

MK300/300E



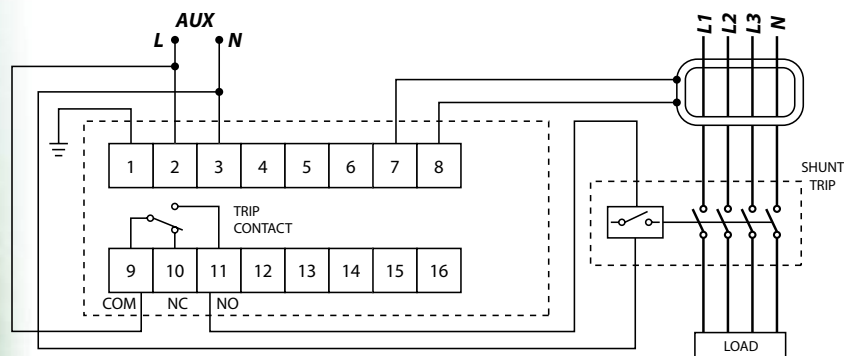
Features for MK300/300E

- Numerical earth leakage relay
- Programmable current sensitivity and time delay
- Built-in digital harmonic filter
- Detection of no connection to current transformer
- Real-time leakage current display
- Relay tripped indicator
- Leakage current recording when tripped
- Complies with IEC755 standard

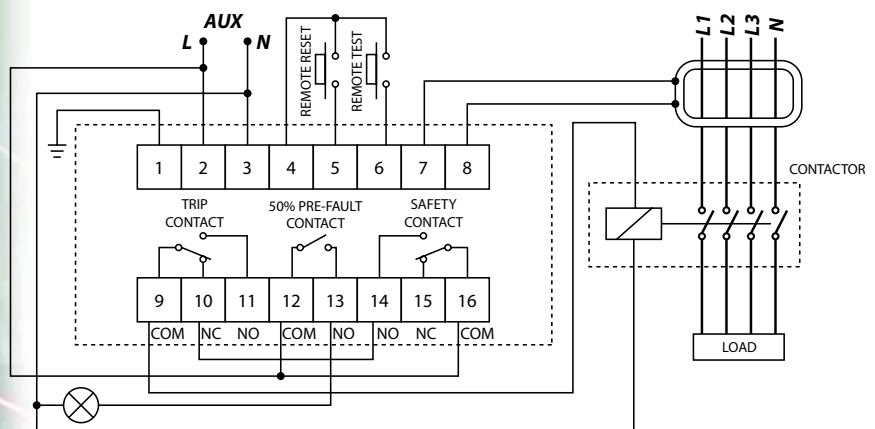
Features for MK300E only

- 50% pre-fault output contact
- Positive safety output contact
- Remote test and remote reset functions

TYPICAL APPLICATION DIAGRAM For MK300



TYPICAL APPLICATION DIAGRAM For MK300E



Technical Data

AUXILIARY SUPPLY

Model MK300 / 300E -240A (6)	: 198 ~ 265 V AC
Model MK300 / 300E -110A (6)	: 94 ~ 127 V AC
Rated frequency	: 50 or 60 Hz
VA rating	: 3 VA typical

SETTING RANGES

Sensitivity adjustment	: Range 1 is stepping from 0.03A→0.05A→0.10A→0.15A
	Range 2 is from 0.20A to 0.75A in step of 0.05A
	Range 3 is from 0.80A to 3.00A in step of 0.05A
Delay time adjustment	: From 0.05 to 3.00 sec in step of 0.05 sec
	: From 3.00 to 10.0 sec in step of 0.50 sec

CONTACTS

Contact arrangement	: Change-over
Contact rating	: 5A, 250V AC (cosφ = 1) for tripping contact
	: 5A, 250V AC (cosφ = 1) for safety contact *
	: 5A, 250V AC (cosφ = 1) for 50% pre-fault contact *
Contact material	: Silver alloy
Expected electrical life	: 100,000 operations at rated current
Expected mechanical life	: 5 x 10 ⁶ operations

