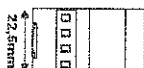
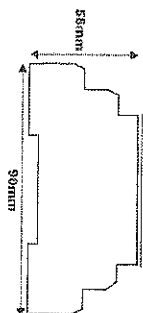


Dimensions



Technical specifications

Supply voltage	: 220 Vac \pm 3%, 50/60 Hz (L1-N)
Under voltage setting	: 210V, 150V adjustable.
Over voltage setting	: 230V, 300V adjustable.
Hysteresis	: 5V (on the delay on)
Delay off time	: (off) : Between . 1sec., 20sec adjustable.
Power consumption	: < 7 VA
Operating temperature	: -5°C...+55°C
Electrical life	: 100,000 On/ Off (Resistive load)
Control output	: 1 Inverse, 10A/250 Vac
Electrical connection	: PCB, clamp
Installation	: DIN 35 rail or Vertical installation.
Weight	: SKAD 04-01 : 0,055kg

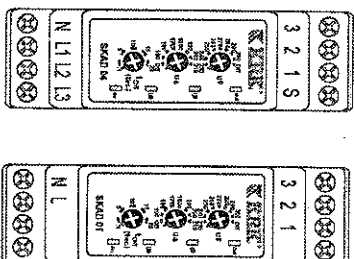


20601

UNDER AND OVER VOLTAGE PROTECTION RELAY

ITIE/RMS

SKAD 01
SKAD 04



User Guide

General specifications

The devices are used for single phase and three phase systems from : Phase loss, Phase sequence failure , Under voltage, Over voltage

Protection Functions

1-Phase Sequence Failure : if the sequence of the phases are wrong system doesn't work. Any case if the sequence is changed during normal operation the output is closed without delay. "Umin," "and Umax," " leds are flashing.

2-Phase Loss : if the system has lost one of the phases, the output is closed without delay. And "Umin," "led is lighted. (If supply phase is lost all the leds is off).

3- Under and Over Voltage Protection: Under Over voltage tolerances can be adjusted separately. If the phase-neutral 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 phase voltage value decreases under the adjusted value "Umin," "led is on, increases "Umax," "led is on. If one of the phase is over the limit and one of the under the limit both "Umin," " and Umax " " leds are on, if these condition continues more than adjusted delay time "out" is off. (1-2 contacts are closed). Related warning leds remain on, if these condition continues less than adjusted time, warning leds are off. Device operating normally.

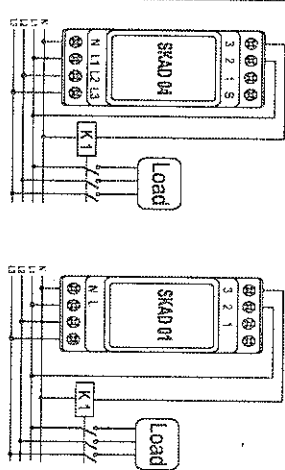
Note: If under and over buttons are off , Control is not possible

4- If any phases values decreases under 0.5xUn or increases over 1.5xUn device will closed the system without delay. Warning leds will light on accordingly. If phase value is big "Umax," "led is on, if small "Umin," "led is on

5- If supply voltage (L1) drops under 150 V device will closed the system without delay. And " " led is on.

6- t-off time : if phases values out of adjusted value , at the end of t-ff time "out" led is off and 1-2 contacts are closed. The fault led or leds during t-off time is on

Connection diagram



SKAD 04: If phase sequence control is not desired "S" - "N" must be short-cut.