

# Product datasheet

Specifications



Residual current protection relay,  
VigiPacT RHUs, 30mA-30A,  
220/240VAC 50/60Hz, without  
communication, front panel

LV481001

## Main

|                                                    |                                                                                                                                                                                                       |
|----------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Range                                              | VigiPacT                                                                                                                                                                                              |
| Device short name                                  | RHUs                                                                                                                                                                                                  |
| Product or component type                          | Residual current protection relay                                                                                                                                                                     |
| Relay application                                  | Monitoring relay<br>Protection relay                                                                                                                                                                  |
| Mounting support                                   | Front panel                                                                                                                                                                                           |
| Earth-leakage protection class                     | Type A                                                                                                                                                                                                |
| Type of setting                                    | Keypad                                                                                                                                                                                                |
| Residual earth-leakage sensitivity adjustment type | Adjustable                                                                                                                                                                                            |
| Earth-leakage sensitivity                          | 0.03...1 A, adjustable in step of 0.001 A<br>1...30 A, adjustable in step of 0.1 A                                                                                                                    |
| Earth-leakage time delay                           | Instantaneous for 0.03 A<br>Adjustable 0...4.5 s for 0.03...30 A adjustable in step of 10 ms                                                                                                          |
| Threshold setting                                  | 0.015...1 A adjustable in step of 0.001 A pre-alarm<br>1...30 A adjustable in step of 0.1 A pre-alarm<br>0.03...1 A adjustable in step of 0.001 A alarm<br>1...30 A adjustable in step of 0.1 A alarm |
| Current sensors compatibility                      | VigiPacT TOA earth leakage current sensor<br>VigiPacT A earth leakage current sensor<br>VigiPacT L earth leakage current sensor                                                                       |
| [Ithe] conventional enclosed thermal current       | 8 A                                                                                                                                                                                                   |
| Minimum load                                       | 10 mA at 12 V                                                                                                                                                                                         |
| [Us] rated supply voltage                          | 220...240 V AC 50/60 Hz 70...110 %                                                                                                                                                                    |
| Power consumption in VA                            | 8 VA                                                                                                                                                                                                  |
| Monitored distribution system                      | 1000 V - AC at 50/60 Hz (maximum)<br>1000 V - AC at 400 Hz (maximum)                                                                                                                                  |
| Earthing system                                    | TT<br>IT<br>TN-S                                                                                                                                                                                      |
| [Uimp] rated impulse withstand voltage             | 8 kV                                                                                                                                                                                                  |
| Reset                                              | Manual reset                                                                                                                                                                                          |

## Complementary

|                             |                                                   |
|-----------------------------|---------------------------------------------------|
| Test function               | Local<br>Remote test                              |
| Signal contacts composition | 1 C/O alarm fail-safe<br>1 NO pre-alarm fail-safe |

Disclaimer: This documentation is not intended as a substitute for and is not to be used for determining suitability or reliability of these products for specific user applications

|                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|-------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Type of measurement     | Earth fault current internal measurement, range: 20...200 %, accuracy: +/- 20 %                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Refresh time            | 0.5 s                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Tamperproof of settings | Protected by access code                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Connections - terminals | Alarm circuit: terminal block cable(s) 0.2...2.5 mm² flexible AWG 22...AWG 12<br>Alarm circuit: terminal block cable(s) 0.2...2.5 mm² rigid AWG 22...AWG 12<br>Relay test and fault reset: terminal block cable(s) 0.2...2.5 mm² flexible AWG 22...AWG 12<br>Relay test and fault reset: terminal block cable(s) 0.2...2.5 mm² rigid AWG 22...AWG 12<br>Sensor: terminal block cable(s) 0.2...2.5 mm² flexible AWG 22...AWG 12<br>Sensor: terminal block cable(s) 0.2...2.5 mm² rigid AWG 22...AWG 12<br>Voltage presence: terminal block cable(s) 0.2...2.5 mm² flexible AWG 22...AWG 12<br>Voltage presence: terminal block cable(s) 0.2...2.5 mm² rigid AWG 22...AWG 12<br>Power supply: terminal block cable(s) 0.2...2.5 mm² flexible AWG 22...AWG 12<br>Power supply: terminal block cable(s) 0.2...2.5 mm² rigid AWG 22...AWG 12<br>Pre alarm: terminal block cable(s) 0.2...2.5 mm² flexible AWG 22...AWG 12<br>Pre alarm: terminal block cable(s) 0.2...2.5 mm² rigid AWG 22...AWG 12 |
| Wire stripping length   | Alarm circuit: 6 mm<br>Relay test and fault reset: 6 mm<br>Sensor: 6 mm<br>Voltage presence: 6 mm<br>Power supply: 6 mm<br>Pre alarm: 6 mm                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Tightening torque       | Alarm circuit: 0.5 N.m<br>Relay test and fault reset: 0.5 N.m<br>Sensor: 0.5 N.m<br>Voltage presence: 0.5 N.m<br>Power supply: 0.5 N.m<br>Pre alarm: 0.5 N.m                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Standards               | EN/IEC 60947-2 Annex M<br>EN/IEC 60755                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Width                   | 72 mm                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Height                  | 72 mm                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Depth                   | 117 mm                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Cut-out dimensions      | 68 x 68 mm                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Net weight              | 0.3 kg                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| IP degree of protection | IP40 front face: conforming to IEC 60529<br>IP30 other parts: conforming to IEC 60529<br>IP20 connection: conforming to IEC 60529                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| IK degree of protection | IK07 conforming to EN 50102                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Mechanical robustness   | Vibrations 13.2...100 Hz: 0.7 g<br>Vibrations 2...13.2 Hz: +/- 1 mm                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |

