



RITZ INSTRUMENT TRANSFORMERS, INC.

Instrument Transformers

Low-Voltage Extended-Range Current Transformers (ERCTs)

Overview

Ritz has long been regarded as the industry leader in providing cutting-edge metering accuracy performance for instrument transformers. In the 1990's, Ritz introduced the Medium-Voltage Extended-Range Current Transformer (MV ERCT). This technology is now available in the Ritz Low-Voltage CT offering for utility metering applications.

The Ritz ERCT design offers 0.15% accuracy performance from 1% nominal current up to the rating factor. This performance surpasses all of the metering accuracy classes defined under IEEE and CSA.

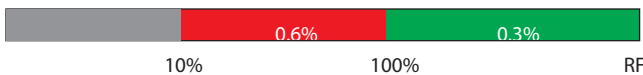
Applications

Since CT error gets more negative as the current level decreases, having better accuracy performance at lower current levels can result in less lost revenue at instrument-rated metering points. Also, the wider than normal current range of the Ritz ERCT offers the opportunity for users to drastically reduce the number of different ratios needed for a given style CT, thus reducing the amount of inventory needed to respond to customer demands.

Accuracy Class Definitions

The historical revenue metering class is 0.3 and in recent years, standards have defined high-accuracy revenue metering classes of 0.15 and 0.15S. The Ritz ERCT rating offers better accuracy down to lower currents than any standard defined accuracy class.

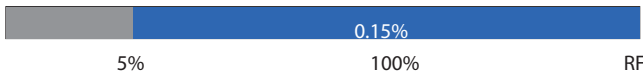
Class 0.3 - Revenue Accuracy



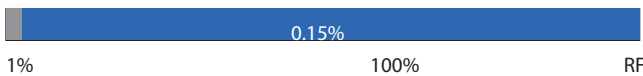
Class 0.15 - High Accuracy



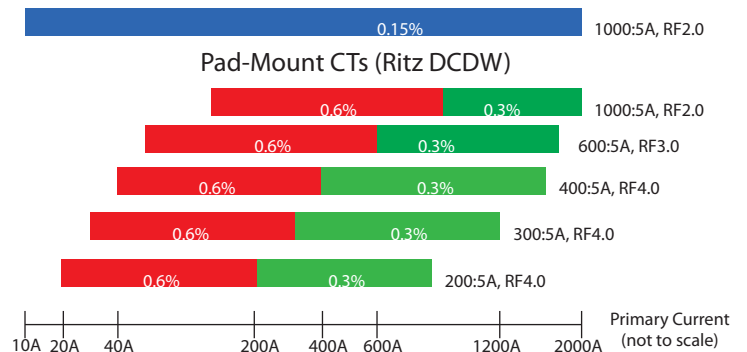
Class 0.15S - High Accuracy



Ritz Extended-Range (ERCT)



Example of Ritz ERCT Consolidation



Advantages

- Increases revenue due to more accurate and wider range
- Reduction of inventory levels
- Consolidation to 1 or 2 ratios per CT type
- Standardization of meter multipliers
- Reduces chance of incorrect CT sizing
- Eliminates the need for dual-ratio designs

DCAW/B

The DCAW/B is for use in 600V metering circuits, normally in an enclosure or transocket. This unit can be purchased as a window-type (W) or a bar-type (B). The DCAW/B ERCT design is offered with a 600:5A ratio offering 0.15% performance from 6A up to 1200A.

Ratings: 600:5A, 0.15S B0.2, 6A to 1200A, RF2.0 @ 30C (RF1.5 @ 55C)

| Type | Catalog Number | Feature |
|------|----------------|-----------|
| DCAW | 110601001.0810 | No Base |
| DCAW | 110601002.0811 | Low Base |
| DCAW | 110601003.0812 | High Base |
| DCAB | 110601001.0813 | No Base |
| DCAB | 110601002.0814 | Low Base |
| DCAB | 110601002.0815 | High Base |

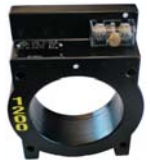


DCEW/B

The DCEW/B is for use in 600V metering circuits, normally in an enclosure or in switchgear. This unit can be purchased as a window-type (W) or a bar-type (B). The DCEW/B ERCT design is offered with a 2000:5A ratio offering 0.15% performance from 20A up to 4000A.

