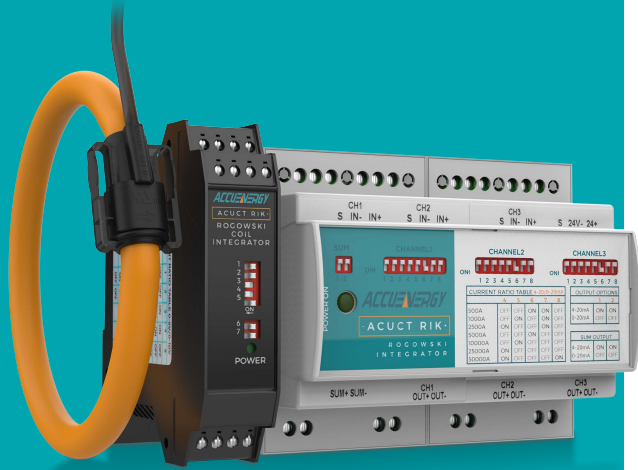


RIK mA

4-20mA / 0-20mA Rogowski Integrator

Datasheet



Rogowski Coil and Power supply sold separately

The RIK mA provides integrated automation systems and process control systems the option to use Rogowski coils to supply a 4-20mA or 0-20mA nominal output. Ideal for measuring in crowded panels or around large busbars, the Rogowski Integrator accommodates loads up to 60,000A AC and includes high-performance Rogowski sensors in one of four standard lengths.

Features

- Available in either a three-phase or single-phase & compatible with both 50/60Hz systems
- Seven field-configurable CT ratios: 500A, 1kA, 2.5kA, 5kA, 10kA, 25kA, 50kA
- The rope-style current transformer flexes to fit into tight electrical panels
- The 4-20mA or 0-20mA rated output is compatible with any device with a mA nominal current transformer input
- 2.5A to 50,000A current sensing range accommodates nearly any application
- CT ratios can be configured independently for each channel

ACCUENERGY

Specifications

RATED CURRENT	
Current Range	2.5A - 60000A
Sensing Range	500A, 1000A, 2500A, 5000A, 10000A, 25000A, 50000A User Selectable
Integrator Output	4-20mAdc or 0-20mAdc (field selectable)
Integrator Accuracy	±1% Full Scale Error

MECHANICAL/ENVIRONMENTAL

Integrator Kit Size	Single Phase: 62.7mm x 99.7mm x 114.6mm 2.46" x 3.93" x 4.52"
	Three Phase: 146.3mm x 90.5mm x 100.0mm 5.76" x 3.56" x 3.94"
Input/Output Wire Connection	14 - 30 AWG
Operating Temperature	55°C (131°F) Maximum
Operating Humidity	Non-condensing, 0 to 95% RH
Integrator Enclosure Material	ABS, UL 94V-0
Mounting	DIN TS-35/7.5 or 15 (DIN 43880) or Panel

ELECTRICAL

Measurement Channels	1 (single-phase) or 3 (three-phase)
Channel Cross Talk	<-60dB
Frequency Range	45Hz to 65Hz
Response Time	<10ms
Burden	1.8VA/channel
Maximum Output Impedance	50mΩ
Power Supply	100-240Vac
Supply Voltage	24Vdc ±5%
Supply Current	40mAdc @ 24Vdc

SAFETY/COMPLIANCE

Certifications	CE, RoHS, UL Listed (E359521)
----------------	-------------------------------

ROGOWSKI COIL (Sold Separately):

