



推动节能技术进步，致力人类可持续发展

聚焦全场景热管理技术创新和产业化

Focus on technology innovation & industrialization of full scene thermal management

广州高澜节能技术股份有限公司

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Party Building Work

高澜简介

About Goaland

GOALAND

股票代码 300499

高澜简介 About Goaland



• 全球战略Global Strategy

全球化战略的管理团队
Global strategy management team

专业的技术及项目执行团队
Professional technical and executive team

全球分支机构及服务网点的布局
Layout of the global branch and service network

完善的海外项目管理体系
Developed overseas projects management



高澜股份

广州总部



成立于2001年，2016年上市，主要从事研发、营销、总部管理。

Founded in 2001 and listed in 2016, mainly engaged in R & D, sales & marketing, headquarters management.

高澜创新科技



成立于2020年，主要从事新兴热管理业务，为新能源汽车、ICT行业及新兴的热管理行业提供系统方案及关键部件。

Founded in 2020, Mainly engaged in emerging thermal management business, providing system solutions and key components for new energy vehicles, ICT industry and emerging thermal management industry.

东莞硅翔



成立于2008年，主营新能源汽车电池热管理产品的研发、设计和生产。

Founded in 2008, mainly engaged in R&D, design and manufacturing of new energy vehicle battery thermal management.

岳阳高澜



成立于2012年，是全球最大的电力电子水冷装备制造基地。

Founded in 2012, it is the largest power electronic water-cooling equipment manufacturing base in the world.

湖南高涵



成立于2016年，主营软件开发、国防工业市场的拓展及服务。

Founded in 2016, mainly engaged in software development, national defense industry market expansion and services.



聚焦全场景热管理技术创新和产业化

Focus on technology innovation and industrialization of full scene thermal management

电力电子热管理

Power electronic thermal management

发电、输配电、用电等行业的大功率电气元件的综合热管理解决方案及隔直装置的研发、设计、制造和服务。

Comprehensive thermal management solutions for high-power electrical components and R & D, design, manufacturing and service of isolation devices in power generation, power transmission and distribution, power consumption and other industries.

新能源汽车热管理

New energy vehicle thermal management

动力电池加热散热材料、防火隔热材料、柔性电路集成母板、动力电池独立液冷系统、动力电池与空调复合系统、整车热管理系统及仿真服务。

Power battery heating and cooling materials, fire and heat insulation materials, flexible circuit integrated motherboard, power battery independent liquid cooling system, power battery and air conditioning composite system, vehicle thermal management system and simulation services.

综合能源能效管理

Integrated energy efficiency management & application

在工业节能、新能源、智能微电网、水蓄能等领域的综合能源服务。

Integrated energy services in the fields of industrial energy conservation, new energy, smart micro grid, water storage, etc.

信息与通信热管理

Information & communication thermal management

提供冷板式液冷服务器和浸没式液冷服务器整体热管理解决方案。

Provide overall thermal management solutions for cold-plate liquid-cooled servers and immersed liquid-cooled servers.

特种行业热管理

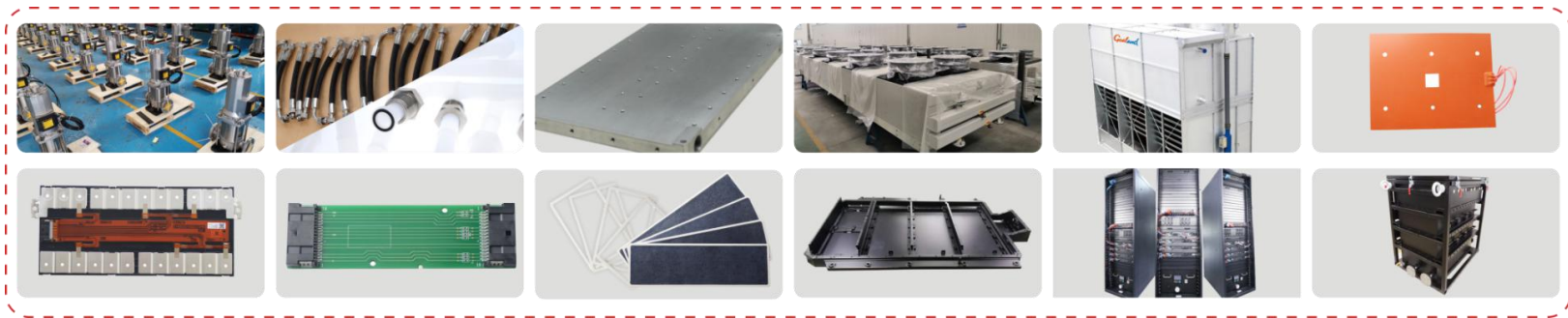
Thermal management of special industry

特种行业液冷系统一站式方案提供商。

One-stop solution provider of liquid cooling system in special industry.



