

“山林之歌”全预装景观式多站合一配电房

Fully Prefabricated Landscaped Multi-station Power Distribution Room

系统介绍 System introduction

该产品对标的是传统土建配电室，将一二次设备和舱体在工厂内深度的预制并集成，融合光储充放等新能源接入系统和能量管理系统，实现由原来建一座配电室变成买一座配电室，交付即可建成，是双碳背景下各种新建、改扩建场景配电室的高效、低碳建设的一种新选择、新模式。

This product is benchmarked against the traditional civil power distribution room, prefabricates and integrates primary and secondary equipment and enclosure in depth in the factory, integration of new energy access systems and energy management systems, such as photovoltaic storage, charging and discharging, to realize the change from building a distribution room to buying a distribution room.



建设目标 Construction Objectives

1



引入新型建造技术，实现“坚强可靠、资源节约、环境友好、快速高效”的配电室建设

Introducing new construction techniques to build the power distribution room.

2



依托数字化手段，实现配电室“无人值守、智慧便捷、主动反应、专业快速”的智能运维

Relying on digital means, realize the intelligent operation and maintenance of the distribution room.

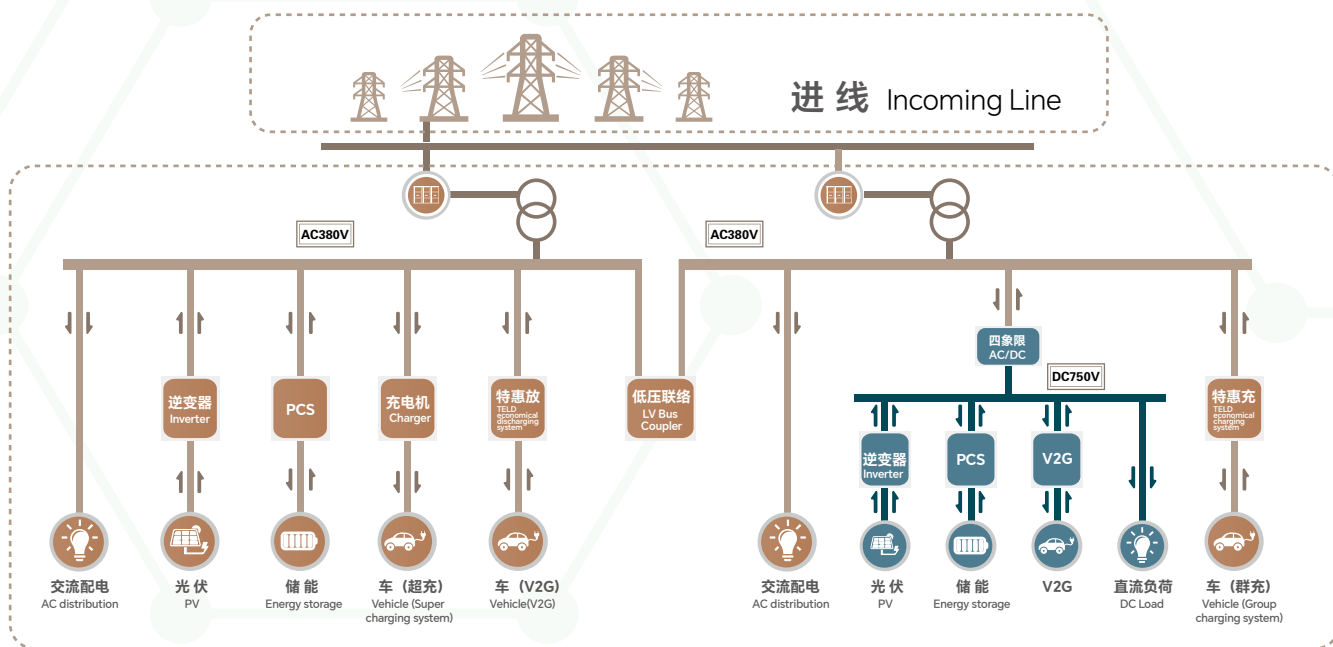
3



建设以大电网为依托的“自我管理”型配用电系统，实现“多站协同、自给自足、绿色低碳、电网友好”的灵活调节资源

Build a 'self-management' electricity distribution system based on a large power grid and realize flexible resource regulation.

系统架构 System Structure



建设模式优势 Main Advantages Of Construction Mode

由建到买：快，深度工厂化预制，减少现场建安工作量，45天内高效低碳建站

From build to purchase: Efficient, construct substation within 45 days.

占地面积：小，合理布局，较土建模式节省占地20-50%，降低用地要求

Footprint: small, 20-50% savings in footprint.

环境友好：精，彩绘风、科技风、建筑风、现代风，与周围环境高度融合

Environmentally friendly: precise, multistyled, and highly integrated with surrounding environment.