INPUTS

Remote Test / Reset Inputs	: N.O. dry contact *
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INDICATORS

Auxiliary supply	: Green indicator
Time delay	: Red indicator
Trip	: 7-segment display and red indicators
Real-time leakage current	: 7-segment display

ZERO - PHASE CURRENT TRANSFORMER

To operate with Mikro's ZCT series of current transformer

MECHANICAL

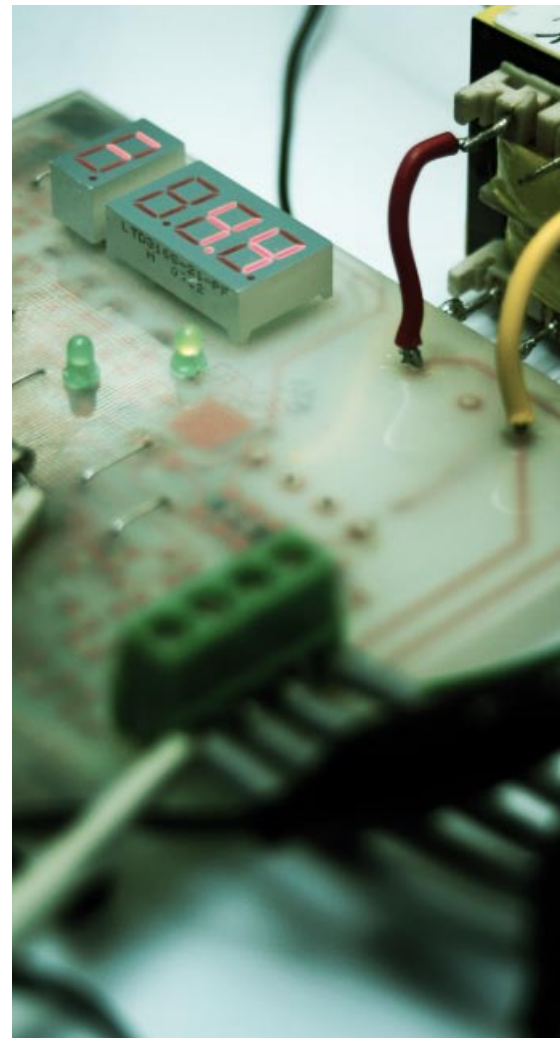
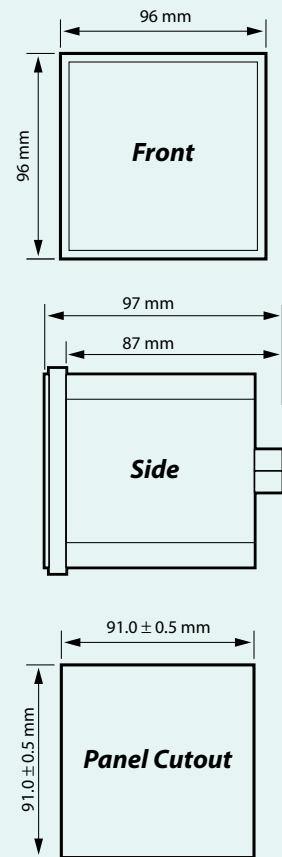
Mounting method	: Panel mounting
Front panel	: Standard DIN 96mm x 96mm
Approximate weight	: 0.8 kg (excluding ZCT)

