Tianer 天尔

Tianer Intelligent Equipment Management Platform

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Company Profile

Yancheng Tianer Machinery Co., Ltd. was established in 2004 and is located in Chengnan Economic Development Zone, Dafeng District, Yancheng City, Jiangsu Province, known as the "Land of Deer". The company has always focused on the research and development, production, and sales of compressed air post-treatment equipment, and has always adhered to the green development path of "efficiency, stability, environmental protection, and energy conservation".

The company has been awarded titles such as National High tech Enterprise, Provincial Specialized and Innovative Small and Medium sized Enterprise, Provincial Excellent Enterprise in Science and Technology Innovation, Provincial Excellent Brand Award in Machinery Industry, and Provincial Pilot Enterprise for Foreign Trade Integration. The company has also been recognized as the drafting unit of the group standard for "refrigerated compressed air dryers for laser cutting machines".

In the future, we will continue to rely on the development path of "technology+industry" and achieve significant results in areas such as green environmental protection, comprehensive development of marine economy, and medical equipment.

Tianer Product Line

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01

Dryer series

02

R513A New refrigerant series

03

Deep customization series

04

Cloud platform

Smart Factory

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12000㎡
area

80000units
annual output

180second
The fastest offline finished product

RGV
Modern automated production line

Innovation First

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5 pieces
Invention Patent

20 +
Utility Model Patent

2 pieces
software copyright

Innovation First

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With the acquisition of 2 software patents, Tian'er has mastered software root technology, source code, professional self-developed capabilities, and is protected by intellectual property rights.

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计算机软件著作权登记证书

证书号：软著登字第10959015号

软件名称：变频冷干机控制软件
V1.0

著作权人：盐城天尔机械有限公司

权利取得方式：原始取得

权利范围：全部权利

登记号：2025SR0302817

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2025年02月20日

Variable frequency refrigerated dryer Software Copyright

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计算机软件著作权登记证书

证书号：软著登字第16509640号

软件名称：天尔物联网设备智能管理APP
[简称：天尔智能]
V2.4.2

著作权人：盐城天尔机械有限公司

权利取得方式：原始取得

权利范围：全部权利

登记号：2024SR2105667

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2024年12月17日

Tian'er Intelligent APP Software Copyright

Innovation First

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- The enterprise has been awarded the title of high-tech enterprise.
- The enterprise has been recognized as a specialized, refined, unique, and new small and medium-sized enterprise in Jiangsu Province.
- The refrigerated dryer product has won the Jiangsu Province Compressor Industry Science and Technology Progress Contribution Award multiple times.

高新技术企业
证书

企业名称：盐城天尔机械有限公司　　证书编号：GR202432005441

发证时间：2024 年 11 月 19 日　　有 效 期：三 年

批准机关：

No. 20233142

证　书

盐城天尔机械有限公司：

你单位被认定为2023年度江苏省专精特新中小企业，有效期为2023年至2026年。

特发此证。

江苏省工业和信息化厅

二〇二三年十二月

Product Certification

Tianer 天尔

认证证书

证书号：11422Q45225R1S

兹证明

盐城天尔机械有限公司

统一社会信用代码：91320982758494892C

注册地址：盐城市大丰区大中工业园区富康路23号

生产/办公地址：江苏省盐城市大丰区大中工业园区富康路23号

质量管理体系符合标准

GB/T19001-2016/ISO9001:2015

运用范围

一般用冷冻式压缩空气干燥器（容积流量0.5~400m³/min，压力≤1.6MPa）、一般用吸附式压缩空气干燥器（容积流量0.5~400m³/min，压力≤1.6MPa）、无油静音直联往复空气压缩机（容积流量0.1~1m³/min，压力≤1.25MPa）的生产

