Zhejiang Chuanken Electric Co.,ltd.
Address:Wengyang Industry Area, Liushi, Yueqing, Zhejiang, China
Contact: +8615270931770
www. shckele. com

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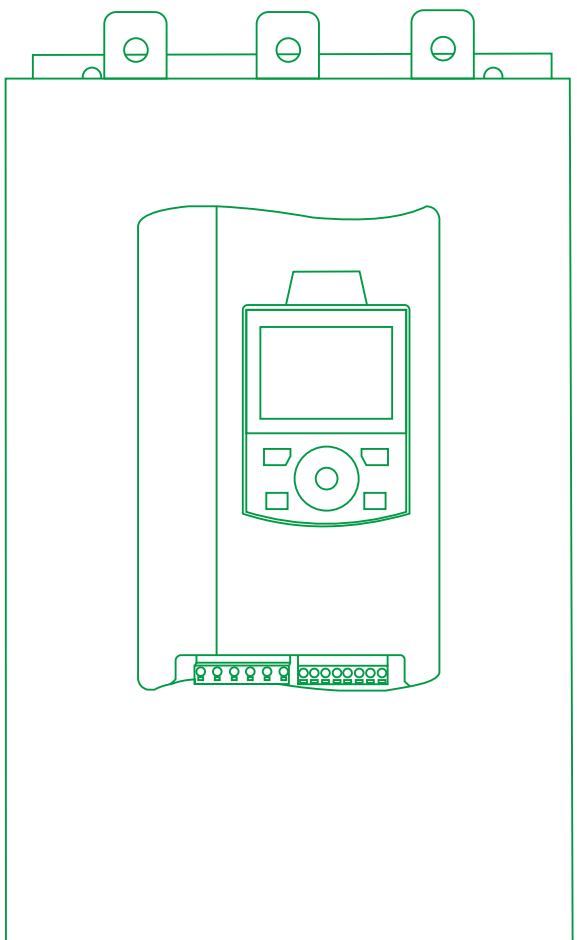
Be tolerant to diversity willing to innovation

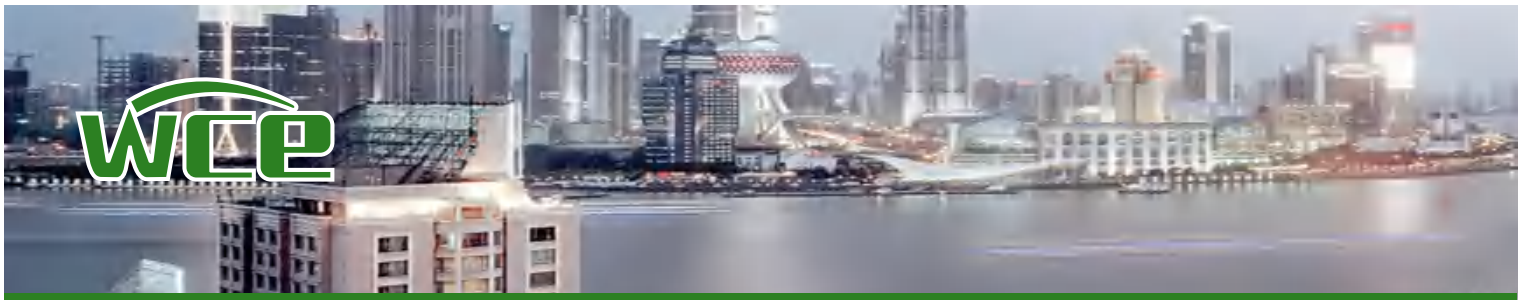
---- Solutions provider in the field of motor drive control

