

杭州洲钜电子科技有限公司

HANGZHOU ZHOUJU ELECTRONIC TECHNOLOGICAL CO.,LTD

SPT 洲钜科技

杭州总部地址/HQ Hangzhou Address:

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Yuhang District, Hangzhou, 311121, China

长春研究院地址/Changchun Research Institute Address:

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No.5177 Chaoda Avenue, High-tech Zone, Changchun,
Jilin Province, 130103, China

安吉工厂地址/Anji Manufacturer Base Address:

湖州市安吉县天子湖大道139号
No.139 Tianzihu Avenue, Anji County, Huzhou,
Zhejiang Province, 313399, China



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成为全球一流的电机控制系统服务商

TO BE A WORLD-CLASS MOTOR CONTROL SYSTEM SERVICE PROVIDER

INNOVATION MAKES IT EASY

创新成就至简

SPT
洲钜科技

COMPANY PROFILE >>

公司简介

愿景 VISION

成为全球一流的电机控制系统服务商

TO BE A WORLD-CLASS MOTOR CONTROL SYSTEM
SERVICE PROVIDER .

使命 MISSION

以科技驱动绿色未来

POWERING A GREEN FUTURE THROUGH TECHNOLOGY.

价值观 VALUES

勤勉务实， | 严谨专注， | 诚信服务，
开放包容； | 敢为人先； | 协同发展。DILIGENCE & PRAGMATISM, OPENNESS & INCLUSIVITY;
RIGOR & FOCUS, DARING TO PIONEER;
SERVICE WITH INTEGRITY, COLLABORATIVE GROWTH.

洲钜科技是一家致力于直流电机驱动类产品算法研究、软硬件开发、PCBA制造和销售的高科技企业。公司目前由杭州总部、长春研究院、安吉制造基地三部分组成。

公司拥有行业一流的研发团队，为客户提供先进的电机驱动系统解决方案。安吉制造基地占地30亩，厂房面积30000平方，电控板年产能可达1600万套，拥有完善的制造体系及品质保证能力。

Zhouju Technology is a high-tech enterprise dedicating to algorithm research, software and hardware development, PCBA manufacturing, and sales of DC motor drive products.

The company comprises three parts: Hangzhou headquarters, the Changchun Research Institute, and the Anji Manufacturing Base.

With an industry-leading R&D team, the company provides customers with advanced motor drive system solutions. The Anji Manufacturing Base covers an area of 30 acres, with a factory building area of 30,000 m² and an annual production capacity of 16 million PCBAs. It boasts comprehensive manufacturing systems and robust quality assurance capabilities.

公司成立

2010.07

COMPANY FOUNDED

员工数量

600+

NUMBER OF EMPLOYEES

发明专利

30

INVENTION PATENT

实用新型专利

24

UTILITY MODEL PATENT

>> DEVELOPMENT HISTORY

发展历程

依托于国家863新能源汽车重大专项，创始技术团队初步具备了电机控制算法能力

Initial capabilities in motor control algorithms was acquired relying on the National 863 Major Project for New Energy Vehicles.

2006

洲钜成立于杭州余杭

Zhouju was founded in Yuhang, Hangzhou.

2010

搭建洲钜第一条PCBA生产线

Set up Zhouju's first PCBA production line.

2014

洲钜安吉工厂正式投入使用

Zhouju Anji Factory was officially put into operation

2021

2009

技术团队在吉林大学物理学院完成全球首例基于8位单片机的无感FOC样机
The world-first sensorless & FOC prototype based on an 8-bit microcontroller was Completed , leveraging the technical team's research foundation at the School of Physics, Jilin University.

2011

第一代变频电控平台产品批量生产
The First-generation variable frequency motor control platform has successfully commenced mass production.

2018

第二代变频电控平台完成所有验证，正式推向市场
The Second-generation variable frequency motor control platform has conclusively concluded all its verification and lanchd to the market.

