RITZ

Instrument Transformers

RITZ INSTRUMENT TRANSFORMERS, INC.

Current Transformers

DCCW and DCCB

General Description

The DCCW window-type current transformer is designed for use with watt-hour meters. It is suitable for both indoor and outdoor service. The transformer meets all applicable IEEE, ANSI, and NEMA standards. A wide variety of accessories and ratings allows for maximum versatility. The transformer can be ordered with a primary bar assembly by specifying the appropriate DCCB catalog number or a bar-kit can be ordered for addition to the DCCW in the field.

Construction

The ring type core is wound from high quality grain oriented silicon steel which has been annealed. The secondary winding is accomplished with heavy enameled copper wire evenly distributed around the core. The assembly is then encapsulated in a mold using a polyurethane resin specifically formulated for optimal electrical insulation and weatherproof characteristics.

Secondary Terminals and Cover

Secondary terminals are tinned bronze compression type with a large 0.29" (7.5 mm) diameter hole. A bronze pivoting short circuit device is an integral part of the secondary terminal arrangement. The short circuit device interferes with the proper placement of the clear polycarbonate cover when the shorting device is in the shorted position. The terminal cover is designed to accept a sealing device.

Base Plates

The transformer can be ordered without base plate or with industry standard base plates of marine-grade aluminum.

Primary Bar

Available as an option, the flat primary bar-kit is of tinned copper and has a two-hole or four-hole NEMA pad on either end. It is centered in the transformer window by two end plates and the terminals can be rotated, as needed, to any orientation. A potential connector is installed on the primary conductor assembly by default on the H1 side of the CT, however, the potential connector can be moved to the H2 side in the field.

Test Reports

Test reports according to the latest revisions of IEEE C57.13 are stored electronically at time of test and can be sent via email in customer preferred formats at time of shipment.

High-Accuracy Options

The DCCW and DCCB designs are available with high-accuracy 0.15 class ratings. These ratings offer the user the ability to use fewer standard ratios, while, in most cases, improving the accuracy performance of the metering installation. Please see *Ritz Technical Bulletin 103 "Applying 600V High-Accuracy CTs for Revenue Metering Applications"* for more information.

TYPE DCCW						
CURRENT RATING PRI:SEC AMPERES	CATALOG NUMBERS				CONTINUOUS THERMAL CURRENT RATING FACTOR	
	NO BASE	LOW BASE	HIGH BASE	WIDE BASE	30° C	55° C
100:5	110601007.0037	110601008.0049	110601009.0060	110601010.0071	4.0	3.0
200:5	110601007.0038	110601008.0050	110601009.0061	110601010.0072	4.0	3.0
300:5	110601007.0039	110601008.0051	110601009.0062	110601010.0073	4.0	3.0
400:5	110601007.0040	110601008.0052	110601009.0063	110601010.0074	4.0	3.0
500:5	110601007.0041	110601008.0053	110601009.0064	110601010.0075	3.0	2.2
600:5	110601007.0042	110601008.0054	110601009.0065	110601010.0076	2.0	1.5
800:5	110601007.0043	110601008.0055	110601009.0066	110601010.0077	2.0	1.5
1000:5	110601007.0044	110601008.0056	110601009.0067	110601010.0078	2.0	1.5
1200:5	110601007.0045	110601008.0057	110601009.0068	110601010.0079	1.5	1.1
1500:5	110601007.0046	110601008.0058	110601009.0069	110601010.0080	1.5	1.1
2000:5	110601007.0047	110601008.0059	110601009.0070	110601010.0081	1.2	0.9
3000:5	110601007.0122	110601008.0123	110601009.0124	110601010.0131	1.0	0.7

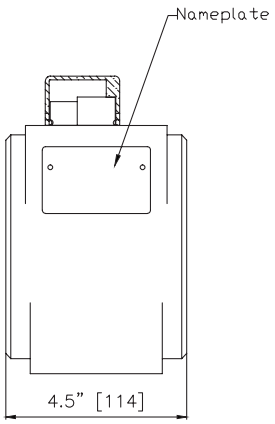
TYPE DCCB						
CURRENT RATING PRI:SEC AMPERES	CATALOG NUMBERS				CONTINUOUS THERMAL CURRENT RATING FACTOR	
	NO BASE	LOW BASE	HIGH BASE	WIDE BASE	30° C	55° C
100:5	110601007.0256	110601008.0268	110601009.0280	110601010.0292	4.0	3.0
200:5	110601007.0257	110601008.0269	110601009.0281	110601010.0293	4.0	3.0
300:5	110601007.0258	110601008.0270	110601009.0282	110601010.0294	4.0	3.0
400:5	110601007.0259	110601008.0271	110601009.0283	110601010.0295	4.0	3.0
500:5	110601007.0260	110601008.0272	110601009.0284	110601010.0296	3.0	2.2
600:5	110601007.0261	110601008.0273	110601009.0285	110601010.0297	2.0	1.5
800:5	110601007.0262	110601008.0274	110601009.0286	110601010.0298	2.0	1.5
1000:5	110601007.0263	110601008.0275	110601009.0287	110601010.0299	2.0	1.5
1200:5	110601007.0264	110601008.0276	110601009.0288	110601010.0300	1.5	1.1
1500:5	110601007.0265	110601008.0277	110601009.0289	110601010.0301	1.5	1.1
2000:5	110601007.0266	110601008.0278	110601009.0290	110601010.0302	1.2	0.9
3000:5	110601007.0267	110601008.0279	110601009.0291	110601010.0303	1.0	0.7

