

Rated power	420kW per unit
Maximum AC Power	420kW*8=3.36MW
Rated Grid Voltage	690V (-12% ~ +10%)
Grid Connection Type	3P+PE
Rated AC Current	352A per unit
Rated Grid Frequency	50Hz/60Hz (±3Hz)
THDi At Rated Power	< 3.0%
DC Component	< 0.5%
Power Factor Range	>0.99 (Rated power) / -1 ~ +1

AC PARAMETERS (Off-Grid)

Rated power max	420kW*8=3.36MW
Rated Grid Voltage	690V
Rated Grid Frequency	50Hz / 60Hz
THDu At Rated Power	< 3.0%(linear load)

SYSTEM CHARACTERISTICS

Maximum Efficiency	98.80%
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	< 75dB (1m away from the horizontal position of the device)
Installation	Rackmount (≤ 8 units)
Standard	UL1741, IEEE1547, IEC/EN62477, G99

MECHANICAL PARAMETERS

Dimension	H336mm x W450mm x D1249mm(PCS) H2400mm x W1950mm x D2200mm(AC Cabinet)
Weight	2000kg
Enclosure	IP54 / Water unit IP20

DC/DC module

Enables bidirectional energy flow between batteries and DC bus. SiC-based, fully liquid-cooled, ultra-wide input voltage up to 1500V DC, efficiency up to 99%. Widely used in PV-storage-charging stations, battery swap stations and energy storage AIDC scenarios.



SiC Power Platform

Adopting SiC devices and low-inductance busbars, it maintains ultra-wide high-efficiency operation ($\geq 98\%$) across 20%-100% load range. Annual energy savings increased by $\sim 2.3\%$ vs. traditional Si solutions, reducing LCOE. 96 kHz control frequency enables fast response to load and power dispatch, stabilizing DC bus.



Wide voltage operating range

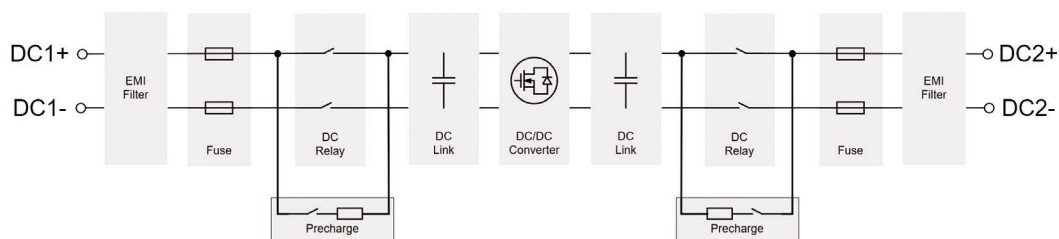
Wide voltage range perfectly compatible with: 1500V high-voltage Li-ion, 1000V industrial & commercial Li-ion, low-voltage lead-acid / second-life battery packs, PV DC-coupled systems.



Thermal Management & Reliability

Integrated microchannel cold plate, electrical-hydraulic isolation & leak detection for higher reliability. IP65 protection, dustproof & waterproof. Stable operation at $-30^{\circ}\text{C} \sim +60^{\circ}\text{C}$, adapting to harsh conditions: high temperature, humidity, dust, salt fog.

Circuit Diagram



JTES-DC500K-W

PARAMETER LIST

Model

JTES-DC250K-A

JTES-DC500K-W

Input Parameters

Rated power	250kW	500kW
Maximum AC Power	275kW	550kW
Input Voltage Range	500V-1000V	500V-1500V
Rated Input Voltage	832V	1350V
Rated Input Current	300A	370A
Maximum Input Current	400A	550A

Output Parameters

Output Voltage Range	500V-1000V (>Input Voltage)	500V-1500V (< Input Voltage)
Rated Output Voltage	850V	1000V
Rated Output Current	294A	500A
Maximum Output Current	400A	550A

System Parameters

Communication Method	EMS Communication: Ethernet, CAN or RS485; BMS Communication: CAN or RS48	
Maximum Efficiency	≥ 99%	≥ 99%
Protection	IP5X (Core Control Unit)	IP65
Temperature Range	-30℃ ~60℃ (Derating above 45℃)	
Humidity Range	5%~95%	
Cooling	Intelligent forced air cooling	Intelligent high-efficiency liquid cooling
Noise	≤ 75dB	≤ 70dB
Maximum Altitude	4000m(Derating >2000m)	
Protection Functions	Over-temperature protection, over-current protection, over-voltage protection, short-circuit protection	
Dimensions	W520*H230*D760mm	W730*H200*D800mm
Weight	≤ 60kg	≤ 120kg