应用范围 Application



从核心零部件到热管理系统集成

From core components to thermal management system integration





产品系列

Products Series

电力电子热管理

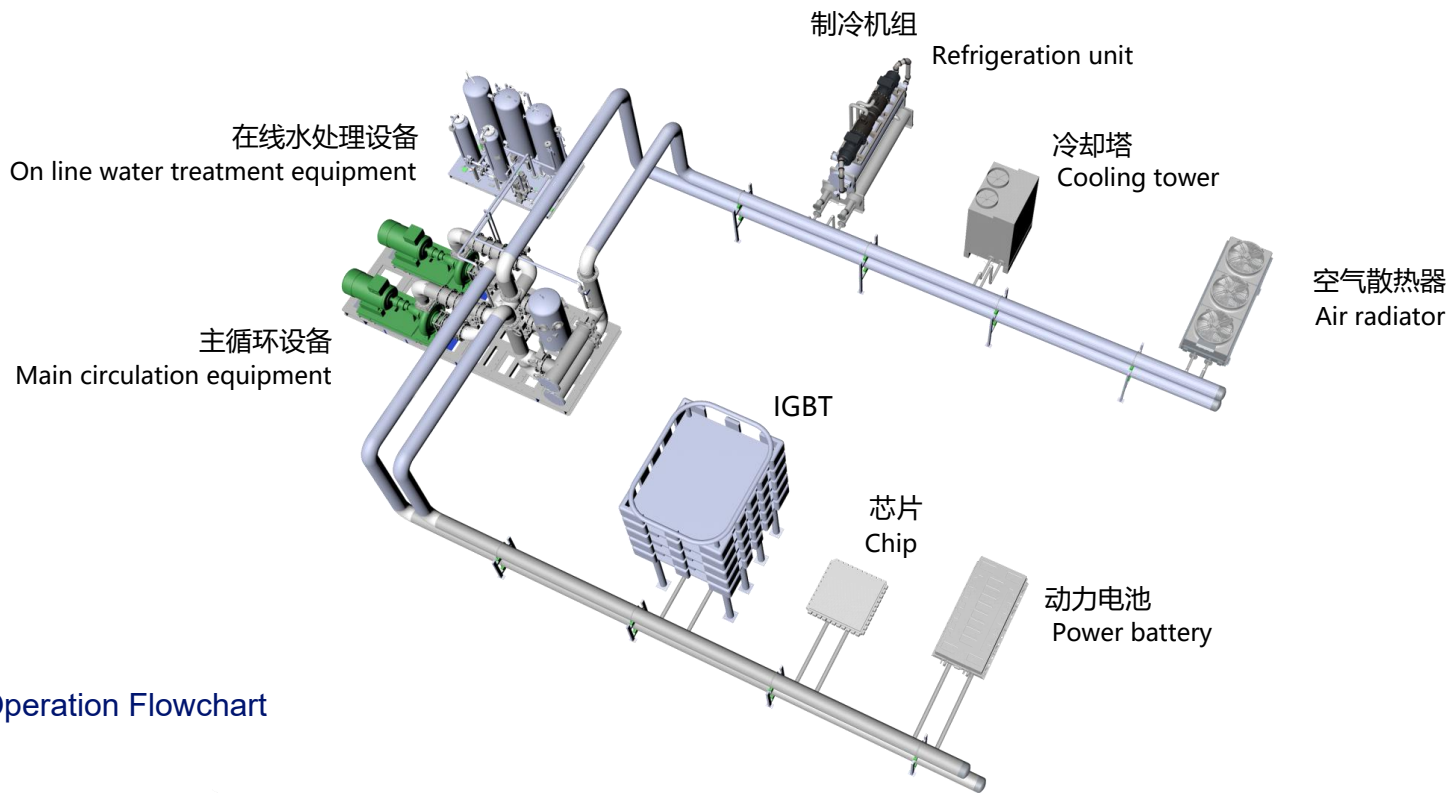
Power electronic thermal management



亚洲高压直流输电、柔性交流输配电和新能源发电等关键设备的最大水冷设备供货商
The largest water cooling plant supplier of HVDC, FACTS & Renewable Energy in Asia



产品系列 Products Series



运行原理 Operation Flowchart



● 国内参与的直流（柔直）工程

HVDC (VSC-HVDC) Projects in China

- 中国首家为高压直流输电工程提供水冷设备的供应商
- 应用于30多条高压直流(柔直)输电工程
- 中国市场占有率保持在80%以上
- The first water cooling supplier for HVDC transmission in China
- Supplied over 30 HVDC (light/plus) transmission projects
- Owning over 80% market share in China



产品系列 Products Series



● 国外参与的直流（柔直）工程

HVDC (VSC-HVDC) Projects in Foreign Countries

- ABB全球供应商
- 印度电网认证
- 沙特电网认证
- Global Supplier of ABB
- Certification of India Power Grid
- Certification of Saudi Arabia Grid





2001

中国首套国家重点电力电子实验室水冷系统

The first water cooling system for national key power electronics laboratory
CEPRI



2001

中国首套国产化电力系统高压大容量
SVC装置水冷系统
鞍山红一变120Mvar SVC装置国产化示范工程
The first internal manufactured water cooling system for high voltage SVC—120Mvar SVC demonstration project at An' shan transformer substation



2003

中国首套国产化可控串补装置

The first water cooling system for internal manufactured TCSC project



2005

中国首套工程化应用新型静止同步补偿装置
上海电力局±50Mvar STATCOM装置示范工程
The first water cooling system for STATCOM project in China ±50Mvar STATCOM demonstration project for Shanghai Municipal Electric Power Company



2015

英国东能源海上风电STATCOM水冷

STATCOM water cooling system for Burbo Bank & Race Bank Offshore Wind farm in UK (Dong Energy)



2016

南瑞 墨西哥SVC
NARI Mexico SVC



新能源设备冷却
Renewable Energy Converter Inverter Cooling



2007

中国第一台海上风力发电机
中海油渤海海上风力发电
示范项目

The first offshore wind turbine in China
Offshore wind power demonstration project of CNOOC in Bohai sea



2010

GE光伏发电逆变器
水冷却系统应用在
法国，德国，美国，英国等

GE 30kw PV solar inverter cooling unit, in France, Germany, USA, UK etc.