Selection Guide

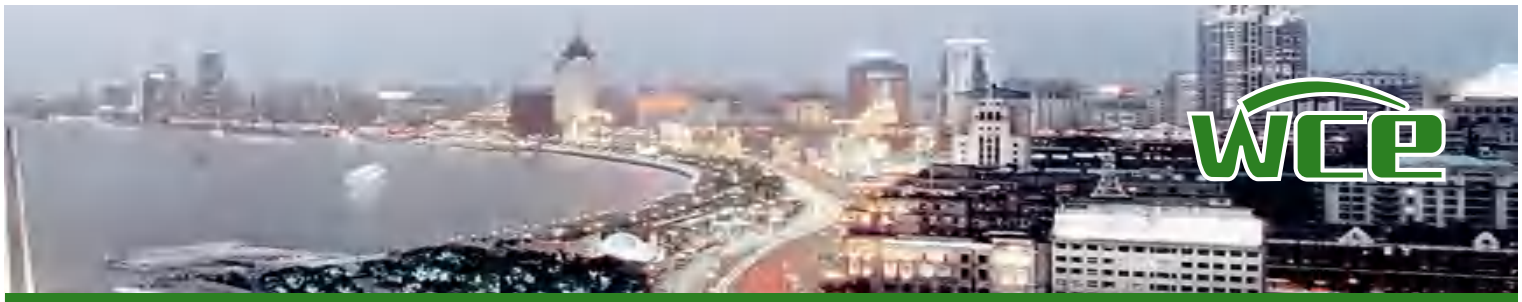
SCKR1-6300

Motor soft starters





SCKR1-6300
Built in bypass soft starter



SCKR1-6300
Built in bypass soft starter

Product Overview

- SCKR1-6300 soft starter has 3 starting modes, 12 protection functions and two vehicle modes 。
- MCU as the core, intelligent digital control, suitable for various loads of the mouse asynchronous motor starting; Can make the motor under any conditions can smooth starting, is female of protection drag system, reduce the starting current impact on power grid, to ensure reliable motor self-starting: smooth and stop, can eliminate the drag system of the inertial impact.

Technical Feature

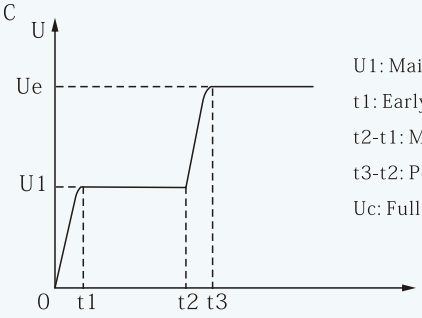
- Three starting parameters are optional, convenient for a motor soft starter to start the motor load of different power;
- Dynamic fault memory function, easy to find the fault cause;
- Overcurrent, three-phase current unbalance, overheating, phase loss, motor overload and other comprehensive motor protection functions;
- Powerful software functions, rich hardware configuration, easily meet the changing needs of various industries;
- Profibus/Modbus two communication protocols are available;
- Compact structure design, easy to install, easy to use;
- Humanized operation mode, display interface can be flexibly selected: L. ED or L CD display. Make the operation handy;
- The menu tree is grouped by function for easy operation.

Product Technical Features

- Main circuit operating voltage :AC220V-AC690V(+10%~-25%)
- Main circuit operating current :11A~1260A
- Main frequency: 35HZ-70HZ
- Soft start rise time :1~120s
- Soft parking time: 0~60s
- Current limiting multiple: 0.5-6.0 le
- Initial voltage: 30%~80%Ue;
- Cooling mode: fan cooling
- Communications: RS485 serial communication
- Starting times: <20 times/hour

Torque Mode

Torque starting is a starting mode to deal with unstable power supply, especially if the power supply is a generator. When the motor starts, the output voltage is accelerated to the maintenance voltage according to the early acceleration time.
The maintenance voltage is maintained in accordance with the maintenance time, and finally accelerated to full voltage in accordance with the post-acceleration time, After the starting process is over, switch to the running state.



U1: Maintain voltage
t1: Early acceleration time
t2-t1: Maintenance time
t3-t2: Post-acceleration time
Uc: Full voltage

5.5KW-55KW | 75KW-115KW | 132KW-185KW | 200KW-350KW | 400KW-630KW

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Real - time language display

SCKR1-6300 displays feedback in real language and you don't have to look up the code to see what's going on.With a real-time metering display and 10 event logs, tracking motor performance has never been easier.

