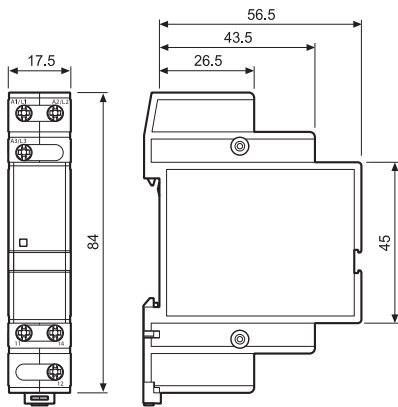


Features

3 Phase - Rotation and phase loss monitoring relay

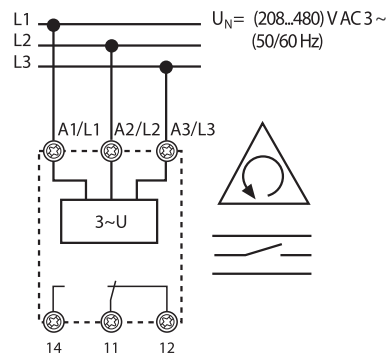
- Universal voltage monitoring (U_N from 208 V to 480 V, 50/60 Hz)
- Phase loss monitoring, under phase regeneration
- Positive safety logic - make contact opens if the relay detects an error
- Small size (17.5 mm wide)
- 35 mm rail (EN 60715) mount
- European patent pending for the fully innovative principle at the root of the 3 phase monitoring and error survey system



70.61



- Phase rotation monitoring
- Phase loss monitoring



Contact specification

Contact configuration	1 CO (SPDT)
Rated current/Maximum peak current A	6/15
Rated voltage/Maximum switching voltage V AC	250/400
Rated load AC1 VA	1,500
Rated load AC15 (230 V AC) VA	250
Single phase motor rating (230 V AC) kW	0.185
Breaking capacity DC1: 30/110/220 V A	3/0.35/0.2
Minimum switching load mW(V/mA)	500 (10/5)
Standard contact material	AgCdO

Supply specification

Nominal system voltage (U_N) V AC 3 ~	208...480
Frequency Hz	50/60
Rated power VA 50 Hz/ W	8/1
Operating range V AC 3 ~	170...500

Technical data

Electrical life at rated load AC1 cycles	$100 \cdot 10^3$
Switch-off/reaction time s	<0.5/<0.5
Ambient temperature °C	-20...+50
Protection category	IP20

Approvals (according to type)



Ordering information

Monitoring relays

Example: 3 phase line monitoring relay, phase rotation and loss monitoring

70.61.8.400.0000

Series

Type

3 = 3 phase AC line monitoring

No. of poles

1 = 1 CO

Supply voltage

400 = (208...480)V AC 3~

Supply version

8 = AC (50/60 Hz)

Technical data

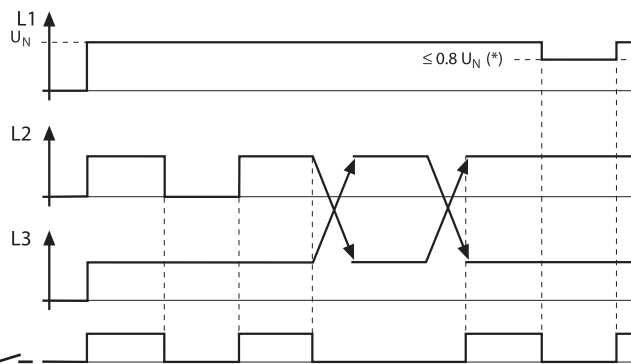
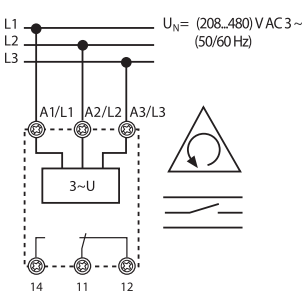
Insulation			
Insulation		Dielectric strength	Impulse (1.2/50 μs)
	between supply and contacts	3,000 V	5 kV
	between open contacts	1,000 V	1.5 kV
EMC specifications			
Type of test		Reference standard	
Electrostatic discharge	contact discharge	EN 61000-4-2	4 kV
	air discharge	EN 61000-4-2	8 kV
Fast transients (burst) (5-50ns, 5kHz) on A1, A2, A3		EN 61000-4-4	2 kV
Surge (1.2/50 μs)	differential mode	EN 61000-4-5	4 kV
Other data			
Start up time (NO contact closure after energising)		s	< 2
Regeneration level (Maximum)		≤ 80% of average of other 2 phase	
Power lost to the environment	without contact current	W	1
	with rated current	W	1.4
Screw torque		Nm	0.8
Max. wire size		solid cable	stranded cable
		mm ²	1x6 / 2x4
		AWG	1x10 / 2x12

Functions

L1, L2, L3 = Supply voltage

= Contact 11-14

LED status		Supply voltage	NO output contact	Contacts	
			Open	Open	Closed
	Supply voltage OFF	OFF	Open	11 - 14	11 - 12
	- Incorrect phase rotation - Phase loss	ON			
	Normal operation	ON	Closed	11 - 12	11 - 14



Switch off

- Incorrect phase rotation
- Phase loss

Output contact (11 - 14)

- Closed, if monitored system healthy

(*) Phase loss monitoring possible under regeneration up to 80% of the average of the other 2 phases