#### **Grid Solutions**

## ENCOMPASS™ & REVENUESENSE™

## Current Transformers with High Accuracy and Extended Range

#### Overview

In the current economic and regulatory climate, utilities are looking for innovative and cost effective measures for decreasing operating and asset costs while increasing accuracy of revenue metering. GE Vernova's Encompass and RevenueSense 600V Current Transformers (CT's) address utilities need for accurate and efficient revenue metering. With their extended range ratings, one Encompass or one RevenueSense CT can be used accurately over a wide variety of applications. These specialty CT's are designed for use with transformer rated meters such as GE Vernova's kV2c meter. Use of Encompass and RevenueSense CT's, particularly when used in conjunction with GE Vernova's kV2c FITZALL™ transformer rated meter, will substantially simplify and improve standardization for meter shop operations.

#### **Key Benefits**

- Reduce inventory requirements up to 90%
- · Reduce time and effort in CT sizing and selection
- · Minimize costly errors from incorrect billing multipliers or meter programing
- · Decrease risk of stock outs and project delays
- · Reduce asset and operational costs

#### **Key Applications**

- · Revenue metering for commercial and industrial applications
- Cost effective extended range for revenue metering using Encompass
- Premium metering accuracy with RevenueSense



## Reduce Inventory and Operational Costs

- Encompass and RevenueSense both exceed the accuracy range for standard and high accuracy revenue metering classes
- Accuracy ratings extend beyond the load test points set by IEEE® C57.13
- Mitigates multiple ratios, reducing inventory requirements and part numbers
- Simplified selection and standardization of billing multipliers resulting in improved productivity and reduced risk of error

## Wider Accuracy Range with Encompass

- Maintains standard accuracy class from 4% of rated current, with typical rating factor of 4.0
- Wide range CT reduces need for multiple ratios, simplifying inventory requirements and billing multipliers
- Available at the same price point as a standard CT, in most cases

## Premium Accuracy with RevenueSense

- High precision resulting in maximum billing accuracy
- CT uses specialized core material in order to minimize electrical core losses
- Maintains 0.15 high accuracy class from 1% of rated current, up through its rating factor



#### **Customer Challenge**

Traditional 600V CT's experience relatively high losses at light loads, therefore it is most effective for utilities to specify as low of a ratio as possible and operate the CT within its rating factor. However, CT's also need to be sized with consideration of maximum possible amps, so the CT is not damaged in high load conditions, leading to a desire for higher ratios. These conflicting constraints add complexity to selecting the right sized CT, and necessitate the stocking of several different sized ratio CT's to cover a broad range of potential installations.

#### **GE Vernova's Solution**

GE Vernova's portfolio of extended range 600V Current Transformers makes it possible to replace all the various CT ratios used within a particular frame size with a single ratio that covers all potential installations.

Encompass and RevenueSense are each tailored to help utilities achieve both their business and technical objectives. The Encompass solution offers utilities a single unit that exceeds current accuracy range at no additional cost compared to a standard CT, and is best suited to utilities that want a cost effective CT with an extended range. The RevenueSense solution offers utilities a single unit that exceeds accuracy range with special high accuracy features, and is best suited to utilities that want premium metering accuracy.

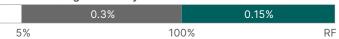
#### **IEEE Metering Class**

There are three revenue grade metering classes defined by IEEE C57.13-2008 and C57.13.6-2004. These are illustrated below, with limits shown as a percent of rated CT current:

#### 0.3 Class - Standard Accuracy



#### 0.15 Class - High Accuracy



#### 0.15S Class - Special High Accuracy



## Encompass & RevenueSense Exceed IEEE Standards

Encompass and RevenueSense redefine CT performance by exceeding the operating range within their respective IEEE accuracy classes, offering utilities additional flexibility to reduce inventory, part numbers, and billing multipliers. RevenueSense also allows for a further reduction of metering losses by extending high accuracy performance down to 1% of rated current.

#### **GE Vernova Encompass – Standard Accuracy** with Extended Range



#### **GE Vernova RevenueSense – Special High Accuracy** with Extended Range

	0.15%
1%	RF



RevenueSense and Encompass CTs are ideal for multiservice facilities such as shopping malls.

## Portfolio Summary: Encompass & RevenueSense

Encompass and RevenueSense 600V Current Transformers are designed for commercial and industrial applications and are typically installed with transformer rated meters like GE Vernova's kV2c. Encompass and RevenueSense models JCT, JCR, JAK, and JAD are designed for indoor or outdoor service and are available in bar-type or window-type configurations. The JAB model is specially designed for installation over the secondary bushings of pad mounted transformers from 75 kVA to 3000 kVA. A high temperature version is available for use in locations with unusually high ambient temperatures.

