

# Product Summary Manual 产品总汇手册









上海雷诺尔科技股份有限公司是"工业控制解决方案"的系统集成商、"工业控制与应用电气"的专业制造商。公司业务 覆盖工业自动化产品、智能配电、自动化控制系统等,产品包括高低压电机软起动器、高低压变频调速器、储能系统产品、 防爆电气、高低压无功补偿及谐波治理装置、传动控制系统、MCS、DCS、节能改造系统和高低压输变电成套设备等。

公司获得多项荣誉如国家级专精特新"小巨人"企业、高新技术企业、上海市企业技术中心、承装(修、试)电力设施 许可证、建筑机电安装工程专业承包二级资质等。

公司获得多项认证如 ISO9001、ISO14001、ISO45001、KA、CE、CB、CCC、CQC、TUV、CU-TR、GOST认证等。

Shanghai RENLE Science & Technology Co.,Ltd is a system integrator in solutions to industrial control and a professional manufacturer of industrial control and applied electrical. Our business covers industrial automation products, intelligent power distribution, automatic control systems, etc. Our product range includes medium and low voltage motor soft starters, medium and low voltage variable frequency drives, explosion-proof electrical apparatus, medium and low voltage reactive power compensation and harmonic suppression devices, energy storage systems, drive control systems, MCS, DCS, energy efficiency retrofit system and medium and low voltage power transmission and distribution equipment, etc.

Shanghai RENLE has been honored with several National-level awards and major professional certifications, including the title of Unique and Innovative "Little Giant" Enterprise, High Technology Enterprise, and Shanghai Enterprise Technology Center, and installation (repair and test) power facilities license, Secondary Speciality Contracting Qualification for Construction Mechanical and Electrical Installation Engineering.

In the development process of striving for excellence, Shanghai RENLE has obtained multiple certifications such ISO9001, ISO14001, ISO45001, KA, CE, CCC, CQC, TÜV SÜD, CU-TR, GOST, etc.

# 国内外权威认证

Authoritative certification at home and abroad











**14**<sup>+</sup> кайш

7+ 管理体系认证 21<sup>+</sup> <sub>国家标准</sub> **27**+ сосыш

40+

65<sup>+</sup> 知识产权

KA certification Management system certification National standard

CQC certification Testing and certification

Intellectual property

# RNHV1000 高压变频调速器

RNHV1000 Series Medium-voltage VFD



- 输出功率: 最大功率10kV/3150kW、6kV/1800kW。
- 一体化结构:整机尺寸节约40%,整体运输、单边维护。
- 快速连接器: 功率单元维护时间节约50%, 简洁高效。
- 薄膜电容器: 预期寿命可达10年、安全可靠、性能优异。
- 单元热保护:温度实时在线监测,保护灵敏、安全可靠。
- 人机互动窗:真彩触摸屏,操作简便、设备信息一览无余。
- 5G+工业云:云端智能,远程高效深度技术支持。
- Output power: maximum power 10kV/3150kW、 6kV/1800kW.
- Integrated structure: 40% reduction in overall size, overall transportation, and unilateral maintenance.
- Quick connector: saves 50% of power unit maintenance time, simple and efficient.
- Thin film capacitors: expected lifespan of up to 10 years, safe and reliable, and excellent performance.
- Power unit thermal protection: Real time online temperature monitoring, sensitive protection, safe and reliable.
- HMI: True color touch screen, easy to operate, and easy to see all equipment information.
- 5G+Industrial Cloud: Cloud based Intelligence and remote efficient deep technical support.

### RNHV2000 高压变频调速器

RNHV2000 Series Medium-voltage VFD

- 輸出功率:最大功率10kV/15000kW、 6kV/9000kW。
- 标准工业设计:支持各种电压等级 3~13.8kV,高海拔、低温及高湿等各种 应用场景。
- 客户特殊定制:支持定制化功能用途及外 观结构等。满足客户多样化需求。
- 变频器类型:电压源型级联多电平,对电机及电缆无特殊要求,无滤波器完美无谐波,直接供电距离可达1000m。
- 西门子PLC:安全可靠,精确逻辑过程控制、标准工业接口。



- Output power: maximum power: 10kV/15000kW、6kV/9000kW.
- Standard industrial design: support various voltage levels ranging from 3 to 13.8kV, and various applications such as high altitude, low temperature and high humidity.
- Special customization: Support customized functions, appearance and structure to meet diverse customer needs.
- Variable frequency drive type: voltage source cascaded multi-level, with no special requirements for motors and cables, perfect no harmonics without filters, and direct power supply distance up to 1000m.
- Siemens PLC: Safe and reliable with precise logic process control and standard industrial interface.

