PACT RCP-4000A-1A-D190-3M-UV - Current transformer

1033485

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Set consisting of one 1 A measuring transducer and one UV-resistant Rogowski coil with signal line. Length of Rogowski coil: 600 mm, diameter: 190 mm. Length of signal line: 3 m. The Rogowski coil measures the AC current of busbars and power lines.

Commercial data

Item number	1033485
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	C444
Product key	CMMA12
GTIN	4055626538761
Weight per piece (including packing)	530.2 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
Product family	Rogowski coil (UV-resistant)

Insulation characteristics

Insulation	double insulation
Overvoltage category	III (1000 V, to neutral conductor)
	IV (600 V, to neutral conductor)
Pollution degree	2

Electrical properties

Typical measuring error	< 1 %
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

Length of measuring coil	600 mm
Diameter of measuring coil	8.3 mm ±0.2 mm
Length of signal cable	3 m
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 / 1 min.)
Basic accuracy	<± 0.21 %

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
Converter type	UV-resistant Rogowski coil and 1 A measuring transducer

Supply: Measuring transducers

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	< 1 %
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 transformer

Configurable/programmable	Via DIP switches
Rated power	1.25 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
Converter type	UV-resistant 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 * dI/dt
Output voltage (sinusoidal, in no-load operation)	100 mV (V_{OUT} = 2 * π * M * f * I (M = 0.318 µH; example: At 50 Hz; I = 1,000 A))
Accuracy class	< 1

Signal

Designation	Measuring transducer
Current output signal	0 A AC ... 1 A AC
Rated power	1.25 VA
Load	0 Ω ... 1.25 Ω
	32 m (0.75 mm² (AWG 20))

Max. distances for copper cables at $P_{N\ max}$	64 m (1.5 mm² (AWG 16))
	107 m (2.5 mm² (AWG 14))

Connection data

Measuring transducer side

Connection method	Screw connection
Stripping length	7 mm
Screw thread	M3
Conductor cross-section rigid	0.2 mm² ... 2.5 mm²
Conductor cross-section flexible	0.2 mm² ... 2.5 mm²
Conductor cross-section AWG	24 ... 14
Tightening torque	0.5 Nm ... 0.6 Nm

Signaling

Operating voltage display	Green LED

Dimensions

Measuring coil

Length	600 mm
Diameter	8.3 mm ±0.2 mm

Measuring coil when installed

Diameter	190 mm

Signal line

Length	3 m

Material specifications

Housing material	PC
	PA
Coil material	Elastollan

Environmental and real-life conditions

Ambient conditions

Measuring coil degree of protection	IP67 (not assessed by UL)
Measuring transducer degree of protection	IP20
Ambient temperature (operation) (Measuring coil)	-30 °C ... 80 °C (Measuring coil)
Ambient temperature (operation) (Measuring transducer)	-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

UKCA

Certificate	UKCA-compliant

CMIM

Certificate	CMIM-compliant

UL, USA/Canada

Identification	UL 508 Listed
Note	Measuring transducer

Standards and regulations

Standards/regulations	IEC 61010-1
	IEC 61010-2-032

Mounting

Mounting type	DIN rail mounting

Classifications

ECLASS

ECLASS-13.0	27210902

ETIM

ETIM 9.0	EC002048

UNSPSC

UNSPSC 21.0	39121000

Environmental product compliance

EU RoHS

Fulfills EU RoHS substance requirements	Yes
Exemption	6(c), 7(a), 7(c)-I

China RoHS

Environment friendly use period (EFUP)	EFUP-50
	An article-related China RoHS declaration table can be found in the download area for the respective article under "Manufacturer declaration". For all articles with EFUP-E, no China RoHS declaration table issued and required.

EU REACH SVHC

REACH candidate substance (CAS No.)	Diboron trioxide(CAS: 1303-86-2)
	Lead monoxide (lead oxide)(CAS: 1317-36-8)
	Lead(CAS: 7439-92-1)
SCIP	b359369b-2bb2-4f45-9b62-3df4acd5609b

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