## IEEE Indoor

## IEEE 5-35kV Indoor CT

CTW Series
BIL up to 200 kV


Vacuum cast using polyurethane resin Special primary bars on some models Designed to meet C57.13 UL Recognized \& CSAApproved Some models IC Approved Typically installed in medium voltage switchgear

| File Name | Title | Publish Date |
| :---: | :---: | :---: |
| CTW3T10 | Model CTW3T10 | 08/11/2017 |
| Model: CTW3-60-T10; Voltage Class: $5 \mathrm{kV}, 60 \mathrm{kV}$ BIL |  |  |
| CTW3T50 | Model CTW3T50 | 08/11/2017 |
| Model: CTW3-60-T50, CTWH3-60-T50; Voltage Class: 5 kV , 60 kV BIL |  |  |
| CTWH3T100 | Model CTWH3T100 | 08/11/2017 |
| Model: CTWH | T100; Voitage Class: |  |

CTWH3AT90 Model CTWH3AT90 08/11/2017

Model: CTWH3-A-60-T90; Voltage Class 5kV, 60kV BIL; High Accuracy
CTWH4T100 Model CTWH4T100 08/10/2017
Model: CTWH4-75-T100; Voltage Class: 8.7 kV, 75 kV BIL
CTW5L Model CTW5L 08/11/2017
Model: CTW5-L-110,CTWH5-L-110; Voltage Class: 15 kV, 110 kV BIL
CTWH5T200 Model CTWH5T200
08/08/2017
Model: CTWH5-B-110-T200; Voltage Class: 15 kV, 110 kV BIL
CTWH5AT150 Model CTWH5AT150 08/10/2017
Model: CTWH5-A-110-T150; Voltage Class 15kV, 110kV BIL; High Accuracy
CTWH5S Model CTWH5S 08/10/2017
Model: CTWH5-S-110; Voltage Class 15kV, 110kV BIL; High Momentary
CTW6 Model CTW6 08/11/2017
Model: CTW6-125; Voltage Class: 25 kV, 125 kV BIL
CTWH6 Model CTWH6 08/08/2017
Model: CTWH6-125-T200; Voltage Class: 25 kV, 125 kV BIL

Model: CTW7-150; Voltage Class: $34.5 \mathrm{kV}, 150 \mathrm{kV}$ BIL
CTWH7 Model CTWH7 08/08/2017
Model: CTWH7-150-T200; Voltage Class: $34.5 \mathrm{kV}, 150 \mathrm{kV}$ BIL
CTO Model CTO 08/11/2017

Model: CTO; 600 Volt Class Window Type. Cast Resin for MV Applications
CTOR Model CTOR 08/11/2017
Model: CTOR; 600 Volt Class Window Type. Vacuum cast polyurethane Resin for MV Applications

Datasheet starting on the following page.

## Model CTW3-60-T10

## Wound Primary Current Transformer Medium Voltage

## Application

Metering and relaying.
Frequency
$50-400 \mathrm{~Hz}$
Maximum System Voltage
5.6 kV, BIL 60 kV .


Model CTW3-60-T10
CAUTION: Use only the Belleville washers supplied. Tighten to between 13 to 15 foot-pounds. DO NOT OVERTIGHTEN

| Catalog Number | Current Ratio | Relay Class | ANSI Metering Class at 60 Hz |  | Continuous Thermal Rating 1 Second | Connection Table Line |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | B0.1 | B0.2 |  |  |
| $\begin{aligned} & \text { CTW3-60-T10- } \\ & \text { 500X151DR } \end{aligned}$ | 50:5A | T10 | 0.6 | 1.2 | 4,800 | 4 |
|  | 75:5A | T20 | 0.6 | 0.6 | 4,800 | 3 |
|  | 100:5A | T10 | 0.6 | 1.2 | 9,600 | 2 |
|  | 150:5A | T20 | 0.6 | 0.6 | 9,600 | 1 |
| $\begin{aligned} & \text { CTW3-60-T10- } \\ & \text { 201X601DR } \end{aligned}$ | 200:5 | T20 | 0.3 | 0.3 | 18,000 | 4 |
|  | 300:5 | T30* | 0.3 | 0.3 | 18,000 | 3 |
|  | 400:5 | T20 | 0.3 | 0.3 | 36,000 | 2 |
|  | 600:5 | T30* | 0.3 | 0.3 | 36,000 | 1 |

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

## RECOMMENDED MINIMUM SPACINGS

$A=$ Unit to Unit $=0.75$ minimum.
$\mathbf{B}=\mathrm{HV}$ to Ground in Air $=3.00$ minimum.
Recommended spacing 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.