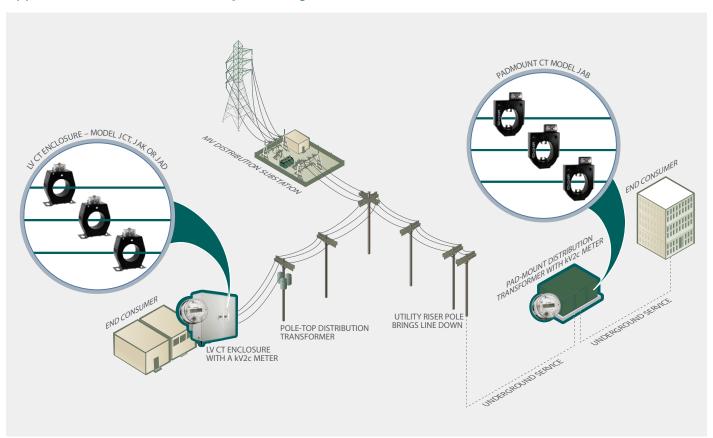
In most cases Encompass CT's are available at the same price point as Standard CT's. Choose this solution for a no-cost upgrade from standard range to extended range.

RevenueSense CT's provide both extended range and high accuracy. Choose this premium product to reduce electrical losses and increase revenue metering accuracy.

	STANDARD CT	GE VERNOVA ENCOMPASS	GE VERNOVA REVENUESENSE		
Range Type	Standard Range	Extended Range	Extended Range		
Accuracy Type	Standard Accuracy	Standard Accuracy	High Accuracy		
Rated Range*	10% to RF	4% to RF	1% to RF		

<sup>\*</sup> Operating Range stated as a % of Rated Nameplate Current

#### **Application Overview: Secondary Metering with Current Transformers**



Encompass and RevenueSense CTs provide flexibility for commercial and industrial applications, indoor or outdoor service and bar-type or window-type configurations.

#### **Encompass Product Overview**

#### **Extended Range CT**

Encompass is a specialty 600V current transformer that offers customers the benefits of wide-range CT's without paying the price premium normally associated with high accuracy units. This is accomplished by extending the accuracy range of the CT beyond what is defined by IEEE for standard revenue metering. The result is a single unit that is rated to operate accurately over a range that previously took multiple ratios (sizes) to accomplish.

#### **Benefits**

- Simplifies CT selection and billing multipliers, improving productivity and minimizing risk or error
- Reduces inventory and part number requirements reduce asset and operational costs
- Exceeds accuracy range for standard revenue metering resulting in reduced asset costs
- Extends accuracy range with no additional upgrade cost;
   Encompass CT's are typically available at the same price point as standard CT's
- Answers the engineering challenge to "design the most efficient CT possible without adding cost to the unit"

#### Redefining the Test Limits for Standard CT's

Traditionally, CT accuracy is tested at:

- 10% of rated current (light load)
- 100% of rated current (full load)
- With a rating factor between 1.0 and 4.0

With GE Vernova's Encompass CT, the 0.3 accuracy class is extended by changing the test points to:

- 4% of rated current (light load)
- 40% of rated current (full load)
- With a typical rating factor of 4.0

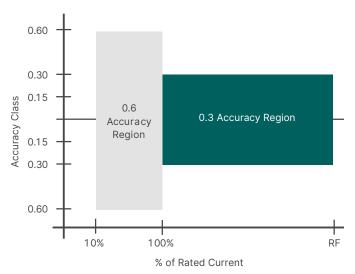
A rating factor of 4.0 means the Current Transformer meets rated accuracy at up to 4 times the rated primary current. Thus, the output on a 5 Amp CT secondary can be used up to 20 Amps if a rating factor of 4.0 is assigned to the CT (4.0\*5A = 20A). This pairs the CT output range and the meter input range when used with a CL20 transformer rated meter, maximizing the performance potential of the system.



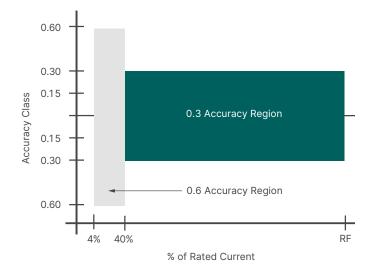
Extended Range (4% to RF). Standard Accuracy (0.3 Class).

#### Extending the test limits

#### **Standard CT Test Limits**



#### **Encompass Test Limits**



#### **Encompass Business Case Example**

The scenario for this business case is a meter shop that needs a current transformer for 200 Amp service. The testing below examines the benefits that the meter shop could achieve by installing GE Vernova's Encompass CT (500:5) compared to a standard CT (200:5).

A 500:5 Encompass CT has  $\pm 0.3\%$  accuracy from 200A to 2000A, compared to a standard 200:5 CT which has a  $\pm 0.3\%$  accuracy from 200A to only 800A. Both CT's have  $\pm 0.6\%$  accuracy from 20A to 200A.

