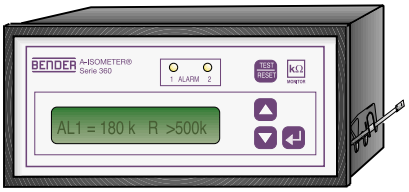
Device type	**IRDH265-3..**	**IRDH365-3..**	
Insulation coordination acc. to IEC 60664-1			
Rated insulation voltage	AC 630 V	AC 630 V	
Rated impulse withstand voltage / contamination level	6 kV/3	6 kV/3	
Voltage range			
Nominal voltage range U_n	(3) AC 0 ... 506 V / DC 0 ... 286 V	(3) AC 0 ... 506 V / DC 0 ... 286 V	
Supply voltage U_S	up to 230 V *1)	up to 230 V *1)	
Operating range U_S	0.8 ... 1.15 x U_S	0.8 ... 1.15 x U_S	
Max. power consumption	6 VA	6 VA	
Response values			
Response value R_{an1}	2 kΩ to 200 kΩ	2 kΩ to 200 kΩ	
Response value R_{an2}	2 kΩ to 200 kΩ	2 kΩ to 200 kΩ	
Response time at $R_F = 0.5$ x R_{an} and $C_e = 1$ µF	approx. 6 s / see characteristic curve	ca. 6 s / see characteristic curve	
Max. admissible system leakage capacitance C_e	500 µF	500 µF	
Measuring circuit			
Measuring voltage U_m	27 V	27 V	
Measuring current I_m	max. 964 µA	max. 964 µA	
Internal DC resistance R_i	28 kΩ	28 kΩ	
Impedance Zi at 50 Hz	>250 kΩ	>250 kΩ	
Max. admissible extraneous DC voltage	-	-	
Outputs			
Current output at measuring instrument SKMP *4)	28 kΩ	28 kΩ	
Max. load	400 µA (12.5kΩ)	400 µA (12.5kΩ)	
Contact circuit	2 separate alarm relays	2 separate alarm relays	
Switching components	1 change-over contact each	1 change-over contact each	
Contact class acc. to DIN IEC 60255 part 0-20	IIB	IIB	
Rated contact voltage	AC 250 V / DC 300 V	AC 250 V / DC 300 V	
Admissible number of operations	12000 cycles	12000 cycles	
Making capacity	UC 5 A	UC 5 A	
Breaking capacity			
AC 230 V and cos phi = 0.4	2 A	2 A	
DC 220 V and L/R = 0.04 s	0.2 A	0.2 A	
Test of the Electromagnetic Compatibility -EMC- acc. to EC directives, test data „Annex“	Yes	Yes	
General data			
Ambient temperature, during operation	-10°C to +55°C	-10°C to +55°C	
Storage temperature range	-40°C to +70°C	-40°C to +70°C	
Climatic class acc. to IEC 60721 (except condensation and formation of ice)	3K5	3K5	
Operating mode	continuous operation	continuous operation	
Mounting	any position	any position	
Connection	modular terminals	modular terminals	
Cross sectional area of connecting cable, single wire	0.2...4 mm²	0.2...4 mm²	
Cross sectional area of connecting cable, flexible	0.2...2.5 mm²	0.2...2.5 mm²	
Protection class acc. to DIN EN 60529			
Built-in components	IP 30	IP 30	
Terminals / with terminal covers	IP 20	IP 20	
Type of enclosure / Dimension diagram	XM 112	X 300	
Screw fixing	with mounting plate	-	
DIN rail mounting acc. to	DIN EN 50022	enclosure for panel mounting	
Flammability class	UL94V-0	UL94V-1	
Data sheet No./Technical manual	TGH1249 E	TGH1249 E	
Weight max.	825 g	1075 g	

*1) see device description “ordering details” *2) see device description “measuring circuit”

*3) see device description “response values” *4) SKMP = scale centre point



Application in modern supply systems

- One and three-phase systems with converter drives
- DC systems with power converters
- Mixed AC/DC supply systems
- UPS systems
- Heaters with phase control
- Systems with switched mode power supply
- Systems with very high leakage capacitances

Product description

The A-ISOMETER IRDH365-3 monitors today`s power supply systems by microprocessor-controlled measuring voltage. These systems frequently contain converters, power converters, thyristor controls and directly connected DC components and due to interference suppression arrangements often high system leakage capacitances to earth exist. The AMP measuring principle adapts itself automatically to the respective system conditions.

Device characteristics

- Universal for 3/(N)AC systems, AC/DC systems up to 506 V and for DC systems up to 286 V.
- Automatic adaptation to system leakage capacitances up to 500 µF.
- Safe measuring due to the AMP measuring principle and microcontrollers.
- Two adjustable response values 2 ... 200 kΩ.
- LC display.
- RS485 interface.
- Connection monitoring.
- Automatic self test.

Ordering details

Type	Nominal voltage range U_n	Supply voltage U_S	Art. No.
IRDH365-3	AC 0-506/DC 0-286 V	AC 230 V	B 9106 8013 2)
IRDH365-313	AC 0-506/DC 0-286 V	AC 90 ... 132 V*	B 9106 8020 2)
IRDH365-315	AC 0-506/DC 0-286 V	AC 400 V	B 9106 8016 2)
IRDH365-321	AC 0-506/DC 0-286 V	DC 19.2 ... 84 V*	B 9106 8018 1)

Other supply voltages on request.

