Solid Core AC Current Transformers

The AcuAMP line of Solid Core Instrumentation Grade Electrical Current Transformers is available in Commercial Class. These Commercial Class transformers are lower cost and well-suited for current monitoring applications. Two different window openings and two mounting styles along with numerous secondary ratios are available to meet most applications.

Features

- Low cost
- Core secured with epoxy resin
- Hand-tuned accuracy

Applications

- Ammeters
- Energy measurement
- Watt/VAR/Watt-hour measurement (for use with Socomec Diris and Trumeter panel meters)
- Current sensing relays

CTF-5 Series

CTF-5RL-xxxx

CTF-5SFT-xxxx

CTF-7 Series

CTF-7RL-xxxx

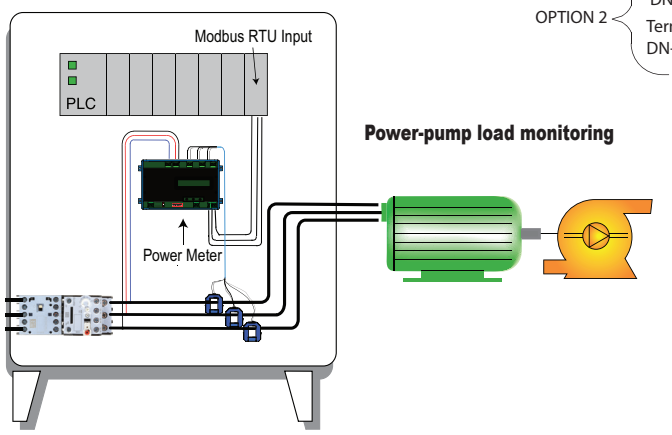
CTF-7SFT-xxxx

5A Secondary Current Transformers

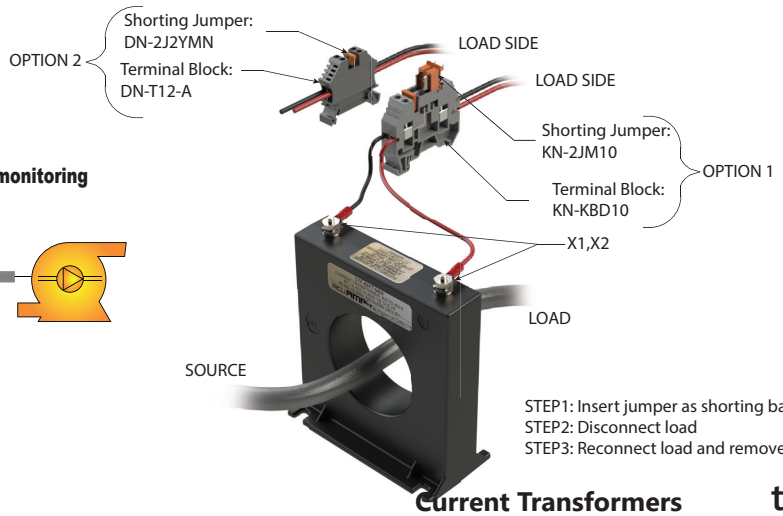
Part Number	Price	Ratio	Weight	Output	Solid Core Case Style	Sensing Window
CTF-5RL-0050	$26.00	50:5	1.00 lb (0.45 kg)	5A Secondary	RL	1.56 in (39.6 mm)
CTF-5RL-0100	$26.00	100:5				
CTF-5RL-0150	$26.00	150:5				
CTF-5RL-0200	$26.00	200:5				
CTF-5RL-0400	$26.00	400:5				
CTF-5SFT-0050	$27.50	50:5	1.10 lb (0.50 kg)		SFT	1.56 in (39.6 mm)
CTF-5SFT-0100	$27.50	100:5				
CTF-5SFT-0150	$27.50	150:5				
CTF-5SFT-0200	$27.50	200:5				
CTF-5SFT-0400	$27.50	400:5				
CTF-7RL-0400	$48.50	400:5	1.55 lb (0.70 kg)		RL	2.50 in (63.5 mm)
CTF-7RL-0600	$48.50	600:5				
CTF-7RL-0800	$60.00	800:5				
CTF-7RL-1000	$60.00	1000:5				
CTF-7SFT-0400	$50.00	400:5	1.75 lb (0.80 kg)		SFT	2.50 in (63.5 mm)
CTF-7SFT-0600	$50.00	600:5				
CTF-7SFT-0800	$60.00	800:5				
CTF-7SFT-1000	$66.00	1000:5				

Connecting A Current Transformer

A current transformer (CT) should never be energized (AC current through the sensing window) without a load connected to the secondary output terminals (X1, X2). Best practice is to terminate the current transformer secondary on a terminal block with the ability to short between two points before extending the leads to the load. If it is ever necessary to remove the load from the CT while it is or could become energized, a shorting bar can be placed between the secondary leads, as shown in the illustration below. This will allow the leads to be removed safely.