#### 200:5 Standard CT

0.6%	0.3%	(Not Rated)	
20A	200A	800A	2000A

#### 500:5 Encompass

0.6%		0.3%	
20A	200A	800A	2000A

The 500:5 Encompass CT has equal to or better accuracy rating across the entire 20A to 2000A range. It is important to note that accuracy class only defines the "tolerance of error" allowed in a CT. Actual test results are also an important factor when evaluating CT's. At a typical burden of B-0.1, the Encompass CT test results slightly outperform a standard CT, even at the lowest test amps. All Encompass test results are well within the IEEE limits.

		TESTED IEEE ACCURACY CLASS	
	20A	200A	2000A
IEEE C57.13 Test Limits	±0.6	±0.3	±0.3
200:5 Standard CT Test Results*	0.4	0.2	(not rated)
500:5 Encompass CT Test Results*	0.3	0.2	0.1

<sup>\*</sup>Tested Accuracy Class values shown are for illustrative purposes only, and not a guarantee of performance. Actual results may vary, within defined test tolerances

#### Result and Benefits

The 500:5 Encompass unit when compared to a 200:5 standard CT has equal to or better test results at all points included even low currents and is available at an equivalent price. This comparison holds true across several other standard CT ratios, meaning one Encompass CT can functionally replace up to eight other standard ratios, allowing for an inventory reduction of up to nearly 90%.

SYSTEM CURRENT	20A	40A	60A	80A	100A	200A	400A	600A	800A	1000A	1200A	1400A	1600A	1800A	2000A
200:5 JAK-0C (Rating Factor 4.0)	±0.6% Accuracy					±0.3	0.3% Accuracy								
400:5 JAK-0C (Rating Factor 4.0)	±0.6% Accuracy						±0.3% Accuracy								
1000:5 JAK-0C (Rating Factor 2.0)						±0.6% Accuracy ±0.3% Accuracy									

#### Usually only one part number for each frame size

- · Reduced risk of costly stock outs
- Simplified site material ordering

# 200:5 300:5 400:5 500:5 600:5 800:5 1000:5 1200:5

#### Reduce meter shop inventory

- · Reduced cost on inventory
- Space saving



One Encompass CT replaces up to eight standard CT's

#### RevenueSense Product Overview

## Extended Range with High Accuracy Performance

ERevenueSense is a specialty brand 600V current transformer that is both wide range and special high accuracy. This CT maintains 0.15 accuracy class (the highest class per IEEE) from 1% of its rated current up through its rating factor. This is accomplished using the specialized amorphous core material that minimizes electrical core losses. The result is an extremely accurate CT that can maintain high accuracy over a wide range of current.

#### **Benefits**

- Maximizes billing revenue with special high accuracy metering compared to standard accuracy metering
- · Increases billing accuracy of metered customers
- Exceeds accuracy range for standard revenue metering resulting in reducing asset costs
- Simplifies CT selection and billing multipliers, improving productivity and minimizing risk or error
- Reduces inventory and part number requirements reduce asset and operational costs

#### Redefining Special High Accuracy

Per IEEE C57.13.6, a 0.15S class CT must maintain 0.15 accuracy from 5% of rated current through rating factor. This is a significantly tighter tolerance for error as compared to a standard CT: 2X better within rating factor and 4X better at light loads.

With GE Vernova's RevenueSense CT's, this tight tolerance of 0.15 accuracy is maintained for an extended range of 1% of rated current through rating factor. Similar to Encompass CT's, moving from a standard CT to a wide range CT allows for a reduction in inventory, part numbers, and billing multipliers.

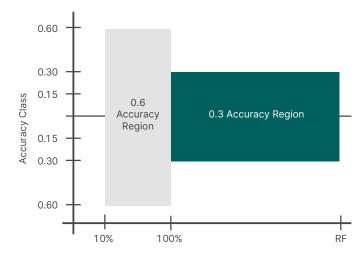
However, where Encompass CT's offer equal performance over an extended range, RevenueSense CT's offer improved high accuracy performance, allowing for increased billing accuracy and increased revenue.



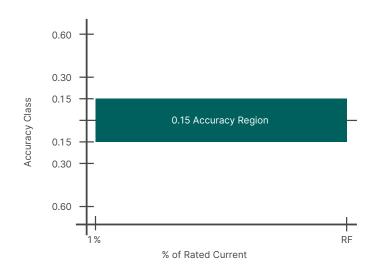
High Accuracy (0.15 Class). Extended Range (1% to RF). Premium Offering.

## Extended test limits with tighter accuracy tolerances

**Standard CT Test Limits** 



RevenueSense Test Limits% of Rated Current



### RevenueSense Business Case Example

In this business case example, a commercial customer requires premium accuracy to maximize billing revenue. The assumed hours of operation for this business are Monday to Friday, 9am to 5pm. The business is closed weeknights and weekends.

