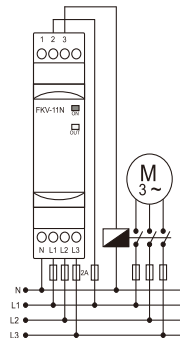
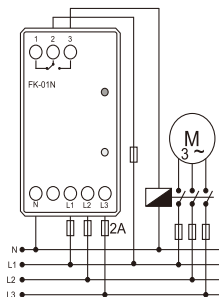


**General**

FK-X1N/X2N and FKV-X1N/X2N phase failure relays are designed to avoid failures of three phase motors caused from network.

**Usage of Device and Working Principle**

Make the connections according to the diagram. When power is on and phases in normal values, relay pulls and relay led is switched on. In this case, contact out is (NO)3 pole. Any of the phases increases or decreases than normal values, relay releases and led switches off. In this case contact out is (NC)1 pole.



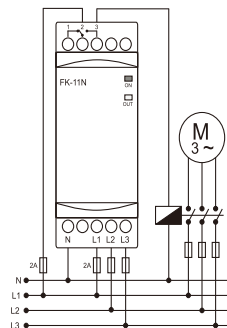
Connection diagram for FK-11N/12N

**Maintenance**

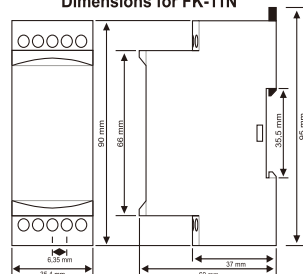
Switch off the device and release from connections. Clean the trunk of device with a swab. Don't use any conductor or chemical might damage the device. Make sure device works after cleaning.

**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.



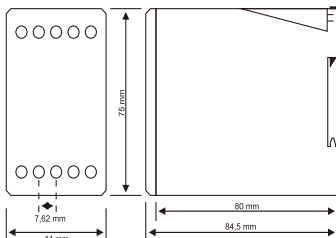
Dimensions for FK-11N



**Technical Specifications:**

- Operating Voltage(Un): 3 x 380V AC and neutral
- Operating Frequency: 50/60 Hz.
- Operating Power: <4VA
- Operating Temperature: -20°C.....+55°C
- Tolerance: ~%30 and ~%40(FK-X2)
- Display: On led and Out led
- Connection Type: Terminal connection
- Weight: Max. 110gr.
- Contact: 5A/250V AC (Resistive Load)
- Mounting: Vertical assembled in the panel or assembled on the din rail
- Operating Altitude: <2000meter
- Cable Diameter: 2,5mm<sup>2</sup> 1,5mm<sup>2</sup>(FKV-X1N)

Dimensions for FK-01N/02N



Dimensions for FKV-11N/12N

