

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


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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.



Key Commercial Data

Packing unit	1 pc
GTIN	
GTIN	4055626437668

Technical data

Dimensions

Width	22.5 mm
Height	85 mm
Depth	70.4 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
Permissible humidity (operation)	5 % ... 95 % (non-condensing)
Measuring coil degree of protection	IP67 (not assessed by UL)
Measuring transducer degree of protection	IP20

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

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Technical data

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))
	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)
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General data for measuring transducer

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
	IEC 61010-2-032
Insulation	double insulation
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
Connection method	Screw connection
Stripping length	7 mm
Screw thread	M3
Conductor cross section solid	0.2 mm² ... 2.5 mm²
Conductor cross section flexible	0.2 mm² ... 2.5 mm²
Conductor cross section AWG	24 ... 14
Torque	0.5 Nm ... 0.6 Nm

Standards and Regulations

Standards/regulations	IEC 61010-1
	IEC 61010-2-032
Insulation	double insulation
Pollution degree	2
Overvoltage category	III (1000 V, to neutral conductor)
	IV (600 V, to neutral conductor)

Environmental Product Compliance

REACH SVHC	Lead 7439-92-1
China RoHS	Environmentally Friendly Use Period = 50 years
	For details about hazardous substances go to tab "Downloads", Category "Manufacturer's declaration"

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Classifications

eCl@ss

eCl@ss 4.0	27210900
eCl@ss 4.1	27210900
eCl@ss 5.0	27210900
eCl@ss 5.1	27210900
eCl@ss 6.0	27210900
eCl@ss 7.0	27210902
eCl@ss 8.0	27210902
eCl@ss 9.0	27210902

ETIM

ETIM 5.0	EC002048
ETIM 6.0	EC002048
ETIM 7.0	EC002048

Approvals


Approvals

Approvals

EAC

Ex Approvals

Approval details

EAC		RU*DE*08.B.01187/19
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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.

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