

Phase control

→ Single function phase control relay - 17.5 mm

- Control of 3-phase networks : phase sequence, total phase failure
- Multi-voltage from 3 x 208 to 3 x 480 V ~
- Controls its own supply voltage
- True RMS measurement
- LED status indication



Part numbers

	MWS
Function	Phase sequence and failure
Nominal voltage (V)	3 x 208 → 3 x 480 V ~
Output	1 single pole changeover relay
Part numbers	84 873 029
Supply	
Supply voltage Un	3 x 208 → 3 x 480 V ~ *
Operating range	183 → 528 V ~
Inputs and measuring circuit	
Measurement ranges	183 → 528 V ~
General characteristics	
Weight	80 g
Comments	
* 3-phase mains with earth	

General characteristics

Supply	
Voltage supply tolerance	-12 % / +10 %
~ supply voltage frequency	50 / 60 Hz ± 10 %
Galvanic isolation of power supply/measurement	No
Power consumption at Un	22 VA in 400 V ~, 50 Hz
Immunity from micro power cuts	60 ms
Inputs and measuring circuit	
Guaranteed phase failure detection threshold	< 100 V ~
Frequency of measured signal	50 → 60 Hz ± 10 %
Timing	
Delay on pick-up	≤ 650 ms
Alarm on delay time max.	130 ms
Output	
Type of contacts	No cadmium
Maximum breaking voltage	250 V ~ / ---
Max. breaking current	8 A ~
Min. breaking current	10 mA / 5 V ---
Electrical life (number of operations)	1 x 10 ⁵ MWS
Breaking capacity (resistive)	2000 VA ~ / 80 W
Mechanical life (operations)	10 x 10 ⁶
Insulation	
Nominal insulation voltage IEC/EN 60664-1	400 V
Insulation coordination (IEC/EN 60664-1)	Overvoltage category III : degree of pollution 3
Rated impulse withstand voltage (IEC/EN 60664-1)	4 kV (1.2 / 50 μs)
Dielectric strength (IEC/EN 60664-1)	2 kV AC 50 Hz 1 min.
Insulation resistance (IEC/EN 60664-1)	> 500 MΩ / 500 V ---
General characteristics	
Output relay status indication	Yellow LED
Casing	17.5 mm
Mounting	On 35 mm symmetrical DIN rail, IEC/EN 60715
Mounting position	All positions
Material : enclosure plastic type VO to UL94 standard	Incandescent wire test according to IEC/EN 60695-2-11
Protection (IEC/EN 60529)	Terminal block : IP20 Casing : IP30

Connecting capacity IEC/EN 60947-1

Rigid : 1 x 4² - 2 x 2.5² mm²
 1 x 11 AWG - 2 x 14 AWG
 Flexible with ferrules : 1 x 2.5² - 2 x 1.5² mm²
 1 x 14 AWG - 2 x 16 AWG

Max. tightening torques IEC/EN 60947-1

0.6 → 1 Nm / 5.3 → 8.8 Lbf.In

Operating temperature IEC/EN 60068-2

-20 → +50 °C

Storage temperature IEC/EN 60068-2

-40 → +70 °C

Humidity IEC/EN 60068-2-30

2 x 24 hr cycle 95 % RH max. without condensation 55 °C

Vibrations according to IEC/EN60068-2-6

10 → 150 Hz, A = 0.035 mm

Shocks IEC/EN 60068-2-6

5 g

Standards

Standards

IEC/EN 50178, IEC/EN 61000-6-2, IEC/EN 61000-6-3

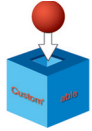
Certifications

CE, UL, CSA, GL

Conformity with environmental directives

RoHS, WEEE

Product adaptations



■ Customisable colours and labels

Accessories

Description

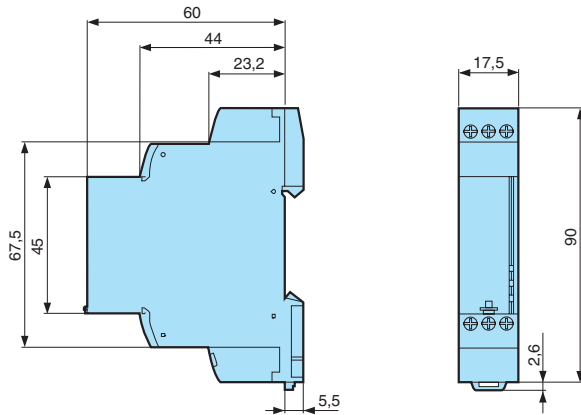
Removable sealable cover for 17.5 mm casing

Code

84800000

Dimensions (mm)

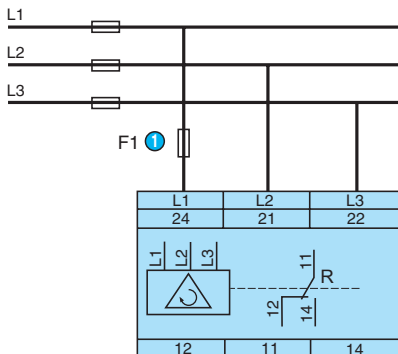
MWS



mm

Connections

MWS

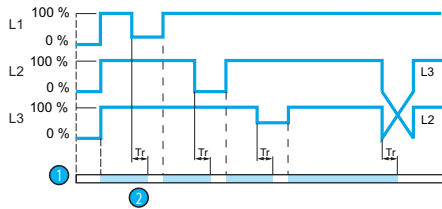


① 100 mA fast-blow fuse

Overview

3-phase network control relays monitor the sequence of phases L1, L2, L3 and failure of one or more phases. LEDs are used for signalling.

MWS Phase failure and sequence



Operating principle

MWS: Phase controller

The relay monitors its own supply voltage.

The relay controls :

- correct sequencing of the three phases,
- total failure of one of the three phases.

When the phase sequence and voltages are correct ($> 183 \text{ V} \sim$), the output relay (s) are closed and the yellow LED is lit.

In the event of a phase sequence or total phase failure fault (detected when one of the voltages drops below 100 V), the relay opens instantly and its LED is extinguished.

When the unit is powered up with a measured fault, the relay stays open.

① MWS : Relay R

② Response time on appearance of a fault (T_r)