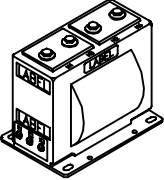
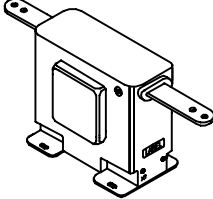
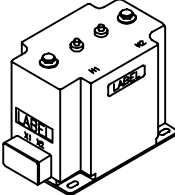
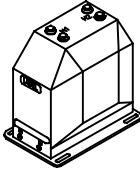
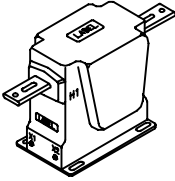
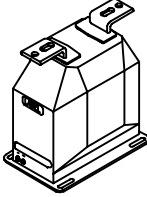
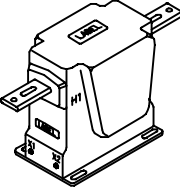
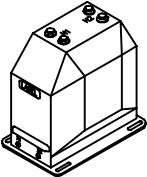
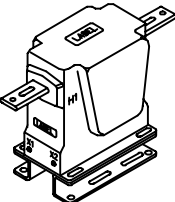
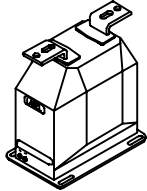
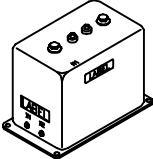
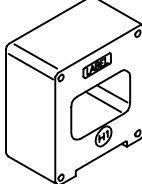
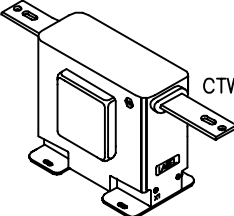
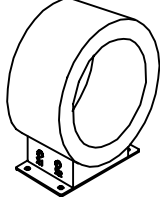
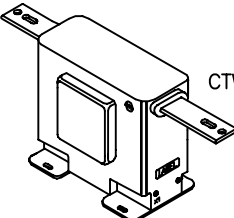


# CURRENT TRANSFORMERS MEDIUM VOLTAGE FROM 5kV TO 34.5kV

	<b>MODEL</b> CTW3-60-T10	<b>OVERALL SIZE</b> W7.00 H5.90 D4.75	<b>VOLTAGE CLASS</b> 5kV	<b>PAGE</b> <b>2</b>		<b>MODEL</b> CTWH5-S-110	<b>OVERALL SIZE</b> W21.62 H10.31 D7.00	<b>VOLTAGE CLASS</b> 15kV	<b>PAGE</b> <b>20</b>
	<b>MODEL</b> CTW3-60-T50 CTWH3-60-T50	<b>OVERALL SIZE</b> W13.00 H6.16 D4.75	<b>VOLTAGE CLASS</b> 5kV	<b>PAGE</b> <b>4</b>		<b>MODEL</b> CTW6-125	<b>OVERALL SIZE</b> W13.75 H13.60 D8.50	<b>VOLTAGE CLASS</b> 25kV	<b>PAGE</b> <b>22</b>
	<b>MODEL</b> CTWH3-60-T100	<b>OVERALL SIZE</b> W15.00 H7.25 D5.63	<b>VOLTAGE CLASS</b> 5kV	<b>PAGE</b> <b>6</b>		<b>MODEL</b> CTWH6-125-T200	<b>OVERALL SIZE</b> W16.00 H16.88 D9.50	<b>VOLTAGE CLASS</b> 25kV	<b>PAGE</b> <b>24</b>
	<b>MODEL</b> CTWH3-A-60-T90	<b>OVERALL SIZE</b> W15.00 H7.25 D5.63	<b>VOLTAGE CLASS</b> 5kV	<b>PAGE</b> <b>8</b>		<b>MODEL</b> CTW7-150	<b>OVERALL SIZE</b> W13.75 H15.10 D8.50	<b>VOLTAGE CLASS</b> 34.5kV	<b>PAGE</b> <b>26</b>
	<b>MODEL</b> CTWH4-75-T100	<b>OVERALL SIZE</b> W16.00 H9.50 D5.88	<b>VOLTAGE CLASS</b> 8.7kV	<b>PAGE</b> <b>10</b>		<b>MODEL</b> CTWH7-150-T200	<b>OVERALL SIZE</b> W16.00 H18.38 D9.50	<b>VOLTAGE CLASS</b> 34.5kV	<b>PAGE</b> <b>28</b>
	<b>MODEL</b> CTW5-L-110 CTWH5-L-110	<b>OVERALL SIZE</b> W23.00 H9.00 D6.00	<b>VOLTAGE CLASS</b> 15kV	<b>PAGE</b> <b>12</b>		<b>MODEL</b> CTOR	<b>OVERALL SIZE</b> W10.80 H12.00 D7.25	<b>VOLTAGE CLASS</b> 0.6kV	<b>PAGE</b> <b>30</b>
	<b>MODEL</b> CTWH5-B-110-T200	<b>OVERALL SIZE</b> W23.00 H10.31 D7.00	<b>VOLTAGE CLASS</b> 15kV	<b>PAGE</b> <b>14</b>		<b>MODEL</b> CTO	<b>OVERALL SIZE</b> W10.87 H12.50 D5.00	<b>VOLTAGE CLASS</b> 0.6kV	<b>PAGE</b> <b>32</b>
	<b>MODEL</b> CTWH5-A-110-T150	<b>OVERALL SIZE</b> W23.00 H10.31 D7.00	<b>VOLTAGE CLASS</b> 15kV	<b>PAGE</b> <b>18</b>					

# CURRENT TRANSFORMER

Model CTW3-60-T10

*Wound primary CT*

REGULATORY AGENCY APPROVALS



Manufactured to meet the requirements of ANSI/IEEE C57.13.  
Classified by U.L. in accordance with IEC 44-1

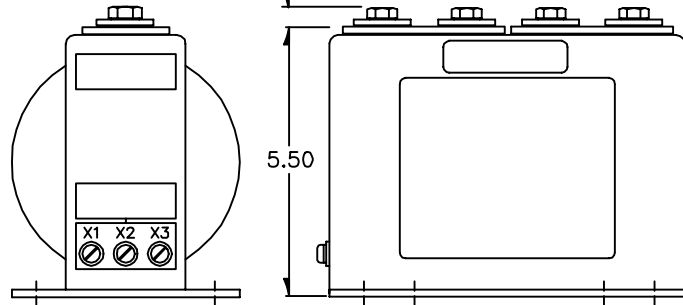
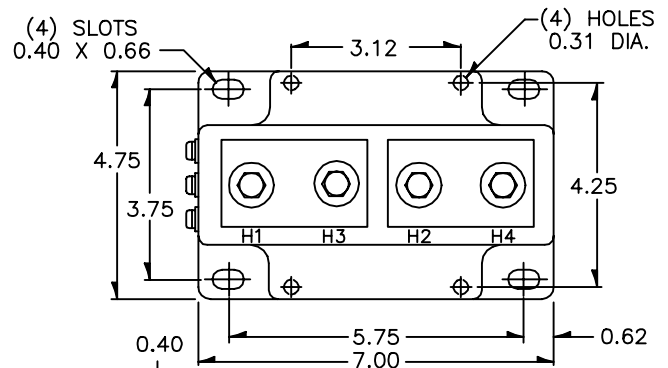
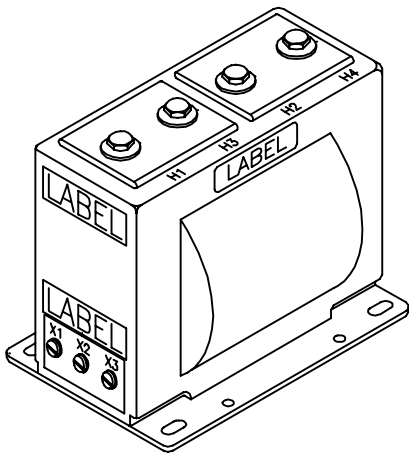
**APPLICATION:**  
Metering and relaying.

**FREQUENCY:**  
50-400 Hz.

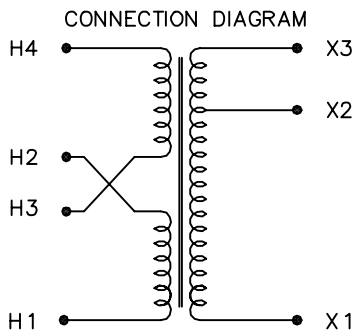
**MAXIMUM SYSTEM VOLTAGE:**  
5.6kV, BIL 60kV full wave.

**CONTINUOUS THERMAL CURRENT RATING FACTOR:**  
1.33 at 30°C. amb., 1.00 at 55°C. amb.

- Primary terminals are 3/8-16 bolts with one Belleville washer.
- Secondary terminals are brass screws No. 10-32 with one flatwasher and lockwasher.
- Vacuum cast in polyurethane resin.
- The transformers are tested for partial discharge to Canadian Standards CAN3-C13-M83. This test can also be carried out to IEC requirements if requested.
- Approximate weight 16 lbs.



CAUTION: Use only the Belleville washers supplied. Tighten to between 13 to 15 foot-pounds. DO NOT OVERTIGHTEN.



CONNECTION TABLE

LINE	CONNECT PRIMARY TO	CONNECT	CONNECT SECONDARY TO
1	H1/H3 - H2/H4	H1 TO H3 AND H2 TO H4	X1 - X3
2	H1/H3 - H2/H4	H1 TO H3 AND H2 TO H4	X1 - X2
3	H1 - H4	H2 TO H3	X1 - X3
4	H1 - H4	H2 TO H3	X1 - X2

CATALOG NUMBER	CURRENT RATIO	RELAYING CLASS	ANSI METERING CLASS AT 60 HZ		THERMAL CURRENT RATING 1 SECOND RMS AMPS	CONNECTION TABLE LINE
			B0.1	B0.2		
CTW3-60-T10-500X151DR	50: 5A	T10	0.6	1.2	4800	4
	75: 5A	T20	0.6	0.6	4800	3
	100: 5A	T10	0.6	1.2	9600	2
	150: 5A	T20	0.6	0.6	9600	1
CTW3-60-T10-201X601DR	200: 5A	T20	0.3	0.3	18000	4
	300: 5A	T30*	0.3	0.3	18000	3
	400: 5A	T20	0.3	0.3	36000	2
	600: 5A	T30*	0.3	0.3	36000	1

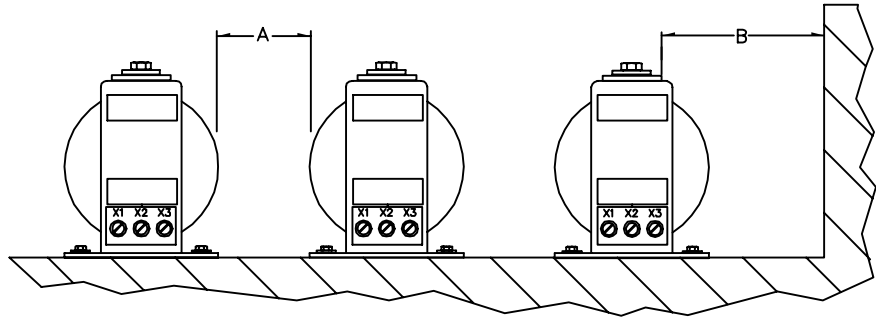
\*T30 is based on a burden of 0.3 ohms, 50% power factor.

# CTW3-60-T10

## RECOMMENDED MINIMUM SPACINGS

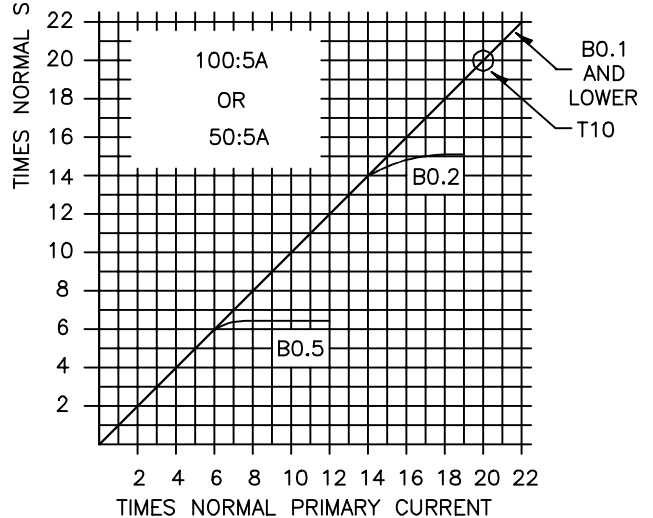
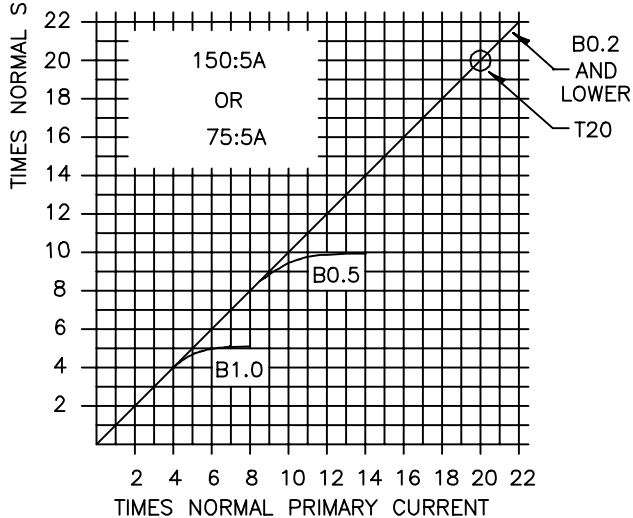
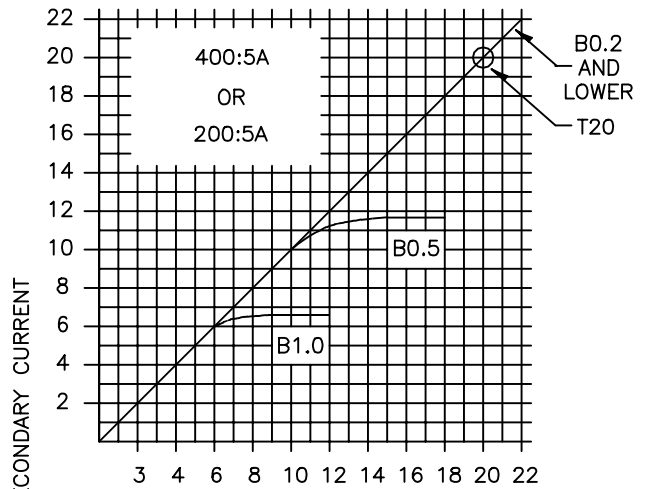
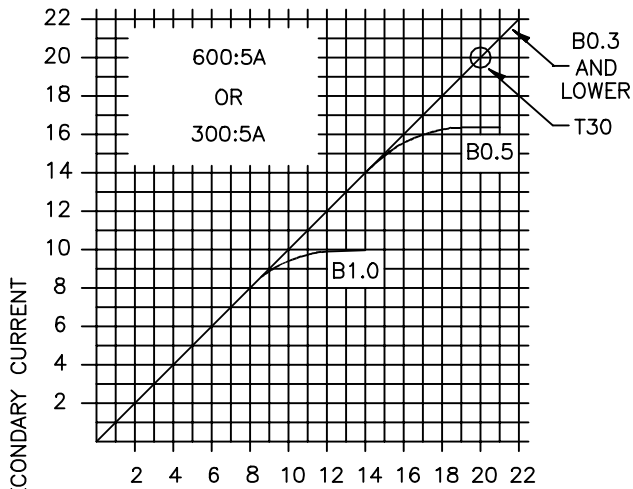
A; Unit to Unit  
= 0.25" minimum.

B; HV to Ground in Air  
= 3.00" minimum.



Recommended spacings are for guidance only. User needs to set appropriate values to assure performance for high potential test, impulse test, high humidity, partial discharge, high altitude, and other considerations like configuration.

## TYPICAL OVERCURRENT RATIO CURVES



# CURRENT TRANSFORMER

Model CTW3-60-T50  
Model CTWH3-60-T50

*Wound primary CT*

REGULATORY AGENCY APPROVALS



Manufactured to meet the requirements of ANSI/IEEE C57.13.  
Classified by U.L. in accordance with IEC 44-1

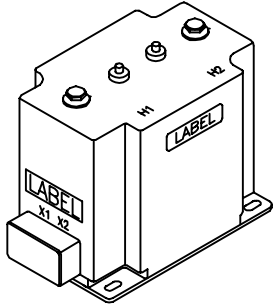
**APPLICATION:**  
Metering and relaying.

**FREQUENCY:**  
50-400 Hz.

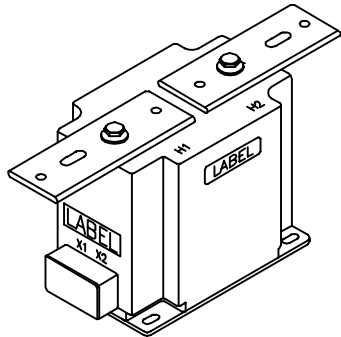
**MAXIMUM SYSTEM VOLTAGE:**  
5.6kV, BIL 60kV full wave.

**CONTINUOUS THERMAL CURRENT RATING FACTOR:**  
1.50 at 30°C. amb., 1.33 at 55°C. amb.  
150:5 and 600:5-  
1.33 at 30°C. amb., 1.00 at 55°C. amb.  
250:5-  
1.00 at 30°C. amb., 0.85 at 55°C. amb.

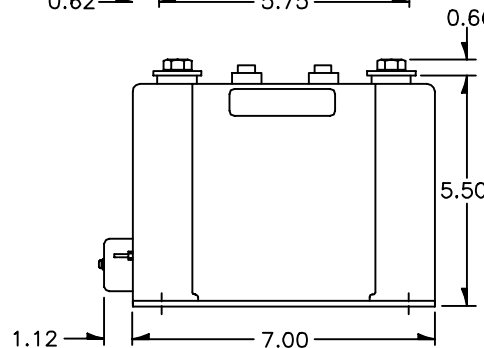
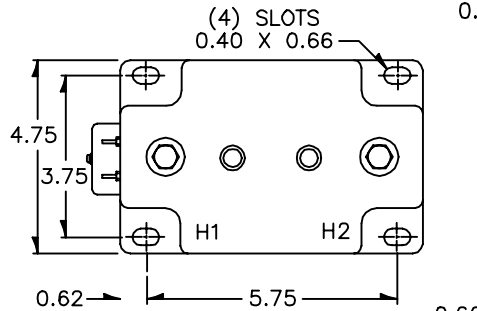
- Primary terminals are 1/2-13 bolts with one Belleville washer.
- Secondary terminals are brass studs No. 10-32 with one flatwasher, lockwasher and regular nut.
- Supplied with short circuiting secondary terminal cover.
- Vacuum cast in polyurethane resin.
- Other ratios, secondary currents and dual ratios are available. Refer to factory.
- The transformers are tested for partial discharge to Canadian Standards CAN3-C13-M83. This test can also be carried out to IEC requirements if requested
- Approximate weight 20 lbs.



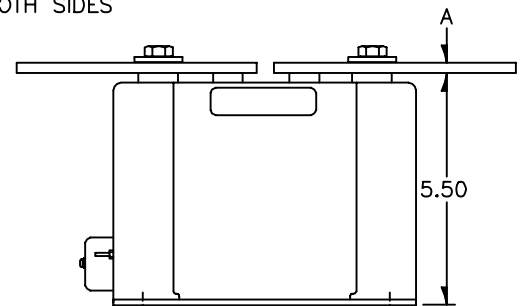
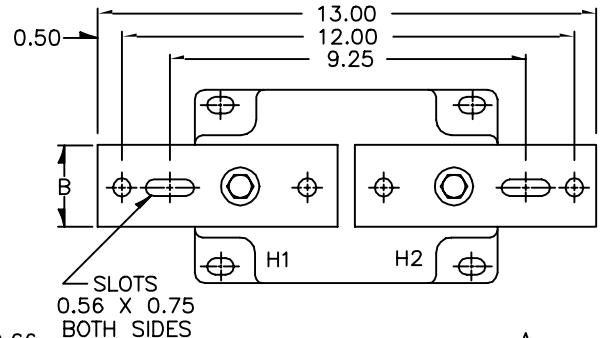
**MODEL CTW3  
WITHOUT PRIMARY BARS**



**MODEL CTWH3  
WITH PRIMARY BARS**



**WITHOUT PRIMARY BARS**



PRIMARY CURRENT	BAR SIZES	
	A	B
5 TO 150A	0.19	1.50
200 TO 600A	0.25	2.00

**WITH PRIMARY BARS**

CAUTION: Use only the Belleville washers supplied. Tighten to between 25 to 30 foot-pounds. DO NOT OVERTIGHTEN.

CATALOG NUMBER*	CURRENT RATIO	RELAY CLASS	ANSI METERING CLASS AT 60 Hz					**THERMAL CURRENT RATING 1 SECOND RMS AMPS
			B0.1	B0.2	B0.5	B0.9	B1.8	
CTW3-60-T50-050	5:5	T50	0.3	0.3	0.3	0.6	1.2	375
CTW3-60-T50-100	10:5	T50	0.3	0.3	0.3	0.6	1.2	1000
CTW3-60-T50-150	15:5	T50	0.3	0.3	0.3	0.6	1.2	1690
CTW3-60-T50-200	20:5	T50	0.3	0.3	0.3	0.6	1.2	1900
CTW3-60-T50-250	25:5	T50	0.3	0.3	0.3	0.6	1.2	2700
CTW3-60-T50-300	30:5	T50	0.3	0.3	0.3	0.6	1.2	2700
CTW3-60-T50-400	40:5	T50	0.3	0.3	0.3	0.6	1.2	4720
CTW3-60-T50-500	50:5	T50	0.3	0.3	0.3	0.6	1.2	4720
CTW3-60-T50-750	75:5	T50	0.3	0.3	0.3	0.6	1.2	8630
CTW3-60-T50-101	100:5	T50	0.3	0.3	0.3	0.6	1.2	8630
CTW3-60-T50-151	150:5	T50	0.3	0.3	0.3	0.6	1.2	14380
CTW3-60-T50-201	200:5	T50	0.3	0.3	0.3	0.6	1.2	17250
CTW3-60-T50-251	250:5	T50	0.3	0.3	0.3	0.6	1.2	17250
CTW3-60-T50-301	300:5	T50	0.3	0.3	0.3	0.6	1.2	37800
CTW3-60-T50-401	400:5	T50	0.3	0.3	0.3	0.6	1.2	37800
CTW3-60-T50-501	500:5	T50	0.3	0.3	0.3	0.6	1.2	37800
CTW3-60-T50-601	600:5	T50	0.3	0.3	0.3	0.6	1.2	37800

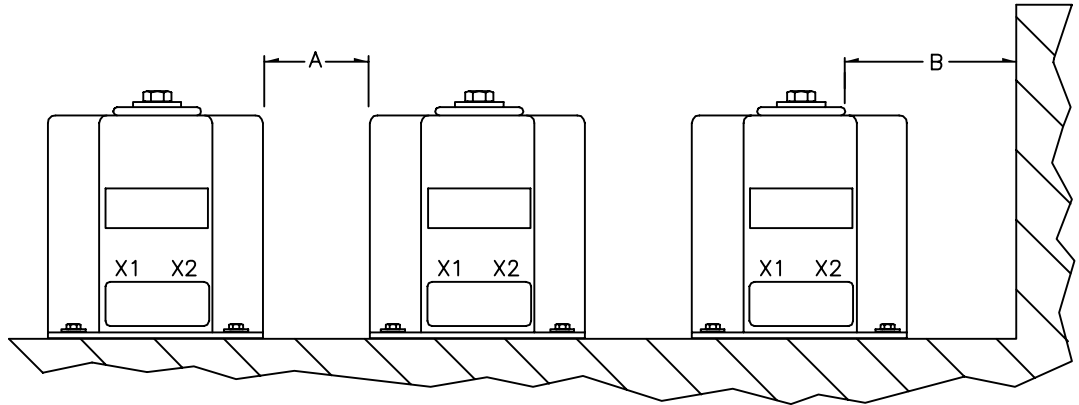
\*For ordering with primary bars, change model number to CTWH3.  
\*\*With a burden of B0.1 or greater connected to the secondary.