Power-pump load monitoring



Solid Core AC Current Transformers

Specifications (CTF-5RL-xxxx and CTF-5SFT-xxxx)					
Models	***CTF-5RL-0050 CTF-5SFT-0050***	***CTF-5RL-0100 CTF-5SFT-0100***	***CTF-5RL-0150 CTF-5SFT-0150***	***CTF-5RL-0200 CTF-5SFT-0200***	***CTF-5RL-0400 CTF-5SFT-0400***
Power supply	Self-powered				
Current range (A)	50	100	150	200	400
Output signal	0 to 5A (AC)				
Frequency range	50-400 Hz (UL tested at 60Hz only)*				
Primary circuit voltage	600VAC				
Temperature range	-20° to +75°C [-4° to +167°F]				
Secondary terminal wire range	22-14 AWG				
Secondary connections	**RL:** 16 AWG conductors, 24in (61cm) long **SFT:** M4x0.70 threaded terminal stud, use #8 (M4) ring terminal – Terminal torque 10 lb·in [1.13 N·m]				
Current ratio	50:5	100:5	150:5	200:5	400:5
Accuracy @ 60Hz	±2%		±1%		
Burden VA @ 60Hz	1.0	2.0	5.0	5.0	12.5
Continuous thermal rating factor (RF) @ 30°C	1.0				
Core type	Fixed/Solid Core				
Mounting	RL: pass-through conductor mounting; SFT: panel mounting				
Approvals	UL recognized file E488023. Meets IEEE C57.13 and IEEE C57.13.2, CE Certified				

Specifications (CTF-7RL-xxxx and CTF-7SFT-xxxx)				
Models	***CTF-7RL-0400 CTF-7SFT-0400***	***CTF-7RL-0600 CTF-7SFT-0600***	***CTF-7RL-0800 CTF-7SFT-0800***	***CTF-7RL-1000 CTF-7SFT-1000***
Power supply	Self-powered			
Current range (A)	400	600	800	1000
Output signal	0 to 5A (AC)			
Frequency range	50-400 Hz (UL tested at 60Hz only)*			
Primary circuit voltage	600VAC			
Temperature range	-20° to +75°C [-4° to +167°F]			
Secondary terminal wire range	22-14 AWG			
Secondary connections	**RL:** 16 AWG conductors, 24in (61cm) long **SFT:** M4x0.70 threaded terminal stud, use #8 (M4) ring terminal – Terminal torque 10 lb·in [1.13 N·m]			
Current ratio	400:5	600:5	800:5	1000:5
Accuracy @ 60Hz	±1%			
Burden VA @ 60Hz	15	30	35	30
Continuous thermal rating factor (RF) @ 30°C	1.0			
Core type	Fixed/Solid Core			
Mounting	RL: pass-through conductor mounting; SFT: panel mounting			
Approvals	UL recognized file E488023. Meets IEEE C57.13 and IEEE C57.13.2, CE Certified			