2011

环境温度到-48度的
瑞典布莱肯风电场

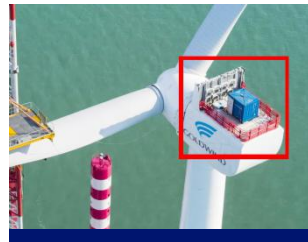
Blaiken Wind Farm with -48°C ambient temperature in Sweden



2016

福建莆田平海湾海上风电场
我国首个商业化海上风电场
5MW风机是目前国内海上
单机容量最大的商业化风机

Pinghai Bay Offshore Wind Farm in Putian Fujian
The first commercial offshore wind farm with the largest wind turbine capacity 5MW in China



2020

国内首台8兆瓦福清兴化湾
海上风电机组

The first 8 MW offshore wind turbine in Fuqing Xinghua Bay in China



石油天然气大功率电气传动设备冷却

Cooling solutions for high power transmission equipment in Oil & Gas industry



2015

西气东输海原压气站(国产首例)

Haiyuan Station for West-to-East Gas Transmission (First made in China)



2016

陕西四线红墩界压气站

Shanxi-Beijing Fourth Line Hongdunjie Compressor Station



2017

西气东输广州压气站

Guangzhou Station for West-to-East Gas Transmission



2018

天然气互联互通工程盘锦压气站

Natural Gas Interconnection Project Panjin Compressor Station



2021

西南油气田黄草峡储气库

Huangcaoxia gas storage of Southwest Oil and gas field



轨道交通冷却
Rail transit Cooling



2010

上海磁悬浮项目变频器
纯水冷却系统

Frequency Converter of Shanghai
Maglev Project



2012

南车时代电气股份有限公司
牵引系统变频器
纯水冷却系统

Traction system converter of
Zhuzhou CSR Times
Electric Co., Ltd.



2017

机车实验室平台

Locomotive laboratory platform



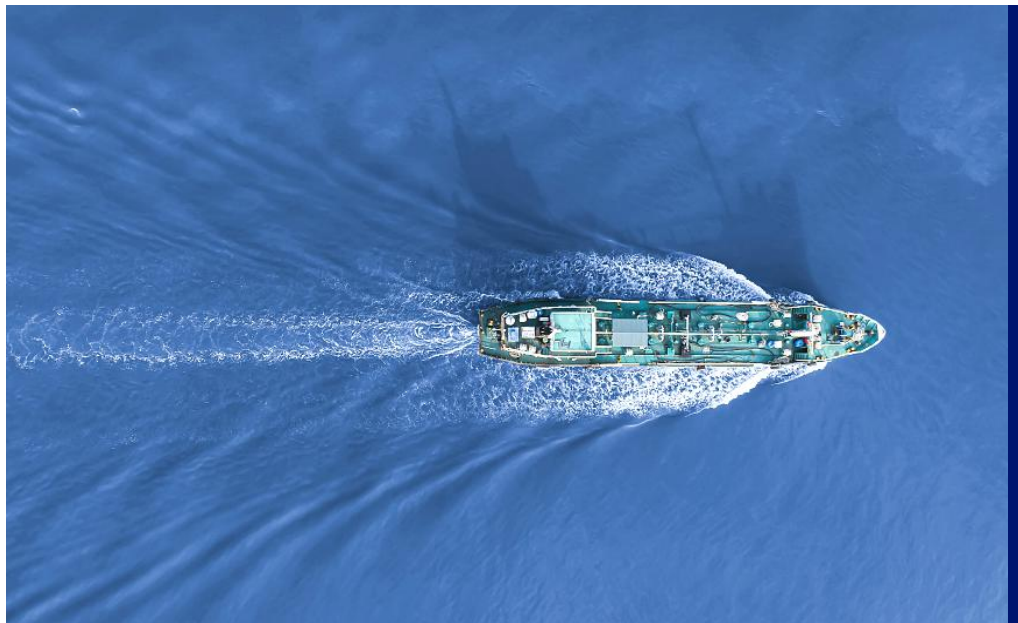
2018

城轨TEDT-D平台

TEDT-D of Urban Rail



船舶冷却
ship Cooling



船舶变频器纯水冷却系统
Ship Frequency Converter Cooling



配水管道
Water Distribution Pipes



聚偏氟乙烯

PVDF



聚偏氟乙烯螺母、接头

PVDF nut & joint



不锈钢主管道

Stainless steel main pipeline



PEXa交联聚乙烯分支管道

PEXa cross-linked polyethylene
branch pipe



特种行业热管理

Thermal management of special industry



特种设备冷却
Special equipment cooling



舰船领域
Ship field

**电力系统/能量管理/发射装置/
实验室设备**

Power system / Energy management /
Transmitter device / Laboratory equipment



雷达阵面
Radar array

电子对抗热管理系统

Thermal management system of electronic
countermeasure



通讯、特种车辆
Communication, special vehicles

微型液冷系统

Micro liquid cooling system



大科学项目 Big Scientific Projects



2010

超导托卡马克试验装置“人造太阳”EAST中科院
合肥科学岛低杂波
国家“十一五”重大科技基础设施建设项目

Science Island LHW of Chinese Academy of
Sciences National “Eleventh Five-Year Plan”
major project of science infrastructure
construction



