Motor Protector Relay - SE-E1 series
压缩机电机保护模块 - SE-E1 系列

APPLICATION:

The SE-E1 series motor protector relay is designed for screw compressors, monitoring of motor temperature, phase sequence and phase failure of motors in refrigerant compressors.

FUNCTIONAL DESCRIPTION:

* After the supply voltage has been connected, a three-second initialization period follows. Provided the PTC chain resistance is below the reset threshold (2.95KΩ), the relay trips after these 3 seconds have expired.

* The SE-E1 can monitor up to nine PTC thermistors even with differing rated shut-off temperatures. If one or more PTC thermistors become highly resistive, the motor protector switches off. After cooling down below the reset threshold, a 5-minute delay period begins. When this period has expired, the relay trips again, provided all PTCs are below the reset threshold. If a second PTC error is detected within 24 hours of the first, the delay period is 60 minutes. If a third PTC error occurs within the 24 hours period, the relay switches off and locks.

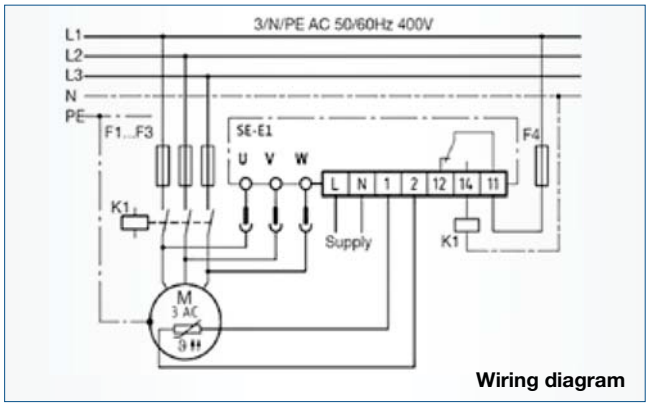
* The monitoring of the three-phase motor voltage becomes active 1 second after the motor has started, for a time window of 10 seconds. In case of a wrong phase sequence or a phase failure, the relay switches off and locks.

* The voltage detection function automatically resets 20 seconds after the motor is powered off. When the power supply is cut off for more than 5 seconds, the lock function is automatically released.

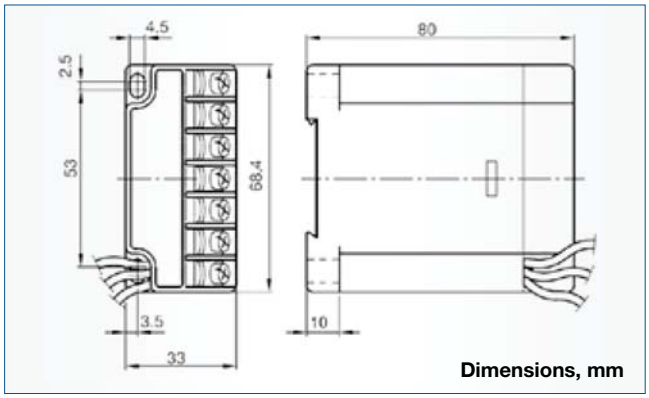
* The sensor input circuit and the voltage detection circuit are completely isolated from each other. The SE-E1 is not suitable for use with frequency converters.

SPECIFICATIONS:

Item	Description
Supply voltage	AC 50/60Hz 208/240V -15%...+10% 3VA
Ambient temp.	-30ºC … +70ºC
Temperature measuring circuits	PTC to DIN 44081/082 No. of sensors: 1…9 serial $R_{25,total}$ < 1.8 KΩ R_{trip}: 11.4 KΩ ± 20% R_{reset}: 2.95 KΩ ± 20% Max. lead length < 30m Measurement voltage ≤ 2.5V (according to IEC 60034-1)
Time delay after cool down	1st shutdown in 24hr.: 5min. ± 1min. 2nd shutdown in 24hr.: 60min. ± 5min. 3rd shut down in 24hr.: lock out Phase monitoring: 3AC 50/60Hz, 200-632V±10%, active while t_0+1sec…t_0+11sec. Monitoring inactive: 20sec. after the motor stop.
Reset of lock-out	Power off > 5sec.
Relay	Max. AC 240V, 2.5A, C300 Min. AC/DC > 24V, > 20mA
Service life	Approx. 1 million switching cycles
Protection class	IP00
Connection	6.3mm flat plug sleeves, or RV1.25-10, or RV1.25-5 ring cable lug with wire L=300mm, M3.5 screw terminals
Housing	PA66 +30%GF
Mounting	To snap open to 35mm standard rail as under EN 60715 or screw mounting
Dimensions	68.4 x 33 x 80mm
Weight	Approx. 200gr.



Wiring diagram



Dimensions, mm