# CTW3-60-T50

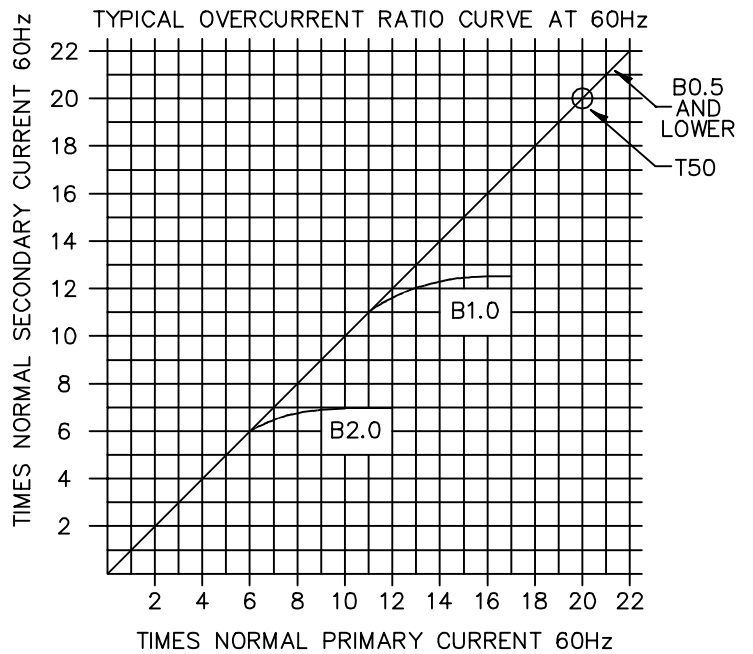
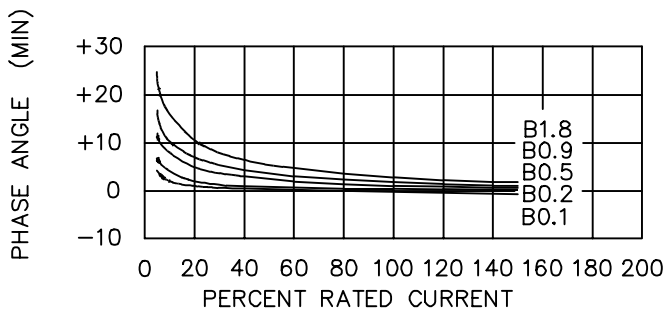
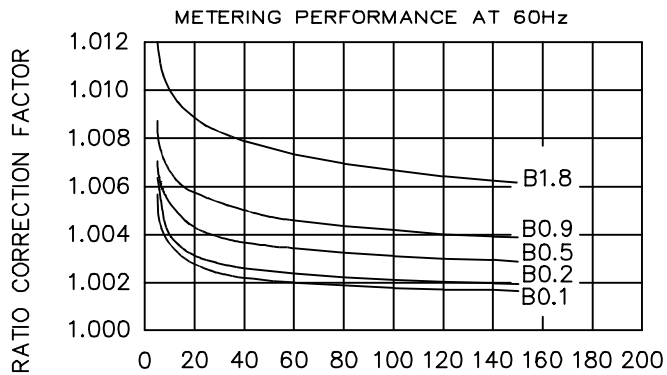
## RECOMMENDED MINIMUM SPACINGS

A; Unit to Unit  
= 0.75" minimum.

B; HV to Ground in Air  
= 3.00" minimum.



Recommended spacings are for guidance only. User needs to set appropriate values to assure performance for high potential test, impulse test, high humidity, partial discharge, high altitude, and other considerations like configuration.



# CURRENT TRANSFORMER

Model CTWH3-60-T100

*Wound primary CT*  
REGULATORY AGENCY APPROVALS



Manufactured to meet the requirements of ANSI/IEEE C57.13.  
Classified by U.L. in accordance with IEC 44-1  
Approved for revenue metering by Industry Canada. AE-0639 Rev.01(\*)

**APPLICATION:**  
Metering and relaying.

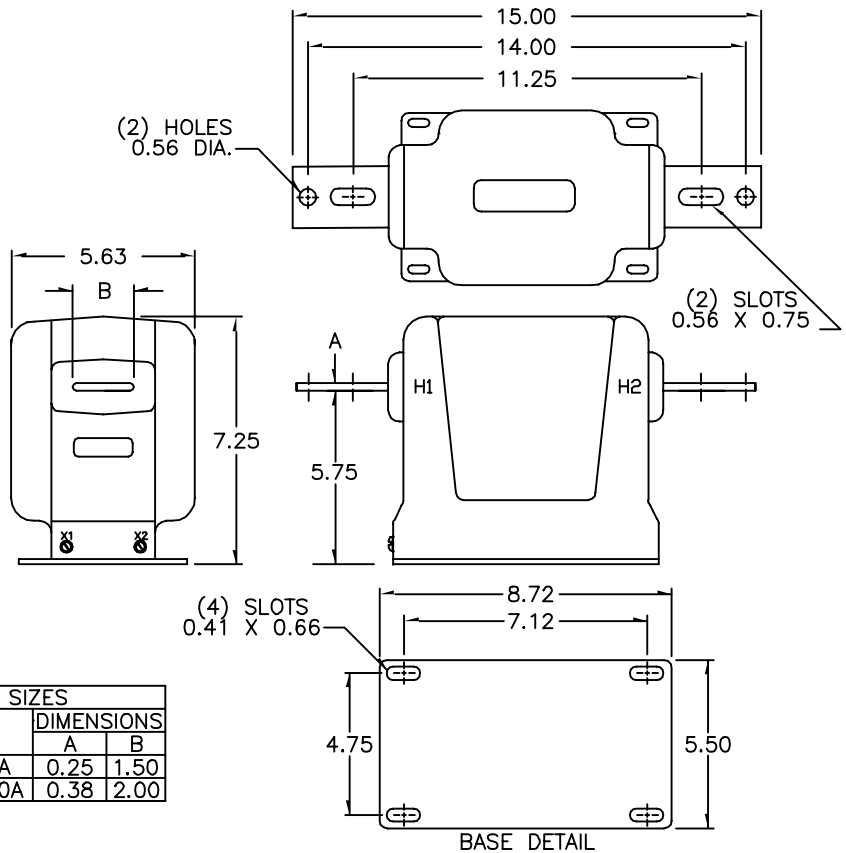
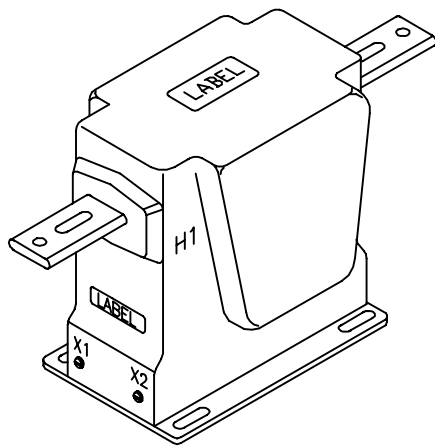
**FREQUENCY:**  
50-400 Hz.

**MAXIMUM SYSTEM VOLTAGE:**  
5.6kV, BIL 60kV full wave.

**CONTINUOUS THERMAL CURRENT RATING FACTOR:**

1.50 at 30°C. amb., 1.33 at 55°C. amb.  
250:5, 1000:5 and 1200:5-  
1.10 at 30°C. amb., 0.85 at 55°C. amb.

- Primary terminals are plated copper bars. See chart below for sizes.
- Secondary terminals are brass screws No. 10-32 with one flatwasher and lockwasher.
- Vacuum cast in polyurethane resin.
- Other ratios, secondary currents and dual ratios are available. Refer to factory.
- The transformers are tested for partial discharge to Canadian Standards CAN3-C13-M83. This test can also be carried out to IEC requirements if requested.
- Approximate weight 41 lbs.



BAR SIZES		
PRIMARY CURRENT	DIMENSIONS	
	A	B
5 TO 250A	0.25	1.50
300 TO 1200A	0.38	2.00

CATALOG NUMBER	CURRENT RATIO	RELAY CLASS	ANSI METERING CLASS AT 60 Hz					**THERMAL CURRENT RATING 1 SECOND RMS AMPS
			B0.1	B0.2	B0.5	B0.9	B1.8	
CTWH3-60-T100-050	5:5	T100	0.3	0.3	0.3	0.3	0.3	470
CTWH3-60-T100-100	* 10:5	T100	0.3	0.3	0.3	0.3	0.3	900
CTWH3-60-T100-150	* 15:5	T100	0.3	0.3	0.3	0.3	0.3	1600
CTWH3-60-T100-200	* 20:5	T100	0.3	0.3	0.3	0.3	0.3	1900
CTWH3-60-T100-250	* 25:5	T100	0.3	0.3	0.3	0.3	0.3	2600
CTWH3-60-T100-300	* 30:5	T100	0.3	0.3	0.3	0.3	0.3	2900
CTWH3-60-T100-400	* 40:5	T100	0.3	0.3	0.3	0.3	0.3	3800
CTWH3-60-T100-500	* 50:5	T100	0.3	0.3	0.3	0.3	0.3	4700
CTWH3-60-T100-750	* 75:5	T100	0.3	0.3	0.3	0.3	0.3	5900
CTWH3-60-T100-101	* 100:5	T100	0.3	0.3	0.3	0.3	0.3	8600
CTWH3-60-T100-151	* 150:5	T100	0.3	0.3	0.3	0.3	0.3	12900
CTWH3-60-T100-201	* 200:5	T100	0.3	0.3	0.3	0.3	0.3	17200
CTWH3-60-T100-251	* 250:5	T100	0.3	0.3	0.3	0.3	0.3	17200
CTWH3-60-T100-301	* 300:5	T100	0.3	0.3	0.3	0.3	0.3	34500
CTWH3-60-T100-401	* 400:5	T100	0.3	0.3	0.3	0.3	0.3	34500
CTWH3-60-T100-601	* 600:5	T100	0.3	0.3	0.3	0.3	0.3	66200
CTWH3-60-T100-801	* 800:5	T100	0.3	0.3	0.3	0.3	0.3	66200
CTWH3-60-T100-102	* 1000:5	T100	0.3	0.3	0.3	0.3	0.3	66200
CTWH3-60-T100-122	* 1200:5	T100	0.3	0.3	0.3	0.3	0.3	66200

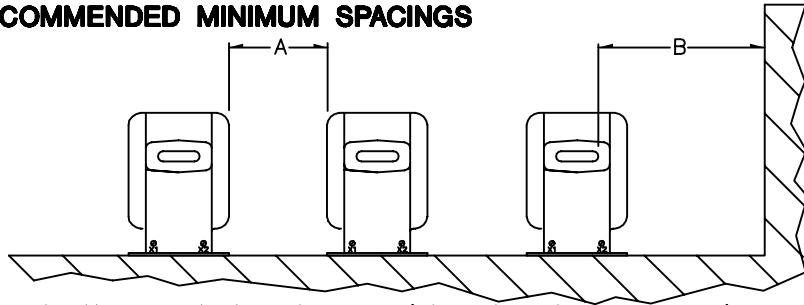
\*\*With a burden of B0.1 or greater connected to the secondary. Section 13 Rev. V 3/99

# CTWH3-60-T100

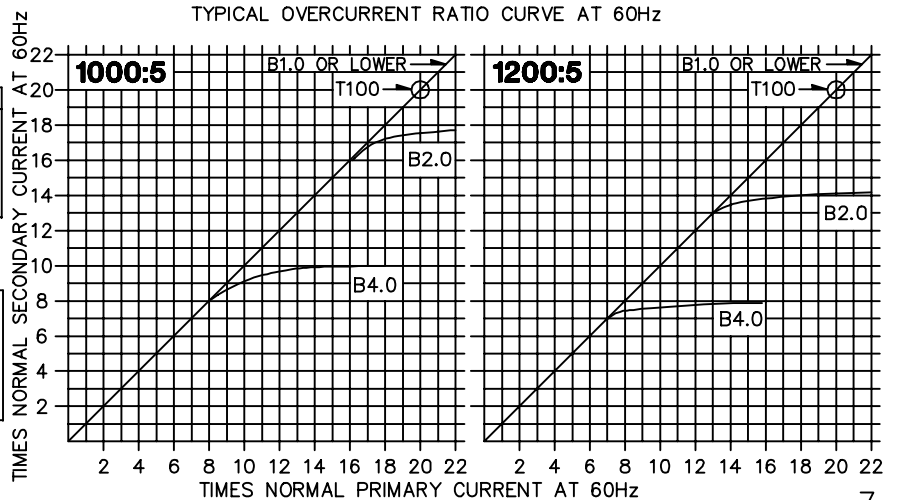
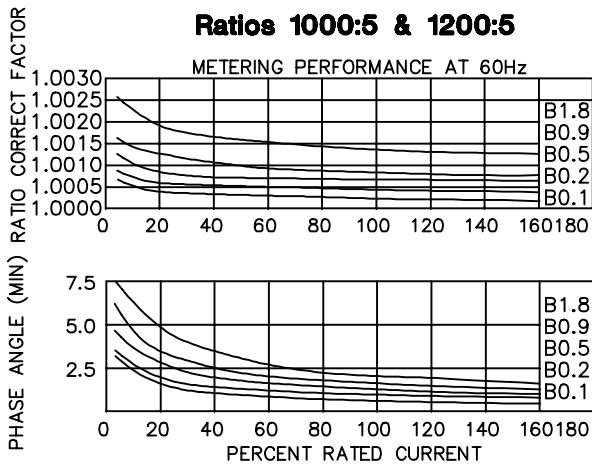
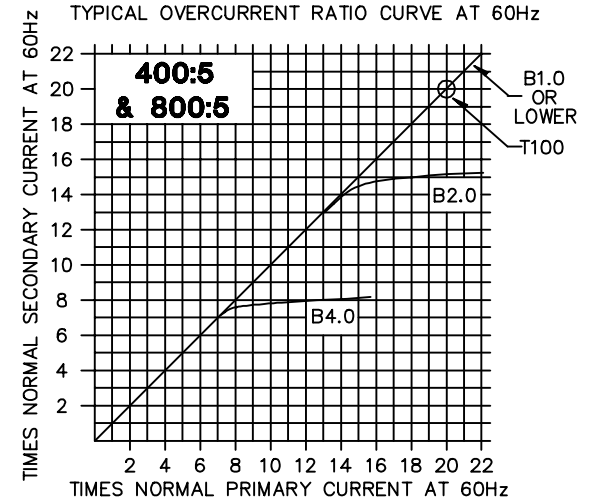
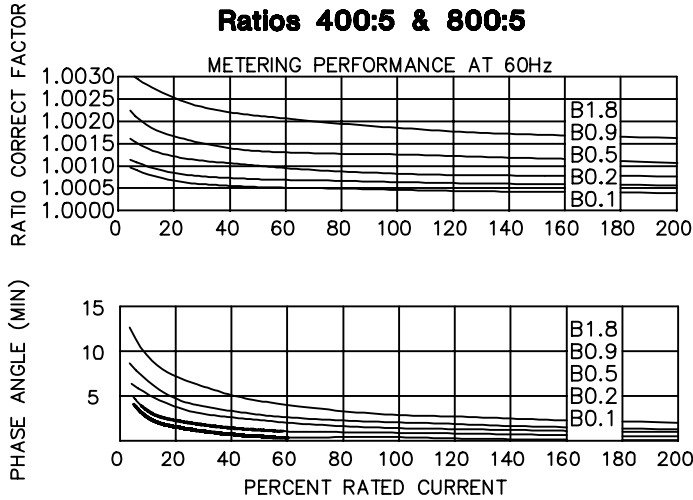
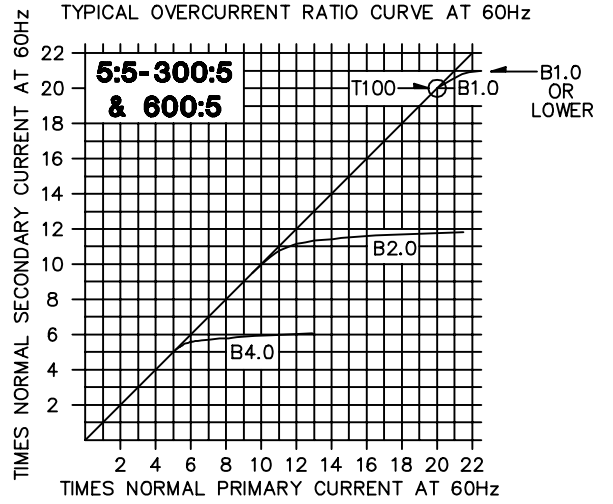
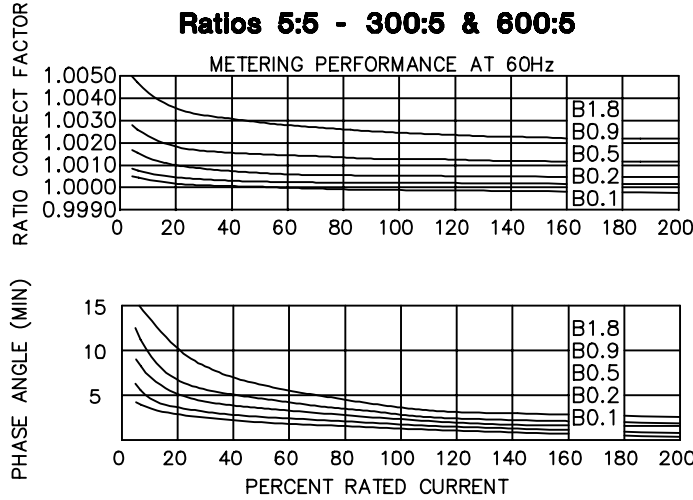
## RECOMMENDED MINIMUM SPACINGS

A; Unit to Unit  
= 0.75" minimum.

B; HV to Ground in Air  
= 3.00" minimum.



Recommended spacings are for guidance only. User needs to set appropriate values to assure performance for high potential test, impulse test, high humidity, partial discharge, high altitude, and other considerations like configuration.



# CURRENT TRANSFORMER

## Model CTWH3-A-60-T90

*Wound primary CT*

REGULATORY AGENCY APPROVALS



Manufactured to meet the requirements of ANSI/IEEE C57.13.  
Classified by U.L. in accordance with IEC 44-1

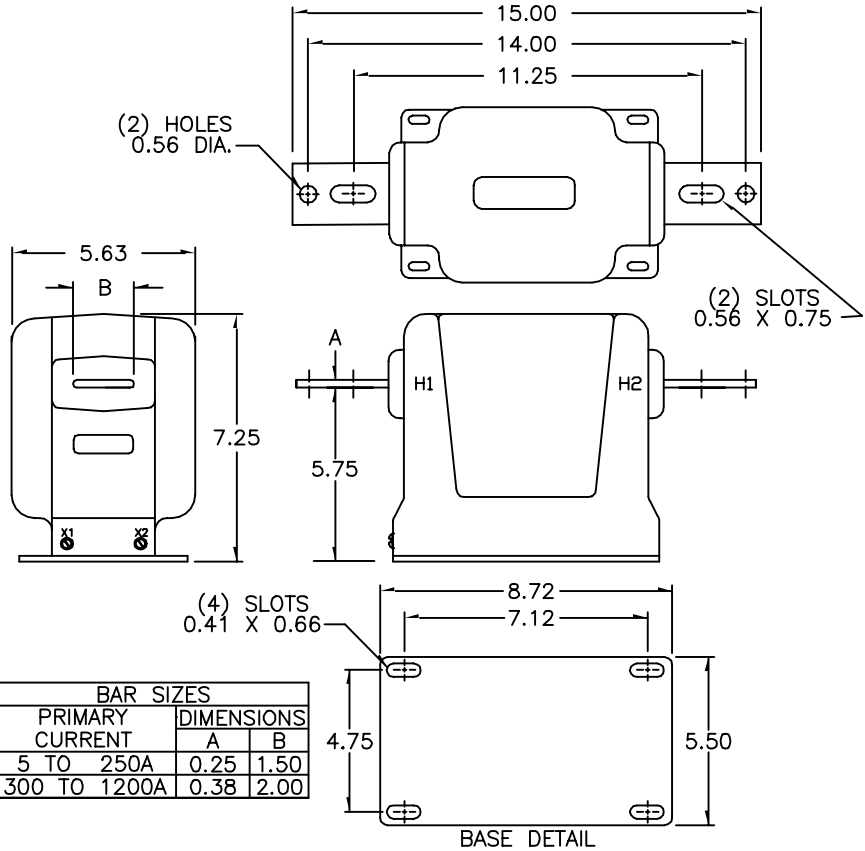
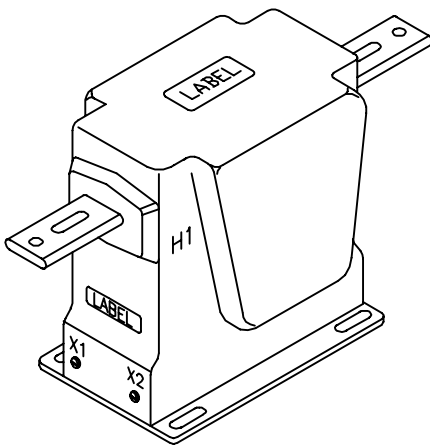
**APPLICATION:**  
High accuracy metering and relaying.

**FREQUENCY:**  
50-400 Hz.

**MAXIMUM SYSTEM VOLTAGE:**  
5.6kV, BIL 60kV full wave.

**CONTINUOUS THERMAL CURRENT RATING FACTOR:**  
1.33 at 30°C. amb., 1.0 at 55°C. amb.  
400:5-  
1.1 at 30°C. amb., 0.85 at 55°C. amb.

- Primary terminals are plated copper bars. See chart below for sizes.
- Secondary terminals are brass screws No. 10-32 with one flatwasher and lockwasher.
- Vacuum cast in polyurethane resin.
- Other ratios, secondary currents and dual ratios are available. Refer to factory.
- The transformers are tested for partial discharge to Canadian Standards CAN3-C13-M83. This test can also be carried out to IEC requirements if requested.
- Approximate weight 41 lbs.



