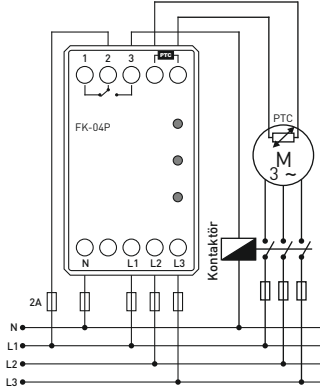


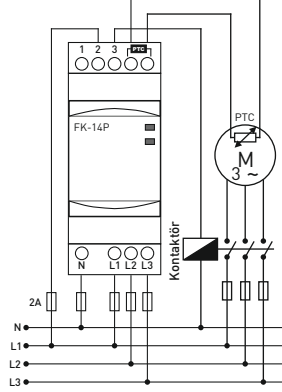
General

FK-04/04P, FK-14/14P, FKV-14/14P, FKV-03 and FS-R phase failure relays are designed to avoid any failure of three phase motors (which works phase sequence) caused from network. FK-04P, FK-14P and FKV-14P types additionally avoids failure of motor caused thermal overload.

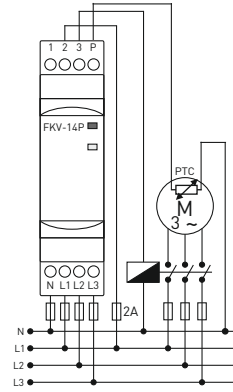
FK-04/04P Connection Diagram



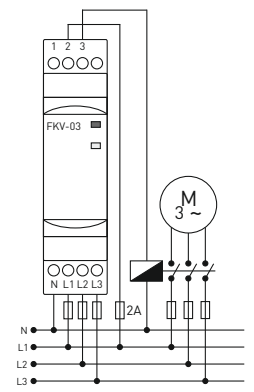
FK-14/14P Connection Diagram



FKV-14/14P Connection Diagram



FKV-03 Connection Diagram



Usage of Device and Working Principle

Make the connections according to the diagram.

Normal Operation (No Error): When the phases are at normal values and the phase sequence is correct, the relay gets activated and the **OUT LED** is on.

Asymmetry Error: When any phase goes out of the normal range, the **ERR LED** flashes (at 2 second intervals), the **OUT LED** is off and the relay deactivated.

Phase sequence reverse (Phase Sequence Error): The **ERR LED** lights steady, the **OUT LED** is off and the relay gets deactivated.

PTC Errpr: In models with PTC, when the temperature of the motor exceeds the rated value, the **ERR LED** is flashes (at 1 second intervals), the **OUT LED** is off and the relay deactivates. When the temperature value returns to the nominal values, the relay gets activated again and the **OUT LED** lights up.

Relay is Activated: 2 (COM) and 3 (NC) short circuit, 1 (NC) and 2 (COM) open circuit.

Relay is De-activated: 2 (COM) and 1 (NC) short circuit, 3 (NC) and 2 (COM) open circuit.

If the PTC function is will not to be used: If not using PTC in the FKV-14P, short the PTC (P) terminal to Neutral (N).

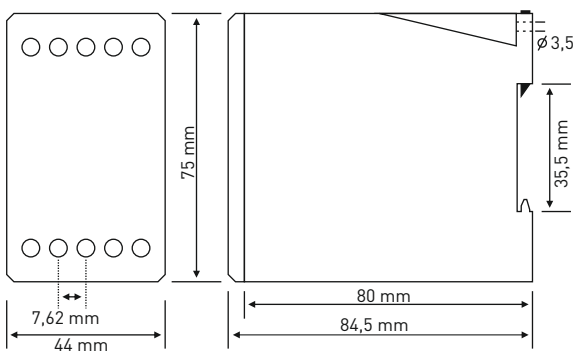
If not using PTC in FK-04P and FK-14P, short the PTC (P) terminals.

FKV-03: There is no ERR LED on this device. In case of Asymmetry or Phase Sequence Errors, OUT LED goes out and the relay gets deactivated.

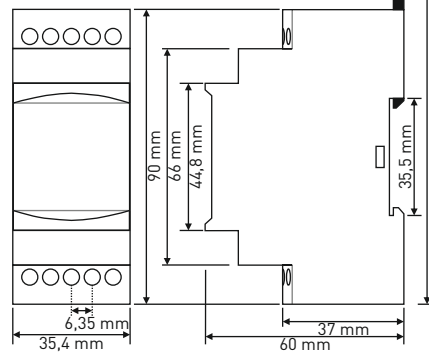
Maintenance

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.

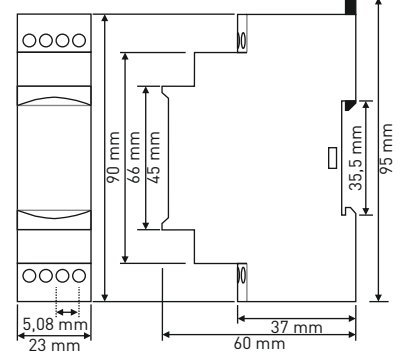
FK-04/04P, FS-R Dimensions



FK-14/14P Dimensions



FKV-14/14P, FKV-03 Dimensions



Warnings

- Please use the device according to the manual.
- Don't use the device in wet. Include a switch and circuit breaker in the assembly.
- Put the switch and circuit breaker nearby the device, operator can reach easily.
- Mark the switch and circuit breaker as releasing connection for device.

Technical Specifications

- Operating Volt.(Un) : 3 x 380V AC ve nötr
- Operating Frequency : 50/60 Hz.
- Operating Power : < 6VA
- Operating Temp. : -20°C.....+55°C
- Tolerance : ~%30 (FKV-03: ~%40)
- Display : OUT & ERR LEDs
PWR, OUT & ERR LEDs (FK-04/04P & FS-R)
ON & OUT LEDs (FKV-03)
- Connection Type : Terminal connection.
- Weight : Max. 110gr.
- Contact : 5A/250V AC (Resistive Load)
- Mounting : Assembled on the din rail.
- Operating Altitude : < 2000m.
- Cable Diameter : 1.5mm²