

SP11 Series

Electronic Phase Selective Changeover Switch



Please be sure to read the instruction manual carefully before using this product in order to ensure the safety of electricity

SAFETY PRECAUTIONS

1. The device must be installed by a qualified person.
2. Disconnect all power before working on the device.
3. Don't touch any terminal when the power is ON.
4. Verify correct terminal connection when wiring.
5. Don't dismantle or repair the device whether it operates normally, otherwise no responsibility is assumed by producer and seller.
6. Never use the device at the site which can be invaded by corrode gas, strong sunshine light and rain.
7. Clean the device with a dry cloth.
8. Fail to follow these instructions will result in serious injury or death.

FEATURES

1. Micro-controller based.
2. Parameters setting by keys.
3. Over and under voltage protection.
4. Rated operation current 63A.
5. 3-digit display for operating voltage.
6. N phase failure protection.
7. LED indication for control state.
8. 5 module, DIN-rail mounting.

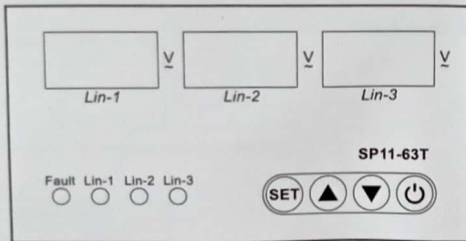
TECHNICAL DATA

Model code	SP11-63T	SP11-63TI
Supply terminals	N, Lin-1, Lin-2, Lin-3	
Rated supply voltage	AC 3x220V (N - Lin-1/2/3)	
Rated operation voltage range	50-400V	
Rated frequency	50/60Hz	
U _{max} setting range	230-300V (Default 270V)	
U _{min} setting range	110-170V (Default 170V)	
Power on delay	Ton: 1-600S	
Delay to return to priority phase	Tr: 0-200S/OFF	
Switch delay to reserve phases	0-200S	
Voltage hysteresis	5V	
Rated insulation voltage	400V	
Rated operation current range	63A	1-63A (Default 63A)
Maximum operation current	80A	
Over-current tripping delay time		T1: 1-30S (Default 5S)
Current reconnect delay time		T2: 1-500S (Default 5S)
Current reconnect times	0-20T (Default -)	
Phase priority sequence	123/132/213/231/312/321	
Electro-mechanical life	100000	
Altitude	<2000M	
Ambient temperature	-25°C-50°C	
Permissible relative humidity	<50% at 40°C (without condensation)	

FRONT-FACE PANEL

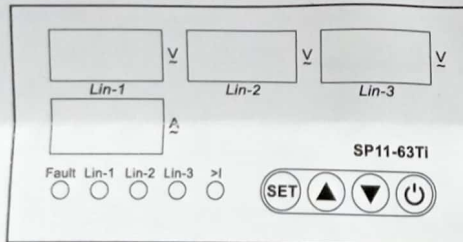
Pushbuttons

- SET key
- Adjust +
- Adjust -
- Switch

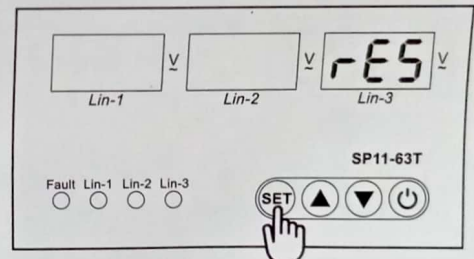


LED indicators

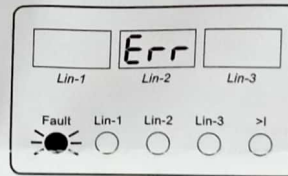
- Fault indication
- Lin-1 output
- Lin-2 output
- Lin-3 output
- Over current



