

# SANDA Temperature Control System Serves Global Electricity

Work together to protect the earth's environment to  
build a green and beautiful future



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## PART 01

# COMPANY PROFILE >>>

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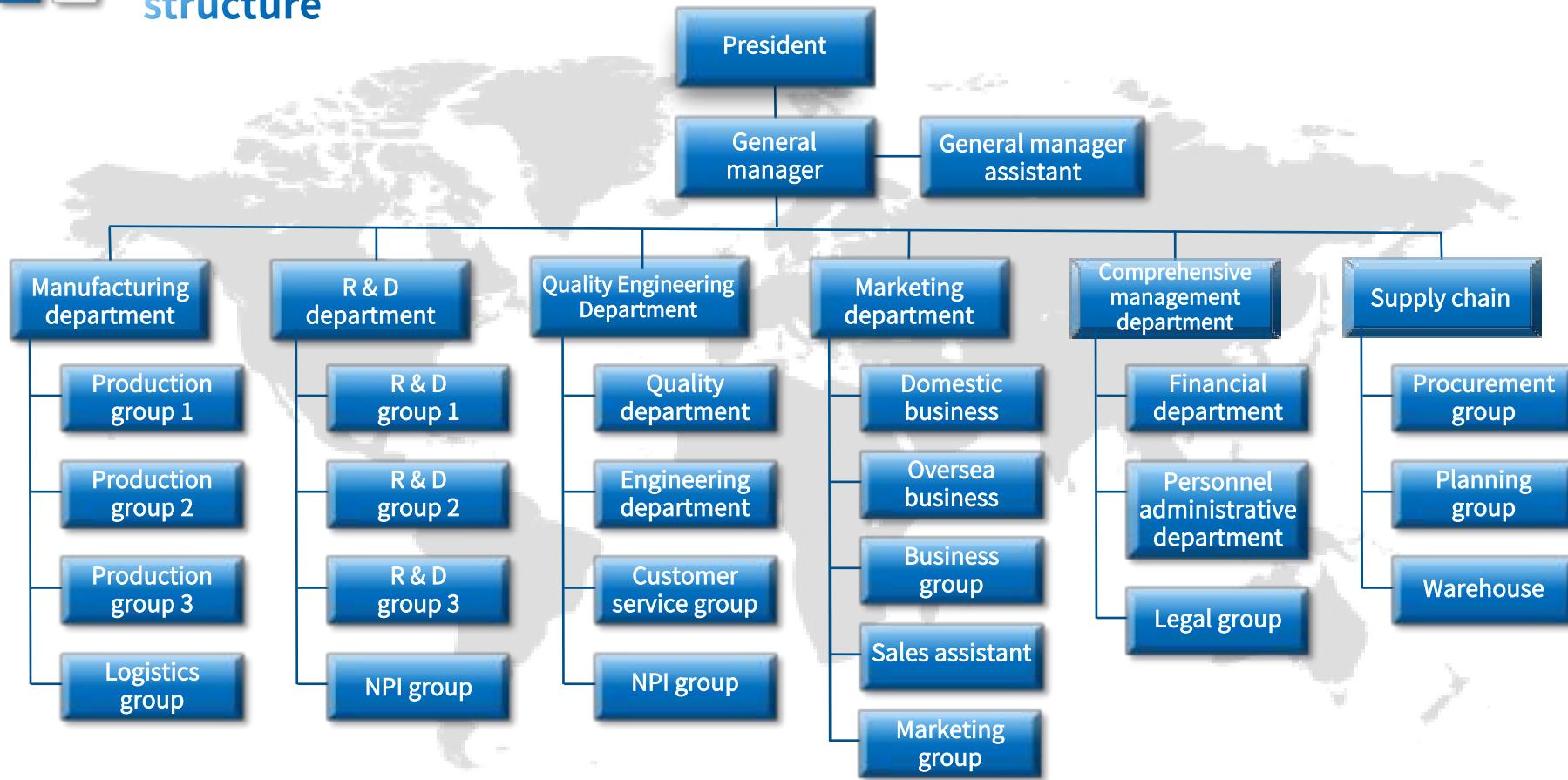
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## About SANDA

- Established in 2006, the company is headquartered in Hunan. It has R & D bases in Foshan, Xi'an, and Canada. **It has a planned area of 20,000 square meters of modern factory;**
- Power online monitoring and equipment temperature control experts, **National high -tech enterprises, Hunan Province's Little giants, participated in a number of national standards, bids, etc;**
- The independent research and development of cabinet air conditioners, **high -temperature anticorrosive air conditioners, semiconductor dehumidification devices, energy storage dehumidifiers, high and low voltage switching cabinet components, online monitoring systems, optical sensing and other products are all over 40 countries/regions around the world;**
- The service fields include **electricity, new energy, smelting, data centers, communication rail transit, smart education, medical, chemical industry, national defense, etc.**





## EXPERT TEAM



李发远 Li Fayuan

- Graduated from the Department of Mathematics and Mechanism at Hunan University in 1964;
- In 1964, he worked in Shanghai Shuangshui Cold Motor Research Institute;
- In 1994, he served as senior professor of Xihai Company Xihai Company Xi'an Institute of Electrical Engineering;
- In 1997, the Western Institute of Technology was changed to the founder of Xi'an Central Asia Industrial Co., Ltd.;
- Participate in China's first 500kV Yuanjin Liaohe ultra-high-voltage transmission and transmission project;
- Get award and certificate from the State Council's Major Office;
- Awarded the title of labor model in Shaanxi Province;
- Served as a member of the CPPCC of Xi'an;
- Won the second prize of scientific and technological progress issued by the Hunan Provincial People's Government;

## EXPERT TEAM



陈建林 Chen Jianlin

- Senior engineer title, Canadian senior photoelectric engineering technical expert;
- There are decades of domestic and international high-tech engineering technical experience in the field of photoelectricity system;
- The main design of the laser gas flow sensing equipment of global technology;
- Participate in the design of multiple high-tech projects, including laser wireless communication, fiber fiber displacement, and fluorescent temperature measurement sensors, ultraviolet to infrared full spectral equipment, etc.
- Global technology first laser gas flow sensing equipment main designer;
- Shanghai Telecom mobile phone repair wide-area network and its database management system main designer;
- The designed computer and electrical equipment won the honor of national products;
- Won the Shenzhen Science and Technology Progress Award;
- Winning a number of practical new patents, invention patents;

