


Current transformer - PACT RCP-4000A-1A-D140 - 2904922

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Set consisting of 2 components: 1 A measuring transducer and a Rogowski coil, length 450 mm. The measuring coil diameter when installed is 140 mm. The Rogowski coil is used for AC current measurement for busbars and power lines.

Key commercial data

Packing unit	1 pc
GTIN	 4 046356 900959
Weight per Piece (excluding packing)	190.0 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	10 Hz ... 5000 Hz
Input signal	Sine
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

Measuring transducer signal input

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

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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 μ H; example: At 50 Hz; I = 1,000 A))

Measuring transducer signal output

Current output signal	0 A AC ... 1 A AC (effective at sine)
Load	0 Ω ... 1.5 Ω
Operating voltage display	Green LED

General data, measuring coil

Length of measuring coil	450 mm
Diameter of measuring coil	8.3 mm \pm 0.2 mm
Length of signal cable	3000 mm
Conductor structure signal line	2x 0.22 mm (Signal (tinned))
	1x 0.22 mm (Shielding (tinned))
Coil material	ELASTOGRAN
Housing material	PC
Insulation	double insulation
Degree of protection	IP67
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	$\leq \pm 0.21$ %

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
Current consumption	< 190 mA (at 19.2 V)
Housing material	Polyamide
Degree of protection	IP20
Test voltage	1.5 kV AC (Supply/input and output: 50 Hz, 1 min)

General data

Standards/regulations	IEC 61010-1
	IEC 61010-031
	IEC 61010-2-031
	IEC 61010-2-032
Insulation	double insulation
Pollution degree	2
Surge voltage category	III (1,000 V, to neutral conductor)
	IV (600 V, to neutral conductor)

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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)

Connection data

Connection name	Measuring transducer side
Conductor cross section stranded min.	0.2 mm²
Conductor cross section stranded max.	2.5 mm²
Conductor cross section solid min.	0.2 mm²
Conductor cross section solid max.	2.5 mm²
Conductor cross section AWG/kcmil min.	24
Conductor cross section AWG/kcmil 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	70.40 mm
Depth	85.00 mm

Ambient conditions

Ambient temperature (operation)	-30 °C ... 80 °C (Measuring coil)
	-20 °C ... 70 °C (Measuring transducer)
Ambient temperature (storage/transport)	-40 °C ... 90 °C (Measuring coil)
	-25 °C ... 85 °C (Measuring transducer)
Maximum altitude	< 2000 m

Classifications

eCl@ss

eCl@ss 5.1	27200303
eCl@ss 6.0	27200303

ETIM

ETIM 4.0	EC002048
ETIM 5.0	EC002048

Accessories

Accessories

Mounting material

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Accessories

Holder - PACT RCP-CLAMP - 2904895



The optional holding device ensures the Rogowski coil is securely seated on busbars with a thickness of 5 ... 15 mm. During installation, the coil housing is pushed onto the flange of the holding device and snaps in automatically.