2010

中国首台、世界一流脉冲中子科学综合实验装置广东
东莞散裂中子源国家实验室——中国散裂中子源

The first world-class pulse neutron science
comprehensive experimental equipment Chinese
Spallation Neutrons Source (CSNS) in China
Dongguan Spallation Neutron Source National
Laboratory



2020

第一套纯商业化医疗项目重离子治疗装置冷却

Cooling for the first pure commercial medical
heavy ion treatment device

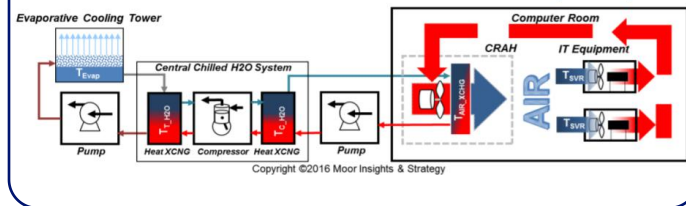


信息与通信热管理

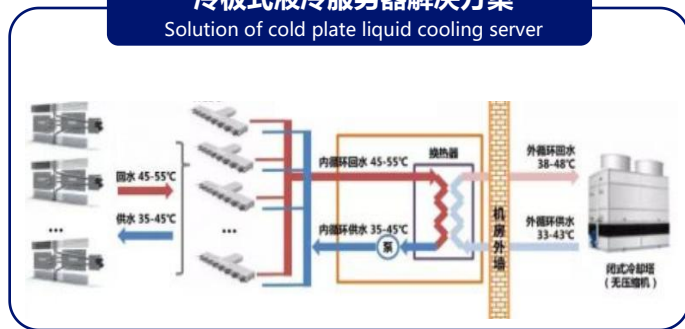
Information & communication thermal management



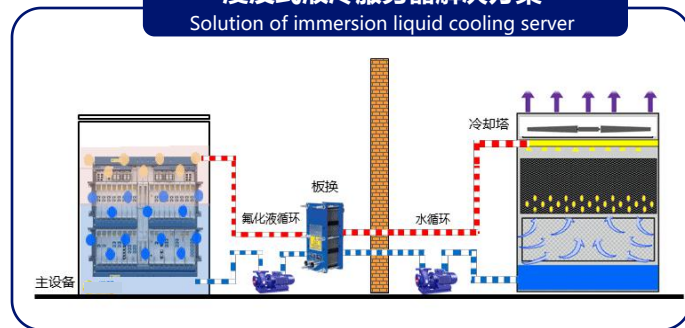
低能效风冷型服务器解决方案 Low energy efficiency air cooling server solution