#### **Assumptions:**

- · Nominal system with current of 200A
- System impedance of  $0.1\Omega$
- · Line to ground voltage of 277V
- Power factor of 0.9
- Cost per kWh of \$0.09

#### **Load Conditions:**

- Load is 100% of nominal current (200A) for 8 hours each weekday
- 10% of nominal current (20A) for 16 hours each weekday
- 5% of nominal current (2A) during weekends

#### **Current Transformer Test Data**

MODEL	ТҮРЕ	RATIO	TESTED IEEE ACCURACY CLASS			
			2A	20A	200A	
JAK-0C*	Standard	200:5	0.80	0.40	0.18	
JAK-0S*	RevenueSense	600:5	0.04	0.03	0.03	

<sup>\*</sup>Tested Accuracy Class values shown are for illustrative purposes only, and not a guarantee of performance. Actual results may vary, within defined test tolerances.

#### Results

MODEL	TYPE	RATIO	KWH MEASURED	ANNUAL BILL	ADDITIONAL REVENUE VS. STANDARD CT	TYPICAL PRICE ADDER REVENUESENSE VS STANDARD CT (EACH)*
JAK-0C	Standard	200:5	217,211	\$19,548.95	-	-
JAK-0S	RevenueSense	600:5	217,665	\$19,589.88	\$40.93	\$20

<sup>\*</sup>Example only

#### Results and Benefit

The RevenueSense CT, with its premium accuracy increases billing revenue by \$40.93 annually versus the standard CT. The additional cost of three high accuracy CT's is roughly \$60 in this example, **yielding a payback in less than 18 months**.



Commercial building with 200A nominal service, 277V.

Model: JAK Size: 3" Window Range: Up to 2000A

Cross-Reference Guide: Converting Standard Accuracy CT's to GE Vernova's Encompass or RevenueSense CT's

## JAK-0W and JAK-0S Dimensions

- Approximate weight of Model JAK-0W is 8lbs
- Approximate weight of Model JAK-0S is 12lbs.
- Add 3lbs for primary bar, 0.5lb for low base, and 1lb for high base.



STA	ANDARD (	CT MAKE /	AND MODE	EL.	CHARAC	TERISTICS		RATED RAN ACCURACY		GE VERNOVA	GE VERNOVA REVENUESENSE
GE VERNOVA	ABB	RITZ	ASTRA	ITRON	RATIO	ACCCL	RF	0.6 ACCURACY	0.3 ACCURACY	ENCOMPASS	
JAK-0C	CMF	DCCW	AB	R6M	200:5	0.3B0.5	4	20A-200A	200A-800A	JAK-0W 500:5	JAK-0S 600:5
JAK-0C	CMF	DCCW	AB	R6M	300:5	0.3B0.5	4	30A-300A	300A-1200A	Maintains 0.6 accuracy from 20A-200A and 0.3 accuracy	Maintains 0.15 accuracy from
JAK-0C	CMF	DCCW	AB	R6M	400:5	0.3B0.5	4	40A-400A	400A-1600A		6A to 1800A
JAK-0C	CMF	DCCW	AB	R6M	500:5	0.3B0.5	3	50A-500A	500A-1500A	from 200A-2000A	
JAK-0C	CMF	DCCW	AB	R6M	600:5	0.3B0.5	2	60A-600A	600A-1200A		
JAK-0C	CMF	DCCW	AB	R6M	800:5	0.3B0.5	2	80A-800A	800A-1600A		
JAK-0C	CMF	DCCW	AB	R6M	1000:5	0.3B0.5	2	100A-1000A	1000A-2000A		
JAK-0C	CMF	DCCW	AB	R6M	1200:5	0.3B0.5	1.5	120A-1200A	1200A-1800A		
JAK-0C	CMF	DCCW	AB	R6M	2000:5	0.3B0.5	1	200A-2000A	2000A		-

Characteristics and Accuracy Range statements based on GE Vernova models only. Values from other manufacturers may vary.

#### JAK-0W Encompass Data Table

CURRENT RATIO	IEEE METERING	RATING	FACTOR		CATALOG NUMBER			
(AMPS)	ACCURACY (60HZ)	30°C 55°C	NO BASE	LOW BASE	HIGH BASE			
500:5	0.3B0.5 <sup>1</sup>	4	3	No	750X133655	750X133629	750X133633	
500:5	0.3B0.5 <sup>1</sup>	4	3	Yes	750X133470	750X133630	750X133634	

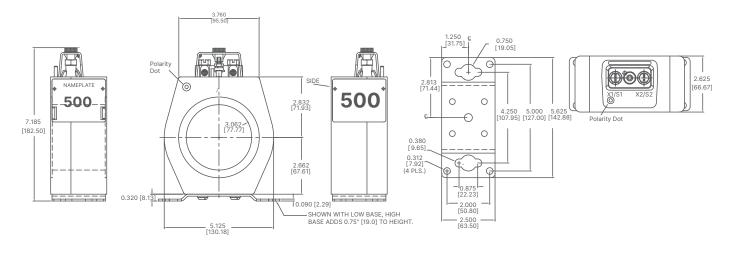
<sup>(1)</sup> Exceeds IEEE definition for standard accuracy. Maintains 0.6 Accuracy from 4% to 40% and 0.3 from 40% to Rating Factor.

