CROUZET
CONTROL

Din Rail Mount 17.5 mm Phase Sequence & Phase Failure MWS2 Part number 84873021

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

Part numbers

	Type	Function	Nominal voltage (V)	Output
84873021	MWS2	Phase sequence and failure	3 x 208 →3 x 440 V AC	2 single pole changeover relay

Specifications

Supply
Voltage supply tolerance	-12 % / +10 %
AC supply voltage frequency	50 / 60 Hz ± 10 %
Galvanic isolation of power supply/measurement	No
Power consumption at Un	22 VA in 400 VAC, 50 Hz
Immunity from micro power cuts	60 ms

Inputs and measuring circuit
Guaranteed phase failure detection threshold	< 100 V AC
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	EMWS - MWS2 : 250 V AC / DC MWS : 250 V AC / 8 A AC - 250 V DC / 0,3 A
Max. breaking current	EMWS - MWS2 : 5 A AC/DC MWS : 8 A AC 250 V AC - 8 A DC 30 V DC
Min. breaking current	10 mA / 5 V DC
Electrical life (number of operations)	MWS : 1×10^5 MWS2 : 1×10^4 MWS : 10^5
Breaking capacity (resistive)	1250 VA AC MWS : 2000 VA/80 W
Maximum rate	360 operations/hour at full load
Operating categories acc. to IEC/EN 60947-5-1	AC12, AC13, AC14, AC15, DC12, DC13
Mechanical life (operations)	EMWS - MWS2 : 30×10^6 MWS : 10×10^6

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 DC

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 4^2 - 2 x 2.5^2 mm^2 1 x 11 AWG - 2 x 14 AWG

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	Flexible with ferrules : 1 x 2.5^2 - 2 x 1.5^2 mm^2 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	IECI/EN 50178, IEC/EN 61000-6-2, IEC/EN 61000-6-3
Certifications	MWS2, EMWS : CE, UL, CSA, GL MWS : CE, UL, CSA
Conformity with environmental directives	RoHS, WEEE

Supply

Supply voltage Un	3 x 208 →3 x 440 V AC *
Operating range	183 →484 V AC

Inputs and measuring circuit

Measurement ranges	183 →484 V AC

General characteristics

Weight	85 g

Comments

Accessories

Description	Code
Removable sealable cover for 17.5 mm casing	84800000

Principles
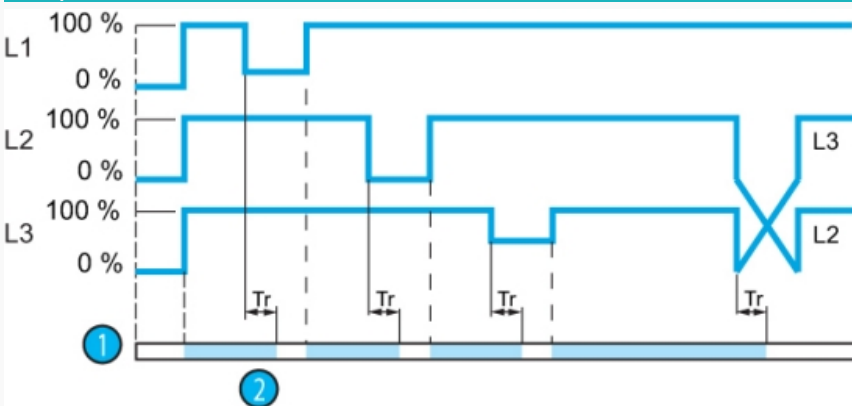
Operating principle
MWS-MWS2 : Phase controller
The relay monitors its own supply voltage.
The relay controls :
- correct sequencing of the three phases,
- total failure of one of the three phases.
When the phase sequence and voltages are correct (> 183 VAC), the output relay (s) are closed and the yellow LED is lit.
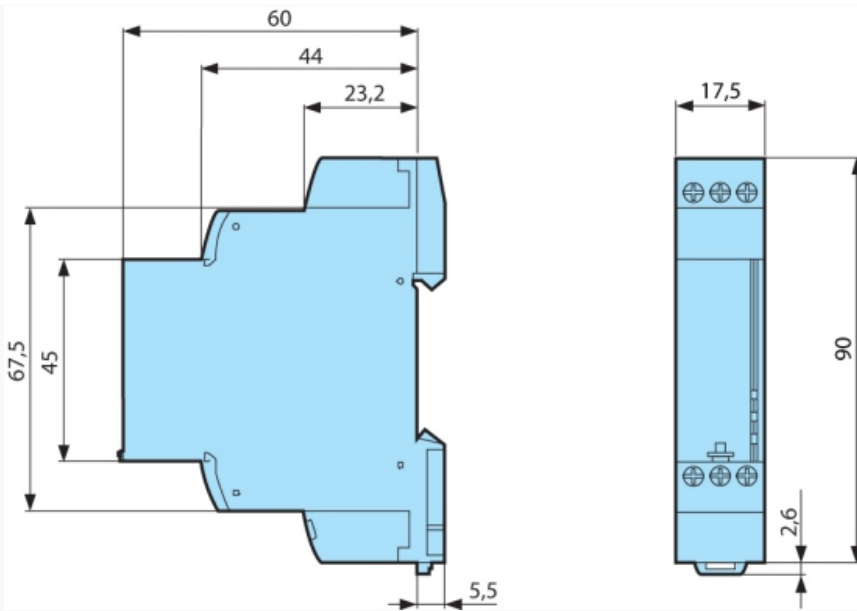In the event of a phase sequence or total phase failure fault (detected when one of the voltages drops below 100 V), the relay opens instantly and its LED is extinguished.

