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CKF-337

PHASE CONTROL RELAYS

three-phase asymmetry and sequence monitors without neutral cable

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F&F products are covered by an 24 months warranty from date of purchase

PURPOSE

Three phase and sequence monitor is designed to protect tree phase electric motors against voltage drop in at least one phase or voltage asymmetry between phases, which could damage the motor, with additional protection of motor rotation direction in case of phase change before the monitor.

STARTING

1. Take on the power.
2. Green LED -U and yellow LED are shining - correct phase sequence of connection pheses joint - can switch ON motor.
3. Red LED is shining - incorrect phase sequence of connection pheses joint.
a. Take OFF the power.
b. change sequence of connection of phases joint e.g. from L2 to L3.
c. Make action with points 1 and 2.
4. Yellow LED isn't shining and at the same time green LED is shining:
- Lack of phase
- Voltage asymmetry is greater than activation voltage asymmetry
5. Red LED is shining - Umin - voltages between phases lower than 320V~.

TECHNICAL DATA

supply	*3×400V*
current load	*<10A*
joint	*1C/O*
sygnalling of supply	*4×LED*
activation voltage asymmetry	*20÷50V~*
activation voltage	*<320V*
hystereisis	*5V~*
switching OFF delay	*4sec*
power consumption	*1,6W*
working temperature	*-25÷50°C*
connection	*screw terminals 2,5mm²*
dimensions	*3 modules (52,5mm)*
fixing	*on rail TH-35*

FUNCTIONING

Supplied a receiver is signalized by shine of green LED. Voltage collapse in any phase or voltage asymmetry between phases above fixed actuation threshhold causes switching-OFF the motor. The motor switching-OFF occurs after delay of 4 sec, which prevents accidental motor switching-OFF caused by instantaneous voltage drop. Switching the motor ON anew occurs automatically when the voltage increases of 5V~ above activation voltage (i.e. about value of voltage hysteresis). At occurrence of these disturbances, it is not possible to set motor in motion. In case of change of phase sequence, before the monitor, which causes change of motor rotation direction (in relation to that primarily set) is signaled by shining red diode LED along with impossibility of switching-on the motor. The re-connection is possible after the return to correct phase sequence.

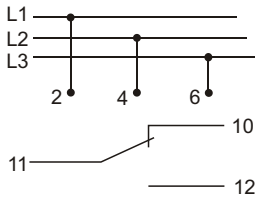
ATTENTION!

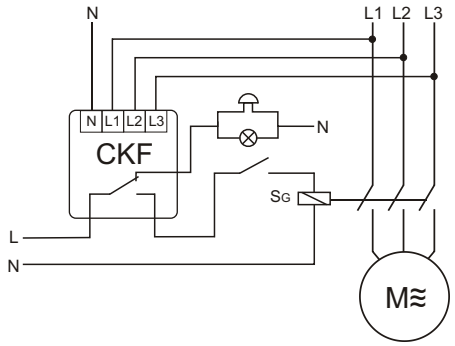
Switching joint of relay could to connect system of LED or bell which will be inform about activation of relay i.e. switch OFF the motor .

ASSEMBLY

1. Check work of motor (direction of sales).
2. Take OFF the power.
3. Put on the relay on the rail in the switchgear box.
4. To joints L1, L2, L3 (2. 4. 6) connect to inputs joints of three phase line of contractor.
5. Contractor of relay (joints 11-12) connect in line to system of coil of switch ON motor.
6. By potentiometer set value of activation treshold and time of delay of switching OFF.

WIRING DIAGRAM





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