#### JAK-0S RevenueSense Data Table

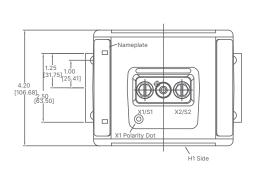
CURRENT RATIO	IEEE METERING	RATING	FACTOR	PRIMARY BAR	CATALOG NUMBER			
(AMPS)	ACCURACY (60HZ)	30°C	55°C		NO BASE	LOW BASE	HIGH BASE	
600:5	0.15SB0.2 <sup>2</sup>	3	2	No	-	750X333002	750X333003	
600:5	0.15SB0.2 <sup>2</sup>	3	2	Yes	750X333101	750X333102	750X333103	
600:5	0.15SB0.2 <sup>2</sup>	2	1.5	No	-	750X333012	750X333013	
600:5	0.15SB0.2 <sup>2</sup>	2	1.5	Yes	750X333011	750X333112	750X333113	

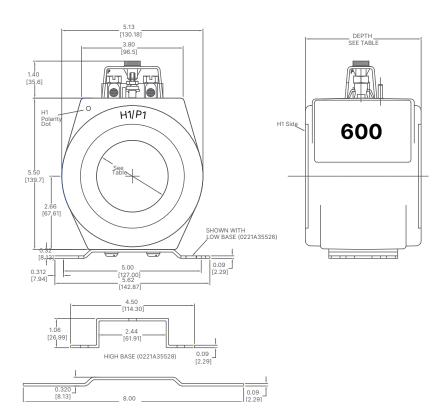
 $<sup>(2) \ \</sup>textit{Exceeds IEEE definition for special high accuracy}. \ \textit{Maintains 0.15 Accuracy from 1\% to Rating Factor}.$ 

#### JAK-0W 500:5



#### JAK-0S 600:5 and 1000:5





Model: JAB

Size: 4.5" x 3.5" Window Range: Up to 4000A

Hi-Temperature Rating (85°C)

Cross-Reference Guide: Converting Standard Accuracy CT's to GE Vernova's Encompass or RevenueSense CT's

## JAB-0W and JAB-0S Dimensions

Approximate weight of Model JAB is 8lbs.



STAI	NDARD (	T MAKE A	AND MODE	L	CHARACT	CHARACTERISTICS RATED RANGE OF GE VERNOVA ENCOMPASS		ENG			GE VERNOVA REVENUESENSE
GE VERNOVA	ABB	RITZ	ASTRA	ITRON	RATIO	ACCCL	RF	0.6 ACCURACY	0.3 ACCURACY		
JAB-0C	CMV	DCDW	AP	R6P	200:5	0.3B0.2	4	20A-200A	200A-800A	JAB-0W 500:5	JAB-0S 1000:5 Maintains 0.15 accuracy from 10A to 3000A
JAB-0C	CMV	DCDW	AP	R6P	300:5	0.3B0.2	4	30A-300A	300A-1200A	Maintains 0.6 accuracy from 20A-200A and 0.3 accuracy from 200A-2000A	
JAB-0C	CMV	DCDW	AP	R6P	400:5	0.3B0.2	4	40A-400A	400A-1600A		
JAB-0C	CMV	DCDW	AP	R6P	500:5	0.3B0.5	3	50A-500A	500A-1500A		
JAB-0C	CMV	DCDW	AP	R6P	600:5	0.3B0.5	3	60A-600A	600A-1800A		
JAB-0C	CMV	DCDW	AP	R6P	800:5	0.3B0.5	3	80A-800A	800A-2400A	JAB-0W 1500:5	
JAB-0C	CMV	DCDW	AP	R6P	1000:5	0.3B0.5	2	100A-1000A	1000A-2000A	Maintains 0.6 accuracy from	
JAB-0C	CMV	DCDW	AP	R6P	1200:5	0.3B0.5	2	120A-1200A	1200A-2400A	20A-200A and 0.3 accuracy	
JAB-0C	CMV	DCDW	AP	R6P	1500:5	0.3B0.5	2	200A-2000A	2000A-4000A	from 200A-00A	JAB-0S 2000:5
JAB-0C	CMV	DCDW	AP	R6P	3000:5	0.3B0.5	1.3	300A-3000A	3000A-4000A		Maintains 0.15 accuracy from
JAB-0C	CMV	DCDW	AP	R6P	4000:5	0.3B0.5	1	400A-4000A	4000A		20A to 4000A

Characteristics and Accuracy Range statements based on GE Vernova models only. Values from other manufacturers may vary.

