



RITZ INSTRUMENT TRANSFORMERS, INC.

Current Transformers

DCAW and DCAB

General Description

The DCAW sub-miniature 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 is normally ordered with a primary bar assembly by specifying the appropriate DCAB catalog number or a bar-kit can be ordered for addition to the DCAW in the field.

Construction

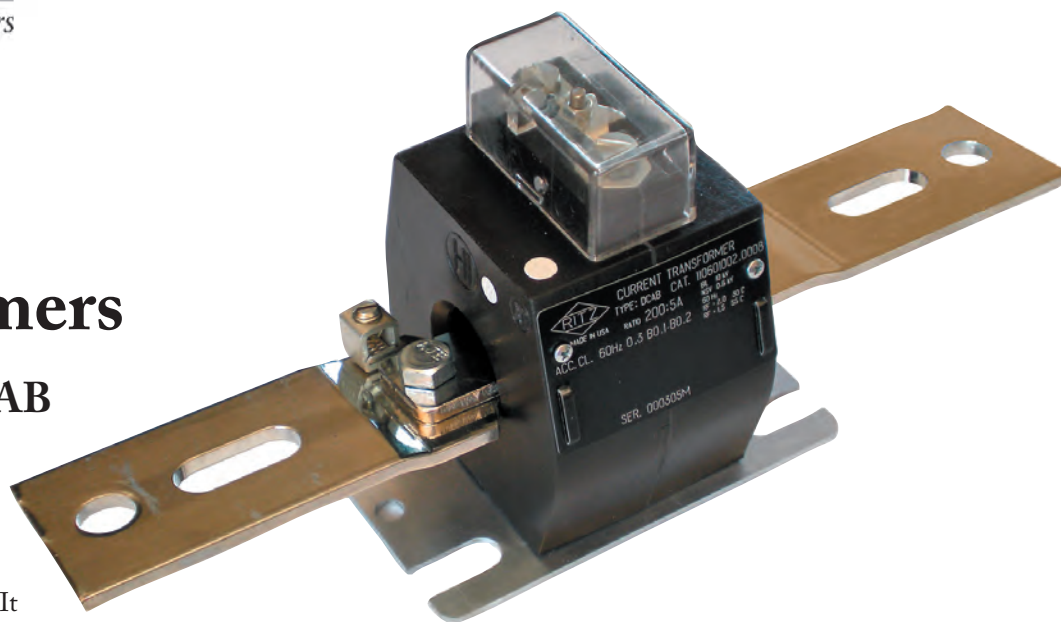
The ring type core is wound from high quality grain oriented silicon steel which has been annealed. The secondary winding is accomplished with heavy enameled copper wire evenly distributed around the core. The assembly is then encapsulated in a mold using a polyurethane resin specifically formulated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

Normally standard but also available as an option, the primary bar-kit consists of two tinned copper bars that have a tapered tang and off-set so that when assembled in the transformer window the two terminals are on a level plane and supported in the middle of the window by the shoulders of the tang. It 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 DCAW and DCAB 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 DCAW					
CURRENT RATING PRI:SEC AMPERES	CATALOG NUMBERS			CONTINUOUS THERMAL CURRENT RATING FACTOR	
	NO BASE	LOW BASE	HIGH BASE	30 °C	55° C
100:5	110601001.0374	110601002.0381	110601003.0388	4.0	3.0
200:5	110601001.0375	110601002.0382	110601003.0389	2.0	1.5
300:5	110601001.0376	110601002.0383	110601003.0390	2.0	1.5
400:5	110601001.0377	110601002.0384	110601003.0391	2.0	1.5
500:5	110601001.0378	110601002.0385	110601003.0392	2.0	1.5
600:5	110601001.0379	110601002.0386	110601003.0393	2.0	1.5
800:5	110601001.0380	110601002.0387	110601003.0394	1.5	1.2