冷板式液冷服务器解决方案 Solution of cold plate liquid cooling server

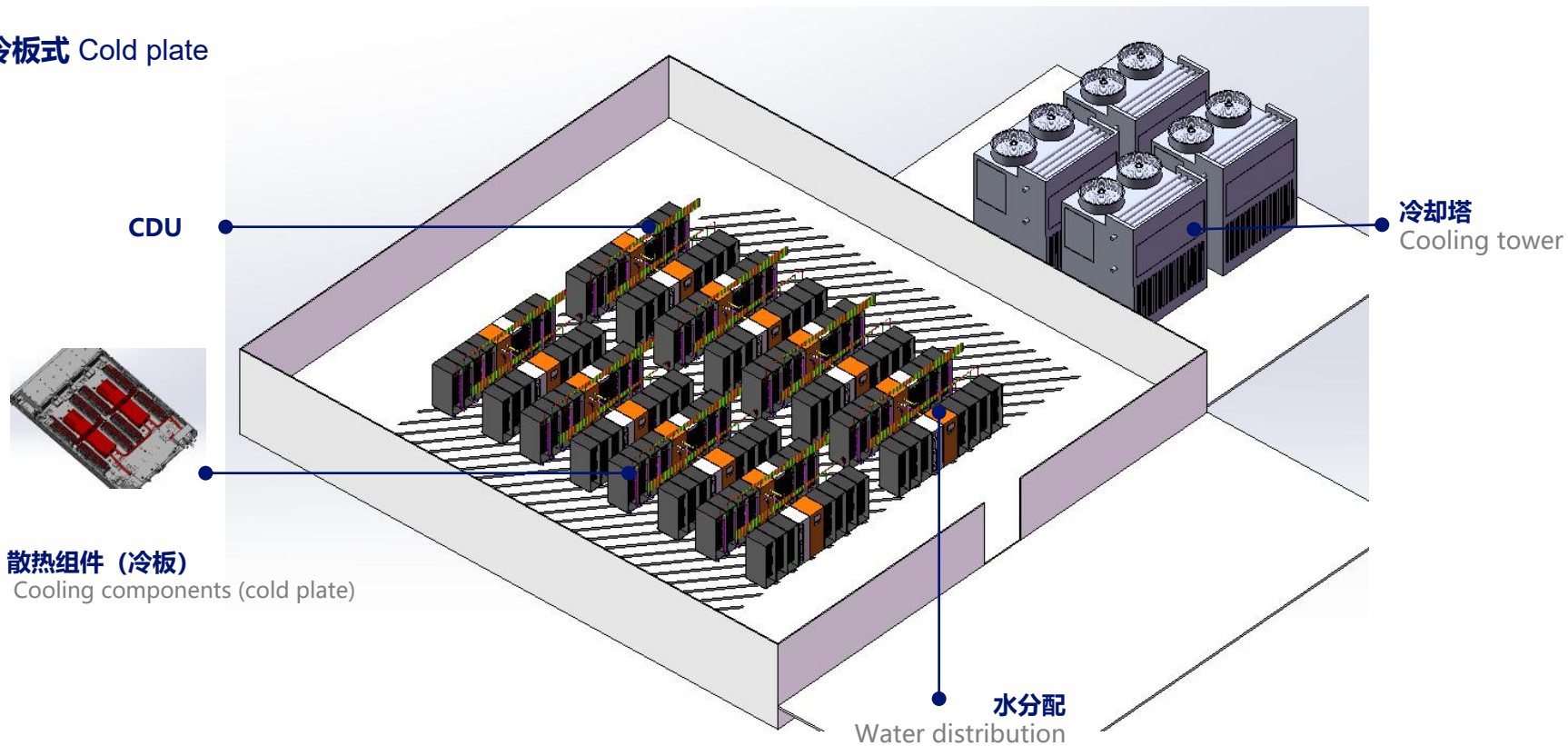


浸没式液冷服务器解决方案 Solution of immersion liquid cooling server



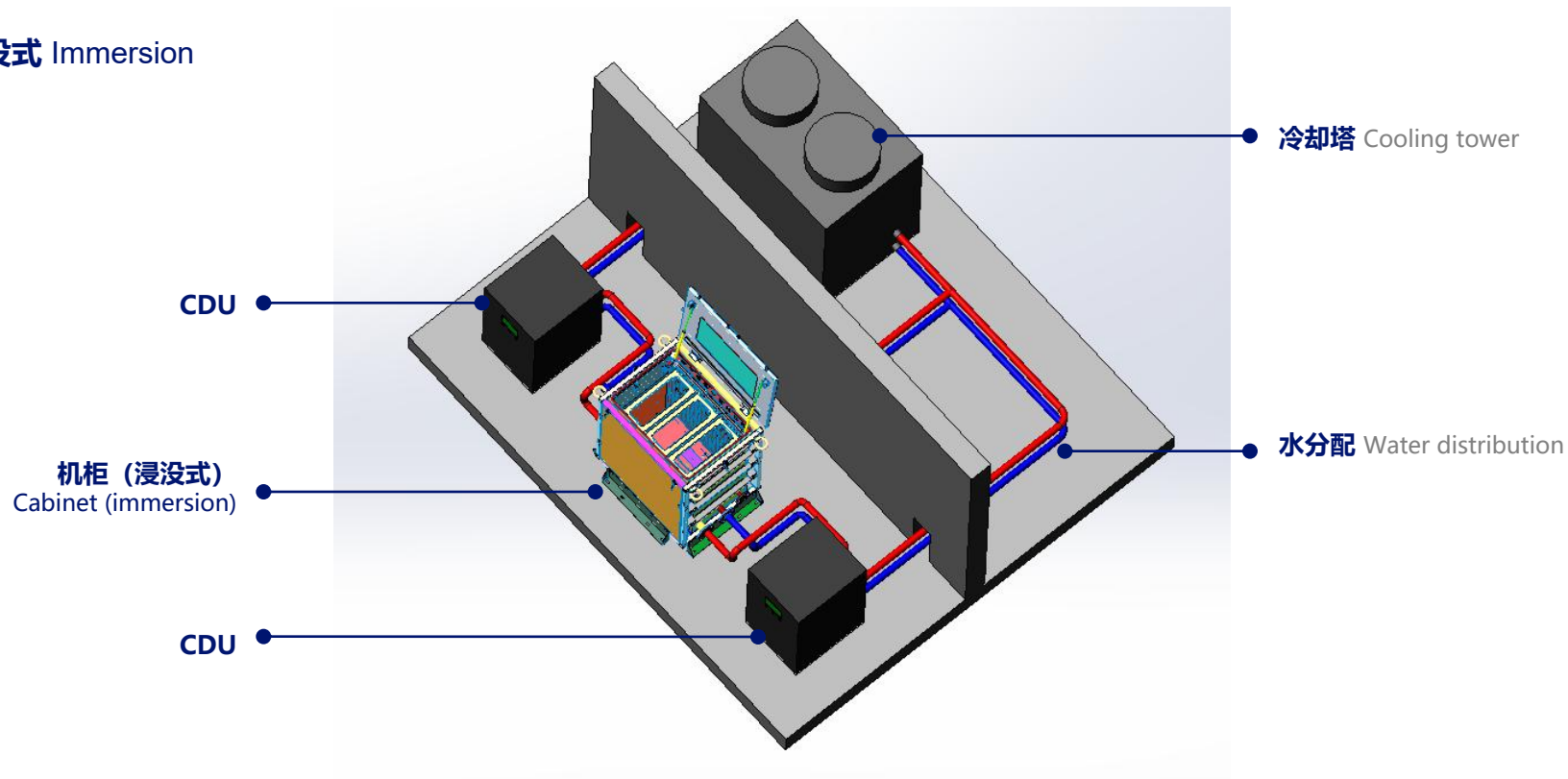
产品系列 Products Series

冷板式 Cold plate



产品系列 Products Series

浸没式 Immersion

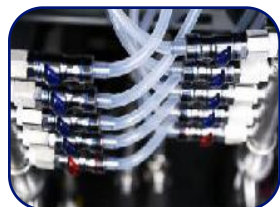


产品系列 Products Series

关键产品 —— 专用零部件 Key products —— special parts



单U浸没式液冷机箱
Single U Submerged
liquid cooling cabinet



水分配管路
Water distribution
line



CPU-内存一体散热液冷板
CPU-memory integrated
cooling liquid cooling plate



6款通用液冷板
6 types of
general liquid
cooling plate



**6KWCDU抽屉式
(氟化液-风)**
6kwcdtu drawer type
(fluoride liquid- wind)



**12.5KWCDU抽
屉式 (水-风)**
12.5kwcdtu drawer
type(water-wind)



40KWCDU抽屉式 (水-水)
40kwcdtu drawer type
(water-water)



