

SHCKELE

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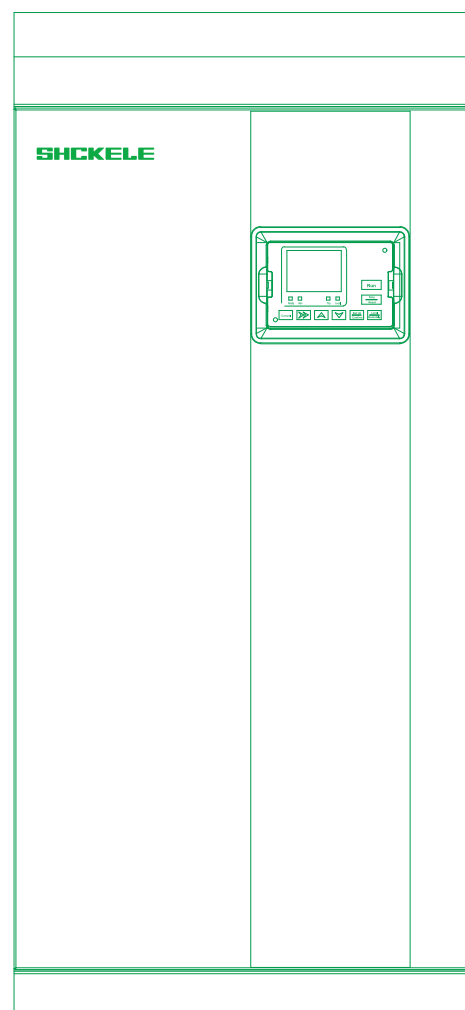
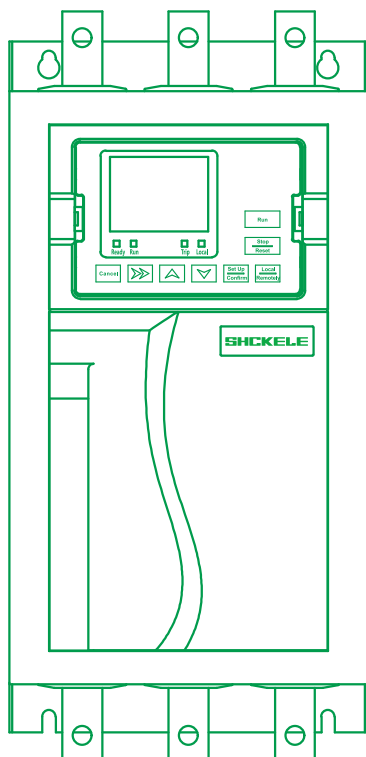


Be tolerant to diversity willing to innovation

---- Solution provider in the field of motor drive control

Selection Guide

Motor Soft Starters



SCKR1-6800 Series ▶ Online intelligent motor soft starter/cabinet



← SCKR1-6800 Series Online intelligent motor soft starter/cabinet

► More control

- SCKR1-6800 soft starter/cabinet adopts a new generation of soft start technology, and adaptive control realizes the control of the motor acceleration curve and deceleration curve to an unprecedented level.
- The soft starter reads the data of the motor in the process of starting and stopping, and then adjusts to achieve the best effect. Just select the curve most suitable for your load type, and the soft starter will automatically ensure that the load is accelerated in the most stable way possible.