CATALOG NUMBER	CURRENT RATIO	RELAY CLASS	ANSI METERING CLASS AT 60 Hz					*THERMAL CURRENT RATING 1 SECOND RMS AMPS
			B0.1	B0.2	B0.5	B0.9	B1.8	
CTWH3-A-60-T90-050	5:5	T90	0.1	0.1	0.1	0.1	0.2	470
CTWH3-A-60-T90-100	10:5	T90	0.1	0.1	0.1	0.1	0.2	900
CTWH3-A-60-T90-150	15:5	T90	0.1	0.1	0.1	0.1	0.2	1700
CTWH3-A-60-T90-200	20:5	T90	0.1	0.1	0.1	0.1	0.2	1920
CTWH3-A-60-T90-250	25:5	T90	0.1	0.1	0.1	0.1	0.2	2600
CTWH3-A-60-T90-300	30:5	T90	0.1	0.1	0.1	0.1	0.2	2900
CTWH3-A-60-T90-400	40:5	T90	0.1	0.1	0.1	0.1	0.2	3700
CTWH3-A-60-T90-500	50:5	T90	0.1	0.1	0.1	0.1	0.2	4700
CTWH3-A-60-T90-750	75:5	T90	0.1	0.1	0.1	0.1	0.2	5800
CTWH3-A-60-T90-101	100:5	T90	0.1	0.1	0.1	0.1	0.2	8600
CTWH3-A-60-T90-151	150:5	T90	0.1	0.1	0.1	0.1	0.2	12900
CTWH3-A-60-T90-201	200:5	T90	0.1	0.1	0.1	0.1	0.2	18000
CTWH3-A-60-T90-301	300:5	T90	0.1	0.1	0.1	0.1	0.2	28200
CTWH3-A-60-T90-401	400:5	T90	0.1	0.1	0.1	0.1	0.2	34000
CTWH3-A-60-T90-601	600:5	T90	0.1	0.1	0.1	0.1	0.2	51500

\* With a burden of B0.1 or greater connected to the secondary.

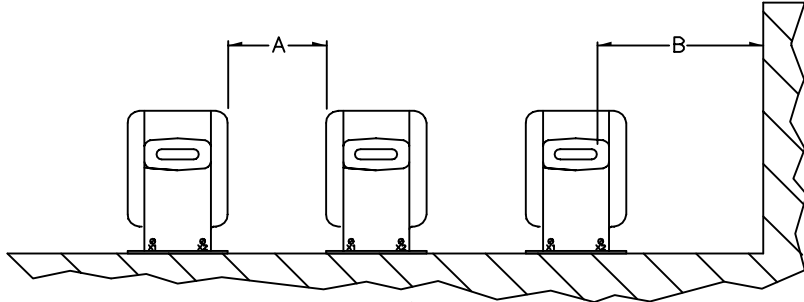


# CTWH3-A-60-T90

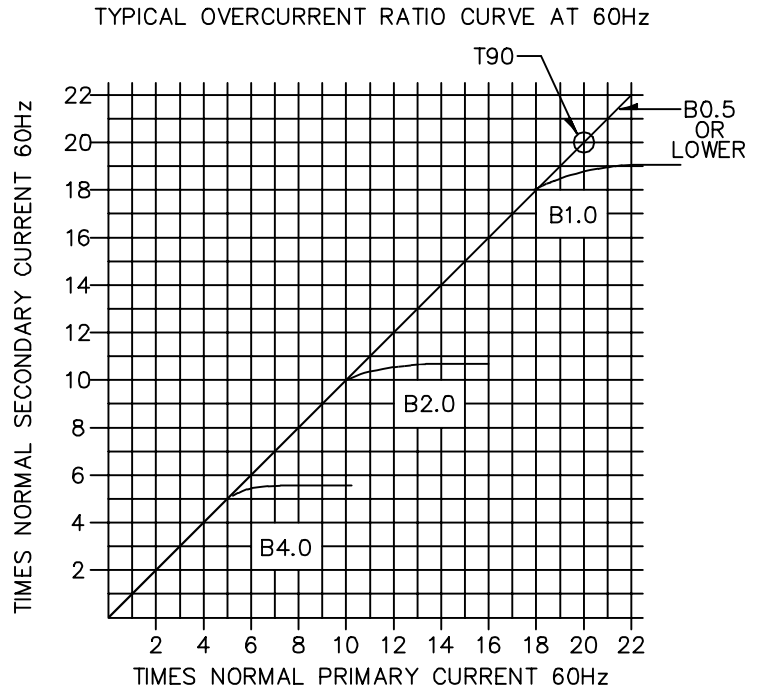
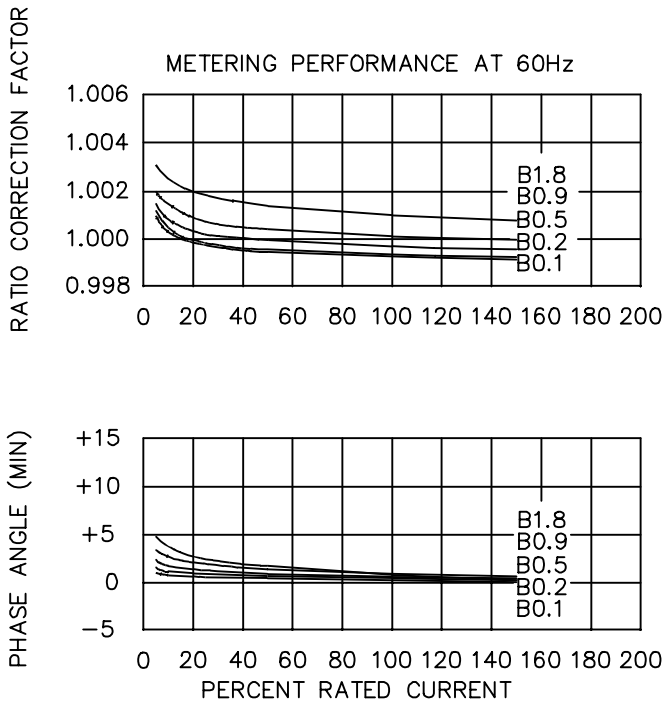
## RECOMMENDED MINIMUM SPACINGS

A; Unit to Unit  
= 0.75" minimum.

B; HV to Ground in Air  
= 3.00" minimum.



Recommended spacings are for guidance only. User needs to set appropriate values to assure performance for high potential test, impulse test, high humidity, partial discharge, high altitude, and other considerations like configuration.



# CURRENT TRANSFORMER

Model CTWH4-75-T100

Wound primary CT

REGULATORY AGENCY APPROVALS



Manufactured to meet the requirements of ANSI/IEEE C57.13.  
Classified by U.L. in accordance with IEC 44-1

**APPLICATION:**

Metering and relaying.

**FREQUENCY:**

50-400 Hz.

**MAXIMUM SYSTEM VOLTAGE:**

9.52kV, BIL 75kV full wave.

**CONTINUOUS THERMAL**

**CURRENT RATING FACTOR:**

1.50 at 30°C. amb., 1.33 at 55°C. amb.

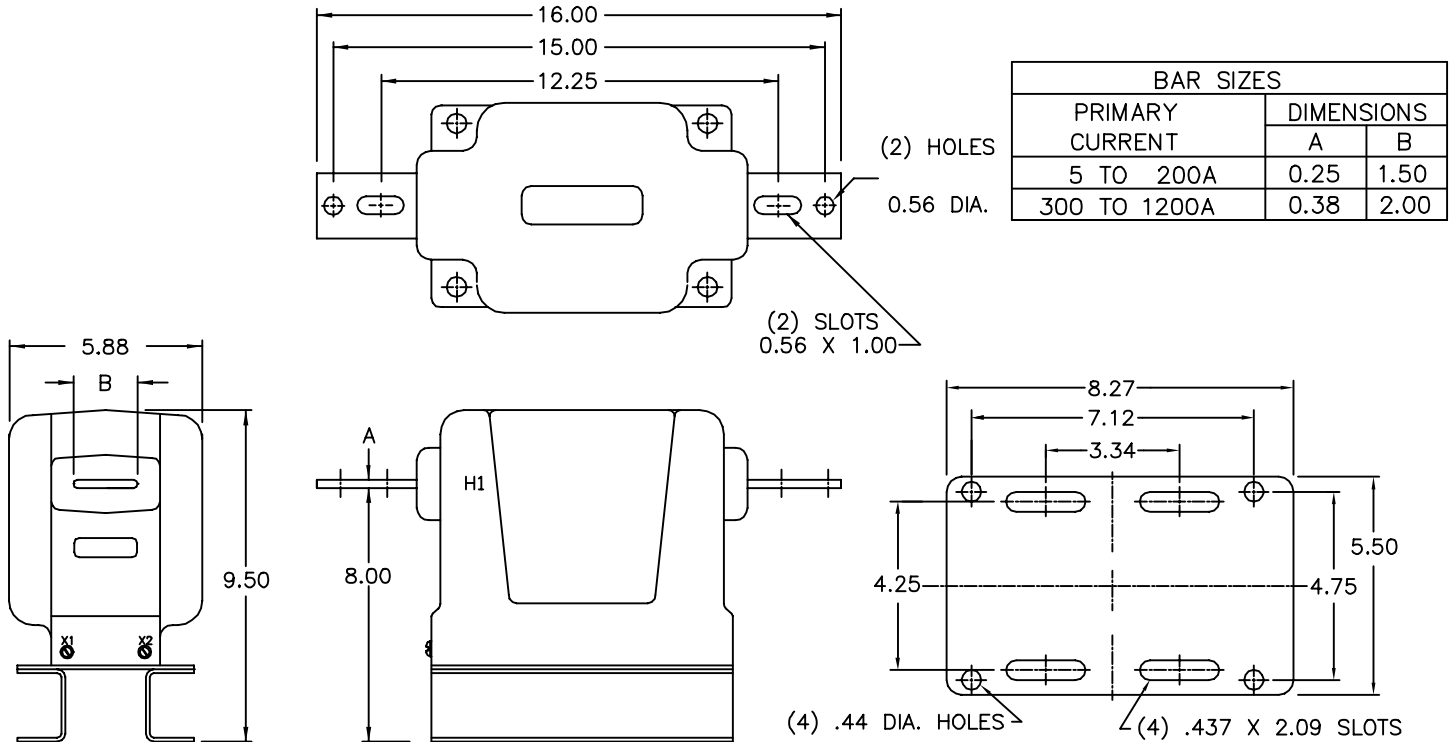
250:5 and 1000:5A

1.10 at 30°C. amb., 0.85 at 55°C. amb.

1200:5A

1.0 at 30°C. amb., 0.75 at 55°C. amb.

- Primary terminals are plated copper bars. See chart below for sizes.
- Secondary terminals are brass screws No. 10-32 with one flatwasher and lockwasher.
- Vacuum cast in polyurethane resin.
- Other ratios, secondary currents and dual ratios are available. Refer to factory.
- The transformers are tested for partial discharge to Canadian Standards CAN3-C13-M83. This test can also be carried out to IEC requirements if requested.
- Approximate weight 42 lbs.



BAR SIZES		
PRIMARY CURRENT	DIMENSIONS	
	A	B
5 TO 200A	0.25	1.50
300 TO 1200A	0.38	2.00

BASE DETAIL

CATALOG NUMBER	CURRENT RATIO	RELAY CLASS	ANSI METERING CLASS AT 60 Hz					*THERMAL CURRENT RATING 1 SECOND RMS AMPS
			B0.1	B0.2	B0.5	B0.9	B1.8	
CTWH4-75-T100-050	5:5	T100	0.3	0.3	0.3	0.3	0.3	470
CTWH4-75-T100-100	10:5	T100	0.3	0.3	0.3	0.3	0.3	900
CTWH4-75-T100-150	15:5	T100	0.3	0.3	0.3	0.3	0.3	1600
CTWH4-75-T100-200	20:5	T100	0.3	0.3	0.3	0.3	0.3	1900
CTWH4-75-T100-250	25:5	T100	0.3	0.3	0.3	0.3	0.3	2600
CTWH4-75-T100-300	30:5	T100	0.3	0.3	0.3	0.3	0.3	2900
CTWH4-75-T100-400	40:5	T100	0.3	0.3	0.3	0.3	0.3	3800
CTWH4-75-T100-500	50:5	T100	0.3	0.3	0.3	0.3	0.3	4700
CTWH4-75-T100-750	75:5	T100	0.3	0.3	0.3	0.3	0.3	5900
CTWH4-75-T100-101	100:5	T100	0.3	0.3	0.3	0.3	0.3	8600
CTWH4-75-T100-151	150:5	T100	0.3	0.3	0.3	0.3	0.3	12900
CTWH4-75-T100-201	200:5	T100	0.3	0.3	0.3	0.3	0.3	17200
CTWH4-75-T100-251	250:5	T100	0.3	0.3	0.3	0.3	0.3	17200
CTWH4-75-T100-301	300:5	T100	0.3	0.3	0.3	0.3	0.3	34500
CTWH4-75-T100-401	400:5	T100	0.3	0.3	0.3	0.3	0.3	34500
CTWH4-75-T100-601	600:5	T100	0.3	0.3	0.3	0.3	0.3	66200
CTWH4-75-T100-801	800:5	T100	0.3	0.3	0.3	0.3	0.3	66200
CTWH4-75-T100-102	1000:5	T100	0.3	0.3	0.3	0.3	0.3	66200
CTWH4-75-T100-122	1200:5	T100	0.3	0.3	0.3	0.3	0.3	66200

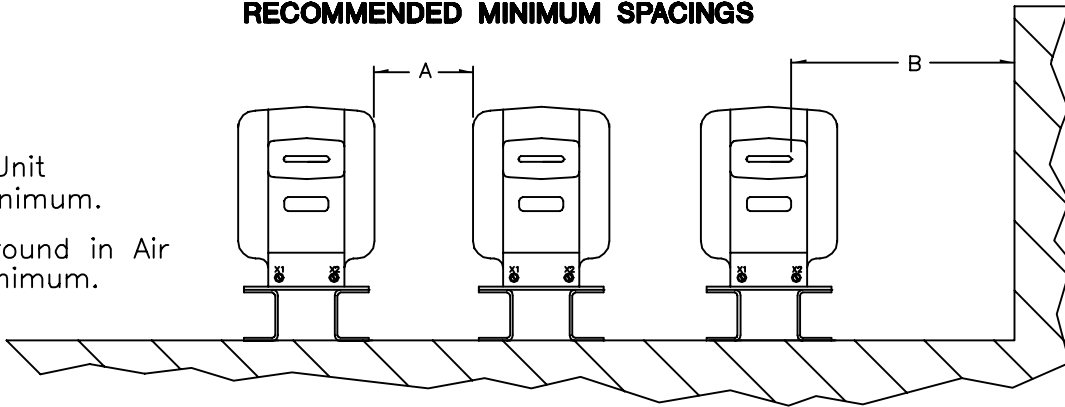
\* With a burden of B0.1 or greater connected to the secondary.

# CTWH4 -75- T100

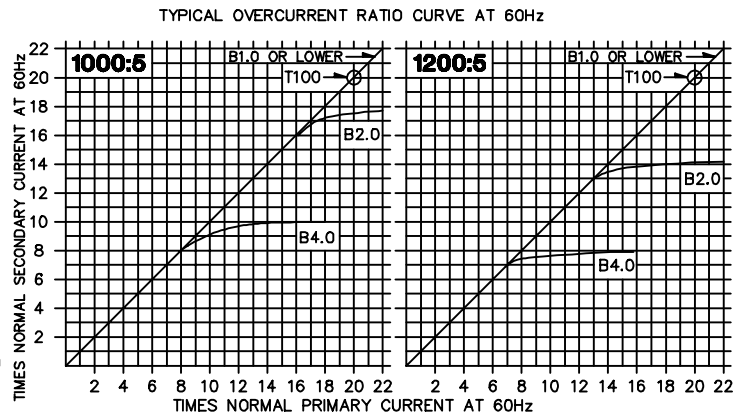
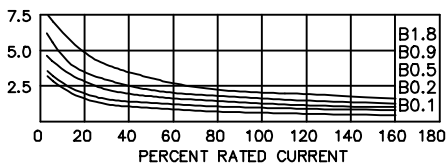
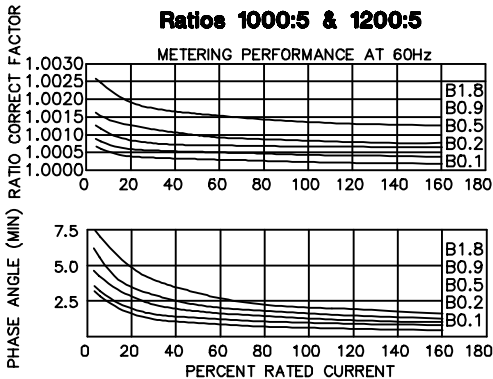
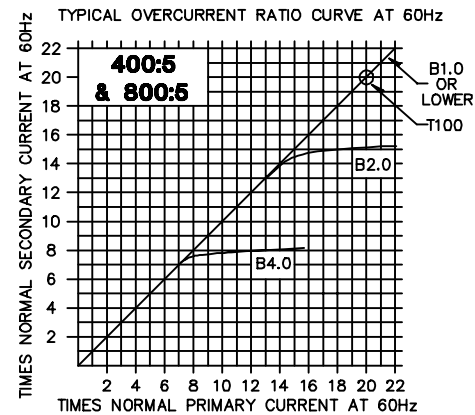
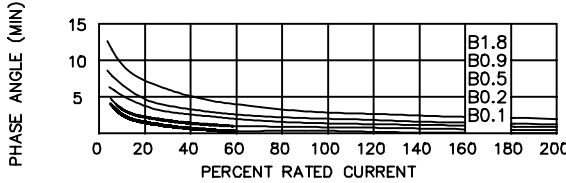
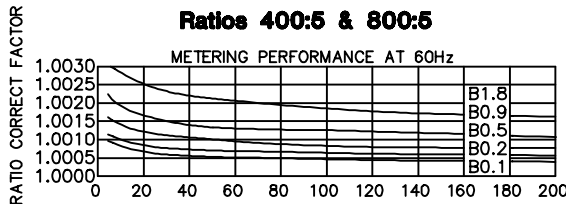
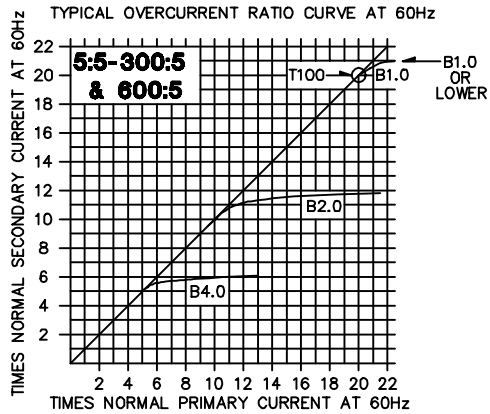
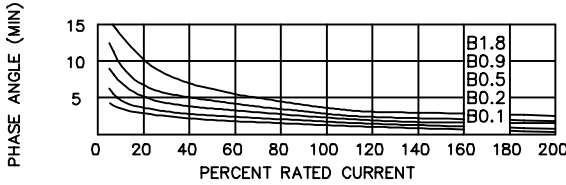
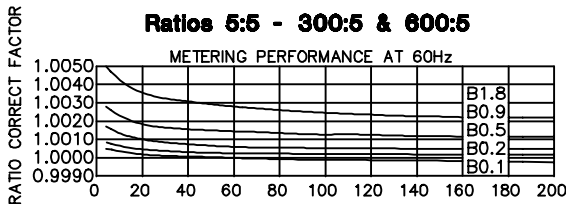
## RECOMMENDED MINIMUM SPACINGS

A; Unit to Unit  
= 1.00" minimum.

B; HV to Ground in Air  
= 4.50" minimum.



Recommended spacings are for guidance only. User needs to set appropriate values to assure performance for high potential test, impulse test, high humidity, partial discharge, high altitude, and other considerations like configuration.



# CURRENT TRANSFORMER

Model CTW5-L-110  
Model CTWH5-L-110

Wound primary CT

REGULATORY AGENCY APPROVALS



Manufactured to meet the requirements of ANSI/IEEE C57.13.  
Classified by U.L. in accordance with IEC 44-1

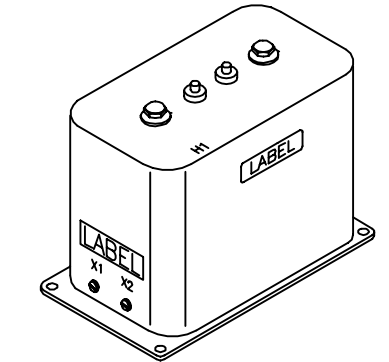
**APPLICATION:**  
Metering and relaying.

**FREQUENCY:**  
50-400 Hz.

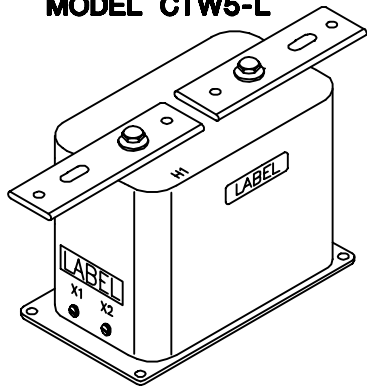
**MAXIMUM SYSTEM VOLTAGE:**  
15.5kV, BIL 110kV full wave.

**CONTINUOUS THERMAL CURRENT RATING FACTOR:**  
1.00 at 30°C. amb., 0.85 at 55°C. amb.

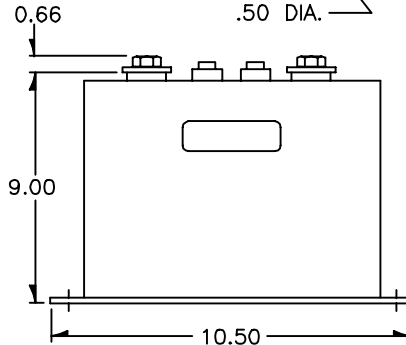
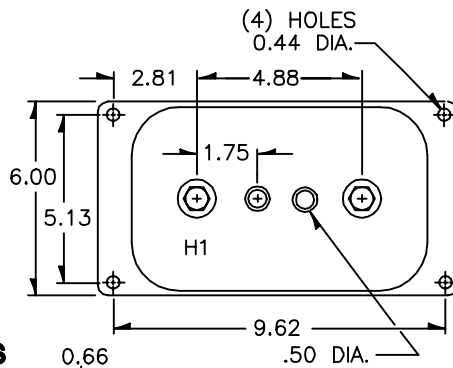
- Primary terminals are 1/2-13 bolts with one Belleville washer.
- Secondary terminals are brass screws No. 10-32 with one flatwasher and lockwasher.
- Vacuum cast in polyurethane resin.
- Other ratios, secondary currents and dual ratios are available. Refer to factory.
- The transformers are tested for partial discharge to Canadian Standards CAN3-C13-M83. This test can also be carried out to IEC requirements if requested.
- Approximate weight 34 lbs.



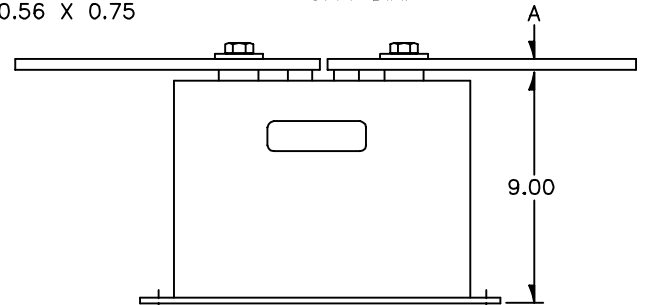
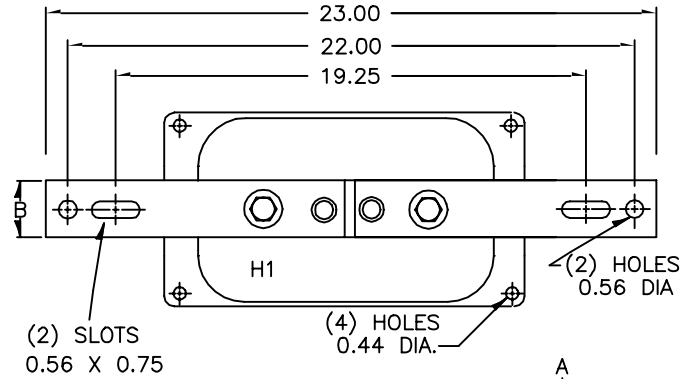
**WITHOUT PRIMARY BARS  
MODEL CTW5-L**



**WITH PRIMARY BARS  
MODEL CTWH5-L**



**WITHOUT PRIMARY BARS**



BAR SIZES		
PRIMARY CURRENT	DIMENSIONS	
	A	B
5 TO 200A	0.25	1.50
300 TO 600A	0.38	2.00

**WITH PRIMARY BARS**

CAUTION: Use only the Belleville washers supplied. Tighten to between 25 to 30 foot-pounds. DO NOT OVERTIGHTEN.

