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Be tolerant to diversity willing to innovation

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





SCKR1-7000 series Built-in bypass soft starter





# ≺ SCKR1-7000 series Built-in bypass soft starter

# More control

- SCKR1-7000 Soft starter adopts a new generation of soft starting technology, adaptive control to achieve an unprecedented level of motor acceleration curve and deceleration curve control.
- The soft starter reads the data of the motor during starting and stopping, and then adjusts it for best effect. Simply choose the tune that works best for your load type

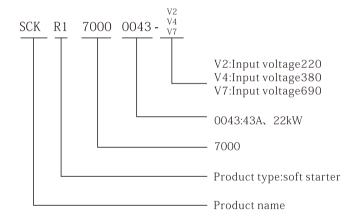
# Easy to use

- SCKR1-7000 is easy to use during installation, commissioning and use, as well as troubleshooting.
- A quick setup allows the machine to run quickly, with an information screen displaying various running data and a trip message in language explaining exactly what went wrong.
- Control cable can be selected from the top, bottom or left line, very flexible cable access and fixing device makes installation faster and more neat and beautiful. You'll soon experience how easy it is to use SCKR1-7000.

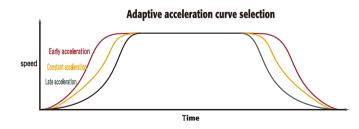
#### **Product feature**

- SCKR1-7000 is a highly intelligent, reliable and easy to use soft starter. SCKR1-7000 is the perfect solution for quick Settings or more personalized control, with features that include:
- Large LCD screen showing feedback in Chinese and English, other languages can be customized;
- Remotely-mounted operating plate;
- Intuitive programming;
- Advanced start and stop control function;
- A series of motor protection functions;
- Extensive performance monitoring and event logging;
- Point positive rotation, point reversal function;
- With the ability to upload/download parameters;

#### **▶** Model selection definition



#### **▶** Adaptive acceleration control



- A variety of starting modes can meet your various load requirements, users can choose according to their own load conditions Optional starting mode.
- SCKR1-7000 simplifies installation and operation of motor starting systems, thereby reducing installation costs, Shorten installation time.



(the power range of 5.5kW ~ 800kW is normal 380V, 220V is required, and 690V needs to be ordered separately)

5.5kW- 55kW

75kW-110kW

450kW- 800kW





#### Real – time language display

Chuanken wants to make your job easy, so SCKR1-7000 displays feedback in real language, so you don't have to look up the code to see what's going on. Tracking motor performance has never been easier with the help of a real-time metering display and 10 sets of event logs with time-stamped operation and performance details.



# 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)





## Detachable connectors and unique adapters

Easy to install with plug - out control bar. Simply unplug each bar, connect the wires and reinsert the bar. Cables can be arranged efficiently by taking advantage of SCKR1-7000's unique flexible cable routing, which can be routed from the top, left, or bottom.

#### **D** Bypass contactor

There is no need to install an external bypass contactor. The new built-in bypass contactor, compared with the ordinary AC contactor, can improve performance by 3 times, heat dissipation by 2.6 times, safety by 25%, energy saving by 20%. The service life can reach more than 100,000 times.





# → SCKR1-7000 series Built-in bypass soft starter

# 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	13A- 1600A	3kW-450kW	Chinese English) LCD	132 PCS	20 kinds	24 PCS	150%le,35s 200%le,15s
380V	13A- 1600A	5.5kW- 800kW					
690V	13A- 1600A	5.5kW- 1200kW					

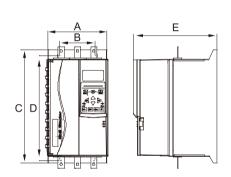


Fig 1 SCKR1-7000-5.5kW~55kW

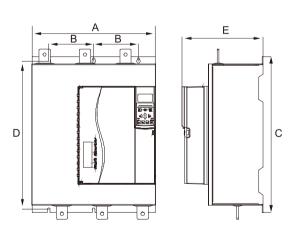


Fig 3 SCKR1-7000-132kW~400kW

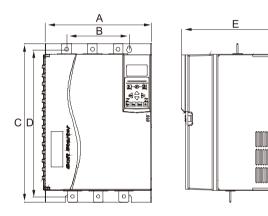


Fig 2 SCKR1-7000-75kW~110kW

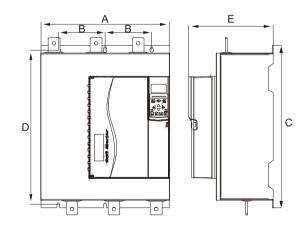
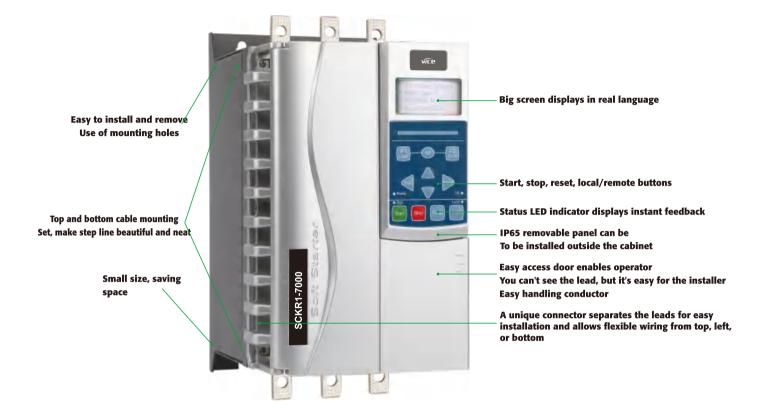