2025

杭州新总部投入使用，并于当年成为国家级小巨人企业
Relocation of the Hangzhou Headquarters Became a National-Level "Little Giant" Enterprise

R&D CAPABILITY

研发能力

RESEARCH TEAM >>

科研团队



专家人才

EXPERT TALENT

研发中心下设长春研究院、杭州研发部、试验中心。研发人员八十余人，其中博士五人、硕士十余人，高级工程师三人、资深行业专家二十人。

The R&D Center comprises the Changchun Research Institute, the Hangzhou R&D Department, and the Experimental Center. It employs over **80** R&D engineers, including **5** PhD, more than **10** Masters, **3** Senior Engineers, and over **20** Senior Industry Experts.



校企合作

UNIVERSITY-ENTERPRISE
COOPERATION

公司与吉林大学开展深度技术合作，拥有特聘教授四人。研发团队秉承“创新成就至简”理念，深耕直流变频驱动及智能控制领域，理论研究和应用技术水平行业领先。

Zhouju has not only established in-depth technical collaboration with Jilin University but also has four specially appointed professors. Guided by the philosophy of "INNOVATION MAKES IT EASY," the R&D team possesses profound expertise in the fields of DC variable frequency driver and intelligent control systems, achieving industry-leading standards in both theoretical research and technological application.

PATENTS >>

科技专利

01



国家
高新技术企业

National
High-Tech Enterprise

02



国家
小巨人企业

National
"Little Giant" Enterprise

03



浙江省
企业研究院

Zhejiang Provincial
Enterprise Research Institute

04



浙江省
专精特新中小企业

Zhejiang Provincial
"Zhuan-Jing-Te-Xin" SMEs

05



浙江省
创新型中小企业

Zhejiang Provincial
Innovative SMEs

公司拥有专利及软件著作权六十余项，其中发明专利三十项，并于2014年通过“国家重点支持的高新技术企业”认证，2018年通过“杭州市企业高新技术研究开发中心”认定，2020年被浙江省科学技术厅认定为“省级高新技术企业研究开发中心”，2023年获得浙江省企业研究院称号。

The company holds over 60 patents and software copyrights, including 30 invention patents. It was certified as a "National Key Supported High-tech Enterprise" in 2014, recognized as the "Hangzhou Enterprise High-tech R&D Center" in 2018, designated as the "Provincial High-tech Enterprise R&D Center" by the Zhejiang Provincial Department of Science and Technology in 2020, and awarded the title of "Zhejiang Provincial Enterprise Research Institute" in 2023.



EXPERIMENTAL CAPABILITY

试验能力

01

试验中心符合ISO 17025实验室质量体系及ISO 9001管理体系。

The Testing Center is compliant with the ISO 17025 (laboratory management system) and the ISO 9001 (quality management system).

02

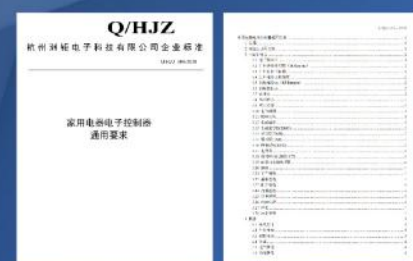
基于IEC 60335、IEC 61000、IEC 55014、UL 60730、GB 4343、GB 4706等国际国内标准，制定了涵盖安规、功能、性能及环境适应性等维度的企业标准体系。

Based on international and national standards such as IEC 60335, IEC 61000, IEC 55014, UL 60730, GB 4343, and GB 4706, Zhouju has established a corporate standard system covering safety compliance, functionality, performance, environmental adaptability, etc.

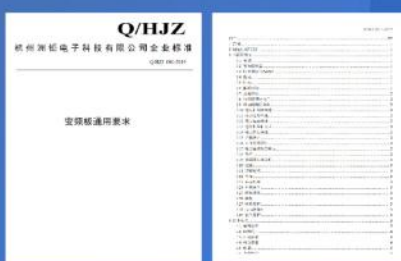
企标体系在各项技术指标上均高于现行国际/国家标准要求，达到行业领先水平。

Zhouju's corporate standard system consistently exceeds all current international and national standards across every technical indicator, achieving industry-leading status.

