

# **31RMT415** EARTH LEAKAGE RELAY WITH 1 OPERATIN THRESHOULD, MODULAR, 35MM DIN (IEC/EN60715) RAIL MOUNTING. Ø28MM INCORPORATED CT. CONFIGURABLE FAIL SAFE FAIL SAFE, 110VAC/DC-240VAC-415VAC



| Product designation<br>Product type designation    |                 |        | Earth leakage<br>relays<br>RMT                                    |
|----------------------------------------------------|-----------------|--------|-------------------------------------------------------------------|
| General characteristics Description Control circut |                 |        | Modular with<br>transparent<br>cover, 1<br>operating<br>threshold |
|                                                    |                 |        | Incorporated                                                      |
| Toroidal transformer                               |                 |        | diam. 28mm/1.1"                                                   |
| Adjustments<br>Tripping set-point (I∆n)            | (x0.1)<br>(x1)  | A<br>A | 0.0250.25<br>0.252.5                                              |
|                                                    | (x10)           | А      | 2.525                                                             |
| Tripping delay time                                | (tx1)<br>(tx10) | S<br>S | 0.020.5<br>0.25                                                   |
| Selection of multiplier for l∆n and t              |                 |        | By dip switches                                                   |
| Resetting                                          |                 |        | Configurable<br>automatic or<br>manual by button<br>on front      |
| Test Button                                        |                 |        | Yes                                                               |
| Shunt circuit control                              |                 |        | No                                                                |
| Auxiliary supply Auxiliary rated supply voltage Us |                 |        | 110<br>125VAC/DC;220<br>240/380<br>415VAC                         |
| Operational limits                                 |                 |        | 110<br>125VAC/DC or<br>220240VAC or<br>380415VAC                  |
| Output contacts                                    |                 |        | 2                                                                 |
| Rated frequency                                    |                 | Hz     | 5060                                                              |
| Power consumption Max<br>Relay outputs             |                 | VA     | 3                                                                 |
| Relay state                                        |                 |        | Configurable<br>normally de-<br>energised or<br>energised         |
| Contact arrangement                                |                 |        | 2 changeover<br>SPDT each (both<br>trip)                          |



ENERGY AND AUTOMATION

EARTH LEAKAGE RELAY WITH 1 OPERATIN THRESHOULD, MODULAR, 35MM DIN (IEC/EN60715) RAIL MOUNTING. Ø28MM INCORPORATED CT. CONFIGURABLE FAIL SAFE FAIL SAFE, 110VAC/DC-240VAC-415VAC

