



# THE DATASHEET OF CR7ARL-251



# Commercial & Metering Class Current Transformers

## Current Transformers

## F



RL



SFT



SFL



SHT



SHL



RT



RBT



RBL

The CR Magnetics line of Instrumentation Grade Electrical Current Transformers are available in either Commercial or ANSI Metering Class. The Commercial Class transformers are lower cost and well-suited for current monitoring applications. The ANSI Metering Class transformers are higher-cost units intended for power monitoring applications where high accuracy and minimum phase angle error are required. Twelve different window openings and eight different mounting styles along with numerous secondary ratios are available to meet most applications. This short form catalog shows an overview of our most popular 5 amp secondary transformers. Contact factory for different sizes or unique electrical requirements.

### Applications

Ammeters  
Energy Measurement  
Watt/VAR/Watthour Measurement  
Current Sensing Relays

### Features

Low Cost  
Core Secured via Epoxy Resin  
Hand Tuned Accuracy  
Common Ratios in Stock

### Regulatory Agencies



### BASIC SPECIFICATIONS

Basic Accuracy	10% FS or Better (ANSI)
Thermal Drift	100 PPM/°C
Operating Temperature	-20° C to +75° C
Installation Category	CAT II
Pollution Degree	2
Insulation Voltage	3500 Vac/1min
Frequency Range	50Hz - 400Hz
Torque Spec on Studs	10 in/lb.

### CUSTOM OPTIONS

Ultra-Low Frequency to 20 Hz

1.0, 0.2, and 0.1 Amp Secondary Ratios

# Commercial & ANSI Metering Class Current Transformers

## DIMENSIONS

Current Transformers

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# Commercial Class Current Transformers

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PART NUMBERS			DIMENSIONS							ACCURACY SPECIFICATIONS						
SERIES	STYLE	RATIO SUFFIX	A	B	C	D	E	F	G	CURRENT RATIO	ACCURACY AT 60HZ	BURDEN VA AT 60 HZ				
CR2	RL	500	1.13 (28.7)	2.46 (62.5)	1.05 (26.7)					50:5	± 3%	2.0				
		600								60:5	± 2%	2.0				
		750								75:5	± 2%	2.0				
	SFT	800		2.68 (68.1)	2.00 (50.8)					1.75 (44.5)	1.75 (44.5)	.27 (6.9)	.31 (7.9)	80:5	± 2%	2.0
		101		2.68 (68.1)	2.00 (50.8)					1.75 (44.5)	1.75 (44.5)	.27 (6.9)	.31 (7.9)	100:5	± 1%	2.0
		121												120:5	± 1%	2.5
	1250	125:5												± 1%	2.5	
	SHT	151		2.71 (68.8)	0.95 (24.1)									150:5	± 1%	4.0
		201		2.71 (68.8)	0.95 (24.1)									200:5	± 1%	4.0
	SHL	251														250:5
301		300:5	± 1%	8.0												
CR5	RL	500	1.56 (39.6)	3.56 (90.4)	1.10 (27.9)					50:5	± 2%	1.0				
		750		3.78 (96.0)	2.2 (54.6)					2.75 (69.9)	1.77 (45.0)	.21 (5.3)	.31 (7.9)	75:5	± 2%	1.5
	SFT	101												3.78 (96.0)	2.15 (54.6)	2.75 (69.9)
		151		150:5	± 1%					5.0						
	SFL	201		3.83 (97.3)	1.09 (27.7)									200:5	± 1%	5.0
		251												250:5	± 1%	10.0
	SHT	301		3.83 (97.3)	1.09 (27.7)									300:5	± 1%	12.5
		401												400:5	± 1%	12.5
	SHL	501		3.62 (91.9)	1.13 (28.7)									500:5	± 1%	20.0
		601												600:5	± 1%	25.0
	RT	751		3.90 (99.1)	1.25 (31.8)					3.88 (98.6)	4.50 (114.3)	.44 (11.2)	.27 (6.9)	750:5	± 1%	25.0
		RBT*												801	800:5	± 1%
	RBL*	102		3.70 (94.0)	1.25 (31.8)					3.88 (98.6)	4.50 (114.3)	.44 (11.2)	.27 (6.9)	1000:5	± 1%	25.0
122		1200:5	± 1%			30.0										
CR7	RL	101	2.50 (63.5)	4.70 (119.4)	1.10 (27.4)					100:5	± 2%	2.5				
		151		4.85 (123.2)	2.13 (54.1)					3.78 (96.0)	1.75 (44.5)	.25 (6.4)	.31 (7.9)	150:5	± 1%	5.0
	SFT	201												4.85 (123.2)	2.13 (54.1)	3.78 (96.0)
		251		250:5	± 1%					5.0						
	SFL	301		4.70 (119.4)	1.10 (27.9)									300:5	± 1%	12
		401												400:5	± 1%	15
	SHT	501		4.70 (119.4)	1.10 (27.9)									500:5	± 1%	25
		601												600:5	± 1%	30
	SHL	751		4.61 (117.1)	1.10 (27.9)									750:5	± 1%	30
		801												800:5	± 1%	35
	RT	102		4.94 (125.5)	1.25 (31.8)					5.75 (146.1)	6.5 (16.5)	.28 (7.1)	.28 (7.1)	1000:5	± 1%	30
		RBT												122	1200:5	± 1%
	RBL	152		4.70 (125.5)	1.25 (31.8)					5.75 (146.1)	6.5 (16.5)	.28 (7.1)	.28 (7.1)	1500:5	± 1%	40
162		1600:5	± 1%			40										