## EXPERT TEAM



杨建 Yang Jian

- Bachelor of "Industrial Automation" in Central South University in 1999;
- The Master of Control theory and Control Engineering of Zhongnan University in 2002;
- Doctor of Electrical Engineering at the University of China Florida in 2008;
- Delta Tau DataSystems, Inc. Senior Engineer, IEEE Member; from 2008 ~ 2010
- Professor, Doctoral Tutor, and Master Student instructor of Central South University from 2011~now.
- Critics of multiple international authoritative journals;
- Critics of multiple international authoritative journals;
- Host participated in 5 items of 863 and National Natural Science Foundation of China;
- 5 provincial and ministerial projects; won a number of national patents;
- Published more than 80 SCIE papers, of which 40 are in international authoritative journals;
- Five articles are ESI Global Electrical Engineering Discipline in the top 1% high reference paper;



## EXPERT TEAM



刘继国 Liu Jiguo

- Beijing Hekangxin Energy Transmitter Technology Co., Ltd. Senior Electrical Engineer;
- Professor and doctoral supervisor at the Department of Electrical Engineering of Hunan University;
- Sanda Company Technical Consultant;
- Mainly study electronic electronic transformation and control, distributed power generation system and its control;
- Published a number of high -level academic papers in the field of electrical automation;
- Have a number of invention patents in the field of electrical automation;
- Participate in a number of national and provincial and ministerial scientific research projects;
- Participate in many electrical automation related scientific research projects and technology development;
- Cooperate with multiple enterprises, transform scientific research results into practical applications, and promote the advancement of electrical automation technology;

## EXPERT TEAM



陈根发 Chen Genfa

- Senior electrical engineer, one of the founders of Sanda Company;
- The person in charge of the joint development product of the State Grid;
- Member of the Instrument and Instrument Bid Committee of Hunan Province;
- Member of the Standardization Technical Committee of the National Metering Electrical Electric and Protection Equipment;
- Outdoorless Wireless Ceramics temperature sensor inventor;
- Local discharge signal simulation device inventor;
- Inventor of the temperature control system of semiconductor refrigeration component;
- Inventor of the light-to-electricity module for partial discharge sensors;
- "Technical Specifications for CT Self -Power Supply Protection Device", "Technical Requirements for Wireless Temperature Measurement Device", "Technical Requirements for Arc Light Protection Testing Equipment", "Technical Requirements for Transformer Cooling Control Protection Device", "Technical Specifications for Smart Station Outdoor Cabinet Environmental Control System", A number of national standards and bid standards such as "Technical Specifications for Energy Storage Power Temperature Control System";
- Winning a number of practical new patents and invention patents;