#### JAB-0W Encompass Data Table

CURRENT RATIO			RATING FACTOR	НІ ТЕМР	047410041114050	
(AMPS)		30°C	55°C	85°C	HITEMP	CATALOG NUMBER
500:5	0.3B0.5 <sup>1</sup>	4	3	-	No	750X136651
1500:5	0.3B0.5 <sup>1</sup>	2	1.5	-	No	750X136652
500:5	0.3B0.5 <sup>1</sup>	-	-	4	Yes	750X136464
1500:5	0.3B0.5 <sup>1</sup>	-	-	2	Yes	750X136463

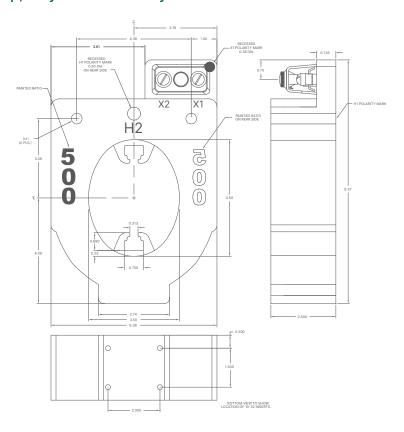
<sup>(1)</sup> Exceeds IEEE definition for standard accuracy. Maintains 0.6 Accuracy from 4% to 40% and 0.3 from 40% to Rating Factor.

#### JAB-0S RevenueSense Data Table

CURRENT RATIO			RATING FACTOR	III TEMP	047410041114050	
(AMPS)		30°C	55°C	85°C	НІ ТЕМР	CATALOG NUMBER
1000:5	0.15SB0.5 <sup>2</sup>	3	2	-	No	750X336001
2000:5	0.15SB0.5 <sup>2</sup>	2	1.5	-	No	750X336002
1000:5	0.15SB0.5 <sup>2</sup>	-	-	2	Yes	750X336101
2000:5	0.15SB0.5 <sup>2</sup>	-	-	1.5	Yes	750X336102

<sup>(2)</sup> Exceeds IEEE definition for special high accuracy. Maintains 0.15 Accuracy from 1% to Rating Factor.

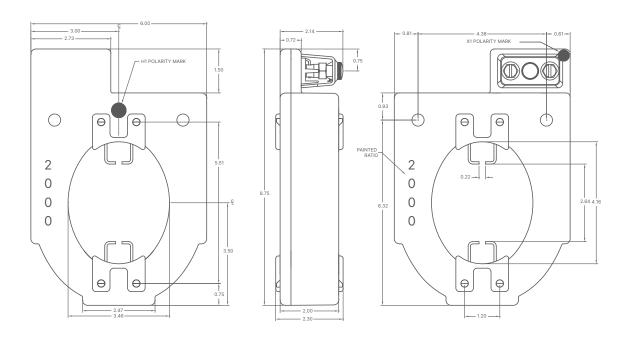
#### JAB-0W 500:5 Hi Temp, only. Cast Resin Style



JAB-0W 500:5 Standard Temp

JAB-0W 1500:5 Standard or Hi-Temp

JAB-0S 1000:5 and 2000:5, Standard or Hi Temp



Model JCT or JCR Size: 2" Window Range: Up to 1200A

Cross-Reference Guide: Converting Standard Accuracy CT's to GE Vernova's Encompass or RevenueSense CT's

## JCR-0W and JCT-0S Dimensions

- Approximate weight of Model JCR-0W is 4lbs
- Add 2lbs for primary bar, 0.5lb for low base, and 1lb for high base.
- Approximate weight of Model JCT-0S is 6lbs, including primary bar.
- Add 0.25lb for low base, and 1lb for high base.



TRANSFORMER TYPE	STANDARD CT MAKE AND MODEL									
	GE VERNOVA	ABB	RITZ	ASTRA	ITRON					
Miniature	JCR-0C	CSF	DCBW	TCW	R6SA					
Miniature	JCW-0C	CSH	-	TFW	R6S					
Miniature Bar-Type	JCM-0C	CBT-H	-	TAB	R6B					
Miniature Bar-Type	JCT-0C	CBT/1	DCAB	TCB	R6BA					

Characteristics and Accuracy Range statements based on GE Vernova models only. Values from other manufacturers may vary.

	CHARACTERISTICS RATED RANGE OF ACCURACY C				GE VERNOVA	GE VERNOVA	
RATIO	ACCCL	RF	0.6 ACCURACY	0.3 ACCURACY	ENCOMPASS	REVENUESENSE	
100:5	0.3B0.2	4	10A-100A	100A-400A	JCR-0W 250:5	JCT-0S 600:5	
200:5	0.3B0.2	2	20A-200A	200A-400A	Maintains 0.6 accuracy from	Maintains 0.15 accuracy from 6A to	
400:5	0.3B0.2	2	40A-400A	400A-800A	10A-100A and 0.3 accuracy from 100A-1000A	1200A	
600:5	0.3B0.5	2	60A-600A	600A-1200A	JCR-0W 500:5		
800:5	0.3B0.5	1.5	80A-800A	800A-1200A	Maintains 0.6 accuracy from 20A-200A and 0.3 accuracy from 200A-1200A		