ENVIRONMENTAL CONDITIONS

Temperature	: -5°C to +55°C
Humidity	: 56 days at 93% RH and 40°C non-condensing

* Applicable to MK 300E series only

CASE DIMENSIONS



Ordering Information

MODEL	DESCRIPTION
MK300 - 240A	For 50 Hz system, auxiliary voltage 240 V AC
MK300 - 110A	For 50 Hz system, auxiliary voltage 110 V AC
MK300E - 240A	For 50 Hz system, auxiliary voltage 240 V AC
MK300E - 110A	For 50 Hz system, auxiliary voltage 110 V AC
MK300 - 240A6	For 60 Hz system, auxiliary voltage 240 V AC
MK300 - 110A6	For 60 Hz system, auxiliary voltage 110 V AC
MK300E - 240A6	For 60 Hz system, auxiliary voltage 240 V AC
MK300E - 110A6	For 60 Hz system, auxiliary voltage 110 V AC

MK301A / 302A



MK301A



MK302A

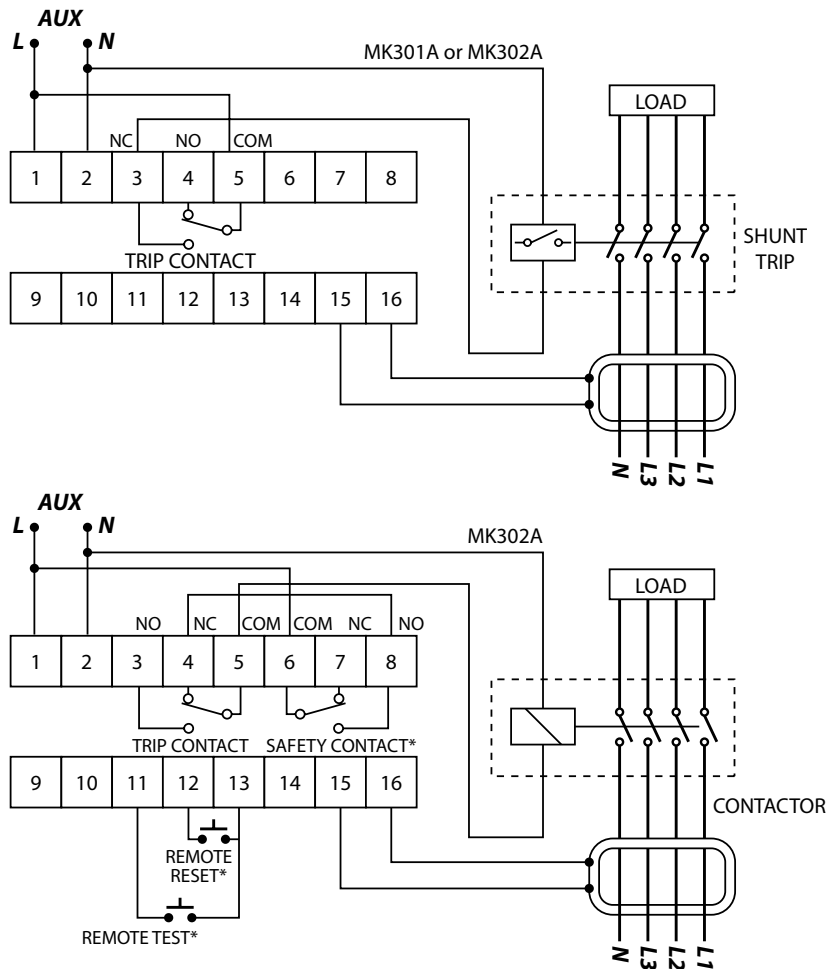
Features

- Trip starting indicator
- Detection of no connection to current transformer for extra safety
- Relay tripped indicator
- High immunity to electrical interference

Features for MK302A only

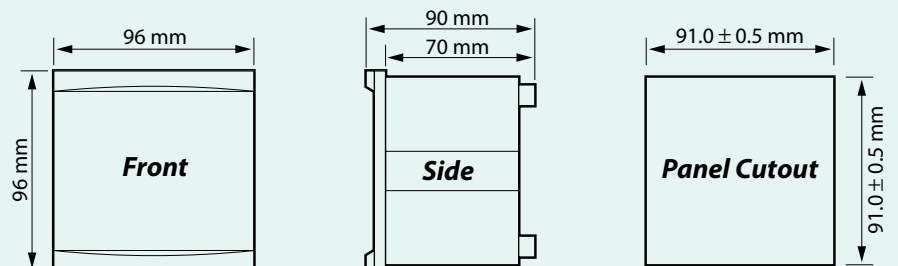
- Safety output contact
- Earth leakage level indicators
- Remote reset and remote test functions