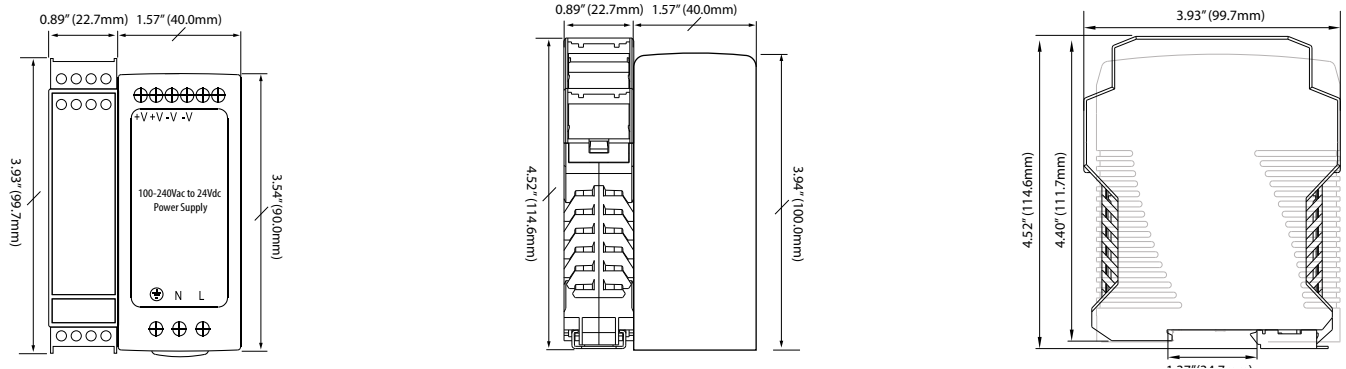
Window Size	RCT16-1000 - 106.0mm (4.17")
	RCT24-1000 - 178.0mm (7.01")
	RCT36-1000 - 271.0mm (10.67")
	RCT47-1000 - 369.0mm (14.53")
Length of Coil	RCT16-1000 - 400.0mm (15.75")
	RCT24-1000 - 600.0mm (23.62")
	RCT36-1000 - 900.0mm (35.43")
	RCT47-1000 - 1200.0mm (47.24")
Coil Material	Orange thermoplastic rubber UL 94V-0 rated flame retardant
Lead Wires	1000V UL Style 20940, 26AWG
Wire Polarity	White=Positive, Brown=Negative, Bare=Shield
Phase Orientation	Arrow Points Towards Load

Integrator's Current Range Settings

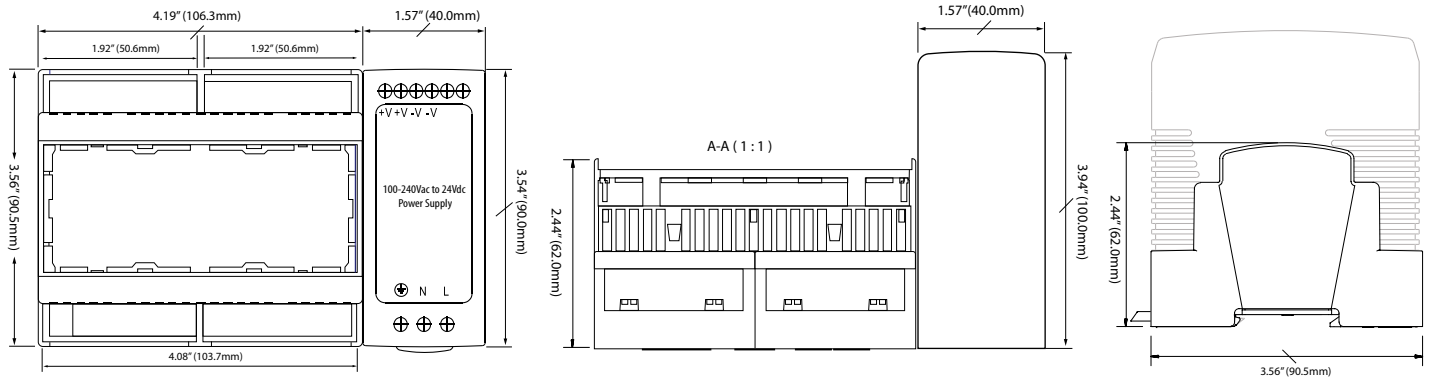
PRIMARY INPUT (A _{RMS})	SENSING RANGE (A)	OUTPUT
500	2.5 to 600	4-20mA or 0-20mA @500A
1000	5 to 1200	4-20mA or 0-20mA @1000A
2500	12.5 to 3000	4-20mA or 0-20mA @2500A
5000	25 to 6000	4-20mA or 0-20mA @5000A
10000	50 to 12000	4-20mA or 0-20mA @10000A
25000	125 to 30000	4-20mA or 0-20mA @25000A
50000	250 to 60000	4-20mA or 0-20mA @50000A