杭州洲钜电子科技有限公司企业标准
《家用电器电子控制器通用要求》



杭州洲钜电子科技有限公司企业标准
《变频器通用要求》



EMC综合试验能力

EMC COMPREHENSIVE TESTING CAPABILITY



电磁屏蔽室
EMC Chamber



EMS测试系统
EMS Test System



EMI测试系统
EMI Test System

全面的EMC试验

COMPREHENSIVE EMC TESTING

配备843国标C级电磁屏蔽室，满足军工级高精度电子产品检测需求。测试能力涵盖：电快速瞬变脉冲群抗扰度、电压暂降、中断、浪涌、静电放电、传导电压、传导功率等；EMC专家团队为PCBA、整机、系统提供专业的整改服务及完善的解决方案。

It is equipped with a National Standard Class C electromagnetic shielding chamber (per GB 843) and meets the testing requirements for military-grade, high-precision electronic products. Testing capabilities cover: Electrical Fast Transient (EFT) immunity, burst immunity, voltage dips and interruptions, surge immunity, electrostatic discharge (ESD) immunity, conducted disturbances, and power line conducted immunity. Our EMC expert team provides complete troubleshooting and optimization services, along with tailored solutions for PCBA, finished products, and integrated systems.

EMS测试系统

EMS TEST SYSTEM

配置全项目抗扰度测试系统，包括：

6kV/3kA浪涌冲击、4kV群脉冲、0-120%电压暂降与中断模拟、20kV静电放电测试等。

Equipped with a full suite of immunity test systems, including: 6 kV / 3 k surge immunity test, 4 kV Electrical Fast Transient (EFT)/Burst immunity test, simulations of 0-120% voltage dips and interruptions, 20 kV Electrostatic Discharge (ESD) immunity test.

EMI测试系统

EMI TEST SYSTEM

采用德国罗德&施瓦茨全频段测试系统：

频率覆盖：9kHz-3GHz；

最大测试功率：80kW；

检测灵敏度：≤-120dBm（符合CISPR 32 Class B标准）

Utilizes a full-frequency-band test system from Rohde & Schwarz (Germany), featuring:

Frequency range: 9 kHz to 3 GHz

Maximum test power: 80 kW

Detection sensitivity: ≤ -120 dBm (compliant with CISPR 32 Class B standard)

可靠性验证能力

RELIABILITY VERIFICATION CAPABILITIES



可靠性验证室
Reliability Verification Lab



环境试验箱
Environmental Test Chamber



振动测试系统
Vibration Testing System

完善的可靠性验证

COMPREHENSIVE RELIABILITY VERIFICATION

完整的环境可靠性测试能力，配备高低温湿热试验箱8台、温度冲击试验箱2台、大容量盐雾试验箱1台、振动测试系统2套；覆盖400*650*600mm产品环境适应性测试，支持施加电应力、外接负载的加速寿命及环境耐受试验，先进的试验监测手段及数据分析能力。

It has comprehensive environmental reliability testing capabilities, including 8 high-low temperature&humidity chambers, 2 thermal shock chambers, 1 large-capacity salt spray chamber, and 2 vibration systems. This facility can test products up to 400×650×600mm for environmental adaptability, supports accelerated life and endurance testing with electrical stresses and external loads, and is equipped with advanced monitoring and data analysis systems.

环境试验箱

TEMPERATURE TEST CHAMBER

湿热交变系统：

极端温度测试：-70℃~180℃（精度±1℃）

宽域湿度控制：20%~98%RH（波动±2%RH）

双模式高低温冲击系统：冲击范围-70℃~200℃

10秒极速温变，5分钟快速稳定

Temperature-Humidity Cycling System:

Extreme Temperature Range: -70 °C to +180 °C (±1 °C)

Humidity Range: 20 % to 98 % RH (±2 % RH)

Dual-Mode High/Low Temperature Shock System:

Rapid Temperature Transition: ≤ 10 seconds

Quick Stabilization Time: ≤ 5 minutes

振动测试系统

VIBRATION TESTING SYSTEM

三轴测试能力，支持正弦、随机、驻留、冲击模式

最大加速度100G（980m/s²）

最大推力1T

宽频覆盖2~3500Hz

Capability: Three-axis testing capability

Support Modes: Sinusoidal, random, dwell, shock

Maximum acceleration: 100G(980m/s²)

Maximum thrust: 1T

Wide frequency Range: 2-3500HZ

产品性能检测能力

PRODUCT PERFORMANCE TESTING CAPABILITIES



性能检测室
Performance Test Lab



专用评测系统
Dedicated Evaluation System



测功机系统
Dynamometer System

丰富的性能检测

COMPREHENSIVE PERFORMANCE TESTING

驱动及控制类产品功能、性能检测全覆盖，包括逻辑、转速、转矩、效率、温升、风量、流量、扬程、运行、保护等；完善的检测设备及测试用例，具备电机性能测试系统3套，风机、水泵、压缩机产品评测系统10余套，可完成各项检测评估。

Drive & control products: Full coverage of functional & performance testing, including logic, speed, torque, efficiency, temperature rise, air volume, flow rate, head, operation, and protection. Comprehensive testing equipment and test cases, with 3 sets of motor performance test systems and over 10 fan/pump/compressor evaluation systems, capable of conducting all types of testing and evaluation.

风机&水泵评测系统

FAN & PUMP TESTING SYSTEM

风机测试系统：风量40-3000m³/h，静压0-1000Pa

标准符合性：GB/T 1236

水泵测试系统：流量0-50m³/h，扬程0-600m，功率15kW

标准符合性：GB/T 3216

Airflow Range: 40 - 3000 m³/h

Static Pressure Range: 0 - 1000 Pa

Standard: GB/T 1236

Water Pump Test System: Flow Rate Range: 0 - 50 m³/h

Head Range: 0 - 600 m, Power Rating: 15 kW

Standard: GB/T 3216

测功机系统

DYNAMOMETER SYSTEM

支持0-15000rpm高速测试，突加/突减负载响应时间 < 0.2s；

支持模拟堵转、静扭矩带载启动测试；

电机寿命模拟试验（连续运行1000h）；

温升特性测试（RT-180℃）；

电机全工况测试及MAP图绘制等。

Supporting high-speed testing (0-15,000 rpm) with sudden load increase/decrease response time < 0.2s;

Simulating locked-rotor and static torque loaded starting tests;

Motor life simulation test (1,000h continuous operation);

Temperature rise characteristic test (RT to 180°C);

Full operating condition testing of motors and MAP diagram plotting, etc.

MANUFACTURING CAPABILITY

制造能力

SMT线体 / SMT LINES



DIP线体 / DIP LINES



组装线体 / ASSEMBLY LINES



QUALITY CONTROL CAPABILITY >>>

品控实力



技术创新

TECHNOLOGICAL
INNOVATION



科学管理

SCIENTIFIC
MANAGEMENT



满足顾客

SATISFY
CUSTOMERS



持续改进

CONTINUOUS
IMPROVEMENT

PRODUCTION CAPACITY >>>

产能

生产基地位于浙江湖州长三角产业融合示范区，占地面积三十余亩，建筑面积三万余平方米，拥有7条SMT高速生产线、13条DIP生产线、8条成品组装线。产品工艺设计行业一流，产品制造可采用自动化生产线，同时实施ERP、MES、ESD等信息化管理平台，为企业打造高质量、高效率的制造体系。

Our production base is located in the Yangtze River Delta Industrial Integration Demonstration Zone in Huzhou, Zhejiang Province. It covers an area of over 30 acres (20,000+ sqm) with a building area of 30,000+ m². The facility is equipped with 7 high-speed SMT lines, 13 DIP lines, and 8 assembly lines. With industry-leading process design, the manufacturing process utilizes automated production lines while implementing integrated information management platforms such as ERP, MES, and ESD. This infrastructure establishes the Superior Quality and Maximum Efficiency system for the enterprise.