# Models CTW3-60-T50 \& CTWH3-60-T50 

## Wound Primary Current Transformers Medium Voltage

## Application

Metering and relaying.

## Frequencey

$50-400 \mathrm{~Hz}$
Maximum System Voltage
5.6 kV , BIL 60 kV .

## Continuous Thermal <br> Rating Factor

1.5 at $30^{\circ} \mathrm{C}$., 1.33 at $55^{\circ} \mathrm{C}$.
$150: 5$ and $600: 5-1.33$ at $30^{\circ} \mathrm{C}$., 1.00 at $55^{\circ} \mathrm{C}$. 250:5-1.00 at $30^{\circ} \mathrm{C}$., 0.85 at $55^{\circ} \mathrm{C}$.

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 polyurethane resin. Other ratios, secondary currents and dual ratios are available. Refer to factory.

Approximate weight 20 lbs .


REGULATORY AGENCY APPROVALS

## Models CTW3-60-T50 \& CTWH3-60-T50

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 | 1,000 |
| CTW3-60-T50-150 | 15:5 | T50 | 0.3 | 0.3 | 0.3 | 0.6 | 1.2 | 1,690 |
| CTW3-60-T50-200 | 20:5 | T50 | 0.3 | 0.3 | 0.3 | 0.6 | 1.2 | 1,900 |
| CTW3-60-T50-250 | 25:5 | T50 | 0.3 | 0.3 | 0.3 | 0.6 | 1.2 | 2,700 |
| CTW3-60-T50-300 | 30:5 | T50 | 0.3 | 0.3 | 0.3 | 0.6 | 1.2 | 2,700 |
| CTW3-60-T50-400 | 40:5 | T50 | 0.3 | 0.3 | 0.3 | 0.6 | 1.2 | 4,720 |
| CTW3-60-T50-500 | 50:5 | T50 | 0.3 | 0.3 | 0.3 | 0.6 | 1.2 | 4,720 |
| CTW3-60-T50-750 | 75:5 | T50 | 0.3 | 0.3 | 0.3 | 0.6 | 1.2 | 8,630 |
| CTW3-60-T50-101 | 100:5 | T50 | 0.3 | 0.3 | 0.3 | 0.6 | 1.2 | 8,630 |
| CTW3-60-T50-151 | 150:5 | T50 | 0.3 | 0.3 | 0.3 | 0.6 | 1.2 | 14,380 |
| CTW3-60-T50-201 | 200:5 | T50 | 0.3 | 0.3 | 0.3 | 0.6 | 1.2 | 17,250 |
| CTW3-60-T50-251 | 250:5 | T50 | 0.3 | 0.3 | 0.3 | 0.6 | 1.2 | 17,250 |
| CTW3-60-T50-301 | 300:5 | T50 | 0.3 | 0.3 | 0.3 | 0.6 | 1.2 | 37,800 |
| CTW3-60-T50-401 | 400:5 | T50 | 0.3 | 0.3 | 0.3 | 0.6 | 1.2 | 37,800 |
| CTW3-60-T50-501 | 500:5 | T50 | 0.3 | 0.3 | 0.3 | 0.6 | 1.2 | 37,800 |
| CTW3-60-T50-601 | 600:5 | T50 | 0.3 | 0.3 | 0.3 | 0.6 | 1.2 | 37,800 |

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


## RECOMMENDED MINIMUM SPACINGS

$A=$ Unit to Unit $=0.75^{\circ}$ minimum.
$\mathbf{B}=\mathrm{HV}$ to Ground in Air $=3.00^{\circ}$ minimum.
Recommended spacing are for guidance only. User needs to set appropriate values to assure performance for high potential test, impulse test, high humidity, partial discharge, high oltitude. and other considerations like configuration.



# Model CTWH3-60-T100 

## Wound Primary Current Transformer Medium Voltage

## Application

Metering and relaying.
Frequencey
$50-400 \mathrm{~Hz}$
Maximum System Voltage
5.6 kV, BIL 60 kV .