Remote display installation

The operating board is easily mounted outside the cabinet with the optional operating board installation kit. If multiple soft starters are installed in one cabinet, all relevant information can be obtained for centralized control in one place. You can also install multiple monitors side by side to quickly diagnose problems. (Protection level after installation is Ip65)

Overdrive is more intelligent

SCKR1-6300 allows you to control motor starting. You can select the best soft start control method according to the application requirements. For applications where precise control of motor starting current is required, the SCKR1-6300 offers dual closed-loop or current ramp starting options.

Stop smoother

The CPU can also precisely control soft stop, which is suitable for applications that require smoother soft stop. Cpus are suitable for small inertial loads, such as pumps and conveyor belts, which can greatly reduce or even eliminate the water hammer effect.

Easier installation

If space in the motor control center is limited, using the compact SCKR1-6300 can save 70% space, eliminate bypass contractor, and reduce primary and secondary wire and labor costs by more than 30%.

Removable connectors and unique connectors

Easy to install with plug - out control bar. Simply unplug each bar, connect the wires and reinsert the bar. Can use SCKR1-6300 unique way of flexible cable go line effective arrangement of cables, cable can walk, left, or from the top to the bottom line.

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Faster Adjust

It's no surprise that SCKR1-6300 was designed with usability in mind that the menu is easy to use. After installation, the Quick Settings menu helps you configure the starter for common applications: it suggests a typical value that you can adjust precisely to suit your needs, all with an easy-to-use dashboard.

Cooling Innovation

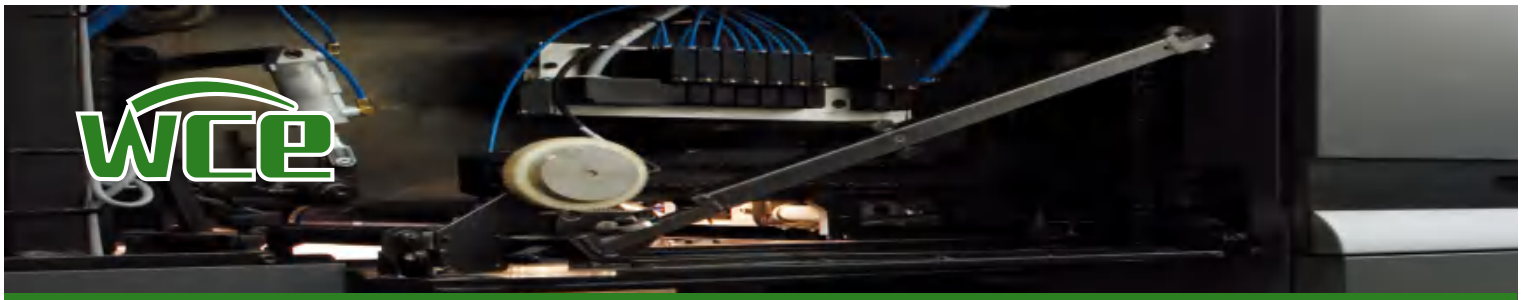
High speed fan and inlet and outlet air cooling grille, 360 degrees full range of heat dissipation, when the soft start fan high speed operation, soft start stop after five minutes automatically stop running, realize intelligent heat dissipation, so that users do not waste every degree of electricity.

Software innovation

A wider range of applications built-in intelligent power motherboard, but keep remote places, low voltage or voltage instability resulting in equipment can not get up, intelligent power board can achieve the normal starting requirements of application equipment in the voltage of 150V-460V.
Add current and voltage coefficient, built-in power supply board can directly calibrate current and voltage.
Starting delay parameter: When the equipment is outage, the soft starter automatically delays the starting motor equipment for 5 minutes after the call, realizing the unmanned soft starting control)

Communications revolution

(RJ-45,DB9 and other plug-in, built-in Rs485, RS232 interface, provide Chinese PC software, easy to remote debugging and control)



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Start mode and protection level

- Current limiting start mode
- Voltage starting mode
- Torque starting

- Soft phase sequence protection
- Operating overload protection
- Starting overcurrent protection
- Run overcurrent protection
- Overvoltage protection
- Undervoltage protection
- Three-phase unbalance protection
- Underload protection
- Overheat protection
- Thyristor breakdown protection
- Input and output phase out protection