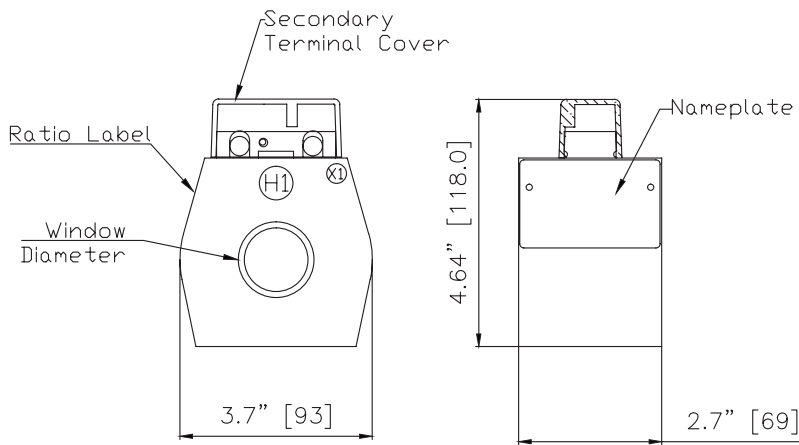
TYPE DCAB					
CURRENT RATING PRI:SEC AMPERES	CATALOG NUMBERS			CONTINUOUS THERMAL CURRENT RATING FACTOR	
	NO BASE	LOW BASE	HIGH BASE	30 °C	55° C
100:5	110601001.0001	110601002.0007	110601003.0013	4.0	3.0
200:5	110601001.0002	110601002.0008	110601003.0014	2.0	1.5
300:5	110601001.0003	110601002.0009	110601003.0015	2.0	1.5
400:5	110601001.0004	110601002.0010	110601003.0016	2.0	1.5
500:5	110601001.0237	110601002.0238	110601003.0239	2.0	1.5
600:5	110601001.0005	110601002.0011	110601003.0017	2.0	1.5
800:5	110601001.0006	110601002.0012	110601003.0018	1.5	1.2

CURRENT RATING PRI:SEC AMPERES	IEEE METER ACCURACY CLASS, 60 HZ		
	B 0.1	B 0.2	B 0.5
100:5	0.3	-	-
200:5	0.3	0.3	-
300:5	0.3	0.3	0.6
400:5	0.3	0.3	0.6
500:5	0.3	0.3	0.6
600:5	0.3	0.3	0.3
800:5	0.3	0.3	0.3

TYPE DCAW HIGH ACCURACY					
CURRENT RATING PRI:SEC AMPERES	CATALOG NUMBERS			CONTINUOUS THERMAL CURRENT RATING FACTOR	
	NO BASE	LOW BASE	HIGH BASE		
				30 °C	55° C
400:5	110601001.0395	110601002.0399	110601003.0403	2.0	1.5
500:5	110601001.0396	110601002.0400	110601003.0404	2.0	1.5
600:5	110601001.0397	110601002.0401	110601003.0405	2.0	1.5
800:5	110601001.0398	110601002.0402	110601003.0406	1.5	1.2

