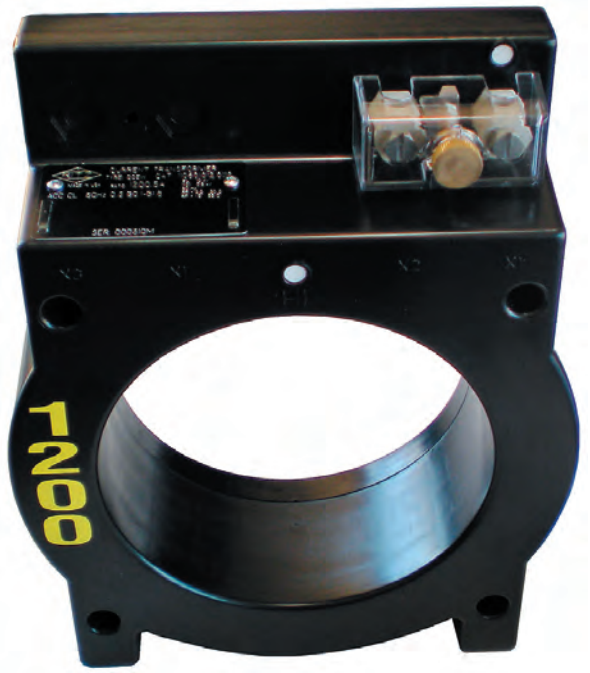
RITZ INSTRUMENT TRANSFORMERS, INC.

Instrument Transformers

Current Transformers

DCEW and DCEB



General Description

The DCEW is a large window type current transformer designed for use with watt-hour meters. It is suitable for both indoor and outdoor service. Its intended application is on higher voltage circuits with an insulated primary conductor. 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 DCEB 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 core and coil assembly is then completely encapsulated in polyurethane resin inside a molded shell of tough thermoplastic polyester resin.

Secondary Terminals and Cover

Secondary terminals are tinned bronze compression type with a large 7.5 mm (.29") diameter cross-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 is designed for wall mounting and comes with 4 through holes. An optional base fixture of marine grade aluminum can be ordered separately as an accessory.

Primary Bar

Available as an option, the flat primary bar kit is of tinned copper and has a four hole NEMA pad on either end. They are held in the transformer window by two end plates.

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 DCEW and DCEB 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 DCEW SINGLE RATIO									
CURRENT RATIO PRI:SEC AMPERES	CATALOG NUMBERS	CATALOG NUMBERS WITH MOUNTING BRACKET	CONTINUOUS THERMAL CURRENT RATING FACTOR		IEEE METER ACCURACY CLASS, 60 HZ				
			30° C	55° C	B0.1	B0.2	B0.5	B0.9	B1.8
200:5	110601012.0106	110601012.0132	4.0	3.0	0.6	1.2	-	-	-
300:5	110601012.0107	110601012.0133	4.0	3.0	0.3	0.6	1.2	-	-
400:5	110601012.0108	110601012.0134	4.0	3.0	0.3	0.3	0.6	1.2	-
500:5	110601012.0254	110601012.0255	4.0	3.0	0.3	0.3	0.3	0.6	-
600:5	110601012.0109	110601012.0135	3.0	2.0	0.3	0.3	0.3	0.6	1.2
800:5	110601012.0110	110601012.0136	3.0	2.0	0.3	0.3	0.3	0.3	0.6
1000:5	110601012.0111	110601012.0137	2.0	1.5	0.3	0.3	0.3	0.3	0.3
1200:5	110601012.0112	110601012.0138	2.0	1.5	0.3	0.3	0.3	0.3	0.3
1500:5	110601012.0113	110601012.0139	3.0	2.0	0.3	0.3	0.3	0.3	0.3
2000:5	110601012.0114	110601012.0140	2.0	1.5	0.3	0.3	0.3	0.3	0.3
3000:5	110601012.0115	110601012.0141	1.5	1.0	0.3	0.3	0.3	0.3	0.3
4000:5	110601012.0116	110601012.0142	1.5	1.0	0.3	0.3	0.3	0.3	0.3