签发：

北京东方纵横认证中心有限公司

EACC IAF CNAS

IOS9001

国家认监委批准号：CNCA-R-2002-088

证书编号：2021GCCA02012020101

GCCA

CNAS

产品质量安全认证证书

以下认证产品性能及安全指标符合GCOD9001《压缩机产品认证实施规则》的要求。本证书的有效性依据发证机构的定期监督获得保持。

申请方：盐城天尔机械有限公司 江苏省盐城市大丰区大中工业园区富康路23号

生产厂：盐城天尔机械有限公司 江苏省盐城市大丰区大中工业园区富康路23号

认证产品：一般用冷冻式压缩空气干燥器

范围：容积流量0.5m³/min~400m³/min，压力≤1.6MPa

依据标准：JB/T 10526-2017 一般用冷冻式压缩空气干燥器

认证模式：工厂生产能力确认 + 产品检验 + 获证后监督

签发：

合肥通用机械产品认证有限公司

发证日期：2021年11月06日

有效期至：2026年11月05日

GCCA

UDEM

CERTIFICATE

ATTESTATION CERTIFICATE OF MACHINERY AND ELECTROMAGNETIC COMPATIBILITY DIRECTIVES

Technical file of the company mentioned below has been observed

2006/42/EC Machinery Directive and 2014/30/EU Electromagnetic Compatibility Directive have been taken as references for these processes

Company Name	: Yancheng Tianer Machinery Co., Ltd.
Company Address	: No. 23, Fukang Road, Dashong industrial park, Yancheng Jiangshu, China
Related Directives and Annex	: 2006/42/EC Machinery Directive 2014/30/EU Electromagnetic Compatibility Directive
Related Standards	: EN ISO 12100:2010; EN 60204-1:2018; EN IEC 61000-6-4:2019 EN IEC 61000-6-2:2019; EN IEC 61000-3-2:2019+A1:2021 EN 61000-3-3:2013+A1:2019
Product Name	: Refrigeration Dryer
Report No and Date	: RBT22031416078R-1; RBT22031416078R-1
Product Brand/Model/Type	: SLDB-5HP, SLDB-10HP, SLDB-20HP, SLDB-30HP, SLDB-50HP, TR-5HP, TR01, TR02, TR03, TR06, TR08, TR10, TR12, TR15, TR20, TR25, TR30, TR40
Certificate Number	: M.2022.206.C72109
Initial Assessment Date	: 21.03.2022
Registration Date	: 22.03.2022
Reissue Date/No	: -
Expiry Date	: 21.03.2027

UDEM International Certification Auditing Training Centre Industry and Trade Inc.Co.

CE

UDEM

CE

Production testing equipment

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- Fully automatic copper pipe straightening, cutting, and bending machine, combined with a six axis robot arm, completely replaces manual labor and can complete a standard piping operation in an average of 30 seconds.
- Transport vibration test bench, simulating the impact of long-distance transportation vibration on products, ensuring that dryer products can adapt to various transportation road conditions.

Production testing equipment

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- The comprehensive performance testing laboratory for dryers, jointly built with Jiangsu University of Science and Technology, automatically generates test reports.
- The laboratory can simulate various practical operating conditions and use multiple dew point data comparisons to ensure the authenticity and accuracy of dew point data.

Production testing equipment

- Integrated vacuum pumping, leak detection, precise refrigerant filling.
- Ensure consistency of each refrigerated dryer to avoid human error.

AGV automatic guided vehicle

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- Introducing intelligent unmanned intervention AGV automatic handling vehicles, which automatically transport finished machines that have been taken offline from the production line to designated finished product storage locations, while also transporting raw materials from the warehouse to designated workshop online storage locations, greatly improving production efficiency.

Product going global

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150000 units

Accumulated overseas shipments

120 +

Overseas countries and regions

60 +

Agents and distributors

R513ANew environmentally friendly refrigerant refrigerated dryer

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R513A

R513A

Environmentally

R513AThe ozone depletion potential (ODP) of refrigerants is 0, which does not cause damage to the ozone layer. Meanwhile, its GWP value is much lower than R134a, which helps to reduce the impact of global warming.

Refrigeration performance

The freezing capacity of R513A refrigerant is equivalent to R134a, which can meet the needs of various refrigeration systems.