Fig 4 SCKR1-7000-450kW~800kW

	Dimensions (mm)			Installa	0 11			
Specification model	А	С	E	В	D	d	Outline	
5.5kW-55kW	152	297	215	92	275	M6	Fig1	
75kW-115kW	274	408	260	160	385	M8	Fig2	
132kW-400kW	443	556	290	320 (160*2)	535	M8	Fig3	
450kW-800kW	600	823	395	400 (200*2)	788	M10	Fig4	



#### Soft starter function introduction



#### Starting function

- Square torque starting
- Voltage ramp starting
- Current limiting starting
- Jump start Point starting

#### Dashboard

- Remote installation option
- Status LED indicator
- A screen with clear writing Real language feedback
- Multilingual selection
- Shortcut button

#### Protection

- Fully customizable protection >
- Motor thermistor input
- Phase sequence
- undercurrent
- Frequency protection
- Instantaneous overcurrent > Power supply circuit
- Auxiliary trip input Heat sink overheating
- Starting time timeout
- Short-circuit SCR
- Motor connection
- RS485 fault
- Motor overload Current unbalance
- Ground faul
- Output short circuit

### Running simulation

The soft starting control loop can be tested in the absence of a three-phase or load motor. Convenient for user testing.

#### ▶ Communication protocol

Factory for Modbus protocol, can be customized PROFIBUS communication protocol, can be convenient and Germany west Siemens PLC and touch screen communication.

#### PT100 temperature sensor

With external PT100 temperature sensor, real-time display of motor temperature, better monitoring electricity Machine operation and protection of the motor.

# Cryptographic control

After debugging user parameters, you can use password lock to prevent others from changing parameters. The remote mobile APP function can be customized to control and monitor the operation of soft starting load remotely.

#### Easier to install

If space is limited in the motor control center, use the compact SCKR1-7000 to save space and eliminate unnecessary hassles. Built-in bypass contactors, built-in monitors and indicators, and built-in input and output functions for numerous controls all reduce the space and cost of installing external equipment, and simplify installation.



#### **External wiring diagram**

#### Conventional Current range ...... 13A-1600A(rated) Electrical connection..... triangular connection Bypass ...... Integrated built-in or external

# > Power supply

Power supply voltage(L1, L2, L3)

SCKR1-7000- xxxx- V4....... 200VAC- 440VAC (±10%)

SCKR1-7000- xxxx- V7...... 380VAC- 690VAC (±10%)

SCKR1-7000- xxxx- V7.......... 380 ~ 690 VAC (± 10%) (earthed star

Supply system only)

Control voltage(A1, A2, A3) ...... 110-220VAC (+10%/-15%)

..... or230-440VAC (+10%/-15%) ..... 24 VAC/VDC (± 20%)

Power frequency...... 45-66 Hz

#### ➤ Input

Input...... 24VDC,8 mA

Start(C23, C24) ...... Normally open

Stop(C31, C32).....Normally close

Reset(C41, C42) ...... Normally closed or normally closed

#### Programmable input

InputA (C53, C54) ...... Normally closed or normally closed InputB (C63, C64) ...... Normally closed or normally closed

Motor thermistor(B4, B5)

PT100 RTD (B6, B7, B8)

#### ➤ Output

Operating relay(23, 24) ...... Normally open

#### Programmable output

RelayA (13, 14)......Normally open 

# ➤ Environment

Protection

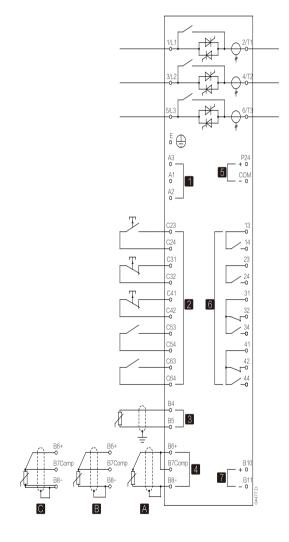
SCKR1-7000-0013 ~ SCKR1-7000-0105...... IP20 & NEMA1

SCKR1-7000-0145 ~ SCKR1-7000-1600......IP00

Working temperature ......-10  $^{\circ}\text{C}$  to 60  $^{\circ}\text{C}$ 

Storage temperature.....-10°Cto+60°C

Humidity......5%to95%Relative humidity



Only controllers with the suffix B have built-in bypass functions.

- 1: Control voltage (depending on model)
- 2: Remote control input port
- 3: Motor thermistor

4A: RTD/PT100 input terminal (2 lines)

4B: RTD/PT100 input terminal (3-line)

4C: RTD/PT100 input terminal (4-line)

5: 24 VDC output terminal

6: Relay output

7: Analog input