2KW机柜式 (水-风)
2kW cabinet
type(water-wind)



15KWCDU



300KW CDU



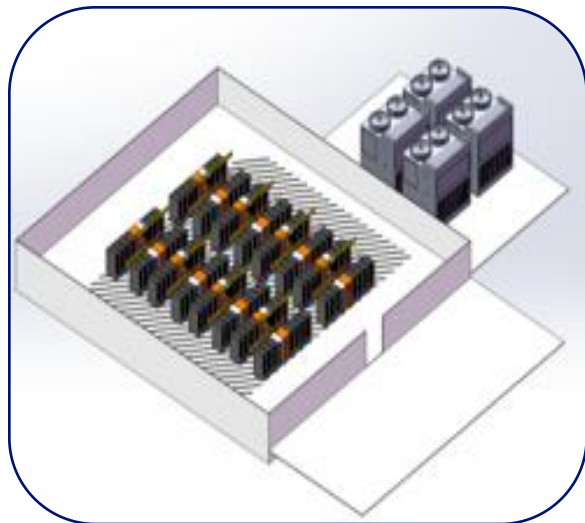
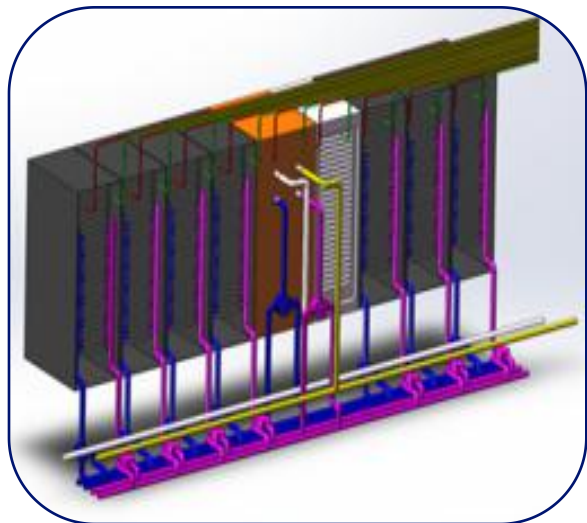
18U浸没式液冷服务器机柜
18U immersed liquid
cooling server cabinet



54U浸没式液冷服务器机柜
54U immersed liquid
cooling server cabinet



关键产品 —— 系统集成
Key products —— system integration



机房设计、设备集成、材料安装、系统调试、设备运维

Machine room design, equipment integration, material installation, system debugging, equipment operation and maintenance



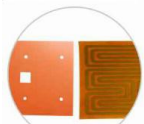
新能源汽车热管理

New Energy Vehicle Thermal Management

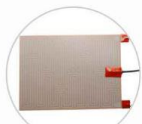


关键集成系统和整车热管理 Key integrated system and vehicle thermal management

关键器件 Key devices



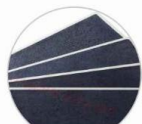
硅胶、PI加热膜
Silica gel, PI heating film



环氧树脂加热片
Epoxy resin heater



PTC



防火隔热棉、缓冲垫
Fireproof insulation cotton, cushion



FPC



线束集成母排

Wiring harness integrated bus bar



PCBA

整车 Vehicle



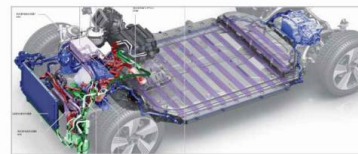
动力电池液冷板

Power battery liquid cooling plate



动力电池独立液冷系统

Power battery independent liquid cooling system



热泵型整车热管理解决方案

Heat management solution of heat pump vehicle

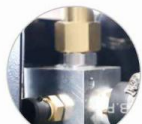
关键集成系统 Key integrated system



液冷板
Liquid cooled plate



换热器
Heat exchanger



集成阀组
Integrated valve block



电子水泵
Electronic water pump



控制器
Controller



流体集成
Fluid integration



chiller

综合能源能效管理和应用

Integrated Energy Efficiency Management and Application





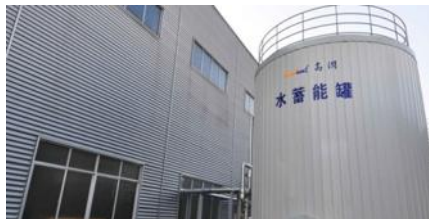
综合能源管理服务

Integrated energy management services



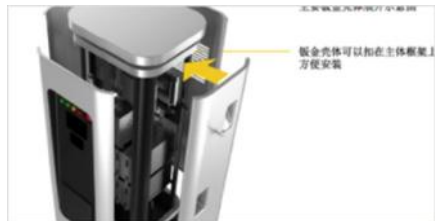
压缩空气系统节能服务

Compressed air system energy saving service



蓄能节能服务

Energy storage & energy saving services



新能源汽车充电服务

New energy vehicle charging service



蓄电池梯级利用

Battery cascade utilization



电力综合服务

Integrated power services





技术与质量
Technology & Quality

高澜节能研究院 Energy Conservation R&D Institute

高澜节能研究院成立于2010年，以研发创新为基础，专业从事实用技术、新兴技术、服务技术及基础理论等研究，主要包括系统集成、流体控制、电气控制、机械制造、传热制冷、水质净化、检修运维、密封、可靠性、电力电子、材料、冷却液、浸没式冷却及能效管理等。