Energy efficiency

The energy efficiency of R513A refrigerant is similar to R134a, ensuring efficient operation of the refrigeration system.

Safety

R513A refrigerant is non-toxic and non flammable, meeting the A1 level fire safety requirements of ASHRAE standards, and has high safety during use.

R513A new environmentally friendly refrigerant refrigerated dryer

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R513A

TR series

- **Environment protection secure** → Support R513A new refrigerant, non-toxic, non flammable, and does not damage the ozone layer
- **Support frequency conversion** → Power frequency series
  DC frequency conversion series
- **Expansion valve** → Expansion valve is standard across the entire series
- **Intelligence** → Standard configuration with dew point display function
  Intelligent controller, remote monitoring

Tianer intelligent management platform

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The industrial Internet platform based on multi-source awareness technology uses cloud computing, hardware gateway, big data and other technologies to collect data from industrial equipment to achieve remote control of equipment, remote upgrade of OTA, fault alarm and real-time monitoring, equipment maintenance, predictive maintenance, big data analysis and other functions, so as to provide customers with efficient operation and maintenance cloud services.

AI driven intelligent refrigerated dryer

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voltage current
Overload and overheating

Ambient temperature
Intake air temperature

Air flow

Dew point temperature
Working pressure

Running state
Running time

All In Cloud AI

APP

Energy conservation

AI energy-saving management, dynamically adjust the compressor according to the load, and enter energy-saving mode

Fault diagnosis

Remote monitoring and regulation
AI predicts faults for early maintenance

Intelligent adjustment

AI automatically adjusts the operating status based on parameters such as environmental temperature and humidity, intake temperature, etc

The intelligent refrigeration dryer combined with AI has improved efficiency, user experience, and environmental performance, representing the development direction of future refrigeration equipment

Tianer Intelligent + deepseek

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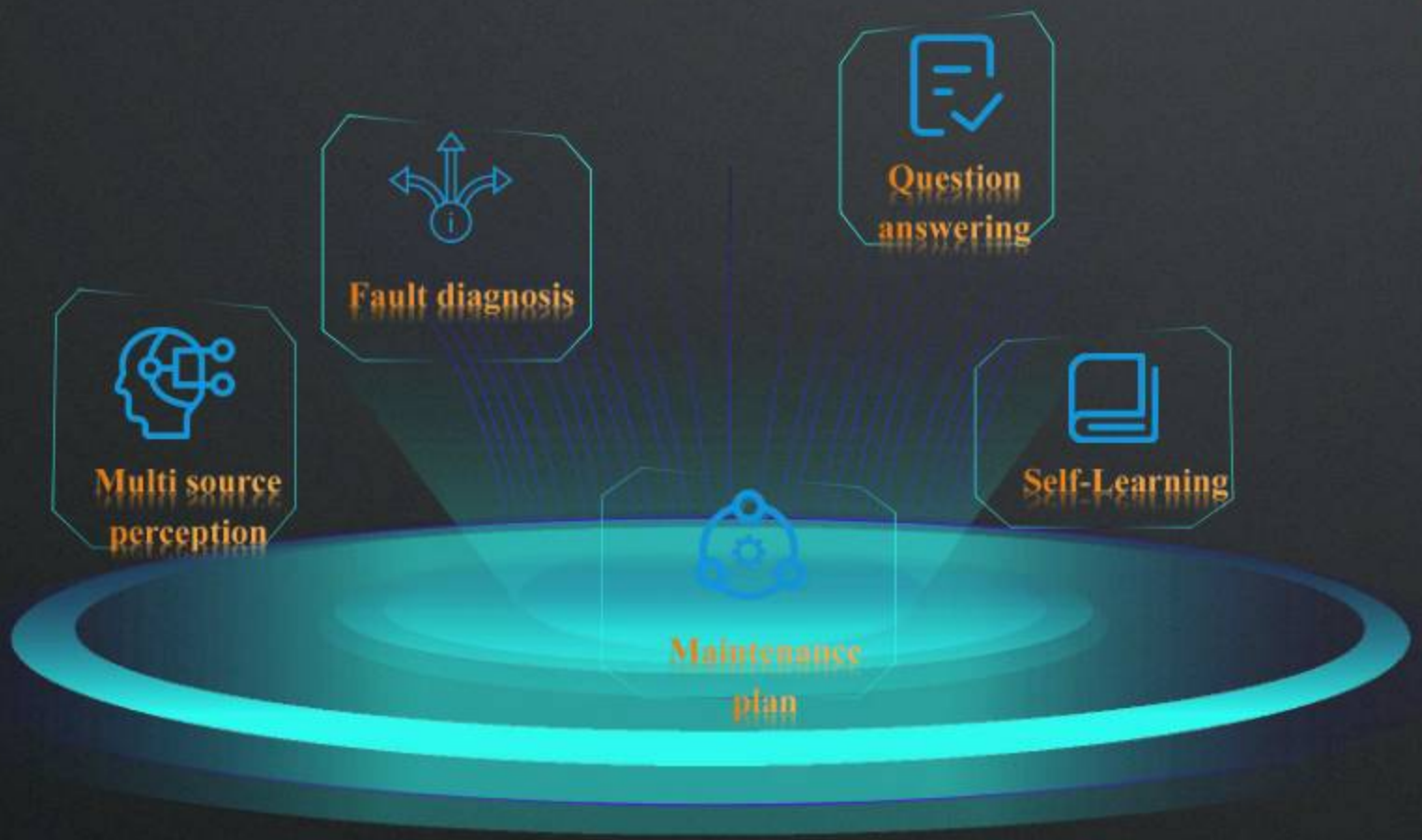

