

Current transformer - PACT RCP-4000A-1A-D190-10M - 2910327

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's documentation. Our General Terms of Use for Downloads are valid (<http://phoenixcontact.com/download>)

Set consisting of a 1 A measuring transducer and a Rogowski coil with signal line. Length of Rogowski coil: 600 mm, diameter: 190 mm. Length of signal line: 10 m. The Rogowski coil measures the AC current of busbars and power lines.



RoHS

Key Commercial Data

| | |
|--------------------------------------|---|
| Packing unit | 1 STK |
| GTIN |  4 055626 437668 |
| GTIN | 4055626437668 |
| Weight per Piece (excluding packing) | 630.000 g |
| Custom tariff number | 85437090 |
| Country of origin | Germany |

Technical data

Measuring transducer supply

| | |
|------------------------------|-------------------------|
| 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 |

Measuring coil input data

| | |
|---------------------------|--------------------|
| Frequency measuring range | 40 Hz ... 20000 Hz |
| Position error | < 1 % |
| Linearity error | 0.1 % |

Measuring transducer input data

| | |
|--|---|
| Measuring ranges (current) | 100 A 250 A 400 A 630 A 1000 A 1500 A 2000 A 4000 A |
| Configurable/programmable | Via DIP switches |
| Phase angle | < 1 ° |
| Rated power | 1.5 VA |
| Max. distances for copper cables at P _{N max} | 32 m (0.75 mm ² (AWG 20)) |

Current transformer - PACT RCP-4000A-1A-D190-10M - 2910327

Technical data

Measuring transducer input data

| | |
|--|--------------------------------------|
| | 64 m (1.5 mm ² (AWG 16)) |
| | 107 m (2.5 mm ² (AWG 14)) |

Measuring transducer signal input

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

Measuring coil signal output

| | |
|---|--|
| 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 μH; example: At 50 Hz; I = 1,000 A)) |

Measuring transducer signal output

| | |
|-----------------------|----------------|
| Current output signal | 0 A AC ... 1 A |
| Load | 0 Ω ... 1.5 Ω |

General data, measuring coil

| | |
|---------------------------------|---------------------------------|
| Length of measuring coil | 600 mm |
| Diameter of measuring coil | 8.3 mm ±0.2 mm |
| Length of signal cable | 10000 mm |
| Conductor structure signal line | 2x 0.22 mm (Signal (tinned)) |
| | 1x 0.22 mm (Shielding (tinned)) |
| Coil material | Elastollan |
| Housing material | PC |
| Insulation | double insulation |
| Rated insulation voltage | 1000 V AC (rms CAT III) |
| | 600 V AC (rms CAT IV) |
| Test voltage | 10.45 kV (DC / 1 min.) |
| Basic accuracy | <± 0.21 % |
| UL, USA/Canada | UL 61010 Recognized |

General data for measuring transducer

| | |
|----------------------------|---|
| 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) |
| Housing material | Polyamide |
| Test voltage | 1.5 kV AC (Supply/input and output: 50 Hz, 1 min) |
| UL, USA/Canada | UL 508 Listed |

General data

| | |
|-----------------------|-------------|
| Standards/regulations | IEC 61010-1 |
|-----------------------|-------------|

Current transformer - PACT RCP-4000A-1A-D190-10M - 2910327

Technical data

General data

| | |
|--------------------------|--|
| | IEC 61010-2-032 |
| Insulation | double insulation |
| Degree of pollution | 2 |
| Overvoltage category | III (1,000 V, to neutral conductor) |
| | IV (600 V, to neutral conductor) |
| 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) |
| Typical measuring error | < 1 % |

Connection data

| | |
|---------------------------------------|---------------------------|
| Connection name | Measuring transducer side |
| Conductor cross section flexible min. | 0.2 mm ² |
| Conductor cross section flexible max. | 2.5 mm ² |
| Conductor cross section solid min. | 0.2 mm ² |
| Conductor cross section solid max. | 2.5 mm ² |
| Conductor cross section AWG min. | 24 |
| Conductor cross section AWG max. | 14 |
| Screw thread | M3 |
| Connection method | Screw connection |
| Stripping length | 7 mm |
| Torque | 0.5 Nm ... 0.6 Nm |

Dimensions

| | |
|--------|----------|
| Width | 22.50 mm |
| Height | 85.00 mm |
| Depth | 70.40 mm |

Ambient conditions

| | |
|---|---|
| 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) |
| Maximum altitude | < 2000 m |
| Measuring coil degree of protection | IP67 (not assessed by UL) |
| Measuring transducer degree of protection | IP20 |

Standards and Regulations

| | |
|-----------------------|-------------------------------------|
| Standards/regulations | IEC 61010-1 |
| | IEC 61010-2-032 |
| Insulation | double insulation |
| Degree of pollution | 2 |
| Overvoltage category | III (1,000 V, to neutral conductor) |

Current transformer - PACT RCP-4000A-1A-D190-10M - 2910327

Technical data

Standards and Regulations

| | |
|--|----------------------------------|
| | IV (600 V, to neutral conductor) |
|--|----------------------------------|

Environmental Product Compliance

| | |
|------------|---|
| China RoHS | Environmentally Friendly Use Period = 50 |
| | For details about hazardous substances go to tab "Downloads", Category "Manufacturer's declaration" |

Classifications

eCl@ss

| | |
|------------|----------|
| eCl@ss 5.1 | 27210902 |
| eCl@ss 6.0 | 27210902 |
| eCl@ss 7.0 | 27210902 |
| eCl@ss 8.0 | 27210902 |
| eCl@ss 9.0 | 27210902 |

ETIM

| | |
|----------|----------|
| ETIM 5.0 | EC002048 |
| ETIM 6.0 | EC002048 |

Accessories

Accessories

Mounting material

Holder - PACT RCP-CLAMP - 2904895



The optional holding device ensures the Rogowski coil is securely seated on busbars with a thickness of 10 ... 15 mm. During installation, the coil housing is pushed onto the flange of the holding device and snaps in automatically.