## EXPERT TEAM



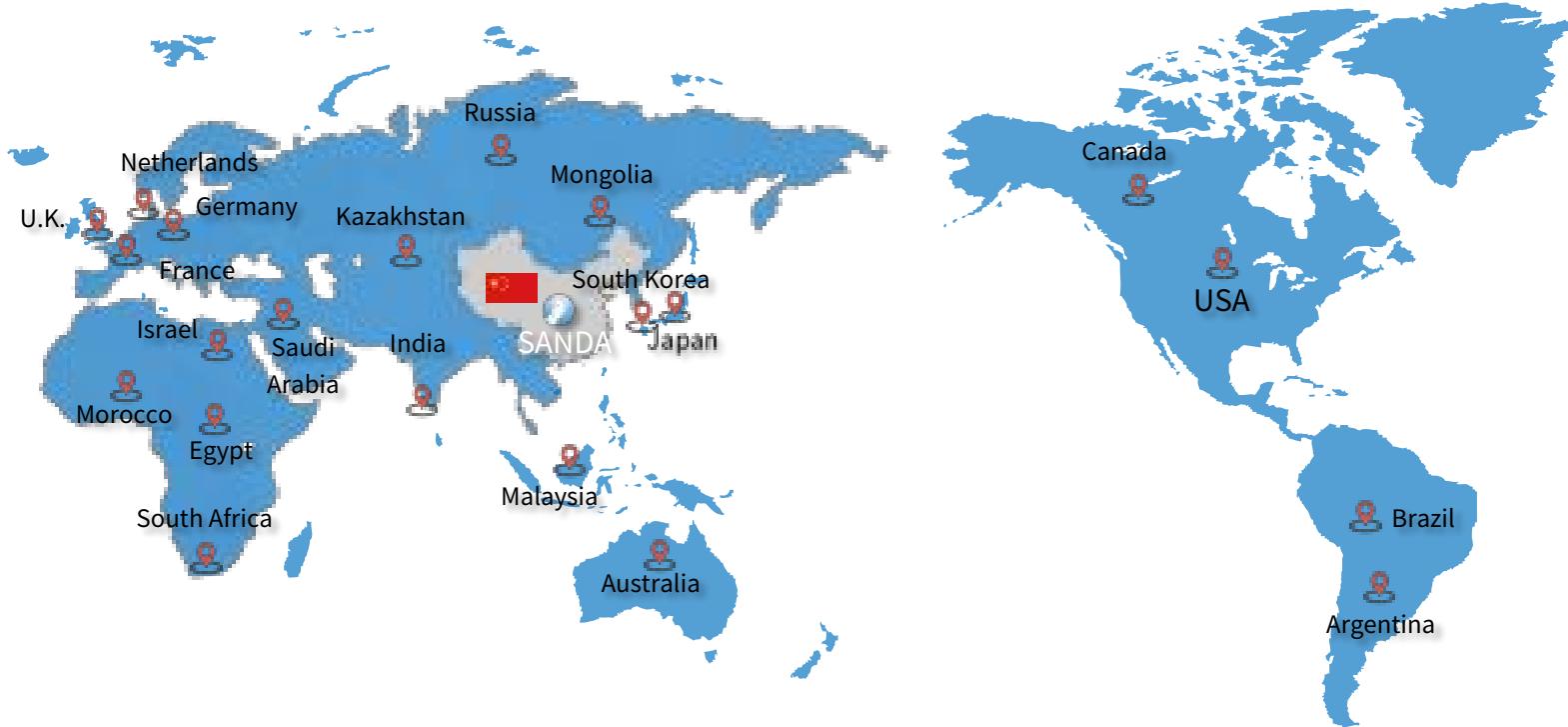
彭旭强 Peng Yuxiang

- The Department of thermal Energy and Power Engineering of Nanchang University;
- Senior engineer (thermal energy and power engineering);
- Chief Engineer of Taihao Technology Co., Ltd.;
- The person in charge of the product research and development of Sanda Company;
- More than ten years of senior air -conditioning product design experience;
- Presided the R & D with centralized air -conditioners, the explosion -proof split air -conditioning machine, the new wind and cold temperature and dehumidifier, the new wind -cold and cold -heat pump -type constant humidity air -conditioning machine, etc. The provincial science and technology department and the Industrial and Information Bureau's appraisal and acceptance, the technical level is the leading domestic leader.
- He presided over a number of key new product projects at provincial and ministerial levels, and passed the appraisal and acceptance of the Provincial Department of Science and Technology and the Industrial Information Bureau. The technical level is the leading domestic leader.





## Sales network



Sanda sales outlets cover 34 administrative areas across the country, including 23 provinces; 5 self -regions; Four municipalities, and two special administrative districts in Hong Kong, Macau, products are exported to Europe, America, Southeast Asia, Japan, South Korea, and Taiwan;





# Honors



"Little Giant" enterprise



National High -tech Enterprise



Famous trademark in Hunan Province



Advanced company of technological innovation



Integrity A-level Enterprise



CT self-power supply protection device technical specifications national standard draft company



Technical requirements for wireless temperature measurement devices, drafting company of national industry standards



Technical requirements for arc protection test equipment, drafting company of energy industry standards



Caring company



Deputy chairman company of China electrical appliance industry association



Member of Hunan instrument and instrument industry association



Executive director of Hunan Provincial Instrument and Instrument Industry Association



Product sampling qualified enterprise



China Instrument and instrument industry association group member



Officially certified supplier of Made-in-China



Quality management  
system certification



Environmental  
management system  
certification



Vocational Health and Safety  
Management System Certification



# Quality Certification



3C Certification



UL Certification



CE Certification



CB Certification



Explosion-proof certification



RoHS Certification



Safety test report



SGS salt spray test report  
Cabinet dehumidification air conditioning inspection report



Wet heat test report



Dry-type transformer  
temperature monitoring system



Multifunctional network  
instrument monitoring system



Industrial production  
automation Equipment control  
management system



Smart Instrument Data  
Analysis System



Digital smart instrument  
solution software



Software Product  
Certificate



**Owns 31 invention and utility model patents, and the number is increasing...**



**1**

Strong R&D and product development capabilities, quick response to customer needs

**2**

Efficient production organization capabilities to better meet the needs of rapid delivery

**3**

Strict quality planning, quality control and quality improvement process organization to meet customers' high quality requirements



### Construction plan for a research and development production base with an annual output of 1 million power online equipment

- **Construction scale:** covers an area of 43,450 square meters, with a construction area of 75,544 square meters. Including national-level laboratories, factories, office headquarters, expert buildings, science and technology buildings, etc.
- **Main products:** Mainly research and develop and produce power online monitoring equipment, including industrial dehumidifiers, industrial air conditioners, heat exchangers, intelligent temperature and humidity controllers, wireless temperature measuring devices, etc.;
- **Investment amount:** The annual output value is expected to be about RMB 300 million after production, making a positive contribution to the economic development of the hometown.



## Project A Area Construction Plan



## Economic and technical indicators of project area A

Project	Indicators	
Planned land area(m <sup>2</sup> )	13108.00	
Construction area(m <sup>2</sup> )	6494.24	
Total building area(m <sup>2</sup> )	42759.50	
Total building area(m <sup>2</sup> )	35937.50	
among	Factory building area(m <sup>2</sup> )	10737.68
	Building area of comprehensive building (m <sup>2</sup> )	12000.00
	National Laboratory(m <sup>2</sup> )	4800
	Expert Building Area(m <sup>2</sup> )	8100.00
	Corridor area(m <sup>2</sup> )	299.82
Underground parking lot building area(m <sup>2</sup> )	6822.00	
Building density (%)	49.54	
Building coefficient (%)	61.74	
Floor Area Ratio	2.74	
Green space ratio (%)	2.75	
Motor vehicle parking space (pc)	69	
among	Car parking space (pc)	66
	Truck parking spaces (pc)	3



