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Nation

March,

# RENLE

## JJR8000系列

Intelligent Motor Soft Starter



雷诺尔

Shanghai RENLE  
Science&Technology Co., Ltd.

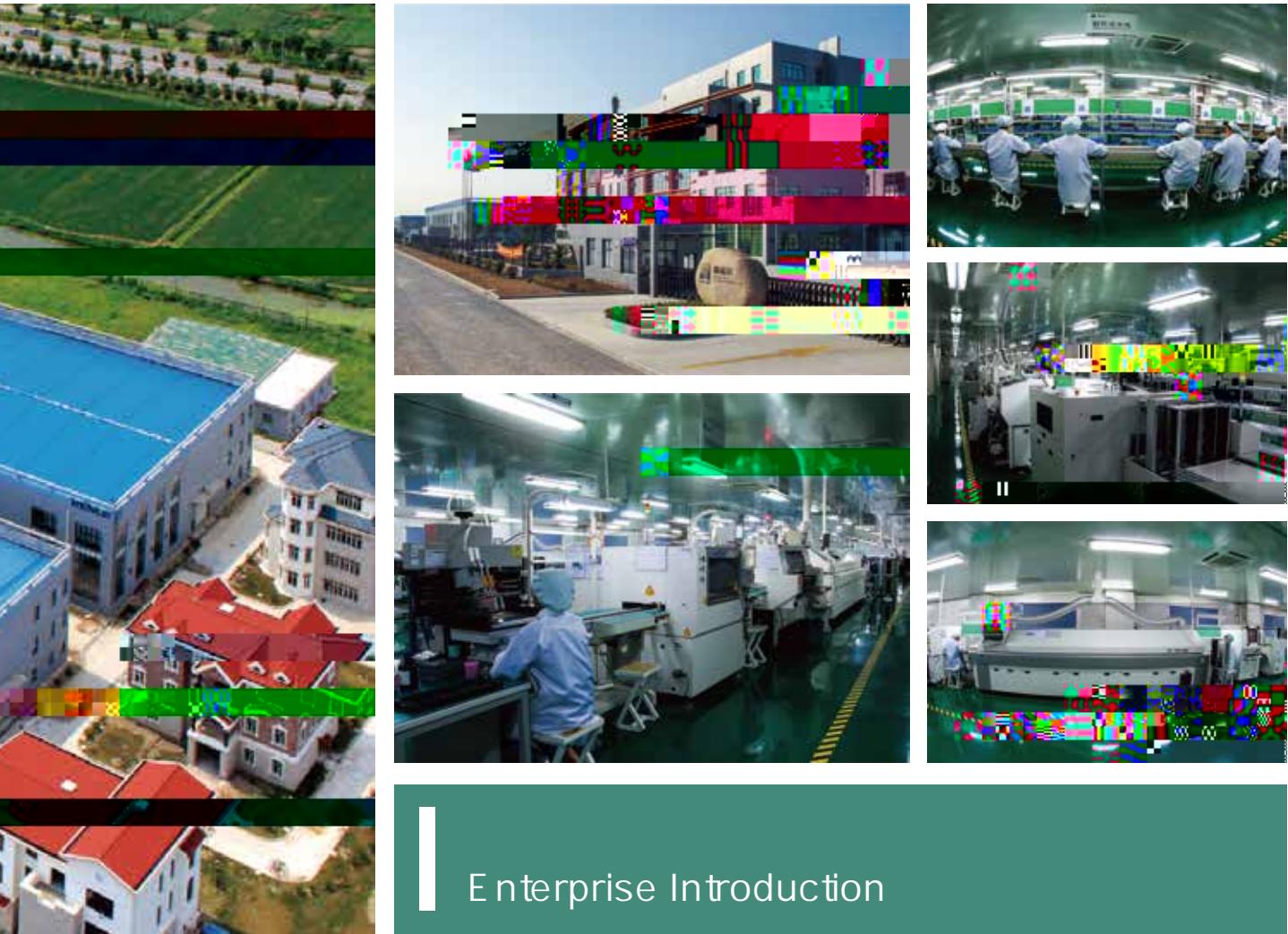


上海雷诺尔科技股份有限公司座落于上海市嘉定区国家级高新技术产业园区内，占地面积100000方米，厂房85000平方米。产品覆盖高低压电机软起动器、高低压变频调速器、智能化电气、新能源电气和高低压输变电成套设备等，产品广泛应用于电力、冶金、石油石化、矿山、化工、建筑、建材、市政、军工业、轻工业、纺织印染、造纸、制药等行业，产品畅销世界多个国家和地区。