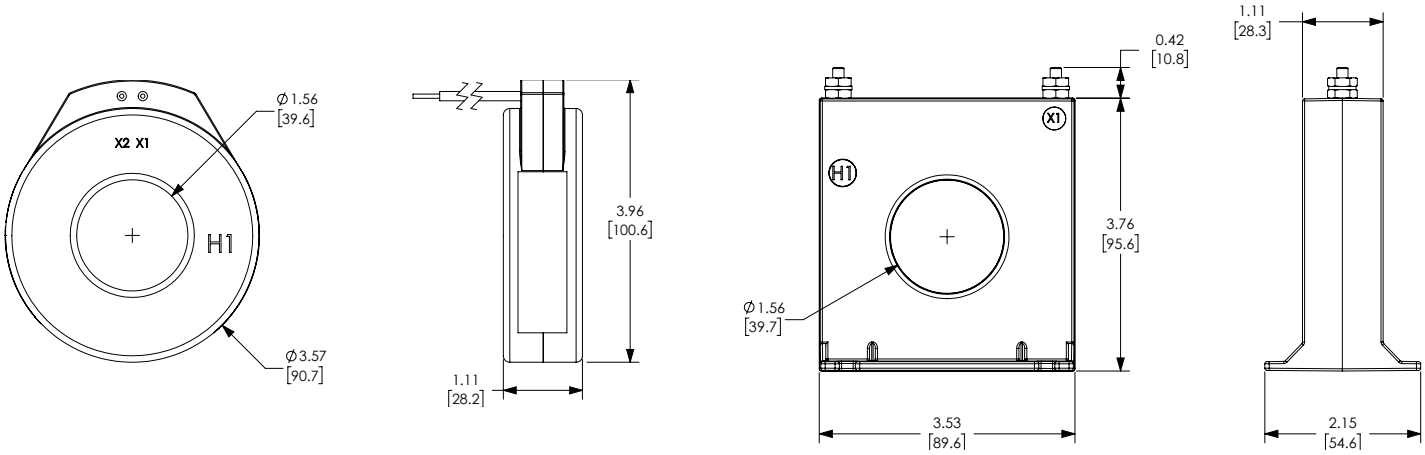
***Not for use with variable frequency drives.**
Note: RF = the maximum current at which a CT can operate continuously without exceeding the thermal limits of its insulation.
To obtain the most current agency approval information, see the Agency Approval Checklist section on the specific part number's web page.

Solid Core AC Current Transformers

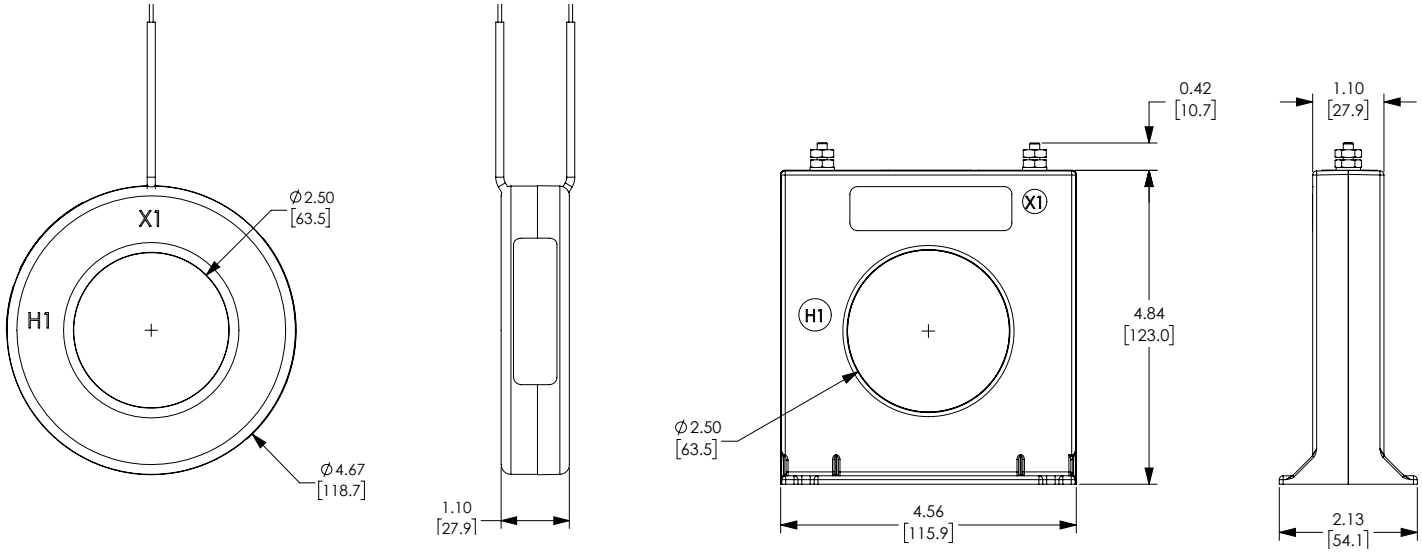
Dimensions

Inches [mm]

CTF-5 Series



CTF-7 Series



See our website: www.AutomationDirect.com for complete engineering drawings

Split Core AC Current Transformers

AcuAmp® 5A secondary current transformers offer a compact, cost-effective means of measuring primary current. These current transformers provide an easy-to-install method to measure AC current, producing a 0–5 A output proportional to the current flowing through the sensing window. Both the SA and the SB series offer larger than average sensing windows and a split-core design for easy installation.

