SST Series
Built-in Bypass Soft Starter

Selection Guide

- Built-in bypass
- High-quality components
- Alloy high intensity body
- Control unit & Internal power supply design
- Free of setting, fast arranging
- "Pocket Size" body

L1 L2 L3

softstarter

FAULT
RUN   TOR
ON

⚠ WARNING
- Read the user manual before operation;
- Risk of electrical shock,wait 5 minutes after removing power before servicing.
- Do not connect AC power to output terminals.

T1   T2   T3

SAFESAV

MANY MORE

Product Description

SST-NX is a compact soft starter developed based on two-phase thyristor voltage regulation control algorithm. It has the technical characteristics of small size, high integration, simple use and convenient deployment. As one of the company's multiple soft starter product lines, the SST-NX series will solve application pain points such as cumbersome wiring of electrical equipment and inability to effectively arrange circuits due to compact space.

It has unique advantages when applied to the electrical requirements of compact space low power consumption and low heating requirements, and rapid deployment.

(SST-Nx)   (SST-NS)

Product Parameters

Standards compliant	GB/T14048.6-2016/IEC60947-42~2011	
Rated working voltage	200~415V(-15%+10%)	
Maximum length between soft starter and cable	300m	
Allowable ambient temperature	Runtime	25°C to +60°C (Ambient temperature exceeds 40°C, for every 1°C increase, the soft-start rated current is reduced by 1%)
	Storage	-40℃~ +70℃
Protection class	Ip20	
Rated frequency	50/60Hz	
Allowable installation height	5000 meters (the derating starts when the altitude is above 1000 meters, and the rated current of soft start is reduced by 5% for every additional 1000 meters)	
Start frequency	≈20 times/hour (Class10 standard load)	

Product Features

1.Compact Design: Mini body carries robust soft starter functions.

2.Built-in bypass: customers don't need to configure additional bypass contactors and the wiring is simpler and more convenient.

3.Protection functions: it has overload, under-load, overheating, phase loss, over-current protection functions as well as user-lock protection function.

4.Optional external panel: it provides convenient operation enabling users do personalized settings.

5.Voltage ramp start: compared with star delta starter, it realizes smoother start effect with the voltage ramp start function.
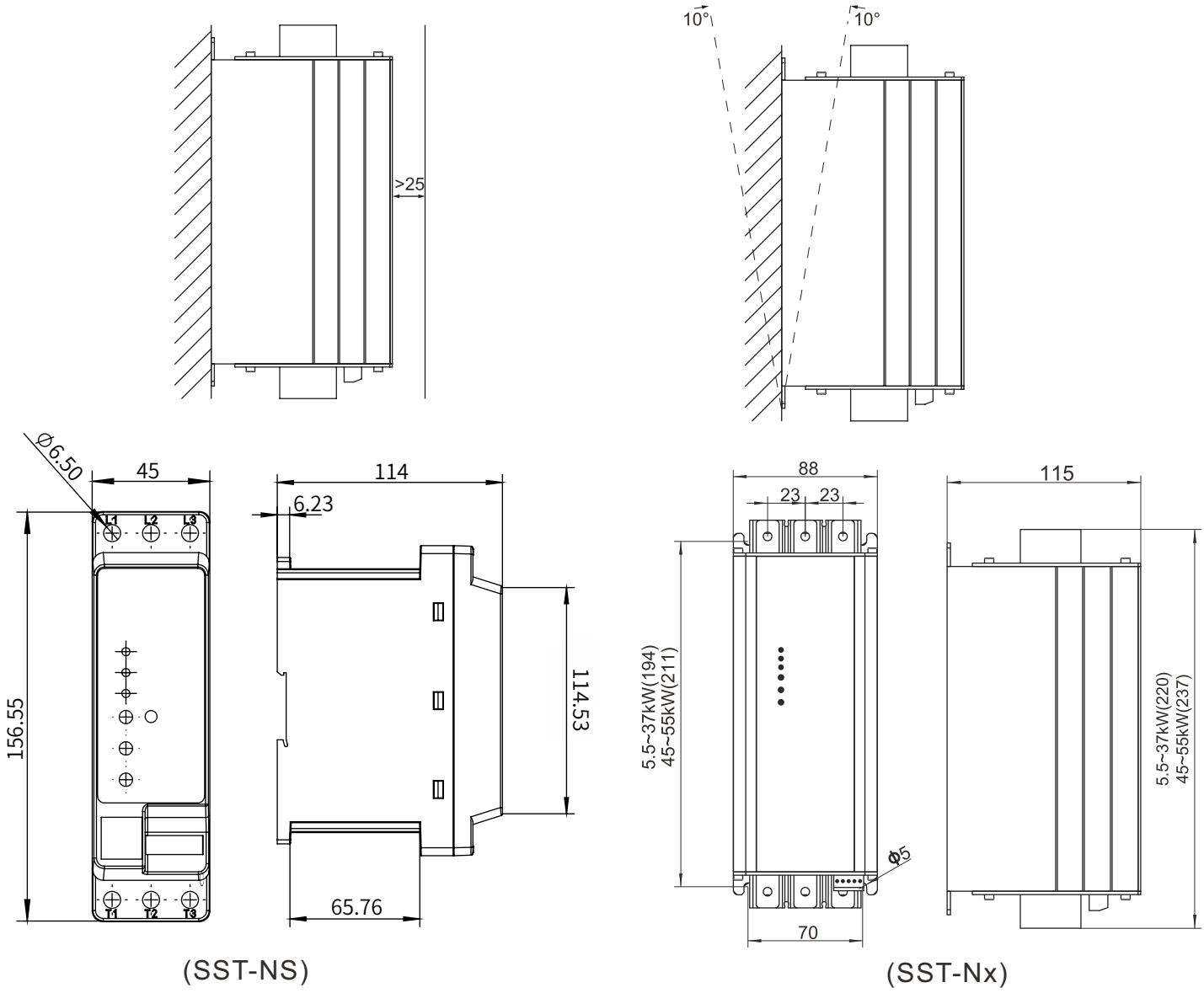
Power Diagram