公司先后为上海世博会配套项目、北京奥运会配套项目、上海国际航运中心洋山深水港工程、上海浦东机场、上海虹桥机场、三峡工程、甘肃卫星发射中心、南水北调、西气东输、中国石油集团、中国石化集团等国家重点项目配套使用，优质的产品质量和良好的售后服务赢得了用户的一致好评。

公司严格控制产品质量，力争尽善尽美，构筑了坚实的质量系统工程，公司已获得ISO9001质量管理体系认证、ISO14001环境管理体系认证、欧共体CE认证，国家强制性CCC认证及产品检验认证。公司不断引进国际先进生产设备及检测设备，创建实验室，并为多个国内院校提供研发实验基地，公司一直注重自主创新，建立了颇具实力的新产品开发技术中心。

公司将不断地开发出节能、高效、精密、人性化的产品，以专业独特的工控技术、领先适用的创新产品以及深度整合的解决方案，帮助用户实现经济转型和产业升级，并加快国际化步伐，用品质征服世界，立志成为享誉全球的智能电气专业供应商！



## Enterprise Introduction

Shanghai RENLE Science & Technology Co., Ltd is located in the High & New Technology Industrial Park of Jiading District, Shanghai, China. The company covers a total area of 100,000 square meters, including 85,000 square meters of workshops. Its products include HV/LV motor soft starter, HV/ LV frequency inverter, intelligent electricals, new-energy electricals, HV/LV complete equipment for electric power transmission distribution and so on. Its products are widely used in electric power, metallurgy, petroleum chemistry, military industry, mining, chemical industry, construction, light industry, pharmaceuticals, municipal construction, textile printing and dyeing, papermaking, rubber and plastic, electrified railway construction and other industries. Its products sell well in many countries and regions of the world.

The company products are used in many projects, such as Expo 2010 Shanghai China, 2008 Beijing Olympic Games, Yangshan Deepwater Port Project of Shanghai International Shipping Center, Shanghai Pudong Airport, Shanghai Hongqiao Airport, the Three Gorges Project, Gansu Satellite Launching Center, South-to-North Water Diversion Project, West-to-East Natural Gas Transmission Project, China National Petroleum Corp., SINOPEC, Double Coin Holdings, Shandong Linglong Tyre and other national key supporting projects. Its premium products and excellent after-sales service are favored by the clients.

Renle always lays emphasis on quality control so as to attain perfection. The company has passed the certification of ISO9001 Quality Management System, ISO 14001 Environment System, OHSAS 18001 Occupational Health and Safety Management System, CE, TUV, GOST and national CCC etc. RENLE has been continuously introducing internationally advanced production and test equipment to establish laboratories and provide R&D experiment base to domestic universities and colleges. The company, paying much attention to independent innovation, has established powerful new product R&D technical center.

The company shall keep developing products of energy-saving, efficiency, precision and humane. With the specialized and unique control technology, advanced and applicable innovative products, and deep-integrated solutions, the company helps clients in realizing economic transformation, industry upgrading and speedy internalization. With its high-qualified products, the company aims to be the world-renowned specialized manufacture of intelligent electrical equipment.



▶ Product Description

JJR8000系列智能型电机软起动器是采用电力电子技术、微处理器技术及现代控制理论技术生产的具有当今国际先进水平的新型起动设备。该产品能有效的限制异步电动机启动时的起动电压,可广泛应用于风机、水泵、输送类及压缩机等重载设备,是星/三角转换、自耦降压、磁控降压等降压启动设备的理想换代产品。

JJR 8000 series intelligent motor soft starter adopts international advanced electronics technology, microprocessor technology and modern control theory to efficiently limit start voltage of asynchronous motor. The equipment could be widely applied to fan, pump, conveyor and compressor and other heavy load equipment. It is an excellent product to substitute traditional startup equipments such as star/triangle transition, self-coupling voltage reduction, magnetron voltage reduction and so on.

