

Electronic relay for 3-phase electric motor's protection and 3-phase consumer's protection to one phase loss, phases asymmetry and change of phases sequencing, type Re01

- * assures 3-phase electric motor's protection (regardless of motors power) and 3-phase electric consumer's protection to one phase loss, phases asymmetry over an adjustable threshold and change of phases sequencing
- * the relay monitors its own power supply: 3 X 380Vca
- * can be mounted in modular enclosure beside Multi9 devices



Operation: The 3-phase supply system from the terminal blocks L1, L2, L3 is applied to an electronic circuit which analyses the amplitude of the phases and their succession. If we have all the phases and if asymmetry level is below the adjustable threshold and the phases sequencing is a correct one, the exit relay is closed and LED "OK" lights.

If at least a condition isn't respected the exit relay is opened and LED "OK" doesn't light (after a two seconds temporization).

The asymmetry tuning (noted A): the asymmetry threshold can be modified between 5% and 15% (verify lateral label!).

Technical features:

The relay monitors its own power supply: 3 X 380Vca (on demand 3x500Vca) from the terminal blocks L1, L2, L3

Output (to the terminal blocks 15, 16, 18): 1-pole changeover contact, 3A/250Vca

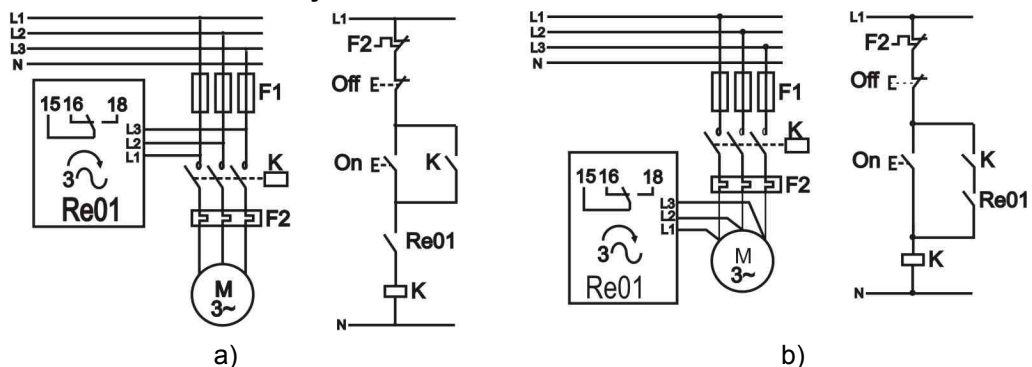
Dimensions: 86 (height) X 36 (width) X 58 (depth) mm

Mounting: on symmetrical or asymmetrical rail

Can be mounted in electric enclosure beside Multi9 devices

Mark: CE (73/23/EEC)

Applications schemes for the relay Re01:



Relay Re01 is used in the case a) for protection to change of phase sequencing, to one phase loss, for burn of a fuse.

In the case b) the relay Re01 operates like in the previous case and more it monitors a loss of one pole of the contactor or of the thermal overload relay (the output contact is concatenated with the self-maintaining contact because Re01 monitors its own power supply).

Mounting and adjustment instructions:

Without power, is achieved the connections between the 3-phase system and the terminal blocks L1, L2, L3. The asymmetry tuning (noted A): the asymmetry threshold is set to 3 (3=15%).

The 3-phase system is connected. The exit relay must be closed and LED "OK" must light.

If LED "OK" doesn't light, the power is interrupted and two phases are switched (to the terminal blocks L1, L2, L3).

The 3-phase system is connected. The output relay must to be closed and LED "OK" must light.

If LED "OK" doesn't light, is verified the presence of the 3-phase system to the terminal blocks L1, L2, L3.

After LED "OK" lights, the 3-phase system is disconnected from the terminal blocks L1, L2, L3 and the output contact is intercalated in the command circuit.

The asymmetry threshold is set to the desired value (1 = 5%, 2 = 10%, 3 = 15%).

To avoid electrocution accidents, the electronic relay Re01 is used in a closed electrical case.