E3IM10AL20 120V AC

Monitoring relay - current monitoring 1-phase

Status: Available Data sheet created: 01.07.2025

Item Number: 1341202 - **Serie:** Enya - **EAN:** 9008662015319



- Monitoring relays ENYA series
- DC and AC monitoring in 1-phase networks
- Multifunction
- Supply voltage 120V AC
- 2 changeover contacts
- width 35mm
- Installation type

Description

Compact and reliable measuremenAC/DC current monitoring in 1-phase mains with adjustable thresholds (Min and Max), timing for start-up suppression and tripping delay separately adjustable.t of voltage, current, cosine phi, temperature or levels.

General information

Short description	Current monitoring 1-phase, 10A, multifunction, 2 changeover contacts 120V AC
Item Number	1341202
EAN	9008662015319
Main category	Monitoring Relays
Series	Enya
Type	E3IM10AL20 120V AC
Design	Installation design
Supply	120V AC
Dimensions	35 x 87 x 65 mm

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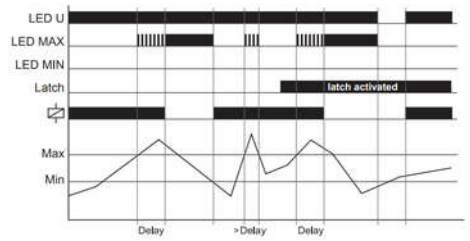
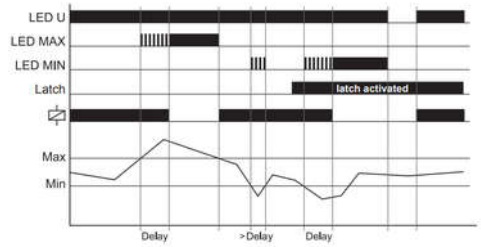
Functions and measurands

Amount of functions 3



Overcurrent monitoring (OVER, OVER+Latch)
When the supply voltage U is applied, the output relay R switches into on-position, if the measured current is below the Max-value. When the measured current exceeds the Max-value, the output relay R switches into off-position after the interval of the tripping delay (Delay) has expired. OVER: The output relay R switches into on-position again, if the current falls below the Min-value. OVER+Latch: The output relay R switches only into on-position again by interrupting and re-applying of the supply voltage, provided that the measured current is below the Max-value.



Window function (WIN, WIN+Latch)
When the supply voltage U is applied, the output relay R switches into on-position, if the measured current is within the adjusted window. When the measured current leaves the window between Min and Max, the output relay R switches into off-position after the interval of the tripping delay (Delay) has expired. WIN: The output relay R switches into on-position again, if the current re-enter the adjusted window. WIN+Latch: The output relay R switches only into on-position again by interrupting and re-applying of the supply voltage, provided that the measured current is within the threshold values.

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Untercurrent monitoring (UNDER, UNDER+Latch)
When the supply voltage U is applied, the output relay R switches into on-position, if the measured current is beyond the Min-value. When the measured current falls below the Min-value, the output relay R switches into off-position after the interval of the tripping delay (Delay) has expired. UNDER: The output relay R switches into on-position again, if the current exceeds the Max-value. UNDER+Latch: The output relay R switches only into on-position again by interrupting and re-applying of the supply voltage, provided that the measured current is beyond the Min-value.

Time ranges

Number Of Areas	2	
	Setting range	
Time ranges	Start-up delay (Start)	0 ... 10s
	Shutter delay (Delay)	0,1 ... 10s

Indicators

Supply/time lapse 1	Green LED U/t ON: Supply voltage applied
Supply/time lapse 3	Green LED U/t flashes: Display of start-up bypass
Relay state	Yellow LED ON/OFF: output relay position
Error / monitoring function	Red LED max/min ON/OFF: Display error for corresponding threshold
Error / monitoring function	Red LED flashes: Indication of tripping delay for corresponding threshold

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Mechanical design

Housing material	made of self-extinguishing plastic
Housing - protection degree	IP40
Mounting	top hat rail TH 35 7,5-15 according to IEC 60715:2017 / EN 60715:2017
Terminals/connections	Touch-proof clamping yoke terminals according to DGUV 3 (Screwdriver PZ1 required)
Terminals - protection degree	IP20
Mounting position	any
Max. Tightening Torque	1 Nm
Terminal capacity	• 1 x 0.5 to 2.5mm² with/without ferrule • 1 x 4mm² without wire end ferrule • 2 x 0.5 to 1.5mm² with/without end sleeves • 2 x 2.5mm² flexible without ferrules

Supply circuit

Terminals/connections	A1-A2
Supply voltage a.c.	120 V
Supply voltage tolerance a.c.	-15% ... +5% Un
Rated frequency [Hz]	a.c. 48 ... 63 Hz
Rated consumption a.c.	1,6 W / 2 VA
Duty cycle	100%
Recovery time	500 ms
Drop-out voltage	>20% the supply voltage
Overvoltage category	III (IEC 60664-1)
Rated surge voltage	4 kV