Ratings: 2000:5A, 0.15S B0.9, 20A to 4000A, RF2.0 @ 30C (RF1.5 @ 55C)

| Type | Catalog Number | Feature |
|------|----------------|--------------------------|
| DCEW | 110601012.0816 | Without Mounting Bracket |
| DCEW | 110601012.0817 | With Mounting Bracket |
| DCEB | 110601012.0818 | Without Mounting Bracket |
| DCEB | 110601012.0819 | With Mounting Bracket |



DCCW/B

The DCCW/B is for use in 600V metering circuits, normally in an enclosure or for overhead services. This unit can be purchased as a window-type (W) or a bar-type (B). The DCCW/B ERCT design is offered with a 600:5A ratio offering 0.15% performance from 6A up to 1800A.

Ratings: 600:5A, 0.15S B0.5, 6A to 1800A, RF3.0 @ 30C (RF2.2 @ 55C)

| Type | Catalog Number | Feature |
|------|----------------|-----------|
| DCCW | 110601007.0800 | No Base |
| DCCW | 110601008.0801 | Low Base |
| DCCW | 110601009.0802 | High Base |
| DCCW | 110601010.0803 | Wide Base |
| DCCB | 110601007.0804 | No Base |
| DCCB | 110601008.0805 | Low Base |
| DCCB | 110601009.0806 | High Base |
| DCCB | 110601010.0807 | Wide Base |



DCDW

The DCDW is for use in 600V metering circuits, normally in pad-mount distribution transformers. This unit is available in a 500:5A, 1000:5A, or 2000:5A ratio with 0.15% performance from 1% Inom to RF.

Ratings: 500:5A, 0.15S B0.2, 5A to 2000A

| Type | Catalog Number | Feature |
|------|--|---------|
| DCDW | 0601011.0832 - RF4.0 @ 30C (RF3.0 @ 55C) | |
| DCDW | 0601011.1133 - RF4.0 @ 85C | |

Ratings: 1000:5A, 0.15S B0.5, 10A to 2000A

| Type | Catalog Number | Feature |
|------|--|---------|
| DCDW | 110601011.0808 - RF2.0 @ 30C (RF1.5 @ 55C) | |
| DCDW | 110601011.0809 - RF2.0 @ 85C | |



Ratings: 2000:5A, 0.15S B0.5, 20A to 4000A

| Type | Catalog Number | Feature |
|------|--|---------|
| DCDW | 110601011.0822 - RF2.0 @ 30C (RF1.5 @ 55C) | |
| DCDW | 110601011.0823 - RF1.5 @ 85C | |

Comparison to Competitor Designs

The following is a comparison to offerings from other manufacturers based on the printed literature.

The Ritz ERCT design offers 0.15% accuracy performance down to 5 times lower current levels than the ABB AccuRange design.

Ritz ERCT - DCDW 1000:5A

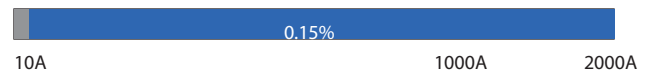
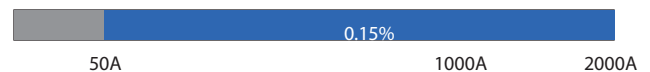
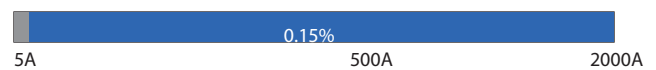


ABB AccuRange - CMV-S 1000:5A

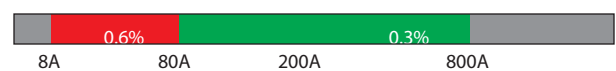


The Ritz ERCT design is more accurate across a wider range than the GE Encompass design and the GEC Durham Eliminator design. The ERCT accuracy performance is rated 4 times better at low current levels where customers tend to lose the most revenue.

Ritz ERCT - DCDW 500:5A ERCT



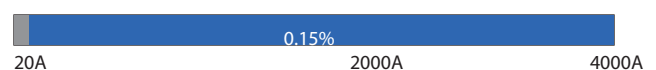
Durham Eliminator 200:5A



GE Encompass / Durham Eliminator 500:5A



Ritz ERCT - DCDW 2000:5A ERCT



GE Encompass / Durham Eliminator 1500:5A



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