布局方式：活，一字型布局、方形布局、双层立体布局，减少地形限制

Layout mode: flexible, reduce terrain restrictions

一站服务：省，一站式负责制，整体交付，省心、省力、省初投资

One-stop service: saving, worry-saving, labor-saving, and initial investment saving.

五大核心产品 FIVE MAJOR PRODUCTS

01 10kV快速切换开关柜 可实现45ms无感知调电，保障高可靠用电

10kV Fast transfer switchgear

Realize 45ms non-perception power transfer, guaranteeing high reliability of power consumption.



02 高能效低噪音干式变压器 运行节能、经济、环保，适应高需求场景

Energy-efficient, low-noise dry-type transformer

Energy-efficient, economical and Eco-friendly, adapted to high-requirements situations.



节能 Energy conservation



空载损耗下降25%，负载损耗下降10%，变压器运行效率 > 99.5%，运行噪音低于42dB
25% decreased no-load loss, 10% decreased load loss, transformer operating efficiency > 99.5%, operating noise is less than 42dB.

03 全电量高集成智能开关柜 开关组件模块化设计，集成度高、可靠性强、运维方便

Full power monitoring highly integrated intelligent switchgear

Switch components modular design, high integration, high reliability, convenient operation and maintenance.



04 标准化模块化光储充放单元 实现新能源接入灵活，系统快速部署

Standardised and Modularised photovoltaic energy storage charging and discharging units

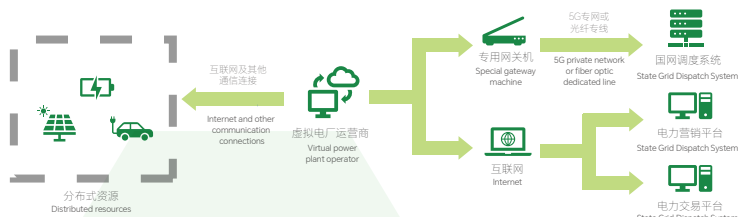
To realize new energy sources access flexibly and arrange system rapidly.



05 全场景能量管理运维平台 虚拟电厂赋能园区多站合一微电网新业态

Operation and maintenance platform for whole-scene energy management

Multi-site converged microgrid system with energy management O&M platform, realising virtual power plant functions.



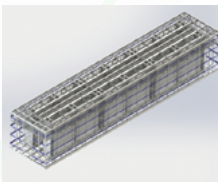
五大核心技术 FIVE CORE TECHNOLOGIES

01 新结构新材料技术

磐石架构体系，满足全场景、全环境工况运行要求，设计寿命超50年

New structure and material technology

Granite architecture system, meet the full-scene, full-environmental operating conditions, with a design life of more than 50 years.



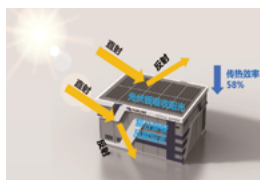
防风：最高抗台风18级
Wind resistance: maximum typhoon resistance of 18 levels
抗震：抗震设防烈度 9°
Anti-seismic: 9° anti-seismic cracking degree
防腐：盐雾老化 > 2000小时
Anti-corrosion: salt spray aging > 2000 hours
耐火极限：3小时隔热性和完整性
Fire resistance limit: 3 hours thermal insulation and integrity
防护等级：IP56
Protection class: IP56

02 保温隔热技术

有效吸收光照及热量，传热效率可下降65%，舱内温度降低3~5°C

Thermal insulation technology

Thermal insulation technology: effectively absorb light and heat; Heat transfer efficiency: decrease 65%; enclosure temperature: decrease 3~5°C.



外墙内侧：复合保温金属装饰板
Inside and external wall: composite heat preservation metal decorative panel
框架支撑钢结构：Frame support steel structure: 70mm
热桥隔热层：密封条铝箔纸
Thermal bridge insulation layer: sealing strip tin foil paper
保温层：阻燃聚氨酯隔热层
Thermal insulation layer: flame retardant polyurethane insulation layer
预制舱壁板：外壁装饰一体化壁板
Prefabricated enclosure bulkhead: Decorative integrated wall panels for external walls

03 消音降噪技术

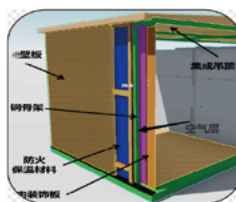
变压器专属减震技术+舱体消音屏障技术，舱体噪声可控制在42dB以内

Noise cancellation technology

Transformer exclusive damping technology + enclosure noise barrier technology, enclosure noise can be controlled within 42dB.



变压器减震
Transformer vibration damping



预制结构减震
Prefabricated structure vibration damping



网孔消音屏障
Mesh noise barriers

04 多站融合技术

降低用能成本、确保用能机会、专业运营支撑、落地双碳战略

Multi-station fusion technology

Reducing the overall cost of energy use, ensuring energy opportunities.



05 环境友好技术

风格百变、移步换装的外观设计，与周边环境高度融合，减少“邻避效应”

Environmentally friendly technology

Styles customized, highly integrated with the surrounding environment.



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