Output curcuit

Type	Relay
Contact 1	1 changeover contact
Terminals 1	15-16-18
Contacts 2	1 changeover contact
Terminals/connections 2	25-26-28
Rated voltage	250 V a.c.
Switching Capacity 1	1250 VA (5 A / 250 V a.c.)
Fuse Protection	5 A quick
Mechanical life	15 x 10^6 Switching cycles
Electrical life	100 x 10^3 Switching cycles (1000VA)
Switching frequency	max 6/min at 1000 VA (according to IEC 60947-5-1)
Rated surge voltage	4 kV
Overvoltage category	III (nach IEC 60664-1)

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Measuring circuit

Measurand	Current - one phase
Measuring range	100 mA a.c./d.c.
Terminals/connections	K-I1(+)
Overload capacity	100 mA a.c./d.c.: 800 mA
Input resistance	470 mΩ
Messbereich 2	1 A a.c./d.c.
Klemmen 2	K-I2(+)
Überlastbarkeit 2	1 A a.c./d.c.: 2 A
Eingangswiderstand 2	47 mΩ
Messbereich 3	10 A a.c./d.c.
Klemmen 3	K-I3(+)
Überlastbarkeit 3	10 A a.c./d.c.: 12 A
Eingangswiderstand 3	5 mΩ
Frequency - sinusoidal	16.6 ... 400 Hz
Switching threshold minimum	5% ... 95% of In
Switching threshold maximum	10% ... 100% of In
Rated surge voltage	4kV
Overvoltage category	III (IEC 60664-1)

Accuracy

Base accuracy	≤5 %
Adjustment accuracy	≤5 %
Repetition accuracy	≤2 %
Temperature influence	≤0.05 % / °C

Ambient conditions and general specifications

Ambient temperature IEC	-25 °C ... +55°C
Storage temperature	-25 ... +70 °C
Transport temperature	-25 ... +70 °C
Relative humidity	15% ... 85% (in accordance with IEC 60721-3-3 class 3K3)
Pollution degree	2, pollution level can be increased by installation in suitable enclosures (according to IEC 60664-1)

Logistics

Minimum Quantity	1
Tariff Number	85364900
EAN	9008662015319
Country of Origin	AT
Product Weight (g)	159

Available declarations / conformities

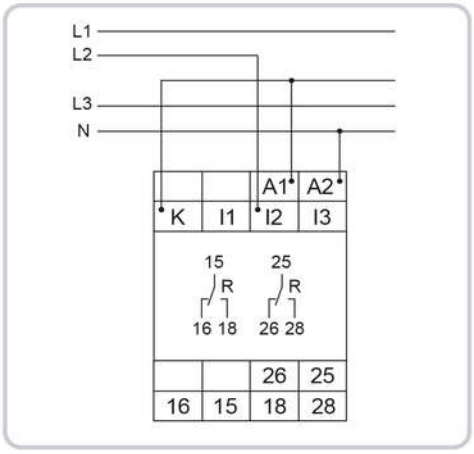
EAC	✓
CE	✓
REACH	Open document
WEEE	Open document
TSCA	Open document
RoHs	Open document
CMRT	Open document

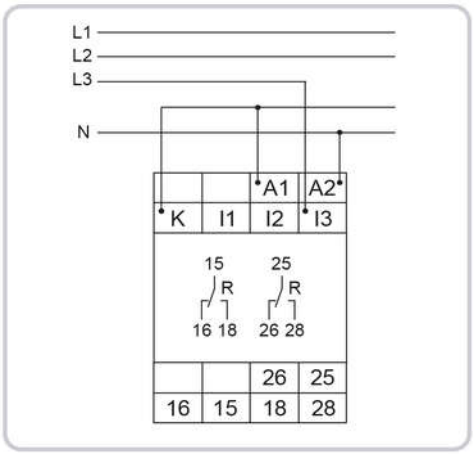
CAD Files

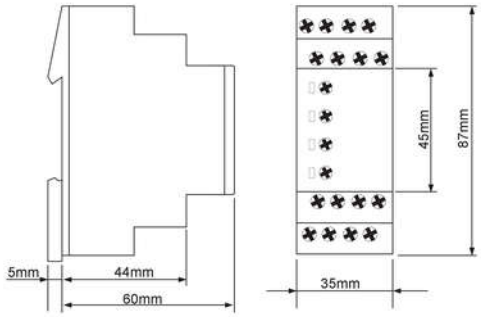
STEP_E3_en.STEP	Download file

Media & drawings









Tele Haase Steuergeräte Ges.m.b.H
Vorarlberger Allee 38
1230 Vienna
Austria

CALL US +43 / 1 / 614 74 - 0
ONLINE SUPPORT support@tele-haase.at

Changes and errors excepted