# Commercial Class Current Transformers

Current Transformers

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PART NUMBERS			DIMENSIONS							ACCURACY SPECIFICATIONS		
SERIES	STYLE	RATIO SUFFIX	A	B	C	D	E	F	G	CURRENT RATIO	ACCURACY AT 60HZ	BURDEN VA AT 60 HZ
<b>CR56</b>	<b>RL</b>	500	2.06 (52.3)	3.50 (88.9)	1.09 (27.7)	2.70 (68.6)	1.70 (43.2)	.21 (5.3)	.31 (7.9)	50:5	± 3%	2.0
		750		75.5	± 1%	0.5						
	<b>SFT</b>	101		100:5	± 1%	1.0						
		151		150:5	± 1%	2.5						
	<b>SFL</b>	201		200:5	± 1%	4.0						
		251		250:5	± 1%	6.0						
	<b>RT</b>	301		300:5	± 1%	7.5						
		401		400:5	± 1%	10.0						
	<b>RBT</b>	501		500:5	± 1%	12.5						
		601		600:5	± 1%	15.0						
	<b>RBL</b>	751		750:5	± 1%	7.0						
		801		800:5	± 1%	8.0						
		102		1000:5	± 1%	10.0						
		122		1200:5	± 1%	12.5						
<b>CR76</b>	<b>RL</b>	201	4.50 (114.3)	1.09 (27.7)						200:5	± 1%	5.0
		251	250:5	± 1%	5.0							
	<b>SFT</b>	301	4.68 (128.9)	2.08 (52.8)	3.70 (44.0)	1.75 (44.5)	.25 (6.4)	.31 (7.9)	300:5	± 1%	6.0	
		401	400:5	± 1%	10.0							
	<b>SFL</b>	501	4.68 (118.9)	2.08 (52.8)	3.70 (44.0)	1.75 (44.5)	.25 (6.4)	.31 (7.9)	500:5	± 1%	10.0	
		601	600:5	± 1%	10.0							
	<b>RT</b>	751	3.00 (76.2)	4.62 (117.3)	1.10 (27.9)				750:5	± 1%	10.0	
		801	800:5	± 1%	12.5							
	<b>RBT</b>	102	1000:5	± 1%	10.0							
		122	1200:5	± 1%	10.0							
	<b>RBL</b>	152	1500:5	± 1%	12.5							
		162	1600:5	± 1%	12.5							
		202	2000:5	± 1%	15.0							
	<b>CR1A</b>	<b>RL</b>	500	.64 (16.3)	1.99 (31.8)	1.25 (31.8)					50:5	± 2%
600			60:5				± 1%	2.0				
750			75.5				± 1%	2.0				
800			80:5				± 1%	2.0				
101			100:5				± 1%	2.5				
121			120:5				± 1%	3.0				
1250			125:5				± 1%	3.0				
151			150:5				± 1%	4.0				
201			200:5				± 1%	5.0				
251			250:5				± 1%	7.5				

