INT69® Diagnose

KRIWAN

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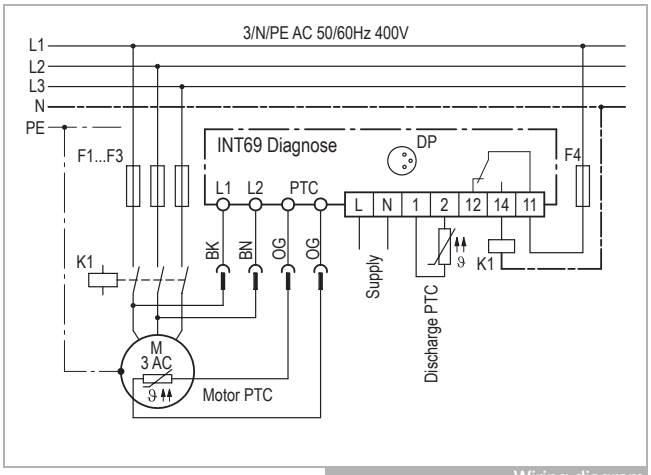
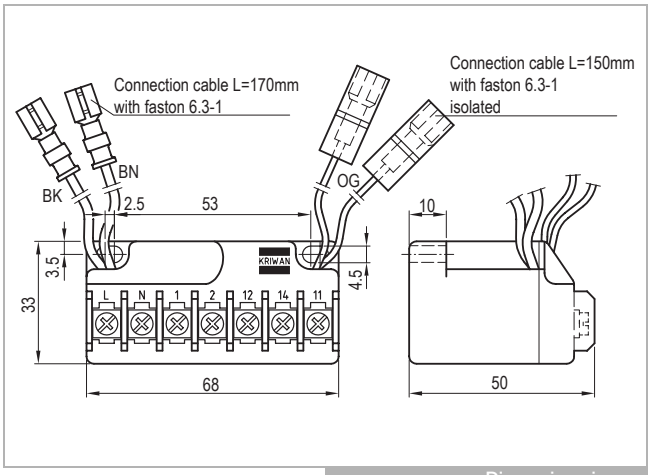


Wiring diagram



Dimensions in mm

⚠ The mounting, maintenance and operation are to be carried out by an electrician. The valid European and national standards for connecting electrical equipment and cooling installations have to be observed. Connected sensors and connection lines that extend from the terminal box have to feature at least a basic insulation.

Application

The INT69 Diagnose motor protector is an upgraded version of the proven KRIWAN compressor protection units with an additional input for a discharge gas sensor. Its additional flexible-response protective functions can extend the service life of a cooling system. The comprehensive diagnostics and data storage functions help to identify the causes of possible malfunctions quickly and reliably.

Functional description

The temperature monitoring of the motor is done with two evaluation methodes:

- **Static**: If the temperature increases slowly in the motor winding, the motor is switched off immediately when the rated nominal response temperatures of the built-in PTC sensors is reached.
- **Dynamic**: If the temperature increases unusually quickly in the motor winding, the motor is switched off immediately even if the temperature is still far below the rated nominal response temperatures of the built-in PTC sensors. This prevents high temperature overshoot.

The temperature monitoring of the discharge gas sensors uses a static evaluation process.
The following errors also lead to switch-offs:

- Short circuit at the PTC inputs
- Short circuit at discharge gas sensor

The motor is restarted with a restart delay after it has cooled down or the error has been repaired.
The INT69 Diagnose compressor protection unit automatically saves operational and error data in a non-volatile memory. This data can be retrieved on a PC as needed and analyzed for diagnose. The full scope of the diagnose is achieved by using a KRIWAN-specific AMS sensor, consisting of several PTC sensors with different rated shut-off temperatures. Among other data, the operating times in each temperature range of the motor winding are recorded.
This motor protector is suitable for use in drives with frequency converters.

Technical specifications

Supply voltage	
- Dual voltage	AC 50/60Hz 115-230V ±10% 3VA
Permitted ambient temperature	-30…+70°C
Temperature measuring circuits	
- Type	1-2 AMS sensors in series alternative 1-9 PTC acc. to DIN 44081/082 in series
- $R_{25,total}$	<1.8kΩ
- $R_{trip,\ static}$	4.5kΩ ±20%
- R_{reset}	2.75kΩ ±20%
Reset delay after	1min ±20%
- Static triggering	5min ±20%
- Dynamic triggering	10min ±20%
- Tripping, discharge gas sensor	5min ±20%
- Switching frequency overstepping	
Short circuit monitoring system PTC	Typically <30Ω
Operating recognition motor	
- Lower limit	AC 20Hz/100V - 90Hz/175V
- Upper limit	AC 460V ±15%
Switching frequency overstepping	>2 switch-offs in 30s
Relay	
- AgNi 90/10	Max. AC 240V 2.5A C300 Min. >AC/DC 24V, >20mA
Mechanical service life	Approx. 1 million switching cycles
Interface	Diagnose Port (DP)
Protection class acc. to EN 60529	IP00
Connection type	6.3mm flat plug sleeves and screw terminals
Housing material	PA glass-fibre-reinforced
Mounting	Screw mounted
Dimensions [mm]	50x33x68 (LxWxH)
Weight	Approx. 200g
Check base	EN 61000-6-2 EN 61000-6-3 EN 61010-1 Overvoltage category II Pollution level 2
Approval	UL File No. N.N.

Order data

INT69 Diagnose	**22 A 481**

Technical changes reserved

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