

Version: V03

# User Manual of SST Soft Starter



SHUEN, control and protect your motors.

The product should be operated by qualified electricians as per safety specifications, including installation, pilot run and

The voltage used by the product is dangerous, which may cause serious injury or death of others. Prohibit touching terminal after electrifying the device or during operation. Although the device is switched off, voltage may still exist in output terminal;

The product should be used under rated specification of product. Before use, please check the accuracy of various parameters such as power, motor and frequency of product or device.

The product has passed insulation test before leaving factory. Incorrect megger test may damage product or shorten product life.

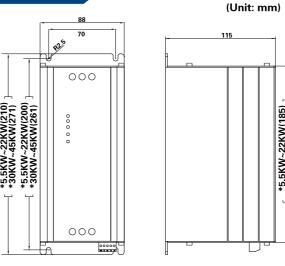
This product does not support overload protection. Please attach a heating relay or motor protector to ensure overload protection.

### Electrical parameters

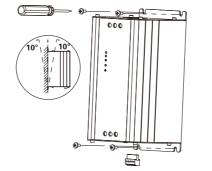
Warning message

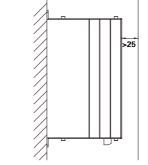
Standard	GB 14048.6-2008/IEC 60947-4-2: 2002		
Rated operation voltage	200~415V(-15%+10%)		
Max.length between soft starter and cable	300m		
Premissible ambient environment	Operation	-25℃-+60℃(when the ambient temperature is over 40℃,for each additional 1℃, the Soft Starter rated curren is reducced by 1%.	
	Storage	–40°C∼+70°C	
Protection grade	IP20		
Rated frequency	50/60Hz		
Permissible installation height	5000m(start to reduce capacity for above 1000m. For every 1000m increase, the Soft Starter rated current is reduced by 5%)		
Starting	≈20 times/hour(class10 standard load)		
frequency	It is recommended that the single start interval be longer than 3 min		

## **Product dimensions**



## Installation sketch





Terminal marking	Terminal name	Function description
RUN	Enable input	When closing run and com, start to operate When breaking run and com, motor slows down and halts
сом	Common port	run and common port at 12V
12V	Power terminal	Interior power output terminal at 12V, 300mA at maximum, prohibit overload
RA、RB	Indication of working status	Working status: relay output, normally open contact, close during operation, break if stall or fault, relay capacity 250V/AC 0.3A

**Terminal name** 

Mains input of major loop

Output connection of soft start

**Function description** 

Connect three-phase

Connect three-phase

## TEL: 021-33199899

MER:WWW.SHUEN.COM.CN Xiao Kun Shan Town, Guanghua Road 488, 2 5F ADD:Songjiang Songjiang District of Shanghai,

Hotline: 4009-700-339

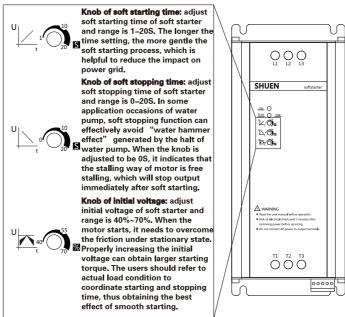
ЗНАИСНЫ SHUEN ELECTRICAL TECHNOLOGY CO., LTD.

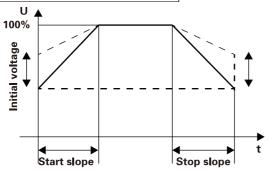


# Please forward this user manual to the end user

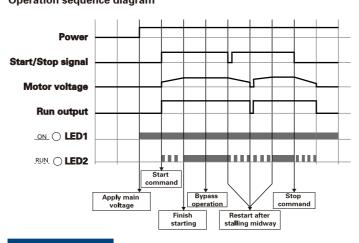
## Parameter setting

## Panel parameters





## Operation sequence diagram



## Indicator light

Indicator light				
Run/On	Steady lighting	Flashing	Off	
Steady lighting	Bypass operation	Input/output phase loss	Hardware failure	
		Hardware failure		
Flashing	Soft start/soft stop in progress	Hardware failure	Hardware failure	
Off	The device is ready for power	Input/output phase loss	Soft start power failure or indicator light failure	
5	on	No motor connected		