# ANSI Metering Class Current Transformers

## Current Transformers

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PART NUMBERS			DIMENSIONS							ANSI METERING CLASS @ 60 HZ					
SERIES	STYLE	RATIO SUFFIX	A	B	C	D	E	F	G	CURRENT RATIO	BO.1	BO.2	BO.5	BO.9	B1.8
CR2DA	RL	500	1.0 (25.4)	2.47 (62.7)	1.75 (44.5)					50:5	4.8	-	-	-	-
		600								60:5	1.2	4.8	-	-	-
		750								75:5	1.2	2.4	-	-	-
		800								80:5	1.2	2.4	4.8	-	-
		101								100:5	1.2	2.4	4.8	-	-
		121								120:5	1.2	2.4	2.4	4.8	-
		1250								125:5	0.6	1.2	2.4	4.8	-
		151								150:5	0.6	0.6	1.2	2.4	4.8
		201								200:5	0.3	0.3	1.2	1.2	2.4
		251								250:5	0.3	0.3	0.6	1.2	2.4
		301								300:5	0.3	0.3	0.6	0.6	1.2
CR5A	RL	500	1.56 (39.6)	3.56 (90.4)	1.10 (27.9)					50:5	4.8	-	-	-	-
		101								100:5	2.4	4.8	-	-	-
		151								150:5	0.6	1.2	2.4	4.8	-
	SFT	201		200:5	0.6					0.6	1.2	2.4	4.8		
		251		250:5	0.6					0.6	1.2	2.4	2.4		
		301		300:5	0.3					0.3	0.6	1.2	2.4		
	SFL	401		400:5	0.3					0.3	0.6	1.2	1.2		
		501		500:5	0.3					0.3	0.6	0.6	1.2		
	SHT	601		600:5	0.3					0.3	0.3	0.6	1.2		
		751		750:5	0.3					0.3	0.3	0.6	0.6		
	SHL	801		800:5	0.3					0.3	0.3	0.6	0.6		
		102		1000:5	0.3					0.3	0.3	0.3	0.6		
		122		1200:5	0.3					0.3	0.3	0.3	0.3		
	CR6A	RL		101	2.06 (52.3)					4.08 (103.6)	1.10 (27.9)				
151			150:5	1.2		1.2	2.4	4.8	-						
201			200:5	0.6		1.2	2.4	2.4	4.8						
SFT		251	250:5	0.3		0.6	1.2	2.4	4.8						
		301	300:5	0.3		0.3	1.2	2.4	2.4						
		401	400:5	0.3		0.3	0.6	1.2	1.2						
SFL		501	500:5	0.3		0.3	0.6	1.2	1.2						
		601	600:5	0.3		0.3	0.6	0.6	1.2						
SHT		751	750:5	0.3		0.3	0.3	0.6	1.2						
		801	800:5	0.3		0.3	0.3	0.6	0.6						
		102	1000:5	0.3		0.3	0.3	0.3	0.6						
SHL		122	1200:5	0.3		0.3	0.3	0.3	0.3						
		152	1500:5	0.3		0.3	0.3	0.3	0.3						