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Superior Performance

- 99% maximum efficiency, 120% overload capacity
- Fast response speed, charge/discharge conversion time <20ms
- Seamless grid-connected and off-grid switching, minimum switching time: 20ms

Safe and Reliable

- IP65 protection grade, suitable for various outdoor environments
- Dual DSP redundant control system, redundant backup of control power supply
- Professional design against sand, water, and salt fog, suitable for different outdoor scenarios

Grid-friendly

- Strong grid adaptability, supports stable operation with SCR=1.0
- Grid-forming capability, active voltage support, and black start
- Features zero voltage and high voltage ride-through capabilities

Comprehensive Functions

- Includes functions such as Power Quality (PQ), Voltage and Frequency (VF), and Virtual Synchronous Generator (VSG)
- Multiple communication interfaces including Ethernet, RS485, and CAN, supporting various communication protocols such as IEC61850, IEC104, Modbus, and CAN
- Compatible with various types of batteries, supports multiple charging and discharging modes such as constant power, constant voltage, and constant current



JTES-PCS2500K-1500/690-A01G1 Centralized Air-Cooled PCS

PARAMETER LIST

Model

JTES-PCS2500K

DC PARAMETERS

Number Of DC input	1/2
Max.DC current	1403A*2
Battery voltage range	1000-1500Vdc

AC Parameters (On-Grid)

Rated AC output power	1250kW*2
Nominal AC voltage	690Vac
Max.AC output power	1375kVA*2
Nominal grid frequency	50/60Hz
Harmonic(THDi)	< 1.5%
Power factor range	1 (leading)~1 (lagging)

SYSTEM CHARACTERISTICS

Max.efficiency	99%
Cooling method	Forced air cooling
Communication port	RS485/CAN/Ethernet
Isolation mode	Transformerless
Operating temperature range	-40~60°C
Relative humidity	0~95%(no condensing)
Max.altitude	5000m(>3000m derating)
European emciency	98.50%

MECHANICAL PARAMETERS

Dimension	H2660mm x W1450mm x D1300mm
weight	2800kg
Ingress protection rating	IP65

Superior Performance

- 99% maximum efficiency, 120% overload capacity, with overload capacity 1.5 times greater than 1 minute and 3 times greater than 10 seconds
- Fast response speed, charge/discharge conversion time <20ms
- Seamless grid-connected and off-grid switching, minimum switching time: 20ms

Safe and Reliable

- IP66 protection grade, suitable for various outdoor environments
- Dual DSP redundant control system, redundant backup of control power supply
- Professional design against sand, water, and salt fog, suitable for different outdoor scenarios

Grid-friendly

- Strong grid adaptability, supports stable operation with SCR=1.0
- Grid-forming capability, active voltage support, and black start
- Features zero voltage and high voltage ride-through capabilities

Comprehensive Functions

- Includes functions such as Power Quality (PQ), Voltage and Frequency (VF), and Virtual Synchronous Generator (VSG)
- Multiple communication interfaces including Ethernet, RS485, and CAN, supporting various communication protocols such as IEC61850, IEC104, Modbus, and CAN
- Compatible with various types of batteries, supports multiple charging and discharging modes such as constant power, constant voltage, and constant current



JTES-PCS2500K-1500/690-L01G1 Centralized Liquid-Cooled PCS

PARAMETER LIST

Model

JTES-PCS2500K

DC PARAMETERS

Number Of DC input	1/2
Max.DC current	2806A
Battery voltage range	1000-1500Vdc

AC Parameters (On-Grid)

Rated AC output power	2500kW
Nominal AC voltage	690Vac
Max.AC output power	1375kVA*2
Nominal grid frequency	50/60Hz
Harmonic(THDi)	< 1.5%
Overload capability	110% continuous, 120% for >2 min, 150% for >1 min, 300% for >10 s (@45 °C)
SCR	1.05-10
Black start	YES
GFL/GFM switching	YES

SYSTEM CHARACTERISTICS

Max.efficiency	99%
Cooling method	liquid cooling
Communication port	CAN/RS458(CAN/Modbus protocol)
Dispatch Communication Interface	Ethernet(IEC61850/IEC104/Modbus protocol)
Permitted Ambient Temperature	-40~60°C
Permitted Relative Humidity	0~100%
Max.altitude	5000m(>3000m derating)
Protection Functions	DC over/undervoltage protection, AC over/undervoltage protection, abnormal frequency protection, short circuit protection, over-temperature protection, polarity reversal protection, low voltage ride-through, etc.