## Environment

|                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|-----------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Environmental characteristic      | Exposure to damp heat not in service conforming to IEC 60068-2-30<br>Exposure to damp heat in service conforming to IEC 60068-2-56<br>Salt mist conforming to IEC 60068-2-52                                                                                                                                                                                                                                                          |
| Overvoltage category              | IV                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Electrical shock protection class | Class II                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Electromagnetic compatibility     | Conducted and radiated emissions: , B, conforming to CISPR 11<br>Conducted radio-frequency immunity test: , 3, conforming to IEC 61000-4-6<br>Electrostatic discharge immunity test: , 4, conforming to IEC 61000-4-2<br>High-energy conducted susceptibility: , 4, conforming to IEC 61000-4-5<br>Low-energy conducted susceptibility: , 4, conforming to IEC 61000-4-4<br>Radiated susceptibility: , 3, conforming to IEC 61000-4-3 |
| Relative humidity                 | 95 % at 55 °C                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Pollution degree                  | 3 conforming to IEC 60664-1                                                                                                                                                                                                                                                                                                                                                                                                           |

|                                       |             |
|---------------------------------------|-------------|
| Ambient air temperature for operation | -25...55 °C |
| Ambient air temperature for storage   | -40...85 °C |

## Packing Units

|                              |           |
|------------------------------|-----------|
| Unit Type of Package 1       | PCE       |
| Number of Units in Package 1 | 1         |
| Package 1 Height             | 8.5 cm    |
| Package 1 Width              | 11.0 cm   |
| Package 1 Length             | 15.5 cm   |
| Package 1 Weight             | 430.0 g   |
| Unit Type of Package 2       | S04       |
| Number of Units in Package 2 | 24        |
| Package 2 Height             | 30.0 cm   |
| Package 2 Width              | 40.0 cm   |
| Package 2 Length             | 60.0 cm   |
| Package 2 Weight             | 11.086 kg |

## Logistical informations

|                   |    |
|-------------------|----|
| Country of origin | FR |
|-------------------|----|

## Contractual warranty

|                      |    |
|----------------------|----|
| Warranty (in months) | 18 |
|----------------------|----|



## Environmental Data

Schneider Electric aims to achieve Net Zero status by 2050 through supply chain partnerships, lower impact materials, and circularity via our ongoing “Use Better, Use Longer, Use Again” campaign to extend product lifetimes and recyclability.

[Environmental Data explained >](#)

[How we assess product sustainability >](#)



### Environmental footprint

|                                                        |                                               |
|--------------------------------------------------------|-----------------------------------------------|
| Total lifecycle Carbon footprint                       | 161 kg CO2 eq.                                |
| Environmental Disclosure                               | <a href="#">Product Environmental Profile</a> |
| Carbon footprint of the manufacturing phase [A1 to A3] | 22 kg CO2 eq.                                 |
| Carbon footprint of the distribution phase [A4]        | 0.1 kg CO2 eq.                                |
| Carbon footprint of the installation phase [A5]        | 0.1 kg CO2 eq.                                |
| Carbon footprint of the use phase [B2, B3, B4, B6]     | 138 kg CO2 eq.                                |
| Carbon footprint of the end-of-life phase [C1 to C4]   | 0.6 kg CO2 eq.                                |

## Use Better



### Materials and Substances

|                                        |                                      |
|----------------------------------------|--------------------------------------|
| Packaging made with recycled cardboard | Yes                                  |
| Packaging without single use plastic   | No                                   |
| SCIP Number                            | 6b2913b0-ca83-4683-bb4c-744a8bb90c08 |
| Halogen-free status                    | Halogen free plastic parts product   |

## Use Longer



### Lifetime extension

|        |    |
|--------|----|
| Repair | No |
|--------|----|

## Use Again



### Repack and remanufacture

|                                 |                                                                                                                                                                                                                 |
|---------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Recyclability potential, in %   | 0                                                                                                                                                                                                               |
| End of life manual availability | <a href="#">End of Life Information</a>                                                                                                                                                                         |
| Take-back                       | Yes                                                                                                                                                                                                             |
| WEEE Label                      |  The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins |

Technical Illustration

Assembly's dimensions