# ANSI Metering Class Current Transformers

Current Transformers

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PART NUMBERS			DIMENSIONS							ANSI METERING CLASS @ 60 HZ											
SERIES	STYLE	RATIO SUFFIX	A	B	C	D	E	F	G	CURRENT RATIO	BO.1	BO.2	BO.5	BO.9	B1.8						
<b>CR7A</b>	<b>RL</b>	101	2.50 (63.5)	4.70 (119.4)	1.10 (27.9)					100:5	1.2	4.8	-	-	-						
		151		150:5	0.6					1.2	4.8	4.8	-								
		201		200:5	0.6					1.2	2.4	4.8	4.8								
	<b>SFT</b>	251		4.85 (123.2)	2.13 (54.1)					3.78 (96.0)	1.75 (44.5)	.25 (6.4)	.31 (7.9)	250:5	0.3	0.6	1.2	2.4	4.8		
		301		300:5	0.3					0.3	1.2	2.4	2.4								
		401		400:5	0.3					0.3	0.6	1.2	2.4								
	<b>SFL</b>	501		4.85 (123.2)	2.13 (54.1)					3.78 (96.0)	1.75 (44.5)	.25 (6.4)	.31 (7.9)	500:5	0.3	0.3	0.6	1.2	1.2		
		601		600:5	0.3					0.3	0.6	0.6	1.2								
		751		750:5	0.3					0.3	0.6	0.6	0.6								
	<b>SHT</b>	801		4.70 (119.4)	1.10 (27.9)									800:5	0.3	0.3	0.3	0.6	0.6		
		102		1000:5	0.3									0.3	0.3	0.6	0.6				
		122		1200:5	0.3									0.3	0.3	0.3	0.6				
	<b>SHL</b>	152		1500:5	0.3					0.3	0.3	0.3	0.3								
		162		1600:5	0.3					0.3	0.3	0.3	0.3								
	<b>CR8</b>	<b>RL</b>		201	3.25 (82.6)					5.73 (145.5)	1.15 (29.2)					200:5	1.2	1.2	2.4	4.8	4.8
				251						250:5	0.6					0.6	1.2	2.4	4.8		
301			300:5	0.6		0.6	1.2	2.4	2.4												
401			400:5	0.3		0.3	0.6	1.2	2.4												
501			500:5	0.3		0.3	0.6	0.6	1.2												
601			600:5	0.3		0.3	0.6	0.6	1.2												
751			750:5	0.3		0.3	0.3	0.6	1.2												
<b>SHT</b>			801	5.73 (145.5)		1.15 (29.2)	800:5	0.3	0.3	0.3	0.6					0.6					
			102	1000:5		0.3	0.3	0.3	0.3	0.6											
			122	1200:5		0.3	0.3	0.3	0.3	0.3											
		152	1500:5	0.3		0.3	0.3	0.3	0.3												
		162	1600:5	0.3		0.3	0.3	0.3	0.3												
		202	2000:5	0.3		0.3	0.3	0.3	0.3												
<b>SHL</b>		252	2500:5	0.3		0.3	0.3	0.3	0.3												
		302	3000:5	0.3		0.3	0.3	0.3	0.3												
		322	3200:5	0.3		0.3	0.3	0.3	0.3												
	402	4000:5	0.3	0.3	0.3	0.3	0.3														

<b>CR170</b>	<b>RL</b>	201	4.25 (108)	6.73 (170.9)	1.25 (31.8)					200:5	0.6	1.2	2.4	-	-
		251		250:5	0.6					0.6	1.2	2.4	-		
		301		300:5	0.6					0.6	1.2	2.4	-		
		401		400:5	0.3					0.3	0.6	1.2	2.4		
		501		500:5	0.3					0.3	0.6	1.2	1.2		
		601		600:5	0.3					0.3	0.6	0.6	1.2		
		751		750:5	0.3					0.3	0.3	0.3	0.6		
	<b>SHT</b>	801		6.73 (170.9)	1.28 (32.5)					800:5	0.3	0.3	0.3	0.3	0.6
		102		1000:5	0.3					0.3	0.3	0.3	0.6		
		122		1200:5	0.3					0.3	0.3	0.3	0.6		
		152		1500:5	0.3					0.3	0.3	0.3	0.6		
		162		1600:5	0.3					0.3	0.3	0.3	0.6		
		202		2000:5	0.3					0.3	0.3	0.3	0.3		
		252		2500:5	0.3					0.3	0.3	0.3	0.3		
		302		3000:5	0.3					0.3	0.3	0.3	0.3		
		<b>SHL</b>		322	3200:5					0.3	0.3	0.3	0.3	0.3	
402	4000:5		0.3	0.3	0.3	0.3	0.3								

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