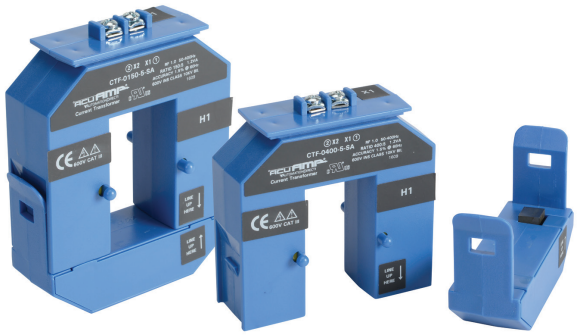
Features

- Split-core case for convenient installation over large wires or bus bars without disconnecting.
- Compatible with standard power monitors and panel meters designed for 5A input.
- Larger sensing windows:
  SA Series aperture measures 2.22" x 1.19" and measures current from 0–150 to 0–600 A.
  SB Series aperture measures 3.49" x 2.36" and measures current from 0–800 to 0–1000 A.
- Secondary terminals are zinc-plated for added reliability.
- UL recognized file E488023.
  Meets ANSI/IEEE C57.13 and IEEE C57.13.2

Applications

- Serves as current input for use with ACT and ACTR series transducers.
- Saves space in control panels by remotely locating the sensing of the current closer to the load.
- For ammeters, wattmeters, panel meters, instrumentation, and energy management systems.

SA Series



SB Series

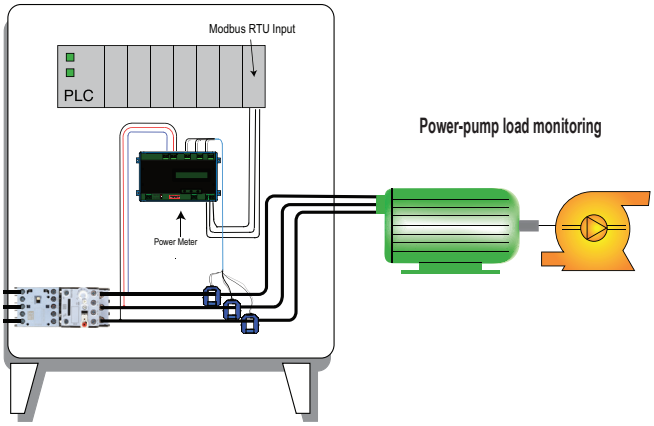
5 YEAR WARRANTY

5A Secondary Current Transformers

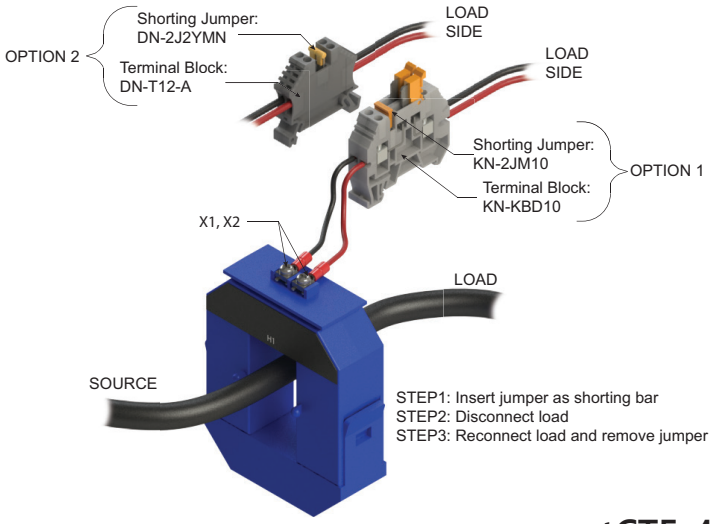
Part Number	Price	Ratio	Wt. (lb [kg])	Output	Split-Core Case Style
CTF-0150-5-SA	$94.00	150:5	0.75 [0.34]	5A secondary	Medium sensing window
CTF-0200-5-SA	$94.00	200:5	0.75 [0.34]		
CTF-0400-5-SA	$133.00	400:5	0.75 [0.34]		
CTF-0600-5-SA	$133.00	600:5	0.75 [0.34]		
CTF-0800-5-SB	$179.00	800:5	2.0 [0.91]		Large sensing window
CTF-1000-5-SB	$179.00	1000:5	2.2 [1.0]		