## RNHP1000 制氢电源

#### RNHP1000 Hydrogen Power Supply

电源功率: 200-20,000 kW。绿色低碳: 高效率≥98.5%。

● 电能质量:功率因数≥0.99,交流侧Thdi≤3%,具备无功补偿及谐波抑制功能。

● 功能特性:支持恒压、恒流及恒功率运行模式。

● 工业设计:模块化设计,并联特性好,系统扩容方便。

● 散热设计:水冷高效低噪音,风冷独立密闭风道散热好。

● 电网适应性: 宽电压及频率适应能力, 支持弱电网运行。

- Power supply: 200-20,000 kW.
- Green and low carbon: high efficiency≥98.5%.
- Power quality: power factor≥0.99, AC side Thdi ≤3%, with reactive power compensation and harmonic suppression.
- Functional characteristics: support constant voltage, constant current and constant power operation modes.
- Industrial design: modular design, detailed parallel characteristics and convenient system expansion.
- Thermal design: water-cooling with high efficiency and low noise level; air-cooling with independent airtight duct and excellent thermal dissipation.
- Grid adaptation: wide range of voltage and frequency adaptability, able to support weak grid operation.



# RNHV3000 高压变频调速器

#### RNHV3000 Series Medium-voltage VFD

● 绿色低碳: 高效率≥98%。

● 电能质量:单元级联多电平,高功率因数≥0.96,低谐波THDu≤2%。

● 功率范围: 10,000-34,000kW。

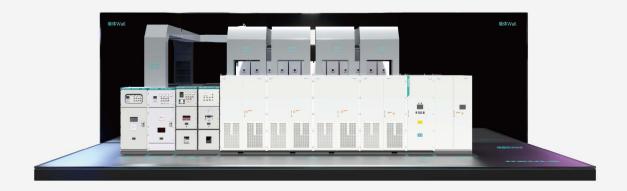
● 散热设计:水冷。

● 工业设计:单元模块化,水冷接口快速联接,维护便捷。

● 整流变压器:干式变压器(室内)或油冷变压器(室外)。

● 5G+工业云:云端智能,远程高效深度技术服务。

- Green and low carbon: high efficiency≥98%.
- Power quality: unit cascade multilevel, high power factor≥0.96, low harmonic THDu≤2%.
- Power range: 10,000-34,000kW.
- Thermal design: water-cooling.
- Industrial design: modular unit, water-cooling interface for quick connection, easy installation and maintenance.
- Rectifier transformer: dry-type transformer(indoor) or oil-cooled transformer (outdoor).
- 5G+Industrial Cloud: cloud intelligent enables deep and efficient remote technical services.



# RNB1000 低压变频器

RNB1000 Series Low Voltage Variable Frequency Drive



- V/F控制模式 可有效的保护驱动器。
- 矢量控制模式高精度的转矩限定控制。
- V/F分离控制模式 输出频率和输出电压可以分设定,可适用于变频电源等多种应用场合。
- 全新设计操作性优越的面板键盘,支持双排显示。
- V/F control mode
   Effectively protecting the drive.
- Vector control mode
   High precision torque limiting control.
- V/F separation control mode
   The output frequency and output voltage can be set separately, making it suitable for various applications such as variable frequency power supplies.
- Newly designed panel keyboard with superior operability, supporting dual row display

## RNB2000 低压变频器

RNB2000 Series Low Voltage Variable Frequency Drive

- 全能的开环矢量驱动性能。
- 高性能的开环矢量控制模式。
- 高性能闭环控制功能。
- 兼容异步电机和永磁同步电机的闭环矢量控制。
- 支持多种PG 卡扩展。
- 可扩展GPRS,WIFI无线监控。
- 同步、异步驱动一体化,开环、闭环全面化。
- Versatile open-loop vector drive performance.
- High performance open-loop vector control mode.
- High performance closed-loop control function.
- Closed loop vector control compatible with asynchronous motors and permanent magnet synchronous motors.
- Supports multiple PG card extensions.
- Scalable GPRS and WIFI wireless monitoring.
- Integration of synchronous and asynchronous drive, comprehensive open-loop and closed-loop.