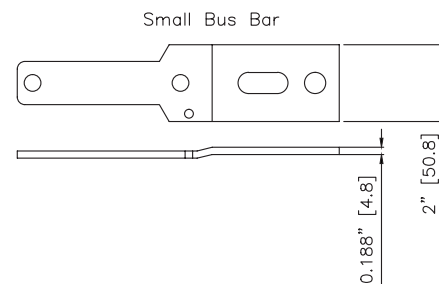
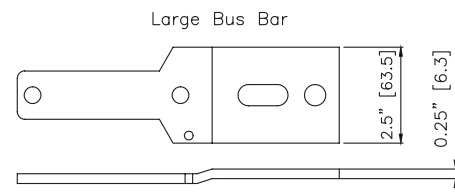
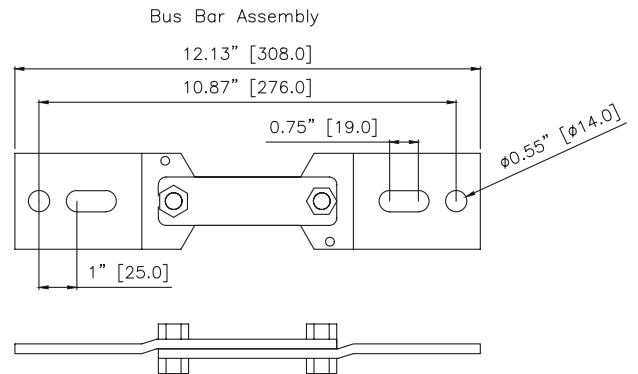
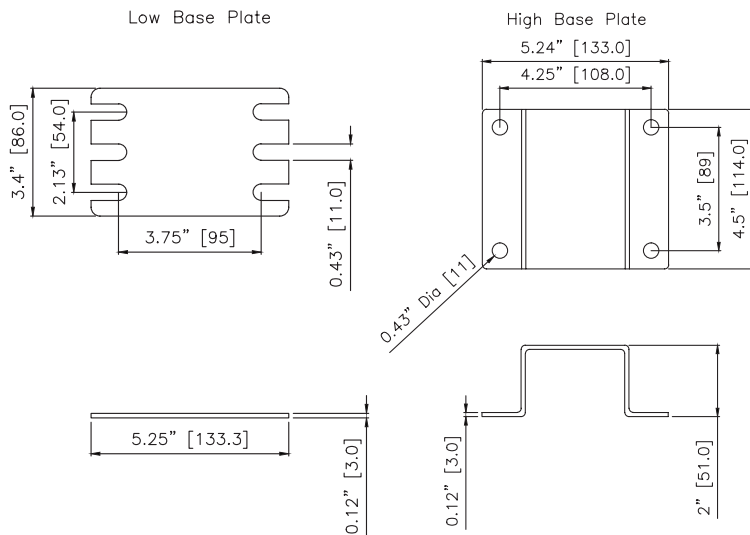
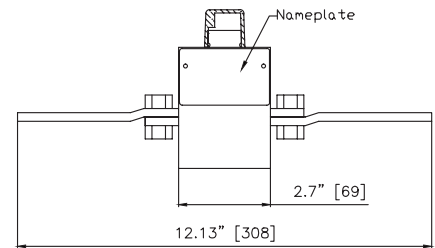
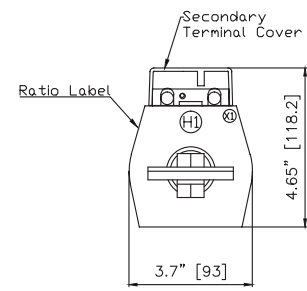
TYPE DCAB HIGH ACCURACY					
CURRENT RATING PRI:SEC AMPERES	CATALOG NUMBERS			CONTINUOUS THERMAL CURRENT RATING FACTOR	
	NO BASE	LOW BASE	HIGH BASE		
				30 °C	55° C
400:5	110601001.0148	110601002.0151	110601003.0154	2.0	1.5
500:5	110601001.0240	110601002.0241	110601003.0242	2.0	1.5
600:5	110601001.0149	110601002.0152	110601003.0155	2.0	1.5
800:5	110601001.0150	110601002.0153	110601003.0156	1.5	1.2

CURRENT RATING PRI:SEC AMPERES	IEEE METER ACCURACY CLASS, 60 HZ	
	B 0.1	B 0.2
400:5	0.15	-
500:5	0.15	-
600:5	0.15	-
800:5	0.15	0.15



Ratio	Window Diameter	Bus Bar Assembly
100:5	1.22" (31mm)	Small Bus Bar
200:5	1.22" (31mm)	Small Bus Bar
300:5	1.22" (31mm)	Small Bus Bar
400:5	1.4" (35.6mm)	Large Bus Bar
500:5	1.4" (35.6mm)	Large Bus Bar
600:5	1.4" (35.6mm)	Large Bus Bar
800:5	1.4" (35.6mm)	Large Bus Bar

Voltage Class	600 V
Basic Impulse Level	10 kV
Service Rating	Indoor/ Outdoor
Weight	5 ~ 7 lbs.



Comments:
 1. Dimensions shown in English [millimeters].
 2. Material: Aluminum 5052-H32 or equivalent.



RITZ INSTRUMENT TRANSFORMERS, INC.
 25 Hamburg Avenue • Lavonia, GA 30553 USA
 706-356-7180 • www.ritzusa.com
 e-mail: sales@ritzusa.com

SALES REPRESENTATIVE