#### JCR-0W Encompass Data Table

CURRENT RATIO	IEEE METERING	RATING	FACTOR		CATALOG NUMBER			
(AMPS)	ACCURACY (60HZ)	30°C	55°C	PRIMARY BAR	NO BASE	LOW BASE	HIGH BASE	
250:5	0.3B0.5 <sup>1</sup>	4	3	No	750X134608	750X134609	750X134610	
250:5	0.3B0.5 <sup>1</sup>	4	3	Yes	750X134627	750X134618	750X134646	
500:5	0.3B0.5 <sup>1</sup>	2.4	1.2	No	750X134641	750X134642	-	
500:5	0.3B0.5 <sup>1</sup>	2.4	1.2	Yes	750X134643	750X134644	-	

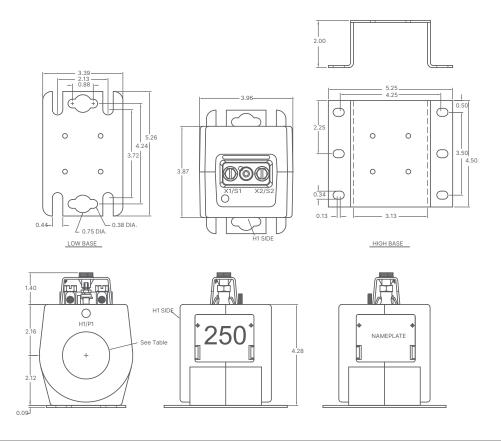
<sup>(1)</sup> Exceeds IEEE definition for standard accuracy. Maintains 0.6 Accuracy from 4% to 40% and 0.3 from 40% to Rating Factor.

#### JCT-0S RevenueSense Data Table

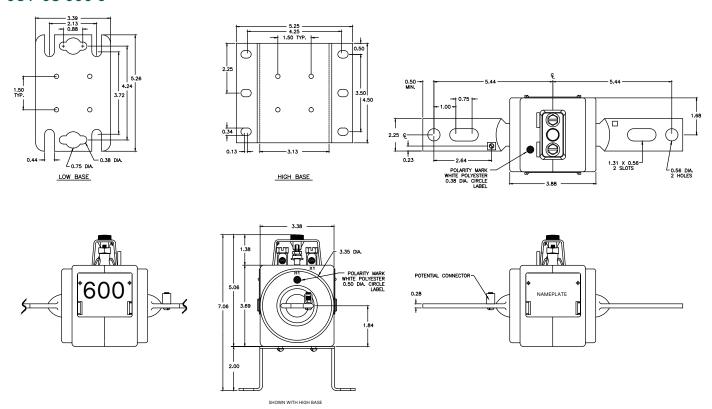
CURRENT RATIO	CURRENT RATIO IEEE METERING		RATING FACTOR		CATALOG NUMBER		
(AMPS)	ACCURACY (60HZ)	30°C	55°C	PRIMARY BAR	NO BASE	LOW BASE	HIGH BASE
600:5	0.15SB0.2 <sup>2</sup>	2	1.5	Yes	750X323001	750X323002	750X323003

<sup>(2)</sup> Exceeds IEEE definition for special high accuracy. Maintains 0.15 Accuracy from 1% to Rating Factor.

#### JCR-0W 250:5 and 500:5



#### JCT-0S 600:5



Model: JAD

Size: 5.75" Window Range: Up to 4500A

Cross-Reference Guide: Converting Standard Accuracy CT's to GE Vernova's Encompass or RevenueSense CT's

## JAD-0W and JAD-0S Dimensions

Approximate weight of Model JAD is 13lbs. Add 2lbs for mounting base.



STA	STANDARD CT MAKE AND MODEL				CHARACTERISTICS			RATED RANGE OF ACCURACY CLASS		ACCURACY CLASS GE VERNOVA GE VERN	
GE VERNOVA	АВВ	RITZ	ASTRA	ITRON	RATIO	ACCCL	RF	0.6 ACCURACY	0.3 ACCURACY	ENCOMPASS	REVENUESENSE
JAD-0C	CLC	DCEW	AD	R6L	400:5	0.3B0.2	4	40A-400A	400A-1600A	JAD-0W 1000:5	JAD-0S 2000:5
JAD-0C	CLC	DCEW	AD	R6L	500:5	0.3B0.2	4	50A-500A	500A-2000A	Maintains 0.6 accuracy from	Maintains 0.15 accuracy from 20A to 4000A
JAD-0C	CLC	DCEW	AD	R6L	600:5	0.3B0.5	3	60A-600A	600A-1800A	40A-400A and 0.3 accuracy from	
JAD-0C	CLC	DCEW	AD	R6L	800:5	0.3B0.5	3	80A-800A	800A-2400A	400A-4000A	
JAD-0C	CLC	DCEW	AD	R6L	1000:5	0.3B0.9	2	100A-1000A	1000A-2000A		
JAD-0C	CLC	DCEW	AD	R6L	1200:5	0.3B0.9	2	120A-1200A	1200A-2400A		
JAD-0C	CLC	DCEW	AD	R6L	1500:5	0.3B0.9	3	150A-1500A	2000A-4500A	JAD-0W 1500:5	JAD-0S 3000:5
JAD-0C	CLC	DCEW	AD	R6L	2000:5	0.3B0.9	2	200A-2000A	2000A-4000A	Maintains 0.6 accuracy from 60A-600A and 0.3 accuracy from 600A-4500A	Maintains 0.15 accuracy from
JAD-0C	CLC	DCEW	AD	R6L	3000:5	0.3B0.9	1.3	300A-3000A	3000A-4000A		30A to 4500A
JAD-0C	CLC	DCEW	AD	R6L	4000:5	0.3B0.9	1.1	400A-4000A	4000A-4500A		