拥有授权专利214项（发明专利30项），软件著作权99项。
致力于将其打造成国内最先进的研发机构和国内最权威的热管理实验室。

Founded in 2010, based on R & D and innovation, Goaland energy conservation research institute specializes in practical technology, emerging technology, service technology and basic theory research, mainly including system integration, fluid control, electrical control, mechanical manufacturing, heat transfer and refrigeration, water purification, repair and operation, sealing, reliability, power electronics, materials, coolant, immersion cooling and energy efficiency tube Li et al. Obtains 214 patents (including 30 invention patents), 99 software copy rights We are committed to building it into the most advanced research and development institutions and the most authoritative thermal management laboratory in China.



热管理实验室

Thermal management laboratory - Guangzhou

成立于2010年，2018年4月获得CNAS实验室认可，实验室使用面积2000平方米。各种检测设备150多台（套），实验室主要包括：电气、水质分析、环境试验、振动及风洞等，为创新研发及各类试验提供了良好的保障。

Founded in 2010 and recognized by CNAs laboratory in April 2018, the laboratory covers an area of more than 2000 m2. There are more than 150 sets of various testing equipment. The laboratory mainly includes: electrical, water quality analysis, environmental test, vibration and wind tunnel, which provides a good guarantee for innovative research and development and various tests.



广州实验室
GuangZhou laboratory



水质分析实验室
Water Quality Test Lab



理化实验室
Physicochemical Lab



冷却液配置实验室
Coolant Configuration Lab



量具仪器实验室
Measuring Instrument Lab



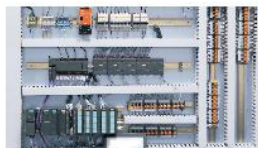
振动实验室
Vibration Lab



热工分析实验室
Thermal Analysis Lab



机械性能实验室
Mechanical Performance Lab



电气实验室
Electric Lab



高低温环境实验室 High and Low
Temperature Environmental Lab



振动试验平台
Vibration test platform



风洞测试系统
Wind tunnel test system



岳阳实验室 YueYang laboratory

岳阳高澜实验测试中心建立于2016年10月，可完成高低温实验、热负荷实验、表面测试、材质分析实验、力学实验、重量及密度实验、尺寸检验、电气测试等实验及仪器仪表的检测校准。

Yueyang Goaland experiment and test center was established in October 2016. It can complete high and low temperature experiment, heat load experiment, surface test, material analysis experiment, mechanics experiment, weight and density experiment, dimension inspection, electrical test and other experiments, as well as inspection and calibration of instruments and meters.



东莞实验室 DongGuan laboratory

东莞硅翔实验室设有原材料检测、环境可靠性检测、性能检测和外观尺寸检测，可完成对原材料的导热系数、阻燃、冷热冲击、温湿度、快速温变、寿命、盐雾、压缩曲线、高温冲击、邵氏硬度、厚度等的全方位检测。

Dongguan Guixiang laboratory is equipped with raw material testing, environmental reliability testing, performance testing and appearance dimension testing, which can complete all-round testing of thermal conductivity, flame retardant, cold and hot shock, temperature and humidity, rapid temperature change, life, salt spray, compression curve, high temperature shock, shore hardness, thickness, etc. of raw materials.