- Perception
- Decision-making ability
- Mobility
- Iearning ability
- Autonomy

Tianer Deepseek Intelligent Agent - Generative AI Fully Empowered

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Simple question:

May I ask why my device has stopped working?

Tianer AI reasoning process

Automatically obtain working conditions

↓

Combined with Tianer maintenance data

↓

Searching for big data

↓

Provide repair suggestions

Solved it!

Tianer Deepseek Intelligent Agent - Generative AI Fully Empowered

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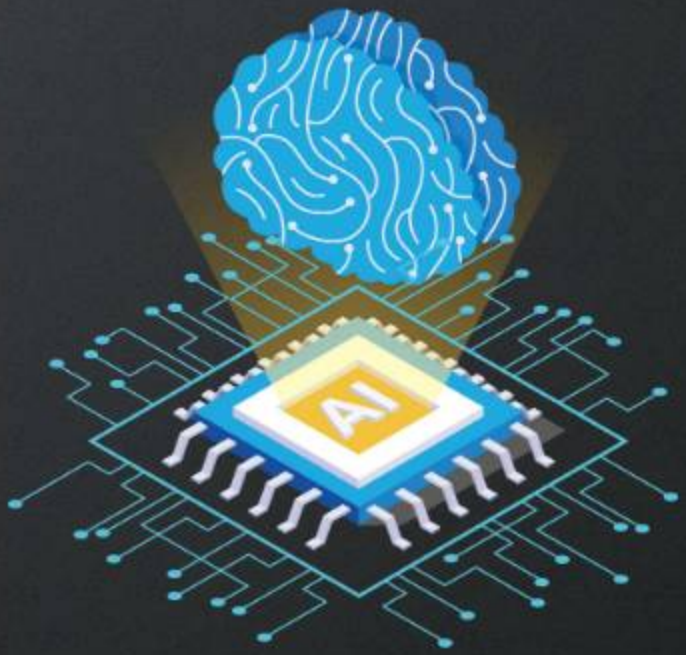
Not only alarm
Provide repair suggestions:



Tianer Deepseek Intelligent Agent - Generative AI Fully Empowered

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AI customer service

扫一扫 问AI

Main characteristics of robots:

1. Interpretation of Product Manual
2. Can display pictures and operation videos
3. Support voice dialogue
4. Support device status query

Data Security - ISO27001 Security Certification

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A sturdy shield for enterprise information security