## Power diagram

Terminal description

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**Major Loop** 

**Terminal marking** 

L1、L2、L3

T1、T2、T3

**Control Loop** 

RUN COM 12V

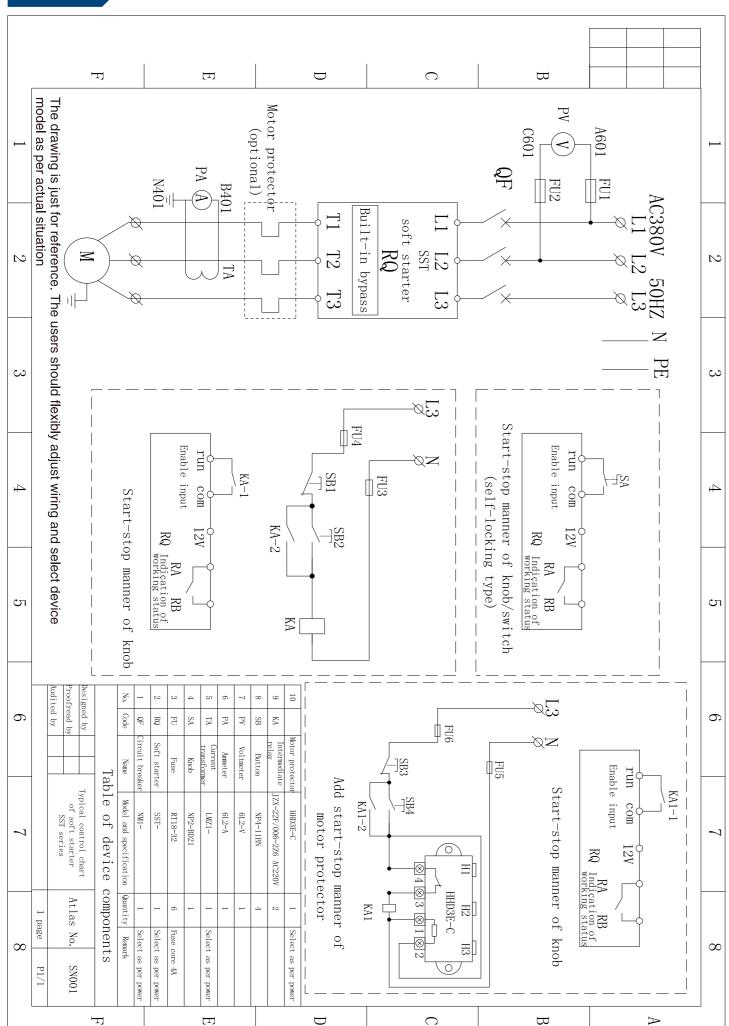
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RA

Model	230V/KW	400V/KW	500V/KW	Rated current A
SST-5R5	3	5.5	5.5	13
SST-7R5	4	7.5	7.5	17
SST-11	5.5	11	11	25
SST-15	7.5	15	15	32
SST-18	7.5	18.5	22	37
SST-22	11	22	30	45
SST-30	15	30	37	60
SST-37	18.5	37	45	75
SST-45	22	45	55	90