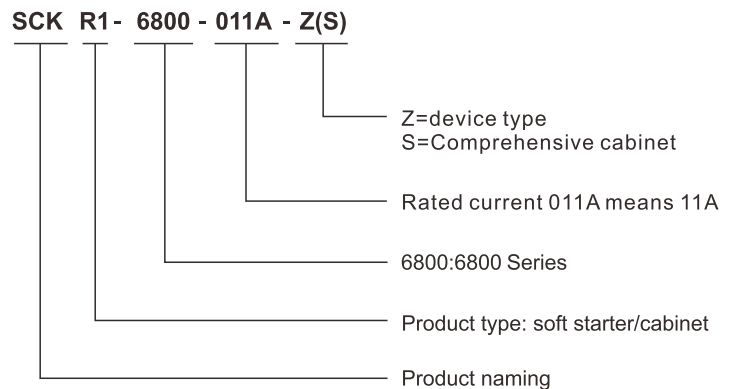
► Features

- SCKR1-6800 is a highly intelligent, very reliable and easy-to-use soft starter/cabinet. The newly designed functions of SCKR1-6800 are used for quick setting or more personalized control. It is a perfect solution. Its performance includes:
- Large LCD screen that can display feedback information in Chinese and English languages, other languages can be customized
- Remotely installable operation panel
- Intuitive programming
- Advanced start and stop control functions
- A series of motor protection functions
- Extensive performance monitoring and event logging

► Easy to use

- Whether in the process of installation, debugging and use, or troubleshooting, SCKR1-6800 is very easy to use.
- Quick setting can make the machine run quickly, the information screen can display various operating data, and the trip message can be displayed in language to explain exactly where the problem is.
- The control cable can be routed from the top, bottom or left. Very flexible and unique cable access and fixing devices make the installation faster and more tidy and beautiful. You will experience the use soon.

► Selection model definition



► Multiple starting control methods

- A variety of starting methods can meet your various load requirements, and users can choose the starting method according to their own load conditions.
- SCKR1-6800 simplifies the installation and operation of the motor starting system, thereby reducing installation costs and shortening installation time.



(The current range of 11A-640A is conventional 380V, and 220V needs to be ordered separately)

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► Real-time display of real language

Chuanken hopes to make your work easy and worry-free, so SCKR1-6800 displays feedback information in real language, you don't have to check the code to understand what happened. With 10 sets of fault records, tracking the performance of the motor has never been easier.



► Remote display installation

With the optional operating panel installation kit, the operating panel can be easily installed outside the cabinet. If multiple soft starters are installed in a cabinet, it is convenient for centralized control in one place and all relevant information can be obtained. You can also install multiple monitors side by side,



► Detachable connector and unique wire connector

It adopts pluggable control wiring block, which is easy to install. Just unplug each terminal block and re-insert the terminal block after connecting the wires.

The unique flexible cable routing method of SCKR1-6800 can be used to effectively arrange the cables. The cables can be routed from the top, left or bottom.



► 485 Communication

Comes with regular Modbus 485 communication function, and can also customize mobile phone APP, etc., which is convenient for users to remotely debug and control.

SCKR1-6800 Series Online intelligent motor soft starter/cabinet

Dimensions and specifications

Voltage Level	Rated Working Current	Rated Power	Display method	Number of parameters	Protection function type	input Output Number of terminals	Overload capacity
220V	11A- 640A	5.5kW- 185kW	Chinese English) LCD	49 PCS	10 kinds	11 PCS	Adjustable
380V	11A- 640A	5.5kW- 320kW					