▶ Product Features

- 可通过简单的编程应用负载类型直接选择定制的参数；
- 三组启动参数可选,方便于一台电机软起动器启动不同功率的电机负载。
- 启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。
- 三种起动方式:电压斜坡起动方式可得到最大的输出转矩;恒流软起动方式最佳的限制起动电流;直起软起动方式可以直接起动电机软起动器。
- 可编程延时起动方式,可编程连锁控制。
- 对输入电源无相序要求。
- 起动时间、停车时间均可数字修改。
- 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。
- 可在线查找最大的起动电流和最大的运行电流。
- 现场总线的全动态控制监测起动器,易于组网。
  
- Choose parameters through simple programming load type;
- A choice of three sets of start-up parameters, convenient for one motor starter starting motor loads with varied powers.
- Closed-loop control realized through initiating the motor feedback voltage to ensure a successful motor start-up under all working conditions and varied loads.
- Three ways of start-up: voltage-slope start brings the maximum output torque; constant-current soft start brings the optimum limiting start-up current; direct-current soft start can initiate the soft starter directly.
- Way of programmable delayed start-up, and programmable inter-lock control.
- No phase-sequence requirements for the input power source.
- The start-up and stop times can be digitally modified.
- Capable of multi-functions: over-current, three-phase current imbalance, overheat, phase loss and motor overload protection.
- Dynamic fault memory function is easy for faults identification.
- Be capable of online searching for the maximum currents of start-up and operation.
- Overall dynamic starter control and monitor in the fieldbus, easy for wiring.

▶ Introduction of Production Applications

- 水泵—利用软停车功能,停止时缓解泵的水锤显现,节省了系统维修的费用。
- 球磨机—利用电压斜坡起动,减少齿轮转矩的磨损,减少维修工作量,既节省时间,又节省了开支。
- 风机—减少皮带磨损和机械冲击,节省了维修的费用。
- 压缩机—利用限流,实现了平滑启动,减少电动机发热,延长使用寿命。
- 皮带运输机—通过软起动实现平滑渐进的起动过程,避免产品移位和液体溢出。
  
- Pump: make use of the soft stop function to relieve the influence of water hammer so as to save the system maintenance cost.
- Ball mill: make use of the voltage ramp startup to reduce gear torque friction so as to save cost and time.
- Fan: reduce the belt friction and mechanical conflict to save maintenance cost.
- Compressor: use limited current to realize smooth start-up, decrease heat from motor and prolong device life.
- Conveyor: make use of the soft start to realize smooth and gradual startup process in order to avoid product move and liquid overflow.

## ► Technical Features

- 主回路工作电压: AC380V/690V/1 140V(+10%~-25%);
- 主回路工作电流: 13A~1500A;
- 主回路频率: 50Hz/60Hz(± 2%);
- 控制回路供电: AC/DC220V+ 15%(0.5A);
- 软起动上升时间: 1-120S;
- 软停车时间: 0-100S;
- 冲击时间: 0.1~0.3S;
- 冲击电压: 50%~ 100%;
- 限流倍数: 1.5-5.0le;
- 初始电压: 25% ~80%Ue;
- 冷却方式:自然冷却;
- 通讯方式: RS485串行通讯(Modbus - RTU/Profibus可选);
  
- Main loop work voltage: AC380V/690V/1 140V(+10%~-25%);
- Main loop work current: 13A~1500A;
- Main loop frequency: 50Hz/60Hz(± 2%);
- Control-loop power supply: AC/DC220V+ 15%(0.5A);
- Soft-start rising time: 1-120S;
- Soft-stop time: 0-100S;
- Impact time: 0.1~0.3S;
- Impact voltage: 50%~ 100%;
- Current limiting times: 1.5-5.0le;
- Initial voltage: 25% ~80%Ue;
- Way of cooling: natural cooling
- Way of communication: RS485 series communication (An option of Modbus -RTU and Profibus)

