AcuCT Flex Pro Series

Rogowski Coil CT for Protection Relays
Datasheet

The AcuCT Flex Pro Series Rogowski coil is a low-power passive current sensor specifically designed for protection relay systems and advanced monitoring applications. Compliant with IEC 61869-10, the CT meets protection class 5P and is capable to withstand fault currents up to 50kA. The CT delivers highly linear performance to minimize distortion across a wide dynamic range, enabling accurate current measurement for modern Intelligent Electronic Devices (IEDs). Made with a flexible rope-like form factor, it is a versatile integration choice for switchgear and control systems that require reliable protection.

Features

- IEC 61869-10 compliant, 5P50kA protection accuracy.

- Combines protection and measurement functions in a single sensor.

- Exceptional linearity across a wide current range with minimal deviation.

- Flexible, lightweight and rope-like form factor for effortless installation.

- Factory-calibrated for accuracy.

- RJ45 connectors simplify integration with protection relays.

- Mounting bracket accessory available for bushing applications.

Specifications

MECHANICAL/ENVIRONMENTAL

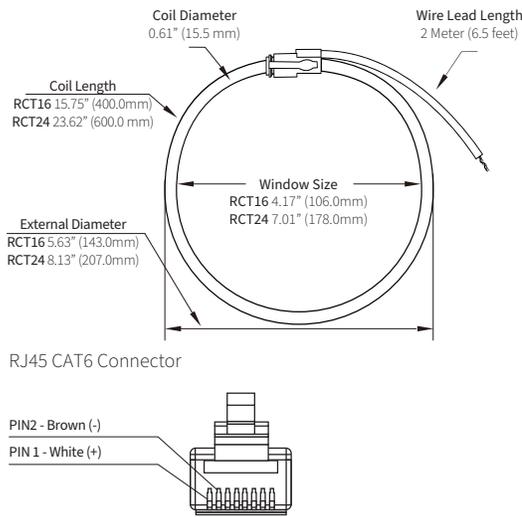|	
Form Factor	Flexible Current Transformer
Window Size	RCT16 - 106.0mm (4.17") RCT24 - 178.0mm (7.01")
External Diameter	RCT16 - 143.0mm (5.63") RCT24 - 207.0mm (8.13")
Coil Length	RCT16 - 400.0mm (15.75") RCT24 - 600.0mm (23.62")
Case Material	Orange Thermoplastic Rubber UL 94V-0 Rated Flame Retardant
Lead Wires	1000V UL Style 20940, 26AWG, 2 Meters long
Connector	RJ45 (CAT-6)
Operating Temperature	-25°C to 70°C / -4°F to 158°F
Temperature Drift	+/- 0.007% per °C
Operating Humidity	Non-Condensing, 0 to 95% RH
Environmental Rating	IP61 (IP68 Extended Environment Rating Option)

ELECTRICAL CHARACTERISTICS

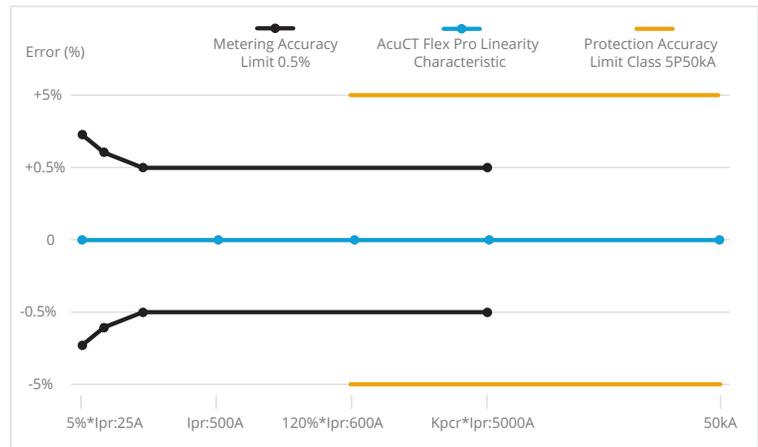|	
Rated Primary Current (Ipr)	500A
Rated Secondary Voltage (Usr)	225mV/270mV
Rated Transformation Ratio	500A/225 mV@50 Hz, 270 mV@60 Hz
Rated Short-Time Thermal Current (Itr)	50kA/3sec
Rated Extended Primary Current Factor (kpcr)	Kpcr=10, Iepr=5kA
Linear Measurement Frequency	9kHz
Rated Burden	2MΩ/50 pF
Rated Frequency	50/60 Hz
Protection Accuracy	5P50kA
Measurement Accuracy	+/- 0.5%

SAFETY/COMPLIANCE

Working Voltage	1000V CAT III, 600V CAT IV
Dielectric Strength	7400VAC @ 50/60Hz for 5 seconds
Certifications	CE, RoHS, cURus (E359521)
Standards	IEC 61869-1, IEC 61869-10

Dimensions

Coil Diameter 0.61" (15.5 mm)

Wire Lead Length 2 Meter (6.5 feet)

Coil Length
RCT16 15.75" (400.0mm)
RCT24 23.62" (600.0 mm)

Window Size
RCT16 4.17" (106.0mm)
RCT24 7.01" (178.0mm)

External Diameter
RCT16 5.63" (143.0mm)
RCT24 8.13" (207.0mm)

RJ45 CAT6 Connector

PIN2 - Brown (-)
PIN 1 - White (+)

Error Curve

Error (%)

- Metering Accuracy Limit 0.5%
- AcuCT Flex Pro Linearity Characteristic
- Protection Accuracy Limit Class 5P50kA

+5%
+0.5%
0
-0.5%
-5%

5%*Ipr:25A | Ipr:500A | 120%*Ipr:600A | Kpcr*Ipr:5000A | 50kA

Accessories/Options

Rogowski Coil Mounting Bracket

Engineered for bushing applications, the mounting bracket works seamlessly with the AcuCT Flex Pro Series, making sure the Rogowski coil can be centred securely around the conductor, offering optimized accuracy and robust protection. The mounting bracket is available in different sizes and simplifies installation and integration with protection relay systems.

IP68 Rated

IP68 Environmental Protection for Outdoor Use

The IP68 Rated option protects the CT's electrical components from dust, dirt, and solid ingress and provides total water protection with the AcuCT Flex Pro Series' waterproof enclosure, enabling robust performance under challenging environmental conditions.

Extended Temperature Rating

The extended temperature rating allows the AcuCT Flex Pro Series to operate reliably under extreme temperature environments, from -45°C to 125°C (-49°F to 257°F), without compromising the measurement precision.

Ordering Information

		Model	-	Rated Primary Current	-	Max Primary Current	-	Lead Length	-	Options
		RCT16		500P: 500		50KA		Blank -Standard 2 Meters (6.5ft)		Blank - For other Applications
								5m - 5 Meters (16.4ft)		ET (Extended Temp.)
		RCT24								IP68
Ordering Example		RCT16	-	500P	-	50KA	-			
		RCT24	-	500P	-	50KA	-	5M	-	ET-IP68

Mounting Bracket Option

		Model	-	Accessory
		RCT16		MB
		RCT24		
Ordering Example		RCT16	-	MB
		RCT24	-	MB

CE RoHS COMPLIANT c UL US

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Specs Subject To Change Without Notice.