Connecting A Current Transformer

A current transformer (CT) should never be energized (AC current through the sensing window) without a load connected to the secondary output terminals (X1, X2). Best practice is to terminate the current transformer secondary on a terminal block with the ability to short between two points before extending the leads to the load. If it is ever necessary to remove the load from the CT while it is or could become energized, a shorting bar can be placed between the secondary leads, as shown in the illustration below. This will allow the leads to be removed safely.



Power-pump load monitoring



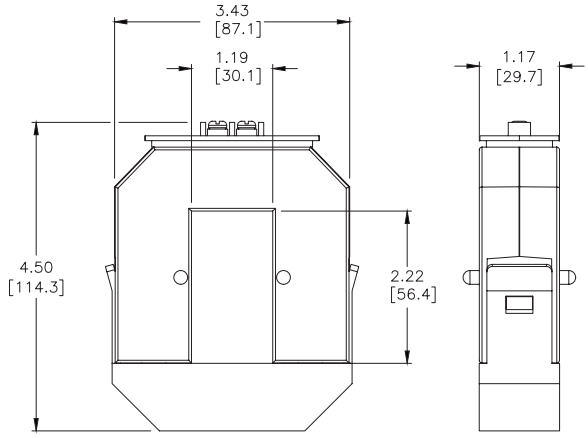
Split Core AC Current Transformers

Specifications						
Models	***CTF-0150-5-SA***	***CTF-0200-5-SA***	***CTF-0400-5-SA***	***CTF-0600-5-SA***	***CTF-0800-5-SB***	***CTF-1000-5-SB***
Power supply	Self-powered					
Current range (A)	150	200	400	600	800	1000
Output signal	0 to 5A (AC)					
Frequency range	50-400 Hz (UL tested at 60Hz only)*					
Primary circuit voltage	600VAC					
Temperature range	-20° to +50°C [-4° to +122°F]					
Secondary terminal wire range	22 - 14 AWG 75°/90°C					
Secondary terminal	#6 fork terminals or strip insulation 3/8 in					
Secondary terminal torque	3.5 lb·in [0.4 N·m]					
Current ratio	150:5	200:5	400:5	600:5	800:5	1000:5
Accuracy @ 60Hz	±1.5%	±1%				
Burden VA @ 60Hz	1.2			7.5	10.0	
Continuous thermal rating factor (RF) @ 30°C	1.0					
Core type	Rectangular split-core case					
Approvals	UL recognized file E488023. Meets ANSI/IEEE C57.13 and IEEE C57.13.2, CE Certified					

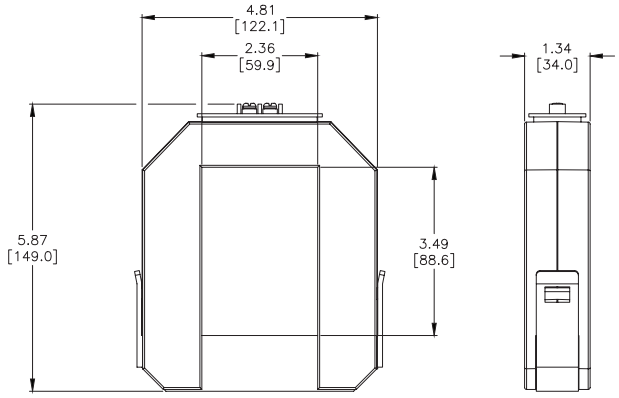
Note: RF = the maximum current at which a CT can operate continuously without exceeding the thermal limits of its insulation
To obtain the most current agency approval information, see the Agency Approval Checklist section on the specific part number's web page.
***Not for use with variable frequency drives.**

Dimensions (in [mm])

SA Series



SB Series



See our website: www.AutomationDirect.com for complete engineering drawings