MECHANICAL PARAMETERS

Dimension	H2500mm x W1550mm x D1500mm
weight	3000kg
Ingress protection rating	IP66

Superior Performance

- 99% maximum efficiency, 120% overload capacity
- Fast response speed, charge/discharge conversion time <20ms
- Seamless grid-connected and off-grid switching, minimum switching time: 20ms

Safe and Reliable

- IP65 protection grade, suitable for various outdoor environments
- Dual DSP redundant control system, redundant backup of control power supply
- Professional design against sand, water, and salt fog, suitable for different outdoor scenarios

Grid-friendly

- Strong grid adaptability, supports stable operation with SCR=1.0
- Grid-forming capability, active voltage support, and black start
- Features zero voltage and high voltage ride-through capabilities

Comprehensive Functions

- Includes functions such as Power Quality (PQ), Voltage and Frequency (VF), and Virtual Synchronous Generator (VSG)
- Multiple communication interfaces including Ethernet, RS485, and CAN, supporting various communication protocols such as IEC61850, IEC104, Modbus, and CAN
- Compatible with various types of batteries, supports multiple charging and discharging modes such as constant power, constant voltage, and constant current



JTES-PCS3450K/2750K-1500/690-A01G1 Centralized Air-Cooled PCS

PARAMETER LIST

Model

JTES-PCS2750K

DC PARAMETERS

Number Of DC input	1 / 2
Max.DC current	3087A
Battery voltage range	1000-1500Vdc

AC Parameters (On-Grid)

Rated AC output power	2750kW
Nominal AC voltage	690Vac
Rated AC Current	2301A
Nominal grid frequency	50/60Hz
Harmonic(THDi)	< 1.5%

SYSTEM CHARACTERISTICS

Max.efficiency	99%
Cooling method	air cooling
Communication port	CAN/RS485(CAN/Modbusprotocol)
Communication Interface	Ethernet(IEC61850/IEC104/Modbusprotocol)
Operating temperature range	-40~60°C
Relative humidity	0~95%(no condensing)
Max.altitude	5000m(>3000m derating)

Protection Functions DC over/undervoltage protection, AC over/undervoltage protection,abnormal frequency protection, short circuit protection, over-temper-ature protection, polarity reversal protection, low voltage ride-through, etc

MECHANICAL PARAMETERS

Dimension	H2450mm x W2400mm x D1350mm
weight	3500kg
Ingress protection rating	IP65

Superior Performance

- 99% maximum efficiency, 120% overload capacity
- Fast response speed, charge/discharge conversion time <20ms
- Seamless grid-connected and off-grid switching, minimum switching time: 20ms

Safe and Reliable

- IP66 protection grade, suitable for various outdoor environments
- Dual DSP redundant control system, redundant backup of control power supply
- Professional design against sand, water, and salt fog, suitable for different outdoor scenarios

Grid-friendly

- Strong grid adaptability, supports stable operation with SCR=1.0
- Grid-forming capability, active voltage support, and black start
- Features zero voltage and high voltage ride-through capabilities

Comprehensive Functions

- Includes functions such as Power Quality (PQ), Voltage and Frequency (VF), and Virtual Synchronous Generator (VSG)
- Multiple communication interfaces including Ethernet, RS485, and CAN, supporting various communication protocols such as IEC61850, IEC104, Modbus, and CAN
- Compatible with various types of batteries, supports multiple charging and discharging modes such as constant power, constant voltage, and constant current



JTES-PCS3150K/3550k-1500/690-L01G1 Centralized Liquid-Cooled PCS

PARAMETER LIST

Model

JTES-PCS3550K
JTES-PCS3150K

DC PARAMETERS

Number Of DC input	1	
Max.DC current	3985A	3536A
Battery voltage range	1000-1500Vdc	

AC Parameters (On-Grid)

