Current control

➜ EI AC/DC current control

- **Space savings, accurate measurement and optimized functions all improve the efficiency of your electrical installation.**
- **Control : Select "Over-current" or "Under-current" control mode, by means of a dip switch on the underside of the unit.**
- **Safety : Choose whether or not to activate the fault memorisation function, and set the threshold crossing delay T1 and the inhibit time delay T2 in the same way. In addition, AC/DC mode is detected automatically.**
- **Accuracy : 3 products, EIL, EIH or EIT enable you to choose the best product for greater accuracy of measurement, provided by a microcontroller.**

Specifications

	EIL	EIH	EIT
Supply voltage			
24 V DC	**84 871 020**	**84 871 030**	**84 871 040**
24 V AC	84 871 021	84 871 031	84 871 041
48 V AC	**84 871 022**	**84 871 032**	**84 871 042**
120 V AC	84 871 023	84 871 033	84 871 043
230 V AC	84 871 024	84 871 034	84 871 044
Measurement range	2 → 500 mA	0.1 → 10 A	10 → 100 A with current transformer
Inputs	E1-M E2-M E3-M	E1-M E2-M E3-M	E1-M
Sensitivity	E1-M : 2 → 20 mA E2-M : 10 → 100 mA E3-M : 50 → 500 mA	E1-M : 0.1 → 1 A E2-M : 0.5 → 5 A E3-M : 1 → 10 A	10 → 100 A
Input resistance	E1-M : 5 Ω E2-M : 1 Ω E3-M : 0.2 Ω	E1-M : 0.1 Ω E2-M : 0.02 Ω E3-M : 0.01 Ω	20 Ω

Accessories

	Code
Current transformers for EIT 100 A / 50 mA	26 852 304

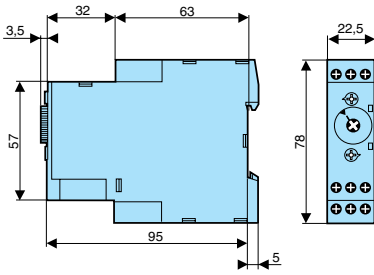## General characteristics

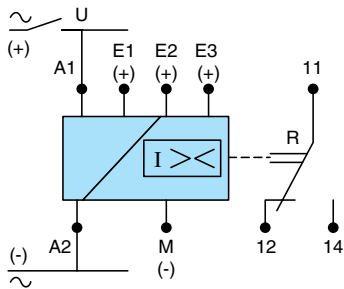|	
Supply voltage Un	230 V, 110 V, 48 V, 24 Va 50 / 60 Hz (galvanic isolation by transformer) 24 V DC (No galvanic isolation). In this case, the product power supply and measuring circuit power supply must be electrically isolated.
Operating range	0.85 → 1.15 Un
Maximum power consumption	3 VA AC 1 W DC
Frequency of measured signal	40 → 500 Hz
Adjustable hysteresis	5 → 50 % of the displayed threshold
Threshold value	10 → 100 % of the measurement range
Display accuracy of the preset threshold	±10 %
Repetition accuracy with constant parameters	±0.1 %
Drift Voltage	±0.1 % (±10 % Un)
Drift Temperature	±0.02 %
Delays on power up (T2)	1 s → 20 s ±10 %
Delay on energisation T1	0.1 s → 3 s ±10 %
Delay on pick-up	500 ms
Output relay	1 changeover AgNi, 8A AC max
Temperature limit operation (°C)	-20 → +50
Temperature limits stored (°C)	-40 → +70
Weight (g)	140

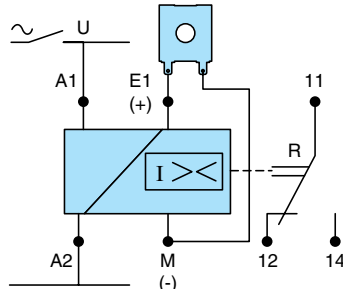For more information www.crouzet.com

Dimensions
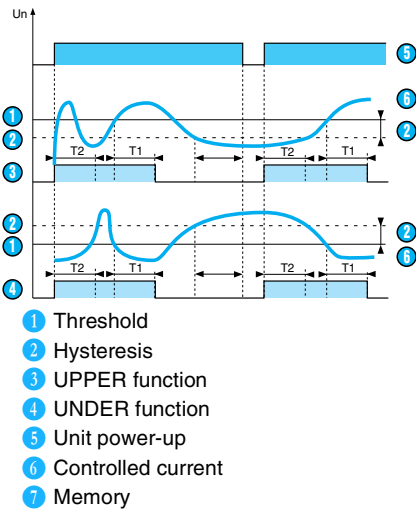
EIL / EIH / EIT

Connections

EIL / EIH

EIT

A1 - A2 : Supply voltage

Principles

AC/DC control with memory

1 Threshold
2 Hysteresis
3 UPPER function
4 UNDER function
5 Unit power-up
6 Controlled current
7 Memory

Operating principle

AC/DC control without memory
When the value of the controlled current, either AC or DC, reaches the threshold displayed on the front face, the output relay changes state at the end of time delay T1.
It returns instantly to the initial state when the current drops below the hysteresis threshold, or when the power supply is disconnected.

AC/DC control with memory
The output relay changes state at the end of time delay T1 and remains latched in this position. To reset the memory function the auxiliary supply must be disconnected.
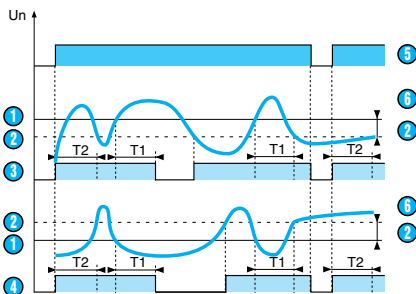
Over-current function (UPPER)
The time delay on energisation T2 prevents current peaks due to motor starting.
The delay on upward crossing of threshold T1 provides immunity to transients and other interference, thereby preventing spurious triggering of the output relay.

Under-current function (UNDER)
The time delay on energisation T2 prevents the occurrence of current troughs. The delay on downward crossing of threshold T1 provides immunity to random dips, thereby preventing spurious triggering of the output relay.

Note : In underload function, the absolute value of the hysteresis cannot be greater than the measurement range maximum.

AC/DC control without memory

1 Threshold
2 Hysteresis
3 UPPER function
4 UNDER function
5 Unit power-up
6 Controlled current

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