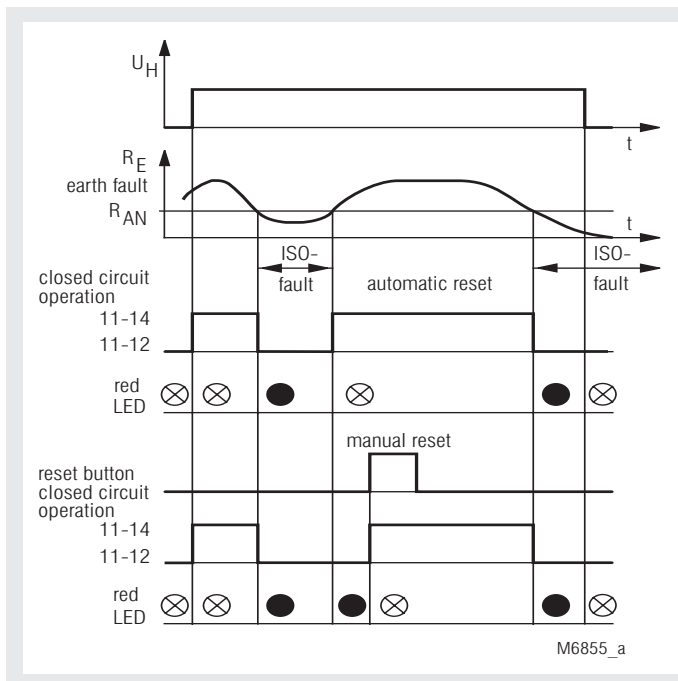




- According to IEC/EN 61 557
- For single- and 3-phase AC-voltage systems, IT-system
- Without auxiliary supply
- Fixed response value $R_{AN} = 50 \text{ k}\Omega$
other values on request
- LED indicator for ground fault
- Programmable with automatic or manual reset (bridge LT1/LT2)
- 1 changeover contact
- Closed circuit operation
- Test button to check the function of the device
- External reset button on LT1-LT2
- External connection of indicating instrument possible
- Can be used as pre-warning device AG 5876.11/0--
- Width 50 mm

Function diagram



Approvals and marking



Applications

Monitoring of the resistance to earth in ungrounded single- and 3-phase-voltage systems.

Notes

When monitoring 3-phase IT systems it is sufficient to connect the insulation monitor only to one phase. The 3-phases have a low resistive connection (approx. 3 - 5 Ω) via the feeding transformer. So failures that occur in the non-connected phases will also be detected.

Technical data

Measuring circuit

Nominal voltage U_N:	AC 24, 42, 110, 230, 400 V
Voltage range:	0,8 ... 1,1 U_N
Frequency range:	40 ... 400 Hz
Response value R_{AN}:	50 k Ω , 5 ... 200 k Ω on request
Setting R_{AN}:	fixed
Internal test resistor:	5 k Ω
Internal AC resistance:	> 300 k Ω
Internal DC resistance:	> 30 k Ω
Measuring voltage:	DC 15 V
Max. measuring current ($R_E = 0$):	< 0,5 mA
Max. permissible noise	
DC voltage:	DC 250 V
Operate delay	
at $R_{AN} = 50 \text{ k}\Omega$, $CE = 1 \text{ mF}$	
R_E from ∞ to $0,9 R_{AN}$:	< 1,3 s
R_E from ∞ to 0 k Ω :	< 0,3 s
Hysteresis	
at $R_{AN} = 50 \text{ k}\Omega$:	approx. 8 %
Measuring error	
at $R_{AN} = 50 \text{ k}\Omega$,	< 10 %
	ambient temperature - 5 ... 50 °C,
	within the permitted voltage range
	approx. 2,5 VA

Nominal consumption: approx. 2,5 VA
Phase failure bridging: > 300 ms

Output

Contacts	
AG 5876.11:	1 changeover contact
Max. switching voltage:	AC 250 V
Thermal current I_{th}:	8 A

Technical data

Switching capacity

to AC 15		
NO contact:	3 A / AC 230 V	IEC/EN 60 947-5-1
NC contact:	1 A / AC 230 V	IEC/EN 60 947-5-1

Short circuit strength

max. fuse rating:	6 A gL	IEC/EN 60 947-5-1
-------------------	--------	-------------------

General data

Permissible ambient and stocking temperature:

-20 ... +60°C / -25 ... 70°C

Clearance and creepage distances

overvoltage category / contamination level:	4 kV / 2	IEC 60 664-1
---	----------	--------------

EMC

Electrostatic discharge:	8 kV (air)	IEC/EN 61 000-4-2
Fast transients:	2 kV	IEC/EN 61 000-4-4

