

> MWG

> Monitoring Relays

> 3-Phase Monitoring Relays

> Din Rail Mount 17.5 mm Multifunction

- > Control of 3-phase networks : phase sequence, phase failure, imbalance (asymmetry), over and undervoltage (MWU)
- > Range includes mono-function product and multi-function product
- > Multi-voltage from 3 x 208 to 3 x 480 V
- > Controls its own supply voltage
- > True RMS measurement
- > LED status indication



Specifications			
Functions	Nominal voltage (V)	Output	Code
Phase sequence and failure	3 x 208 → 3 x 480 V AC*	1 single pole changeover relay	84873022
Power supply			
Supply voltage Un	3 x 208 → 3 x 480 V AC *		
Voltage supply tolerance	-12 % / +10 %		
Operating range	183 → 528 V AC		
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	10 ms		
Inputs and measuring circuit			
Measurement ranges	183 → 528 V AC		
Selection of phase-phase nominal voltage Un	208 - 220 - 380 - 400 - 415 - 440 - 480 V		
Frequency of measured signal	50 → 60 Hz ± 10 %		
Max. measuring cycle time	150 ms/True RMS measurement		
Voltage threshold adjustment	2 → 20 % of selected Un (-2 to -12 % across the 3 x 208 V AC range / -2 to -17 % across the 3 x 220 V AC range / 2 to 10 % across the 3 x 480 V AC range)		
Voltage threshold hysteresis	2 % of fixed Un		
Asymmetry threshold hysteresis	2 % of fixed Un		
Asymmetry threshold adjustment	5 to 15 % of selected Un		
Display precision	± 3 % of the displayed value		
Repetition accuracy with constant parameters	± 0,5 %		
Measuring error with voltage drift	< 1 % across the whole range		
Measuring error with temperature drift	< 0,05 % / °C		
Maximum regeneration (phase failure)	70 %		
Time delays			
Delay on threshold crossing	0.1 to 10 s 0 +10 %		
Repetition accuracy with constant parameters	± 3 %		

Time delays	
Reset time	1500 ms
Delay on pick-up	≤ 650 ms
Alarm on delay time max.	< 200 ms
Outputs	
Type of output	1 single pole changeover relay
Type of contacts	No cadmium
Maximum breaking voltage	250 V AC/DC
Max. breaking current	5 A AC/DC
Min. breaking current	10 mA / 5 V DC
Electrical life (number of operations)	1 x 10 ⁵
Breaking capacity (resistive)	1250 VA AC
Maximum rate	360 operations/hour at full load
Operating categories acc. to IEC/EN 60947-5-1	AC 12, AC 13, AC 14, AC 15, DC 12, DC 13, DC 14
Mechanical life (operations)	30 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(s) / 500 V DC
General characteristics	
Display power supply	Green LED
Display relay	Yellow LED - This LED flashes during the threshold delay
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 60695-2-11 & NF EN 60695-2-11
Protection (IEC/EN 60529)	Terminal block : IP20 Casing : IP30
Weight	80 g
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 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 Nm → 1 / 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	
Product standard	IEC/EN 50178
Electromagnetic compatibility (EMC)	IEC/EN 61000-6-1, IEC/EN 61000-6-2, IEC/EN 61000-6-3, IEC/EN 61000-6-4
Certifications	CE, UL, CSA, GL
Conformity with environmental directives	RoHS
Comments	
	* 3-phase mains with earth

