RITZ

Instrument Transformers

RITZ INSTRUMENT TRANSFORMERS, INC.

Current Transformers

DCBW and DCBB

General Description

The DCBW 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 DCBB catalog number or a bar-kit can be ordered for addition to the DCBW 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 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 DCBW and DCBB 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 DCBW					
CURRENT RATING PRI:SEC AMPERES	CATALOG NUMBERS			CONTINUOUS THERMAL CURRENT RATING FACTOR	
	NO BASE	LOW BASE	HIGH BASE	30° C	55° C
100:5	110601004.0019	110601005.0025	110601006.0031	3.0	2.0
200:5	110601004.0020	110601005.0026	110601006.0032	3.0	2.0
300:5	110601004.0021	110601005.0027	110601006.0033	2.0	1.5
400:5	110601004.0022	110601005.0028	110601006.0034	2.0	1.5
600:5	110601004.0023	110601005.0029	110601006.0035	1.5	1.2
800:5	110601004.0024	110601005.0030	110601006.0036	1.5	1.2

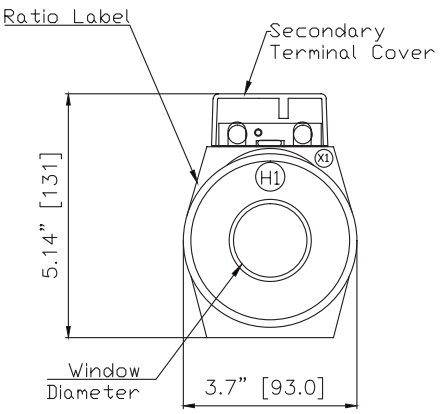
CURRENT RATING PRI:SEC AMPERES	IEEE METER ACCURACY CLASS, 60 HZ		
	B 0.1	B 0.2	B 0.5
100:5	0.3	-	-
200:5	0.3	0.3	-
300:5	0.3	0.3	0.6
400:5	0.3	0.3	0.6
600:5	0.3	0.3	0.6
800:5	0.3	0.3	0.3

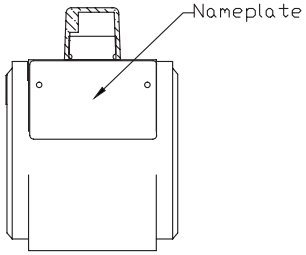
TYPE DCBB (WITH BUS BAR)					
CURRENT RATING PRI:SEC AMPERES	CATALOG NUMBERS			CONTINUOUS THERMAL CURRENT RATING FACTOR	
	NO BASE	LOW BASE	HIGH BASE	30° C	55° C
100:5	110601004.0344	110601005.0350	110601006.0356	3.0	2.0
200:5	110601004.0345	110601005.0351	110601006.0357	3.0	2.0
300:5	110601004.0346	110601005.0352	110601006.0358	2.0	1.5
400:5	110601004.0347	110601005.0353	110601006.0359	2.0	1.5
600:5	110601004.0348	110601005.0354	110601006.0360	1.5	1.2
800:5	110601004.0349	110601005.0355	110601006.0361	1.5	1.2

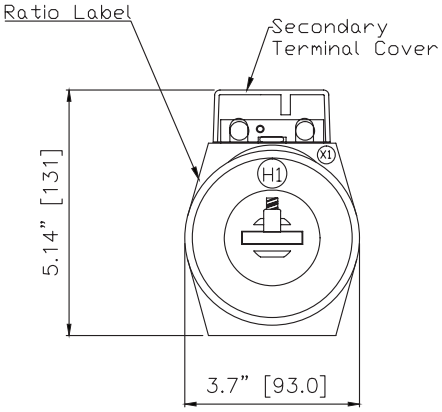
TYPE DCBW HIGH ACCURACY					
CURRENT RATING PRI:SEC AMPERES	CATALOG NUMBERS			CONTINUOUS THERMAL CURRENT RATING FACTOR	
	NO BASE	LOW BASE	HIGH BASE	30° C	55° C
300:5	110601004.0225	110601005.0229	110601006.0233	2.0	1.5
400:5	110601004.0226	110601005.0230	110601006.0234	2.0	1.5
600:5	110601004.0227	110601005.0231	110601006.0235	1.5	1.2
800:5	110601004.0228	110601005.0232	110601006.0236	1.5	1.2