Rated AC output power	3550kW	3150kW
Nominal AC voltage	690Vac	
Rated AC Current	2970A	2636A
Nominal grid frequency	50/60Hz	
Harmonic(THDi)	< 1.5%	

SYSTEM CHARACTERISTICS

Max.efficiency	99%
Cooling method	liquid cooling
Communication port	CAN/RS485(CAN/Modbusprotocol)
Communication Interface	Ethernet(IEC61850/IEC104/Modbusprotocol)
Operating temperature range	-40~60°C
Permitted Relative Humidity	0-100%
Max.altitude	5000m(>3000m derating)

Protection Functions DC over/undervoltage protection, AC over/undervoltage protection,abnormal frequency protection, short circuit protection, over-temper-ature protection, polarity reversal protection, low voltage ride-through, etc

MECHANICAL PARAMETERS

Dimension	H2810mm x W1300mm x D1350mm
weight	2000kg
Ingress protection rating	IP66

Superior Performance

- 99% maximum efficiency, 120% overload capacity
- Liquid cooling technical route, wide temperature range (-40~60°C) operation capacity
- Seamless grid-connected and off-grid switching, minimum switching time of 20ms

Safe and Reliable

- Ultra-strong environmental adaptability, IP66 protection grade
- Dual DSP redundant control system, redundant backup of control power supply
- Professional design against sand, water, and salt fog, suitable for different outdoor scenarios

Grid-friendly

- Strong grid adaptability, supports stable operation with SCR=1.0
- Grid-forming capability, active voltage support, inertia support, and black start
- Features zero voltage and high voltage ride-through capabilities

Comprehensive Functions

- Includes functions such as Power Quality (PQ), Voltage and Frequency (VF), and Virtual Synchronous Generator (VSG)
- Multiple communication interfaces including Ethernet, RS485, and CAN, supporting various communication protocols such as IEC61850, IEC104, Modbus, and CAN
- Compatible with various types of batteries, supports multiple charging and discharging modes such as constant power, constant voltage, and constant current



JTES-PCS5000K-1500/690-L01G1 Centralized Liquid-Cooled PCS

PARAMETER LIST**Model****JTES-PCS5000K****DC PARAMETERS**

Number Of DC input	1/2
Max.DC current	5612A
Battery voltage range	1000-1500Vdc

AC Parameters (On-Grid)

Rated AC output power	5000kW
Nominal AC voltage	690/800Vac
Rated AC Current	4184/3609A
Nominal grid frequency	50/60Hz
Harmonic(THDi)	< 1.5%

SYSTEM CHARACTERISTICS

Max.efficiency	99%
Cooling method	Liquid cooling
Communication port	CAN/RS485(CAN/Modbusprotocol)
Communication Interface	Ethernet(IEC61850/IEC104/Modbusprotocol)
Operating temperature range	-40~60°C
Permitted Relative Humidity	0-100%
Max.altitude	5000m(>3000m derating)

Protection Functions	DC over/undervoltage protection, AC over/undervoltage protection,abnormal frequency protection, short circuit protection, over-temperature protection, polarity reversal protection, low voltage ride-through, etc
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MECHANICAL PARAMETERS

Dimension	H2865mm x W2250mm x D1456mm
weight	3200kg
Ingress protection rating	IP66

Scenario-driven solutions

High reliability, Strong environmental adaptability, Intelligent management and Remote O&M

With outstanding environmental adaptability, high reliability, intelligent management and remote operation and maintenance capabilities, JingTsing liquid-cooled energy storage PCS delivers one-stop power conversion solutions for a wide range of applications, including fishing vessels, mining, mobile energy storage and hydrogen fuel cells. It helps customers improve energy efficiency, reduce operational costs and enhance overall system reliability.

◆ challenge

- Marine environment with high humidity and high salt mist
- Constrained space with demand for reliable power.