## ► Usage and Environment Standard

防护等级 Protection level	IP00
耐振性 Vibration resistance	符合IEC 68-2-6: 2至13Hz为1.5mm峰值/13至200Hz为1gn Comply with IEC 68-2-6: 2 Hz to 13Hz is 1.5mm peak value; 13 Hz to 200Hz is 1gn
抗冲击性 Impact resistance	符合IEC 68-2-27: 15g, 11ms Comply with IEC 68-2-27: 15g, 11ms
最大环境污染等级 Maximum ambient pollution class	3级,符合IEC 947-4-2 Class 3, comply with IEC 947-4-2
最大相对湿度 Maximum relative humidity	93%无冷凝或滴水,符合IEC 68-2-3 93% no condensing or drip. Comply with IEC 68-2-3
环境温度 Ambient temperature	贮存: -25 至+70 运行: 10 至+40 不降容;最高+60 , 40 以上每升高1 电流降低2% Storage: -25 to +70 Running : 10 to +40 without derating. Maximum +60 , when temperature above 40 , the current will reduce by 2% for temperature rising per 1 .
最大运行高度 Maximum operation altitude	2000米不降容(2000米以上,每增加100米,电流降低0.5%) 2000m without capacity reduction ( above 2000m, current will reduce by 0.5% for every 100 meters increase altitude)
运行位置 Operation position	垂直位置, ± 10 ° 以内 Vertical position , A range of ± 10 °







人机界面用于几个方面,如软起动器的编程输入和输出设定,保护功能、警告、总线通讯等等。这个界面还可以用于参数设定,本地控制和显示软起动器的状态信息。

The human-machine interface is used in several aspects, such as programmable input and output settings of soft starter, protection, warning, and bus communication. This interface also can be used in parameter setting, local control and display the status of soft starter.

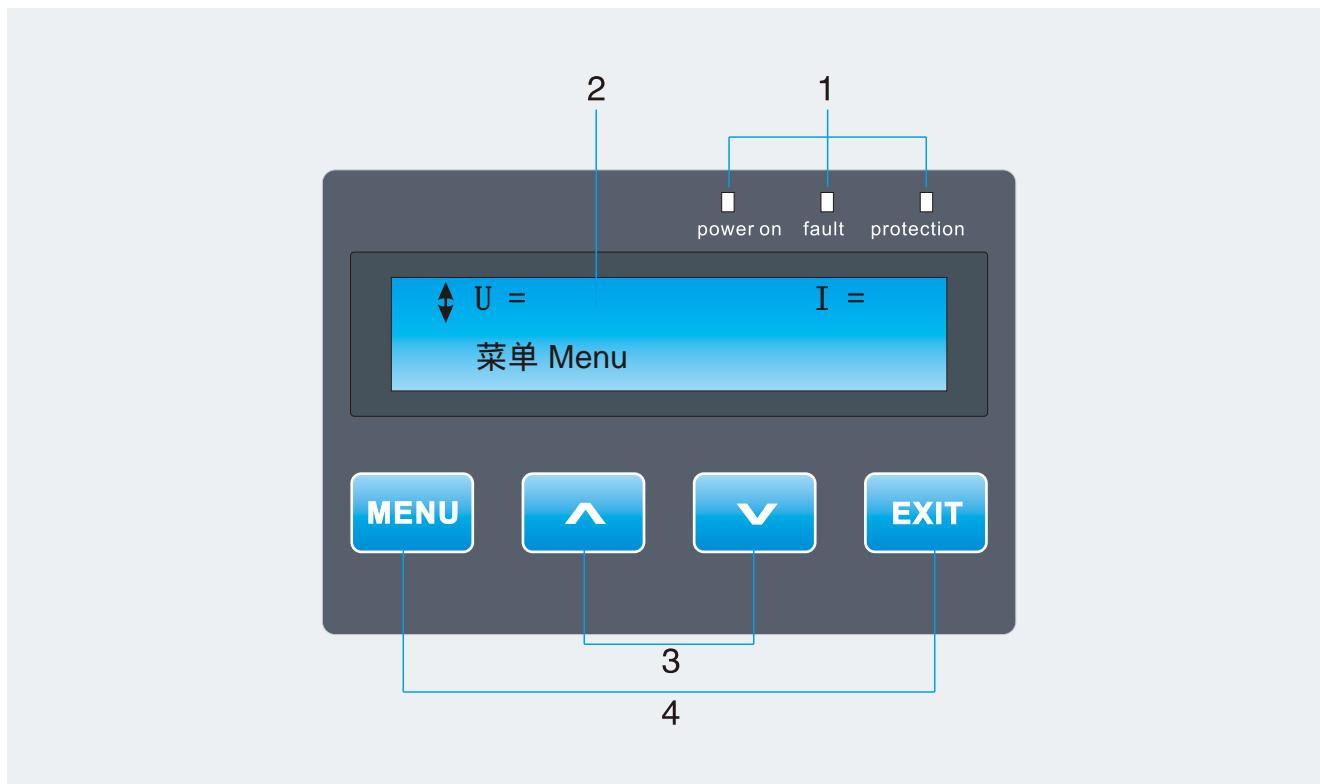
### 人机界面有以下几部分组成 :

