

PRECISION FLEXIBLE CURRENT TRANSFORMER (Rogowski Coil)

DESCRIPTION:

The RC-600 is a flexible, air-core current sensor which operates on the Rogowski Coil principle. The RC-600 is designed and approved to be installed on insulated and/or bare conductors (bus bars).

The unique shielding system and precision windings minimize the positioning error and practically eliminate the influence of external magnetic fields.

The RC-600 can be used directly with the WattsOn-Mark II Precision Energy Meters without an integrator or additional power supply. This offers accurate measurements in large power systems where conventional iron-core CTs may be hard to install.

Each RC-600 coil has a unique serial number and is factory calibrated. Three identical coils are shipped with one meter for best accuracy.



The flexible RC-600 may be wrapped around the primary conductor multiple times.

This non-conventional installation allows for smaller space (tighter fit) around the conductor, better accuracy and higher output level.

Specifications	
Coil length	600 mm (23.6"); allows for a 7.5" diameter wire window
Coil diameter	8.3 mm (0.32")
Output	100mV/1000A (50Hz) 120mV/1000A (60Hz)
Output Waveform	AC voltage proportional to derivative of input current. Requires integrator for measurement of AC current. (built into WattsOn-Mark II)
Outer Sheath	Thermoplastic polyurethane UL94-V0
Leads	Shielded pair AWG22, 3 m (9ft 8") AWM style 21223, 1000V, 80°C
Insulation Class	1000V; 50-60 Hz, Cat III 600V, 50-60Hz, CAT IV
Test voltage	7400 Vrms for 1 min
Max. current	100,000A @50Hz
Certifications	UL Recognized (Canada/US) #E231725

Accuracy	
Ratio Error	< 0.5% of reading
Phase Shift Error	< 0.3%
Linearity	0.1%
Positioning Error	With a 15 mm wire: One loop: < 1% of reading Two loops: < 0.3% of reading
Note:	Accuracy stated from 50A to 50 kA 60 Hz input (output 120 mV/1kA)



Model	Maximum Rated Current (60Hz)	Output @1000A (60Hz, one loop)	Wire Window (round)	Coil Length/ Outside Dia.	Leads Color (X1 / X2)
RC-600	80 kA	120 mV	7.5" (190 mm)	23.6" (600mm) 0.32" (8.3 mm)	Blue / White

Current Sensors are limited power / voltage devices (fractional VA / less than 8Vac).