

2904921

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Set consisting of a 1 A measuring transducer and a Rogowski coil with signal line. Length of Rogowski coil: 300 mm, diameter: 95 mm. Length of signal line: 3 m. The Rogowski coil measures the AC current of busbars and power lines.



Commercial data

Item number	2904921
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	C444
Product key	CMMA12
GTIN	4046356900966
Weight per piece (including packing)	299.7 g
Weight per piece (excluding packing)	419 g
Customs tariff number	85437090
Country of origin	DE



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Set consists of

PACT RCP-4000A-1A - Measuring transducer

2902990

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This is an individual product; please order the complete set. The measuring transducer processes the mV signal of the upstream Rogowski coil. The measuring transducer has 8 current measuring ranges (100 A \dots 4000 A AC) which can be set; max. output current of 1 A AC.

PACT RCP-D95 - Coil

2904890

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300 mm long Rogowski coil. The measuring coil diameter when installed is 95 mm. The Rogowski coil is used for AC current measurement for busbars and power lines.





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Technical data

Product properties

Product type	Current transformer
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 $^{\circ}\text{C}$ +70 $^{\circ}\text{C}$, both components have the same ambient temperature)
	0.07 %/K (-20 $^{\circ}\text{C}$ +10 $^{\circ}\text{C}$, 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)
Accuracy class	0.2 (IEC 61869-10: A1)

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	Rogowski coil and 1 A measuring transducer

Supply: Measuring transducers

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



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Input data

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Designation	Measuring coil
Frequency measuring range	40 Hz 20000 Hz

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	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 * dl/dt
Output voltage (sinusoidal, in no-load operation)	100 mV (V _{OUT} = 2 * π * M * f * I (M = 0.318 μ H; example: At 50 Hz; I = 1,000 A))

Signal

Designation	Measuring transducer
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 $P_{N \text{ max}}$	16 m (0.75 mm² (AWG 20))
	32 m (1.5 mm² (AWG 16))
	55 m (2.5 mm² (AWG 14))

Connection data



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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 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

Diameter

Length	300 mm
Diameter	8.3 mm ±0.2 mm

Measuring coil when installed

Signal line	
Length	3 m
Width	22.5 mm
Height	85 mm
Depth	70.4 mm

95 mm

Material specifications

Housing material	PC
	PA
Coil material	Elastollan

Environmental and real-life conditions

Ambient conditions

Measuring coil degree of protection	IP54 (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)



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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
III IISA/Canada	
UL, USA/Canada	III 500 Listed
Identification Note	UL 508 Listed
Note	Measuring transducer
EMC data	
Electromagnetic compatibility	Conformance with EMC directive
Noise immunity	EN 61000-6-3
Noise emission	
Standards/regulations	EN 61000-6-4
Standards and regulations	
Electrical isolation	Reinforced insulation in accordance with IEC 61010-1
Standards/regulations	IEC 61010-2-030
- Camera Con C	IEC 61869-10
Mounting	
Mounting type	DIN rail mounting



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Approvals

To download certificates, visit the product detail page: https://www.phoenixcontact.com/us/products/2904921



EAC

Approval ID: RU*DE*08.B.01187/19



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Classifications

ECLASS

	ECLASS-13.0	27210902	
	ECLASS-15.0	27210902	
Εī	ETIM		
	ETIM 9.0	EC002048	
U	NSPSC		
	UNSPSC 21.0	39121000	



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Environmental product compliance

EU RoHS

Fulfills EU RoHS substance requirements	Yes
Exemption	6(c), 7(a), 7(c)-l
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	1621b3ce-130d-440f-a0ed-03afa14f531a

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