



THE DATASHEET OF CR7RL-301



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

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		100:5	± 1%					2.0						
		121		120:5	± 1%					2.5						
	SFL	1250		125:5	± 1%					2.5						
		151		2.71 (68.8)	0.95 (24.1)					150:5	± 1%	4.0				
		201		200:5	± 1%					4.0						
		251		250:5	± 1%					6.0						
SHL	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		75:5	± 2%					1.5						
	SFT	101		3.78 (96.0)	2.2 (54.6)					2.75 (69.9)	1.77 (45.0)	.21 (5.3)	.31 (7.9)	100:5	± 2%	2.0
		151		150:5	± 1%					5.0						
	SFL	201		3.78 (96.0)	2.15 (54.6)					2.75 (69.9)	1.77 (45.0)	.21 (5.3)	.31 (7.9)	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		3.83 (97.3)	1.09 (27.7)					500:5	± 1%	20.0				
		601		600:5	± 1%					25.0						
	RT	751		3.62 (91.9)	1.13 (28.7)					750:5	± 1%	25.0				
		801		3.90 (99.1)	1.25 (31.8)					3.88 (98.6)	4.50 (114.3)	.44 (11.2)	.27 (6.9)	800:5	± 1%	25.0
	RBT*	102		1000:5	± 1%					25.0						
RBL*	122	3.70 (94.0)	1.25 (31.8)	3.88 (98.6)	4.50 (114.3)	.44 (11.2)	.27 (6.9)	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		150:5	± 1%					5.0						
	SFT	201		4.85 (123.2)	2.13 (54.1)					3.78 (96.0)	1.75 (44.5)	.25 (6.4)	.31 (7.9)	200:5	± 1%	5.0
		251		250:5	± 1%					5.0						
	SFL	301		4.85 (123.2)	2.13 (54.1)					3.78 (96.0)	1.75 (44.5)	.25 (6.4)	.31 (7.9)	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		4.70 (119.4)	1.10 (27.9)					750:5	± 1%	30				
		801		4.61 (117.1)	1.10 (27.9)					800:5	± 1%	35				
	RT	102		1000:5	± 1%					30						
		122		4.94 (125.5)	1.25 (31.8)					5.75 (146.1)	6.5 (7.1)	.28 (7.1)	.28 (7.1)	1200:5	± 1%	35
	RBT	152		1500:5	± 1%					40						
		162		4.70 (125.5)	1.25 (31.8)					5.75 (146.1)	6.5 (16.5)	.28 (7.1)	.28 (7.1)	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	
CR56	RL	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
	SFT	101									100:5	± 1%	1.0
		151		3.63 (92.2)	2.15 (54.6)	2.70 (68.6)	1.70 (43.2)	.21 (5.3)	.31 (7.9)	150:5	± 1%	2.5	
	SFL	201									200:5	± 1%	4.0
		251		3.63 (92.2)	2.15 (54.6)						250:5	± 1%	6.0
	RT	301									300:5	± 1%	7.5
		401		3.62 (91.9)	1.10 (27.9)						400:5	± 1%	10.0
	RBT	501									500:5	± 1%	12.5
		601									600:5	± 1%	15.0
	RBL	751		3.90 (99.1)	1.25 (31.8)	3.88 (98.6)	4.50 (114.3)	.27 (6.9)	.44 (11.2)	750:5	± 1%	7.0	
		801								800:5	± 1%	8.0	
				102	3.70 (94.0)	1.25 (31.8)	3.88 (98.6)	4.50 (114.3)	.27 (6.9)	.44 (11.2)	1000:5	± 1%	10.0
				122							1200:5	± 1%	12.5
CR76	RL	201	3.00 (76.2)	4.50 (114.3)	1.09 (27.7)					200:5	± 1%	5.0	
		251								250:5	± 1%	5.0	
	SFT	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	
	SFL	501								500:5	± 1%	10.0	
		601		4.68 (118.9)	2.08 (52.8)	3.70 (44.0)	1.75 (44.5)	.25 (6.4)	.31 (7.9)	600:5	± 1%	10.0	
	RT	751								750:5	± 1%	10.0	
		801		4.62 (117.3)	1.10 (27.9)					800:5	± 1%	12.5	
	RBT	102								1000:5	± 1%	10.0	
		122								1200:5	± 1%	10.0	
	RBL	152		4.94 (125.5)	1.25 (31.8)	5.75 (146.1)	6.50 (165.1)	.28 (7.1)	.28 (7.1)	1500:5	± 1%	12.5	
		162								1600:5	± 1%	12.5	
				202	4.70 (119.4)	1.25 (31.8)	5.75 (146.1)	6.50 (165.1)	.28 (7.1)	.28 (7.1)	2000:5	± 1%	15.0
	CR1A	RL		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		
		801		800:5	0.3					0.3	0.3	0.6	0.6		
	SHL	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)					100:5	1.2	2.4	-	-	-
		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		
		751		750:5	0.3					0.3	0.3	0.6	1.2		
	SHT	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		
	SHL	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									
CR7A	RL	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											
	SFT	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											
	SFL	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											
	SHT	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							
	SHL	152		4.70 (119.4)	1.10 (27.9)									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							
	CR8	RL		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															
801			800:5	0.3		0.3	0.3	0.6	0.6															
SHT		102	5.73 (145.5)	1.15 (29.2)						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							
		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							
		402	4000:5	0.3						0.3	0.3					0.3	0.3							
SHL	322	5.73 (145.5)	1.15 (29.2)					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													
	CR170	RL	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						
			801						800:5	0.3					0.3	0.3	0.3	0.6						
		SHT	102						6.73 (170.9)	1.28 (32.5)									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															
402			4000:5	0.3	0.3	0.3	0.3		0.3															
SHL	322	6.73 (170.9)	1.28 (32.5)					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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