



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" (17.9 cm) window
 - 36" Coil (90 cm); creates a 10.8" (27.5 cm) window
- Window Sizes;
 - 4.5-in. (11.5 cm); 7.0-in. (17.9 cm); 10.8-in. (27.5 cm)
- Multiple signal wire lead length options to match local application requirements
- Current Range is 5-5000A AC ¹
- Accuracy (typical) is <0.6% ²
- Output Signal (di/dt)
 - 131 mVAC/1000A @ 60Hz
 - 109.2 mVAC/1000A @ 50 Hz

¹ Depending on meter compatibility. RōCoil CTs are UL Rated to 100KA AC. Siemens MD meters rated for 5-4000A.

² 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 RōCoil. Accuracy below 20A rated at 1.5% +/- 0.5A when used with Siemens MD series meters. RōCoil have been 100% verified to meet the C57.13-2008 Class 1.2 Standard.

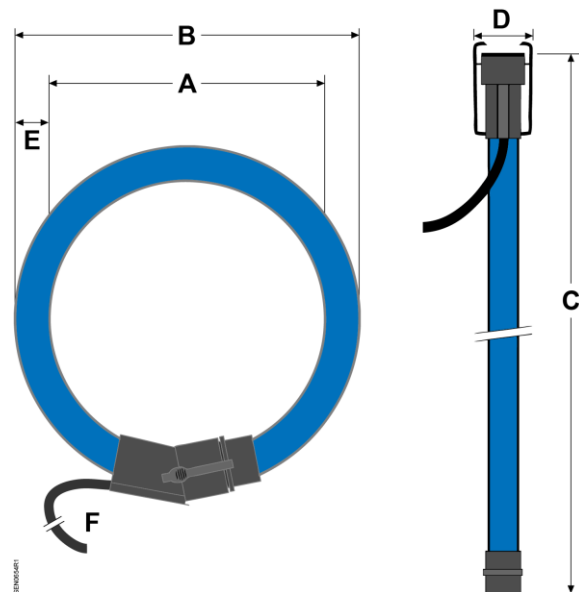


Table 1. CT Dimensions.

Description		Dimensions in Inches (cm)		
		R16	R24	R36
A	Window Size	4.5 (11.5)	7.0 (17.9)	10.8 (27.5)
B	Transformer Coil O.D.	5.5 (13.9)	8.0 (20.3)	11.8 (29.9)
C	Transformer Length	15.8 (40)	23.6 (60.0)	35.4 (90.0)
D	Locking Connector O.D.	0.8 (2.0)		
E	Transformer Coil Diameter	0.5 (1.2)		
F	Wire Lead Total Length	Length A: 118 in. (3 meters) Length B: 276 in. (7 meters) Length C: 590 in. (15 meters)		

Specifications

Electrical All accuracies specified at 20°C (±2°C) with RōCoil™ centered on conductor.	Output Signal	131 mV/1000A @ 60 Hz 109.17 mV/1000A @ 50 Hz
	Useful Current Range	5 to 4000A AC ¹
	Wire Colors	White = (+) positive; Brown = (-) negative Bare wire = shield
	Frequency Range	20 Hz to 5 Hz ¹
	Phasing Orientation	Arrow points towards load
	Phase Shift	< 0.2° at 50/60 Hz
	Linearity	± 0.2%
	Temperature Sensitivity	0.07% per °C
	Phase Error	< -0.5°
	Ratio Error	< 0.6%
Mechanical	Coil Materials	Blue thermoplastic rubber, flame- retardant UL 94 V-0 rated
	Coupling Materials	PA6 UL 94 V-0 rated
	Shielding	100% transducer, 100% output lead
	Operating Temperature	-4°F to 158°F (-20°C to 70°C)
	Maximum Storage Temperature	176°F (80°C)
	Nominal Weight (2-meter wire lead)	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
RoCoils with Wire Lead Length A: 118 inches or 9.8 feet (3 meters) long	
SCT-R16-A4-U	Rogowski Coil Current Transformer, 16" (40 cm); 4.5" (11.5 cm) opening; 3-meter wire
SCT-R24-A4-U	Rogowski Coil Current Transformer, 24" (60 cm); 7.0" (18 cm) opening; 3-meter wire
SCT-R36-A4-U	Rogowski Coil Current Transformer, 36" (90 cm); 10.8 (28 cm) opening; 3-meter wire
RoCoils with Wire Lead Length B: 276 inches or 23 feet (7 meters) long	
SCT-R16-A4-U-7	Rogowski Coil Current Transformer, 16" (40 cm); 4.5" (11.5 cm) opening; 7-meter wire
SCT-R24-A4-U-7	Rogowski Coil Current Transformer, 24" (60 cm); 7.0" (18 cm) opening; 7-meter wire
SCT-R36-A4-U-7	Rogowski Coil Current Transformer, 36" (90 cm); 10.8 (28 cm) opening; 7-meter wire
RoCoils with Wire Lead Length C: 590 inches or 49 feet (15 meters) long; (SPECIAL ORDER; 1-3 Week Leadtime)	
SCT-R16-A4-U-15	Rogowski Coil Current Transformer, 16" (40 cm); 4.5" (11.5 cm) opening; 15-meter wire
SCT-R36-A4-U-15	Rogowski Coil Current Transformer, 36" (90 cm); 10.8 (28 cm) opening; 15-meter wire

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