## Project A Area Construction Plan



### Project Land

The total land area of Zone A is  
13108m<sup>2</sup>



### Project Planning

The total planned building area of  
Area A is 42759.50m<sup>2</sup>

The gross floor area is 35937.50m<sup>2</sup>

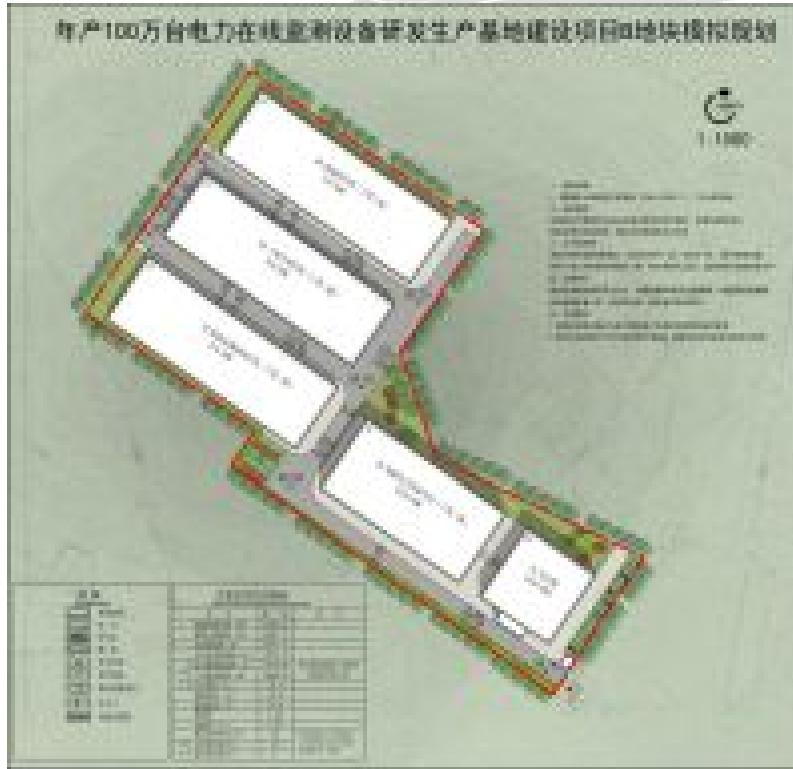


### Project Investment

Total infrastructure  
investment in Area A RMB  
66.19 million



## Project B Area Construction Plan



## Economic and technical indicators of project area B

Project		Indicators
	Planned land area(m <sup>2</sup> )	30342
	Construction area(m <sup>2</sup> )	16784.14
	Total building area(m <sup>2</sup> )	32784.14
	Total building area(m <sup>2</sup> )	32784.14
among	Factory building area(m <sup>2</sup> )	24680
	Building area of comprehensive building(m <sup>2</sup> )	8075
	Doorman(m <sup>2</sup> )	29.14
	Building density (%)	55.32
	Building coefficient (%)	67.91
	Floor Area Ratio	1.08
	Green space ratio (%)	2.70
	Motor vehicle parking spaces (pc)	28
among	Car parking space (pc)	23
	Truck parking spaces (pc)	5



## Project B Area Construction Plan



### Project Land

The total land area of Zone B is  
30342m<sup>2</sup>



### Project Planning

The total planned building area of  
Area B is 32784m<sup>2</sup>

The gross floor area is 32784m<sup>2</sup>



### Project Investment

Total infrastructure  
investment in Area B RMB  
43.23million



SMT Workshop



DIP workshop



Production group 1  
workshop



Production group 2  
workshop



## Equipments



Fully automatic solder paste printing machine



Reflow



Salt spray test machine



Waterproof test box



Intelligent dehumidification device test cabinet



Industrial air conditioner aging room



## PART 02

# PRODUCT >> INTRODUCTION

Product  
Introduction

Product  
layout

Application  
Industry

Some cases



### CABINET AC & DEHUMIDIFIER

Industrial&commercial dehumidifiers, Cabinet air conditioners, Energy storage air-cooled AC, High-temperature AC, Precision constant temperature & humidity equipment.

### POWR ONLINE MONITORING SYSTEM

Partial discharge monitoring system, Passive wireless temperature measurement system, Fiber optic temperature measurement system, Power environment monitoring system, Arc protection monitoring system, Substation comprehensive automation system, Power management system.

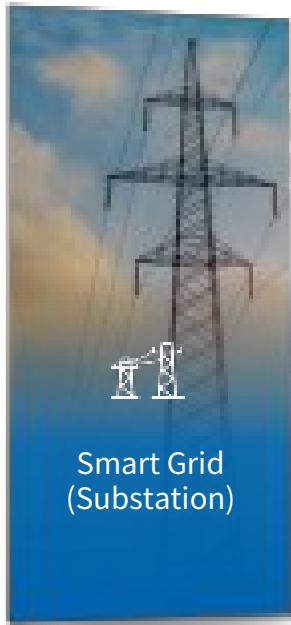
# 4 Major Business Layouts

### HV&LV COMPONENTS

Temperature & humidity controller, wireless temperature measurement device, power instrument, switchgear intelligent control device , switch status indicator, microcomputer harmonic elimination device, dry-type transformer temperature controller, dry-type transformer cross flow cooling fan.

### OPTIC SENSING TECHNOLOGY

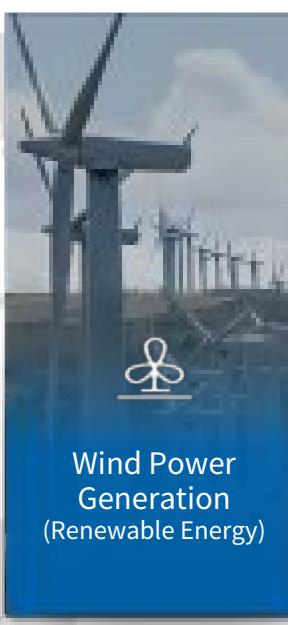
UV arc light sensor, fiber optic temperature sensor, UV blind UV detection module, photoelectric measuring instrument, infrared sensing detection, infrared temperature measurement window, fluorescent fiber optic temperature measurement system, equipment temperature vibration monitoring, temperature sensing fiber optic cable, fiber optic grating.



Smart Grid  
(Substation)



Energy Storage  
Power Station  
(State Grid  
Integrated Energy)



Wind Power  
Generation  
(Renewable Energy)



4G/5G  
Communication  
Base Station



Electrical  
Engineering  
(Automation)



Power  
Plant&Industry  
Key Projects

Mainly used in smart grids (substations), energy storage stations (State Grid Integrated Energy), wind power generation (renewable energy), food&beverage, 4G/5G communication base stations, outdoor industrial equipment, mining (transportation and transmission), power plants&industries (key projects), electrical engineering (industrial control automation), mechanical CNC precision machining, automotive industry manufacturing, charging and cooling, etc.



60W ABS  
**Intelligent micro model**



First in China  
**UL&CE Approved  
Dehumidifier**



Industrial & commercial  
energy-storage special type  
**High cost performance  
model**



**46mm Depth Ultra Thin**  
Energy-storage Cabinet  
Dehumidifier



120W Sheet metal  
**State Grid  
designated model**



**Air volume  $\geq 300\text{m}^3/\text{h}$**   
BYD customized energy  
storage model

## Product Introduction

This device is installed inside the electrical control cabinet, ring main unit, terminal box, and switch cabinet. By locally creating condensation conditions, the humid air inside the cabinet condenses into water and is directly discharged outside the cabinet. It can quickly and effectively reduce the humidity of the air inside the electrical cabinet and suppress the occurrence of condensation phenomena. It has a significant effect on preventing faults such as electrical control cabinet and electronic device distribution short circuit, insulation or poor contact, machine aging, optical machine mold growth, and raw material deliquescence and solidification caused by humidity and condensation. This device is the preferred dehumidification equipment to ensure the efficient and safe operation of smart grids.



