



**THE DATASHEET OF
CR7ARL-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		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		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		3.78 (96.0)	2.15 (54.6)					2.75 (69.9)	1.77 (45.0)	.21 (5.3)	.31 (7.9)	150:5	± 1%	5.0
	201	200:5												± 1%	5.0	
	SHT	251		3.83 (97.3)	1.09 (27.7)									250:5	± 1%	10.0
		301		300:5	± 1%									12.5		
	SHL	401		3.83 (97.3)	1.09 (27.7)									400:5	± 1%	12.5
		501		500:5	± 1%									20.0		
	RT	601		3.62 (91.9)	1.13 (28.7)									600:5	± 1%	25.0
		751		750:5	± 1%									25.0		
	RBT*	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
	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		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		4.85 (123.2)	2.13 (54.1)					3.78 (96.0)	1.75 (44.5)	.25 (6.4)	.31 (7.9)	250:5	± 1%	5.0
	301	300:5												± 1%	12	
	SHT	401		4.70 (119.4)	1.10 (27.9)									400:5	± 1%	15
		501		500:5	± 1%									25		
	SHL	601		4.70 (119.4)	1.10 (27.9)									600:5	± 1%	30
		751		750:5	± 1%									30		
	RT	801		4.61 (117.1)	1.10 (27.9)									800:5	± 1%	35
		102		1000:5	± 1%									30		
	RBT	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
		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	
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		4.94 (125.5)	1.25 (31.8)	5.75 (146.1)	6.50 (165.1)	.28 (7.1)	.28 (7.1)	1200:5	± 1%	10.0	
	RBL	152								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)	
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)					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		
	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											
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		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																	
SHT			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																	
SHL		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																			
	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													
SHT			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													
SHL		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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