Dimensions

Single Phase Rogowski Integrator



3 Phase Rogowski Integrator



* Power supply sold separately

Ordering Information

Integrator	Model	Integrator Output	Channels
Ordering Example	RIK	mA	3
	RIK	mA	1
			3
Power Supply Unit	Model		
Ordering Example	AcuLink-RIK-PSU		
	AcuLink-RIK-PSU: 24Vdc Output		



Accuenergy (Canada) Inc.
 Los Angeles - Toronto - Beijing - Pretoria
 North America Toll Free: 1-877-721-8908
 Web: www.accuenergy.com
 Email: marketing@accuenergy.com

Revision Date: June 2023 Version: 1.0.1
 Specs Subject To Change Without Notice.

ATR-120MV Series

ATR-120MV

The ATR-120MV is Aim Dynamics' Thin Rogowski coil series. It outputs 120 mV per kA at 60 Hz, and 100 mV per kA at 50 Hz, yet is significantly thinner than similar Rogowski coils out there. The diameter of the coil is a mere 8 mm, making it much easier than other Rogowski coils to thread through crowded areas in a panel.

The coil cannot be damaged by large overloads, and can measure up to 100 kA! The coil is completely shielded and has temperature compensation built-in, making it more accurate than competing coils. In addition, the coil is IP67 rated, such that it can be immersed in liquid without damaging the coil. Each unit is calibrated and test reports are available upon request. UL Listed ATR-120MV units are available, upon request.



SPECIFICATIONS

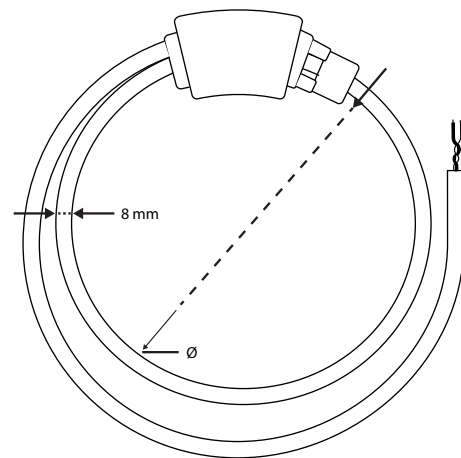
Max Current	500 mA – 100 kA
Input Type	AC
Output @ 60 Hz	120 mV per kA
Output @ 50 Hz	100 mV per kA
Accuracy	0.5 Class per IEC 61869-2
Linearity	0.2%
Positioning Error	Better than 1% of reading
Coil Resistance	Between 70 and 900 Ω
Protection Degree	IP67
Working Voltage	1000 V CAT III 600V CAT IV Pollution Degree 2
Withstand Voltage	7400 Vrms / 1 min
Operating Temperature	-30 °C to 80 °C
Safety	UL 61010-1, UL 61010-031, UL 61010-2-031, UL 61010-032
Material	Thermoplastic UL94-V0
Coil Thickness	8.3 mm \pm 0.2 mm
Lead Type	3 meters of shielded 5 mm cable
Operating Frequency	40 to 14 kHz (3dB)
Mechanical Clasp Strength	77 N
Origin	Made in Italy