TYPICAL APPLICATION DIAGRAMS



* Applicable to MK302A series only

CASE DIMENSIONS



Technical Data

AUXILIARY SUPPLY

Model MK301A / 302A -240A	: 198 ~ 265 V AC
Model MK301A / 302A -110A	: 94 ~ 127 V AC
Rated frequency	: 50 / 60 Hz
VA rating	: 3 VA typical

SETTING RANGES

Sensitivity adjustment	: 0.03 A to 30 A
Delay time adjustment	: 0 sec to 3.0 sec

PERFORMANCE

Setting accuracy	: -15% to +0%
Timing accuracy	: ±5%

CONTACTS

Contact arrangement	: 1 x latching type with manual reset : 1 x safety contact* : NC and NO contacts available
Contact rating	: 5 A, 250 V AC (cosφ = 1) contact rating
Contact material	: Silver alloy
Expected electrical life	: 100,000 operations at rated current
Expected mechanical life	: 5 x 10 ⁶ operations

INPUTS

Remote Test* / Reset Inputs*	: N.O. dry contact
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INDICATORS

Auxiliary supply	: Green indicator
Time delay	: Red indicator
Trip	: Red indicator
Real-time leakage current	: Red indicator

ZERO - PHASE CURRENT TRANSFORMER

To operate with Mikro's ZCT series of current transformer

MECHANICAL

Mounting method	: Panel mounting
Front panel	: Standard DIN 96mm x 96mm
Approximate weight	: 0.6 kg (excluding ZCT)

