

PACT RCP-4000A-1A-D140-10M - Current transformer



1033483

<https://www.phoenixcontact.com/us/products/1033483>

Please be informed that the data shown in this PDF document is generated from our online catalog. Please find the complete data in the user documentation. Our general terms of use for downloads are valid.

Set consisting of one 1 A measuring transducer and one Rogowski coil with signal line. Length of Rogowski coil: 450 mm, diameter: 140 mm. Length of signal line: 10 m. The Rogowski coil measures the AC current of busbars and power lines.



Commercial data

| | |
|--------------------------------------|---------------------|
| Item number | 1033483 |
| Packing unit | 1 pc |
| Minimum order quantity | 1 pc |
| Sales key | C444 |
| Product key | CK4A12 |
| Catalog page | Page 222 (C-5-2019) |
| GTIN | 4055626539218 |
| Weight per piece (including packing) | 598.5 g |
| Weight per piece (excluding packing) | 440.3 g |
| Customs tariff number | 85437090 |
| Country of origin | DE |

Technical data

Product properties

| | |
|----------------------------|------------------------------------------------------------------------|
| Product type | Current transformer |
| Insulation characteristics | |
| Insulation | double insulation |
| Insulation characteristics | |
| Insulation | double insulation |
| Overvoltage category | III (1000 V, to neutral conductor) IV (600 V, to neutral conductor) |
| Pollution degree | 2 |

Electrical properties

| | |
|--------------------------|----------------------------------------------------------------------------------|
| Electrical isolation | Reinforced insulation in accordance with IEC 61010-1 |
| Typical measuring error | < 1 % |
| Protective circuit | Surge protection; 33 V suppressor diode |
| Temperature coefficients | 0.005 %/K (+10 °C ... +70 °C, both components have the same ambient temperature) |
| | 0.07 %/K (-20 °C ... +10 °C, both components have the same ambient temperature) |

Measuring coil

| | |
|---------------------------------|---------------------------------|
| Conductor structure signal line | 2x 0.22 mm (Signal (tinned)) |
| | 1x 0.22 mm (Shielding (tinned)) |
| Insulation | double insulation |
| Rated insulation voltage | 1000 V AC (rms CAT III) |
| | 600 V AC (rms CAT IV) |
| Test voltage | 10.45 kV DC (60 s) |
| Basic accuracy | <± 0.2 % |

Measuring transducers

| | |
|----------------------------|---------------------------------------------------|
| Linearity error | < 0.5 % (From the range end value) |
| Maximum transmission error | ≤ 0.5 % (From the range end value) |
| Frequency range | 45 Hz ... 65 Hz |
| Max. detectable harmonics | < 2 kHz |
| Current consumption | < 190 mA (at 19.2 V) |
| Test voltage | 1.5 kV AC (Supply/input and output: 50 Hz, 1 min) |

General

| | |
|-------------------|--------------------------------------------|
| Can be calibrated | no |
| Class | 1 |
| Accuracy class | 1 |
| Converter type | Rogowski coil and 1 A measuring transducer |

Supply: Measuring transducers

PACT RCP-4000A-1A-D140-10M - Current transformer



1033483

<https://www.phoenixcontact.com/us/products/1033483>

| | |
|------------------------------|-------------------------|
| Nominal supply voltage | 24 V DC -20 % ... +25 % |
| Nominal supply voltage range | 19.2 V DC ... 30 V DC |
| Max. current consumption | 190 mA |
| Power consumption | 4 W |

Input data

Frequency

| | |
|---------------------------|--------------------|
| Designation | Measuring coil |
| Frequency measuring range | 40 Hz ... 20000 Hz |
| Position error | <± 0.1 % (typical) |
| Linearity error | < 0.1 % |

Signal

| | |
|-------------------------|----------------------------------|
| Input signal (at 50 Hz) | 100 mV (1000 A) |
| Curve type | Sine |
| Input impedance | 27 kΩ (smallest measuring range) |

Current transformers

| | |
|--------------------------------|--------------------------------------------|
| Configurable/programmable | Via DIP switches |
| Rated power | 1.5 VA |
| Primary rated current I_{pn} | 0 A AC ... 100 A AC |
| | 0 A AC ... 250 A AC |
| | 0 A AC ... 400 A AC |
| | 0 A AC ... 630 A AC |
| | 0 A AC ... 1000 A AC |
| | 0 A AC ... 1500 A AC |
| | 0 A AC ... 2000 A AC |
| | 0 A AC ... 4000 A AC |
| Phase angle | < 1 ° |
| Can be calibrated | no |
| Class | 1 |
| Accuracy class | 1 |
| Converter type | Rogowski coil and 1 A measuring transducer |

Output data

Signal

| | |
|---------------------------------------------------|--------------------------------------------------------------------------------------------------------------------|
| Designation | Measuring coil |
| Output signal (at 50 Hz) | 100 mV (no load, at 1,000 A) |
| Output voltage (in no-load operation) | $V_{OUT} = M \cdot dI/dt$ |
| Output voltage (sinusoidal, in no-load operation) | 100 mV ($V_{OUT} = 2 \cdot \pi \cdot M \cdot f \cdot I$ ($M = 0.318 \mu H$; example: At 50 Hz; $I = 1,000 A$)) |
| Accuracy class | < 1 |

