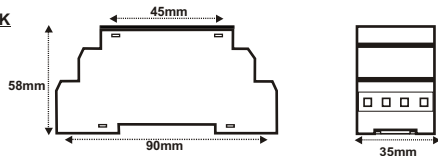
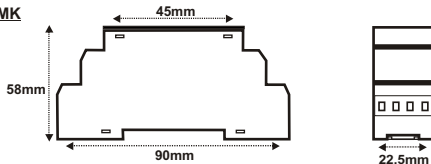


Dimensions

FMK



SFMK



 **KARACA**[®]

 **KRK**[®]

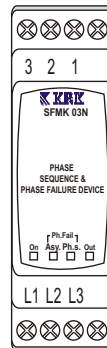
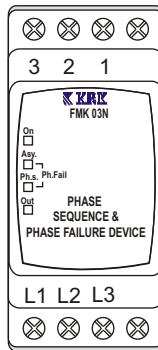
 ISO 9001
9901:2008

PHASE SEQUENCE & PHASE FAILURE DEVICE

WITHOUT NEUTRAL

FMK 03N
SFMK 03N

True RMS



User Guide

General Specifications

FMK 05N / SFMK 05N is protect motors from ;
— Phase loss
— Phase sequence failure
— Phase asymmetry

Protection Functions

I- Phase Loss : If the system has lost one of the phases, the output is closed without delay ("Ph. seq." and "Asym." led are lighted).

II-Phase Sequence Failure : If the sequence of the phases are wrong the output is closed without delay. Any case if the sequence is changed during normal operation the output is closed without delay . In this condition "Ph. seq." led is on.

III- Voltage Asymmetry: If system's phase-phase voltage values are between the adjusted asymmetry value, "out" led is on (2-3 contacts are closed). Otherwise the output is closed (1-2 contacts are closed). During normal operation, if asymmetry occurs "Asym." Led is on ad if it continues more than adjusted delay time device will cut-off the system (1-2 contact are closed). If it return normal value will continue to normal operation and all warning leds are off.

$$\text{Asymmetry (\%)} = \frac{\text{The max. deviation between Ph-ph values}}{\text{Nominal value of Ph-ph}} \times 100$$

IV- If any ph-ph values increases over 460V or decreases 250V device will closed the system without delay. Warning leds will light on accordingly.

Technical Specifications

Supply Voltage	: 380 Vac (+%25 , -%35) , 50/60 Hz
Asymmetry Adjustment	: %15
Delay (OFF) Time	: 0.1sec
Power Consumption	: <= 7VA
Ambient Temperature	: -5°C...+55°C
Contact Type	: Relay, 1 CO, 10A (Omron)
Electrical Connector	: Rising Clamp
Connection	: Vertical inside panel or on DIN 35 rail
Weight	: FMK 03N 0,16kg / SFMK03N 0,07kg

Connection Schemes