Data Security - Network Architecture

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Distributed microservice architecture

luster deployment+load balancing

ultiple fault tolerance and
information processing mechanisms

Stable, efficient, and fast service
Less faults, stronger information processing

Data security

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Record API requests

Encrypted transmission

Request restriction

Encryption protocol

Comprehensive guarantee of data security

Parameter verification

Access control

Unified encapsulation return

Authentication and authorization

Input validation

password authentication

Enhance the quality awareness of all employees

Device privacy and security

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Must be shared by the device itself with others

Permission self-management

System Architecture

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Application Release

Web end management background, large screen display of monitoring center, device manufacturer/user end APP, WeChat official account

Project management

Customer management

API docking

Equipment map

Operation and Maintenance Large Screen

Data center

Real time monitoring of equipment

Fault Alarm

life cycle

Equipment positioning

Maintenance Calendar

Rights Management

Remote control

Maintenance Work Order

Message notification

Big Data Analysis

IoT terminal

4G—WIFI—LoRa

Access Protocol Management

Intelligent Gateway

OTA upgrade

Access security authentication

Functional Features

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Real-time Monitoring

01

- 24-hour uninterrupted monitoring of equipment data to ensure safe operation
- Through Internet technology, managers can access monitoring data remotely, Realize remote monitoring and management

Data Analysis Report

02

- Automatically collect and store data, reduce the need for inspection and recording, and improve the efficiency of data management
- Automatically analyze equipment health data and provide operational recommendations

Warning and alert

03

- According to different needs, the system can be flexibly configured to adapt to different usage scenarios and environments
- When the preset safety range is exceeded, the system will automatically issue an alarm and promptly notify management personnel to take

Production safety

04

- Real time monitoring, timely safety anomalies
- Automatically shut down when abnormalities are detected to prevent equipment damage

Remote control

05

Realize remote real-time monitoring and centralized management, reduce the frequency and cost of manual supervision and inspection, and improve operational efficiency.

- Reduce losses and waste caused by equipment malfunctions or improper operation

Responsibility determination and traceability

06

- Once a production problem occurs, data can be quickly traced and corresponding measures taken to help clarify responsibility attribution
- Avoid the problem of unclear responsibility determination

Equipment networking device- DTU

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Support WIF and
4G communication

Ultra long communication
distance

Super Wall
Penetrating King

ExternalD
TU

485 interface

Built-inDTU

Remote Upgrade

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- Remote troubleshooting
- Remote Upgrade
- Commonly used and frequently updated

Predictive maintenance function based on AI algorithm

Build a mechanism+AI diagnostic model, automatically monitor the health status of equipment, provide intelligent diagnostic reports and operation and maintenance suggestions, solve the problem of expensive after-sales labor, long distance, and inability to respond in a timely manner, accurately analyze faults, and save costs for efficient operation and maintenance.

