K3IM1AACL20 230VAC

Monitoring relay - current monitoring 1-phase

Status: Available Data sheet created: 01.07.2025

Item Number: 1380203 - **Serie:** Kappa - **EAN:** 9008662013513



- Monitoring relays KAPPA series
- AC current monitoring in 1-phase networks
- Multifunction
- Selectable fault memory
- Supply voltage 230V AC
- Measuring range 1A
- 2 changeover contacts
- Pluggable
- Construction width 38mm
- cap dimension 45mm

Description

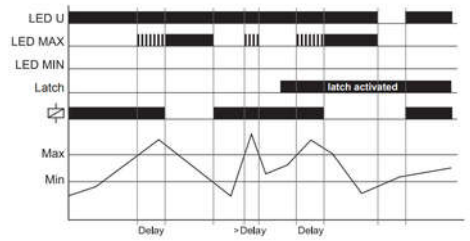
a.c. current monitoring in 1-phase mains with adjustable thresholds, timing for start-up suppression and tripping delay seperatly adjustable.

General information

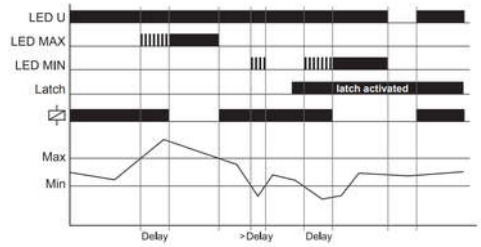
Short description	Current monitoring 1-phase, 1A, multifunction, 2 changeover contacts
Item Number	1380203
EAN	9008662013513
Main category	Monitoring Relays
Series	Kappa
Type	K3IM1AACL20 230VAC
Design	Industrial design (plug-in)
Supply	230V AC
Dimensions	38 x 51 x 80 mm

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 2	Green LED U/t flashes: Start-up suppression time indicator
Relay state	Yellow LED ON/OFF: output relay position
Error / monitoring function	Red LED MIN ON: indication of failure of the min threshold
Error / monitoring function	Red LED MIN flashes: indication of tripping delay of the min threshold
Error / monitoring function 2	Red LED MAX ON: indication of failure of the max threshold
Error / monitoring function 2	Red LED MAX flashes: indication of tripping delay of the max threshold

Mechanical design

Housing material	made of self-extinguishing plastic
Housing - protection degree	IP40
Mounting	11-pole plug-in socket according to IEC60067-1-18a (type R11X or ES12)
Mounting position	any

Supply circuit

Terminals/connections	S2-S10 / A1-A2
Supply voltage a.c.	230 V
Supply voltage tolerance a.c.	-15% ... +10% Un
Rated frequency [Hz]	a.c. 48 ... 63 Hz
Rated consumption a.c.	1 W / 8VA
Duty cycle	100 %
Recovery time	500 ms
Drop-out voltage	>20% the nominal voltage
Overvoltage category	III (IEC 60664-1)
Rated surge voltage	4 kV

Output curcuit

Type	Relay
Contact 1	1 change over contact
Terminals 1	S1-S3-S4
Contacts 2	1 change over contact
Terminals/connections 2	S8-S9-S11
Rated voltage	250 V a.c.
Switching Capacity 1	1250 VA (5 A / 250 V)
Contacts material	AgNi
Fuse Protection	5 A quick
Mechanical life	10 x 10^6 Switching cycles
Electrical life	100 x 10^3 Switching cycles (1000VA)
Rated surge voltage	4 kV
Overvoltage category	III (IEC 60664-1)

Measuring circuit

Measurand	Current - one phase
Measuring range	1 A a.c. (galvanically seperated)
Terminals/connections	S5-S7 / Li-Lk
Overload capacity	10 A
Pulse load	1 s 100 A; 3 s 50 A
Input resistance	
Frequency - sinusoidal	48 ... 63 Hz
Switching threshold minimum	5 ... 95 %
Switching threshold maximum	10 ... 100 %
Rated surge voltage	4kV
Overvoltage category	III (IEC 60664-1)

Accuracy

Base accuracy	±5 % (from nominal value)
Adjustment accuracy	±5 % (from nominal value)
Repetition accuracy	≤2 % (from nominal value)
Temperature influence	0,05 % / °C

Ambient conditions and general specifications

Ambient temperature IEC	-25 ... +55°C
Storage temperature	-25 ... +70 °C
Transport temperature	-25 ... +70 °C
Relative humidity	15% to 85% (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	9008662013513
Country of Origin	AT
Product Weight (g)	10

Available declarations / conformities

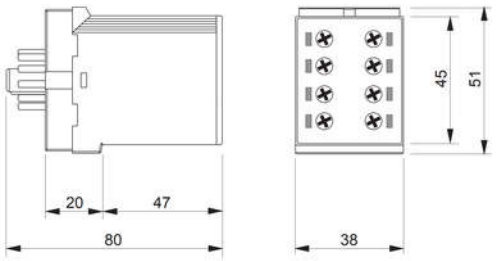
EAC	✓
REACH	Open document
WEEE	Open document
TSCA	Open document
RoHs	Open document
CMRT	Open document

CAD Files

STEP_K3_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

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