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

N°	Legend
①	MWS : Relay R MWS2 : Relays R1/R2
②	Response time on appearance of a fault (Tr)

Dimensions (mm)

MWS-MWS2

mm

Connections

MWS2

L1

L2

L3

F1 ①

L1	L2	L3
24	21	22

L1 L2 L3

11

R1

21

R2

12 14 22 24

12	11	14
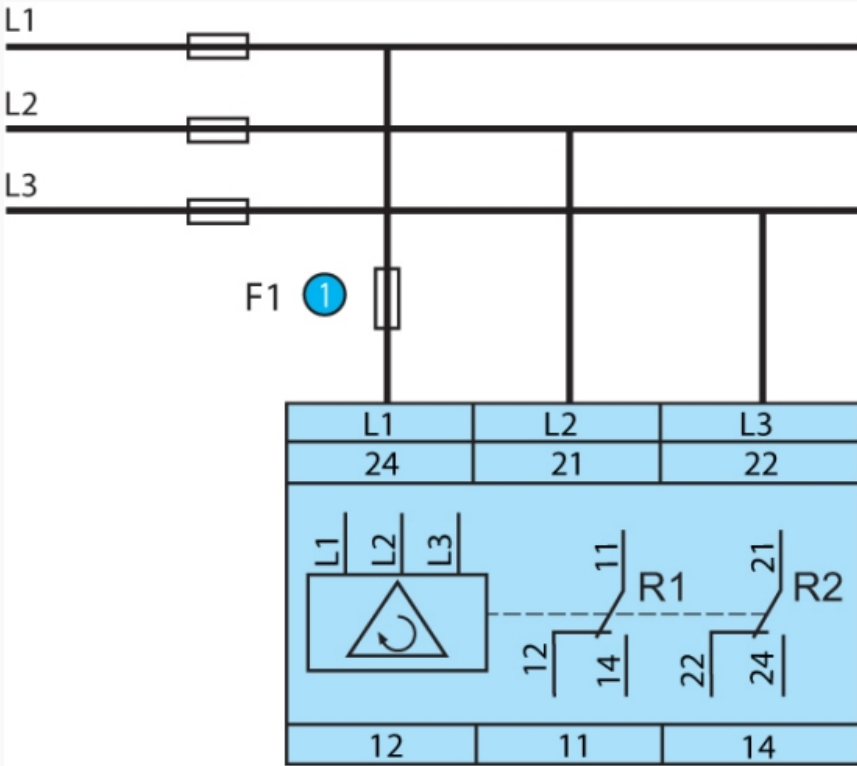
Nº	Legend
①	100 mA fast-blow fuse

Product adaptations

- Customisable colours and labels

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