# RNB5000 低压变频器

#### RNB5000 Series Low Voltage Variable Frequency Drive

- 准确的电机参数自学习,可准确地进行旋转或静止的电机参数 自学习,提供更高的控制精度和响应速度。
- 先进的开环矢量控制性能。
- 良好的电压、电流控制有效减少变频器的故障保护次数。
- 提供多种制动方式,可快速停车。
- 支持异步电机和永磁同步电机驱动,允许驱动器在两台不同的 电机之间切换控制、切换功能可以由通讯或多功能端子设定。
- Accurate self-learning of motor parameters for rotation or rest to provide higher control accuracy and response speed.
- Advanced open-loop vector control performance.
- Good voltage and current control effectively reduces the frequency of fault protection for the variable frequency drive.
- Provide multiple braking methods for quick stop.
- Supports asynchronous motor and permanent magnet synchronous motor driving, and allows the driver to switch control between two different motors. The switching function can be set by communication or multifunctional terminals.



## RNB6000 低压变频器

RNB6000 Series Low Voltage Variable Frequency Drive



- 使用高性能电流矢量控制,感应电机也可以实现 高起动转矩。
- 高性能闭环控制功能。
- 配备丰富的参数整定方式。
- 符合用途的瞬时停电措施,保护功能完善。
- 使用用途选择功能,轻松调试。
- 标配键盘内部具有参数拷贝功能,可进行参数上 传下载。
- High starting torque can also be achieved with induction motors using high-performance current vector control.
- High performance closed-loop control function.
- Equipped with a wealth of parameterization methods.
- Application compliant instantaneous blackout measures with perfect protection.
- Easy debugging using the usage slection function.
- The standard keyboard has an internal parameter copy function for uploading and downloading parameters.

# RNMV 智能型高压固态软起动柜

RNMV Series Intelligent Medium-voltage Solid State Soft Starter

- 采用可控硅阀组串联、双电源触发技术;
- 利用光纤复用技术实现高压组件全数字化:
- 通过HMI,实时监控系统状态,显示阀组数据(RC 平均电压、RC 峰值电压等),实现控制参数的设置或修改;
- 通过工业以太网+5G,实现远程软件更新、调试、数据波形监控和故障分析;实现电机运行状态的在线分析诊断,对电机进行故障预警以及优化控制。
- Adopt serial thyristor valve group and dual power supply trigger technology:
- Fiber optic communication multiplexing technology realizes the digitalization of medium-voltage components.
- HMI offers real-time monitoring of system status, display of valve group data (RC average voltage, RC peak voltage, etc.) and the setting/modification of system control parameters.
- Industrial Ethernet+5G supports remote software update, debugging, data waveform monitoring and fault analysis; calculation of cloud platform helps to analyze and diagnose motor operating state online for fault warning and optimization control of the motor.



# 工商业户外储能柜

Industrial and Commercial Outdoor Energy Storage Cabinet



- 内置烟感、水浸、凝露检测、消防系统、安全性高。
- 模块化设计、运输安装便捷、调试周期短、后期维护高效。
- 人机交互界面、真彩触摸屏、操作方便、实时数据、 历史记录、故障显示、本地远程控制、在线升级。
- 采用门装嵌入式一体化空调,不占机柜空间,提高户外柜可 用空间,顶部结构完整性更佳,防水效果好。
- 远程控制响应时间<5秒,充放电转换效率>88%,数据采集 频率<30秒。</li>
- Built-in smoke detection, flooding, condensation detection, and fire protection system for high safety.
- Modular design, convenient transportation and installation, short commissioning cycle, efficient maintenance.
- Human-Machine Interaction interface, true color touch screen, easy to operate, real-time data, historical records, fault display, local and remote control, online upgrade.
- The door-mounted embedded integrated air conditioner does not take up cabinet space and improves the available space in the outdoor cabinet, with better structural integrity at the top and good waterproof effect.
- Remote control response time is ≤5 seconds, charging and discharging conversion efficiency is ≥88%, data acquisition frequency is ≤30 seconds.