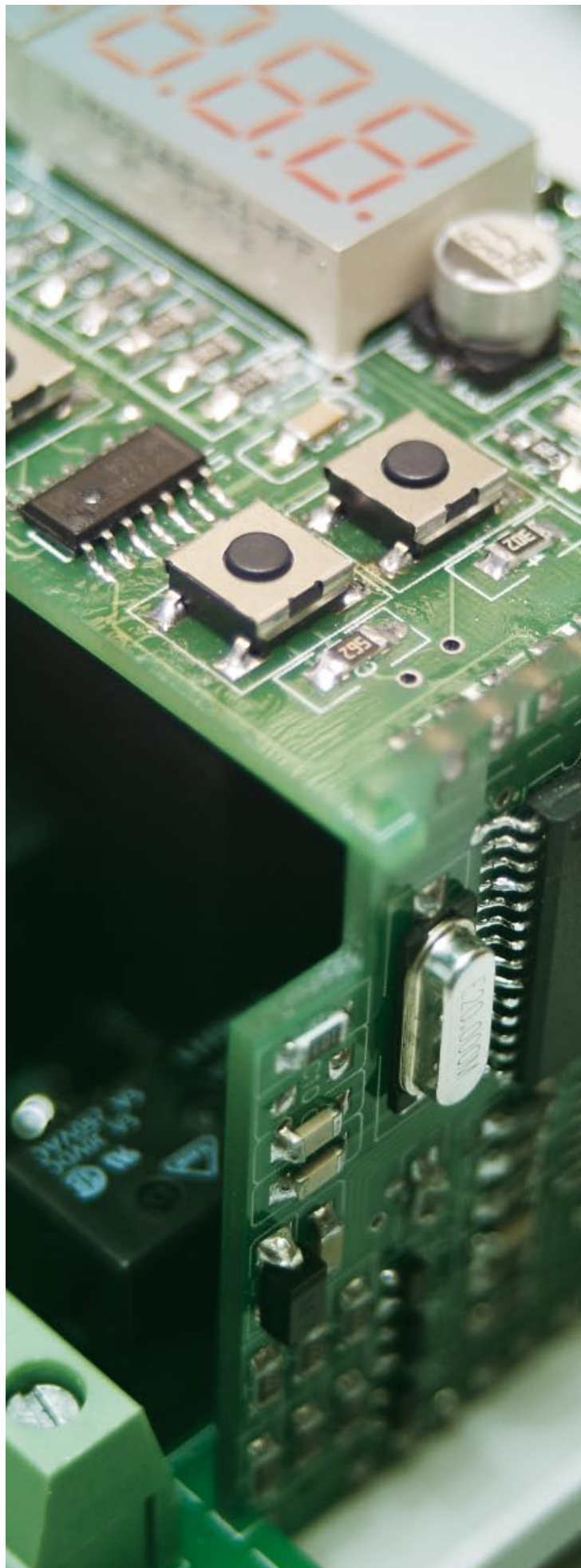
ENVIRONMENTAL CONDITIONS

Temperature	: -5°C to +55°C
Humidity	: 56 days at 93% RH and 40°C non-condensing

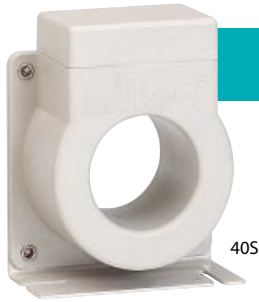
* Applicable to MK302A series only

Ordering Information

MODEL	DESCRIPTION
MK301A - 240A	For 50 / 60 Hz system, auxiliary voltage 198 ~ 265 V
MK301A - 110A	For 50 / 60 Hz system, auxiliary voltage 94 ~ 127 V AC
MK302A - 240A	For 50 / 60 Hz system, auxiliary voltage 198 ~ 265 V
MK302A - 110A	For 50 / 60 Hz system, auxiliary voltage 94 ~ 127 V AC



ZCT40S/60S/80S/120S



40S



60S

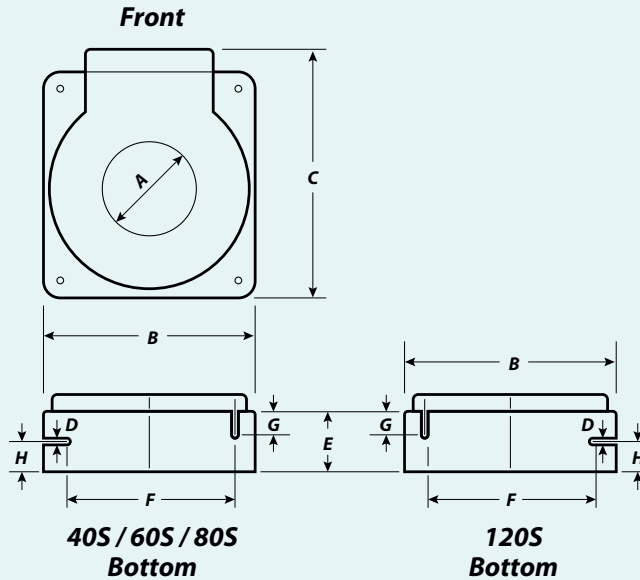


80S



120S

CASE DIMENSIONS



DIMENSION (mm)

DIMENSION (mm)	Model			
	ZCT40S	ZCT60S	ZCT80S	ZCT120S
A	40	60	80	120
B	78	95	120	180.5
C	97	110	135	179.5
D	3.5	6	3.5	6
E	36	31.5	36	37
F	52	62	94	147
G	16	20.5	16	20.5
H	17.5	11	17.5	16

Ordering Information

MODEL	DESCRIPTION
ZCT40S	40mm inner diameter
ZCT60S	60mm inner diameter
ZCT80S	80mm inner diameter
ZCT120S	120mm inner diameter