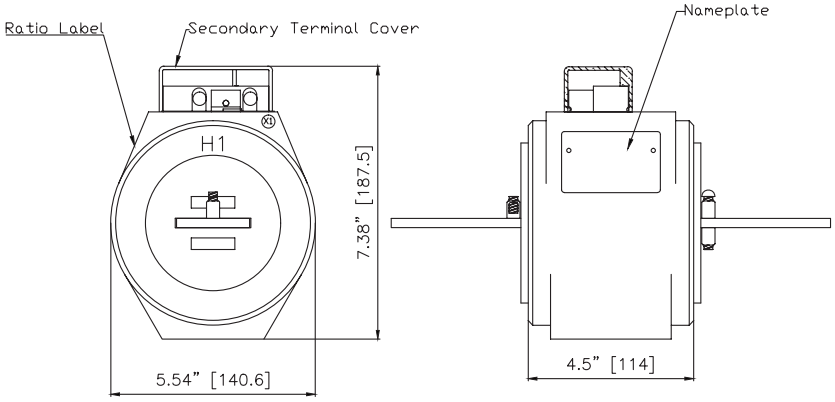
CURRENT RATING PRI:SEC AMPERES	IEEE METER ACCURACY CLASS, 60 HZ				
	B 0.1	B 0.2	B 0.5	B 0.9	B 1.8
100:5	0.3	-	-	-	-
200:5	0.3	0.3	0.3	-	-
300:5	0.3	0.3	0.3	0.6	-
400:5	0.3	0.3	0.3	0.6	1.2
500:5	0.3	0.3	0.3	0.3	0.6
600:5	0.3	0.3	0.3	0.3	0.6
800:5	0.3	0.3	0.3	0.3	0.3
1000:5	0.3	0.3	0.3	0.3	0.3
1200:5	0.3	0.3	0.3	0.3	0.3
1500:5	0.3	0.3	0.3	0.3	0.3
2000:5	0.3	0.3	0.3	0.3	0.3
3000:5	0.3	0.3	0.3	0.3	0.3

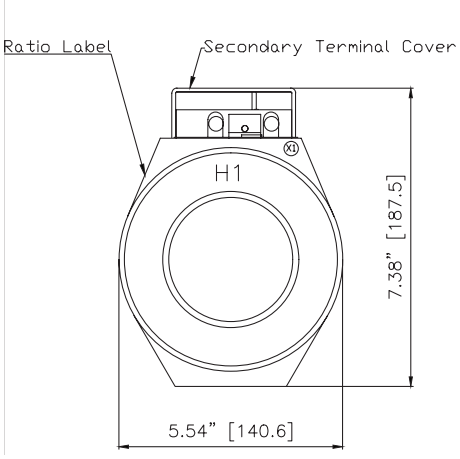
TYPE DCCW HIGH ACCURACY						
CURRENT RATING PRI:SEC AMPERES	CATALOG NUMBERS				CONTINUOUS THERMAL CURRENT RATING FACTOR	
	NO BASE	LOW BASE	HIGH BASE	WIDE BASE	30° C	55° C
300:5	110601007.0157	110601008.0167	110601009.0177	110601010.0187	3.0	2.2
400:5	110601007.0158	110601008.0168	110601009.0178	110601010.0188	3.0	2.2
500:5	110601007.0159	110601008.0169	110601009.0179	110601010.0189	3.0	2.2
600:5	110601007.0160	110601008.0170	110601009.0180	110601010.0190	2.0	1.5
800:5	110601007.0161	110601008.0171	110601009.0181	110601010.0191	2.0	1.5
1000:5	110601007.0162	110601008.0172	110601009.0182	110601010.0192	2.0	1.5
1200:5	110601007.0163	110601008.0173	110601009.0183	110601010.0193	1.5	1.2
1500:5	110601007.0164	110601008.0174	110601009.0184	110601010.0194	1.2	0.9
2000:5	110601007.0165	110601008.0175	110601009.0185	110601010.0195	1.2	0.9
3000:5	110601007.0166	110601008.0176	110601009.0186	110601010.0196	0.8	0.6