The huma n-machine interface is comprised of following aspects:

**LED状态指示** LED status indication

**LCD显示指示** LCD display indication

**键盘操作** Keyboard operation



#### 注解 :

1. LED状态指示灯 (电源、故障、保护)

2. LCD显示屏

3. 调节参数的增加或减小。

4. MENU 选择各个模式下的分项功能。

EXIT 退出键

(带有箭头的菜单/参数可以滚动/更改)

#### Notes:

1. LED status indication lamp ( Power, Faults, Protection)

2. LCD Display screen

3. Parameter adjustment, an increase or decrease.

4. MENU choose the function under each mode.

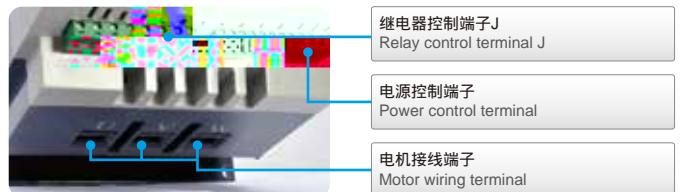
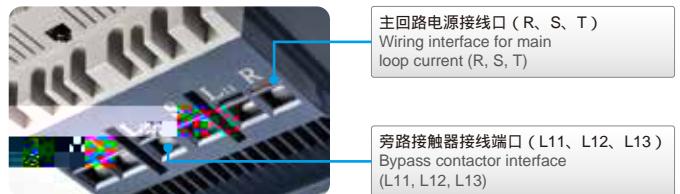
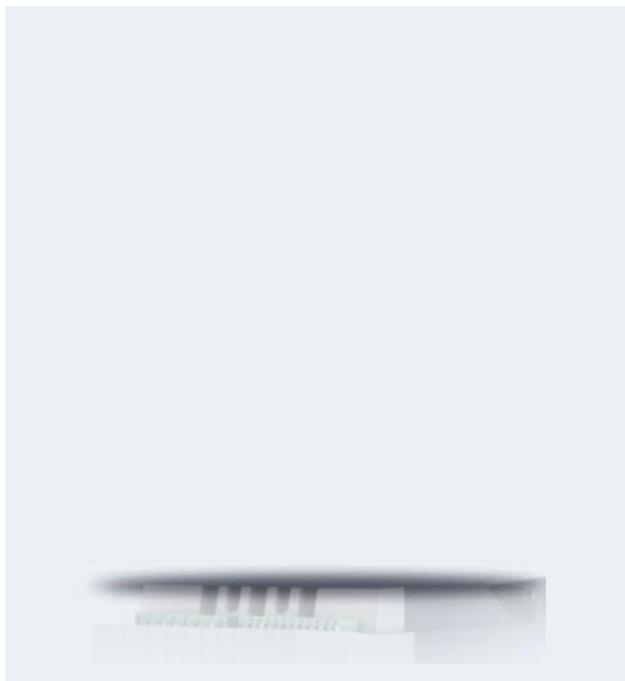
EXIT Retreat button

(The menu or parameters with an arrow can be scrolled and changed.)