公司建立以产品质量为中心，全员参与，科学高效的质量体系，即全面质量管理体系。建立了研发设计，原材料认定，生产全流程管控，客户反馈，问题解决处理全流程控制系统，实现产品端到端解决问题。借助ERP和LEANMES业务流程，实现产品全生命周期管理，先进先出(FIFO)，产品追溯性，产品过程控制，实现可视化管理，信息化驱动式管理。

The company has established a product quality-centered, staff-participated, and scientifically efficient management system—namely, Total Quality Management (TQM). It has implemented the control system covering R&D design, raw material qualification, full-process production control, customer feedback, and problem resolution to ensure end-to-end issue solving. Leveraging ERP and LEAN MES business processes, it enables full product lifecycle management, FIFO (First-In-First-Out) inventory control, product traceability, process monitoring, as well as visual management and information-driven operations.



ISO9001



ISO14001



ISO45001



ISO27001



GB/T29490



ESD S20.20



PINZI BIAO



NOA IPMS

MANUFACTURING CAPABILITY

制造能力

»» DIGITALIZATION IN MANUFACTURING

生产制造数字化应用



精益管理系统平台-精益云 LEAN MANAGEMENT SYSTEM PLATFORM - LEAN CLOUD

专注制造现场人机料法环的精益管理。集成了员工合理化建议、6S 管理、全员设备管理（TPM）等十几个精益管理应用。

We focus on LEAN management of the five key production elements (Man, Machine, Material, Method, Environment) on the manufacturing site. This system integrates over a dozen LEAN management applications, including employee rationalization proposals, 6S management, and Total Productive Maintenance.



智能工艺管理平台 INTELLIGENT PROCESS MANAGEMENT PLATFORM - E-SOP

对生产工艺进行数字化、智能化管理的系统，有效提高工艺管理效率、优化生产流程、提升产品质量。

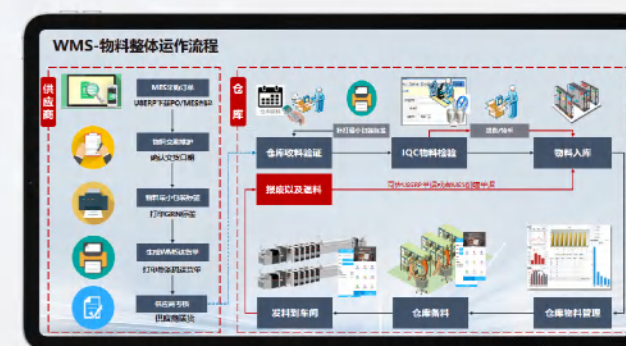
The system with the digital and intelligent management of production processes will effectively improve process management efficiency, Optimize production workflows, and enhance product quality.



生产制造执行系统 MES APPLICATION IN MANUFACTURING

负责生产现场的执行管理，打通生产计划与实际生产之间的“信息断层”，实现生产过程的可视化、数字化和精细化管控。

This system is responsible for operational management on the manufacturing floor, bridging the "information gap" between production plans and actual manufacturing, in order to enable visual, digitalized, and precision management of the production process



智能仓库管理系统 INTELLIGENT WAREHOUSE MANAGEMENT SYSTEM - WMS

优化和管理仓库日常运营的软件系统,通过数字化手段对仓库内的收货、存储、拣货、发货、库存盘点等流程进行精细化管控，旨在提高仓库作业效率、降低运营成本、提升库存准确性。

This software system optimizes and manages daily warehouse operations. Through digital means, it provides precision management and control over processes such as warehouse entry, storage, picking, shipping, and inventory counting. It aims to enhance warehouse operational efficiency, reduce operating costs, and improve inventory accuracy.