产品技术认证 Technical Certificates of Products



参与起草标准 Drafting Standards

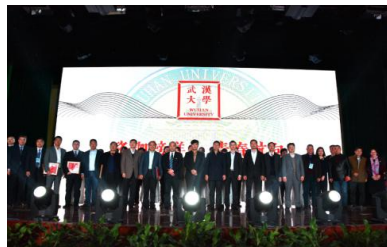
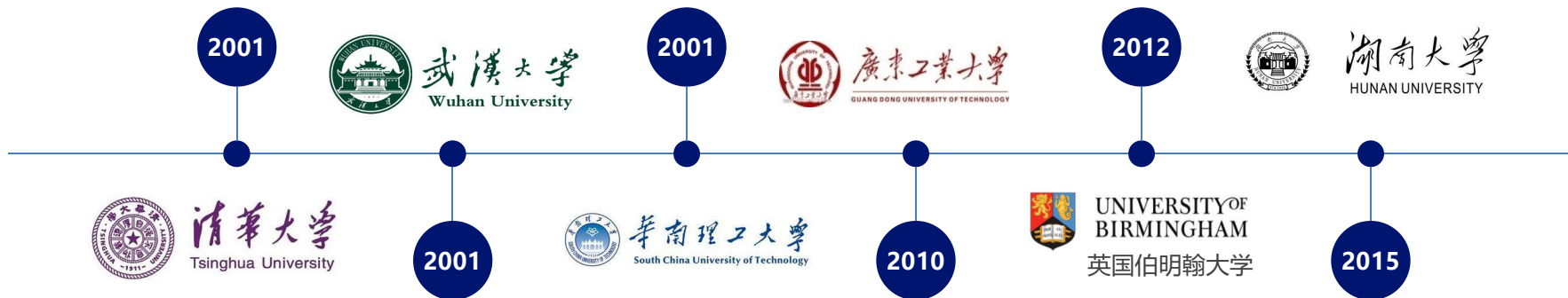
国家标准 National Standard	《高压直流输电晶闸管阀设计导则》 Design guidelines of thyristor valves for high voltage direct current (HVDC) power transmission
	《高压直流输电换流阀水冷却设备》 HVDC converter valve water cooling equipment
	《静止无功补偿装置水冷却设备》 Static reactive power compensation device Water cooling equipment
	《电气装置安装工程 电力变流设备施工及验收规范》 Electrical equipment installation engineering power converter equipment for construction and acceptance
	《柔性直流输电换流阀技术规范》 Technical specification of converter valves for HVDC power transmission
	《电力变压器第23部分：直流偏磁抑制装置》 Power transformers-Part 23:DC magnetic bias suppression devices
行业标准 Industrial Standard	《高压静止无功补偿装置第5部分：密闭式水冷却装置》 High voltage static reactive power compensation device- Part 5 : closed water cooling device
	《电力变流器用水冷却设备》 Power converter water cooling equipment
	《高原风力发电机组电气控制设备结构防腐技术要求》 Technical specifications of structural anticorrosion for plateau wind turbine electrical control equipment
	《高原风力发电机组用全功率变流器液体冷却散热技术要求》 Technical requirements of liquid cooling for the plateau wind turbine full-power converter
综合标准 Comprehensive Standard	《高原风力发电机组主控制系统技术规范》 Technical specifications of main control system for plateau wind turbine
综合标准 Comprehensive Standard	《风力发电机组水冷系统冷却液技术规范》 Technical specifications of coolant for wind turbine generator water cooling system



荣誉资质 Qualifications & Awards



产学研合作 DUniversity-Industry Collaboration





销售与服务
sales & services

销售与服务 Sales & Services

产品分布 Products Distribution



服务覆盖全球近**30**个国家和地区

Services cover nearly 30 countries and regions around the world



售后服务 After-Sale Services

高澜股份以创新、高效、协同、自强的核心价值观神；以技术领先、科学管理、优良品质、客户满意为质量方针；以客户为焦点，想客户之所想，急客户之所需。已建立北京、上海、西安、岳阳、广州、东莞、美国、欧洲、巴西、印度等售后服务中心。通过立体化的服务网络，为全球客户提供高效的服务。

Goaland shares the core values of innovation, efficiency, coordination and self-improvement; and strives to achieve leading technology, scientific management, excellent products, and client satisfaction. Goaland have established after-sales service centers in Beijing, Shanghai, Xi'an, Yueyang, Guangzhou, Dongguan, and plan to build service centers in Europe, Brazil, and India. Goaland spares no effort to provide efficient and considerable services for global customers with integrated service network.



销售与服务 Sales & Services

国内客户 Domestic Clients



国外客户 Overseas Clients



动力电池 Power Battery



整车厂 Vehicle Factory



A group of people in a meeting room, some holding a certificate, with a banner in the background. The scene is overlaid with a blue tint and a white circular graphic element.

凝心聚力 共克时艰
高澜智能制造 赋能城市新发展

社会责任

Social Responsibility

社会责任 Social Responsibility

● 积极为社会创造价值 ● 全面提升产业链价值 ● 践行社会公益事业

Actively create value for the society Enhance the value of industrial chain in an all-round way Practice social public utilities



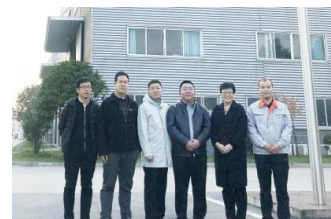
参与“一带一路”
Taking part in
"The Belt and Road Initiative"



与东盟中心签署战略合作
Signing strategic cooperation with
ASEAN Center



设立武大“高澜奖学金”
Setting up "Goaland scholarship"
of Wuhan University



积极推广清洁能源应用
Actively promoting the application of
clean energy



智能微网（绿色制造）
Intelligent micro network
(green manufacturing)



供应商大会
Supplier Conference



抗洪救灾捐助
Donations for flood fighting &
disaster relief



慰问困难员工
Condolence to employees who
have difficulty



抗击疫情捐赠
Donations to battles against
coronavirus





党建工作

Party building work

党建工作 Party building work

- 广州高澜党支部成立于2019年
- 岳阳高澜党支部成立于2017年
- 东莞硅翔党支部成立于2019年
- 2017年、2018年、2019年、2020年岳阳高澜党支部连续四年获得岳阳市优秀党支部
- 政治引领，促进企业发展
- 凝聚人心，建设幸福高澜

Guangzhou Goaland Party branch was established in 2019
Yueyang Goaland Party branch was established in 2017
Dongguan Guixiang Party branch was established in 2019
In 2017, 2018, 2019 & 2020, Yueyang Goaland Party branch won the excellent Party branch of Yueyang City for four consecutive years
Leading by politics to promote the development of enterprises
Uniting people to build a happy Goaland





推动节能技术进步 致力人类可持续发展

聚焦全场景热管理技术创新和产业化

广州高澜节能技术股份有限公司

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