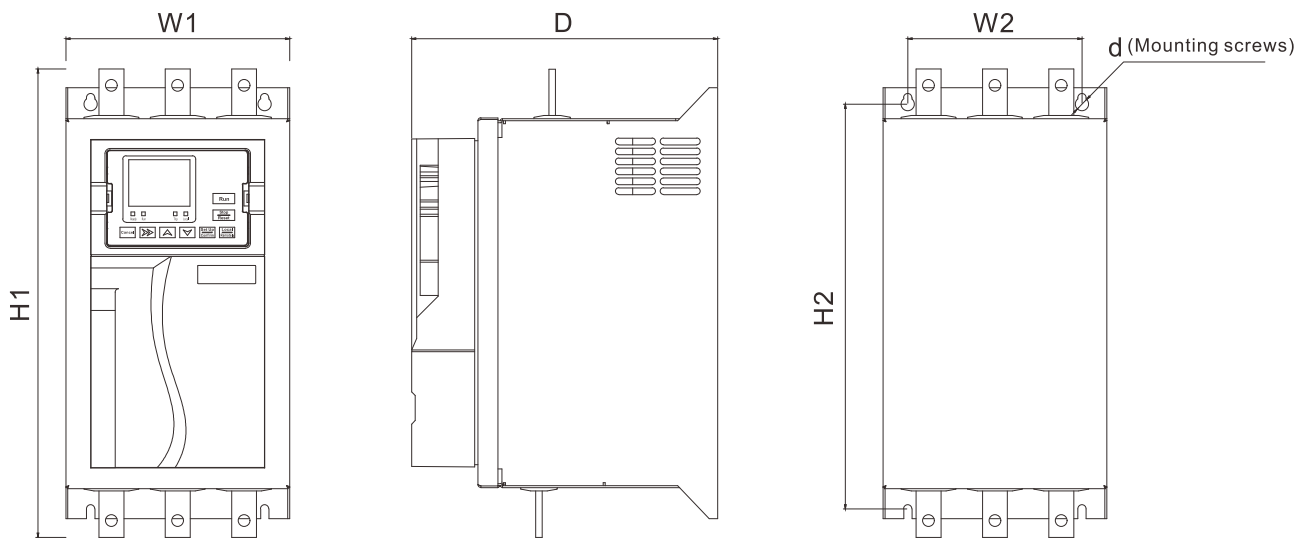


figure 1

Specification model	Dimensions (mm)			Installation size (mm)			Outline
	W1	H1	D	W2	H2	d	
11A-75A	105	240	168.5	75	211	M6	figure 1
90A-150A	135	282.5	184.5	105	244	M6	
180A-230A	190	370.5	224.5	150	322	M8	
264A-400A	225	393	243	170	333	M8	
440A-640A	390	677	294	260	601	M8	

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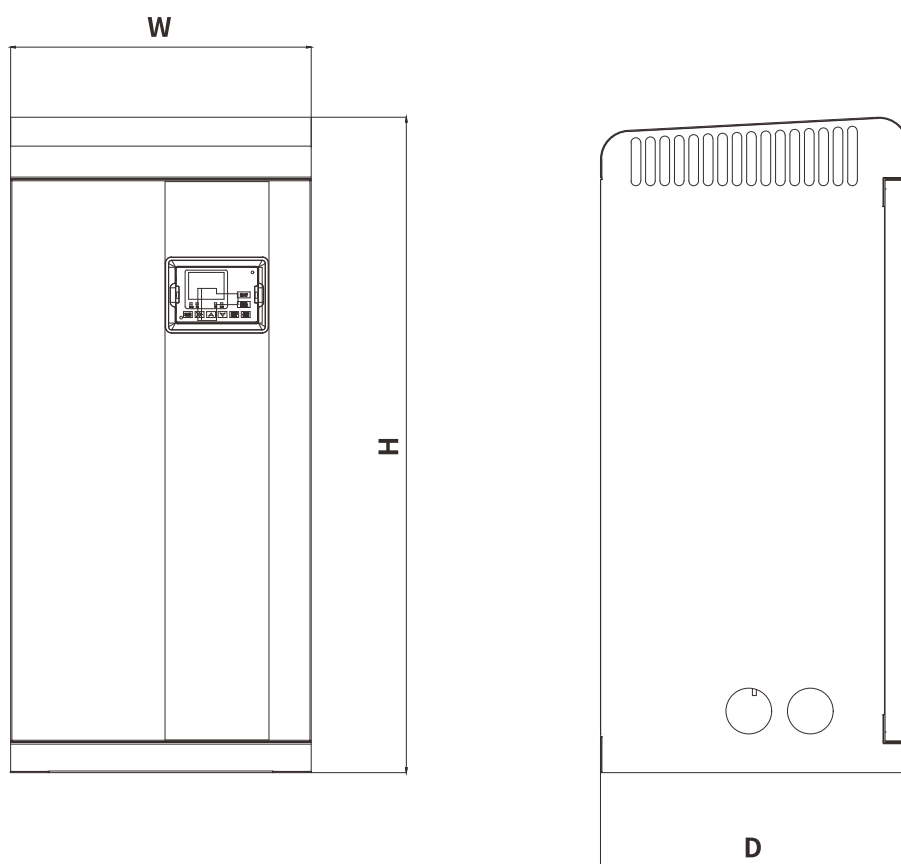


figure 2

Specification model	Dimensions (mm)			Outline
	W	H	D	
11A-150A	312	681	320	figure 2
180A-230A	400	850	380	
264A-400A	500	1200	400	
440A-640A	680	1400	420	