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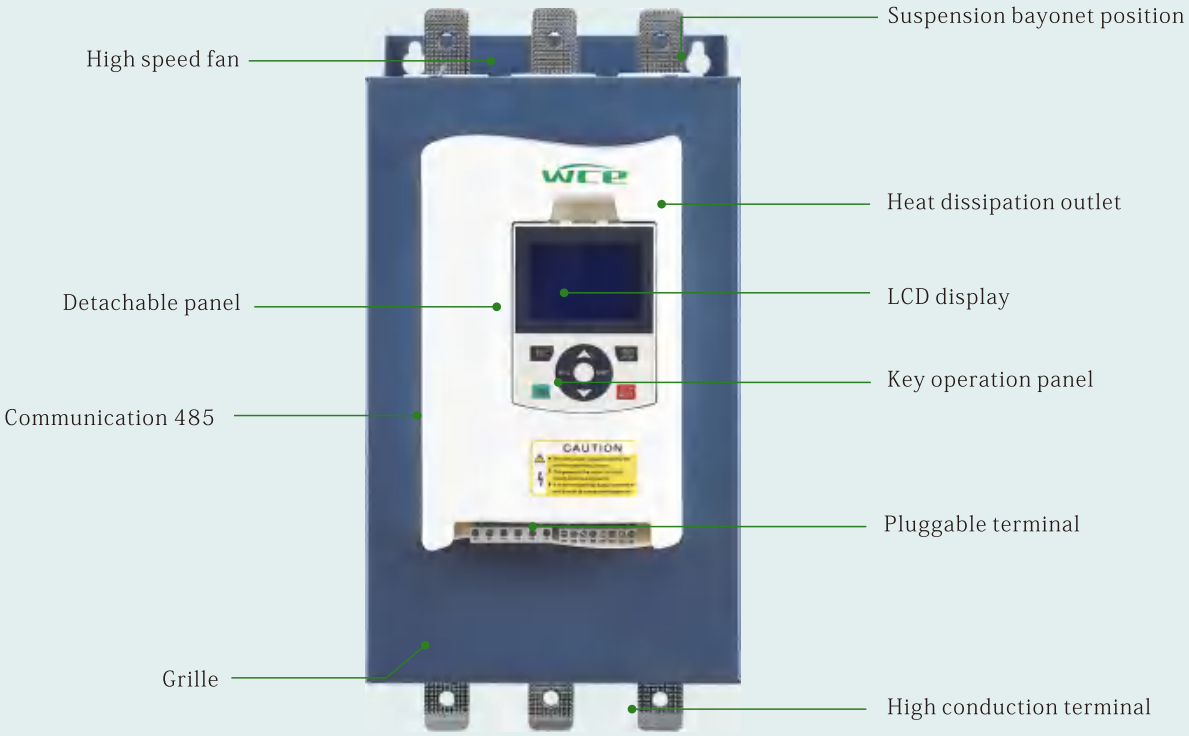
Soft starter function introduction



Starting function

- Voltage ramp starting
- Current limiting starting
- Torque starting

Stop function

- Slide, soft stop

Operating panel

- Remote installation option
- A screen with clear writing
- Multilingual selection

Protect

- Soft phase sequence protection
- Operating overload protection
- Starting overcurrent protection
- Run overcurrent protection
- Overvoltage protection protection
- Undervoltage protection protection
- Three-phase unbalance protection
- Underload protection protection
- Overheat protection
- Thyristor breakdown protection
- Input and output phase out protection

SCKR1-6300
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External wiring diagram

- General

  Current range ..... 11A- 1260A（rated）

- Power supply

  mains input (R,S,T)

- Terminals (1) and (2) are operation output: used to control operation indication (output). They are normally open passive contacts and close when starting successfully.
  Contact capacity: AC250V/5A.

- Terminals 3 and 4 are output 1 of the programmable relay: delay time is set by the programmable output 1 of A12, and action mode is set by the programmable relay 1 of A11. Is normally open passive contact, closed when the output is effective. Possible values: 0: No action 1: power-on action 2: soft start action 3: bypass action 4: soft stop action 5: Running action 6: standby action 7: fault action 8: current arrival action
  Contact capacity is AC250V/5A.

