



ISO 9001:2015

Earth leakage monitoring
Monitoraggio delle correnti verso terra



RD1-UHD Earth Leakage Protection Relay

RD1-UHD SERIAL

Ultra-immune earth leakage system and signaling via external transformer of the TARD/TARD-A series.

GENERAL DESCRIPTION

Earth Leakage Relay RD1-UHD is a microprocessor based electronic protection device has been designed. Recognizes low level leak. The main feature of RD1-UHD is Preventive control of system insulation with Continuous display of earth leakage current It is obtained by using the TARD/TARD-A current transformer.

Electronic earth leakage protection relay connected to external transformers of the TARD/ TARD-A series. Ultra-immune system type relay with high-frequency current filtering and high immunity. Type A relay harmonic filter. True root mean square (TRMS) measurement. Daily triggered residual current.

- Displaying data on the screen
- Two independent programmable outputs (main and pre-alarm)
- RS485 communication, with Modbus RTU protocol, offers centralized supervision in real time, as well as keeping a log of historical data for future analysis.

FEATURES

TRMS Measurement Feature
Displaying data on the screen
Two independent programmable outputs (main and pre-alarm)
RS485 communication with Modbus RTU protocol enables real-time centralized control as well as monitoring of historical data for future analysis.
Memorize the opening moment.
In addition to the Manual Test and Reset Feature, the ability to perform remote Test and Reset with the protocol software.
OLED Screen
Alarm assignment feature
Ability to display Normal Operation, Alarm and Power-on status with 3 different colored indicators: Blue, Red and Yellow
Suitable for rail mounting.
There is a reporting feature in case of toroid current transformer cable connection error or toroid current transformer failure. (Shows Red Color and Fault warning).



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SPECIFICATIONS

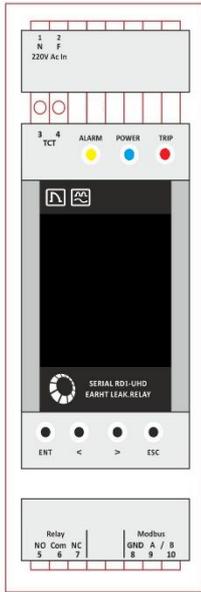
SUPPLY VOLTAGE	120/270 Vac -15%, +10% 50-60 Hz
POWER CONSUPTION	3VA (W) max
TEMPERATURE RANGE	Operational: da 0 °C a +50 °C Storage: da -20 °C a + 60 °C
RELATIVE HUMIDITY	Max. 90% (non condensing)
BURN IN	48 hours at 50 °C
DIELECTRIC WITHSTAND VOLTAGE	2 kVac, 60 s
CONSTRUCTION	According to , UL*, CEI standards
OUTPUT CONTACT	Rated current: 8A resitif @ 250Vac or 24Vdc 3A cosfi=0,4 @250Vac Max. operating Voltage: 250 Vac, 125 Vdc
INPUT	Rated Frequency Fn: 47 to 63 Hz Current Transformer (CT) ratio: 1/500 Input Impedance: 20 Ohm
DIGITAL INPUT (RD-1-UHD)	Type: Dry contacts only, 500 Ohm ON resistance
TRIP & ALARM PICKUP	20mA to 30A, steps of 1mA Accuracy: ±5% ±1 digit
DELAY TIME ALARM & TRIP PICKUP	0.02 to 10 sec in steps of 10 ms Accuracy: ±5% or ± 10 ms whichever is greater
FILTER	3 ^a arm -21 ^a arm harmonic components
TERMINAL BLOCK	Fixed terminals, 2,5mm ² -section cable (14 AWG).
FRAME	IP40, IP20 on back panel
INSTALLATION	35mm DIN rail
WEIGHT	200g
EMISSIONS TEST	<ul style="list-style-type: none"> • Radiated emissions Reference Standard: EN 55022 • Conducted emissions Reference Standard: EN 55014
IMMUNITY TESTS	<ul style="list-style-type: none"> • Conducted disturbances induced by RF field Reference Standard: EN 61000-4-6 • Radiated electromagnetic field Reference Standard: EN 61000-4-3 • Electrostatic discharge Reference Standard: EN 60255-22-5 • Fast transients (Burst) Reference Standard: References: EN 60255-22-4 • Surge Reference Standard: EN 61000-4-5 • Voltage dips and short interruptions Reference Standard: IEC 60255-11 • 1MHz Burst Reference Standard: EN 60255-22-1
INSULATING TEST	<ul style="list-style-type: none"> • Dielectric test and Pulse test Reference Standard: EN 60255-5 - Reference Standard: EN 60255-5



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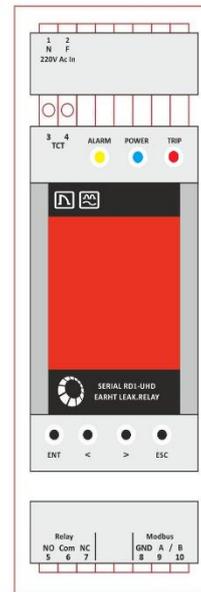
RD1-UHD - OPERATORS AND ALARMS WITH VISUAL INDICATIONS



CLOSED

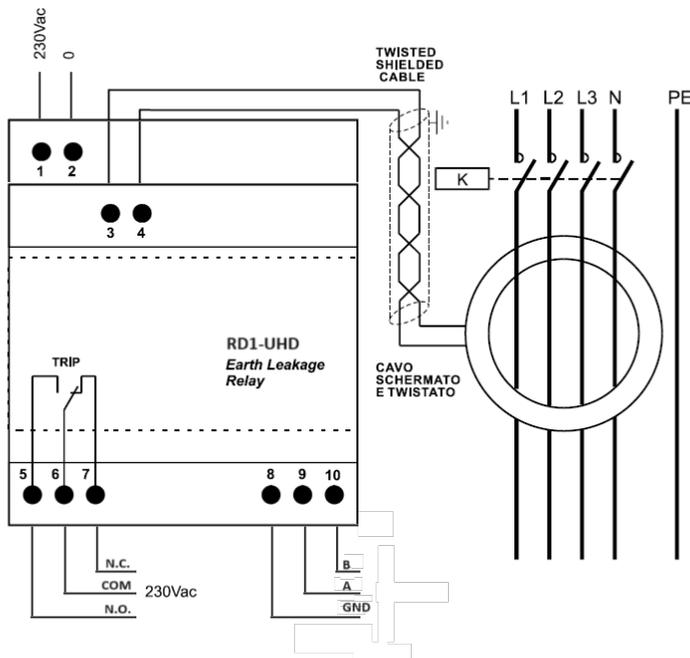


CORRECT

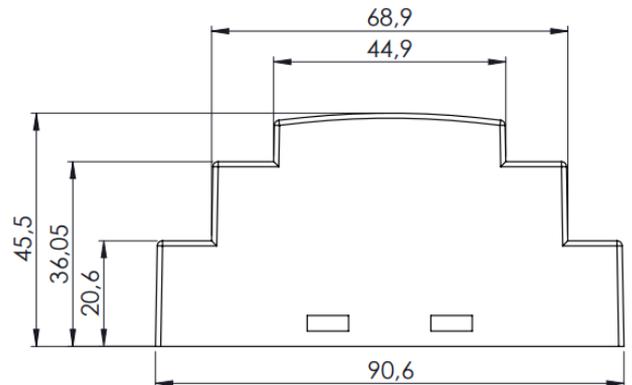


TRIP

RD1-UHD - WIRING DIAGRAM



RD1-UHD – OVERALL DIMENSIONS



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