◆ Key Solution Benefits

- IP65 high-protection & anti-corrosion design, adapted to harsh marine environments
- Compact size saves valuable space on fishing vessels
- Low-maintenance design reduces offshore service requirements

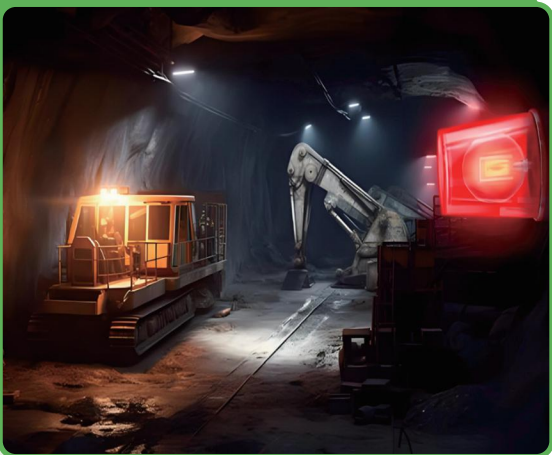


challenge ◆

- MaHigh dust concentration
- Extremely high requirements for equipment reliability

Key Solution Benefits ◆

- Fully enclosed design for effective dust protection, ideal for high-dust environments
- Intelligent algorithm core, superior loading capacity and startup performance
- High-efficiency power management, reducing mine operation energy consumption

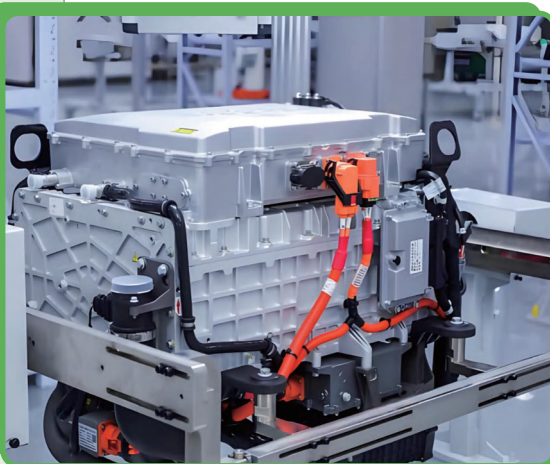


◆ challenge

- Frequent movement & compact space
- Rapid deployment required & variable environments

◆ Key Solution Benefits

- Modular design for rapid deployment and expansion
- Shock and impact resistance, suitable for road transportation
- Highly integrated design to simplify system configuration



challenge ◆

- High-efficiency power conversion •
- complex thermal management •
- High system integration •

Key Solution Benefits ◆

- Collaborative control with fuel cell •
- thermal management system •
- Precise power response matching fuel •
- cell output characteristics •
- Supports intelligent scheduling •
- for hybrid energy systems •

Scenario-driven solutions

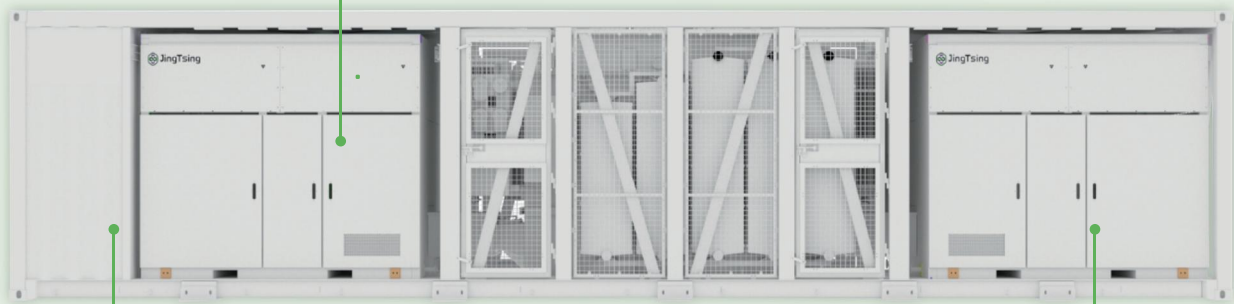
Amid the global energy transition, JingTsing is committed to providing customers with highly integrated energy storage system solutions. Our products are widely used in diverse scenarios, including grid peak shaving and frequency regulation, renewable power plant output smoothing, industrial and commercial peak load shifting, and stable power supply in remote areas. Every delivery fulfills our commitment to safety, efficiency and reliability.

| PCS Middle Voltage Station |



Flexible Configuration

- Integrated converter & transformer, compact design
- Standard containerized solution for easy transportation
- Modular PCS design, compatible with 600Ah+ batteries