Signal

| | |
|-------------|----------------------|
| Designation | Measuring transducer |
|-------------|----------------------|

PACT RCP-4000A-1A-D140-10M - Current transformer



1033483

<https://www.phoenixcontact.com/us/products/1033483>

| | |
|--------------------------------------------------|--------------------------------------|
| Current output signal | 0 A AC ... 1 A AC |
| Rated power | 1.25 VA |
| Load | 0 Ω ... 1.25 Ω |
| Max. distances for copper cables at $P_{N \max}$ | 16 m (0.75 mm ² (AWG 20)) |
| | 32 m (1.5 mm ² (AWG 16)) |
| | 55 m (2.5 mm ² (AWG 14)) |

Connection data

Measuring transducer side

| | |
|----------------------------------|---------------------------------------------|
| Connection method | Screw connection |
| Stripping length | 7 mm |
| Screw thread | M3 |
| Conductor cross section rigid | 0.2 mm ² ... 2.5 mm ² |
| Conductor cross section flexible | 0.2 mm ² ... 2.5 mm ² |
| Conductor cross section AWG | 24 ... 14 |
| Tightening torque | 0.5 Nm ... 0.6 Nm |

Signaling

| | |
|---------------------------|-----------|
| Operating voltage display | Green LED |
|---------------------------|-----------|

Dimensions

Item dimensions

| | |
|--------|---------|
| Width | 22.5 mm |
| Height | 85 mm |
| Depth | 70.4 mm |

Measuring coil

| | |
|----------|---------------------|
| Length | 450 mm |
| Diameter | 8.3 mm \pm 0.2 mm |

Measuring coil when installed

| | |
|----------|--------|
| Diameter | 140 mm |
|----------|--------|

Signal line

| | |
|--------|---------|
| Length | 10 m |
| Width | 22.5 mm |
| Height | 85 mm |
| Depth | 70.4 mm |

Material specifications

| | |
|------------------|------------|
| Coil material | Elastollan |
| Housing material | PC |
| | Polyamide |

Environmental and real-life conditions

PACT RCP-4000A-1A-D140-10M - Current transformer



1033483

<https://www.phoenixcontact.com/us/products/1033483>

Ambient conditions

| | |
|-------------------------------------------|-----------------------------------------|
| Measuring coil degree of protection | IP67 (not assessed by UL) |
| Measuring transducer degree of protection | IP20 |
| Ambient temperature (operation) | -30 °C ... 80 °C (Measuring coil) |
| | -20 °C ... 70 °C (Measuring transducer) |
| Ambient temperature (storage/transport) | -40 °C ... 80 °C (Measuring coil) |
| | -25 °C ... 85 °C (Measuring transducer) |
| Altitude | < 2000 m |
| Permissible humidity (operation) | 5 % ... 95 % (non-condensing) |

Approvals

CE

| | |
|-------------|--------------|
| Certificate | CE-compliant |
|-------------|--------------|

UKCA

| | |
|-------------|----------------|
| Certificate | UKCA-compliant |
|-------------|----------------|

CMIM

| | |
|-------------|----------------|
| Certificate | CMIM-compliant |
|-------------|----------------|

UL, USA/Canada

| | |
|----------------|---------------------|
| Identification | UL 61010 Recognized |
| Note | Measuring coil |

UL, USA/Canada

| | |
|----------------|----------------------|
| Identification | UL 508 Listed |
| Note | Measuring transducer |

EMC data

| | |
|-------------------------------|--------------------------------|
| Noise immunity | EN 61000-6-3 |
| Electromagnetic compatibility | Conformance with EMC directive |
| Noise emission | EN 61000-6-4 |

Standards and regulations

| | |
|-----------------------|------------------------------------------------------|
| Electrical isolation | Reinforced insulation in accordance with IEC 61010-1 |
| Standards/regulations | IEC 61010-1 |
| | IEC 61010-2-032 |

Mounting

| | |
|---------------|-------------------|
| Mounting type | DIN rail mounting |
|---------------|-------------------|

PACT RCP-4000A-1A-D140-10M - Current transformer



1033483

<https://www.phoenixcontact.com/us/products/1033483>

Classifications

ECLASS

| | |
|-------------|----------|
| ECLASS-11.0 | 27210902 |
| ECLASS-13.0 | 27210902 |
| ECLASS-12.0 | 27210902 |

ETIM

| | |
|----------|----------|
| ETIM 9.0 | EC002048 |
|----------|----------|

UNSPSC

| | |
|-------------|----------|
| UNSPSC 21.0 | 39121000 |
|-------------|----------|

PACT RCP-4000A-1A-D140-10M - Current transformer



1033483

<https://www.phoenixcontact.com/us/products/1033483>

Environmental product compliance

| | |
|------------|--------------------------------------------------------------------------------------------------------------|
| REACH SVHC | Lead 7439-92-1 |
| China RoHS | Environmentally Friendly Use Period = 50 years |
| | For information on hazardous substances, refer to the manufacturer's declaration available under "Downloads" |

Phoenix Contact 2024 © - all rights reserved
<https://www.phoenixcontact.com>

Phoenix Contact USA
586 Fulling Mill Road
Middletown, PA 17057, United States
(+717) 944-1300
info@phoenixcon.com