← SCKR1-6800 Series Online intelligent motor soft starter/cabinet

► Basic wiring diagram of soft starter

Three-phase power input

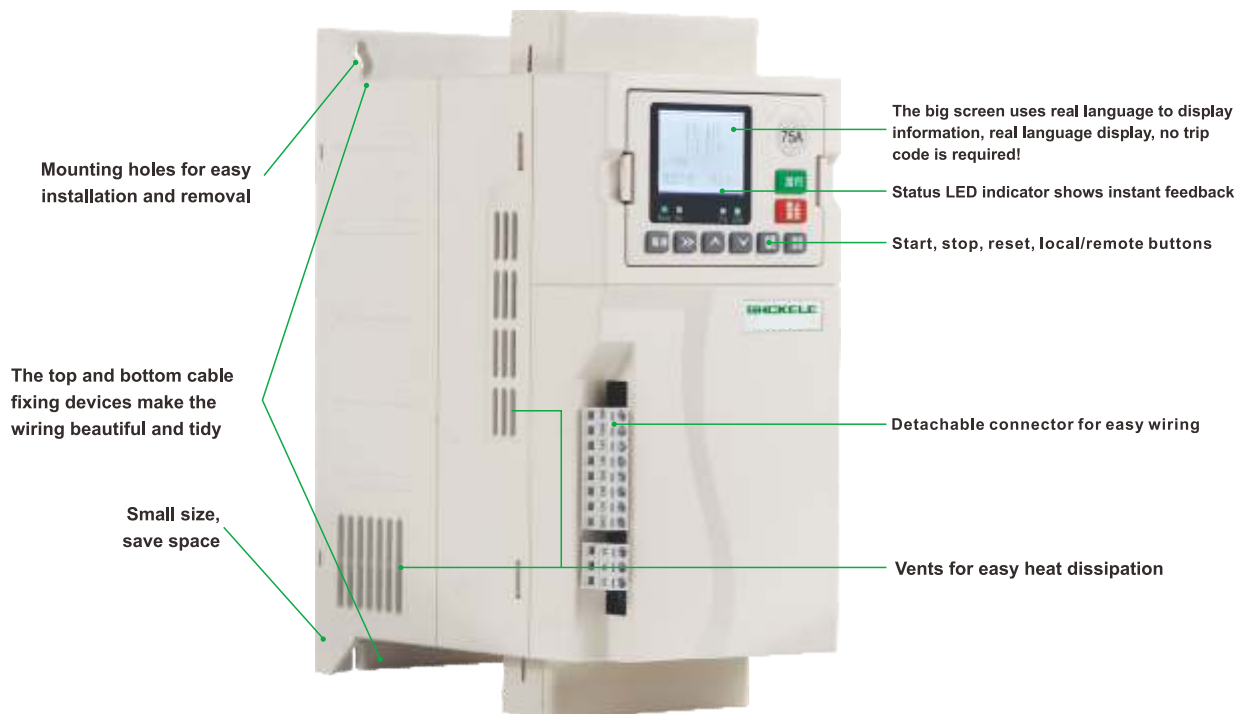


Squirrel cage three-phase asynchronous motor



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► Soft starter function introduction



► Optional soft start curve

- ▶ Voltage ramp start
- ▶ Current limit start
- ▶ Torque start

► Expanded input and output options

- ▶ Remote control input
- ▶ Relay output
- ▶ Analog output
- ▶ RS485 communication output

► Customizable protection

- ▶ Input phase loss
- ▶ Output phase loss
- ▶ Soft starter overheated
- ▶ Phase sequence
- ▶ Running overload
- ▶ Starting overcurrent
- ▶ Running overcurrent
- ▶ Overpressure
- ▶ Undervoltage
- ▶ Underload

► Optional soft stop curve

- ▶ Free parking
- ▶ Timed soft parking

► Easy-to-read display shows comprehensive feedback

- ▶ Removable operation panel
- ▶ Built-in Chinese + English display

► Models that meet all connection requirements

- ▶ 11A-640A (rated)
- ▶ 220VAC-380VAC
- ▶ Star connection or inner delta connection

► Easier to install

If the space of the motor control center is limited, the compact design of SCKR1-6800 can save space and eliminate unnecessary troubles. The built-in indicator, numerous controls, and built-in input and output functions can reduce the installation space and cost of external equipment, and can also simplify installation.