10L/D Energy storage  
dehumidifier



10L/D Cabinet  
dehumidifier



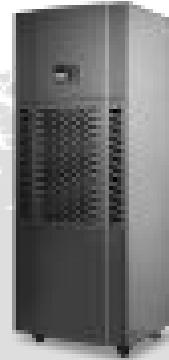
10L/D Explosion proof  
dehumidifier with national  
EX certification



**46mm Depth Ultra Thin**  
Door-mounted Energy-  
storage Dehumidifier

## Product Introduction

By utilizing the principle of condensation of moisture in the air through the action of a fan, the air inside the cabinet continuously flows through the cold end of the dehumidifier, causing the moisture in the air inside the cabinet to continuously precipitate and reduce the absolute humidity of the air inside the cabinet. At the same time, it can heat the air inside the cabinet, increase the air saturation inside the cabinet, and reduce the relative humidity inside the cabinet. Ensure ideal temperature and humidity inside the control cabinet to protect the electrical components within a controllable range. Suitable for various scenarios such as energy storage cabinets, prefabricated cabins, substations, high-voltage electrical cabinets, data centers, basements, hospitals, chemical warehouses, etc.



Industrial  
Dehumidifier



Commercial  
Dehumidifier



Ceiling  
Dehumidifier

## Product Introduction

Using the world's most professional humidity controller, it can intuitively and accurately measure temperature and humidity, with a humidity range of  $\pm 3\%$  to  $\pm 5\%$ . The human-machine interface is easy to operate and understand. Simply press the ON/OFF button to automatically adjust the operation of the unit, and the intelligent control system is more stable. Suitable for places with high humidity requirements such as communication rooms, archives, network rooms, switch rooms, precision workshops, etc.



Energy-storage cabinet



Battery cabinet



Power cabinet



Energy-storage cabinet



Indian Steel Plant  
Ring Net Unit



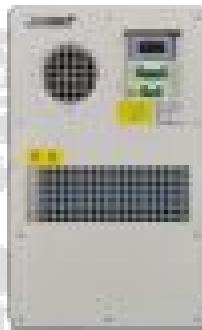
Energy storage Container



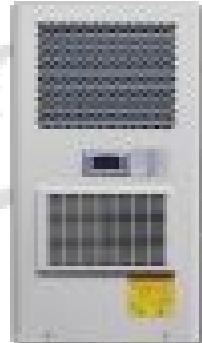
Power cabinet



DC48V 300W~4kW  
DC Cabinet AC



300W~5kW  
AC Outdoor type



300W~5kW  
AC Indoor Type



7.5kW~12.5kW  
Integrated type for energy  
storage industry



Heat exchanging: 60W~150W/k  
Cooling capacity: 1kW~3kW  
Heat exchanger&AC combined unit

## Product Introduction

Industrial cabinet air conditioning is a professional refrigeration equipment developed based on the special working conditions of industrial enterprises. It has a wide range of cooling capacity, large air volume, complete product series, and multiple types and models. It has many advantages such as stable and reliable performance, high energy efficiency, low noise, and easy installation and maintenance. It is widely used in workshops and electrical control rooms of various manufacturing enterprises such as steel mills, power plants, food factories, clothing factories, paper mills, etc.



4kW Split ceiling suction type

6kW Split type

12kW Split type

## Product Introduction

This special air conditioner is a split type high-temperature anti-corrosion air conditioner, suitable for ambient temperatures ranging from 25 °C to 90 °C. It is mainly used in high-temperature and highly corrosive environments such as electrolytic aluminum workshops, steel mills, chemical plants, papermaking, offshore wind power, rail transit, and food processing. It has the characteristics of high temperature resistance, dust prevention, shock resistance, corrosion resistance, and strong magnetic field resistance.