油烟机

KITCHEN RANGE HOOD



AC220-500W油烟机驱动 AC220-500W Range Hood Driver



空调室内外风机

AIR CONDITIONER IDU/ODU FAN

DC310-200W内置驱动 DC310-200W Built-in Driver



冷暖通

HVAC SYSTEM



AC380-4kW风机驱动 AC380-4kW Fan Driver



储能散热

ENERGY STORAGE HEAT DISSIPATION

AC380-1.5kW风机驱动 AC380-1.5kW Fan Driver

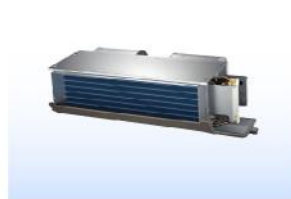


风机盘管

FAN COIL UNIT (FCU)



AC220-100W外置驱动 AC220V-100W External Driver



新风净化

FRESH AIR / PURIFICATION

AC220-170W风机驱动 AC220-170W Fan Driver



基站散热

BASE STATION HEAT DISSIPATION

DC24-800W内置驱动 DC24-800W Built-in Driver



无人机

DRONE

DC75V-4kW无人机电调 DC75V-4kW Drone Motor Driver



FAN DRIVE >> 风机驱动器

工业风机
INDUSTRIAL FAN

商业风机
COMMERCIAL FAN

家用风机
RESIDENTIAL FAN

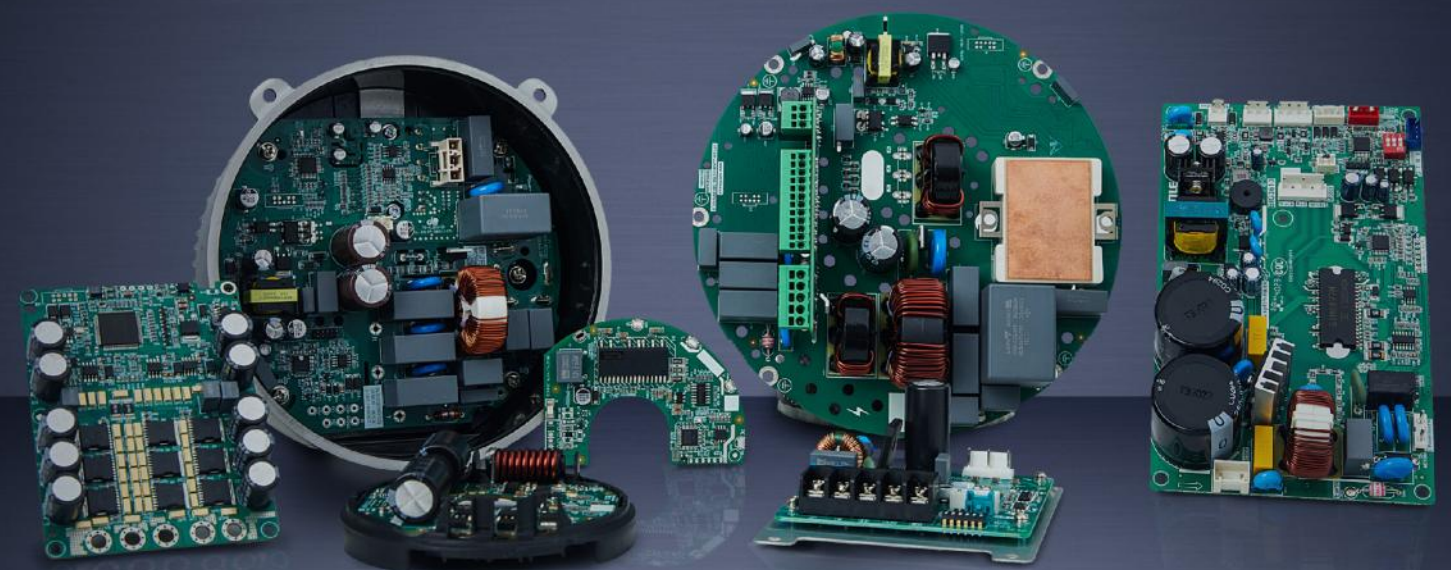
POWER RANGE:30W-7.5KW

适用于所有类型的工业、商业和家用风机

Applicable to all types of industrial, commercial and residential ventilation.