← SCKR1-6800 Series Online intelligent motor soft starter/cabinet

► External connection diagram

► Conventional

Current range 11A- 640A (rated)

Motor connection..... Star external or internal delta connection

► Power Supply

Power supply voltage (L1, L2, L3)

SCKR1- 6800- XX.....220VAC ($\pm 10\%$)

SCKR1- 6800- XX.....380VAC($\pm 10\%$)

Power frequency..... 30- 70Hz

► Enter

Input..... Active 24VDC, about 8mA

Start..... Normally open

Stop..... Normally closed

Fault input.....Normally open

► Output

Relay output...10A @ 250VAC resistive circuit

.....5A @ 250VAC

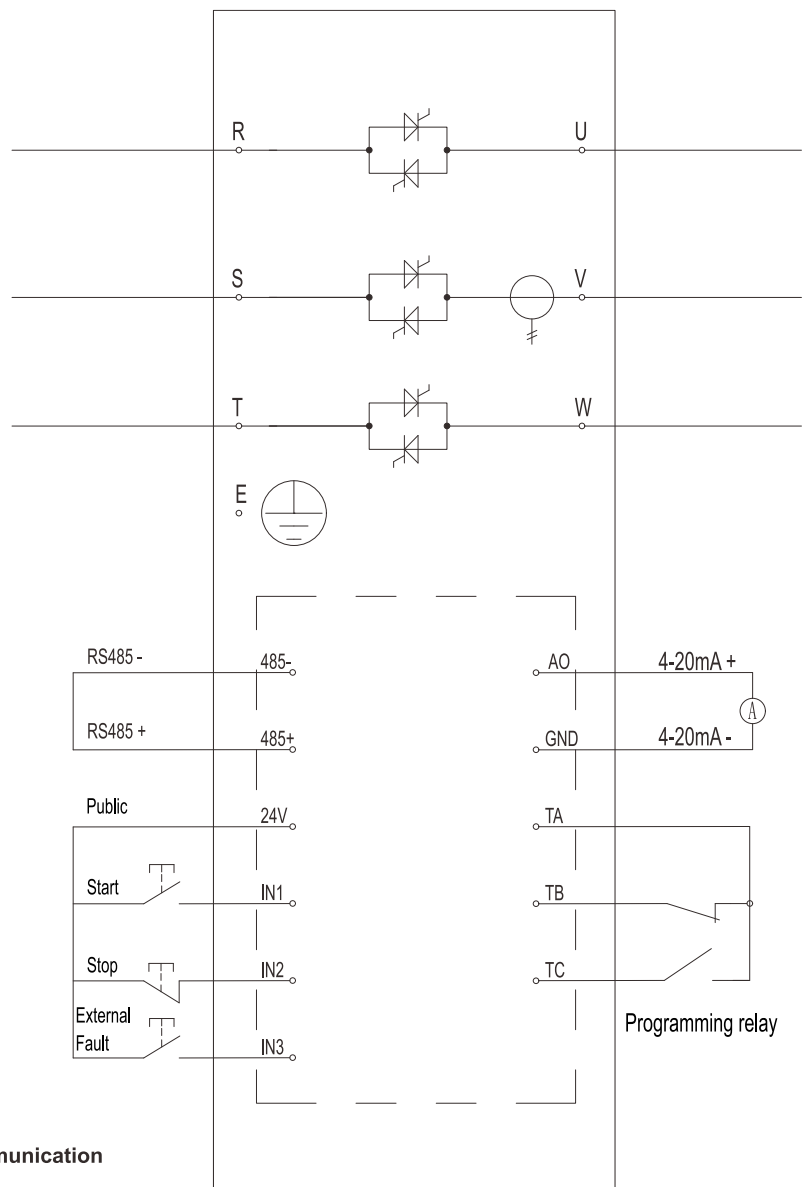
Programmable relay (TA, TB, TC).....

