

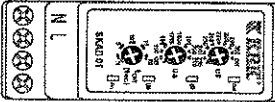
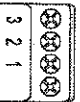
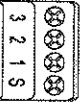


50601

UNDER AND OVER VOLTAGE PROTECTION RELAY

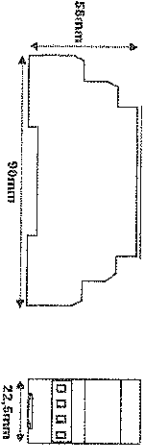


SKAD 01
SKAD 04



User Guide

Dimensions



Technical specifications

- Supply voltage : 220 Vac ± 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 : (varn) ; 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 Inversor, 10A/250 Vac
- Electrical connection : PCB, clamp
- Installation : DIN 35 rail or Vertical installation.
- Weight : SKAD 04-01 : 0,053kg

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.

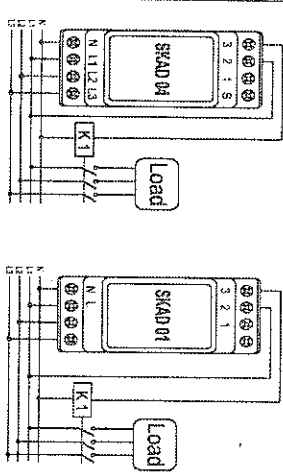
Note: If under and over buttons are off , Control is not possible

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 , 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-off 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.