

Zelio Control - measurement and control relays

Phase control relays, self-powered,
model RM 84 873

- Control:
 - phase sequence,
 - phase failure,
 - voltage drop on one or more phases.
- Regeneration rate 90 % of U_n .
- Power supply: 3 x a 230 V and 3 x a 400 V.
- Dual frequency: 50 and 60 Hz.
- Indication of phase presence and relay state by yellow LED.
- Relay output : 2 C/O contacts, 8A.

Operating principle

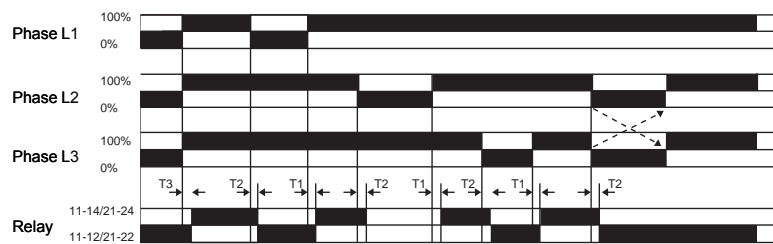
This relay monitors the correct sequencing of phases L1, L2 and L3, as well as a regeneration rate equal to 90% (-10 % of U_n).

When the phase sequence is correct, the output relay is energised; this is indicated by a yellow LED.

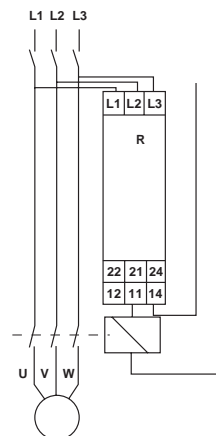
The relay de-energises (LED off) if one of the following faults occurs:

- incorrect sequence of phases at terminals L1, L2 and L3,
- voltage drop on one or more phases.

Timing diagrams



Connection scheme



References



RM 84 873 511

Phase control relays

Voltage	Reference	Weight kg
~ 230 V	RM 84 873 511	0.120
~ 400 V	RM 84 873 512	0.120

Input characteristics

Supply voltage	V	3 x ~ 230 and 3 x ~ 400 self-powered
Operating range		- 20...+ 15 % Un
Frequency		50-60 Hz +/- 1 Hz
Maximum consumption	VA	17 at Un/50 Hz (20 at 60 Hz)
	VA	23 at Un + 15 %/50 Hz (27 at 60 Hz)

Output characteristics

Output type		2 cadmium-free C/O contacts
Rated current	A	8
Maximum switching voltage		~ 250 V/ ~ 440 V
Rated breaking capacity	VA	2000
Minimum breaking current	mA	100/12 V
Electrical life		AC-12 : 10 ⁵ operating cycles at 8 A/ ~ 250 V
Mechanical life		2 x 10 ⁷ operating cycles
Time to onset of fault t2	ms	< 200
Time to disappearance of fault t1	ms	< 200
Clamping capacity	Without cable end	mm ² 1 x 4 or 2 x 2.5
	With cable end	mm ² 2 x 1.5

Other characteristics

Tightening torque	Nm	1 (M3 screw/IEC 947-1)
Temperature limits	Operation	°C - 20...+ 50
	Storage	°C - 40...+ 70
Relative humidity		95 % max without condensation
Enclosure material		Self-extinguishing PC
Protection class	Terminal block	IP 20
	Enclosure	IP 40
Dielectric strength	Conforming to IEC 60255-5	kV 2.5/1 min/1 mA/50 Hz
Creepage distance and clearance	Conforming to IEC 60664-1	kV 4kV/3
Insulation coordination	Conforming to IEC 60664-1	Overvoltage category III; degree of pollution 3; 4 kV/3
Vibration	Amplitude	mm 0.35 peak
	Conforming to IEC 60068-2-6	Frequency
Product certifications		c UL us, CSA

Dimensions