normally open or normally closed

Programmable output

Analog output (AO, GND)...0-20mA or 4-20mA

Communication output (485-,485+).....RS485 communication

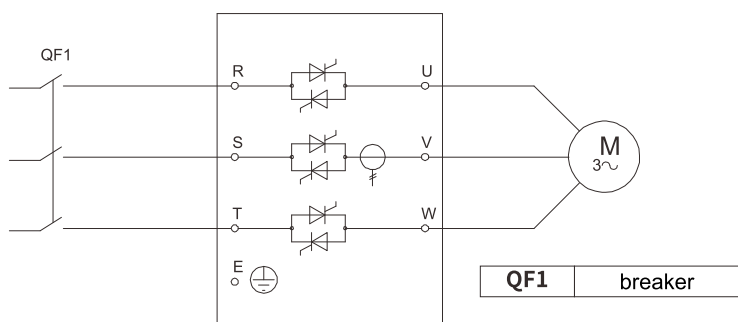


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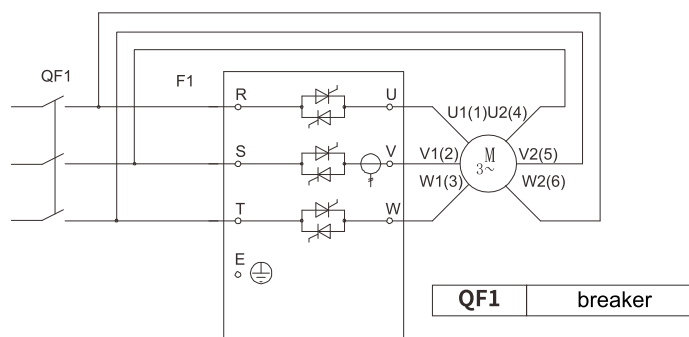
► Motor connection

The soft starter can use star connection method or inner delta connection method (also called three-wire connection method and six-wire connection method) to connect to the motor. If the inner delta connection method is adopted, use parameter F00 to input the rated current of the motor.

Star connection



Inner triangle connection method



► Comparison of soft starter, star delta, auto coupling

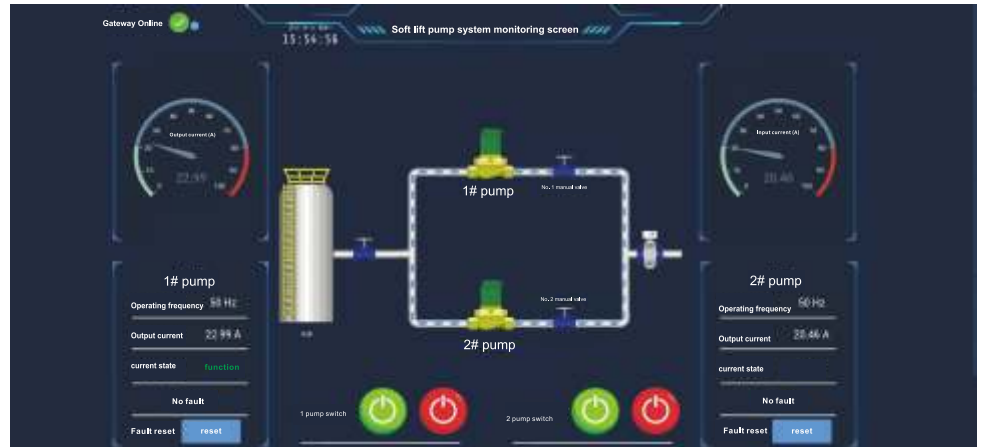
Project	Soft starter	Star triangle	Self-coupling
Overvoltage And Undervoltage Protection	have	nothing	nothing
Short Circuit Protection	have	have	Knife switch, no protection, low safety factor
Overload Protection	Yes (current value can be set)	have	have
Input Phase Loss Protection	have	nothing	nothing
Output Phase Loss Protection	have	have	have
Under Load Protection	Yes (applicable to water pump to prevent idling from burning the water pump)	nothing	nothing
Start Mode	varied	one kind	one kind
Phase Sequence Protection	have	nothing	nothing
485 Communication	have	nothing	nothing
Convenient Maintenance	18 months warranty	Generally, the contactor is only guaranteed for three months	Generally, the contactor is only guaranteed for three months
Convenient Transportation	Small volume and light weight	Small volume and light weight	Especially bulky and troublesome transportation
Display	Chinese LCD display, simple operation and convenient troubleshooting	nothing	nothing
Cost Performance	Soft start is 10% cheaper than the auto coupling cabinet. It is installed on the wall with low power and has higher cost performance. Internal delta connection method can be adopted for soft starting. For example, 37KW soft starter can be selected for 55kW motor		