CATALOG NUMBER *	CURRENT RATIO	RELAY CLASS	ANSI METERING CLASS AT 60 Hz					THERMAL CURRENT RATING 1 SECOND RMS AMPS
			B0.1	B0.2	B0.5	B0.9	B1.8	
CTW5-L-110-T20-050	5:5	T20	0.3	0.3	0.6	1.2	2.4	375
CTW5-L-110-T20-100	10:5	T20	0.3	0.3	0.6	1.2	2.4	590
CTW5-L-110-T20-150	15:5	T20	0.3	0.3	0.6	1.2	2.4	1200
CTW5-L-110-T20-250	25:5	T20	0.3	0.3	0.6	1.2	2.4	1700
CTW5-L-110-T20-300	30:5	T20	0.3	0.3	0.6	1.2	2.4	1700
CTW5-L-110-T20-400	40:5	T20	0.3	0.3	0.6	1.2	2.4	2400
CTW5-L-110-T20-500	50:5	T20	0.3	0.3	0.6	1.2	2.4	4715
CTW5-L-110-T20-750	75:5	T25	0.3	0.3	0.6	1.2	2.4	4715
CTW5-L-110-T20-101	100:5	T25	0.3	0.3	0.6	1.2	2.4	8625
CTW5-L-110-T20-151	150:5	T25	0.3	0.3	0.6	1.2	2.4	11500
CTW5-L-110-T20-201	200:5	T30	0.3	0.3	0.6	1.2	2.4	11500
CTW5-L-110-T20-251	250:5	T20	0.3	0.3	0.6	1.2	2.4	21700
CTW5-L-110-T20-301	300:5	T25	0.3	0.3	0.6	1.2	2.4	21700
CTW5-L-110-T20-401	400:5	T30	0.3	0.3	0.6	1.2	2.4	44700
CTW5-L-110-T20-501	500:5	T35	0.3	0.3	0.3	0.6	1.2	44700
CTW5-L-110-T20-601	600:5	T40	0.3	0.3	0.3	0.6	1.2	44700

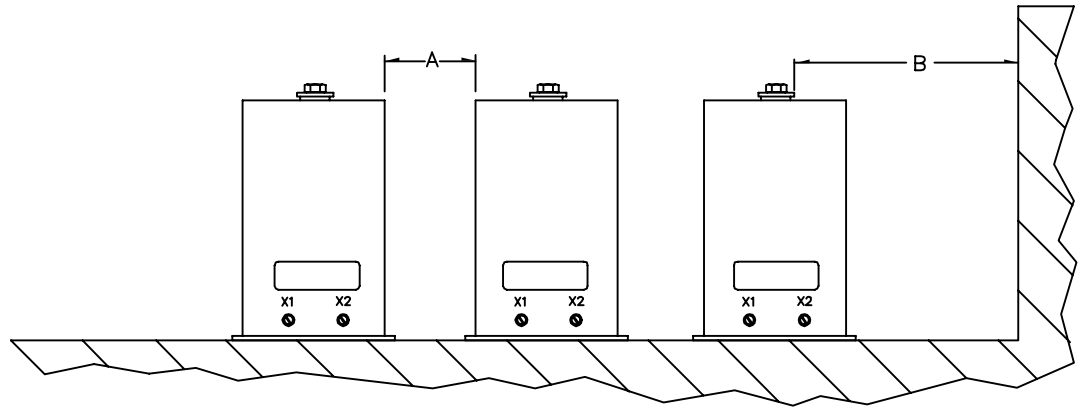
\*For ordering with primary bars, change model number to CTWH5-L.  
A test card is provided with each unit.

# CTWH5 -L-110

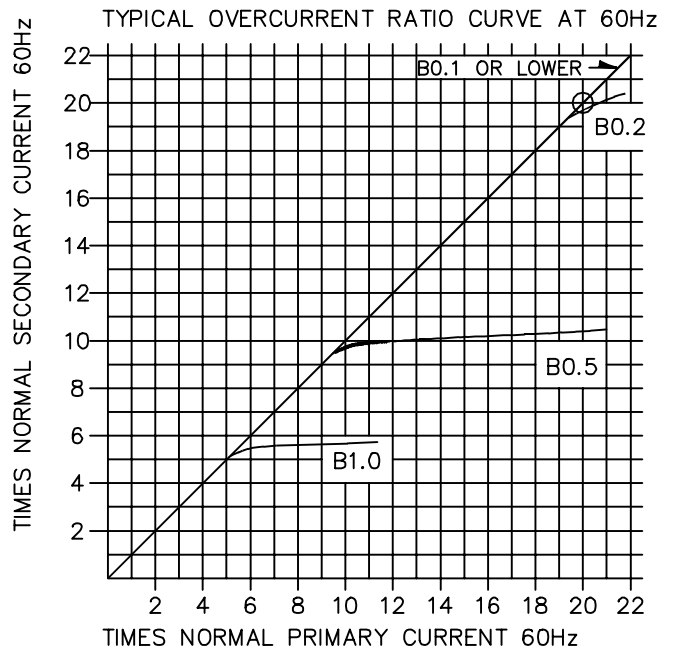
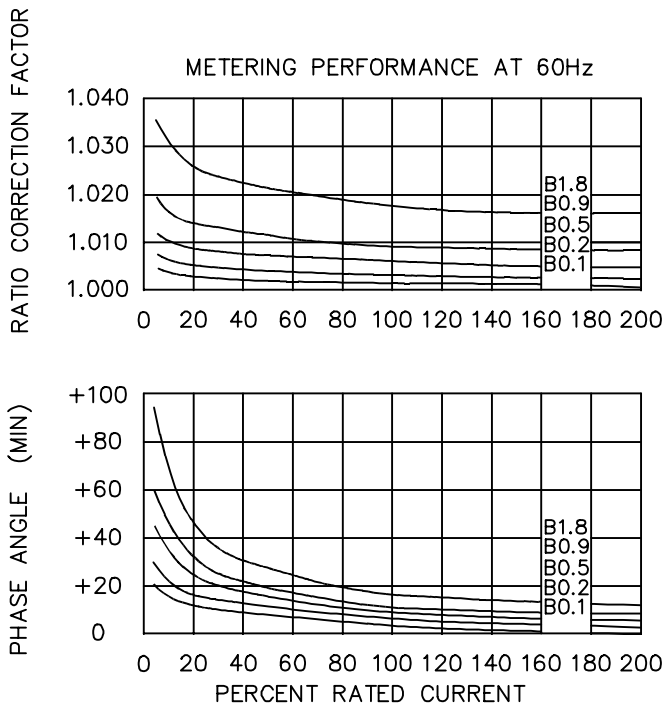
## RECOMMENDED MINIMUM SPACINGS

A; Unit to Unit  
= 2.00" minimum.

B; HV to Ground in Air  
= 6.50" minimum.



Recommended spacings are for guidance only. User needs to set appropriate values to assure performance for high potential test, impulse test, high humidity, partial discharge, high altitude, and other considerations like configuration.



# CURRENT TRANSFORMER

Model

**CTWH5-B-110-T200\*\***

*Wound primary CT*

REGULATORY AGENCY APPROVALS



Manufactured to meet the requirements of ANSI/IEEE C57.13.

Classified by U.L. in accordance with IEC 44-1

Approved for revenue metering by Industry Canada, AE-0640 Rev.01(\*)

**APPLICATION:**

Metering and relaying.

**FREQUENCY:**

50-400 Hz.

**MAXIMUM SYSTEM VOLTAGE:**

15.5kV, BIL 110kV full wave.

**CONTINUOUS THERMAL**

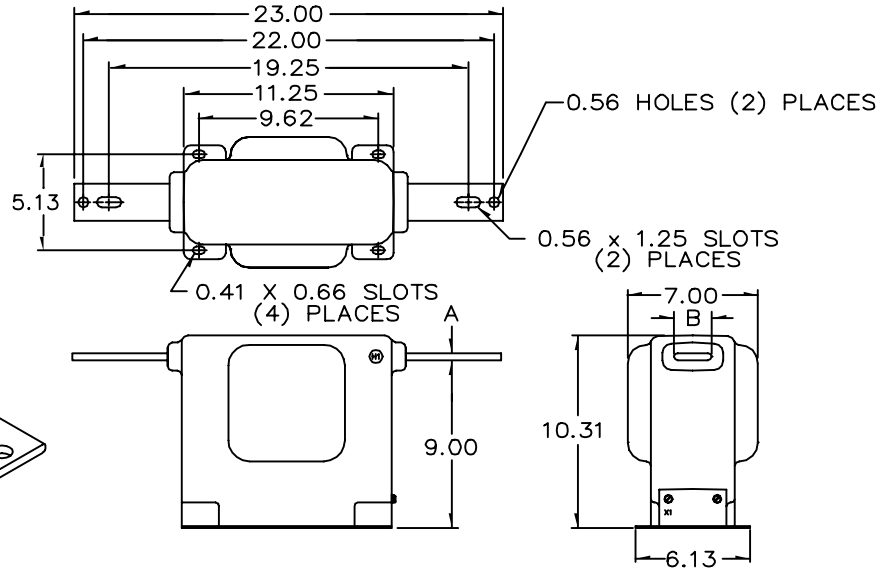
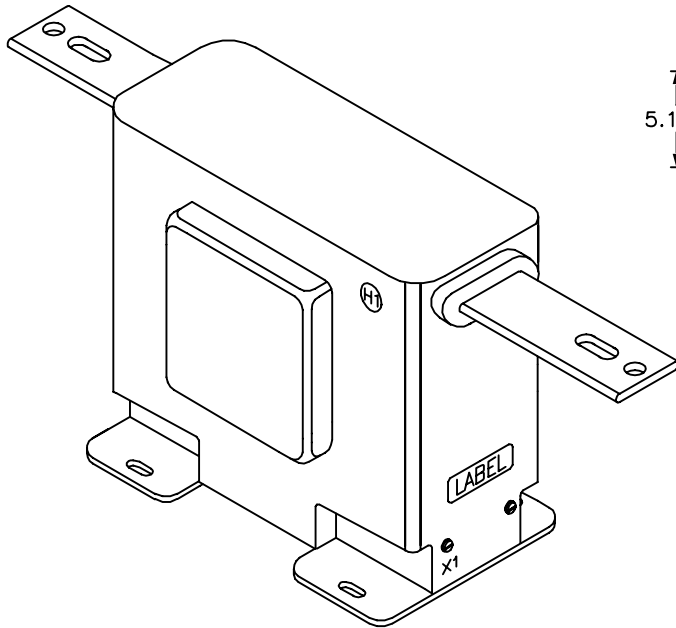
**CURRENT RATING FACTOR:**

5:5 thru 600:5 -  
1.50 at 30°C. amb., 1.33 at 55°C. amb.

800:5 and over-

1.0 at 30°C. amb., 0.8 at 55°C. amb.

- Primary terminals are plated copper bars. See chart below for sizes.
- Secondary terminals are brass screws No. 10-32 with one flatwasher and lockwasher.
- Vacuum cast in polyurethane resin.
- Other ratios, secondary currents and dual ratios are available. Refer to factory.
- The transformers are tested for partial discharge to Canadian Standards CAN3-C13-M83. This test can also be carried out to IEC requirements if requested.
- Approximate weight 76 lbs.



BAR SIZE		
PRIMARY CURRENT	DIMENSION	
	A	B
5 TO 200A	0.25	1.50
300 TO 1200A	0.38	2.00

CATALOG NUMBER **	CURRENT RATIO	RELAY CLASS	ANSI METERING CLASS AT 60 Hz					***THERMAL CURRENT RATING 1 SECOND RMS AMPS
			B0.1	B0.2	B0.5	B0.9	B1.8	
CTWH5-B-110-T200-050	5:5	T200	0.3	0.3	0.3	0.3	0.3	470
CTWH5-B-110-T200-100	* 10:5	T200	0.3	0.3	0.3	0.3	0.3	950
CTWH5-B-110-T200-150	* 15:5	T200	0.3	0.3	0.3	0.3	0.3	1440
CTWH5-B-110-T200-200	* 20:5	T200	0.3	0.3	0.3	0.3	0.3	1840
CTWH5-B-110-T200-250	* 25:5	T200	0.3	0.3	0.3	0.3	0.3	2670
CTWH5-B-110-T200-300	* 30:5	T200	0.3	0.3	0.3	0.3	0.3	2920
CTWH5-B-110-T200-400	* 40:5	T200	0.3	0.3	0.3	0.3	0.3	3700
CTWH5-B-110-T200-500	* 50:5	T200	0.3	0.3	0.3	0.3	0.3	4700
CTWH5-B-110-T200-750	* 75:5	T200	0.3	0.3	0.3	0.3	0.3	7575
CTWH5-B-110-T200-101	* 100:5	T200	0.3	0.3	0.3	0.3	0.3	12940
CTWH5-B-110-T200-151	* 150:5	T200	0.3	0.3	0.3	0.3	0.3	14375
CTWH5-B-110-T200-201	* 200:5	T200	0.3	0.3	0.3	0.3	0.3	25875
CTWH5-B-110-T200-301	* 300:5	T200	0.3	0.3	0.3	0.3	0.3	27520
CTWH5-B-110-T200-401	* 400:5	T200	0.3	0.3	0.3	0.3	0.3	40350
CTWH5-B-110-T200-601	* 600:5	T200	0.3	0.3	0.3	0.3	0.3	66225
CTWH5-B-110-T200-801	* 800:5	T200	0.3	0.3	0.3	0.3	0.3	66225
CTWH5-B-110-T200-102	* 1000:5	T200	0.3	0.3	0.3	0.3	0.3	66225
CTWH5-B-110-T200-122	* 1200:5	T200	0.3	0.3	0.3	0.3	0.3	66225

\* Industry Canada App.# AE-0640 Rev. 01

\*\* Replaces Model CTWH5-110-T200. A test card is provided with each unit.

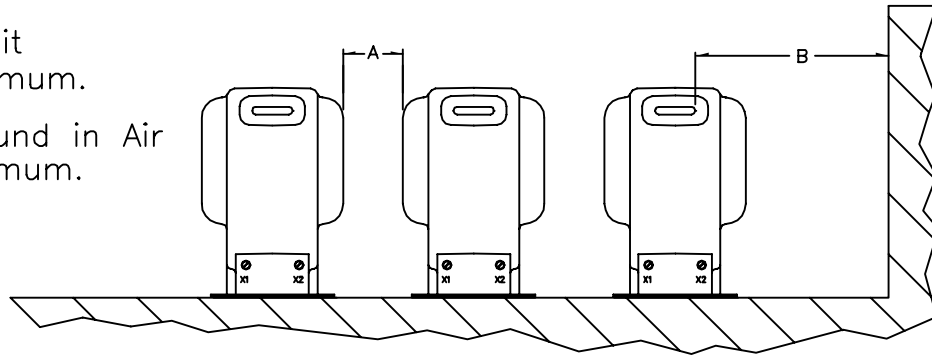
\*\*\* With a burden of 0.35 Ohms or greater connected to the secondary.

# CTWH5-B-110-T200

## RECOMMENDED MINIMUM SPACINGS

A; Unit to Unit  
= 1.50" minimum.

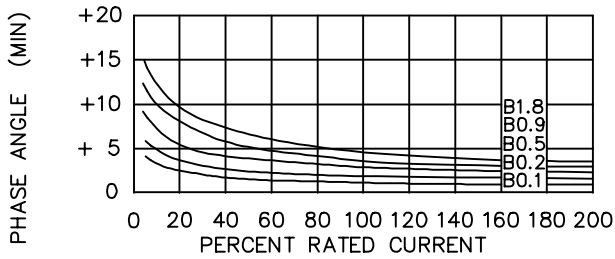
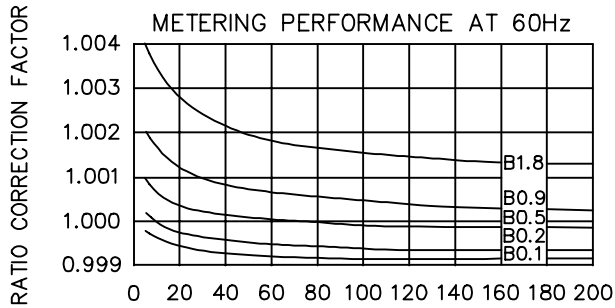
B; HV to Ground in Air  
= 6.50" minimum.



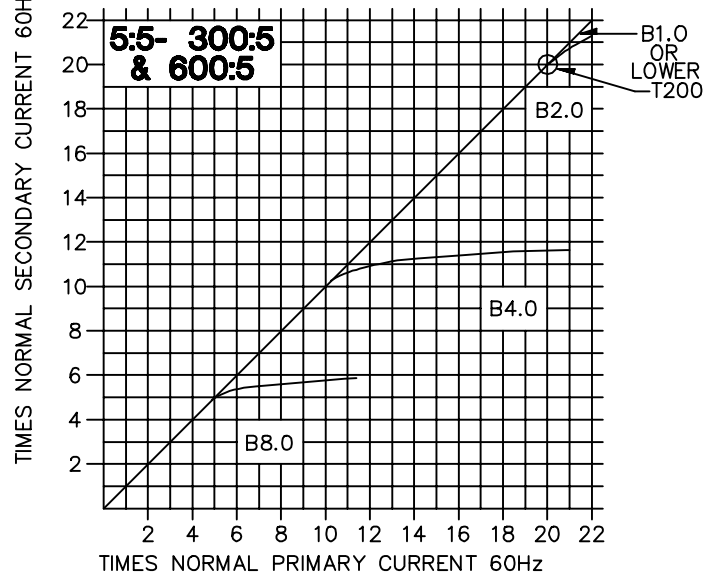
Recommended spacings are for guidance only. User needs to set appropriate values to assure performance for high potential test, impulse test, high humidity, partial discharge, high altitude, and other considerations like configuration.

### Ratios 5:5 - 300:5 & 600:5

METERING PERFORMANCE AT 60Hz



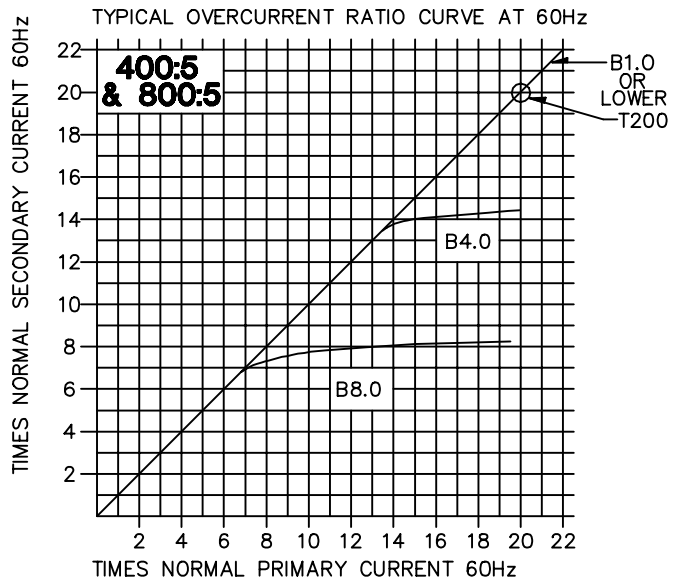
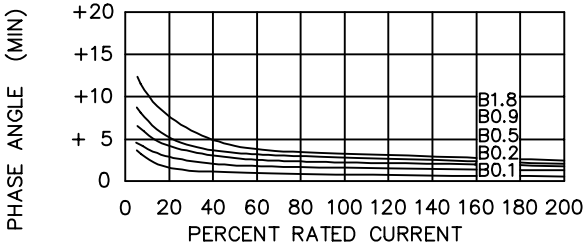
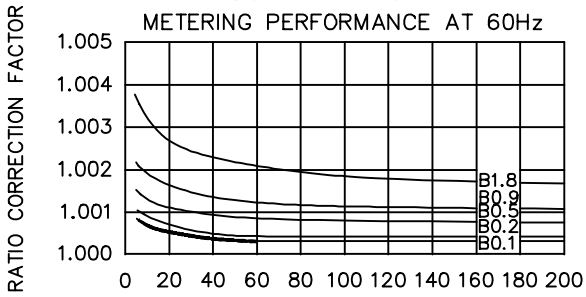
TYPICAL OVERCURRENT RATIO CURVE AT 60Hz



# CTWH5-B-110-T200

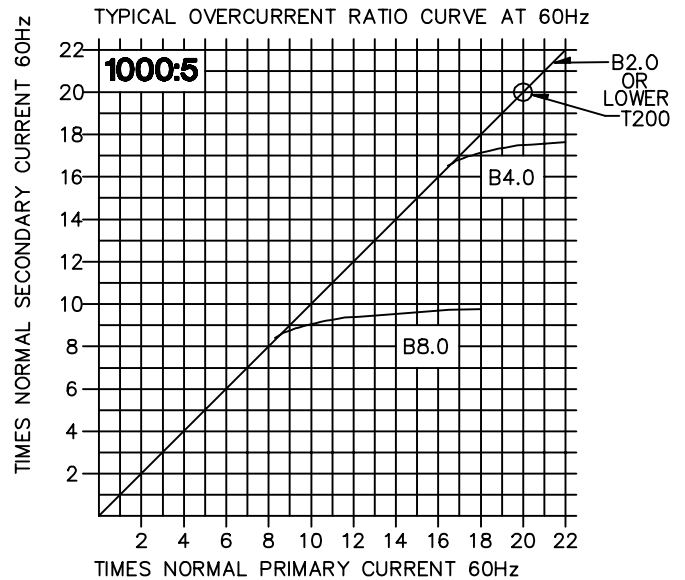
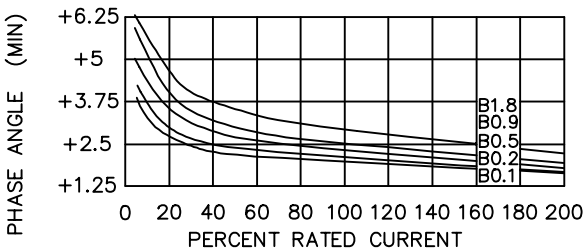
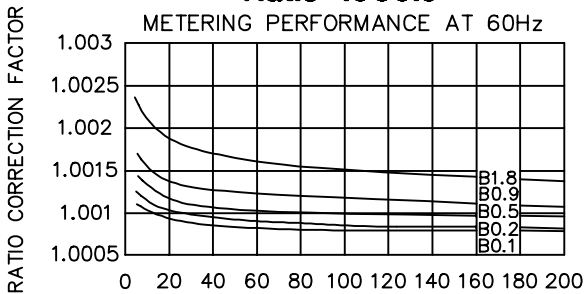
## Ratios 400:5 & 800:5

METERING PERFORMANCE AT 60Hz



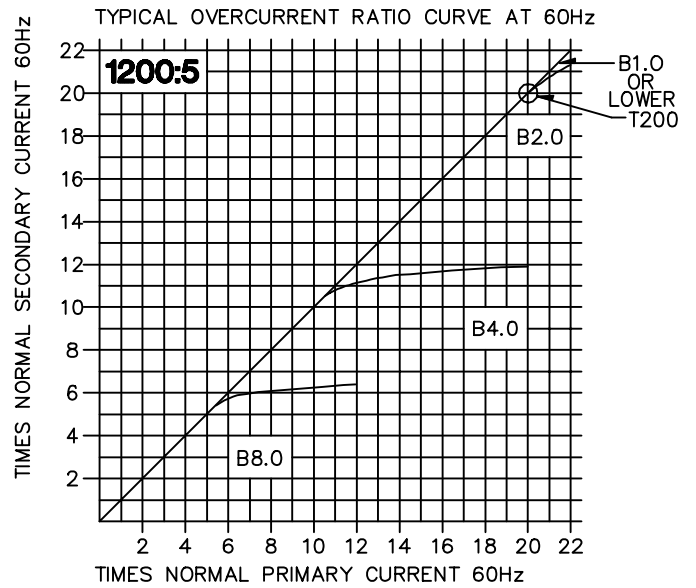
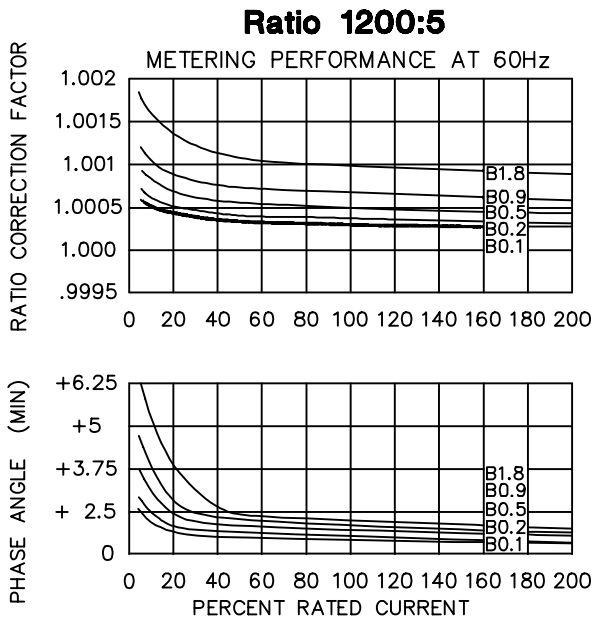
## Ratio 1000:5

METERING PERFORMANCE AT 60Hz





# CTWH5-B-110-T200



# CURRENT TRANSFORMER

Model

**CTWH5-A-110-T150**

*Wound primary CT*

REGULATORY AGENCY APPROVALS



Manufactured to meet the requirements of ANSI/IEEE C57.13.  
Classified by U.L. in accordance with IEC 44-1

**APPLICATION:**

High accuracy metering and relaying.