Continuous Thermal
Rating Factor
1.50 at $30^{\circ} \mathrm{C}$., 1.33 at $55^{\circ} \mathrm{C}$.

250:5, 1,000:5 and 1,200:5-
1.10 at $30^{\circ} \mathrm{C}$., 0.85 at $55^{\circ} \mathrm{C}$.

## Specifications

Primary terminals are plated copper bars. See chart next page for sizes. Secondary terminals are brass screws No. 10-32 with one flatwasher, lockwasher.

Vacuum cast in polyurethane resin. Other ratios, secondary currents and dual ratios are available. Refer to factory.


REGULATORY AGENCY APPROVALS


LR89403
Manufactured to meet the requirements of ANSI/IEEE C57.13.

Model CTWH3-60-T100

| Catalog Number | Current Ratio | Relay <br> Class | ANSI Metering Class at 60 Hz |  |  |  |  | ** Thermal Current Rating 1 Second RMS Amps |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | BO. 1 | BO. 2 | BO. 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 | 1,600 |
| CTWH3-60-T100-200 | 20:5 | T100 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 1,900 |
| CTWH3-60-T100-250 | 25:5 | T100 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 2,600 |
| CTWH3-60-T100-300 | 30:5 | T100 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 2,900 |
| CTWH3-60-T100-400 | 40:5 | T100 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 3,800 |
| CTWH3-60-T100-500 | 50:5 | T100 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 4,700 |
| CTWH3-60-T100-750 | 75:5 | T100 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 5,900 |
| CTWH3-60-T100-101 | 100:5 | T100 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 8,600 |
| CTWH3-60-T100-151 | 150:5 | T100 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 12,900 |
| CTWH3-60-T100-201 | 200:5 | T100 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 17,200 |
| CTWH3-60-T100-251 | 250:5 | T100 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 17,200 |
| CTWH3-60-T100-301 | 300:5 | T100 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 34,500 |
| CTWH3-60-T100-401 | 400:5 | T100 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 34,000 |
| CTWH3-60-T100-601 | 600:5 | T100 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 66,200 |
| CTWH3-60-T100-801 | 800:5 | T100 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 66,200 |
| CTWH3-60-T100-102 | 1,000:5 | T100 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 66,200 |
| CTWH3-60-T100-122 | 1,200:5 | T100 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 66,200 |

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

## RECOMMENDED MINIMUM SPACINGS

$A=$ Unit to Unit $=0.75^{\circ}$ minimum.
$\mathbf{B}=H V$ to Ground in Air $=3.00^{\circ}$ minimum.
Recommended spacing 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 CTWH3-A-60-T90

## Wound Primary Current Transformer Medium Voltage

## Application

High accuracy metering and relaying.
Frequencey
$50-400 \mathrm{~Hz}$
Maximum System Voltage
5.6 kV, BIL 60 kV .

Continuous Thermal
Rating Factor
1.33 at $30^{\circ} \mathrm{C}$., 1.0 at $55^{\circ} \mathrm{C}$. 400:5-
1.10 at $30^{\circ} \mathrm{C}$., 0.85 at $55^{\circ} \mathrm{C}$.

## Specifications

Primary terminals are plated copper bars. See chart next page for sizes. Secondary terminals are brass screws No. 10-32 with one flatwasher, lockwasher.

Vacuum cast in polyurethane resin.
Other ratios, secondary currents and dual ratios are available. Refer to factory.

Approximate weight 41 lbs


REGULATORY AGENCY APPROVALS


LR89403
Manufactured to meet the requirements of ANSI/IEEE C57.13.