➤ SCKR1-6800 Series Online intelligent motor soft starter/cabinet

➤ Customization of mobile app functions

Sckr1-6800 series motor soft start can be customized by mobile app

- Mobile phone configuration operation screen
- Equipment site real-time monitoring screen
- Equipment real-time data
 - Cloud configuration
 - Video surveillance
 - Issue command
 - Historical data online and offline
- Alarm record
 - Equipment online and offline
 - Alarm push
- Equipment map distribution



➤ Matching function selection of water pump

Matching function selection of water pump			
①	0: None	None: standard soft start function.	As shown in Figure 1
②	1: Floating ball	Floating ball: in1, closed start, disconnected stop. In2 has no function.	As shown in Figure 2
③	2: Electric contact pressure gauge	Electric contact pressure gauge: in1 starts when it is closed, in2 stops when it is closed.	As shown in Figure 3
④	3: Water supply level relay	Water supply level relay: in1 and in2 are disconnected and started, and in1 and in2 are closed and stopped.	As shown in Figure 4
⑤	4: Drain level relay	Drainage level relay: in1 and in2 are disconnected and stopped, and in1 and in2 are closed and started.	As shown in Figure 5

Note: the water supply function starts and stops in3 control, the standard soft start in3 is an external fault, and the water supply type is used to control the start and stop. In3 is the starting end. The above operation can be performed only when it is closed, and it is disconnected and stopped.

0: None

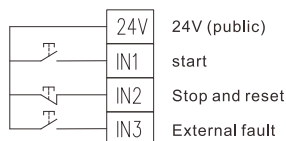


Figure 1

1: Floating ball

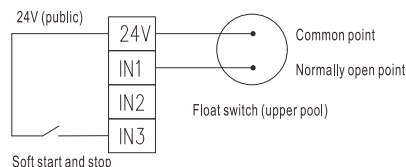


Figure 2

2: Electric contact pressure gauge

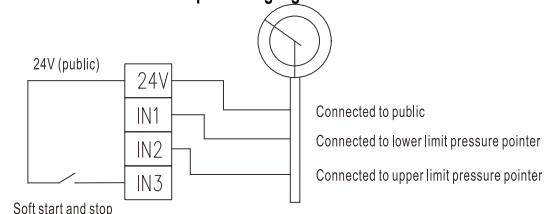


Figure 3

3: Water supply level relay

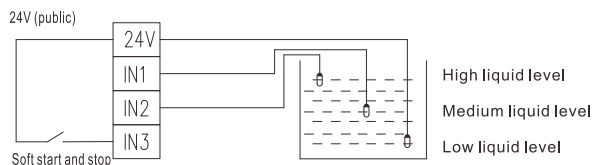


Figure 4

4: Drain level relay

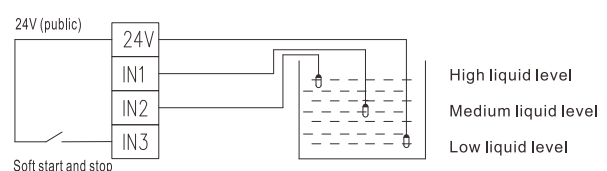


Figure 5