**FREQUENCY:**

50-400 Hz.

**MAXIMUM SYSTEM VOLTAGE:**

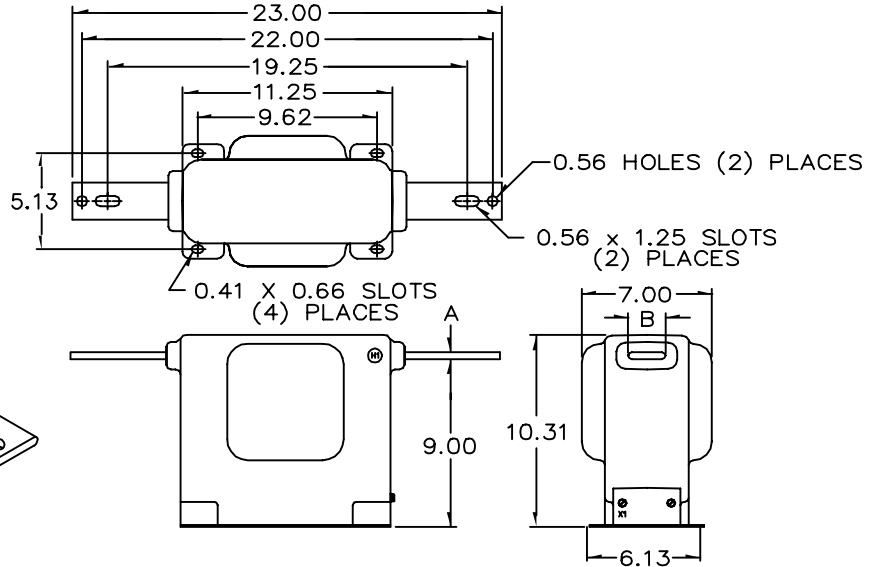
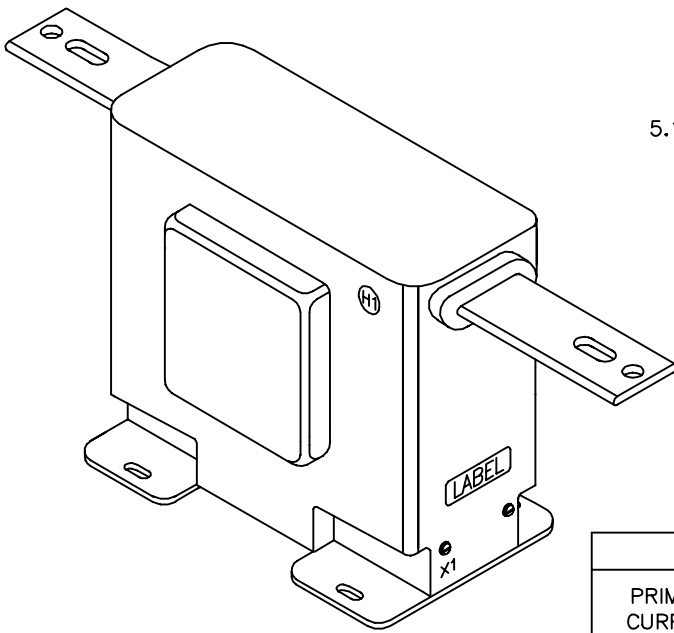
15.5kV, BIL 110kV full wave.

**CONTINUOUS THERMAL**

**CURRENT RATING FACTOR:**

1.33 at 30°C. amb., 1.00 at 55°C. amb.

- Primary terminals are plated copper bars. See chart below for sizes.
- Secondary terminals are brass screws No. 10-32 with one flatwasher and lockwasher.
- Vacuum cast in polyurethane resin.
- The transformers are tested for partial discharge to Canadian Standards CAN3-C13-M83. This test can also be carried out to IEC requirements if requested.
- Approximate weight 76 lbs.



BAR SIZE		
PRIMARY CURRENT	DIMENSION	
	A	B
5 TO 200A	0.25	1.50
300 TO 600A	0.38	2.00

CATALOG NUMBER **	CURRENT RATIO	RELAY CLASS	ANSI METERING CLASS AT 60 Hz					*THERMAL CURRENT RATING 1 SECOND RMS AMPS
			B0.1	B0.2	B0.5	B0.9	B1.8	
CTWH5-A-110-T150-050	5:5	T150	0.1	0.1	0.1	0.1	0.2	470
CTWH5-A-110-T150-100	10:5	T150	0.1	0.1	0.1	0.1	0.2	950
CTWH5-A-110-T150-150	15:5	T150	0.1	0.1	0.1	0.1	0.2	1440
CTWH5-A-110-T150-200	20:5	T150	0.1	0.1	0.1	0.1	0.2	1840
CTWH5-A-110-T150-250	25:5	T150	0.1	0.1	0.1	0.1	0.2	2670
CTWH5-A-110-T150-300	30:5	T150	0.1	0.1	0.1	0.1	0.2	2920
CTWH5-A-110-T150-400	40:5	T150	0.1	0.1	0.1	0.1	0.2	3700
CTWH5-A-110-T150-500	50:5	T150	0.1	0.1	0.1	0.1	0.2	4700
CTWH5-A-110-T150-750	75:5	T150	0.1	0.1	0.1	0.1	0.2	7575
CTWH5-A-110-T150-101	100:5	T150	0.1	0.1	0.1	0.1	0.2	12940
CTWH5-A-110-T150-151	150:5	T150	0.1	0.1	0.1	0.1	0.2	14375
CTWH5-A-110-T150-201	200:5	T150	0.1	0.1	0.1	0.1	0.2	25875
CTWH5-A-110-T150-301	300:5	T150	0.1	0.1	0.1	0.1	0.2	27520
CTWH5-A-110-T150-401	400:5	T150	0.1	0.1	0.1	0.1	0.2	40350
CTWH5-A-110-T150-601	600:5	T150	0.1	0.1	0.1	0.1	0.2	66225

\* With a burden of 0.35 Ohms or greater connected to the secondary.

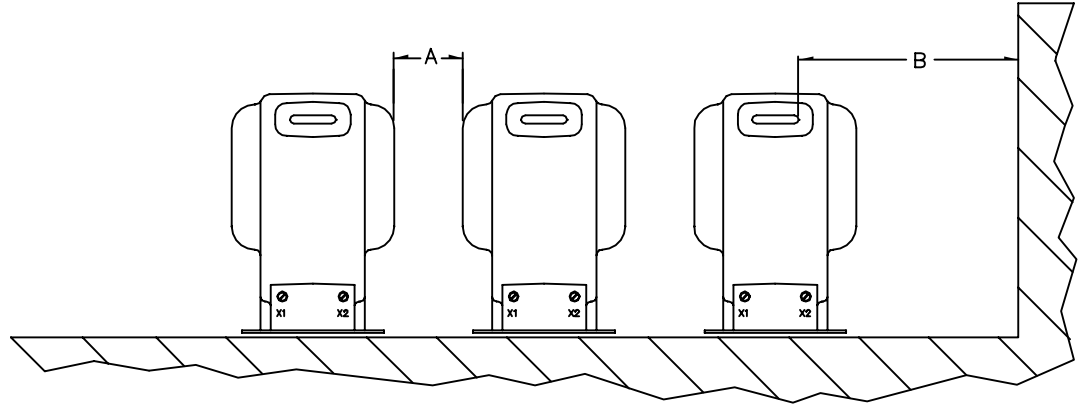
\*\* A test card is provided with each unit.

# CTWH5- A-110-T150

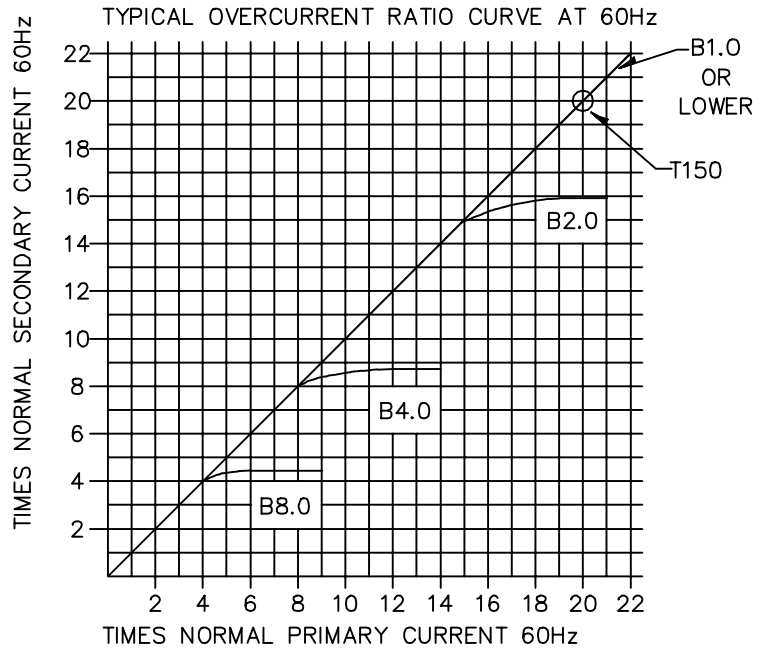
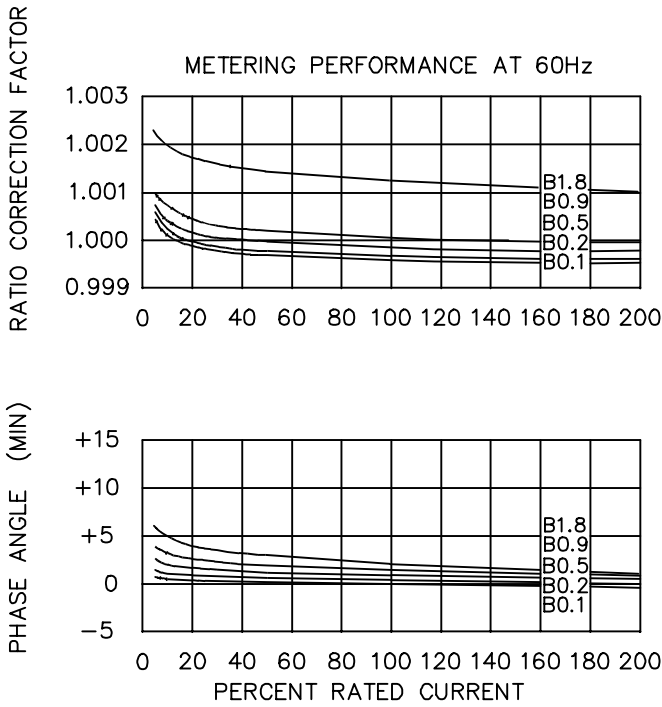
## RECOMMENDED MINIMUM SPACINGS

A; Unit to Unit  
= 1.50" minimum.

B; HV to Ground in Air  
= 6.50" minimum.



Recommended spacings are for guidance only. User needs to set appropriate values to assure performance for high potential test, impulse test, high humidity, partial discharge, high altitude, and other considerations like configuration.



# CURRENT TRANSFORMER

Model CTWH5-S-110

Wound primary CT

REGULATORY AGENCY APPROVALS



Manufactured to meet the requirements of ANSI/IEEE C57.13.  
Classified by U.L. in accordance with IEC 44-1

**APPLICATION:**  
For switchgear, extra high short circuit strength.

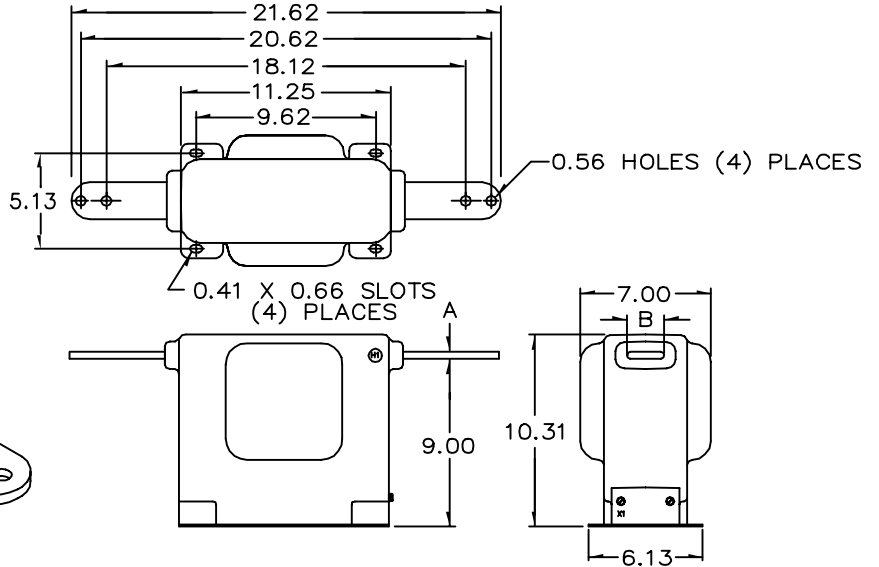
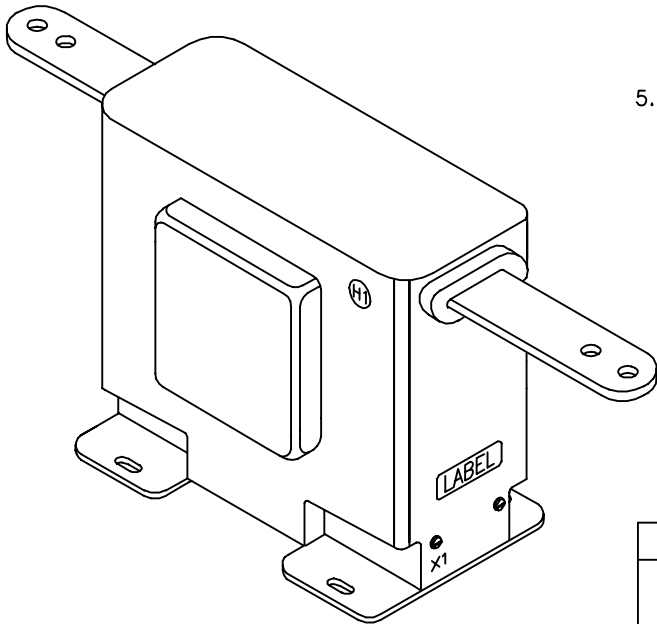
**FREQUENCY:**  
50-400 Hz.

**MAXIMUM SYSTEM VOLTAGE:**  
15.5kV, BIL 110kV full wave.

**CONTINUOUS THERMAL CURRENT RATING FACTOR:**  
5:5 thru 600:5 -  
1.50 at 30°C. amb., 1.33 at 55°C. amb.

800:5 and over -  
1.00 at 30°C. amb., 0.80 at 55°C. amb.

- Primary terminals are plated copper bars. See chart below for sizes.
- Secondary terminals are brass screws No. 10-32 with one flatwasher and lockwasher.
- Vacuum cast in polyurethane resin.
- Other ratios, secondary currents and dual ratios are available. Refer to factory.
- The transformers are tested for partial discharge to Canadian Standards CAN3-C13-M83. This test can also be carried out to IEC requirements if requested.
- Approximate weight 75 lbs.



BAR SIZE		
PRIMARY CURRENT	DIMENSION	
	A	B
40 TO 150A	0.25	2.00
200 TO 1200A	0.38	2.00

CATALOG NUMBER ***	CURRENT RATIO	RELAY CLASS	ANSI METERING CLASS AT 60 Hz					*THERMAL CURRENT RATING 1 SECOND RMS AMPS	**THERMAL CURRENT RATING 1 SECOND RMS AMPS
			B0.1	B0.2	B0.5	B0.9	B1.8		
CTWH5-S-110-400	40:5	T20	1.2	-	-	-	-	49000	10200
CTWH5-S-110-500	50:5	T30	0.6	2.4	-	-	-	49000	12500
CTWH5-S-110-750	75:5	T45	0.6	1.2	2.4	-	-	49000	11800
CTWH5-S-110-101	100:5	T60	0.6	0.6	1.2	2.4	-	49000	15900
CTWH5-S-110-151	150:5	T100	0.3	0.3	0.6	1.2	2.4	49000	23900
CTWH5-S-110-201	200:5	T120	0.3	0.3	0.3	0.6	1.2	49000	30000
CTWH5-S-110-301	300:5	T100	0.3	0.3	0.6	1.2	2.4	66200	47800
CTWH5-S-110-401	400:5	T80	0.3	0.3	0.3	0.3	0.6	66200	51200
CTWH5-S-110-601	600:5	T100	0.3	0.3	0.3	0.3	0.3	66200	60000
CTWH5-S-110-801	800:5	T120	0.3	0.3	0.3	0.3	0.3	66200	60000
CTWH5-S-110-102	1000:5	T150	0.3	0.3	0.3	0.3	0.3	66200	66200
CTWH5-S-110-122	1200:5	T200	0.3	0.3	0.3	0.3	0.3	66200	66200

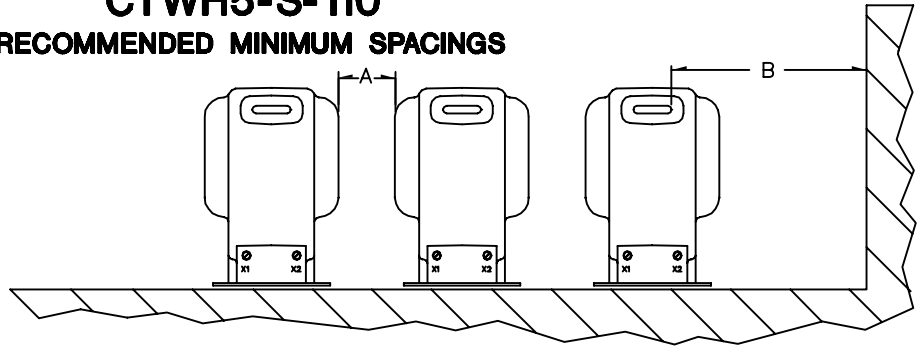
\* With a burden B0.2 or greater connected to the secondary.  
\*\* With secondary short circuited.  
\*\*\* A test card is provided with each unit.