## **Wiring Parameter**

Rated power	Main Circuit Diameter	Main Circuit Tightening Torque	Control Circuit Diameter	Tightening Torque Control Circuit
кw	GB Copper Core(mm <sup>2</sup> )	Lbf/inch	( <b>mm</b> ² )	Lbf/inch
5.5	2.5	10.6~13	0.64~1	2~2.2
7.5	2.5	10.6~13	0.64~1	2~2.2
11	4	10.6~13	0.64~1	2~2.2
15	6	10.6~13	0.64~1	2~2.2
18.5	10	10.6~13	0.64~1	2~2.2
22	10	10.6~13	0.64~1	2~2.2
30	16	18~22	0.64~1	2~2.2
37	25	18~22	0.64~1	2~2.2
45	35	18~22	0.64~1	2~2.2
	For the second s	Circuit   Diameter	Rated power         Circuit Diameter         Tightening Torque           KW         GB Copper Core(mm²)         Lbf/inch           5.5         2.5         10.6~13           7.5         2.5         10.6~13           11         4         10.6~13           15         6         10.6~13           18.5         10         10.6~13           22         10         10.6~13           30         16         18~22           37         25         18~22	Rated power         Circuit Diameter         Tightening Torque         Circuit Diameter           KW         GB Copper Core(mm²)         Lbf/inch         ( mm²)           5.5         2.5         10.6~13         0.64~1           7.5         2.5         10.6~13         0.64~1           11         4         10.6~13         0.64~1           15         6         10.6~13         0.64~1           18.5         10         10.6~13         0.64~1           22         10         10.6~13         0.64~1           30         16         18~22         0.64~1           37         25         18~22         0.64~1



Setting-up process

Start setting up.



First, connect the main power supply of L1 – L3, and check Power-on Reset for the soft starter. For the first time use, a power-on reset must be carried out, in case there is uncompleted commands. At this stage, output terminal T2 is electriferous, so please pay attention to safe operation.



Disconnect the main power supply and connect the output terminals with three-phase motor.



After connecting the motor, the ON light is flashing and turns into a steady lighting. If it keeps flashing, please check the line and do not perform subsequent steps.



Pre start the motor by terminals RUN and COM.



A.Raise the starting voltage if the motor has a delaying

B.Lower the starting voltage or extend start-up time if the rotation of the motor is too fast.



Adjust starting voltage, starting time and soft stopping time to obtain optimum effect, after which step the setting-up process is completed.



Setting up is completed

FAQ

Q1. How to solve the common overheating problem of

the the soft starter?

A: Reduce starting frequency or replace it with a soft starter of bigger capacity.



Q2. How to solve the problem that a big noise will be made



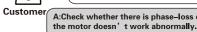
Customer A:The starting voltage is too low or the starting load is too big, so the problem will be improved by increasing the starting voltage properly.



Q3. What is to be done when the motor doesn't run but buzzes?



A:Check whether there is phase-loss of input or output if

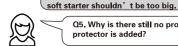




Q4. Why does the motor start itself abnormally?



Customer A:Check the connecting line between Run and Com. Please note that the distance between the switch and the



Q5. Why is there still no protecting effect even if motor protector is added?



Customer A: Please check whether the tripping level is set too high.

Level 10 or below level is suggested. Rated protecting current should be set according to the rated value of the motor, and it should not be set too high.





A: Please check whether the line or the switch between



Q7. Why does the power-on light keep flashing and the soft starter not run after the power is on?



A: Please check whether there is phase loss of input or output or whether the motor is connected correctly.



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Warranty card



## **Related information**

User name	Phone number	
Address		
Product model	Serial No.	
Purchasing way	Purchasing time	
Maintenance site	Invoice No.	

### Terms of no maintenance, return & exchange

Within warranty period, the situations caused by below reasons are beyond warranty

(1)Product fault caused by users of violating the operation in User Manual;

(2)Product damage during transportation or caused by external forces;

(3)Product fault caused by users of repairing or remolding product arbitrarily without communication with manufacturer

(4)Product fault caused by users of using product beyond standard application range;

(5) Product fault caused by users under poor service environment

(6)Product damage caused by force majeure factors such as earthquake, fire, lightning stroke, abnormal voltage or other natural disasters, etc;

(7)Product marking such as nameplate, trademark and serial number are damaged or

Please keep product packaging after receiving the product in case of being required for return and exchange.