Compressor start-up frequency protection

Compressor overload/ three-phase unbalance protection

Compressor oil flow protection

Communication abnormality

Compressor overheat protection

Exhaust temperature protection

High and low dew point alarm

Memory malfunction

Oil pressure differential protection

Missing item/wrong phase protection

High and low voltage alarm and protection

Dew point sensor malfunction

Globalization

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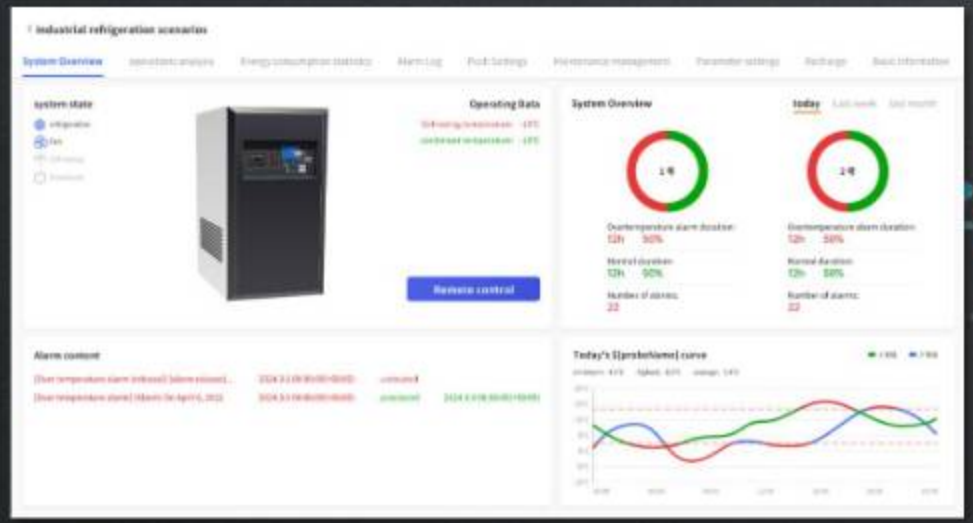
The platform supports coverage in over 120 countries and regions, remote operation and maintenance, and real-time resolution of customer issues, greatly reducing operation and maintenance costs.



Multiple remote alarm methods

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Notify relevant personnel of faults or abnormal situations in a timely manner through various alarm methods. And it supports multi-level alarm and warning mechanisms, with alarm types that can be flexibly configured according to the rule engine settings.

WeChat official account alarm

SMS alarm

APP alarm

Telephone alarm

Real time positioning

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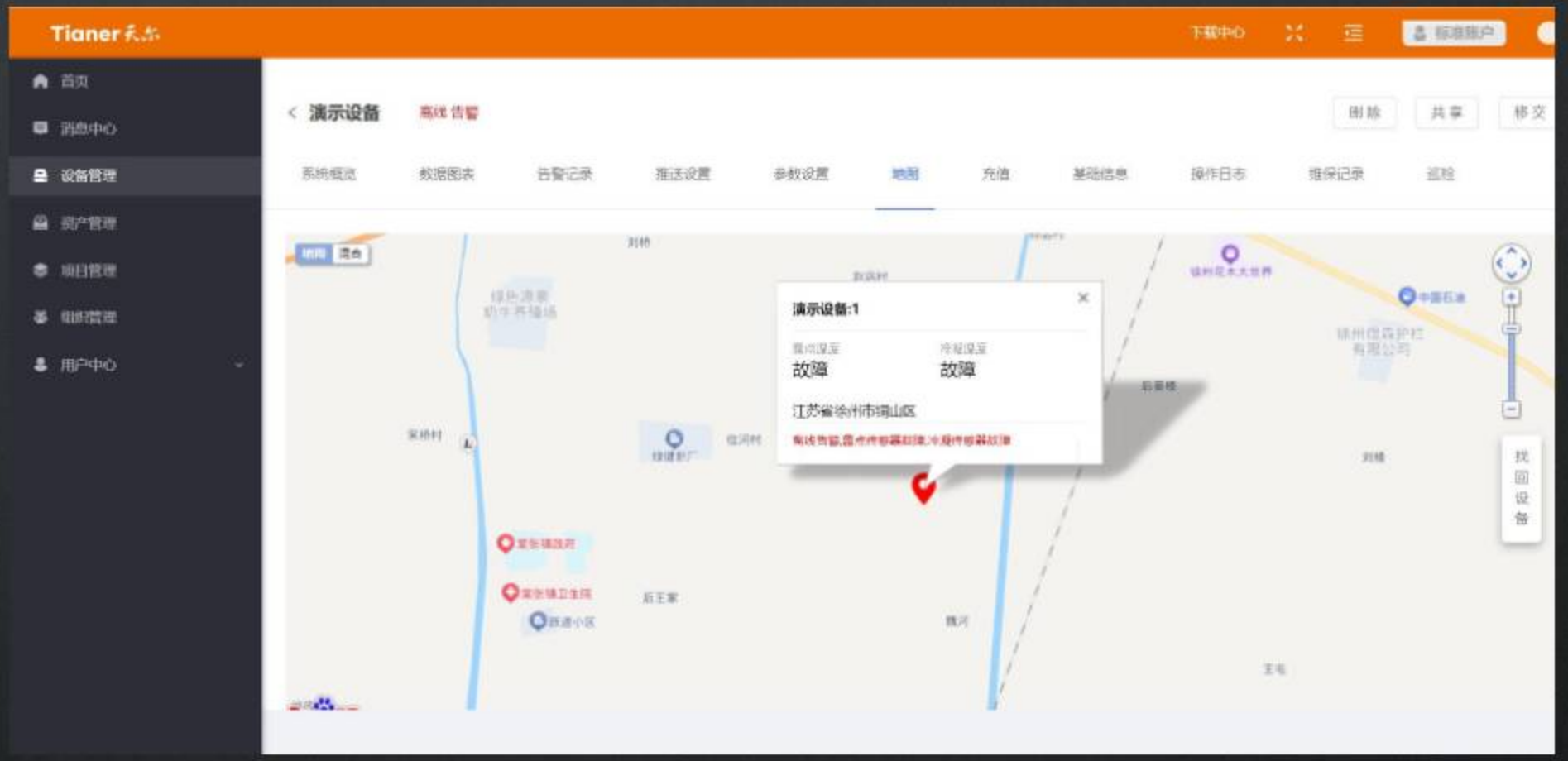
Quickly locate and promptly obtain the geographical location of the equipment, which can be used for emergency response and real-time monitoring, as well as regional management of assets

