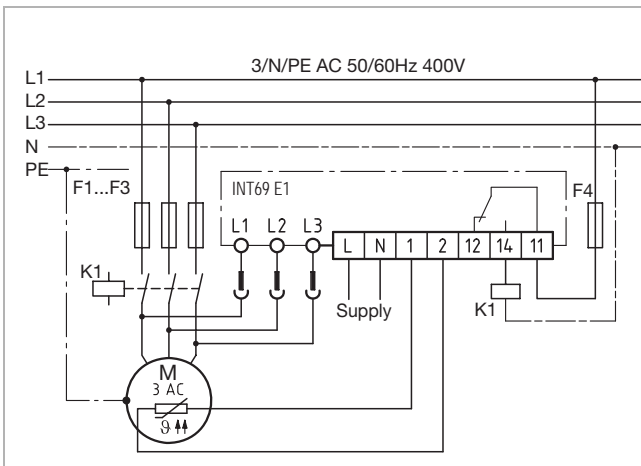


# INT69 E1 Motor protector

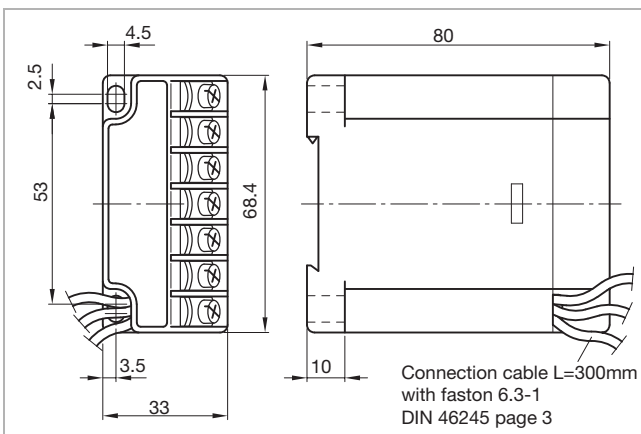
## INT69 E1



INT69 E1



Wiring diagram



Dimensions in mm

**!** The unit must be connected by trained electrical personnel. All valid European and national standards for connecting electrical equipment and cooling installations must be observed.

### Order data

INT69 E1 Motor protector

**22 A 613**

### Application

Monitoring of motor temperature, phase sequence and phase failure of motors in refrigerant compressors.

### Functional description

- The INT69 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 and locks.
- The monitoring of the phase sequence becomes active 1 second after the motor has started, for a time window of 5 seconds. In case of a wrong phase sequence the relay switches off and locks.
- The phase failure detection is active for about 1 second after the motor start until the motor stop. In case of a detected phase failure, the motor is shut-off and a restart commences after about 10 seconds. After the third shut-off, caused by a phase failure, within 12 minutes or at the 10th shut-off within 24 hours, there is a locked shut-off.
- After the motor is shut off, the phase monitoring is inactive for 10 seconds to avoid an unintended shut off by a motor that possibly may be rotating in reverse.
- The lock-out can be removed by a mains reset (>5s).
- The sensor and supply circuits are galvanically isolated from each other.
- The relay output is designed as a potential-free change-over contact in closed-circuit principle.
- The INT69 E1 is not suitable for use with frequency converters.

### Technical specifications

Supply voltage	AC/DC 50/60Hz 115-230V -15...+10% 3VA
Permitted ambient temperature	-30...+70°C
Temperature measuring circuits	
- Type	PTC, accord. to DIN 44081/082
- Number of sensors	1-9 in series
- $R_{25, total}$	<1.8kΩ
- $R_{trip}$	11.4kΩ ±20%
- $R_{reset}$	2.95kΩ ±20%
- Max. length	<30m
Phase monitoring	3AC 50-60Hz 200-632V ±10%
- Phase sequence	Active about 1 second after motor start for about 5 seconds Lock-out shut-off Active about 1 second after the motor start until the motor stop Automatic restart after 6min ±1min 3 shut-offs within 12min or 10 shut-offs within 24h leads to a locked shut-off 10 seconds after the motor stop.
- Phase failure	Active about 1 second after the motor start until the motor stop Automatic restart after 6min ±1min 3 shut-offs within 12min or 10 shut-offs within 24h leads to a locked shut-off 10 seconds after the motor stop.
- Monitoring inactive	10 seconds after the motor stop.
Reset of lock-out	Power off >5s
Relay	Max. AC 240V 2.5A C300 Min. AC/DC >24V, >20mA
Mechanical service life	Approx. 1 million switching cycles
Protection class acc. to EN 60529	IP00
Connection type	6.3mm flat plug sleeves and screw terminals
Housing material	PA66, glass-fibre-reinforced
Mounting	To snap open to 35mm standard rail as under EN 60715 or screw mounting
Dimensions [mm]	68.4x33x80 (LxWxH)
Weight	Approx. 200g
Check base	EN 61000-6-2, EN 61000-6-3 EN 61010-1
Approvals	UL File No. E75899