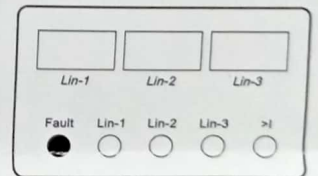
RESTORE FACTORY SETTING



Press and hold SET key for 5S to restore factory setting

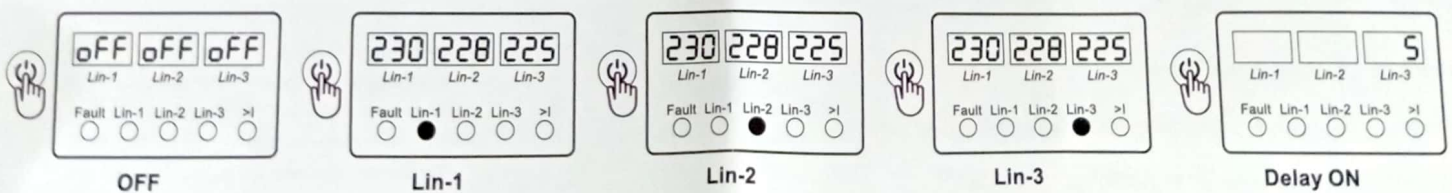


Lin-2 relay is faulty
'Err' displays
and Fault LED flashes



The three phases are
all abnormal,
Fault LED is always ON

MANUAL OPERATION



SETTING PROCEDURE

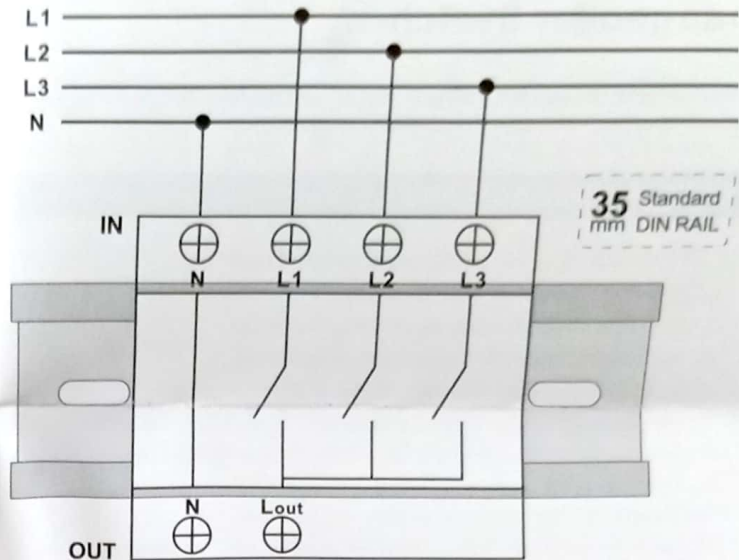
L2	L3	
220	220	● Main display
SET		
o-U	270	● Over-voltage trip value 230-270
SET		
U-U	170	● Under-voltage trip value 110-210
SET		
ton	5	● Power on delay 1-600
SET		
tr	OFF	● Delay to return to the priority phase 0-200-OFF
SET		
tc	0	● Delay to switch to the reserve phase 0-200
SET		
Pr 1	123	● Setting for priority sequence 123-132-213-231- 312-321
SET		
o-1	63	● Setting for over-current value 1-63
SET		
t-1	5	● Setting for over-current trip time 1-30
SET		
tr 1	5	● Setting for current reconnect delay 1-500
SET		
o IE	-	● Setting for current reconnect times 0-20--

Press ▲ ▼ to adjust the values.

Press and hold ▲ ▼ to increase or decrease the values rapidly.

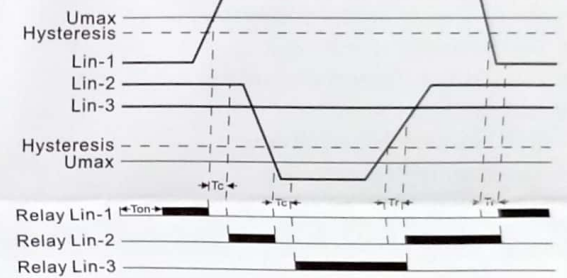
Grey area is for SP11-63Ti.

CONNECTION & INSTALLATION

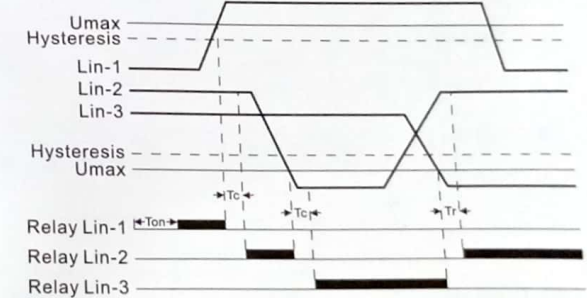


TIMING DIAGRAM

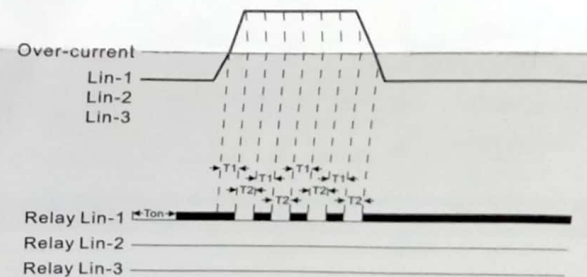
● Tr at 0-200S



● Tr at OFF



● Over-current



Ton: Power on delay

Tc: Delay to switch to reserve phase

Tr: Delay to return to priority phase

T1: Over-current trip time

T2: Current reconnect delay