Surge voltage

between

wires for power supply:	2 kV	IEC/EN 61 000-4-5
between wire and ground:	4 kV	IEC/EN 61 000-4-5

Limit value class B EN 55 011

Interference suppression: Housing: IP 40 IEC/EN 60 529

Terminals: IP 20 IEC/EN 60 529

Degree of protection:

Thermoplastic with V0 behaviour according to UL subject 94

Vibration resistance: Amplitude 0,35 mm

frequency 10...55Hz IEC/EN 60 068-2-6

20 / 060 / 04 EN 60 068-1

Climate resistance: EN 50 005

Terminal designation: EN 50 005

Wire connection: 2 x 2,5 mm² solid or

2 x 1,5 mm² stranded wire with sleeve

DIN 46 228-1/-2/-3/-4

Wire fixing: Flat terminals with self-lifting

clamping piece IEC/EN 60 999

Mounting: DIN rail IEC/EN 60 715

Weight: 450 g

Dimensions

Width x height x depth: 55 x 77 x 115 mm

Standard type

AG 5876.11 AC 230 V 40 ... 400 Hz 50 kΩ	
Article number:	0031854 stock item
• Output:	1 changeover contact
• Nominal voltage U _N :	AC 230 V
• Frequency range:	45 ... 400 Hz
• Response value R _{AN} :	50 kΩ
• Width:	50 mm

Variants

AG 5876.11/0--:	pre-warning device
	This device can indicate a second resistance value. It is possible to connect several pre-warning devices to one insulation monitor. With this device an early detection of a slowly decreasing insulation resistance with pre-warning is possible.
	The following pre-warning devices are available:
	AG 5876.11/010 für AG 5870, AG 5876, AN 5871, AN 5872, EH 5878
	AG 5876.11/030 für AN 5890
	AG 5876.11/031 für AN 5873

Ordering example for variants

AG 5876 .11 / _ _ _ AC 230 V 50 kW	
	Response value
	Nominal voltage
	Variant, if required
	Contacts
	Type

Accessories

AG 5876.11/010:
EH 5861/002:

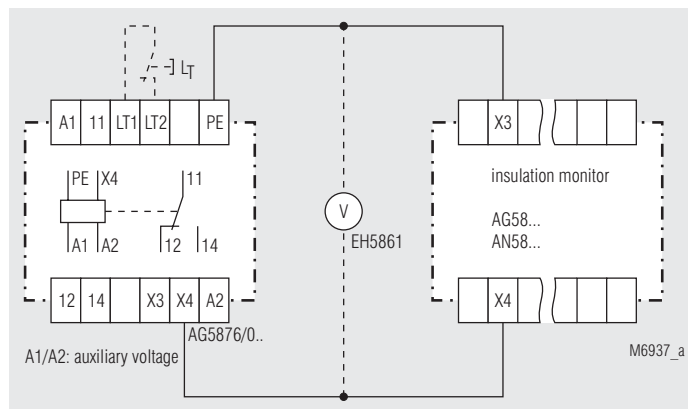
pre-warning device
indicating instrument,
agree of protection: IP 52



The indicating device EH 5861 externally connected to the insulation monitors and shows the actual insulation resistance of the voltage system to ground.

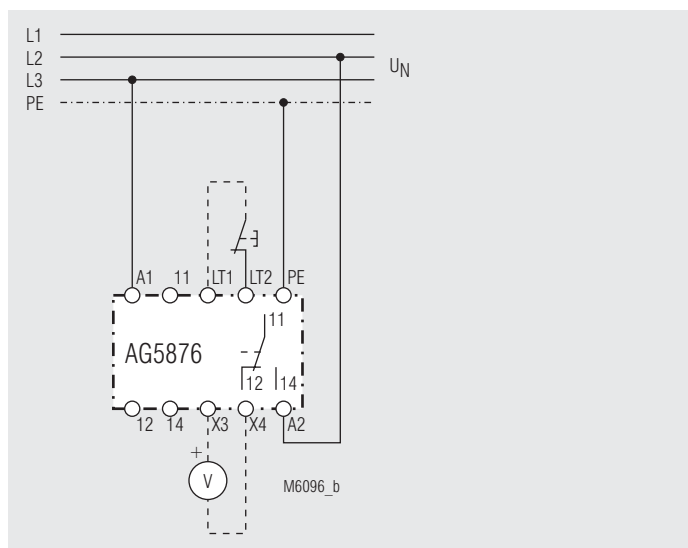
Dimensions:
Width x height x depth
96 x 96 x 52 mm

Application example



Insulation monitor with pre-warning device

Connection example



A1/A2: UN = UH
Bridge LT1/LT2: manual reset
without Bridge LT1/LT2: automatic reset