APP



PC

On-Site Inspection

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By collecting fault alarms, real-time status and other data, accurately locating fault information, conducting inspections, taking photos and records, and promptly notifying maintenance

Inspection Plan

Inspection and photography

Remote control

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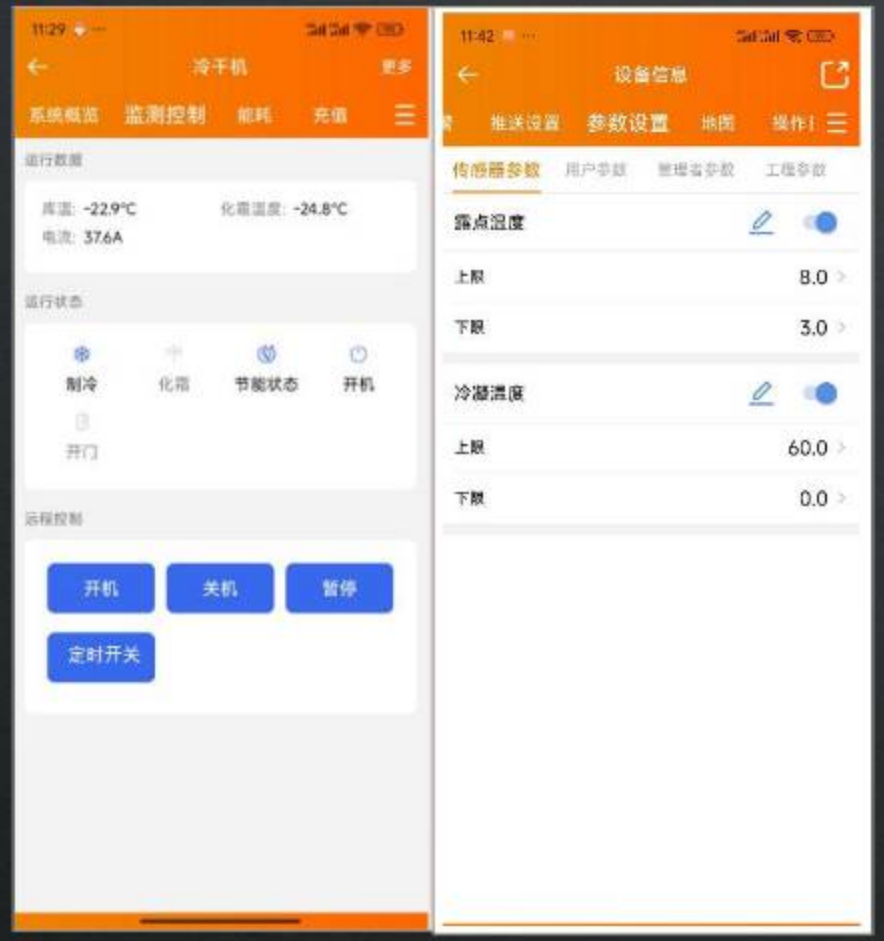
Start and stop refrigeration compressors and condensing fans to achieve precise control of dew point temperature and condensing temperature.