CURRENT RATING PRI:SEC AMPERES	IEEE METER ACCURACY CLASS, 60 HZ				
	B 0.1	B 0.2	B 0.5	E0.04	E0.2
300:5	0.15	-	-	0.15	0.15
400:5	0.15	-	-	0.15	-
600:5	0.15	-	-	0.15	0.15
800:5	0.15	0.15	-	0.15	0.15

TYPE DCBB (WITH BUS BAR) HIGH ACCURACY					
CURRENT RATING PRI:SEC AMPERES	CATALOG NUMBERS			CONTINUOUS THERMAL CURRENT RATING FACTOR	
	NO BASE	LOW BASE	HIGH BASE	30° C	55° C
300:5	110601004.0362	110601005.0366	110601006.0370	2.0	1.5
400:5	110601004.0363	110601005.0367	110601006.0371	2.0	1.5
600:5	110601004.0364	110601005.0368	110601006.0372	1.5	1.2
800:5	110601004.0365	110601005.0369	110601006.0373	1.5	1.2

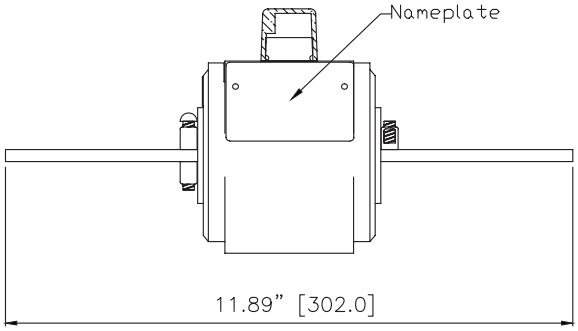




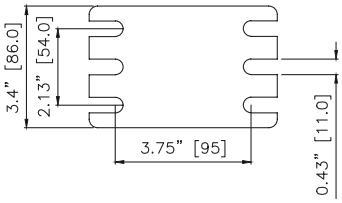


Ratio	Window Diameter
100:5	1.5" (38mm)
200:5	1.5" (38mm)
300:5	1.5" (38mm)
400:5	2.0" (51mm)
600:5	2.0" (51mm)
800:5	2.0" (51mm)

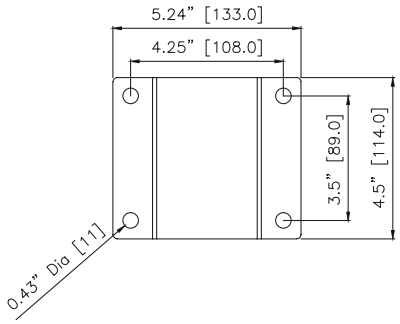
Voltage Class	600 V
Basic Impulse Level	10 kV
Service Rating	Indoor/ Outdoor
Weight	5.4 lbs.

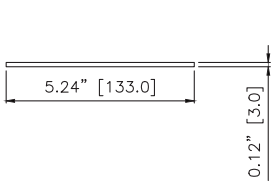


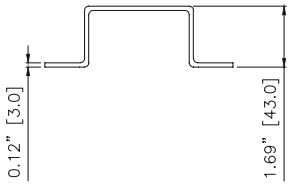
Low External Baseplate

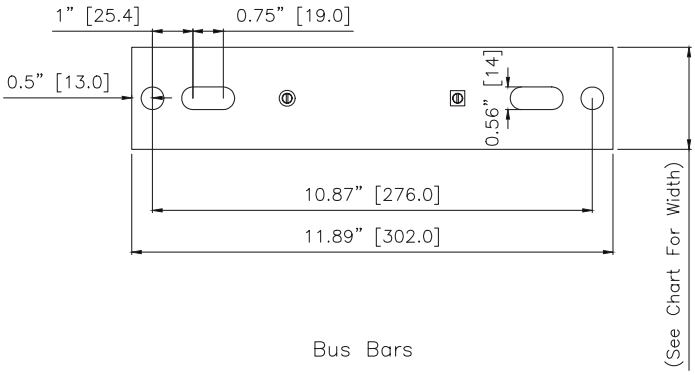


High External Baseplate









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

Bus Bars

Rating	Bar
100 ~ 300:5	¼" thick x 1¼" wide
400 ~ 800:5A	⅜" thick x 1¾" wide

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