Model CTWH3-A-60-T90

| Catalog Number | Current Ratio | Relay <br> Class | ANSI Metering Class at 60 Hz |  |  |  |  | ** Thermal Current Rating 1 Second RMS Amps |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | BO. 1 | B0.2 | BO. 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 | 1,700 |
| CTWH3-A-60-T90-200 | 20:5 | T90 | 0.1 | 0.1 | 0.1 | 0.1 | 0.2 | 1,920 |
| CTWH3-A-60-T90-250 | 25:5 | T90 | 0.1 | 0.1 | 0.1 | 0.1 | 0.2 | 2,600 |
| CTWH3-A-60-T90-300 | 30:5 | T90 | 0.1 | 0.1 | 0.1 | 0.1 | 0.2 | 2,900 |
| CTWH3-A-60-T90-400 | 40:5 | T90 | 0.1 | 0.1 | 0.1 | 0.1 | 0.2 | 3,700 |
| CTWH3-A-60-T90-500 | 50:5 | T90 | 0.1 | 0.1 | 0.1 | 0.1 | 0.2 | 4,700 |
| CTWH3-A-60-T90-750 | 75:5 | T90 | 0.1 | 0.1 | 0.1 | 0.1 | 0.2 | 5,800 |
| CTWH3-A-60-T90-101 | 100:5 | T90 | 0.1 | 0.1 | 0.1 | 0.1 | 0.2 | 8,600 |
| CTWH3-A-60-T90-151 | 150:5 | T90 | 0.1 | 0.1 | 0.1 | 0.1 | 0.2 | 12,900 |
| CTWH3-A-60-T90-201 | 200:5 | T90 | 0.1 | 0.1 | 0.1 | 0.1 | 0.2 | 18,000 |
| CTWH3-A-60-T90-301 | 300:5 | T90 | 0.1 | 0.1 | 0.1 | 0.1 | 0.2 | 28,200 |
| CTWH3-A-60-T90-401 | 400:5 | T90 | 0.1 | 0.1 | 0.1 | 0.1 | 0.2 | 34,000 |
| CTWH3-A-60-T90-601 | 600:5 | T90 | 0.1 | 0.1 | 0.1 | 0.1 | 0.2 | 51,500 |

*With a burden of BO. 1 or greater connected to the secondary.
RECOMMENDED MINIMUM SPACINGS
$\mathrm{A}=$ Unit to Unit $=0.75^{\prime \prime}$ minimum.
B = HV to Ground in Air $=3.00^{\prime \prime}$ minimum.
Recommended spacing 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.
Bar Sizes


| Primary Current | Dimensions |  |
| :---: | :---: | :---: |
|  | A | B |
| 5 to 200 A | 0.25 | 1.50 |
| 250 to $1,200 \mathrm{~A}$ | 0.38 | 2.00 |

## Model CTWH4-75-T100

## Wound Primary Current Transformer Medium Voltage

## Application

Metering and relaying.
Frequency
$50-400 \mathrm{~Hz}$
Maximum System Voltage
9.52 kV, BIL 75 kV.

## Specifications

Primary terminals are plated copper bars. See chart next page for sizes. Secondary terminals are brass screws No. 10-32 with one flatwasher, lockwasher.

Vacuum cast in polyurethane resin. Other ratios, secondary currents and dual ratios are available. Refer to factory.

Approximate weight 42 lbs
Continuous Thermal
Rating Factor
1.50 at $30^{\circ} \mathrm{C}$., 1.33 at $55^{\circ} \mathrm{C}$.

250:5 and 1,000:5-
1.10 at $30^{\circ} \mathrm{C}$., 0.85 at $55^{\circ} \mathrm{C}$.

1,000:5-
1.0 at $30^{\circ} \mathrm{C}$., 0.75 at $55^{\circ} \mathrm{C}$.

regulatory agency approvals


LR89403
SI/IEEE C57.13.

## Model CTWH4-75-T100

| Catalog Number | Current Ratio | Relay Class | ANSI Metering Class at 60 Hz |  |  |  |  | ** Thermal Current <br> Rating 1 Second RMS <br> 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 | 1,600 |
| CTWH4-75-T100-200 | 20:5 | T100 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 1,900 |
| CTWH4-75-T100-250 | 25:5 | T100 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 2,600 |
| CTWH4-75-T100-300 | 30:5 | T100 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 2,900 |
| CTWH4-75-T100-400 | 40:5 | T100 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 3,800 |
| CTWH4-75-T100-500 | 50:5 | T100 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 4,700 |
| CTWH4-75-T100-750 | 75:5 | T100 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 5,900 |
| CTWH4-75-T100-101 | 100:5 | T100 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 8,600 |
| CTWH4-75-T100-151 | 150:5 | T100 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 12,900 |
| CTWH4-75-T100-201 | 200:5 | T100 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 17,200 |
| CTWH4-75-T100-251 | 250:5 | T100 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 17,200 |
| CTWH4-75-T100-301 | 300:5 | T100 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 34,500 |
| CTWH4-75-T100-401 | 400:5 | T100 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 34,500 |
| CTWH4-75-T100-601 | 600:5 | T100 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 66,200 |
| CTWH4-75-T100-801 | 800:5 | T100 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 66,200 |
| CTWH4-75-T100-102 | 1,000:5 | T100 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 66,200 |
| CTWH4-75-T100-122 | 1,200:5 | T100 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 66,200 |

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

## RECOMMENDED MINIMUM SPACINGS

$A=$ Unit to Unit $=1.00^{*}$ minimum.
$B=H V$ to Ground in Air $=4.50^{\circ}$ minimum.
Recommended spacing 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.