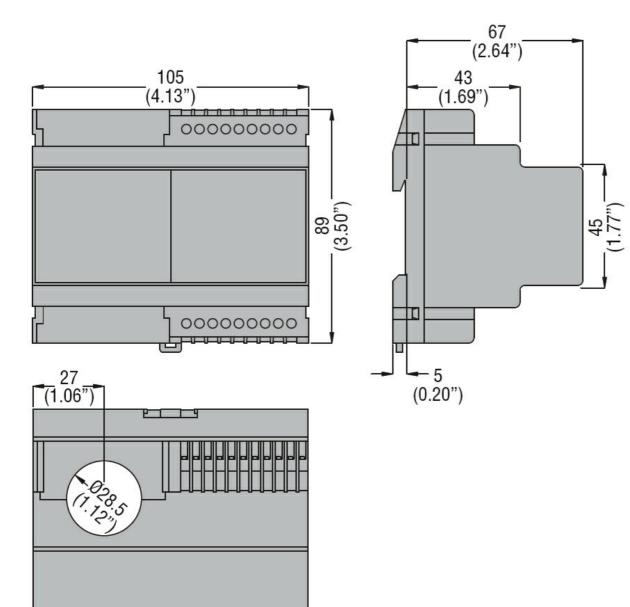
# 31RMT415

| Insulations Power frequency withstand voltage Indications Auxiliary voltage available (ON) Relay tripping (TRIP) Connections Terminals type Tightening torque for terminals  Conductor section AWG/Kcmil min max IEC min max Operations Mechanical life Electrical life Ambient conditions Temperature Operating temperature min max Storage temperature                                                                                                                                                                         | kV<br>Nm<br>Ibin<br>mm²<br>mm²<br>cycles<br>cycles | 2.5kV for 60s<br>Green LED<br>Red LED<br>Fixed<br>0.5<br>4.5<br>24<br>12<br>0.2<br>2.5<br>50000000<br>300000 |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------|--------------------------------------------------------------------------------------------------------------|
| Indications Auxiliary voltage available (ON) Relay tripping (TRIP) Connections Terminals type Tightening torque for terminals Conductor section AWG/Kcmil AWG/Kcmil IEC min max Operations Mechanical life Electrical life Ambient conditions Temperature Operating temperature min max Storage temperature                                                                                                                                                                                                                      | Nm<br>Ibin<br>mm²<br>mm²                           | Green LED<br>Red LED<br>Fixed<br>0.5<br>4.5<br>24<br>12<br>0.2<br>2.5<br>50000000                            |
| Auxiliary voltage available (ON) Relay tripping (TRIP) Connections Terminals type Tightening torque for terminals Conductor section AWG/Kcmil AWG/Kcmil IEC min max Operations Mechanical life Electrical life Ambient conditions Temperature Operating temperature Operating temperature min max Storage temperature                                                                                                                                                                                                            | lbin<br>mm²<br>mm²<br>cycles                       | Red LED<br>Fixed<br>0.5<br>4.5<br>24<br>12<br>0.2<br>2.5<br>50000000                                         |
| Relay tripping (TRIP)         Connections         Terminals type         Tightening torque for terminals         max         max         max         max         max         max         max         max         max         Conductor section         AWG/Kcmil         min         max         IEC         min         max         Operations         Mechanical life         Electrical life         Ambient conditions         Temperature         Operating temperature         min         max         Storage temperature | lbin<br>mm²<br>mm²<br>cycles                       | Red LED<br>Fixed<br>0.5<br>4.5<br>24<br>12<br>0.2<br>2.5<br>50000000                                         |
| Connections         Terminals type         Tightening torque for terminals         max         Conductor section         AWG/Kcmil         min         max         IEC         min         max         Operations         Mechanical life         Electrical life         Ambient conditions         Temperature         Operating temperature         min         max         Storage temperature                   | lbin<br>mm²<br>mm²<br>cycles                       | Fixed<br>0.5<br>4.5<br>24<br>12<br>0.2<br>2.5<br>50000000                                                    |
| Terminals type         Tightening torque for terminals         max         max         max         Conductor section         AWG/Kcmil         min         max         IEC         min         max         Operations         Mechanical life         Electrical life         Ambient conditions         Temperature         Operating temperature         min         max         Storage temperature                                                                                                                           | lbin<br>mm²<br>mm²<br>cycles                       | 0.5<br>4.5<br>24<br>12<br>0.2<br>2.5<br>50000000                                                             |
| Tightening torque for terminals max max max max Conductor section AWG/Kcmil min max IEC min max Operations Mechanical life Electrical life Electrical life Ambient conditions Temperature Operating temperature min max Storage temperature                                                                                                                                                                                                                                                                                      | lbin<br>mm²<br>mm²<br>cycles                       | 0.5<br>4.5<br>24<br>12<br>0.2<br>2.5<br>50000000                                                             |
| Conductor section AWG/Kcmil AWG/Kcmil min max IEC min max Operations Mechanical life Electrical life Ambient conditions Temperature Operating temperature min max Storage temperature                                                                                                                                                                                                                                                                                                                                            | lbin<br>mm²<br>mm²<br>cycles                       | 4.5<br>24<br>12<br>0.2<br>2.5<br>50000000                                                                    |
| Conductor section AWG/Kcmil min max IEC min max Operations Mechanical life Electrical life Ambient conditions Temperature Operating temperature min max Storage temperature                                                                                                                                                                                                                                                                                                                                                      | lbin<br>mm²<br>mm²<br>cycles                       | 4.5<br>24<br>12<br>0.2<br>2.5<br>50000000                                                                    |
| Conductor section          AWG/Kcmil       min         min       max         IEC       min         Mechanical life       min         Electrical life       Mechanical life         Ambient conditions       min         Temperature       Operating temperature         Min       max         Storage temperature       min                                                                                                                                                                                                      | mm²<br>mm²<br>cycles                               | 24<br>12<br>0.2<br>2.5<br>5000000                                                                            |
| AWG/Kcmil<br>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | mm²<br>cycles                                      | 12<br>0.2<br>2.5<br>50000000                                                                                 |
| min max IEC IEC min max Operations Mechanical life Electrical life Ambient conditions Temperature Operating temperature min max Storage temperature                                                                                                                                                                                                                                                                                                                                                                              | mm²<br>cycles                                      | 12<br>0.2<br>2.5<br>50000000                                                                                 |
| IEC       min         Operations       max         Mechanical life       min         Electrical life       min         Ambient conditions       min         Temperature       min         Operating temperature       min         Storage temperature       min                                                                                                                                                                                                                                                                  | mm²<br>cycles                                      | 12<br>0.2<br>2.5<br>50000000                                                                                 |
| IEC       min max         Operations       max         Mechanical life       min         Electrical life       min         Ambient conditions       min         Temperature       Operating temperature         Min max       Storage temperature                                                                                                                                                                                                                                                                                | mm²<br>cycles                                      | 0.2<br>2.5<br>50000000                                                                                       |