APP

PC

Customer value enhancement brought by the platform

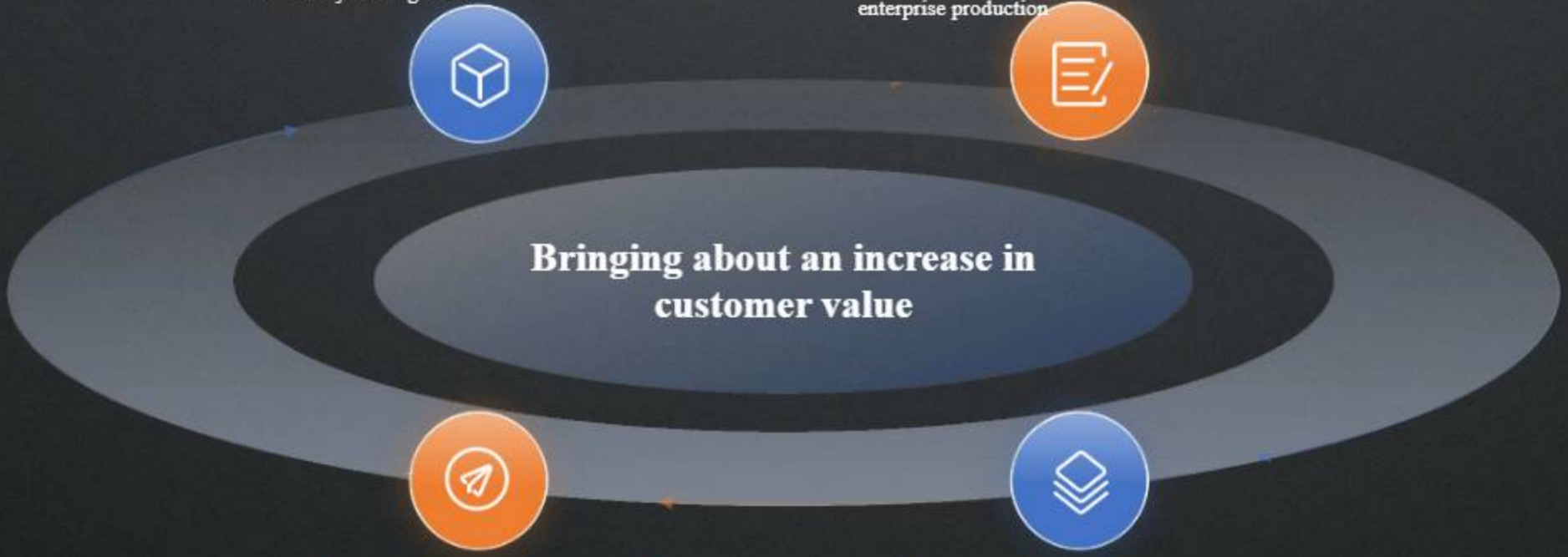
Assist enterprises in safety production, low-carbon environmental protection, energy conservation and consumption reduction, quality and efficiency improvement, and lean management

The value of networking

Meet the user needs of the industry, connect devices to the cloud to solve problems of low efficiency and high risk

Safety value

Realize the transformation from "post maintenance" to "predictive maintenance", reduce manual inspections and equipment downtime, and ensure the continuity of enterprise production



Asset Management

Effective supervision of assets, allocation of permissions, and digital management of assets

Energy saving management

Utilizing AI to achieve intelligent energy management
Realize energy conservation and emission reduction, reduce costs and increase efficiency

Tianer Intelligence - Embracing the AI Era

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扫一扫 问AI

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Search for App Store:

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