## Bar Sizes

| Primary Current | Dimensions |  |
| :---: | :---: | :---: |
|  | $A$ | $B$ |
| 5 to 200 A | 0.25 | 1.50 |
| 250 to $1,200 \mathrm{~A}$ | 0.38 | 2.00 |



# Models CTW5-L-110 \& CTWH5-L-110 

## Wound Primary Current Transformers Medium Voltage

Application

Metering and relaying.
Frequency
$50-400 \mathrm{~Hz}$
Maximum System Voltage
15.5 kV, BIL 110 kV.

## Continuous Thermal

Rating Factor
1.00 at $30^{\circ} \mathrm{C} ., 0.85$ at $55^{\circ} \mathrm{C}$.

## Specifications

Primary terminals are 1/2-13 bolts with one Belleville washer. Secondary terminals are brass screws No. 10-32 with one flatwasher, lockwasher.

Vacuum cast in polyurethane resin. Other ratios, secondary currents and dual ratios are available. Refer to factory.

Approximate weight 34 lbs .


REGULATORY AGENCY APPROVALS


LR89403
Manufactured to meet the requirements of ANSI/IEEE C57.13. Transformers comply with IEC 61689

## Models CTW5-L-110 \& CTWH5-L-110

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

| Catalog Number | Current Ratio | Relay <br> Class | ANSI Metering Class at 60 Hz |  |  |  |  | ** Thermal Current Rating 1 Second RMS Amps |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | BO. 1 | B0.2 | BO. 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 | 1,200 |
| CTW5-L-110-T20-250 | 25:5 | T20 | 0.3 | 0.3 | 0.6 | 1.2 | 2.4 | 1,700 |
| CTW5-L-110-T20-300 | 30:5 | T20 | 0.3 | 0.3 | 0.6 | 1.2 | 2.4 | 1,700 |
| CTW5-L-110-T20-400 | 40:5 | T20 | 0.3 | 0.3 | 0.6 | 1.2 | 2.4 | 2,400 |
| CTW5-L-110-T20-500 | 50:5 | T20 | 0.3 | 0.3 | 0.6 | 1.2 | 2.4 | 4,715 |
| CTW5-L-110-T20-750 | 75:5 | T25 | 0.3 | 0.3 | 0.6 | 1.2 | 2.4 | 4,715 |
| CTW5-L-110-T20-101 | 100:5 | T25 | 0.3 | 0.3 | 0.6 | 1.2 | 2.4 | 8,625 |
| CTW5-L-110-T20-151 | 150:5 | T25 | 0.3 | 0.3 | 0.6 | 1.2 | 2.4 | 11,500 |
| CTW5-L-110-T20-201 | 200:5 | T30 | 0.3 | 0.3 | 0.6 | 1.2 | 2.4 | 11,500 |
| CTW5-L-110-T20-251 | 250:5 | T20 | 0.3 | 0.3 | 0.6 | 1.2 | 2.4 | 21,700 |
| CTW5-L-110-T20-301 | 300:5 | T25 | 0.3 | 0.3 | 0.6 | 1.2 | 2.4 | 21,700 |
| CTW5-L-110-T20-401 | 400:5 | T30 | 0.3 | 0.3 | 0.6 | 1.2 | 2.4 | 44,700 |
| CTW5-L-110-T20-501 | 500:5 | T35 | 0.3 | 0.3 | 0.3 | 0.6 | 1.2 | 44,700 |
| CTW5-L-110-T20-601 | 600:5 | T40 | 0.3 | 0.3 | 0.3 | 0.6 | 1.2 | 44,700 |

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

## RECOMMENDED MINIMUM SPACINGS

## $A=$ Unit to Unit $=2.00^{\circ}$ minimum.

$\mathrm{B}=\mathrm{HV}$ to Ground in Air $=6.50^{\circ}$ minimum.
Recommended spacing 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.