Type	380V/kW	Rated current(A)	Net weight(kg)
SST-Nx5R5	5.5	13	1.7
SST-Nx7R5	7.5	17	1.7
SST-Nx11	11	25	1.7
SST-Nx15	15	32	1.7
SST-Nx18	18.5	37	1.7
SST-Nx22	22	45	1.7
SST-Nx30	30	60	1.7
SST-Nx30	37	75	1.7
SST-Nx37	45	90	2.2
SST-Nx45	55	110	2.2
Type	208V-240V/kW	380-460V/kW	Rated current(A)
SST-NS1R5	0.75	1.5	3.9
SST-NS3	1.5	3	6.8
SST-NS4	2.2	4	9
SST-NS5R5	3	5.5	12
SST-NS7R5	4	7.5	16
SST-NS11	5.5	11	25

Wiring Parameters

Model	Rated Power	Main Circuit Diameter	Main circuit tightening torque	Control circuit Diameter	Tightening Torque control circuit
	kW	GB Copper Core(mm^2)	Lbf/inch	mm^2	Lbf/inch
SST-Nx5R5	5.5	2.5			
SST-Nx7R5	7.5	2.5			
SST-Nx11	11	4			
SST-Nx15	15	6	10.6~13	0.64~1	2~2.2
SST-Nx18	18.5	10			
SST-Nx22	22	10			
SST-Nx30	30	16			
SST-Nx37	37	25			
SST-Nx45	45	35	18~22		
SST-Nx55	55	40			

>25

10° 10°

Ø6.50
45
114
6.23
156.55
114.53

88
23 23

5.5-37kW(194)
45-55kW(211)

115

5.5-37kW(220)
45-55kW(237)

65.76

70

(SST-NS)

(SST-Nx)

Knob of soft starting time: adjust soft starting time of soft starter and range is 1-20S.The longer the time setting,the more gentle the soft starting process,which is helpful to reduce the impact on power grid.

Knob of soft stopping time: adjust soft stopping time of soft starter and range is 0-20S. In some application occasions of water pump, soft stopping function can effectively avoid"water hammer effect" generated by the halt of water pump.When the knob is adjusted to be 0s, it indicates that the stalling way of motor is free stalling,which will stop output immediately after soft starting.

Knob of initial voitage: adjust initial voltage of soft starter and range is 40%~70%.When the motor starts,it needs to overcome the friction under stationary state.Properly increasing the initial voltage can obtain larger starting torque. The users should refer to actual load condition to coordinate starting and stopping time, thus obtaining the best effect of smooth starting.

