

DIN Rail Mount - 35 mm Multi-function HWUA Part number 84873026



Part numbers

- Control of 3-phase networks : phase sequence, phase failure, asymmetry, under and overvoltage with independent settings
- Multi-function/Multi-voltage product
- Controls its own supply voltage
- True RMS measurement
 LED status indication
- Type Functions Nominal voltage (V) Output 84873026 HWUA Phase sequence, phase failure, asymmetry, under/overvoltage with independent settings 3 x 220 →3 x 480 VAC* 1 single pole changeover relay **Specifications** Supply Supply voltage Un 3 x 220 \rightarrow 3 x 480 V AC * -12 % / +10 % Voltage supply tolerance $194 \rightarrow 528 \text{ V}$ 50 / 60 Hz ± 10 % AC supply voltage freque Galvanic isolation of power supply/measurement No 3.9 VA in AC Power consumption at Un Immunity from micro power cut 10 ms Inputs and measuring circuit 194 →528 V Measurement ranges 220 - 380 - 400 - 415 - 440 - 480 V Selection of phase-phase nominal voltage Un $50 \rightarrow 60 \text{ Hz} \pm 10 \%$ Max. measuring cycle time 140 ms/True RMS measurement Voltage threshold adjustment $2 \rightarrow \! 20$ % of selected Un (+2 \rightarrow +10 % across the 3 x 480 V AC range -12 to -2 % across the 3 x 220 V AC range Under or overvoltage, asymmetry : 2 % of the Un value of the selected network Fixed hysteresis Asymmetry threshold hysteresis Asymmetry : 2 % of the Un value of the selected network Asymmetry threshold adjustment $5 \rightarrow 15$ % of selected Un ± 3 % of the displayed value Repetition accuracy with constant parameters ± 0.5 % Measuring error with voltage drift < 1 % Measuring error with temperature drift 0,05 %/ °C Timing 0,1 →10s (0, +10 %) Delay on thresold crossing Repetition accuracy with constant parameters ± 0,3 % Reset time 1,5 s Delay on pick-up ≤ 650 ms Alarm on delay time max < 200 ms Output 1 double 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 10⁵ 1250 VA AC Breaking capacity (resistive) 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 10⁶ 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 MQ / 500 VDC
e contrato de tratos	

General characteristics

02/11/2015

JZ/11/2015	www.clouzet.com
Display power supply	Green LED
	Extinguished in the event of phase failure
Display relay	Yellow LED
	Flashes during the threshold crossing delay
"Fault" indication	Yellow LED
	Lights up in the event of asymmetry
	Flashes in the event of under or overvoltage
Casing	35 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 : IP 20
	Casing : IP 30
Weight	130 g
Connecting capacity IEC/EN 60947-1	Rigid: $1 \times 4^2 - 2 \times 2.5^2 \text{ mm}^2$
	1 x 11 AWG - 2 x 14 AWG
	Flexible with ferrules : $1 \times 2.5^2 - 2 \times 1.5^2$ 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	5g
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

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Description	Code
Removable sealable cover for 35 mm casing	84800001

Principles

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Overview

The HWUA 3-phase network control relay monitors :

- The correct sequence of phases L1, L2, L3

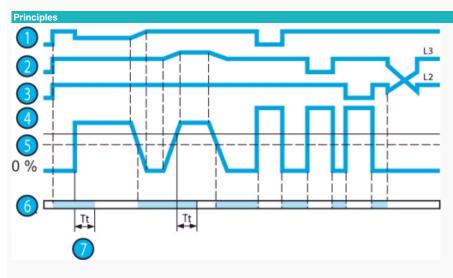
- Total phase failure

- Undervoltage and overvoltage from 2 to 20 % of Un

- Asymmetry rate from 5 to 15 % of Un

- Faults are signalled via LEDs, distinguishing the origin of the fault.

If a fault persists for longer than the threshold crossing delay configured by the user, both output relays open and LED R is extinguished.



Operating principle

HWUA : Phase + Asymmetry + Under/Overvoltage controller Voltage selector switch :

Set the selector switch to the 3-phase network voltage Un.

The position of this selector switch is only taken into account when the unit is powered up.

If the switch position changes while the unit is operating, all the LEDs flash but the product continues to work normally with the voltage selected on energisation prior to the change of position.

02/11/2015

The LEDs return to their normal state if the switch is reset to its initial position defined before the last energisation.

The relay monitors its own supply voltage.

The relay controls :

- correct sequencing of the three phases,

- failure of one of the three phases (U measured < 0.7 x Un),

- asymmetry, adjustable from 5 to 15 % of Un,

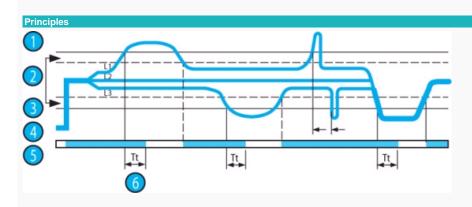
- undervoltage adjustable from - 2 to - 20 % of Un, (-2 to -12 % for the 220 V range) and overvoltage adjustable from +2 to +20 % (+2 to +10 % over the 3 x 480 V range due to the maximum voltage 528 V AC).

In the event of a phase sequence or failure fault, the relay opens instantaneously.

In the event of an asymmetry or voltage fault, the relay opens at the end of the time delay set by the user.

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

N°	Legend
0	Phase L1
0	Phase L2
0	Phase L3
	Asymmetry threshold
6	Hysteresis
0	Relay
0	Delay on threshold crossing (Tt)



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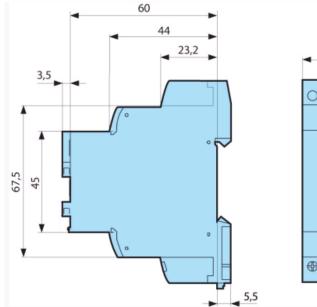
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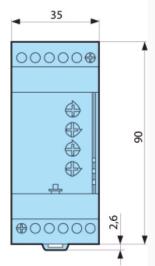
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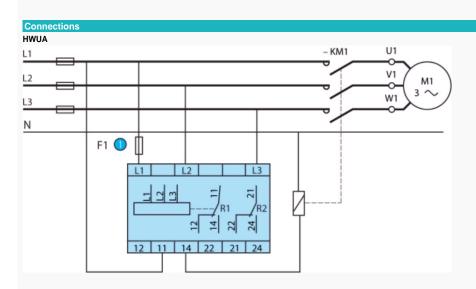
N°	Legend
1	Overvoltage
2	Hysteresis
(3)	Undervoltage
0	Phases L1, L2, L3
(5)	Relay
0	Delay on threshold crossing (Tt)

Dimensions (mm) HWUA





mm



Nº	Legend
1	100 mA fast-blow fuse

Connections CA 84873026

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Product adaptations

- Customisable colours and labels
- Single voltage in the generic range
 - Fixed undervoltage threshold in the generic range
 - Fixed overvoltage threshold in the generic range
 - \blacksquare Fixed asymmetry threshold in the generic range or adjustable 5–25 %
 - · Fixed or adjustable time delay