Bar Sizes

| Primary Current | Dimensions |  |
| :---: | :---: | :---: |
|  | A | B |
| 5 to 200 A | 0.25 | 1.50 |
| 250 to $1,200 \mathrm{~A}$ | 0.38 | 2.00 |



# Model CTWH5-B-110-T200** 

## Wound Primary Current Transformer Medium Voltage

## Application

High accuracy metering and relaying.

## Frequency

$50-400 \mathrm{~Hz}$

## Maximum System Voltage

15.5 kV, BIL 110 kV.

## Continuous Thermal Current Rating Factor

5:5 thru 600:5-
1.50 at $30^{\circ} \mathrm{C}$., 1.33 at $55^{\circ} \mathrm{C}$.

800:5 and over-
1.0 at $30^{\circ} \mathrm{C}$., 0.8 at $55^{\circ} \mathrm{C}$.

## Specifications

Primary terminals are plated copper bars. See chart next page for sizes. Secondary terminals are brass screws No. 10-32 with one flatwasher, lockwasher.

Vacuum cast in polyurethane resin.
Other ratios, secondary currents and dual ratios are available. Refer to factory.

Approximate weight 76 lbs


REGULATORY AGENCY APPROVALS

## Model CTWH5-B-110-T200**

| Catalog Number** | Current Ratio | Relay <br> 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 | 12,940 |
| CTWH5-B-110-T200-151 | * 150:5 | T200 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 14,375 |
| CTWH5-B-110-T200-201 | * 200:5 | T200 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 25,875 |
| CTWH5-B-110-T200-301 | * 300:5 | T200 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 27,520 |
| CTWH5-B-110-T200-401 | *400:5 | T200 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 40,350 |
| CTWH5-B-110-T200-601 | * 600:5 | T200 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 66,225 |
| CTWH5-B-110-T200-801 | *800:5 | T200 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 66,225 |
| CTWH5-B-110-T200-102 | *1,000:5 | T200 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 66,225 |
| CTWH5-B-110-T200-122 | *1,200:5 | T200 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 66,225 |

* All primary voltages marked with an (*) are approvrd for revenue metering in Canada by Industry Canada, Approval No. AE-0640 Rev. 1.
** 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.


## RECOMMENDED MINIMUM SPACINGS

$\mathrm{A}=$ Unit to Unit $=1.50^{\circ}$ minimum.
$\mathrm{B}=\mathrm{HV}$ to Ground in Air $=6.50^{\circ}$ minimum.
Recommended spacing 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.
Bar Sizes

| Primary Current | Dimensions |  |
| :---: | :---: | :---: |
|  | A | B |
| 5 to 200A | 0.25 | 1.50 |
| 300 to 600 A | 0.38 | 2.00 |




# Model CTWH5-A-110-T150 

## Wound Primary Current Transformer Medium Voltage

## Application

High accuracy metering and relaying.
Frequency
$50-400 \mathrm{~Hz}$
Maximum System Voltage
15.5 kV, BIL 110 kV.

## Continuous Thermal Current Rating Factor

1.33 at $30^{\circ} \mathrm{C}$., 1.0 at $55^{\circ} \mathrm{C}$.

## Specifications

Primary terminals are 1/2-13 bolts with one Belleville washer. Secondary terminals are brass screws No. 10-32 with one flatwasher, lockwasher.

Vacuum cast in polyurethane resin. Other ratios, secondary currents and dual ratios are available. Refer to factory.