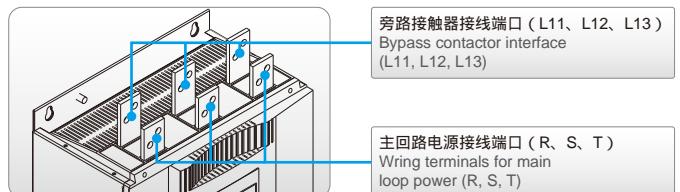


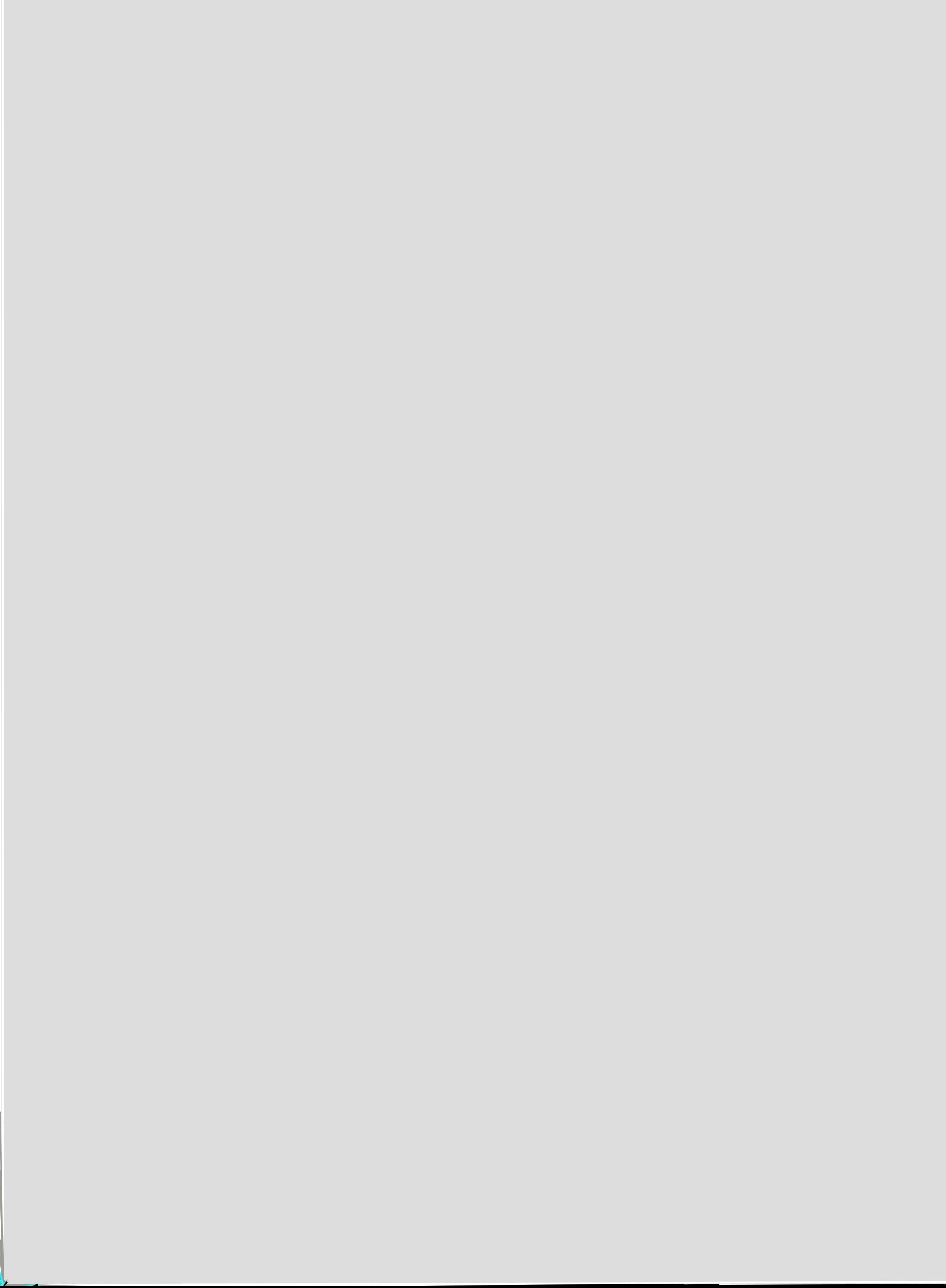
## Product Outline and Wiring Terminals

### M0外形接线说明 MO Outlines and Wring Instructions



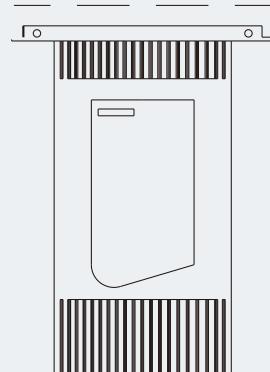
### M1/M2/M3 外形接线说明 M1/M2/M3 Outlines and Wring Instructions





