



Rogowski Coil Flexible Current Transformers

Description

Siemens Rogowski Coil Flexible Current Transformers (CTs) have been designed for accurate, non-intrusive measurement of AC current, pulsed DC or distorted waveforms. These types of sensors may be used to measure AC current over a wide dynamic range and from 20 Hz to 5 kHz. They are targeted for use with the Siemens MD Series Power Meters.

Features

- Available in three sizes:
 - 16" Coil (40 cm); creates a 4.5" (11.5 cm) window
 - 24" Coil (60 cm); creates a 7.0" (18 cm) window
 - 36" Coil (90 cm); creates a 10.8" (28 cm) window
- Accuracy is <1.2%*
- 131 mVAC/1000A @ 60Hz
109.17 mVAC/1000A @ 50 Hz
- May be used with Siemens BACnet/Modbus Energy Meter

* The Rogowski Coil CT is UL Rated to 100KA AC. The Siemens MD Model Power Meter is rated for 5 to 4000A.

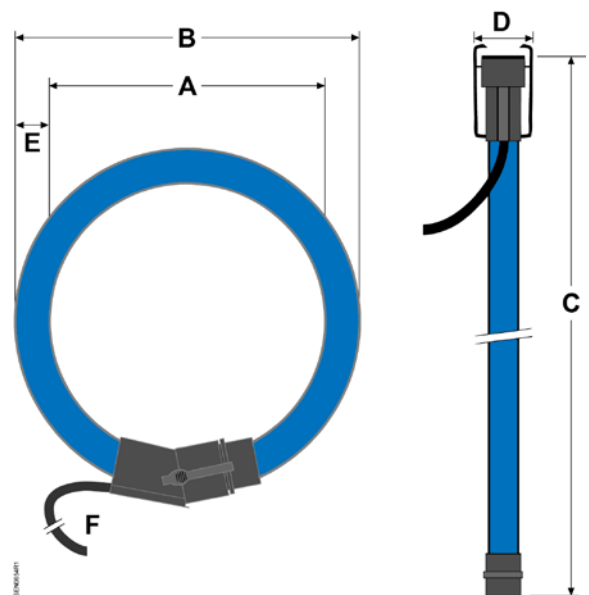


Table 1. CT Dimensions.

Description		Dimensions in Inches (cm)		
		R16	R24	R36
A	Window Size	4.5 (11.5)	7.0 (18.0)	10.8 (27.5)
B	Transformer Coil O.D.	5.5 (13.9)	8.0 (20.3)	11.8 (29.9)
C	Transformer Length	16.0 (40)	23.6 (60.0)	35.4 (90.0)
D	Locking Connector O.D.	0.78 (2.0)		
E	Transformer Coil Diameter	0.47 (1.2)		
F	Wire Lead Total Length	79 (200)		

Specifications

Electrical (All accuracies specified at 20°C [± 2°C]. Rogowski Coil installed using best practices with conductor centered in the CT window and ensure any external conductors are a minimum distance of > 2X the diameter of the RoCoil.)	Output Signal	131 mV/1000A @ 60 Hz 109.17 mV/1000A @ 50 Hz
	Current Range	5 to 4000A AC
	Wire Colors	White = (+) positive Brown = (-) negative Bare wire = shield
	Frequency Range	20 Hz to 5 Hz
	Phasing Orientation	Arrow points towards load
	Phase Shift	< 0.2° at 50/60 Hz
	Linearity	± 0.2%
	Conductor Position Sensitivity	± 2% maximum
	Influence of External Field	± 1.5% maximum
	Temperature Sensitivity	0.07% per °C
	Phase Error	< -0.5°
	Ratio Error	< 0.5%
	Mechanical	Coil Materials
Coupling Materials		PA6 UL 94 V-0 rated
Shielding		100% transducer, 100% shielded output lead
Operating Temperature		-4°F to 158°F (-20°C to 70°C)
Maximum Storage Temperature		176°F (80°C)
Weight		R16 5 oz (136 g) R24 6 oz (181 g) R36 8 oz (227 g)
Safety	Working Voltage	1000 Vrms, maximum
	Dielectric Strength	7400 Vac around coil 1000 Vac rated leads
	Certifications	UL Recognized to UL Standard 61010-1 cUL Recognized to CAN/CSA Standard C22.2 No. 61010-1
	CE Conformity	CE Low Voltage Directive 2006/95/EC

Ordering Information

Part Number	Description
SCT-R16-A4-U	Rogowski Coil Current Transformer, 16" (40 cm); 4.5" (11.5 cm) opening; 4000A
SCT-R24-A4-U	Rogowski Coil Current Transformer, 24" (60 cm); 7.0" (18 cm) opening; 4000A
SCT-R36-A4-U	Rogowski Coil Current Transformer, 36" (90 cm); 10.8 (28 cm) opening; 4000A

Information in this document is based on specifications believed correct at the time of publication. The right is reserved to make changes as design improvements are introduced. Product or company names mentioned herein may be the trademarks of their respective owners. © 2014 Siemens Industry, Inc.