Characteristics and Accuracy Range statements based on GE Vernova models only. Values from other manufacturers may vary.

#### JAD-0W Encompass Data Table

CURRENT RATIO	IEEE METERING	RATING	FACTOR	CATALOG NUMBER		
(AMPS)	ACCURACY (60HZ)	30°C	55°C	NO BASE	WITH BASE	
1000:5	0.3B0.5 <sup>1</sup>	4	3	750X120609	750X120612	
1500:5	0.3B0.9 <sup>1</sup>	3	2	750X120922	750X120980	

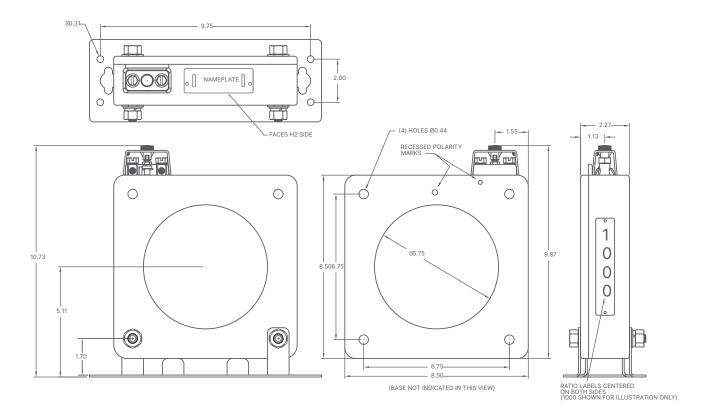
 $<sup>(1) \ \</sup>textit{Exceeds IEEE definition for standard accuracy}. \ \textit{Maintains 0.6 Accuracy from 4\% to 40\% and 0.3 from 40\% to Rating Factor}.$ 

#### JAD-0S RevenueSense Data Table

CURRENT RATIO	IEEE METERING	RATING	FACTOR	CATALOG NUMBER		
(AMPS)	ACCURACY (60HZ)	30°C	55°C	NO BASE	WITH BASE	
1200:5	0.15SB0.9 <sup>2</sup>	2	1.5	750X320001	750X320011	
2000:5	0.15SB0.9 <sup>2</sup>	2	1.5	750X320002	750X320012	
3000:5	0.15SB0.9 <sup>2</sup>	1.5	1	750X320003	750X320013	

 $(2) \ \textit{Exceeds IEEE definition for special high accuracy}. \ \textit{Maintains 0.15 Accuracy from 1\% to Rating Factor}.$ 

## JAD-0W 1000:5 and 1500:5 JAD-0S 2000:5 and 3000:5



#### Additional Utility Products Available from GE Vernova



#### LV Potential Transformers

- 600V class
- Fused and unfused models



## MV Indoor Current & Potential Transformers

- 5-15kV, up to 110kV BIL class
- Polyurethane insulation
- Fused and unfused PT models
- · Metering and relay accuracies.



## MV H-CEP Current & Potential Transformers

- 5-15kV, up to 110kV BIL class
- HCEP insulation
- · Metering and relay accuracies
- High accuracy, extended range CT's available



## MV HyBute 60™ Current & Potential Transformers

- 5-35kV, up to 200kV BIL class
- Butyl rubber insulation
- · Metering and relay accuracies
- High accuracy, extended range CT's available



## Superbute<sup>™</sup> Potential Transformers

- 25-69kV, up to 350kV BIL class
- Butyl rubber insulation
- Up to 5kVA thermal rating
- Metering class at ZZ (400VA) burden



## Superbute Current Transformers

- 25-69kV, up to 350kV BIL class
- Butyl rubber insulation
- · Metering and relay accuracies
- High accuracy, extended range CT's available



#### kV2c ANSI Meters

- Designed for revenue class metering
- · Commercial and industrial applications
- Robust revenue-grade meter design
- Two models available

## For more information, visit **gevernova.com/grid-solutions**

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