TYPE DCCB HIGH ACCURACY						
CURRENT RATING PRI:SEC AMPERES	CATALOG NUMBERS				CONTINUOUS THERMAL CURRENT RATING FACTOR	
	NO BASE	LOW BASE	HIGH BASE	WIDE BASE	30° C	55° C
300:5	110601007.0304	110601008.0314	110601009.0324	110601010.0334	3.0	2.2
400:5	110601007.0305	110601008.0315	110601009.0325	110601010.0335	3.0	2.2
500:5	110601007.0306	110601008.0316	110601009.0326	110601010.0336	3.0	2.2
600:5	110601007.0307	110601008.0317	110601009.0327	110601010.0337	2.0	1.5
800:5	110601007.0308	110601008.0318	110601009.0328	110601010.0338	2.0	1.5
1000:5	110601007.0309	110601008.0319	110601009.0329	110601010.0339	2.0	1.5
1200:5	110601007.0310	110601008.0320	110601009.0330	110601010.0340	1.5	1.2
1500:5	110601007.0311	110601008.0321	110601009.0331	110601010.0341	1.2	0.9
2000:5	110601007.0312	110601008.0322	110601009.0332	110601010.0342	1.2	0.9
3000:5	110601007.0313	110601008.0323	110601009.0333	110601010.0343	0.8	0.6

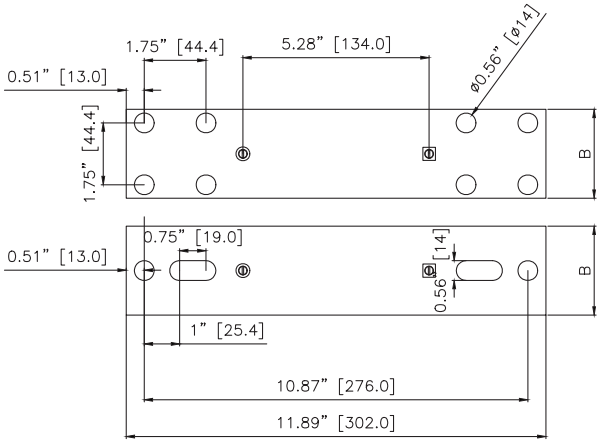
CURRENT RATING PRI:SEC AMPERES	IEEE METER HIGH ACCURACY CLASS, 60 HZ						
	B 0.1	B 0.2	B 0.5	B 0.9	B 1.8	E0.04	E0.2
300:5	0.15	-	-	-	-	-	-
400:5	0.15	0.15	-	-	-	0.15	-
500:5	0.15	0.15	-	-	-	0.15	-
600:5	0.15	0.15	0.15	-	-	0.15	-
800:5	0.15	0.15	0.15	0.15	-	0.15	-
1000:5	0.15	0.15	0.15	-	-	0.15	0.15
1200:5	0.15	0.15	0.15	0.15	-	0.15	0.15
1500:5	0.15	0.15	0.15	0.15	0.15	0.15	0.15
2000:5	0.15	0.15	0.15	0.15	0.15	0.15	0.15
3000:5	0.15	0.15	0.15	0.15	0.15	0.15	0.15







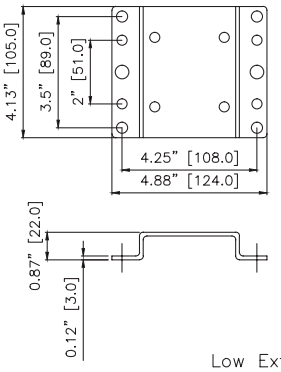
	Window and Bar Dimensions		
Primary Rating	Window ID	"B" Bar Width	Thickness
100~200:5	2.5" [63.5]	2.0" [50.8]	0.25" [6.35]
300~800:5	3.06" [77.7]	3.0" [76.2]	0.25" [6.35]
1000~2000:5	3.06" [77.7]	3.0" [76.2]	0.375" [9.5]
3000:5	3.06" [77.7]	3.0" [76.2]	0.5" [12.7]



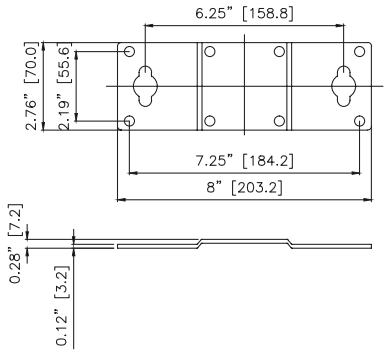
Note: 4 hole busbar used on 1000:5 ratios and above.

Bus Bars

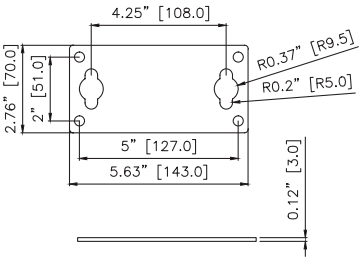
High Base Plate



Wide Base Plate



Low External Baseplate



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