TYPE DCEW DUAL RATIO									
CURRENT RATIO PRI:SEC AMPERES	CATALOG NUMBERS	CATALOG NUMBERS WITH MOUNTING BRACKET	CONTINUOUS THERMAL CURRENT RATING FACTOR		IEEE METER ACCURACY CLASS, 60 HZ				
			30° C	55° C	B0.1	B0.2	B0.5	B0.9	B1.8
600/1200:5	110601012.0117	110601012.0143	3.0/2.0	2.0/1.5	0.3/0.3	0.3/0.3	0.6/0.3	1.2/0.3	1.2/0.6
800/1600:5	110601012.0118	110601012.0144	3.0/2.0	2.0/1.5	0.3/0.3	0.3/0.3	0.3/0.3	0.6/0.3	0.6/0.3
1000/2000:5	110601012.0119	110601012.0145	3.0/2.0	2.0/1.5	0.3/0.3	0.3/0.3	0.3/0.3	0.3/0.3	0.6/0.3
1500/3000:5	110601012.0120	110601012.0146	2.0/1.5	1.5/1.0	0.3/0.3	0.3/0.3	0.3/0.3	0.3/0.3	0.6/0.3
2000/4000:5	110601012.0121	110601012.0147	2.0/1.5	1.5/1.0	0.3/0.3	0.3/0.3	0.3/0.3	0.3/0.3	0.3/0.3

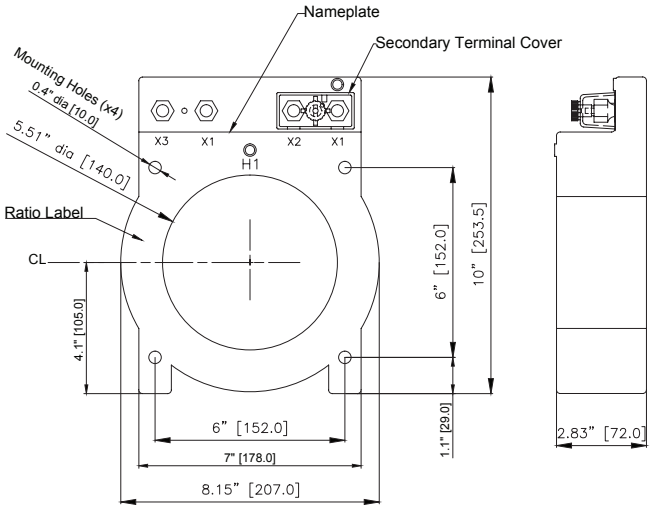
TYPE DCEW SINGLE RATIO HIGH ACCURACY											
CURRENT RATIO PRI:SEC AMPERES	CATALOG NUMBERS	CATALOG NUMBERS WITH MOUNTING BRACKET	CONTINUOUS THERMAL CURRENT RATING FACTOR		IEEE METER ACCURACY CLASS, 60 HZ						
			30° C	55° C	B0.1	B0.2	B0.5	B0.9	B1.8	E0.04	E0.2
600:5	110601012.0206	110601012.0217	3.0	2.0	0.15	0.15	-	-	-	0.15	0.15
800:5	110601012.0207	110601012.0218	3.0	2.0	0.15	0.15	0.15	-	-	0.15	0.15
1000:5	110601012.0208	110601012.0219	2.0	1.5	0.15	0.15	0.15	0.15	-	0.15	0.15
1200:5	110601012.0209	110601012.0220	2.0	1.5	0.15	0.15	0.15	0.15	0.15	0.15	0.15
1500:5	110601012.0210	110601012.0221	2.0	1.5	0.15	0.15	0.15	0.15	0.15	0.15	0.15
2000:5	110601012.0211	110601012.0222	2.0	1.5	0.15	0.15	0.15	0.15	0.15	0.15	0.15
3000:5	110601012.0212	110601012.0223	1.5	1.0	0.15	0.15	0.15	0.15	0.15	0.15	0.15
4000:5	110601012.0213	110601012.0224	1.5	1.0	0.15	0.15	0.15	0.15	0.15	0.15	0.15

TYPE DCEB SINGLE RATIO									
CURRENT RATIO PRI:SEC AMPERES	CATALOG NUMBERS	CATALOG NUMBERS WITH MOUNTING BRACKET	CONTINUOUS THERMAL CURRENT RATING FACTOR		IEEE METER ACCURACY CLASS, 60 HZ				
			30° C	55° C	B0.1	B0.2	B0.5	B0.9	B1.8
200:5	110601012.0407	110601012.0419	4.0	3.0	0.6	1.2	-	-	-
300:5	110601012.0408	110601012.0420	4.0	3.0	0.3	0.6	1.2	-	-
400:5	110601012.0409	110601012.0421	4.0	3.0	0.3	0.3	0.6	1.2	-
500:5	110601012.0410	110601012.0422	4.0	3.0	0.3	0.3	0.3	0.6	-
600:5	110601012.0411	110601012.0423	3.0	2.0	0.3	0.3	0.3	0.6	1.2
800:5	110601012.0412	110601012.0424	3.0	2.0	0.3	0.3	0.3	0.3	0.6
1000:5	110601012.0413	110601012.0425	2.0	1.5	0.3	0.3	0.3	0.3	0.3
1200:5	110601012.0414	110601012.0426	2.0	1.5	0.3	0.3	0.3	0.3	0.3
1500:5	110601012.0415	110601012.0427	3.0	2.0	0.3	0.3	0.3	0.3	0.3
2000:5	110601012.0416	110601012.0428	2.0	1.5	0.3	0.3	0.3	0.3	0.3
3000:5	110601012.0417	110601012.0429	1.5	1.0	0.3	0.3	0.3	0.3	0.3
4000:5	110601012.0418	110601012.0430	1.5	1.0	0.3	0.3	0.3	0.3	0.3