## JJR8000系列智能型电机软起动器M1、M2、M3型外观尺寸

JJR 8000 Series Intelligent Motor Soft Starter Outline & Dimension of M1, M2 and M3



结合实际应用场景，请在相应的“ ”打“ ”。

Please tick off in related places according to facts.

### JJR8000-M0系列电机软起动器 JJR 8000-M0 Series Motor Soft Starter

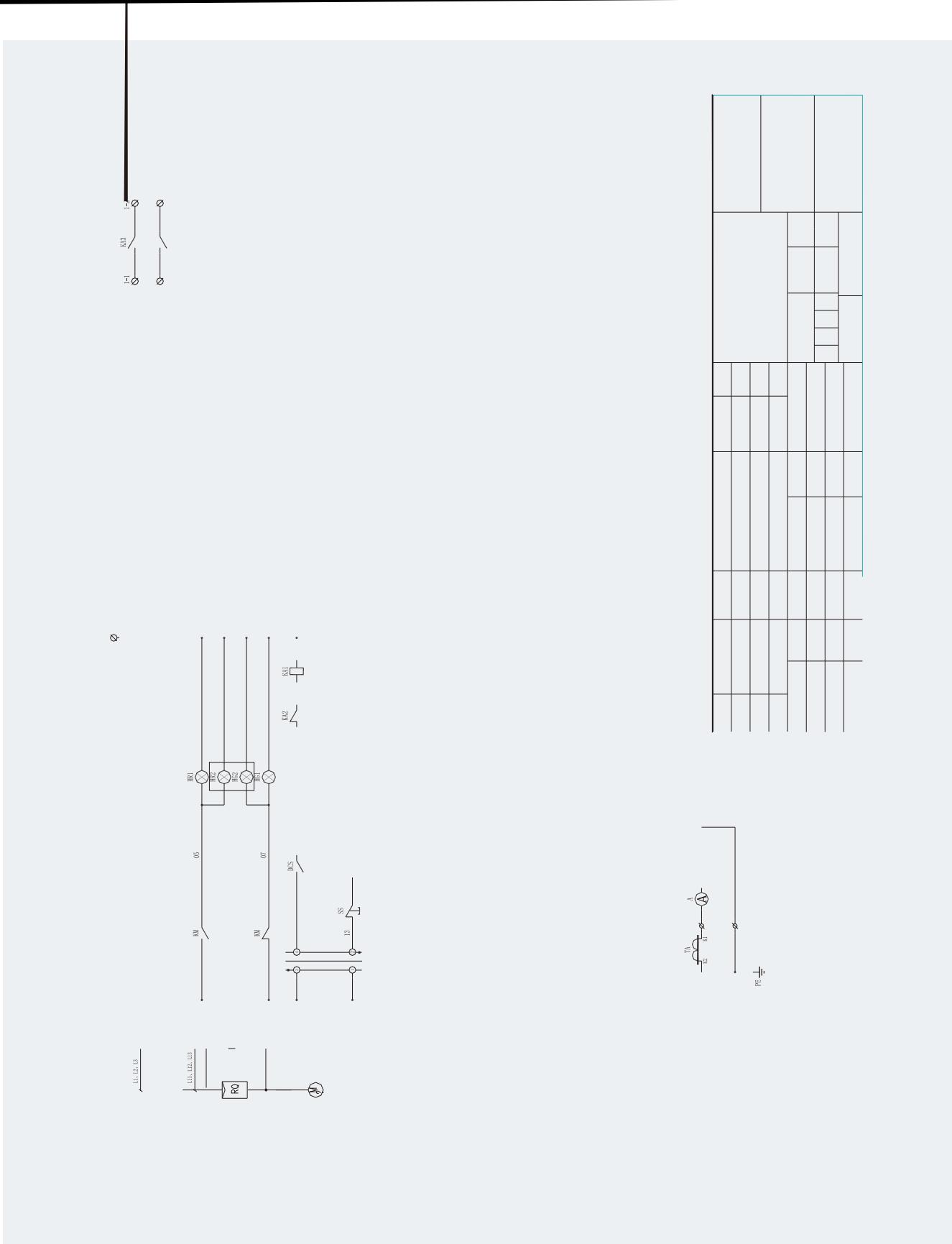
规格型号 Specifications & Type			额定电流 Rated Current	适用功率 Power
JJR8000-13	380V	M	13	5.5
	690V	P		10
JJR8000-17	380V	M	17	7.5
	690V	P		13
JJR8000-24	380V	M	24	11
	690V	P		18.5
JJR8000-32	380V	M	32	15
	690V	P		30
JJR8000-38	380V	M	38	18.5
	690V	P		37
JJR8000-45	380V	M	45	22
	690V	P		45
JJR8000-60	380V	M	60	30
	690V	P		55
JJR8000-72	380V	M	72	37
	690V	P		75
JJR8000-86	380V	M	86	45
	690V	P		90
JJR8000-105	380V	M	105	55
	690V	P		110

