



DATA SHEET
residual current transformer
DCT A-105
sensitive to pulsating and alternating currents Type A
Article number 09340323



Function

Residual current transformers in combination with evaluation units are suitable for the protection or monitoring of electrical circuits. The transformers have a large selection of opening cross-sections (rated currents). For this reason is it possible to protect and monitor electrical systems with large conductor cross-sections, i.e. with high currents and high voltages. Series DCT transformers combine with DMRCd evaluation units to form modular residual current devices (MRCDs) as per EN 60947-2 or with DRCM evaluation units to form residual current monitors (RCMs) as per EN 62020. Only components of the same type of residual current (A or B+) can be combined. Residual current transformers with characteristic A detect sinusoidal AC currents as well as pulsating DC residual currents. The transformer covers all of the active conductors leading to the consumers and uses its output signal to illustrate the time curve of the sum of all conductor currents flowing through it. Its output signal is proportional to the residual current, which flows back to the earthing point of the supply mains via the protective earth conductor in the case of an insulation fault or via the earth.

Features

suitable for detecting residual currents Type A and AC, monitored frequency range 50 Hz - 60 Hz (Type A), Detection of rated residual operating current and residual current of 30, 100, 300, 1000 and 3000 mA, available designs with internal diameters of 20, 35, 70 and 105 mm, Rated voltage of monitored circuit up to 690 V, for rated currents up to 400 A, compact, robust plastic housing, easy mounting

Mounting

The devices are mounted on stable substrata using the supplied mounting brackets.

Applications

Transformers from series DCT A are used in conjunction with residual current monitors from series DRCM type A and modular residual current devices from series DMRCd type A.

Notes

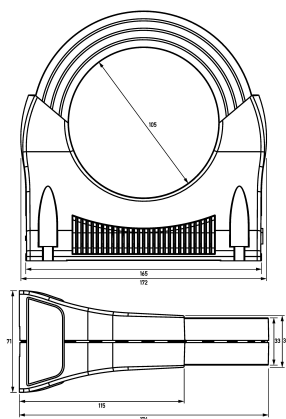
The residual current transformers as bushing transformers are only permitted for operation with insulated cable and line systems. The internal diameter of the transformer must be set to at least 1.5 times the size of the external diameter of the cable(s) to be wired.

Technical Data

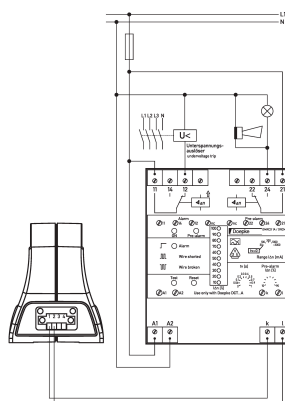
Technical Data	DCT A-105
Series	DCT A-105
Current transformer specification	residual current transformer
Current transformer suitable for	DMRCd/DRCM
Residual current detection characteristic	A, AC
Over voltage category	III
	transformer, primary side
Rated voltage (AC)	0 V ... 690 V
Rated impulse withstand voltage	8 kV / Kategorie IV
Rated current I _n	250 A
Rated frequency	50 Hz ... 60 Hz
max. Overcurrent regarding non-tripping	6 x I _n

Technical Data	DCT A-105
Thermal continuous residual current factor	1.5 x In
Rated short-circuit residual current	10 kA
Rated short-time residual current factor	10 x In (für 1 s)
Rated impulse residual current factor	25 x In
	plug-in terminal (transformer output)
Connection design	female
Protective cover available	true
max. Connection C1 cable length	10 m (e. g. LiY 0.5 mm ²)
max. Outer diameter Connection cable	70 mm
Cross section solid	1-wire: 0.08 mm ² ... 1.5 mm ²
Cross section flexible with ferrule	max. 0.6 mm ²
Cross section stranded	1-wire: 0.08 mm ² ... 1.5 mm ²
Tightening torque	max. 0.25 Nm
	General data
Operating position	optional
max. Operating altitude above MSL	2000 m
Storage temperature	-40 °C ... 85 °C
Ambient temperature	-25 °C ... 65 °C
Housing type	wall-mounted housing
Installation type	Wall mounting
Housing material	polycarbonate (PC)
Protection class	IP20
Width	165 mm
Height	174 mm
Depth	71 mm
Weight	1.04 kg
Inside diameter	105 mm
Design requirements/Standards	EN 62020, EN 60947-2, EN 61869-2
Degree of pollution	3

Dimensions



Wiring example



Subject to technical changes

Dimensional drawing Group view

Wiring diagram