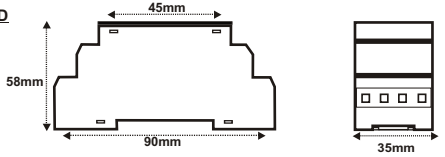
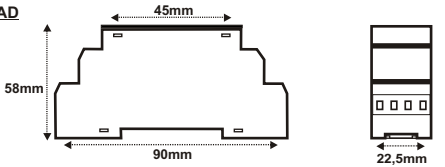
Dimensions

KAD



SKAD



KARACA

KRK®

ISO 9001:2008

UNDER & OVER VOLTAGE MONITORING DEVICE

2 YEARS GUARANTEED

True RMS

KAD 04N

SKAD 04N

WITHOUT NEUTRAL

User Guide

General Specifications

The devices are used for three phase systems, to protect systems from :

Phase loss,__Phase sequence failure__ Under voltage__ Over voltage

Protection Functions

I- Phase Loss : If the system has lost one of the phases, the output is closed without delay ("on" and "under" leds 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. "Under" and "over" leds are flashing.

III- Under & Over Voltage Protection : Under & Over voltage tolerances can be adjusted seperately. If the phase-phase voltage values are between the adjusted levels "out" led is on (2-3 contacts are closed). Otherwise device close the output(1-2 contacts are closed). During normal operation any of ph-ph voltage value decreases under the adjusted value "under" led is on, increases over the adjusted value "over" led is on. If one of the ph-ph is over the limit and one of the under the limit both "under" & "over" leds are on. If these condition continues more than delay time "out" led is off (1-2 contacts are closed). Related warning leds remain on. If these condition continues less than delay time , warning leds are off. Device operating normally

$$\text{Tolerance (\%)} = \frac{\text{Phase-Phase value}}{\text{Phase-Phase nominal value}} \text{ x100}$$

IV- If any of phase-phase values increases over 500V or decreases under 250V device will closed the system without delay. Warning leds will light on accordingly.

Sample: If Umin=0.85, Umax=1.10

Under Voltage Tolerance=380*0.85=323 V

Over Voltage Tolerance= 380*1.10=418 V

Delay Time= 10second

If any of the phase value out of the 323V-418V and this condition continues more than delay time "out" led is off.(1-2 contacts are closed.)

If the output is closed from under tolerance output will open 329V. If the output is closed from over tolerance output will open 410V.

Technical Specifications

Supply Voltage	: 3x380 Vac , 50/60 Hz
Under Voltage Tolerance	: %5...%30
Over Voltage Tolerance	: %5...%30
Delay Time	: 10 sec
Hysteresis	: % 2 (Adjusted value)
Power Comsumption	: < 7 VA
Ambient Temperature	: 0..+60°C
Contac Type	: Relay, 1 Inversor, 10A / 250 Vac(Omron)
Electrical Connector	: Rising Clamp
Connection	: Vertical inside panel or on DIN 35 rail
Weight	: 0,16 kg

Connection Schemes