### JJR8000-M1系列电机软起动器 JJR 8000-M1 Series Motor Soft Starter

规格型号 Specifications & Type			额定电流 Rated Current	适用功率 Power
JJR8000-142	380V	M P	142	75
	690V			130
	1140V			220
JJR8000-170	380V	M P	170	90
	690V			160
	1140V			270
JJR8000-220	380V	M P	220	150
	690V			200
	1140V			350
JJR8000-250	380V	M P	250	132
	690V			250
	1140V			400
JJR8000-290	380V	M P	290	160
	690V			315









## Wiring Instruction of JJR 8000

P4      P3      P2      P1



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National Key Projects



三峡工程  
Three Gorges Project  
北京奥林匹克水上公园  
Beijing Olympic Rowing - Canoeing Park  
北京奥运会配套项目  
Supporting Projects for the Beijing Olympic Games  
北京五棵松体育馆  
Wukesong Indoor Stadium  
国务院机关事务管理局  
Bureau of Government Offices Administration of the State Council  
中国中央电视台  
CCTV(China Central Television)  
首都国际机场  
Beijing Capital International Airport  
二炮导弹基地  
China Second Artillery Corps Missile Base  
中国空空导弹研究中心  
China Air-to-air Missile Research Centre  
中国人民解放军空军雷达基地  
LA Air Force Radar Base  
“南水北调”  
South-to-North Water Diversion  
黄海南高速公路  
Zhejiang Huangqunan Expressway  
“西电东送”  
Electricity Transmission from West to East China  
“西气东输”  
West-East Natural Gas Transmission  
上海磁悬浮轨道交通车站  
Shanghai Maglev Rail Transit Station  
上海世博会配套项目  
Supporting Projects for Shanghai Expo  
上海浦东机场  
Shanghai Pudong International Airport  
上海国际汽车博物馆  
Shanghai Auto Museum  
上海虹桥机场扩建工程  
Extension Project for Shanghai Hongqiao Airport  
内蒙古呼和浩特白塔机场扩建工程航站楼  
Terminal Expanded for Hohhot Baita International Airport  
沈阳奥体中心  
Shenyang Olympic Sports Center  
北京南苑机场  
Beijing Nanyuan Airport  
云南2409空军机场  
Yunnan 2409 Airforce Airport  
青岛奥体中心  
Qingdao Olympic Sports Center  
济南奥体中心  
Jinan Olympic Sports Center  
双流国际机场扩建工程  
Extension Projects for Chengdu Shuangliu International Airport  
重庆袁家岗奥林匹克体育中心  
Chongqing Olympic Sports Center  
新白云国际机场  
New Baiyun International Airport  
武汉天河机场  
Wuhan Tianhe Airport  
上海地铁明珠三号线  
Shanghai Metro Line 3  
重庆国际会议中心  
Chongqing International Conference Centre  
山西万家寨引黄工程  
Shanxi Wanjiazhai Yellow River Diversion Project  
青海小游山生态工程  
Qinghai Xiaoyou Mountain Ecological Project