RUN COM STOP RA RB
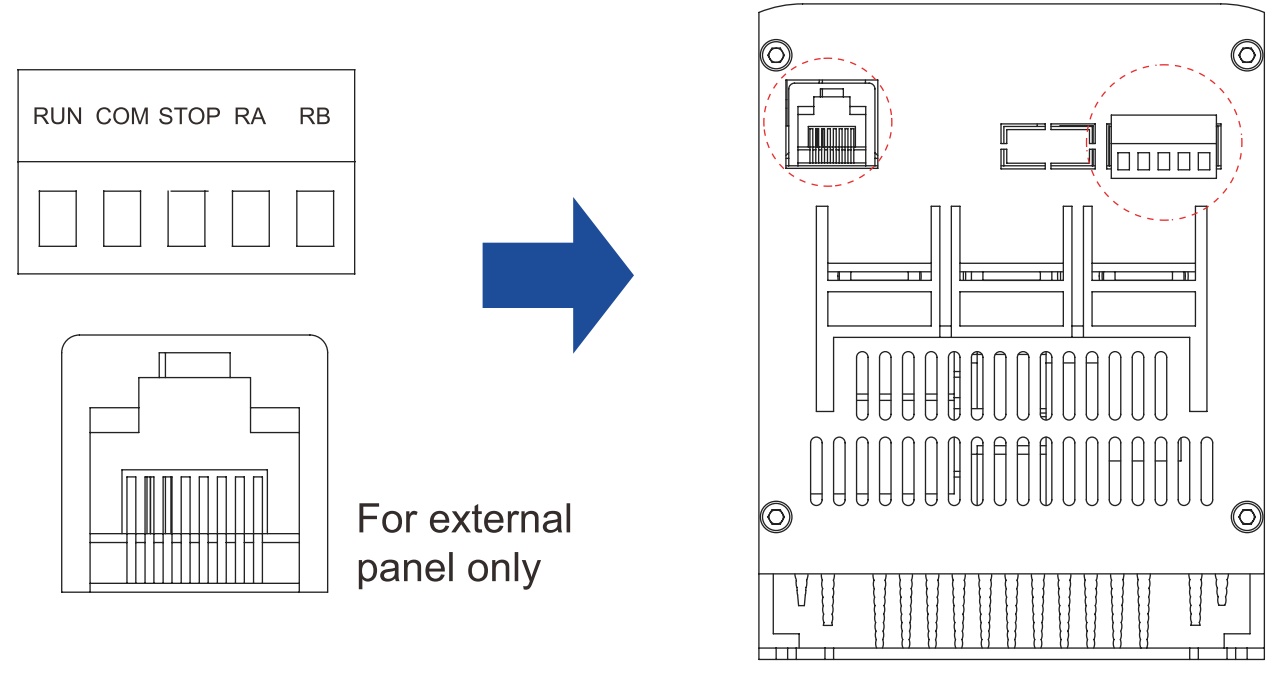
For external panel only

Major Loop

Terminal Marking	Terminal Name	Function
L1/L2/L3	Mains input of major loop	Connect three-phase source
T1/T2/T3	Output connection of soft start	Connect three-phase motor

Control Loop

Terminal Marking	Terminal Name	Function
RUN	Enable input	When RUN and COM are closed, the motor starts to run; when disconnected, the motor decelerates and stops (only two-wire control (default); if necessary , please contact the manufacturer
COM	Common port	For Run and Stop
STOP	Stop input	The motor stops when STOP and COM are closed (only three-wire control)
RA、RB	Indication of working status	Working status: relay output, normally open contact, closed during operation, open during shutdown or failure, relay capacity 250V/AC 0.3A

This parameter is optional (not included in standard products).
It is connected through an RJ45 port (using a network cable).
If necessary, please contact the manufacturer.

Panel Size
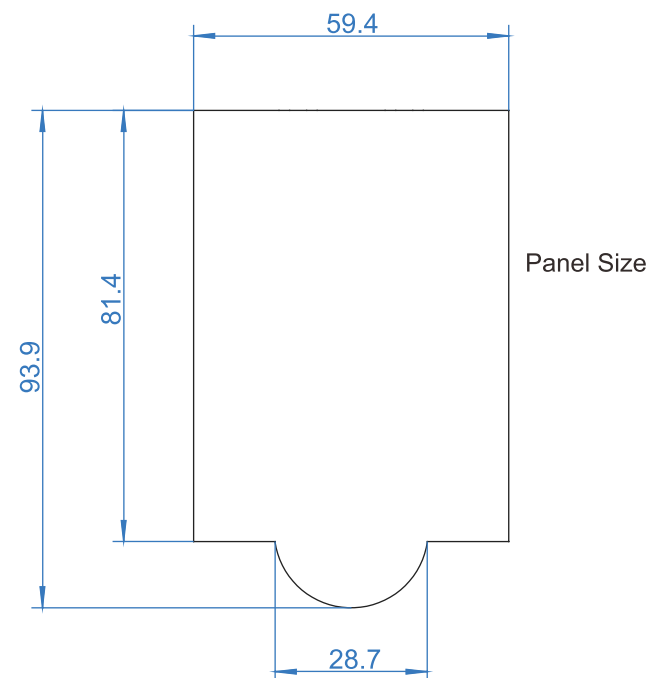
Button Description

Button	Name	Function
DATA	Programming Button	Enter or exit the first level menu
JOG	Jog Button	Jog running motor (for testing only)
▲	Increment	Increment of data or function code
▼	Decrement	Decrement of data or function code
SHIFT	Shift	In the stop and running display interface, the display parameters can be selected cyclically; when changing the parameters, the modification position can be selected
ENTER	Enter	Enter the menu screen step by step, and set the parameters to confirm
RUN	Run	In the keyboard operation mode, used for running operation
STOP/ RESET	Stop/Reset	When running, this button can be used to stop running operation; in fault alarm state; used to reset operation

Two-wire control

Knob/switch (self-locking type)

Three-wire control

RUN COM STOP
Start input Stop input
RQ   RA   RB
Work status indicator

Button Start and stop mode
（Set PA-11=1）

Two-wire control

RUN COM STOP
Start input
RQ   RA   RB
Work status indicator

Button Start and stop mode

RUN COM 12V RA RB