High Efficiency & Stability

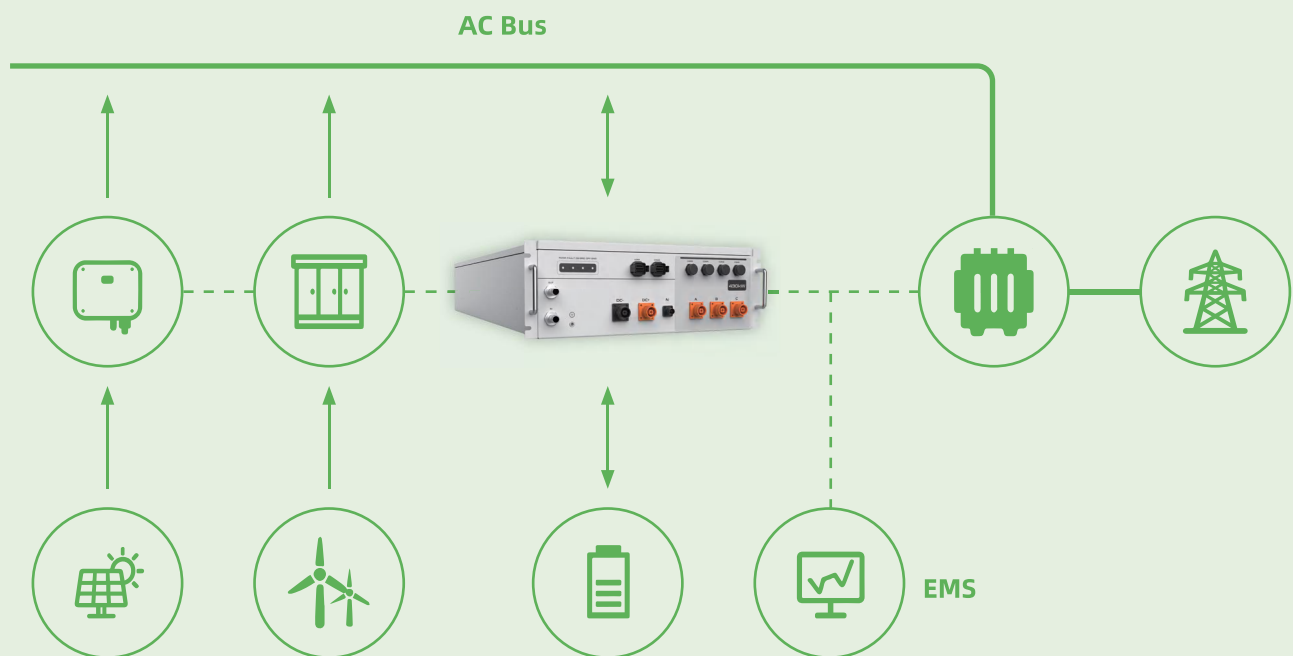
- 1500V wide-range DC voltage
- Full liquid-cooling design, wide operating temperature range
- High protection rating design

Grid-Forming Support

- Supports PQ/VF/VSG modes, black-start, etc.
- Supports constant power, constant current and constant voltage operation
- Fast power response (<20 ms)



| Wind-Solar-Storage Microgrid System |



◆ Smart Microgrid, Harnessing Wind and Solar Power

Source-Grid-Load-Storage Integrated Smart Solution. Precise regulation of wind and solar power with energy storage buffering for stable output. The wind-solar-storage microgrid eliminates energy anxiety, cuts energy costs significantly, and enhances power supply resilience.

Scenario-driven solutions

With its advantages of fast response, long service life, high efficiency, strong safety and environmental friendliness, flywheel energy storage systems are reshaping the future landscape of energy storage. In this transformation driven by speed and lifespan as core indicators, Jingqing Digital Energy's dedicated PCS for flywheel energy storage serves as the precise "power brain" for high-speed magnetic levitation flywheel systems.