- Terminals ⑤ and ⑥ are output 2 of the programmable relay: the delay time is set by A14 programmable output 1 delay, and the action mode is set by A13 programmable relay 1. Is normally open passive contact, closed when the output is effective.
  0: No action 1: power-on action2: soft start action
  3: bypass action 4: soft stop action5: Running action
  6: standby action 7: fault action 8: current arrival actionContact capacity is AC250V/0.3A.

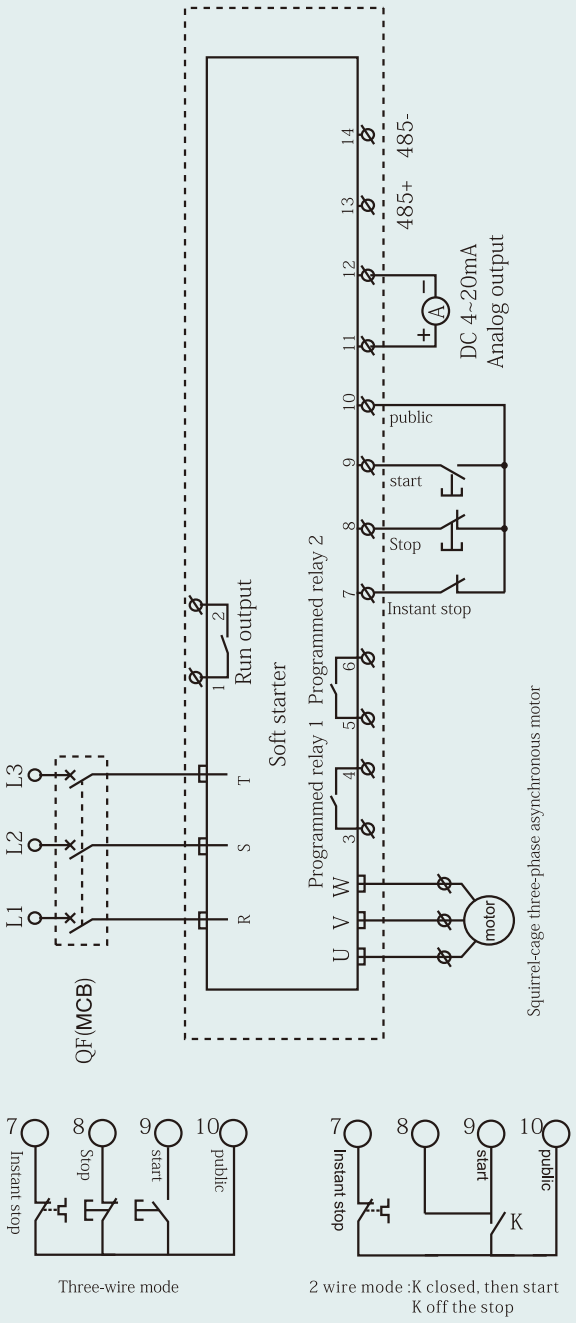
- Terminal ⑦ is a transient output: This terminal must be short-circuited with terminal ⑩ when the soft starter is working normally. When this terminal is open to terminal ⑩, the soft-start cabinet stops working unconditionally and is in fault protection state. This terminal can be controlled by the normally closed output point of the external protection device. When FA is set to 0(primary protection), this terminal function is disabled.

- Terminals ⑧, ⑨, and ⑩ are input terminals for externally controlled start and stop buttons. The wiring method is shown in the figure.

- Terminals(11)and (12) for 4 ~ 20mtA DC analog output: used for real-time monitoring of motor current, full 20mA indicating motor current for soft starter nominal rated current 0.5-5 times, can be set by the parameter A17.4-20mA upper limit current. Can be connected to 4~20mA DC ammeter observation.

- Terminals (13) and (14) are RS485 communication output and provide Chinese upper computer software for remote debugging and control. Do not disconnect the external terminal line; otherwise, the soft starting cabinet may be damaged.