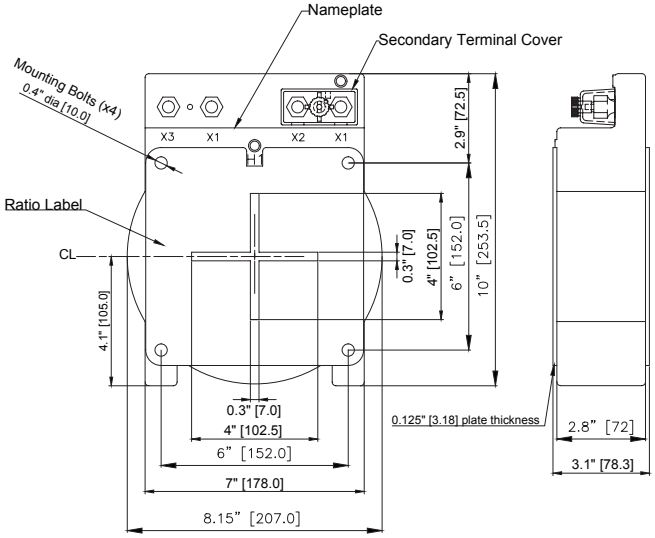
TYPE DCEB DUAL RATIO									
CURRENT RATIO PRI:SEC AMPERES	CATALOG NUMBERS	CATALOG NUMBERS WITH MOUNTING BRACKET	CONTINUOUS THERMAL CURRENT RATING FACTOR		IEEE METER ACCURACY CLASS, 60 HZ				
			30° C	55° C	B0.1	B0.2	B0.5	B0.9	B1.8
600/1200:5	110601012.0431	110601012.0436	3.0/2.0	2.0/1.5	0.3/0.3	0.3/0.3	0.6/0.3	1.2/0.3	1.2/0.6
800/1600:5	110601012.0432	110601012.0437	3.0/2.0	2.0/1.5	0.3/0.3	0.3/0.3	0.3/0.3	0.6/0.3	0.6/0.3
1000/2000:5	110601012.0433	110601012.0438	3.0/2.0	2.0/1.5	0.3/0.3	0.3/0.3	0.3/0.3	0.3/0.3	0.6/0.3
1500/3000:5	110601012.0434	110601012.0439	2.0/1.5	1.5/1.0	0.3/0.3	0.3/0.3	0.3/0.3	0.3/0.3	0.6/0.3
2000/4000:5	110601012.0435	110601012.0440	2.0/1.5	1.5/1.0	0.3/0.3	0.3/0.3	0.3/0.3	0.3/0.3	0.3/0.3

TYPE DCEB SINGLE RATIO HIGH ACCURACY											
CURRENT RATIO PRI:SEC AMPERES	CATALOG NUMBERS	CATALOG NUMBERS WITH MOUNTING BRACKET	CONTINUOUS THERMAL CURRENT RATING FACTOR		IEEE METER ACCURACY CLASS, 60 HZ						
			30° C	55° C	B0.1	B0.2	B0.5	B0.9	B1.8	E0.04	E0.2
600:5	110601012.0441	110601012.0449	3.0	2.0	0.15	0.15	-	-	-	0.15	0.15
800:5	110601012.0442	110601012.0450	3.0	2.0	0.15	0.15	0.15	-	-	0.15	0.15
1000:5	110601012.0443	110601012.0451	2.0	1.5	0.15	0.15	0.15	0.15	-	0.15	0.15
1200:5	110601012.0444	110601012.0452	2.0	1.5	0.15	0.15	0.15	0.15	0.15	0.15	0.15
1500:5	110601012.0445	110601012.0453	2.0	1.5	0.15	0.15	0.15	0.15	0.15	0.15	0.15
2000:5	110601012.0446	110601012.0454	2.0	1.5	0.15	0.15	0.15	0.15	0.15	0.15	0.15
3000:5	110601012.0447	110601012.0455	1.5	1.0	0.15	0.15	0.15	0.15	0.15	0.15	0.15
4000:5	110601012.0448	110601012.0456	1.5	1.0	0.15	0.15	0.15	0.15	0.15	0.15	0.15