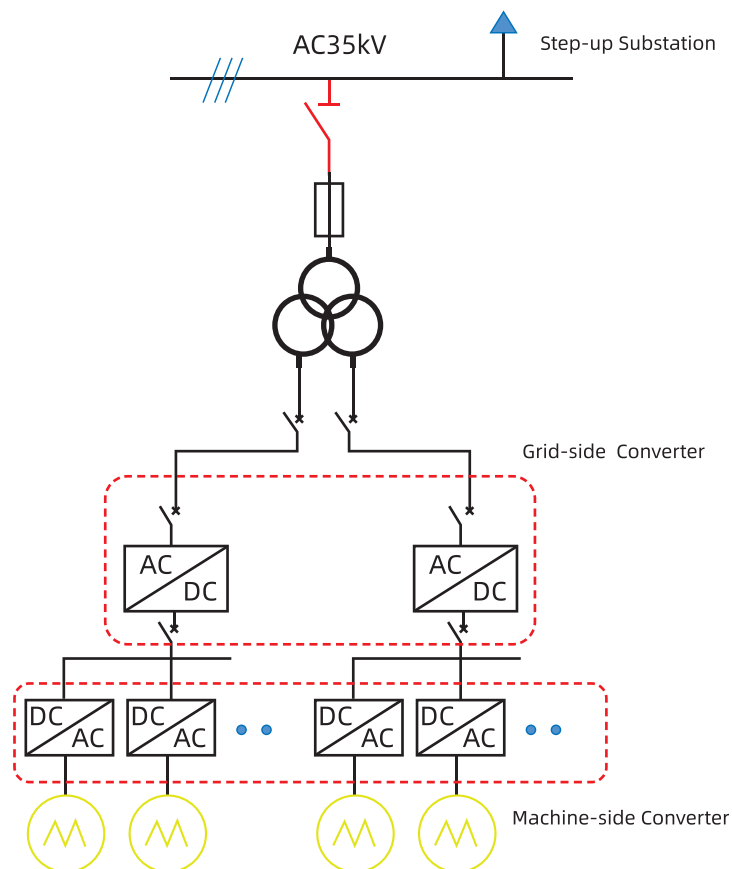
| FES system |

Grid-side Converter

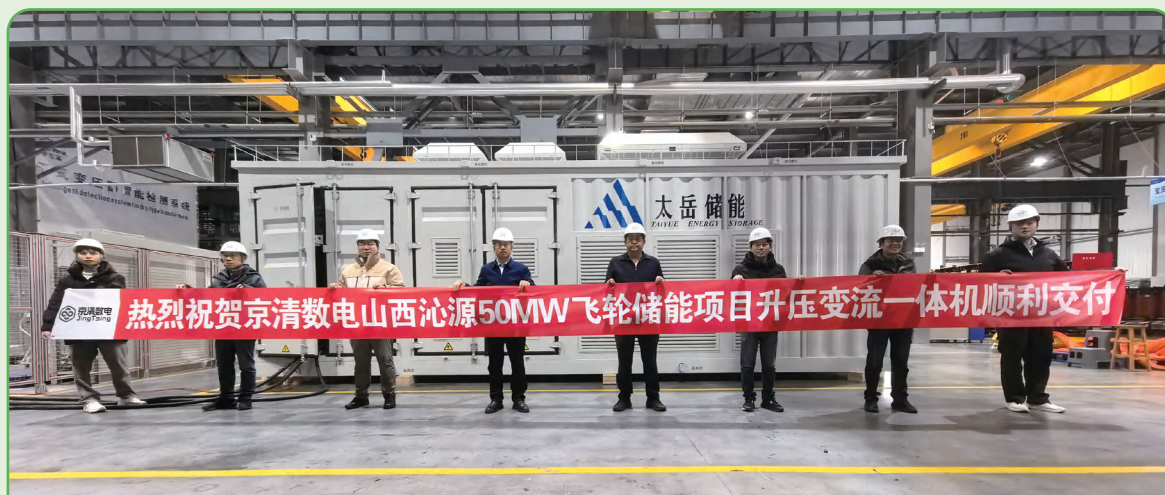
- Energy conversion and transmission
- Power control and regulation
- Grid synchronization and power quality control

Machine-side Converter

- Motor Drive and Control
- Speed Control
- Bidirectional Energy Flow Control



| Typical Projects |



◆ Shanxi Qinyuan 50MW Flywheel Energy Storage Project

The unit is the core equipment of a flywheel energy storage system (FESS), integrating the functions of electrical power conversion, voltage boosting, and grid-connection control into a single system. Not only does it achieve the deep integration of an energy storage converter and a step-up transformer, but it also, through an intelligent control system, possesses millisecond-level power response capability. This enables it to precisely mitigate grid frequency fluctuations and provide rapid, stable frequency regulation support for the power grid.