- operating temperature ..... -10℃-40℃
- storage temperature.....-10℃ +40℃
- humidity..... 5%to95% relative humidity



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Soft starter appearance and mounting dimensions

Rate voltage	Rated current	Rated power	Display	Para meter	Protect	Terminal	Overload
220V	11A-1260A	3kW-350kW	Chinese LCD display	62	12	14	Adjustable
380V	11A-1260A	5.5kW-630kW					
660V	11A-1260A	5.5kW-1000kW					

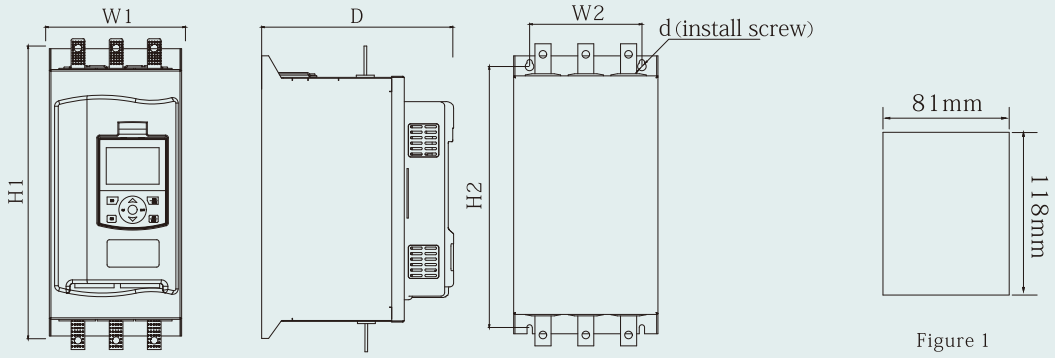
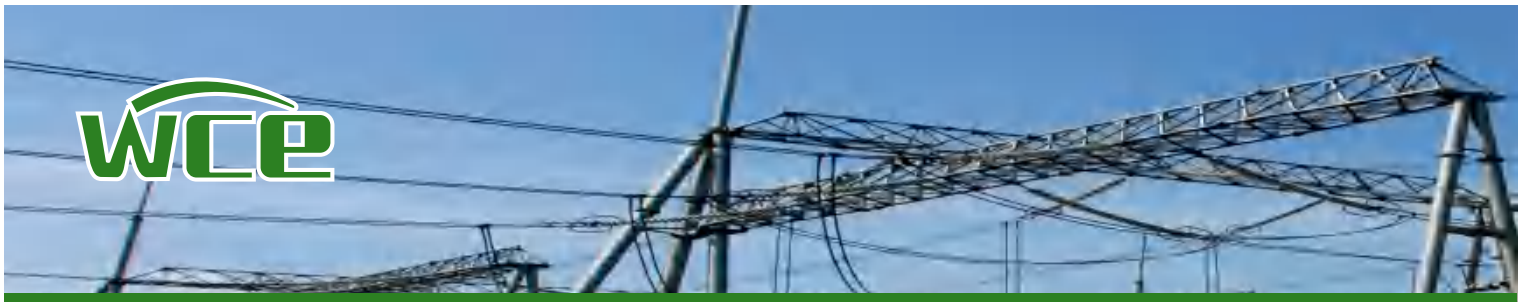


Figure 1

Installation dimension of external keyboard (mm)

Specification model	Rated current	Horse power	Dimensions (mm)			Installation size (mm)			Outline
			W1	H1	D	W2	H2	d	
5.5KW	11A	7.5HP	152	297	182	92	275	M6	Figure 1
7.5KW	15A	10HP	152	297	182	92	275	M6	
11KW	22A	15HP	152	297	182	92	275	M6	
15KW	30A	20HP	152	297	182	92	275	M6	
18.5KW	37A	25HP	152	297	182	92	275	M6	
22KW	44A	30HP	152	297	182	92	275	M6	
30KW	60A	40HP	152	297	182	92	275	M6	
37KW	74A	50HP	152	297	182	92	275	M6	
45KW	90A	60HP	152	297	182	92	275	M6	
55KW	110A	75HP	152	297	182	92	375	M6	
75KW	150A	100HP	199	377	237	165	361	M6	
90KW	180A	125HP	199	377	300	165	361	M6	
110KW	220A	150HP	199	377	300	165	361	M6	
115KW	230A	155HP	199	377	300	165	361	M6	
132KW	264A	180HP	258	470	310	200	451.5	M6	
160KW	320A	220HP	258	470	310	200	451.5	M6	
185KW	370A	250HP	258	470	310	200	451.5	M6	
200KW	400A	275HP	366	460	363	335(209+126)	438	M6	
220KW	440A	300HP	366	460	363	335(209+126)	438	M6	
250KW	500A	340HP	366	460	363	335(209+126)	438	M6	
280KW	560A	380HP	366	460	363	335(209+126)	438	M6	
320KW	640A	435HP	366	460	363	335(209+126)	438	M6	
350KW	700A	475HP	366	460	363	335(209+126)	438	M6	
400KW	800A	545HP	443.5	557	285	320(160+160)	536	M6	
450KW	900A	610HP	443.5	557	285	320(160+160)	536	M6	
500KW	1000A	680HP	443.5	557	285	320(160+160)	536	M6	
560KW	1120A	760HP	443.5	557	285	320(160+160)	536	M6	
630KW	1260A	855HP	443.5	557	285	320(160+160)	536	M6	



