

**General**

SOPR-3DE series digital overload and phase lost relays are designed to prevent the failures originated from motor heat.

**Setting Instruction**

**D-Time:** Set two to three seconds longer than the motor starting time.  
**O-Time:** Over-current run time. Set less than the motor's endurance time with over-current.  
**LOAD:** Set over 110% of the motor started current or under 120% of its operating current.

**Relay Condition**

**R-Type**

**When Powered:** 95(COM) and 96(NC) is short circuit, 95(COM) and 98(NO) is open circuit.  
**When Tripped:** 95(COM) and 96(NC) is open circuit, 95(COM) and 98(NO) is short circuit.

**N-Type**

**When Powered:** 95(COM) and 96(NC) is open circuit, 95(COM) and 98(NO) is short circuit.  
**When Tripped:** 95(COM) and 96(NC) is short circuit, 95(COM) and 98(NO) is open circuit.

**Maintenance**

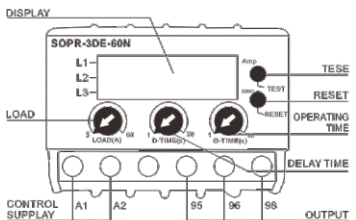
Periodic testing of TEST button is recommended to ensure the full protection and regularly as preventive maintenance.  
 Switch off the device and release from connections.  
 Clean the trunk of device with a swab.  
 Don't use any conductor or chemical might damage the device.  
 Make sure device works after cleaning.

**Technical Specifications:**

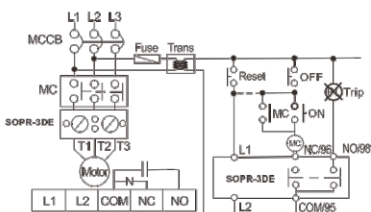
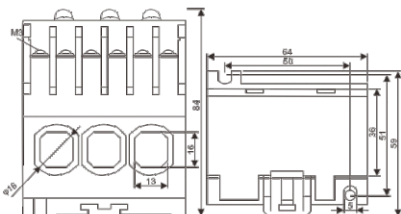
- Current Range: TYPE06) 1-6A, TYPE30) 5-30A, TYPE60) 5-60A, TYPE120) 10-120A
- Operating Voltage (Un): 24VAC/DC, or 90-260VAC
- Operating Frequency: 50/60Hz
- Operating Power: <2W
- Operating Temperature: -20°C ~ +55°C
- Waiting(t): D-Time 1~30s, O-Time 0.5/1~10s.
- Asymmetry Set: %±1
- Contact: 5A 250V AC Resistive Load
- Connection Diagrams: 35mm Din Rail(D) or Pane(P)

**Configuration Menu**

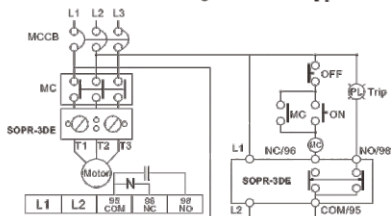
MODE	Description	Range	Remark
	Over current threshold	05 Type: 0.5A ~ 6A 30 Type: 3A ~ 30A 60 Type: 10A ~ 60A	0.5 ~ 6A: 0.1A steps 3~30A: 1A steps 10~60A: 1A steps
	Starting delay time	1~30 sec	1sec steps
	Over current duration	0.5,1~10 sec	0.5sec 1~10sec(1sec steps)
	Test		Display"END" after elapsing 3 sec + preset O-Time Test is Not applicable under normal operation Operation time = 3 sec + O-Time



Dimensions for SOPR-3DE



Connection diagram for R-Type



Connection diagram for N-Type

**Trip Cause Indication**

	Over Current (oc)	Tripped with 10A over-current
	Phase Loss (PL)	Tripped by phase loss on L1
		Tripped by phase loss on L2
		Tripped by phase loss on L3
	stall at starting	Tripped by stall while starting