* This information represents absolute values for the supply voltage, to which the working range is not applicable.

1) only for use in the industrial sector

2) for use in the household as well as industrial sector

Measuring principle

The IRDH365-3 series works with the AMP measuring principle.

This ensures safe monitoring of today`s supply systems. The Annex contains a detailed description of the measuring principle.

Standards

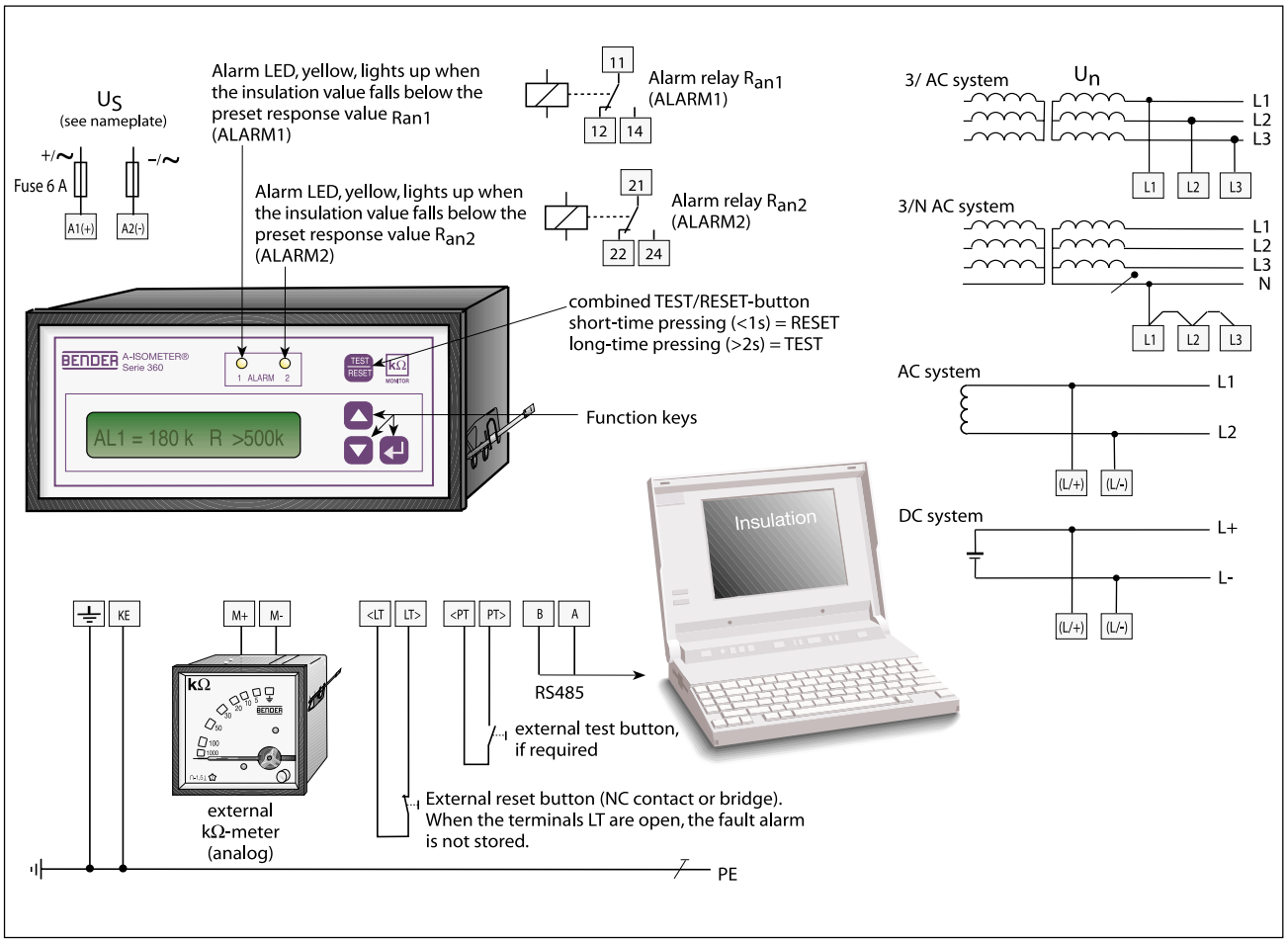
The IRDH365-3 series complies with the standards DIN EN 61557-1 (VDE0413 part1):1998-05, IEC 61557-8, EN 61557-8 and ASTM F1669M-96.

The chapter Annex contains details about these standards.

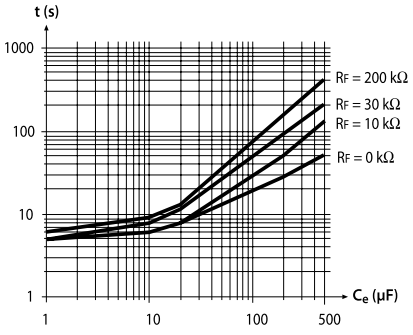
When installing the device, the safety instructions enclosed with the equipment must be observed !

Certifications:

Wiring diagram



Response time



Accessories

External kΩ measuring instruments

Type	Art. No.
7204-1311	B 986 755
9604-1311	B 986 753