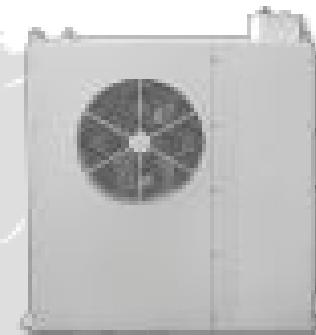
4kW backpack style



6kW Front air supply type



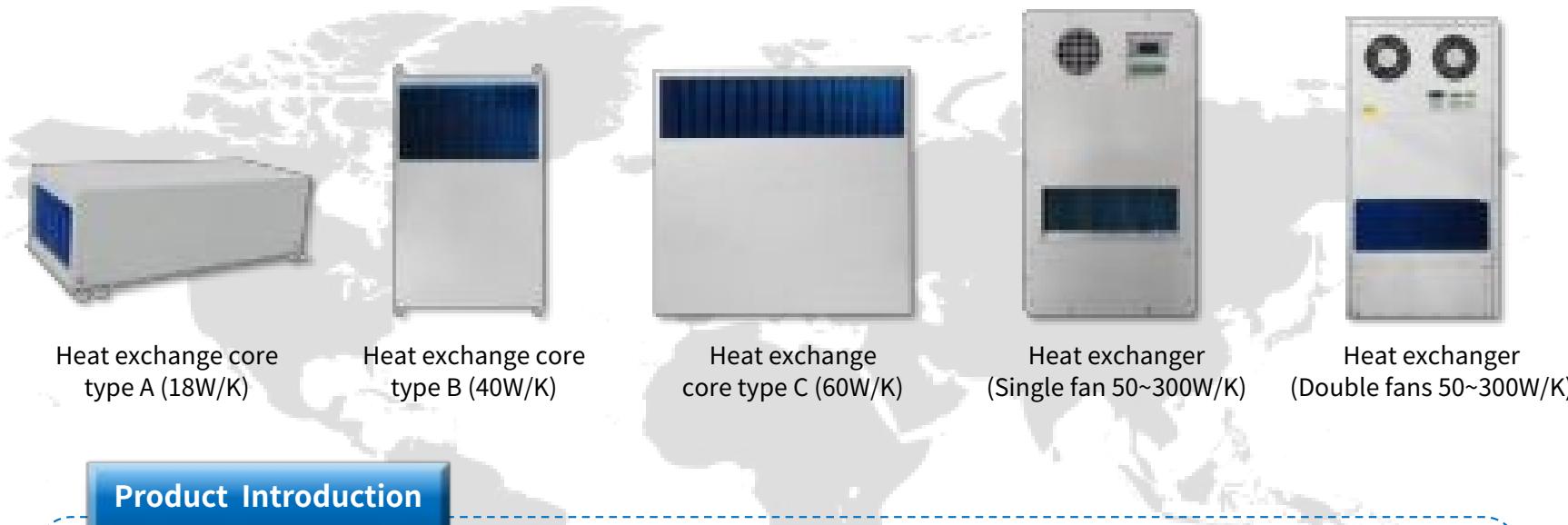
6kW Top air supply type



6kW Side air supply type

## Product Introduction

This special air conditioner is a split type high-temperature anti-corrosion air conditioner, suitable for ambient temperatures ranging from 25 °C to 90 °C. It is mainly used in high-temperature and highly corrosive environments such as electrolytic aluminum workshops, steel mills, chemical plants, papermaking, offshore wind power, rail transit, and food processing. It has the characteristics of high temperature resistance, dust prevention, shock resistance, corrosion resistance, and strong magnetic field resistance.

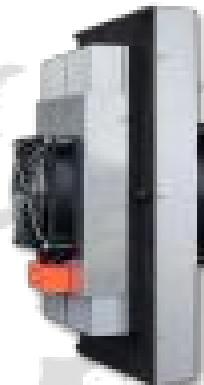


## Product Introduction

This product is widely used in outdoor communication cabinets, battery cabinets, electrical cabinets, industrial control cabinets and other occasions that require heat dissipation; There are multiple automatic protection and comprehensive fault self diagnosis functions, multiple protection functions, visual human-machine interface, RS485 interface (YD/T 1363.3 protocol), stepless speed regulation function of circulating fan, optional heating function, etc.



20~80W  
Peltier Cooler



100~300W  
Peltier Cooler



200~300W  
TEC Air conditioner

## Product Introduction

Semiconductor Cooling unit utilize the Peltier effect of semiconductor materials to achieve refrigeration. When direct current passes through the contact surface of two different types of semiconductor materials, it causes one side to absorb heat and the other side to release heat.

Common voltage: DC12/24V/48V Common power: 20/30/40/50/60/70/80/90/100/150/200/300W



Combined Overcurrent&  
Earth-fault protection relay



Combined Overcurrent&  
Earth-fault protection relay



Earth Fault  
Protection Relay

## Product Introduction

When a system failure occurs, the relay protection device can cut off the faulty equipment, minimizing the power outage range and ensuring that the fault free parts continue to operate.

Advantages: Rapid response capability. When a fault occurs in the power system, relay protection can immediately detect the fault and issue protection signals, thereby avoiding further development of the fault and ensuring the safe and stable operation of the power system.





Temperature and humidity controller



Rotary temperature and humidity controller



Digital display Temperature and humidity controller



Intelligent (RS485) Temperature and humidity controller

## Product Introduction

This product adopts the latest sensor technology with international advanced level. It uses imported high-performance, high-precision, corrosion-resistant, long-life, and highly reliable thermal sensors, and circuits composed of integrated circuits and other precision electronic components. It can work stably and reliably in various natural environments for a long time. Therefore, it has the characteristics of high sensitivity, fast response speed, small size, long life, and easy installation.



Wireless temperature measurement system (passive)



Wireless temperature measurement system (active)



Active wireless temperature measurement sensor



Passive wireless temperature measurement sensor



Ceramic wireless temperature sensor

## Product Introduction

The wireless temperature measuring device is a non-contact intelligent temperature measuring device used in high, medium and low voltage power systems with high requirements for electrical contact temperature. It is a modern high-tech product integrating online temperature measurement, data acquisition, data analysis and control functions, and its various performance indicators have reached the domestic leading level.



Lens diameter 60mm  
Infrared temperature measurement window



Lens diameter 75mm  
Infrared temperature measurement window



Lens diameter 80mm  
Infrared temperature measurement window



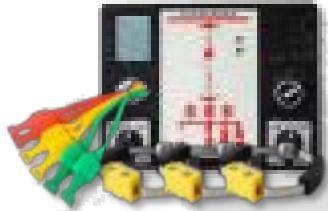
Lens diameter 100mm  
Infrared temperature measurement window



Protection level  
Indoor equipment meets GB3906-2006IP44  
Outdoor equipment meets GB3906-2006IP54

## Product Introduction

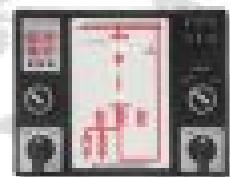
The infrared temperature measurement window is made of two special glass materials, calcium fluoride and barium fluoride, which can penetrate ultraviolet light and visible light. The infrared optical window is installed on the shell of the power switch cabinet. The infrared thermal imager and thermometer commonly used in the power system are used, combined with the "Infrared Guidelines" to identify heating faults. Various non-destructive inspections and maintenance of the internal equipment of the power switch cabinet can be easily carried out through the infrared window to achieve status inspection.



Wireless temperature  
measurement model  
Intelligent control  
device



LCD model  
Intelligent control  
device



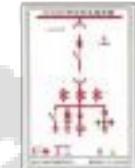
LED type  
Intelligent control  
device



Basic model  
Intelligent control  
device



Type A switch  
status indicator



Type B switch  
status indicator

## Product Introduction

Used for 3~35Kv indoor switch cabinet, central cabinet, trolley cabinet, fixed cabinet, ring network, etc. It has dynamic primary simulation diagram, live display and locking function, temperature and humidity display and control, remote/local and operation function, circuit breaker open/close status display, energy storage indication, grounding switch status indication, human body induction and cabinet lighting, voice error prevention prompt, LCD display. The product provides RS485 interface, MODBUS communication protocol, and can upload information such as ambient temperature, humidity, temperature of each monitoring point and battery power.