# CTWH5-S-110

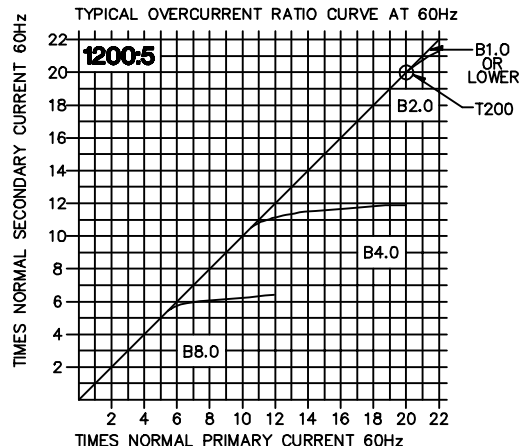
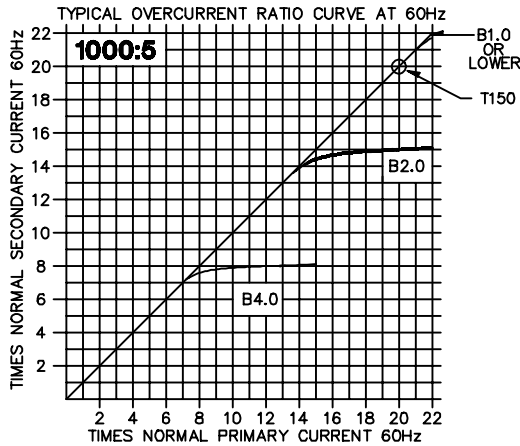
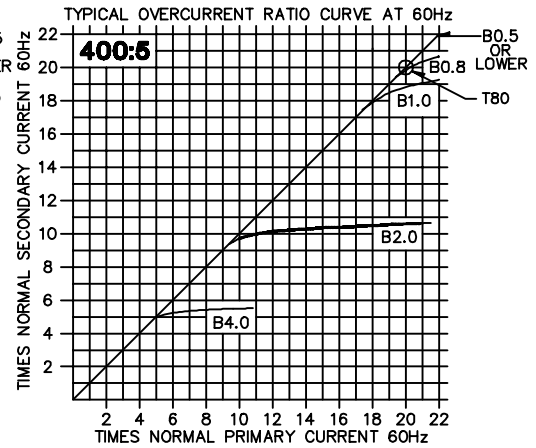
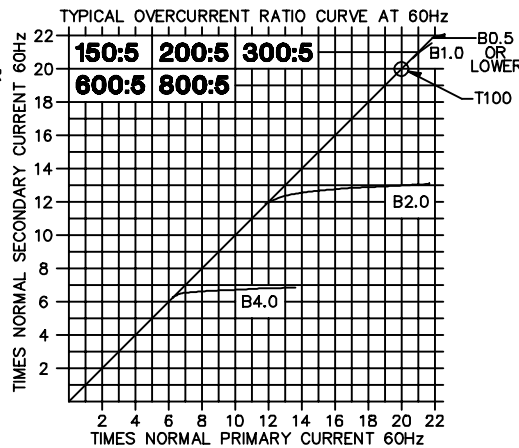
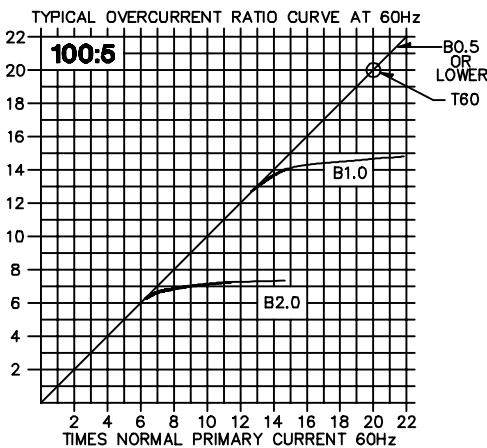
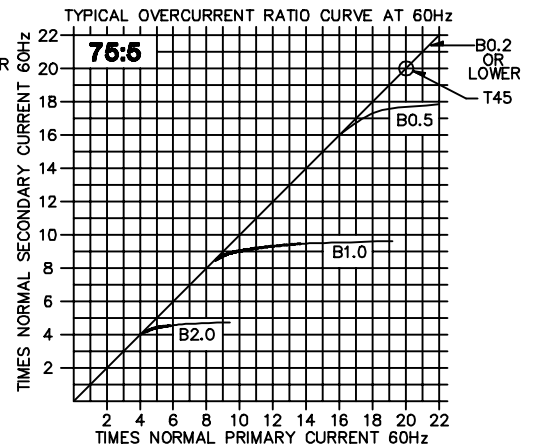
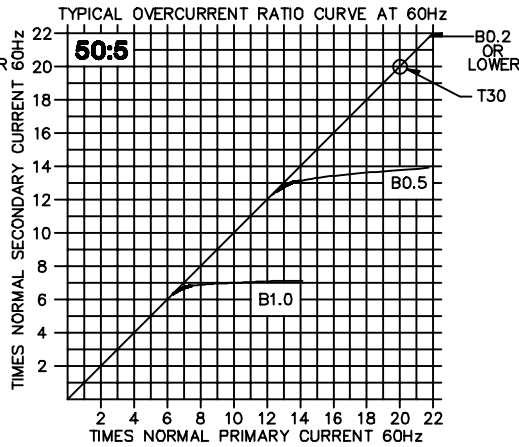
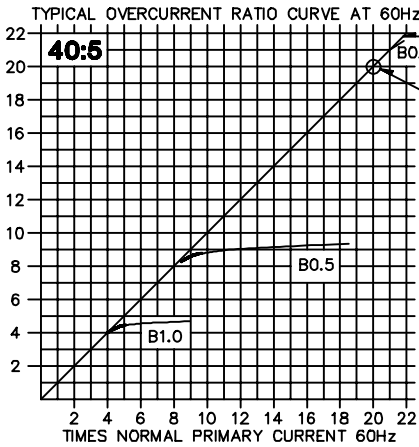
## RECOMMENDED MINIMUM SPACINGS

A; Unit to Unit  
= 1.50" minimum.

B; HV to Ground in Air  
= 6.50" minimum.



Recommended spacings are for guidance only. User needs to set appropriate values to assure performance for high potential test, impulse test, high humidity, partial discharge, high altitude, and other considerations like configuration.



# CURRENT TRANSFORMER

Model CTW6-125  
Wound primary CT

REGULATORY AGENCY APPROVALS



Manufactured to meet the requirements of ANSI/IEEE C57.13.  
Classified by U.L. in accordance with IEC 44-1  
Approved for revenue metering by Industry Canada. AE-0662 Rev.01

**APPLICATION:**  
Metering and relaying.

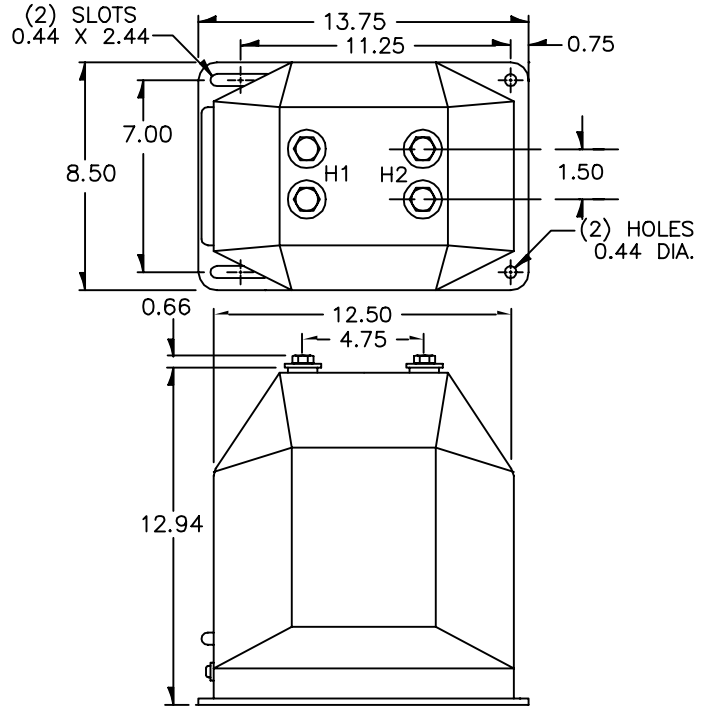
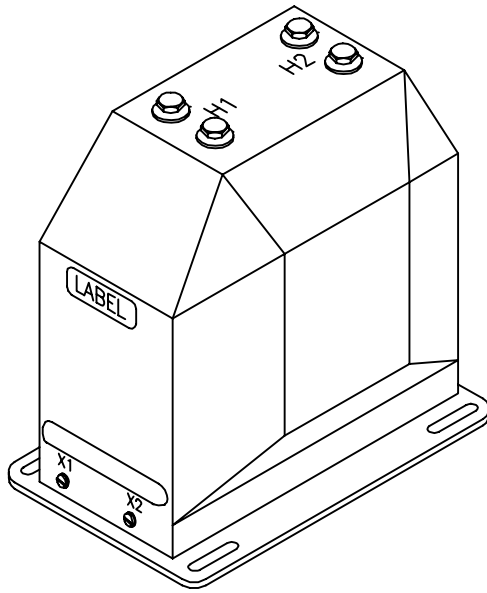
**FREQUENCY:**  
50-400 Hz.

**MAXIMUM SYSTEM VOLTAGE:**  
25.5kV, BIL 125kV full wave.

**CONTINUOUS THERMAL CURRENT RATING FACTOR:**

1.50 at 30°C. amb., 1.33 at 55°C. amb.

- Primary terminals are 1/2-13 bolts with one Belleville washer.
- Secondary terminals are 10-32 brass screws with one flatwasher and lockwasher.
- Vacuum cast in polyurethane resin.
- The transformers are tested for partial discharge to Canadian Standards CAN3-C13-M83. This test can also be carried out to IEC requirements if requested.
- Approximate weight: T100 - 95 lbs.  
T200 - 115 lbs.



CAUTION: Use only the Belleville washers supplied. Tighten to between 25 to 30 foot-pounds. DO NOT OVERTIGHTEN.

CATALOG NUMBER***	CURRENT RATIO	RELAY CLASS	ANSI METERING CLASS AT 60 Hz					THERMAL CURRENT RATING 1 SECOND RMS AMPS
			B0.1	B0.2	B0.5	B0.9	B1.8	
CTW6-125-T100-100	10:5	T100	0.3	0.3	0.3	0.3	0.6	900*
CTW6-125-T100-150	15:5	T100	0.3	0.3	0.3	0.3	0.6	1700*
CTW6-125-T100-250	25:5	T100	0.3	0.3	0.3	0.3	0.6	2700*
CTW6-125-T100-500	50:5	T100	0.3	0.3	0.3	0.3	0.6	4700*
CTW6-125-T100-750	75:5	T100	0.3	0.3	0.3	0.3	0.6	12900*
CTW6-125-T100-101	100:5	T100	0.3	0.3	0.3	0.3	0.6	12900*
CTW6-125-T100-151	150:5	T100	0.3	0.3	0.3	0.3	0.6	23000*
CTW6-125-T100-201	200:5	T100	0.3	0.3	0.3	0.3	0.6	28200*
CTW6-125-T100-301	300:5	T100	0.3	0.3	0.3	0.3	0.6	48900*
CTW6-125-T100-401	400:5	T100	0.3	0.3	0.3	0.3	0.6	66200*
CTW6-125-T100-601	600:5	T100	0.3	0.3	0.3	0.3	0.6	66200*

\* With a burden of B0.2 or greater connected to the secondary.

CTW6-125-T200-100	10:5	T200	0.3	0.3	0.3	0.3	0.3	900**
CTW6-125-T200-150	15:5	T200	0.3	0.3	0.3	0.3	0.3	1700**
CTW6-125-T200-250	25:5	T200	0.3	0.3	0.3	0.3	0.3	2700**
CTW6-125-T200-500	50:5	T200	0.3	0.3	0.3	0.3	0.3	4700**
CTW6-125-T200-750	75:5	T200	0.3	0.3	0.3	0.3	0.3	12900**
CTW6-125-T200-101	100:5	T200	0.3	0.3	0.3	0.3	0.3	12900**
CTW6-125-T200-151	150:5	T200	0.3	0.3	0.3	0.3	0.3	23000**
CTW6-125-T200-201	200:5	T200	0.3	0.3	0.3	0.3	0.3	28200**
CTW6-125-T200-301	300:5	T200	0.3	0.3	0.3	0.3	0.3	48900**
CTW6-125-T200-401	400:5	T200	0.3	0.3	0.3	0.3	0.3	66200**
CTW6-125-T200-601	600:5	T200	0.3	0.3	0.3	0.3	0.3	66200**

\*\* With a burden of B0.5 or greater connected to the secondary.

\*\*\* A test card is provided with each unit.

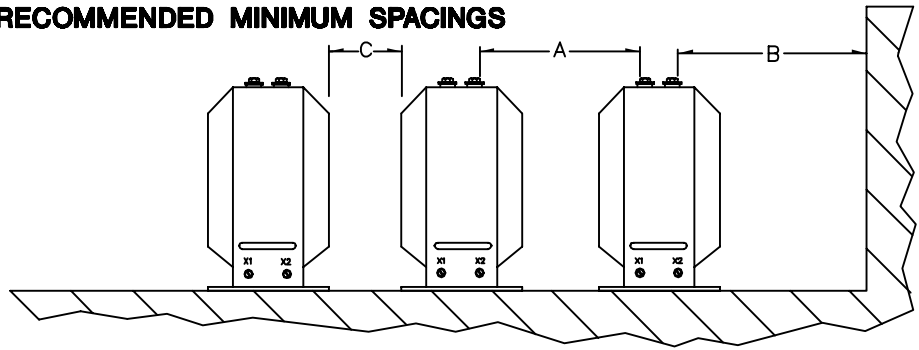
# CTW6-125

## RECOMMENDED MINIMUM SPACINGS

A; HV to HV  
= 8.50" minimum.

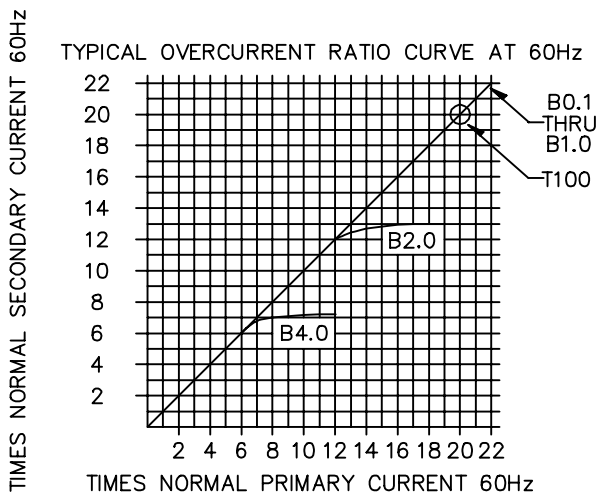
B; HV to Ground in Air  
= 8.50" minimum.

C; Unit to Unit  
= 2.00" minimum.

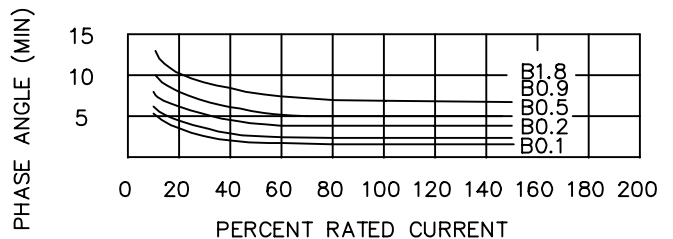
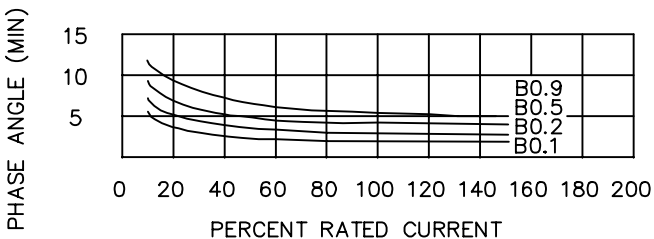
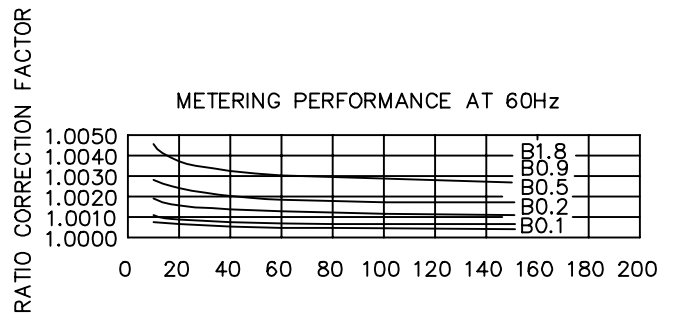
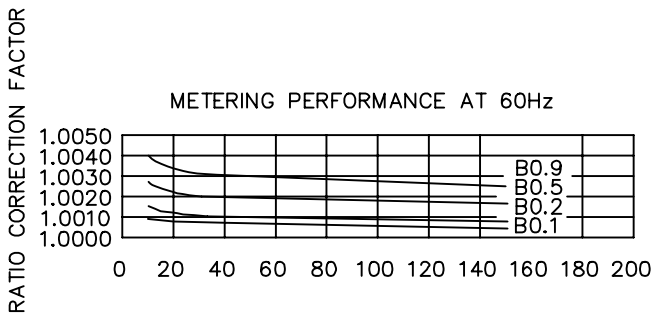
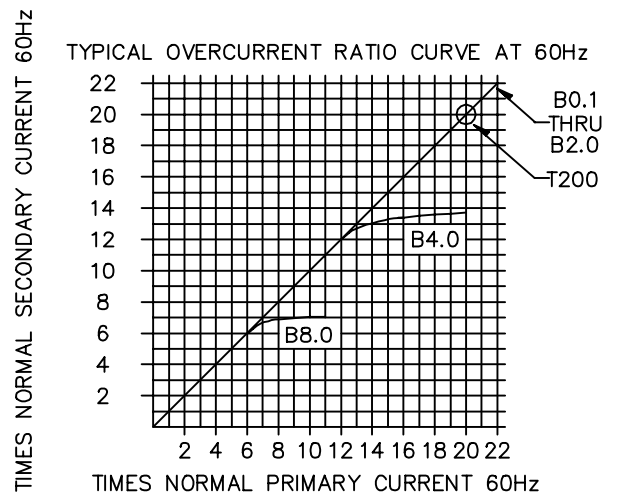


Recommended spacings are for guidance only. User needs to set appropriate values to assure performance for high potential test, impulse test, high humidity, partial discharge, high altitude, and other considerations like configuration.

**MODEL CTW6-125-T100**



**MODEL CTW6-125-T200**



# CURRENT TRANSFORMER

Model CTWH6-125-T200

Wound primary CT

REGULATORY AGENCY APPROVALS



Manufactured to meet the requirements of ANSI/IEEE C57.13.  
Classified by U.L. in accordance with IEC 44-1  
Approved for revenue metering by Industry Canada. AE-0635 Rev.01

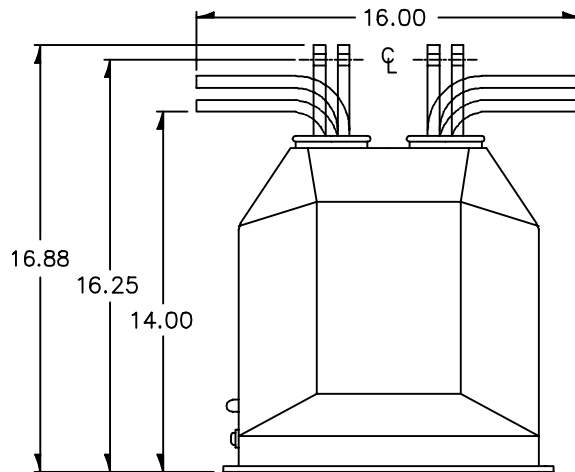
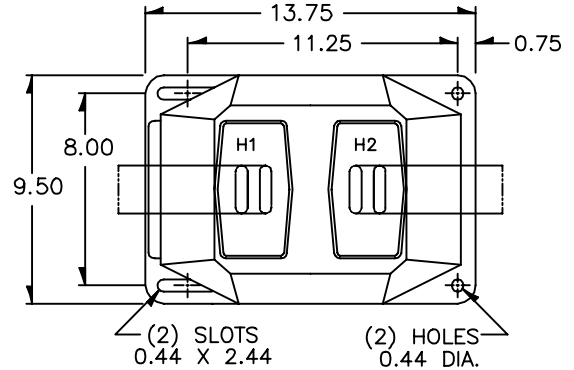
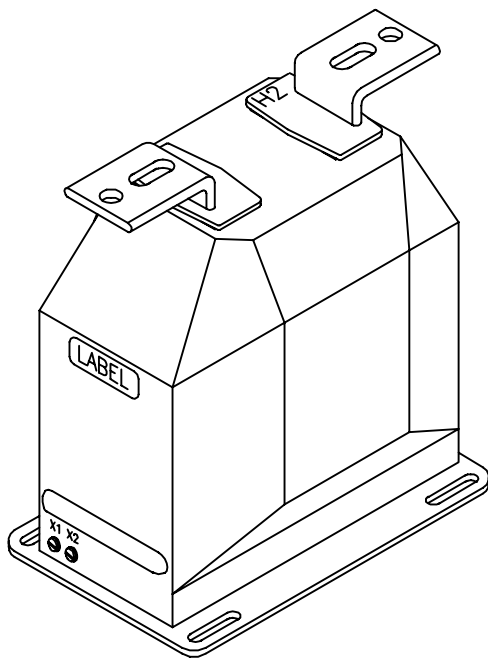
**APPLICATION:**  
Metering and relaying.

**FREQUENCY:**  
50-400 Hz.

**MAXIMUM SYSTEM VOLTAGE:**  
25.5kV, BIL 125kV full wave.

**CONTINUOUS THERMAL CURRENT RATING FACTOR:**  
1.50 at 30°C. amb., 1.33 at 55°C. amb.  
2000:5 -  
1.33 at 30°C. amb., 1.00 at 55°C. amb.  
2500:5 and 3000:5 -  
1.00 at 30°C. amb., 0.85 at 55°C. amb.

- Primary terminals are plated copper bars, configured as specified.
- Secondary terminals are 10-32 brass screws with one flatwasher and lockwasher.
- Vacuum cast in polyurethane resin.
- Dual bar spacing is 1/2 inch.
- The transformers are tested for partial discharge to Canadian Standards CAN3-C13-M83. This test can also be carried out to IEC requirements if requested.
- Approximate weight 150 lbs.



See next page for primary bar arrangements.

CATALOG NUMBER	CURRENT RATIO	RELAY CLASS	ANSI METERING CLASS AT 60 Hz					*THERMAL CURRENT RATING 1 SECOND RMS AMPS
			B0.1	B0.2	B0.5	B0.9	B1.8	
CTWH6-125-T200-801-**	800:5	T200	0.3	0.3	0.3	0.3	0.3	87000
CTWH6-125-T200-102-**	1000:5	T200	0.3	0.3	0.3	0.3	0.3	133000
CTWH6-125-T200-122-**	1200:5	T200	0.3	0.3	0.3	0.3	0.3	133000
CTWH6-125-T200-152-**	1500:5	T200	0.3	0.3	0.3	0.3	0.3	266000
CTWH6-125-T200-202-**	2000:5	T200	0.3	0.3	0.3	0.3	0.3	266000
CTWH6-125-T200-252-**	2500:5	T200	0.3	0.3	0.3	0.3	0.3	266000
CTWH6-125-T200-302-**	3000:5	T200	0.3	0.3	0.3	0.3	0.3	358000

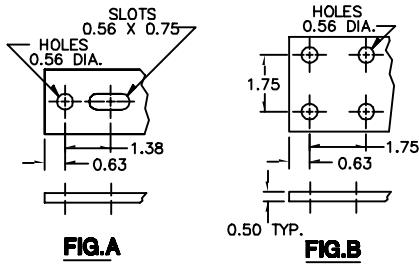
\* With a burden of B0.1 or greater connected to the secondary.

\*\* Specify primary bus arrangement number (1 through 8).



