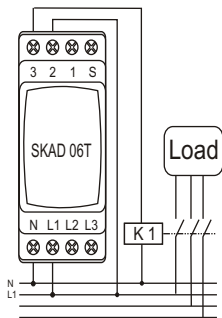
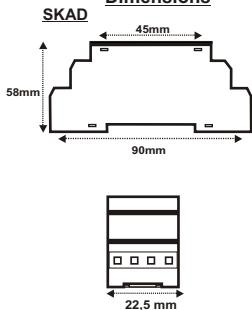


Connection diagram



Dimensions



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

Technical specifications

Supply voltage	: 220 Vac \pm % 35, 50 / 60 Hz (L-N)
Under voltage setting	: 210V , 150V adjustable.
Over voltage setting	: 230V , 300V adjustable.
Hysteresis	: 5V (on the delay on)
Delay off time	: (t-off) : Between .1sec...20sec adjustable.
Delay On time	: (t-on) : 3 minutes fixed
Power consumption	: < 7 VA
Operating temperature	: -5°C...+55°C
Electrical life	: 100.000 On/ Off (Resistive load)
Control output	: Relay, 1 inversör, 10A/ 250 Vac (Omron)
Electrical connection	: PCB clamp
Installation	: DIN 35 rail or Vertical installation.

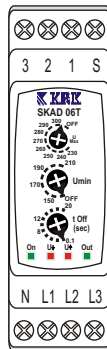
KRK®

29001
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UNDER AND OVER VOLTAGE PROTECTION RELAY

True RMS

SKAD 06T



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- Under and Over Voltage Protection : Under and Over voltage tolerances can be adjusted seperately. 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 pases voltage value decreases under the adjusted value “under” led is on, increases ver the adjusted value “over” led is on. If one of the phase is over the limit and one of the under the limit both “under” and “over” leds are on. If these condition continues more than adjusted delay time “out” led 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.

2- If any of phases values increases over $1.5 \times U_n$ or decreases under $0.5 \times U_n$ device will closed the system without delay. Warning leds will light on accordingly.

3-When the system fails device waits tilladjusted time (0,1..10 sec.)than “OFF” the output. When the system returns to normal values device waits 3 minutes to “ON” the contacts.

*** If the supply (L1) decreases under 150V the output is closed without delay and “under” led is on.

















































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

2- If any phases values decreases under $0.5 \times U_n$ or increases over $1.5 \times U_n$ device will closed the system without delay. Warning leds will light on accordingly. If phase value is big “ U_{max} , U^+ ” led , if small “ U_{min} , U^- ” led is on

3-If supply voltage (L) drops under 150 V device will closed the system without delay. And “ U^+ ” led is on. .

4- 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

Device Leds

On	$U_{min}(U^-)$	$U_{max}(U^+)$	Out	( LED ON)	( FLASH)	( LED OFF)
				N or L (supply line) is not connected or corrupted		
				Voltages are adjusted value		
				Temporarily under voltage warning		
				Continuously under voltage warning		
				Temporarily over voltage warning		
				Continuously over voltage warning		
				Respectively flash :temporarily over and under voltage warning		
				Continuously over and undr volage warning		
				Leds flash together phase sequence fault		
				T-On Delay On time		
				( fast flasher) Phase fault warning		