Dry type transformer  
Temperature controller



Temperature and humidity  
monitor for new energy box  
transformer



Dry-type transformer  
Computer temperature control box



Dry type transformer  
Temperature controller

## Product Introduction

This instrument uses a single-chip computer made in the United States as the control core. The temperature setting can be achieved by setting a few buttons on the panel, and the set parameters will never be lost after a power outage. It also has a "black box" function that can record the temperature of the three wire winding cores at the moment of power failure of the transformer. In terms of anti-interference, the design adopts anti-interference measures combining hardware and software to jointly monitor the work of the temperature controller, thereby achieving extremely strong anti-interference capabilities. In terms of use, it has the characteristics of simple operation, easy installation, and easy maintenance.



A top blowing type  
Dry type transformer cross flow cooling fan



B side blowing type  
Dry type transformer cross flow cooling fan



Dry-type transformer  
centrifugal cooling fan

## Product Introduction

It adopts the advanced cross-flow structure from abroad and is equipped with micro-motor rotation. It is widely used in dry-type transformer electric control boxes, etc., and can greatly improve the overload operation capacity of transformers and other products. Sanda fans are deeply trusted by dry-type transformer companies across the country. The product specifications are complete (100KVA-3000KVA capacity dry-type transformers can be used together). Each dry-type transformer can be equipped with four to six GF fans depending on the capacity. There are two main types:

(1) Side-blowing fan (2) Top-blowing fan



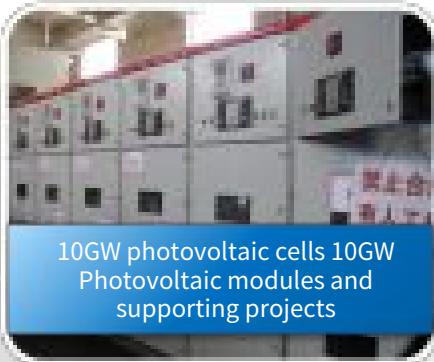
Qujing Economic Development Zone Green Hydropower Silicon Demonstration Base Infrastructure Project



Hefei JA Solar Smart Factory Project



High-tech Lilou Expressway Project Gudi II Line



10GW photovoltaic cells 10GW Photovoltaic modules and supporting projects



Rizhao Port Power Company Pontoon Container Transformer Project



Pingxiang Iron and Steel Power Plant Project



Hengyang TBEA Project



# Partial discharge monitoring host



Switch cabinet  
Partial discharge  
monitoring host



Handheld multi-channel  
partial discharge detector



Transformer partial  
discharge  
Online monitoring IED



Ring network box partial  
discharge temperature rise  
Online monitoring device



Portable multi-function  
partial discharge monitor

## Product Introduction

The partial discharge online monitoring system uses an ultra-high frequency antenna to detect and receive the ultra-high frequency (UHF) signal generated by the partial discharge of the transformer to achieve online monitoring of the partial discharge fault of the transformer. The system makes full use of the ultra-high frequency sensor technology and combines Sanda's many years of technical achievements in transformer online monitoring, making the system unique and leading in sensing technology, online anti-interference, online high-speed data processing and analysis, etc. The system can use the IEC61850 protocol to output signals and can be directly connected to the comprehensive online detection platform of the substation.



# Partial discharge monitoring sensor



GIS partial discharge sensor (built-in)



GIS partial discharge sensor (external)



GIS UHF partial discharge sensor (flange type)



Spatial omnidirectional UHF partial discharge sensor



AE Ultrasonic Sensor



AE Ultrasonic Sensor



UHF Partial Discharge Sensor



UHF Partial Discharge Sensor



Transformer UHF Partial Discharge Sensor



HFCT Partial Discharge Sensor



HFCT Partial Discharge Sensor



TEV Partial Discharge Sensor



3~12 point temperature measurement  
Fluorescent fiber temperature  
measurement system



Transformer  
Fluorescent fiber optic temperature  
measurement system



Fluorescence temperature  
measurement  
Transmitter module



Fluorescence  
temperature  
sensor

## Product Introduction

It adopts internationally advanced fluorescent fiber temperature sensing technology, optical signal transmission, and true passive technology. It has the advantages of high voltage resistance, partial discharge resistance, no electromagnetic interference, high temperature measurement accuracy, wide temperature measurement range, and long life. The product itself does not affect the insulation performance of the main equipment. These characteristics cannot be achieved by traditional wireless temperature measurement. The fluorescent fiber temperature measurement system is suitable for temperature measurement of high and low voltage switch cabinets and box transformer contacts, as well as temperature measurement of ring network cabinet cable plugs, and real-time monitoring of temperature changes at the measured location.



Feeder arc  
(guide rail installation)



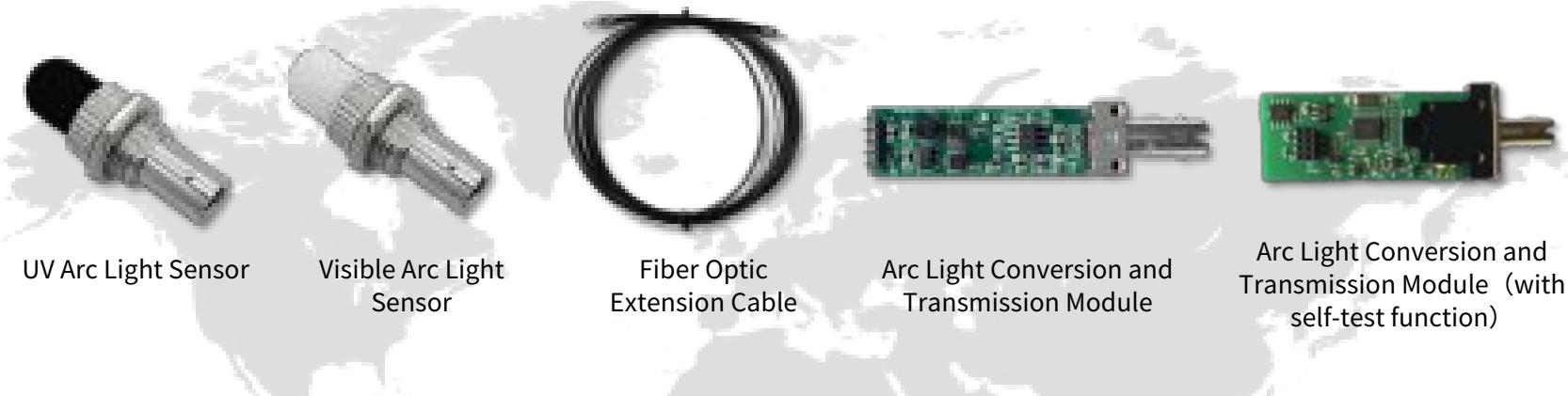
Feeder arcing  
(Panel mounted)



16~32 channels  
Bus arc protection

## Product Introduction

The arc protection system is a new type of arc protection system with wide practicability and high reliability, which is developed independently based on the actual domestic situation, absorbs the characteristics of foreign arc protection, combines the relevant regulations of industry detection and protection configuration, and independently develops unique innovative technology. It adopts the principle of double judgment of arc detection and overcurrent detection, and has the characteristics of fast protection action speed and high reliability.