内置和外置解决方案，恒转速、恒风量控制，高可靠的顺逆风启动能力

Built-in and external solutions, with constant speed and constant air volume control, and highly reliable starting performance in both tailwind and headwind conditions.



COMPRESSOR DRIVE >>

压缩机驱动器



✓ 空调
AIR CONDITIONER

✓ 热泵
HEAT PUMP

✓ 制冷系统
REFRIGERATION SYSTEM

POWER RANGE : 0.2kW-8kW(1 PHASE/单相)
2kW-30kW(3 PHASE/三相)

适用于空调、热泵、制冷系统等
Applicable to air conditioner, heat pump, refrigeration system, etc.

集成设计, STO/ OTA功能, 防爆, 支持风冷或液冷
Integrated design, STO/ OTA function, explosion-proof, air or liquid cooling.

冰箱
REFRIGERATOR

CB

AC220-250W冰箱驱动

AC220-250W Refrigerator
Compressor Driver



商用制冷
COMMERCIAL REFRIGERATION

AC110/220-1kW冷柜驱动

110/220V-1kW Refridgerator
Cabinet Driver



一体化空调
INTEGRATED AIR CONDITIONER

CB

AC110/220-1.5kW主驱一体

AC110/220-1.5kW Integrated
Driver & Control System



热泵
HEAT PUMP

AC220-7kW热泵主驱一体 220V-7kW Heat Pump Integrated
Driver & Control System Solution



中央空调
CENTRAL AIR-CONDITIONER

AC380-28kW无电解驱动

380V-28kW Non-electrolytic
Capacitor Driver



PUMP CONTROLLER >>

泵控制器

- ✓ 循环泵
CIRCULATION PUMP
- ✓ 增压泵
BOOSTER PUMP
- ✓ 消防泵
FIRE PUMP

POWER RANGE : 30W-15kW

适用于各场景的循环泵、增压泵、消防泵、给水泵等

Applicable to circulation pump, booster pump, fire pump, water supply pump etc.

灵活的控制方式和可定制化人机界面

Flexible control methods and a customizable human-machine interface (HMI).



家用泵 RESIDENTIAL PUMP

AC220-750W供水泵驱动

AC220-750W Water Supply Pump Driver



家用泵 RESIDENTIAL PUMP

AC220-370W循环泵驱动

AC220-370W Circulation Pump Driver



商用泵 COMMERCIAL PUMP

AC220-2.2kW恒压泵驱动

AC220-2.2kW Constant Pressure Pump Driver



工业泵 INDUSTRIAL PUMP

AC380-4kW离心泵驱动

AC380-4kW Centrifugal Pump Driver



INTELLIGENT CONTROL UNIT >>

智能控制单元

✓ 工业设备
INDUSTRIAL EQUIPMENT

✓ 家电系统
HOME APPLIANCE SYSTEM

智能控制单元，为工业设备及家电系统设计，配合电驱系统提供从环境感知到驱动执行的一体化产品方案。

Designed for industrial equipment and home appliance systems, the intelligent control unit is currently providing integrated product solutions from environmental perception to drive execution in coordination with the electric drive system.



智能水处理

SMART WATER SOFTEN TREATMENT

净水软水控制器

Water Purify and Softener Controller



显示按键板

DISPLAY PANEL

厨电显示控制组件

Kitchen Appliance Display and Control Module



可集成各类传感器、LCD/TFT显示、交互接口、OTA技术及Wi-Fi、语音控制等，依托模块化架构、丰富外设和平台化设计，满足产品应用、二次开发及持续升级需求。

It integrates various sensors, LCD/TFT displays, interactive interfaces, OTA technology, Wi-Fi, and voice control, while leveraging a modular architecture, rich peripherals, and platform-based design.

It meets product application, supports secondary development, and enables continuous improvement and upgrades.

电源模块

POWER SUPPLY MODULE

150W开关电源

150W Switching Power Supply



逻辑控制

LOGIC MAIN CONTROL

多联机主控板

VRF System Main Controller



人机交互

HUMAN-MACHINE INTERACTION (HMI)

4寸TFT显示屏

4-Inch TFT Module

