ZEG-ENERGETYKA

RIT-433A

Overcurrent, three-stages relay

GENERAL CHARACTERISTIC

The protection relay intended to be used in protection systems as three-stages overcurrent protection. The relay measures sinewave of current of frequency 50 Hz. Relay digital design ensures high accuracy, stability and dependability.

Protection set

51 definite-time overcurrent protection

Main features

- Three phase measuring circuit
- Three definite-time overcurrent stages
- Ready to operate in one-, two- or three-phase power networks
- Measuring and continuous displaying of energising value
- Record of value of voltage during last disturbance
- Binary input in order block relay operation
- LED display and set of buttons in order to operation of the relay
- Optical indicating (with LED diodes) current voltage value (U<U1, U1<U<U2, U>U2), external blocking signal and proper operation of relay
- Relay output for signalling: II stage pick-up (K2), operation of I or II stage (K1), operation of III stage (K3) failure or lack of aux. voltage (K4) or relay interlock by external signal (K5)
- Self-test of proper operation of relay
- Relay enclosure gives possibility to mount on 35 mm rail, surface mount or flush mount

RIT-433A relay compares the maximum value of three measured currents with threshold values of particular overcurrent stages whose are set by the user. If the RMS value of any of measured currents exceed threshold value of one of overcurrent stages, relay picks-up and after set time, operates. Relay operation signal can be blocked by energising blocking purpose binary input (Ubl). Execution circuit is realised by three relay outputs: K1, K2, K3. Relay output K1 activates if I or II stage operate with adequate time-delay, relay output K2 is instantaneously activated by II stage pick-up, relay output K3 activates when III overcurrent stage operates after its time-delay expires.

TECHNICAL DATA

Rated measuring current	1A, 5A, 1/5A (selectable)
	AC or DC
Rated frequency	50 Hz
Auxilliary voltage	24, 48/60 V DC 110, 230 V AC/DC
Control voltage	acc. to aux voltage
Setting range of current threshold value	0,05…5 In or 0,2…20 In
Setting range of operating time	0…99,9s
Relay response time	≤40ms
Accuracy of current inputs	2,5%
Burden in measuring inputs	≤0,5 VA/input
Burden of supply module	≤6W
Continuous measured current	2,2In
Thermal withstand (1s)	80In
Dynamic withstand	200In
Relay outputs data:	
Continuous contact carry	5A
Max. breaking capacity by 250V DC	
- resistive load	0,3A
- inductive load of L/R ≤40ms	0,12A
Max. breaking capacity by 250V, 50Hz	
- inductive load, cosφ=0,4	3A
Ambient temperature	-20 – 40 °C
Humidity (with no condensation)	≤80%
Ingress Protection degree	IP40
Weight	~0,7kg
Dimensions (height x width x depth)	75mm x 100mm x 120mm
Electromagnetic compatibility acc. to	EN 50263
Insulation according to	EN 60255-5