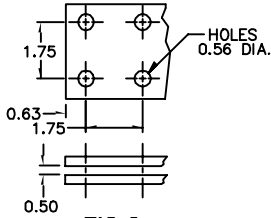
# CTWH6 -125-T200

## PRIMARY BAR ARRANGEMENTS



**FIG. A**

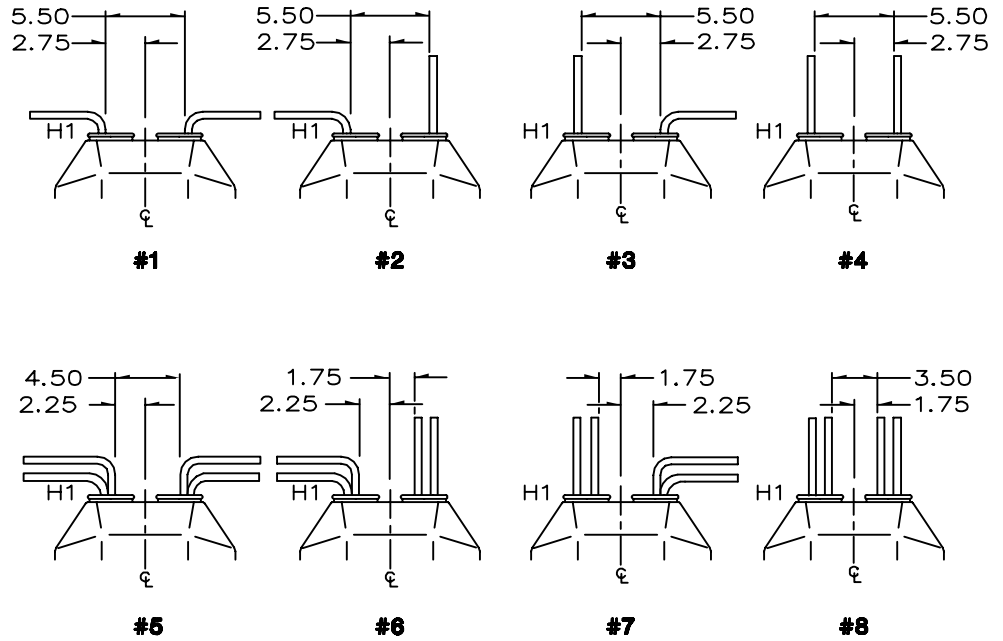
**FIG. B**



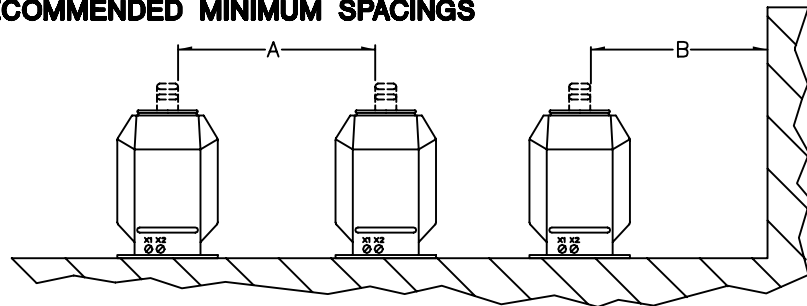
**FIG. C**

ALL BARS HAVE FULL RADIUS EDGE

RATIO	PRIMARY TERMINALS	FIG.
800:5	ONE 1/2 X 2	A
1000:5	ONE 1/2 X 3	B
1200:5	ONE 1/2 X 3	B
1500:5	TWO 1/2 X 3	C
2000:5	TWO 1/2 X 3	C
2500:5	TWO 1/2 X 3	C
3000:5	TWO 1/2 X 4	C



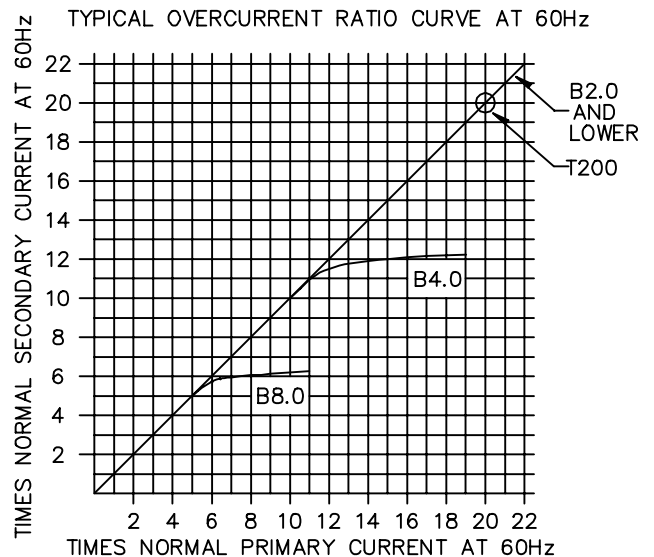
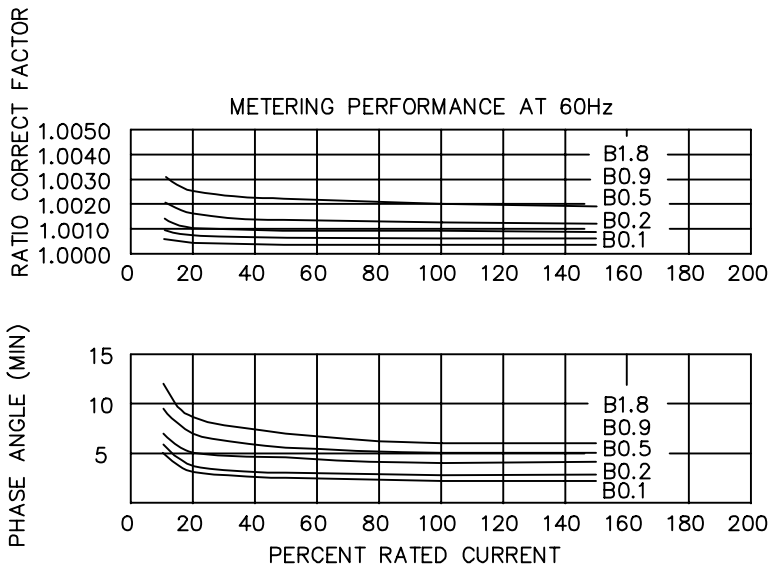
## RECOMMENDED MINIMUM SPACINGS



A; Unit to Unit  
= 8.50" minimum.

B; HV to Ground in Air  
= 8.50" minimum.

Recommended spacings are for guidance only. User needs to set appropriate values to assure performance for high potential test, impulse test, high humidity, partial discharge, high altitude, and other considerations like configuration.



# CURRENT TRANSFORMER

## Model CTW7-150

Wound primary CT

REGULATORY AGENCY APPROVALS



Manufactured to meet the requirements of ANSI/IEEE C57.13.  
Classified by U.L. in accordance with IEC 44-1  
Approved for revenue metering by Industry Canada. AE-0637 Rev.01

**APPLICATION:**  
Metering and relaying.

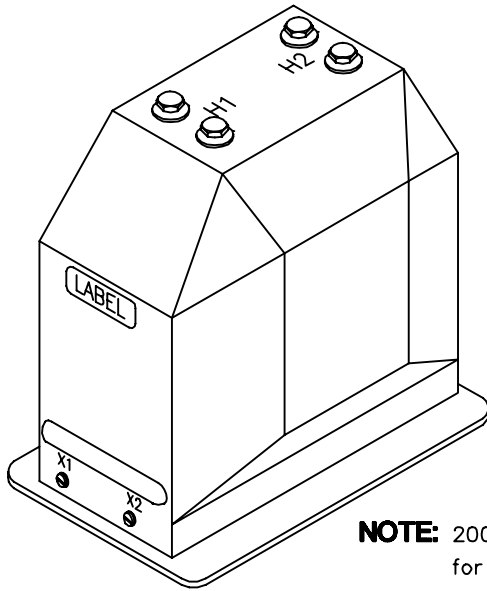
**FREQUENCY:**  
50-400 Hz.

**MAXIMUM SYSTEM VOLTAGE:**  
36.5kV, BIL 150kV full wave.

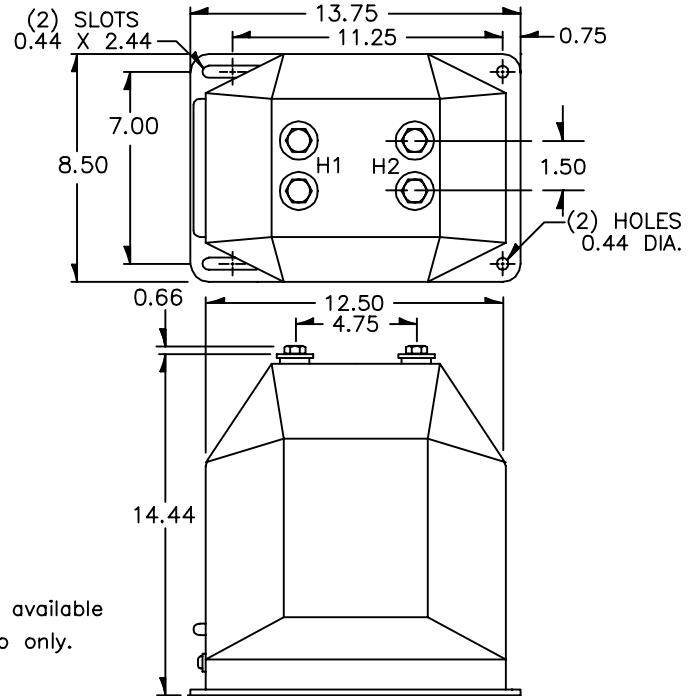
**CONTINUOUS THERMAL CURRENT RATING FACTOR:**

1.50 at 30°C. amb., 1.33 at 55°C. amb.

- Primary terminals are 1/2-13 bolts with one Belleville washer.
- Secondary terminals are 10-32 brass screws with one flatwasher and lockwasher.
- Vacuum cast in polyurethane resin.
- The transformers are tested for partial discharge to Canadian Standards CAN3-C13-M83. This test can also be carried out to IEC requirements if requested.
- Approximate weight: T100 - 125 lbs.  
T200 - 155 lbs.



**NOTE:** 200 kV BIL is available for 600:5 ratio only.



CAUTION: Use only the Belleville washers supplied. Tighten to between 25 to 30 foot-pounds. DO NOT OVERTIGHTEN.

CATALOG NUMBER ***	CURRENT RATIO	RELAY CLASS	ANSI METERING CLASS AT 60 Hz					THERMAL CURRENT RATING 1 SECOND RMS AMPS
			B0.1	B0.2	B0.5	B0.9	B1.8	
CTW7-150-T100-100	10:5	T100	0.3	0.3	0.3	0.3	0.6	900*
CTW7-150-T100-150	15:5	T100	0.3	0.3	0.3	0.3	0.6	1700*
CTW7-150-T100-250	25:5	T100	0.3	0.3	0.3	0.3	0.6	2700*
CTW7-150-T100-500	50:5	T100	0.3	0.3	0.3	0.3	0.6	4700*
CTW7-150-T100-750	75:5	T100	0.3	0.3	0.3	0.3	0.6	12900*
CTW7-150-T100-101	100:5	T100	0.3	0.3	0.3	0.3	0.6	12900*
CTW7-150-T100-151	150:5	T100	0.3	0.3	0.3	0.3	0.6	23000*
CTW7-150-T100-201	200:5	T100	0.3	0.3	0.3	0.3	0.6	28200*
CTW7-150-T100-301	300:5	T100	0.3	0.3	0.3	0.3	0.6	48900*
CTW7-150-T100-401	400:5	T100	0.3	0.3	0.3	0.3	0.6	66200*
CTW7-150-T100-601	600:5	T100	0.3	0.3	0.3	0.3	0.6	66200*

\* With a burden of B0.2 or greater connected to the secondary.

CTW7-150-T200-100	10:5	T200	0.3	0.3	0.3	0.3	0.3	900**
CTW7-150-T200-150	15:5	T200	0.3	0.3	0.3	0.3	0.3	1700**
CTW7-150-T200-250	25:5	T200	0.3	0.3	0.3	0.3	0.3	2700**
CTW7-150-T200-500	50:5	T200	0.3	0.3	0.3	0.3	0.3	4700**
CTW7-150-T200-750	75:5	T200	0.3	0.3	0.3	0.3	0.3	12900**
CTW7-150-T200-101	100:5	T200	0.3	0.3	0.3	0.3	0.3	12900**
CTW7-150-T200-151	150:5	T200	0.3	0.3	0.3	0.3	0.3	23000**
CTW7-150-T200-201	200:5	T200	0.3	0.3	0.3	0.3	0.3	28200**
CTW7-150-T200-301	300:5	T200	0.3	0.3	0.3	0.3	0.3	48900**
CTW7-150-T200-401	400:5	T200	0.3	0.3	0.3	0.3	0.3	66200**
CTW7-150-T200-601	600:5	T200	0.3	0.3	0.3	0.3	0.3	66200**

\*\* With a burden of B0.5 or greater connected to the secondary.

\*\*\* A test card is provided with each unit.

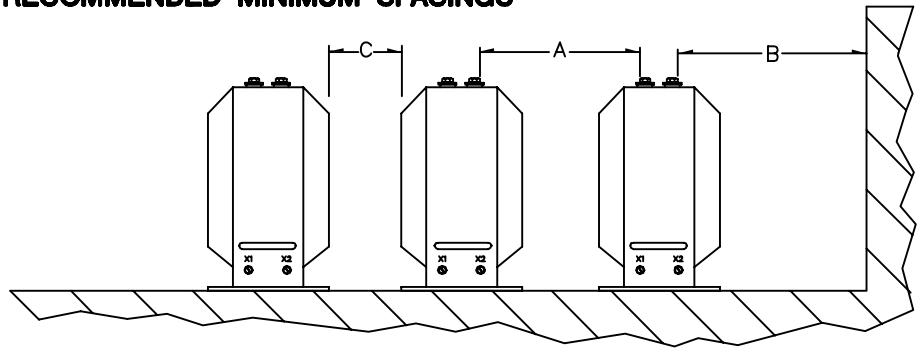
# CTW7-150

## RECOMMENDED MINIMUM SPACINGS

A; HV to HV  
= 11.50" minimum.

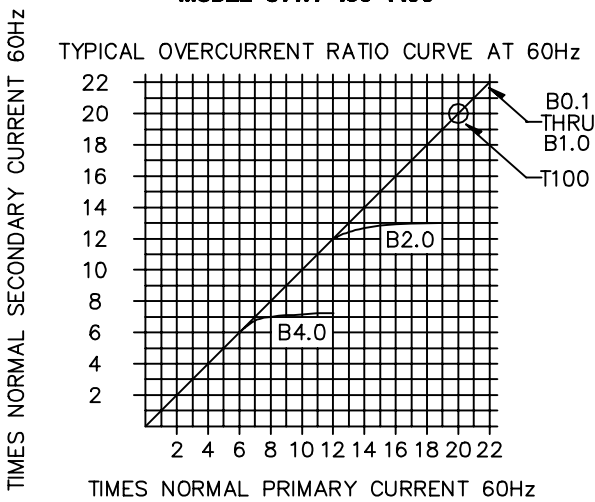
B; HV to Ground in Air  
= 11.50" minimum.

C; Unit to Unit  
= 2.00" minimum.

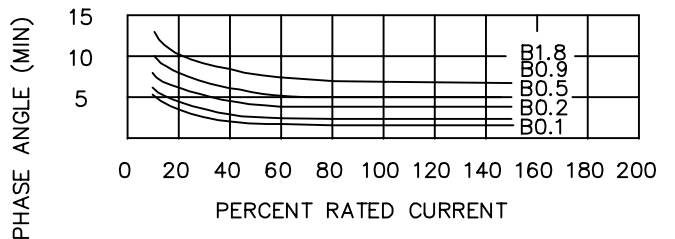
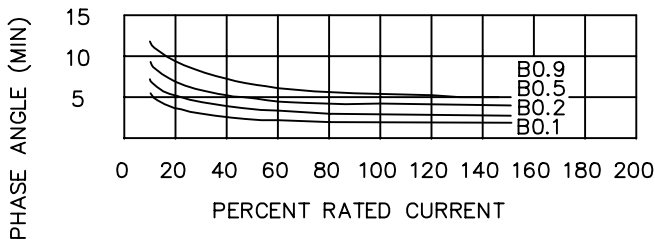
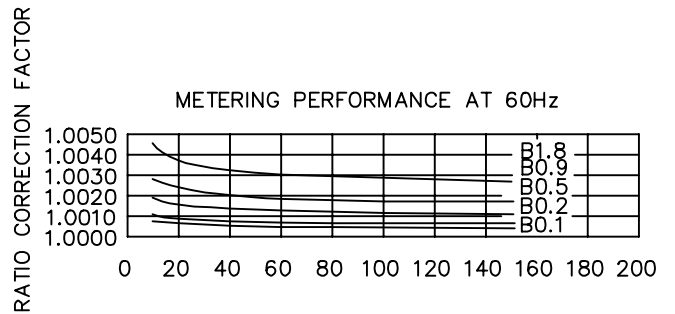
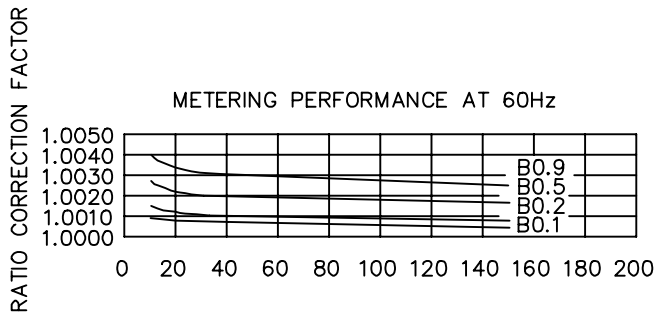
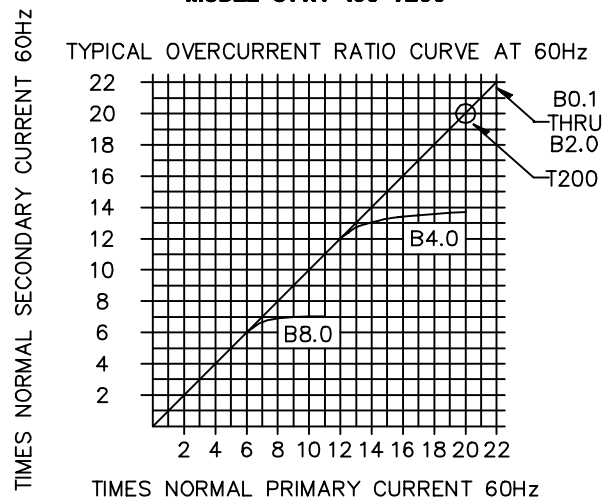


Recommended spacings are for guidance only. User needs to set appropriate values to assure performance for high potential test, impulse test, high humidity, partial discharge, high altitude, and other considerations like configuration.

**MODEL CTW7-150-T100**



**MODEL CTW7-150-T200**



# CURRENT TRANSFORMER

## Model CTWH7-150-T200

*Wound primary CT*

REGULATORY AGENCY APPROVALS



Manufactured to meet the requirements of ANSI/IEEE C57.13.  
Classified by U.L. in accordance with IEC 44-1  
Approved for revenue metering by Industry Canada. AE-0638 Rev.01

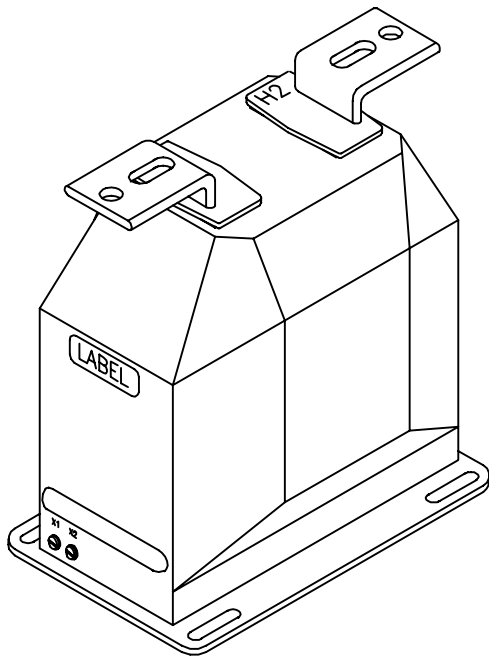
**APPLICATION:**  
Metering and relaying.

**FREQUENCY:**  
50-400 Hz.

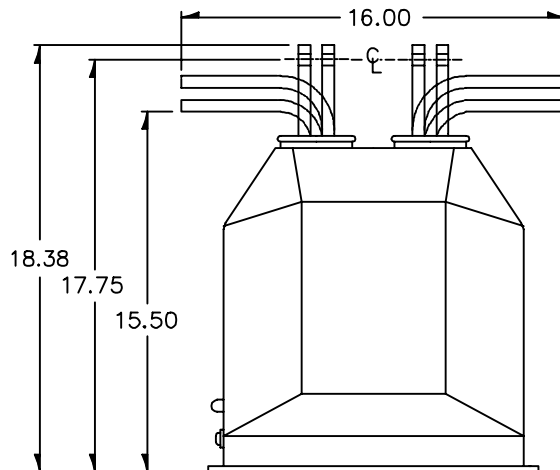
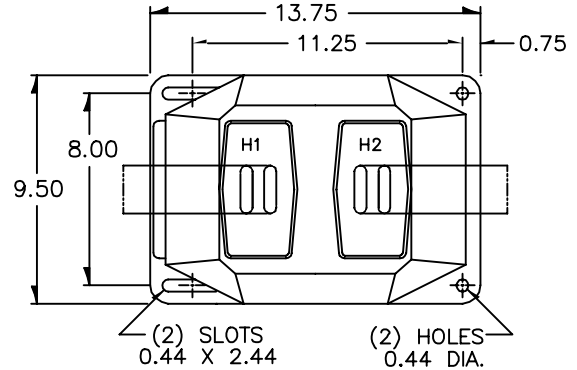
**MAXIMUM SYSTEM VOLTAGE:**  
36.5kV, BIL 150kV full wave.

**CONTINUOUS THERMAL CURRENT RATING FACTOR:**  
1.50 at 30°C. amb., 1.33 at 55°C. amb.  
2000:5 -  
1.33 at 30°C. amb., 1.00 at 55°C. amb.  
2500:5 and 3000:5 -  
1.00 at 30°C. amb., 0.85 at 55°C. amb.

- Primary terminals are plated copper bars, configured as specified.
- Secondary terminals are 10-32 brass screws with one flatwasher and lockwasher.
- Vacuum cast in polyurethane resin.
- Dual bar spacing is 1/2 inch.
- The transformers are tested for partial discharge to Canadian Standards CAN3-C13-M83. This test can also be carried out to IEC requirements if requested.
- Approximate weight 180 lbs.



**NOTE:** 200 kV BIL is available.



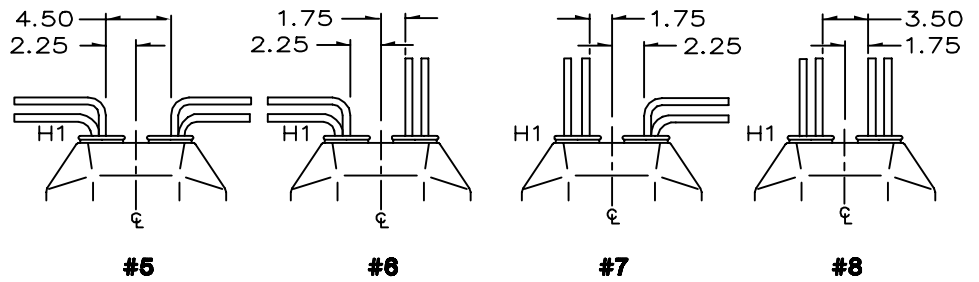
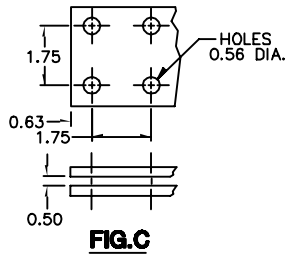
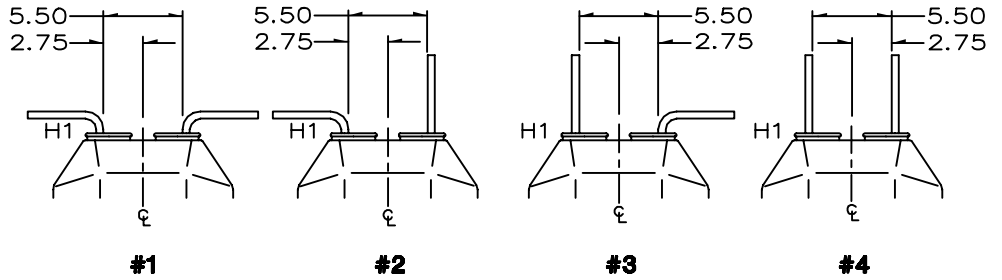
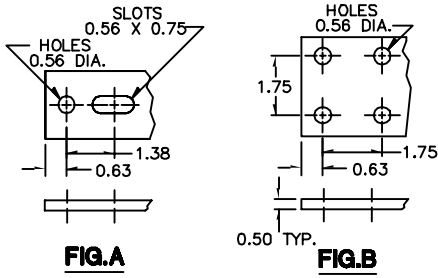
See next page for primary bar arrangements.