## Product Introduction

The arc light is a light sensing element that detects arc light. In the event of an arc fault, the light intensity increases dramatically, and the arc-light converts the light signal into an electrical signal that is transmitted to the arc-light protection or arc-light extension device. Arc light sensors are installed in the switchgear cabinet to monitor those vulnerable but important parts. For example, busbar spacing in the switchgear, CT and PT components in the lower part of the switchgear, circuit breaker contacts, cable connectors and so on.



Huaxi  
Engineering Project



Electric Power  
Bureau project



Switchgear Project



Renovation of Sinovac Biotech distribution room



Wind Farm Project



Grain Depot Project



Technology Park Project



## PART 03

# QUALITY >> CONTROL

Control Model

After-sales

Partner



## 1. Evaluation of Projects

Review of completeness of information

## 3. Process Design

Analyse product characteristics, develop PFMEA, focus analysis

## 5. Trial Production

Confirmation of BOM and product consistency, confirmation of assembly, confirmation of SOP, confirmation of JIG, recording and improvement of trial production problem points, ECN control.

1

2

3

4

5

6

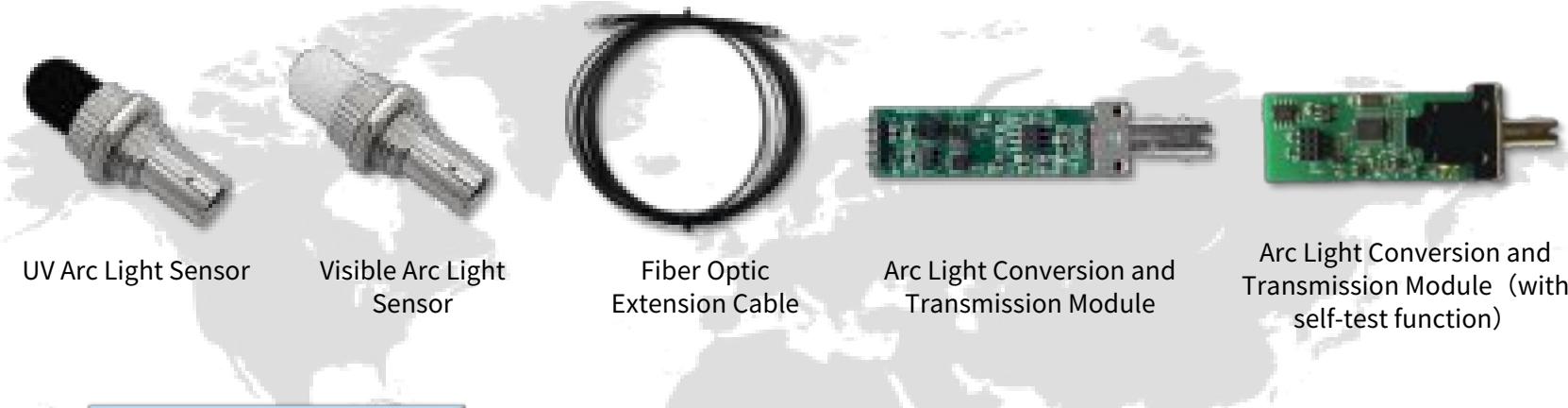
## 2. Design Evaluation

## 4. Quality Control

Develop quality control plans and inspection specifications based on Flowchart, PFMEA, and BOM, and propose gage requirements.

## 6. Start Production

mass production



## Product Introduction

The arc light is a light sensing element that detects arc light. In the event of an arc fault, the light intensity increases dramatically, and the arc-light converts the light signal into an electrical signal that is transmitted to the arc-light protection or arc-light extension device. Arc light sensors are installed in the switchgear cabinet to monitor those vulnerable but important parts. For example, busbar spacing in the switchgear, CT and PT components in the lower part of the switchgear, circuit breaker contacts, cable connectors and so on.

## Quality Control For Mass Production

### Material Quality Control

#### Supplier Regulation

Rigorous evaluation  
List management  
performance appraisal

#### Material Inspection

Sample Trial   Sample approval

#### Purchased parts approval

Random sample  
Inspection Standards  
Gauge Management

#### Material Exception Handling

Defective product control  
Abnormal quality of raw materials

### Operational Standardisation

#### Operational standardisation

Production standardisation  
Standardization of process parameters  
Tool standardisation   Specialisation of personnel

#### Managing Visualisation

Clear division of production areas  
Product status is clearly labelled

#### process inspection

Process Inspection Standards  
QC three inspection operation

#### Process Exception Handling Mechanism

Non-conforming product control  
Process Quality Abnormalities

### Ex-factory Quality

#### Shipping Inspection

Shipment Inspection Specification  
Packaging Inspection  
Shipping list reconciliation

#### Shipment Exception Handling Mechanism

Non-conforming product control  
Shipment Quality Abnormalities





## Clients Served



Currently, Sanda has reached long-term strategic cooperation with 2 Fortune 500 companies, several state-owned enterprises, central enterprises, listed companies and other enterprises (in no particular order)



# Thanks For Watching

Sanda Temperature Control System Serves Global Electricity

**Web:** [www.sandacool.com](http://www.sandacool.com)

**INS:** [sandacoolcn](https://www.instagram.com/sandacoolcn)

**Youtube:** [www.youtube.com/@sandacool](https://www.youtube.com/@sandacool)

**Linkedin:** [www.linkedin.com/in/peltiercooler](https://www.linkedin.com/in/peltiercooler)

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