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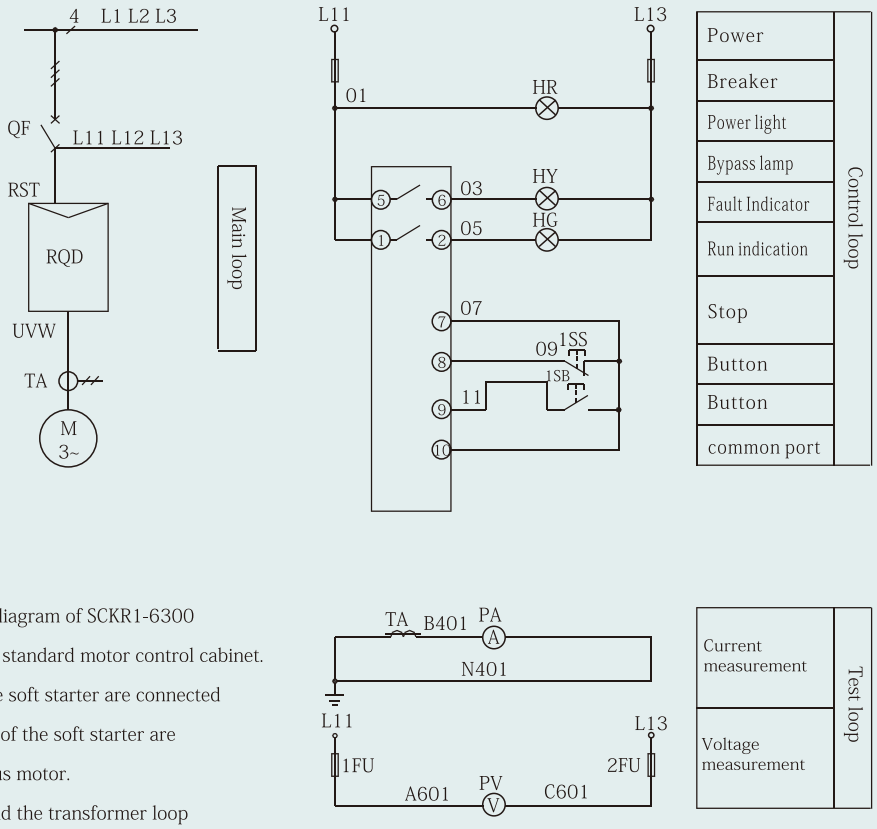
Basic wiring diagram of soft starter

Squirrel-cage three-phase asynchronous motor

SCKR1-6300 wiring diagram



Description

1. This picture is the electrical schematic diagram of SCKR1-6300 series Built in bypass soft starter one-tow standard motor control cabinet.
2. The R, S and T ends of the six line of the soft starter are connected to the circuit breaker, and the U, V and W of the soft starter are connected to the three-phase asynchronous motor.
3. The control loop diameter is 1.5BVR, and the transformer loop diameter is 2.5BVR; Overload ammeter shall be used for PA and 1PA.
4. There are 2 watch heads (PA, PV),2 buttons (SB, SS) and 3 indicators (HG, HR, HY) on the control cabinet.