| min max Operations Mechanical life Electrical life Ambient conditions Temperature Operating temperature min max Storage temperature                                                                                                                                                                                                                                                                                                                                                                                              | mm²<br>cycles                                      | 2.5<br>50000000                                                                                              |
| Max         Operations         Mechanical life         Electrical life         Ambient conditions         Temperature         Operating temperature         min         max         Storage temperature                                                                                                                                                                                                                                                                                                                          | mm²<br>cycles                                      | 2.5<br>50000000                                                                                              |
| Operations         Mechanical life         Electrical life         Ambient conditions         Temperature         Operating temperature         min max         Storage temperature                                                                                                                                                                                                                                                                                                                                              | cycles                                             | 5000000                                                                                                      |
| Mechanical life         Electrical life         Ambient conditions         Temperature         Operating temperature         min         max         Storage temperature                                                                                                                                                                                                                                                                                                                                                         | -                                                  |                                                                                                              |
| Electrical life Ambient conditions Temperature Operating temperature min max Storage temperature                                                                                                                                                                                                                                                                                                                                                                                                                                 | -                                                  |                                                                                                              |
| Ambient conditions         Temperature       Operating temperature                                                                                                                                                                                                                                                                                                                                                                                                                                                               | cycles                                             | 300000                                                                                                       |
| Temperature Operating temperature min max Storage temperature                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                    |                                                                                                              |
| Operating temperature<br>min<br>max<br>Storage temperature                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                    |                                                                                                              |
| min<br>max<br>Storage temperature                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                    |                                                                                                              |
| maxStorage temperature                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | °.                                                 | 10                                                                                                           |
| Storage temperature                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | °C                                                 | -10                                                                                                          |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | °C                                                 | +60                                                                                                          |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | ° <b>0</b>                                         | 00                                                                                                           |
| min                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | °C<br>°C                                           | -20                                                                                                          |
| Max                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | °C<br>%                                            | +80                                                                                                          |
| Relative humidity<br>Housing                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | %                                                  | ≤90%                                                                                                         |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                    | Self-extinguishing                                                                                           |
| Material                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                    | polycarbonate                                                                                                |
| Mounting                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                    | 35mm DIN rail                                                                                                |
| Degree of protection                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                    | IP20 terminals                                                                                               |
| Dimensions (W x H x D)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | mm                                                 | 105x89x72                                                                                                    |
| Weight                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                    | 375                                                                                                          |
| Dimensions [mm (in)]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | g                                                  |                                                                                                              |

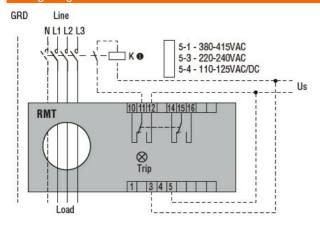
# 31RMT415



EARTH LEAKAGE RELAY WITH 1 OPERATIN THRESHOULD, MODULAR, 35MM DIN (IEC/EN60715) RAIL MOUNTING. Ø28MM INCORPORATED CT. CONFIGURABLE FAIL SAFE FAIL SAFE, 110VAC/DC-240VAC-415VAC



#### Wiring diagrams



Certifications and compliance

### Compliant with standards

IEC/EN 60947-2

# Certificates

31RMT415



EARTH LEAKAGE RELAY WITH 1 OPERATIN THRESHOULD, MODULAR, 35MM DIN (IEC/EN60715) RAIL MOUNTING. Ø28MM INCORPORATED CT. CONFIGURABLE FAIL SAFE FAIL SAFE, 110VAC/DC-240VAC-415VAC

EAC

ETIM classification

ETIM 8.0

EC001445 -Residual current monitoring relay

31RMT415