APPLICATIONS

- Power monitoring & control systems
- DC ripple measurement
- Harmonics and transients monitoring
- Wide range current monitoring
- Measuring devices, lab instrumentation
- Underground/wet applications



PRODUCT DIMENSIONS



MODEL BUILDER (COIL ONLY)

ATR-120MV

–

XX

Diameter

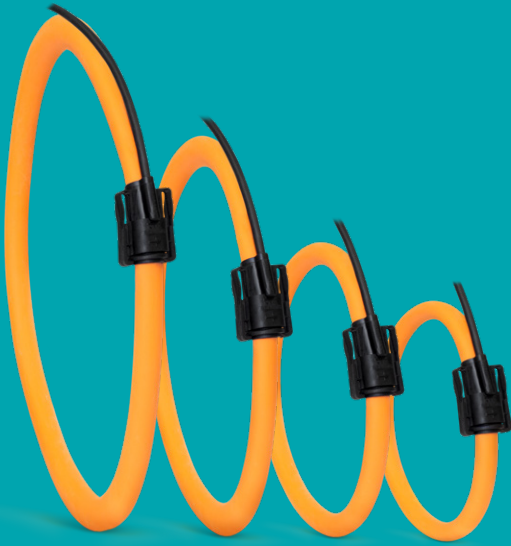
XX: 04 = 4"

07 = 7"

11 = 11"

AcuCT Flex Series

Rogowski Coil CT Datasheet



Accuenergy's AcuCT Flex Series Rogowski coil current transformers are engineered for high-accuracy measurements of AC current. Ideal for precision power metering, PQ analysis, or general energy monitoring applications, the versatile AcuCT Flex is essential when space is limited and rigid-body current transformers won't fit. The rope-like form factor can easily wrap around irregularly shaped conductors in crowded panels or switchgear.

Features

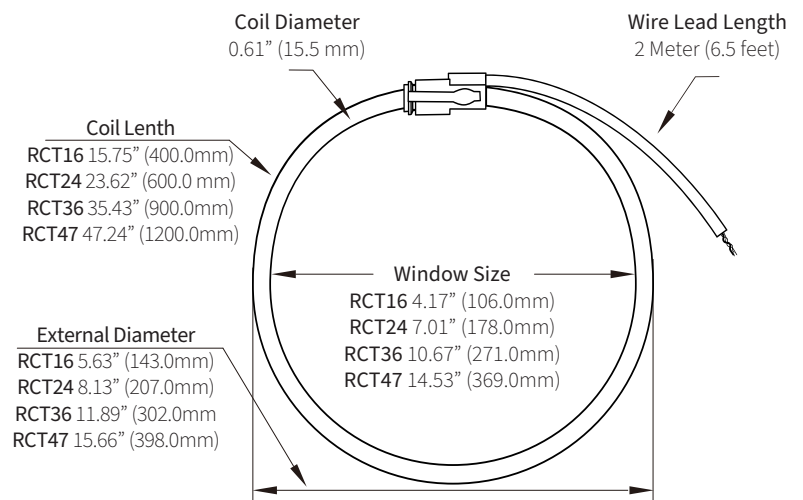
- High accuracy measurements for rigorous applications
- Broad frequency range is well-suited for measuring harmonics & power quality
- Current input range: 5A – 50,000A AC
- Available in four, standard lengths: 16", 24", 36" or 47"
- Does not require an external power supply or integrator when used with Accuenergy meters
- Fully customize output ratio, input ratio, and length to adapt to any project