CATALOG NUMBER	CURRENT RATIO	RELAY CLASS	ANSI METERING CLASS AT 60 Hz					*THERMAL CURRENT RATING 1 SECOND RMS AMPS
			B0.1	B0.2	B0.5	B0.9	B1.8	
CTWH7-150-T200-801-**	800:5	T200	0.3	0.3	0.3	0.3	0.3	87000
CTWH7-150-T200-102-**	1000:5	T200	0.3	0.3	0.3	0.3	0.3	133000
CTWH7-150-T200-122-**	1200:5	T200	0.3	0.3	0.3	0.3	0.3	133000
CTWH7-150-T200-152-**	1500:5	T200	0.3	0.3	0.3	0.3	0.3	266000
CTWH7-150-T200-202-**	2000:5	T200	0.3	0.3	0.3	0.3	0.3	266000
CTWH7-150-T200-252-**	2500:5	T200	0.3	0.3	0.3	0.3	0.3	266000
CTWH7-150-T200-302-**	3000:5	T200	0.3	0.3	0.3	0.3	0.3	358000

\* With a burden of B0.1 or greater connected to the secondary.  
\*\* Specify primary bus arrangement number (1 through 8).

# CTWH7-150-T200

## PRIMARY BAR ARRANGEMENTS



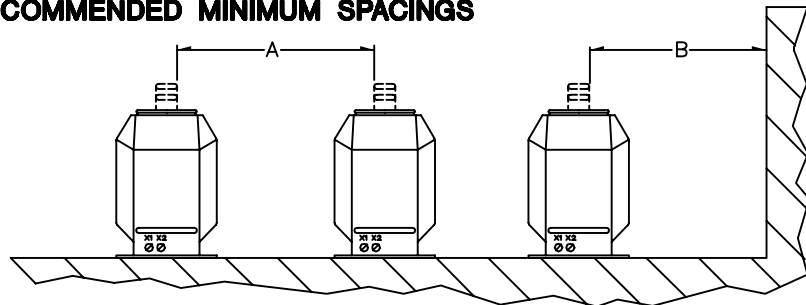
ALL BARS HAVE FULL RADIUS EDGE

RATIO	PRIMARY TERMINALS	FIG.
800:5	ONE 1/2 X 2	A
1000:5	ONE 1/2 X 3	B
1200:5	ONE 1/2 X 3	B
1500:5	TWO 1/2 X 3	C
2000:5	TWO 1/2 X 3	C
2500:5	TWO 1/2 X 3	C
3000:5	TWO 1/2 X 4	C

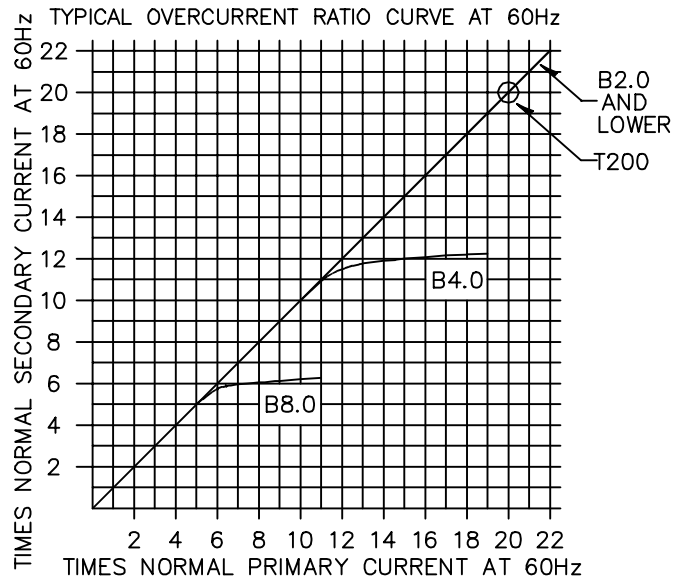
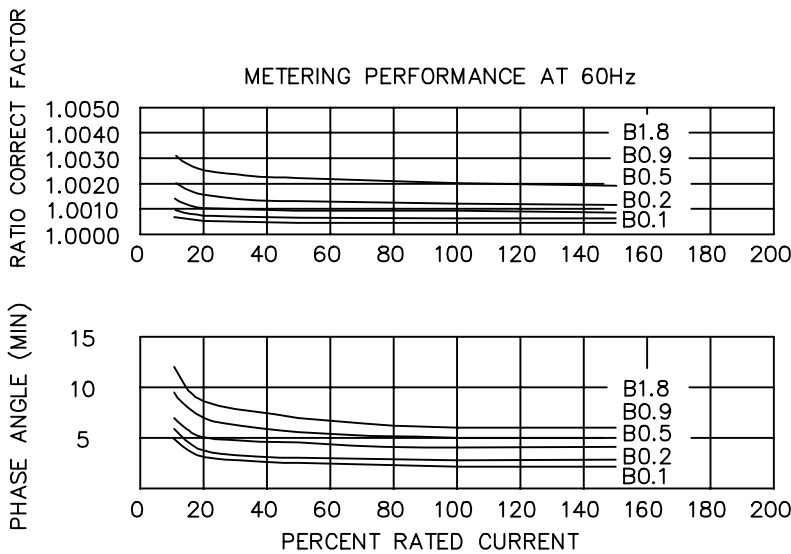
A; Unit to Unit  
= 11.50" minimum.

B; HV to Ground in Air  
= 11.50" minimum.

## RECOMMENDED MINIMUM SPACINGS



Recommended spacings are for guidance only. User needs to set appropriate values to assure performance for high potential test, impulse test, high humidity, partial discharge, high altitude, and other considerations like configuration.



# CURRENT TRANSFORMER

Model CTOR

Window Size 8.44" X 4.50"

**APPLICATION:**

Metering and relaying.

**FREQUENCY:**

50-60 Hz.

**MAXIMUM SYSTEM VOLTAGE:**

For 15kV, and below applications.

**CONTINUOUS THERMAL CURRENT RATING FACTOR:**

Up to 800:5 ratio

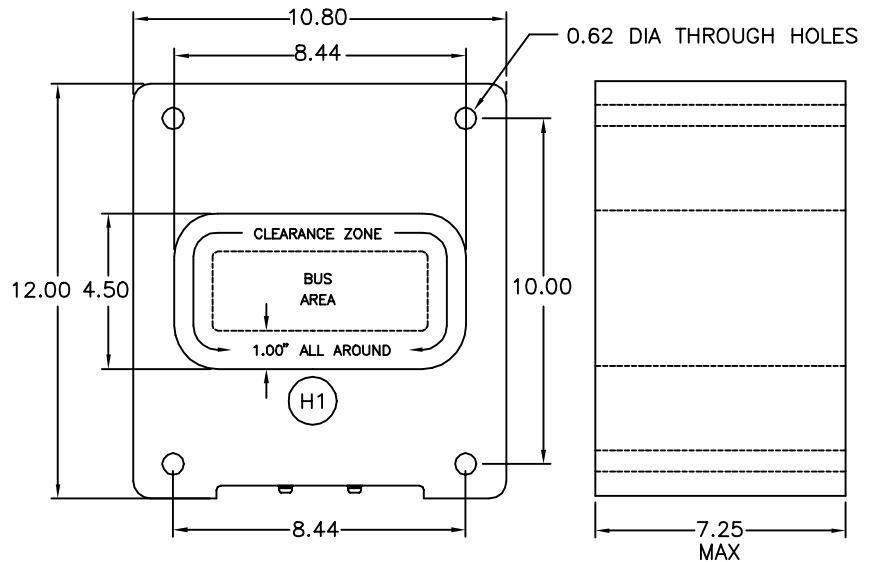
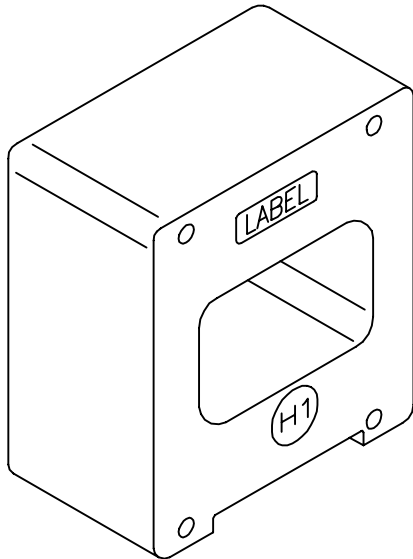
2.00 at 30°C. amb., 1.50 at 55°C. amb.

1200:5 to 4000:5 ratios

1.33 at 30°C. amb., 1.00 at 55°C. amb.

- Secondary terminals are 10-32 brass screws with one flatwasher and lockwasher.
- Vacuum cast in polyurethane resin.
- Approximate weight 80 lbs.

Manufactured to meet the requirements of ANSI/IEEE C57.13. Classified by U.L. in accordance with IEC 44-1



**APPLICATION NOTES FOR 15kV, 95kV BIL, 36kV HIPOT:**

Bus bars must be suitably insulated with 0.100" coverage, and no breaks or bends 6.0" on either side of C.T.

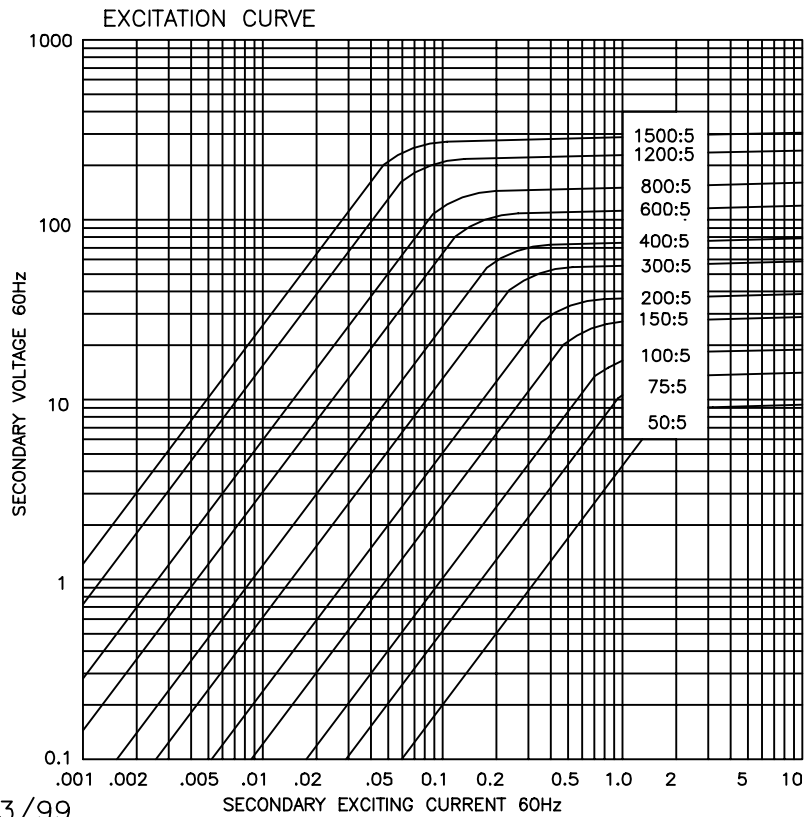
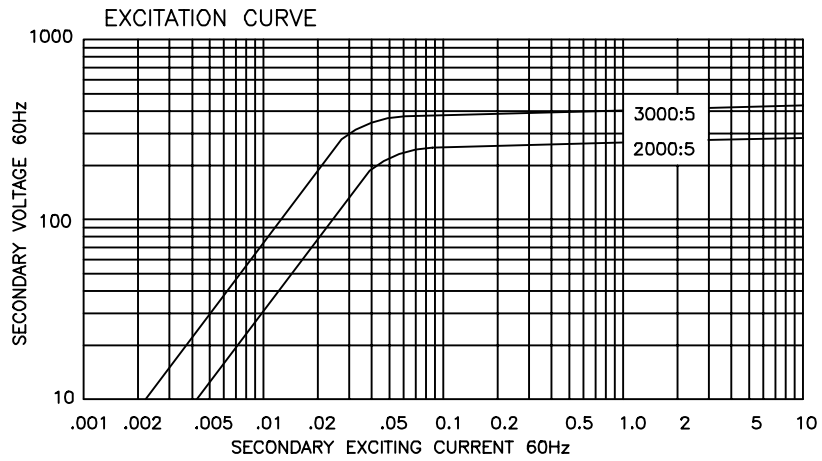
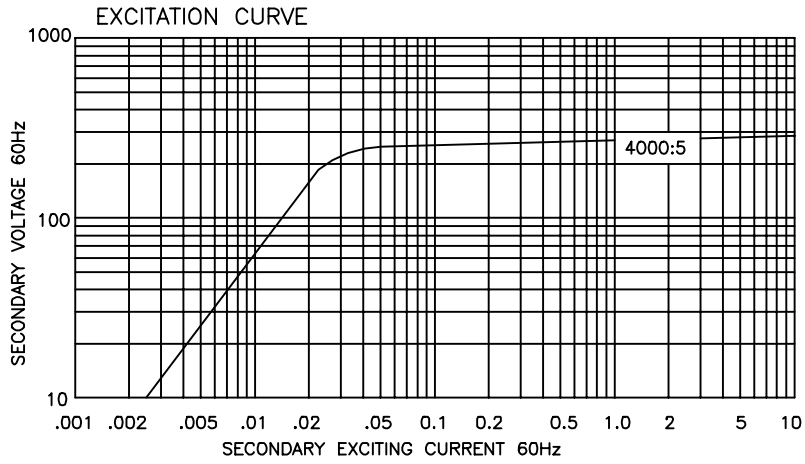
The bus bars and C.T. have to be adequately mounted to assure the bus bars are retained in the middle of the window, and to provide 1.0" air clearance all around between the bus bars and the C.T. window for 15kV applications and 0.62" air clearance for 5kV.

When mounting the C.T., use non-metallic support angles, or bars and hardware.

By itself the C.T. is rated 600V, 10kV BIL, 4kV Hipot.

CATALOG NUMBER	CURRENT RATIO	RELAY CLASS	ANSI METERING CLASS AT 60 Hz							SECONDARY WINDING RESISTANCE (OHMS@75°C)
			B0.1	B0.2	B0.5	B0.9	B1.8	B1.0	B2.0	
CTOR-500	50:5	-	-	-	-	-	-	-	-	0.026
CTOR-750	75:5	C10	2.4	4.8	-	-	-	-	-	0.030
CTOR-101	100:5	C10	1.2	2.4	-	-	-	-	-	0.040
CTOR-151	150:5	C20	0.6	1.2	2.4	4.8	-	4.8	-	0.065
CTOR-201	200:5	C20	0.6	0.6	2.4	2.4	4.8	2.4	4.8	0.083
CTOR-301	300:5	C20	0.3	0.3	0.6	1.2	2.4	1.2	2.4	0.130
CTOR-401	400:5	C50	0.3	0.3	0.6	0.6	1.2	0.6	1.2	0.164
CTOR-601	600:5	C100	0.3	0.3	0.6	0.6	1.2	0.6	1.2	0.294
CTOR-801	800:5	C100	0.3	0.3	0.3	0.6	1.2	0.6	1.2	0.391
CTOR-122	1200:5	C200	0.3	0.3	0.3	0.3	0.6	0.6	0.6	0.513
CTOR-152	1500:5	C200	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.640
CTOR-202	2000:5	C200	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.820
CTOR-302	3000:5	C200	0.3	0.3	0.3	0.3	0.3	0.3	0.3	1.035
CTOR-402	4000:5	C200	0.3	0.3	0.3	0.3	0.3	0.3	0.3	1.070

# TYPICAL EXCITATION CURVE- MODEL CTOR



# CURRENT TRANSFORMER

## Model CTO

### APPLICATION:

Metering and relaying.

### FREQUENCY:

50-60 Hz.

### MAXIMUM SYSTEM VOLTAGE:

For 15kV, and below applications.

### CONTINUOUS THERMAL

### CURRENT RATING FACTOR:

up to 1500:5 ratio

1.50 at 30°C. amb., 1.00 at 55°C. amb.

2000:5 to 3000:5 ratios

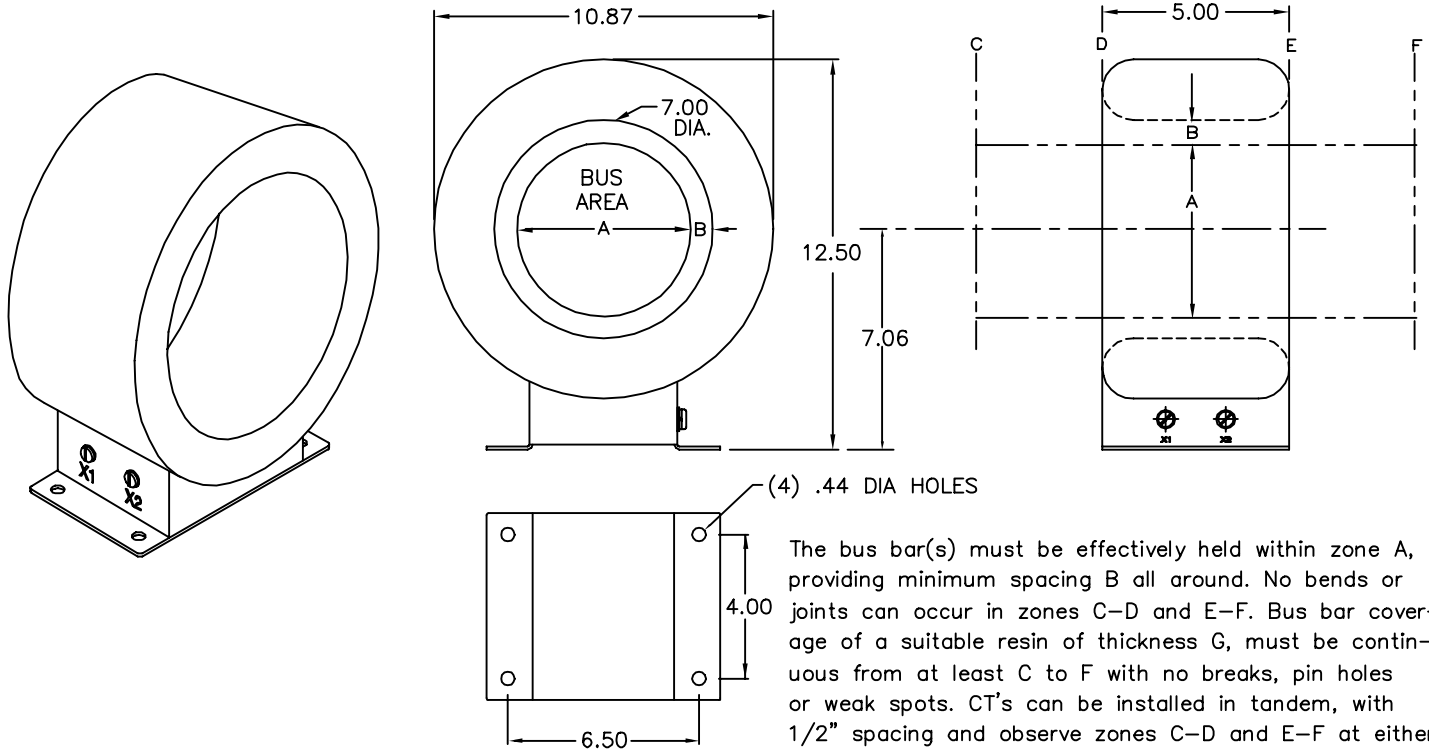
1.33 at 30°C. amb., 1.00 at 55°C. amb.

4000:5 ratio

1.00 at 30°C. amb., 0.75 at 55°C. amb.

- Secondary terminals are 10-32 brass screws with one flatwasher and lockwasher.
- Vacuum cast in polyurethane resin.
- Steel mounting base.
- Approximate weight 55 lbs.

Manufactured to meet the requirements of ANSI/IEEE C57.13.  
Classified by U.L. in accordance with IEC 44-1



(4) .44 DIA HOLES

The bus bar(s) must be effectively held within zone A, providing minimum spacing B all around. No bends or joints can occur in zones C-D and E-F. Bus bar coverage of a suitable resin of thickness G, must be continuous from at least C to F with no breaks, pin holes or weak spots. CT's can be installed in tandem, with 1/2" spacing and observe zones C-D and E-F at either end.

By itself the CT is rated 600 volt class, 10kV BIL. With suitable spacing and insulated bus, a higher voltage class, and impulse level can be achieved, including 5kV, 60kV BIL and 15kV, 110kV BIL.

The following applies ONLY after proper installation of the bus bar.

CLASS	BIL	HI POT	A dia	B min	C-D	E-F	G min
5kV	60kV	19kV	5.75"	0.62"	4.0"	4.0"	0.060
8.7kV	75kV	26kV	5.5"	0.75"	5.0"	5.0"	0.100
15kV	95kV	36kV	5.0"	1.0"	5.5"	5.5"	0.100
15kV	110kV	36kV	5.0"	1.0"	5.5"	5.5"	0.100
15kV	110kV	36kV	4.0"	1.5"	7.0"	7.0"	0.100

No sharp object should occur close to zones C-D and E-F. Only full radius edge bus bar is recommended. Zone A can accommodate (1) 1/2x5 bus bar, or multiples of 1/2x4 with 1/2" spacing to suit. Other sizes like 1/4" and 3/8" can also be used.

CATALOG NUMBER	CURRENT RATIO	RELAY CLASS	ACCURACY CLASS AT 60 Hz							SECONDARY WINDING RESISTANCE (OHMS@75 °C)
			B0.1	B0.2	B0.5	B0.9	B1.8	B1.0	B2.0	
CTO-500	50:5	-	4.8	-	-	-	-	-	-	0.018
CTO-750	75:5	C10	2.4	2.4	-	-	-	-	-	0.028
CTO-101	100:5	C10	1.2	1.2	4.8	-	-	-	-	0.037
CTO-151	150:5	C20	0.6	1.2	2.4	4.8	4.8	4.8	4.8	0.056
CTO-201	200:5	C20	0.6	0.6	1.2	2.4	4.8	2.4	4.8	0.075
CTO-251	250:5	C20	0.3	0.6	1.2	1.2	2.4	1.2	2.4	0.093
CTO-301	300:5	C20	0.3	0.3	0.6	1.2	2.4	1.2	2.4	0.112
CTO-401	400:5	C50	0.3	0.3	0.6	0.6	1.2	0.6	0.6	0.149
CTO-501	500:5	C50	0.3	0.3	0.3	0.6	0.6	0.6	0.6	0.187
CTO-601	600:5	C100	0.3	0.3	0.3	0.3	0.6	0.3	0.6	0.224
CTO-801	800:5	C100	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.385
CTO-102	1000:5	C100	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.481
CTO-122	1200:5	C100	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.578
CTO-152	1500:5	C200	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.722
CTO-202	2000:5	C200	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.963
CTO-252	2500:5	C200	0.3	0.3	0.3	0.3	0.3	0.3	0.3	1.204
CTO-302	3000:5	C200	0.3	0.3	0.3	0.3	0.3	0.3	0.3	1.443
CTO-402	4000:5	C100	0.3	0.3	0.3	0.3	0.3	0.3	0.3	1.608