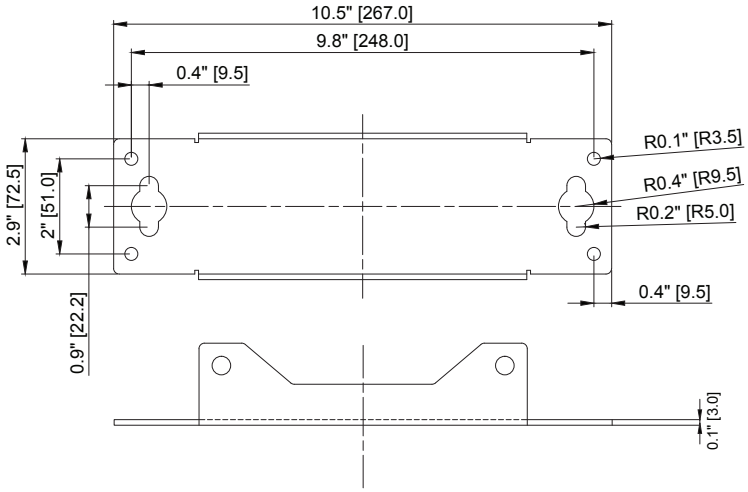
DCEW



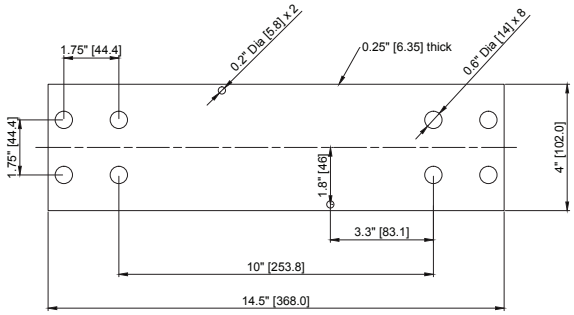
DCEB



Mounting Base

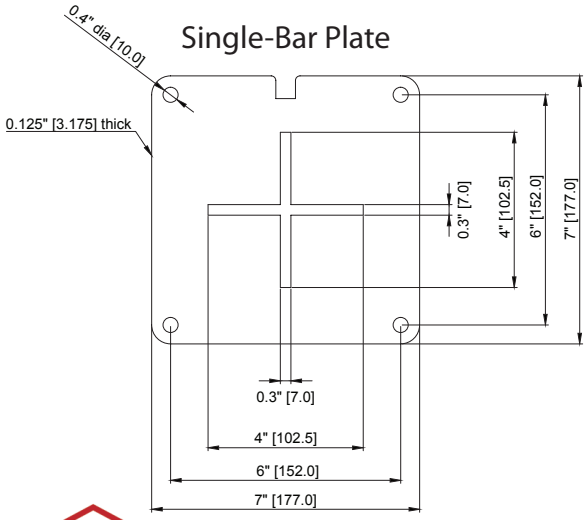


Bus Bar

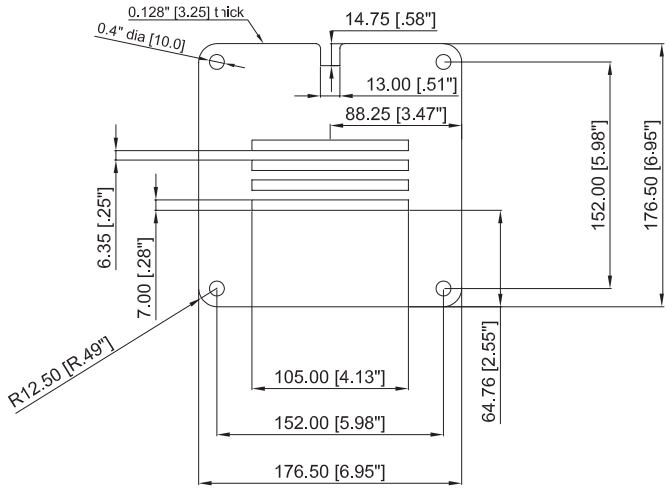


Ratio	No. of Bars
200:5-400:5A	1
500:5-1200:5A	2
1500:5-3000:5A	3
4000:5A	4

Single-Bar Plate



Multi-Bar Plate



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