Global Customers Coverage



Global Shipping Regions

Europe Region

(9 countries / regions)

Netherlands, Belgium, Germany, United Kingdom, Slovenia, Norway, Hungary, Poland, Sweden

Israel, Myanmar, Singapore, Malaysia, Indonesia, Taiwan, China, Yemen

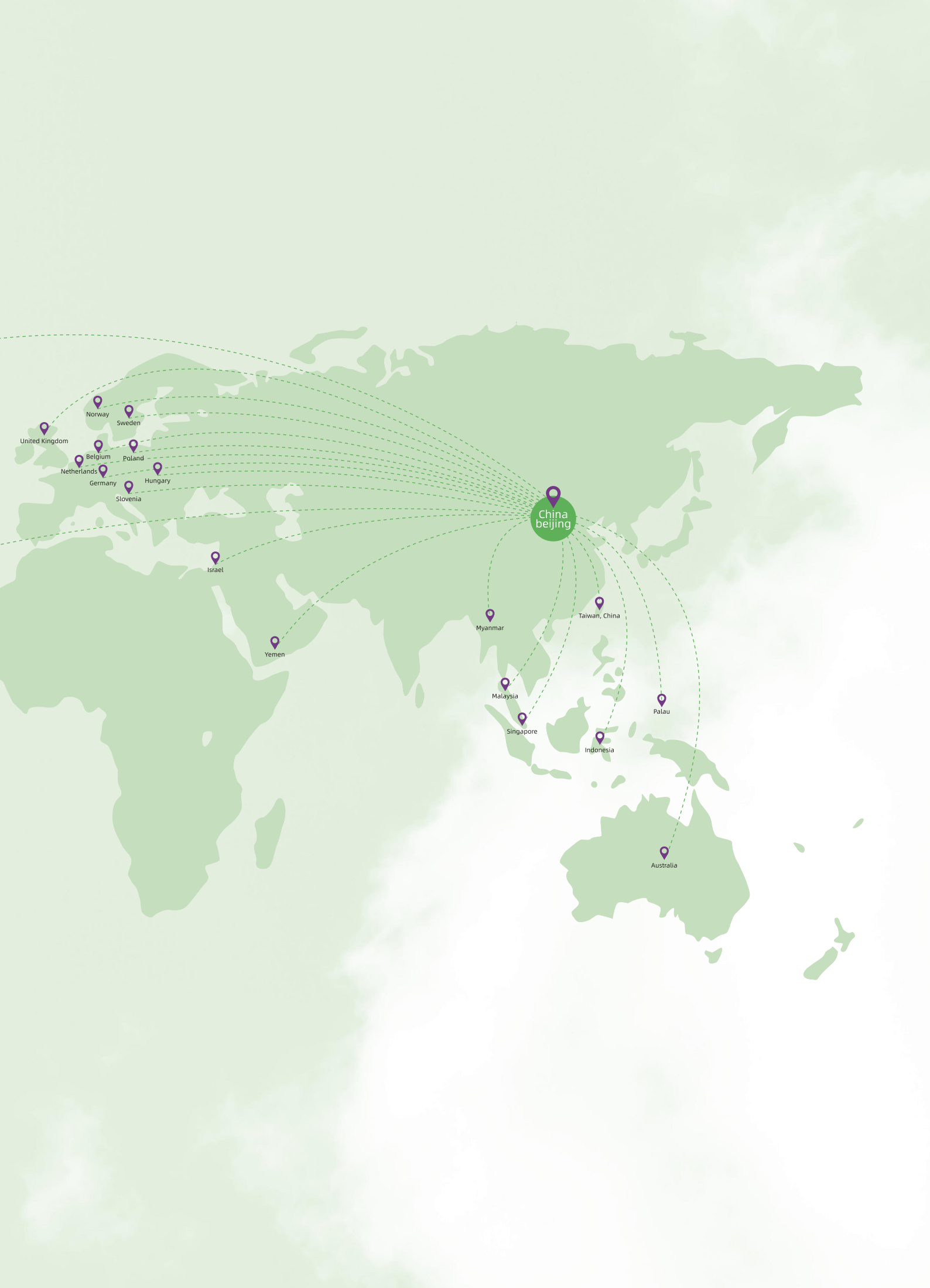
Asian regions

(7 countries / regions)

Oceania and Americas

(4 countries / regions)

Australia, Palau, North America, El Salvador



China
beijing

United Kingdom

Norway

Sweden

Belgium

Poland

Netherlands

Germany

Hungary

Slovenia

Israel

Yemen

Myanmar

Malaysia

Singapore

Taiwan, China

Indonesia

Palau

Australia



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