# JJR8800低压软起动器

JJR8800 series low Voltage soft starter



- 可设置起动方式,起动过程平滑,起动速度快,适用场合广。
- 内置旁路,外部接线方便,工作稳定、可靠性高、调整、维修简便。
- 具有故障自我诊断功能,智能程度高,出现故障自动及时停机,能够有效保护软起动器本身及电机,安全性高。
- 良好的可视化操作界面,功能参数丰富,简单易懂。
- 可扩展联网模块,远程在线升级程序,远程参数监控,远程控制起 停及判断故障等功能。
- Adjustable starting method, smooth starting process, fast starting speed, suitable for a wide range of applications.
- Built in bypass with advantages of convenient external wiring, stable operation, high reliability, easy adjustment and maintenance.
- Equipped with fault self diagnosis function, high intelligence level, automatic and timely shutdown in case of faults, can effectively protect the soft starter itself and motor, with high safety.
- Good visual operation interface, rich functional parameters, simple and easy to understand.
- Expandable networking module, remote online upgrade program, remote parameter monitoring, remote control of start/stop, fault diagnosis, and other functions.

# JJR8000 低压软起动器

JJR8000 Series Low Voltage Soft Starter

- 起动检测电机反馈电压实现闭环控制,保证电机在各种工况和不同的负载启动成功。
- 可编程延时起动方式,可编程连锁控制。
- 具有多种保护功能:过流,三相电流不平衡,过热、缺相,电机过载等进行保护。
- 动态故障记忆功能,便于查找故障起因。
- 现场总线的全动态控制监测起动器,易于组网。
- 远程录波,查看起动情况,便于故障分析处理。
- During the starting stage, the soft starter detects the feedback voltage of the motor and realizes closed loop control to guarantee successful startup of motors under different working conditions and with different loads.
- Programmable delay startup mode and programmable interlock
  control
- Multiple protective functions against overcurrent, unbalance of three-phase current, overheating, phase failure, motor overload etc.
- Dynamic fault memory function makes search for cause of failure easier
- Fully dynamic control and monitoring of starter by the site bus makes network construction easier.
- Remote waveform recording facilitates view of startup conditions and facilitates fault analysis and handling.



# JJR5000 低压软起动器

JJR5000 Series Low Voltage Motor Soft Starter



- 三种起动参数可选,方便一台电机软起动器启动不同功率的电机负载:
- 动态故障记忆功能,便于查找故障起因;
- 大电流、电流缺相、电机热过载等全面的电机综合保护功能;
- 强大的软件功能,丰富的硬件配置,轻松满足各行业场合不断 变化的需求:
- Profibus/Modbus 两种通讯协议可供选择;
- 紧凑的结构设计,方便安装,易于使用;
- 人性化的操作模式,显示界面可灵活选择: LED 或 LCD 显示。
- Three groups of starting parameters are optional to make it possible for one soft starter to start motor loads of different powers.
- Dynamic fault record function facilitates troubleshooting.
- Multiple protection functions, such as large current, current phase loss, and motor thermal overload etc. are available.
- Powerful software functions and rich hardware configurations can easily satisfy changing requirements of application occasions of
- different industries
- Two communication protocols are optional: Profibus/Modbus.
- Compact structural design facilitates installation and use.
   Humanized operation mode is available. Flexible selection of display interface: LED or LCD.

# SSD1 低压软起动器

SSD1 Series Low Voltage Motor Soft Starter

- 参数设定菜单采用树级管理便于查找修改;
- 动态故障记忆功能,便于查找故障起因;
- 大电流、电流缺相、电机热过载等全面的电机综合保护功能;
- 自带标准Modbus通讯协议:
- 紧凑的结构设计,方便安装,易于使用;
- 端子采用插拔式,方便接线;
- 驱动板与主板二合一, 节省成本, 方便操作;
- Parameter setting adopts Tree-menu management for easy checking & modification;
- Dynamic fault record function facilitates troubleshooting;
- Multiple protection functions, such as large current, current phase loss, and motor thermal overload are available;
- Default standard Modbus communication protocol;
- Compact structural design facilitates easy installation and use;
- Terminals are plug-in type, easy for wiring;
- The driving board and main board are integrated to one to save costs and facilitate operation.





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