

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

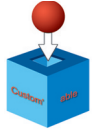
Certifications

CE, UL, CSA, GL

Conformity with environmental directives

RoHS, WEEE

Product adaptations



■ Customisable colours and labels

Accessories

Description

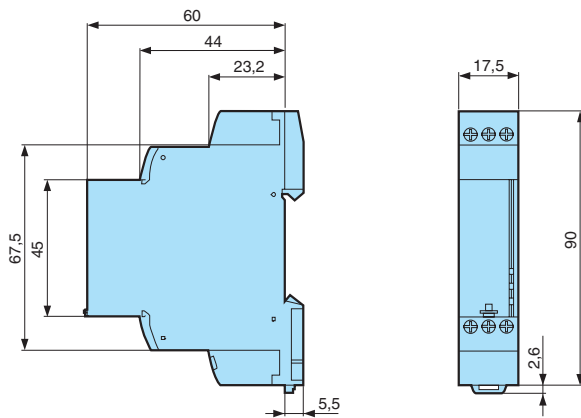
Removable sealable cover for 17.5 mm casing

Code

84800000

Dimensions (mm)

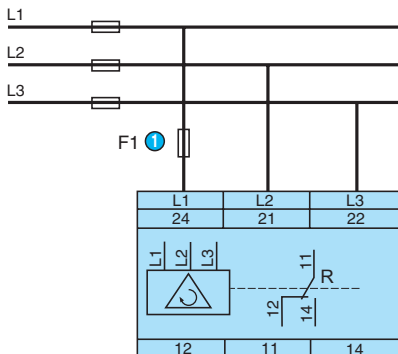
MWS



mm

Connections

MWS

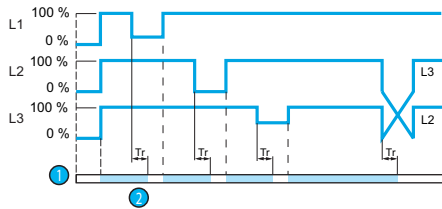


① 100 mA fast-blow fuse

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)

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