ACCUENERGY

Specifications

RATED CURRENT	
Current Range	5A-50,000A
Accuracy	0.5% - IEEE C57.13 class 0.6
MECHANICAL/ENVIRONMENTAL	
Form Factor	Flexible Rope Like CT
Window Size	RCT16 - 106.0mm (4.17") RCT24 - 178.0mm (7.01") RCT36 - 271.0mm (10.67") RCT47 - 369.0mm (14.53")
External Diameter	RCT16 - 143.0mm (5.63") RCT24 - 207.0mm (8.13") RCT36 - 302.0mm (11.89") RCT47 - 398.0mm (15.66")
Length of Coil	RCT16 - 400.0mm (15.75") RCT24 - 600.0mm (23.62") RCT36 - 900.0mm (35.43") RCT47 - 1200.0mm (47.24")
Case Material	Orange thermoplastic rubber UL 94V-0 rated flame retardant
Lead Wires	1000V UL Style 20940, 26AWG
Operating Temperature	-20°C to 70°C / -4°F to 158°F
Temperature Drift	+/- 0.07% per °C
Operating Humidity	Non-condensing, 0 to 95% RH
Installation Conditions	IP61
ELECTRICAL	
Wire Polarity	White=Positive, Brown=Negative, Bare=Shield
Phase Orientation	Arrow Points Towards Load
Frequency Range	45Hz - 65Hz
Frequency Response	10Hz - 20KHz
SAFETY/COMPLIANCE	
Working Voltage	1000V CAT III, 600V CAT IV
Dielectric Strength	7400Vac @ 50/60Hz for 1 minute
Certifications	CE, RoHS, cURus (E359521)

Dimensions



mV/kA Output Standard & Custom Output

Multiple output ratio options are available such as 100mV/1000A, 40mV/1000A, 25mV/1000A, 10mV/1000A.

Model ¹	Output /1000A @60Hz	Output /1000A @50Hz	Calibrated Range with "RCT" input devices ²
RCTxx-200	600mV	500mV	1A-240A
RCTxx-500	240mV	200mV	2.5A-600A
RCTxx-1000	120mV	100mV	5A-1200A
RCTxx-2500	48mV	40mV	12.5A-3000A
RCTxx-5000	24mV	20mV	25A-6000A
RCTxx-10000	12mV	10mV	50A-12000A
RCTxx-50000	2.4mV	2mV	250A-60000A
RCTxx-Custom	Output any ratio of signal per your requirement. Contact Us at 1-877-721-8908 or email marketing@accuenergy.com		

¹"xx" denotes length of current transformer coil.

²When used with Accuenergy meters. Performance and range may vary when used with non-Accuenergy power meters or devices.

Accessories

BNC Connector

For a fast, secure, and reliable connection to devices, the AcuCT Flex Rogowski Coils comes with a BNC Connector option. It's ring-lock mechanism firmly secures the lead wire in place for peace of mind installation.

Part Number Example: **RCT36-5000-BNC**

Extended Temperature Rating

The Extended Temperature Rating is designed for the AcuCT Flex Series to perform continuously under extreme temperature environments ranging from -45C to 125C (-49 to 257F) without sacrificing high precision.

Part Number Example: **RCT24-2500-ET**

IP68 Environmental Protection

When environmental conditions are challenging, the AcuCT Flex IP68 Rated option confidently protects its electrical components from dust, dirt, and solid ingress and provides total water protection with its waterproof enclosure.

Part Number Example: **RCT16-1000-IP68**



Accuenergy (Canada) Inc.
Los Angeles - Toronto - Beijing - Pretoria
North America Toll Free: 1-877-721-8908
Web: www.accuenergy.com
Email: marketing@accuenergy.com

Revision Date: Sep 2022 Version: 1.0.0
Specs Subject To Change Without Notice.

Ordering Information

	Model	Current Range	Lead Length
Ordering Number	-	:	
Ordering Example	RCT24	- 5000	: 25m
	RCT16	1000: 5A-1200A	Blank - 2 Meters/6.5ft
	RCT24	2500: 12.A-3000A	5m - 5 Meters/16.4ft
	RCT36	5000: 25A-6000A	10m - Meters/32.8ft
	RCT47	10000: 50A-12000A	25m - 25 Meters/82ft
		50000: 250A-50000A	50m - 50 Meters/164ft