Approximate weight 76 lbs

Model CTWH5-A-110-T150

| Catalog Number** | Current Ratio | Relay Class | ANSI Metering Class at 60 Hz |  |  |  |  | ** Thermal Current Rating <br> 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 | 1,440 |
| CTWH5-A-110-T150-200 | 20:5 | T150 | 0.1 | 0.1 | 0.1 | 0.1 | 0.2 | 1,840 |
| CTWH5-A-110-T150-250 | 25:5 | T150 | 0.1 | 0.1 | 0.1 | 0.1 | 0.2 | 2,670 |
| CTWH5-A-110-T150-300 | 30:5 | T150 | 0.1 | 0.1 | 0.1 | 0.1 | 0.2 | 2,920 |
| CTWH5-A-110-T150-400 | 40:5 | T150 | 0.1 | 0.1 | 0.1 | 0.1 | 0.2 | 3,700 |
| CTWH5-A-110-T150-500 | 50:5 | T150 | 0.1 | 0.1 | 0.1 | 0.1 | 0.2 | 4,700 |
| CTWH5-A-110-T150-750 | 75:5 | T150 | 0.1 | 0.1 | 0.1 | 0.1 | 0.2 | 7,575 |
| CTWH5-A-110-T150-101 | 100:5 | T150 | 0.1 | 0.1 | 0.1 | 0.1 | 0.2 | 12,940 |
| CTWH5-A-110-T150-151 | 150:5 | T150 | 0.1 | 0.1 | 0.1 | 0.1 | 0.2 | 14,375 |
| CTWH5-A-110-T150-201 | 200:5 | T150 | 0.1 | 0.1 | 0.1 | 0.1 | 0.2 | 25,875 |
| CTWH5-A-110-T150-301 | 300:5 | T150 | 0.1 | 0.1 | 0.1 | 0.1 | 0.2 | 27,520 |
| CTWH5-A-110-T150-401 | 400:5 | T150 | 0.1 | 0.1 | 0.1 | 0.1 | 0.2 | 40,350 |
| CTWH5-A-110-T150-601 | 600:5 | T150 | 0.1 | 0.1 | 0.1 | 0.1 | 0.2 | 66,225 |

*With a burden of 0.35 Ohms or greater connected to the secondary.
**A test card is provided with each unit.

## RECOMMENDED MINIMUM SPACINGS

$A=$ Unit to Unit $=1.50^{\circ}$ minimum.
$B=H V$ to Ground in Air $=6.50^{\circ}$ minimum.
Recommended spacing 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.
Bar Sizes

| Primary Current | Dimensions |  |
| :---: | :---: | :---: |
|  | A | B |
| 5 to 200 A | 0.25 | 1.50 |
| 300 to 600 A | 0.38 | 2.00 |



## Model CTWH5-S-110

## Wound Primary Current Transformer <br> Medium Voltage

## Application

For switchgear, extra high short circuit strength.

Frequency
$50-400 \mathrm{~Hz}$.
Maximum System Voltage
15.5 kV, BIL 110 kV.

## Continuous Thermal <br> Current Rating Factor <br> 5:5 thru 600:5 - <br> 1.50 at $30^{\circ} \mathrm{C}$., 1.33 at $55^{\circ} \mathrm{C}$ <br> 800:5 and over - <br> 1.00 at $30^{\circ} \mathrm{C}$., 0.80 at $55^{\circ} \mathrm{C}$ <br> Specifications

Primary terminals are plated copper bars. See chart next page for sizes. Secondary terminals are brass screws No. 10-32 with one flatwasher, lockwasher.

Vacuum cast in polyurethane resin. Other ratios, secondary currents and dual ratios are available. Refer to factory.

Approximate weight 75 lbs .

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


REGULATORY AGENCY APPROVALS

- ${ }^{145172}$


LR89403

Model CTWH5-S-110

| Catalog Number*** | Current Ratio | Relay Class | ANSI Metering Class at 60 Hz |  |  |  |  | * Thermal Current Rating 1 Second RMS Amps | ** Thermal Current Rating <br> 1 Second RMS Amps |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | B0.1 | B0.2 | B0.5 | B0.9 | B1.8 |  |  |
| CTWH5-S-110-400 | 40:5 | T20 | 1.2 | - | - | - | - | 49,000 | 10,200 |
| CTWH5-S-110-500 | 50:5 | T30 | 0.6 | 2.4 | - | - | - | 49,000 | 12,500 |
| CTWH5-S-110-750 | 75:5 | T45 | 0.6 | 1.2 | 2.4 | - | - | 49,000 | 11,800 |
| CTWH5-S-110-101 | 100:5 | T60 | 0.6 | 0.6 | 1.2 | 2.4 | - | 49,000 | 15,900 |
| CTWH5-S-110-151 | 150:5 | T100 | 0.3 | 0.3 | 0.6 | 1.2 | 2.4 | 49,000 | 23,900 |
| CTWH5-S-110-201 | 200:5 | T120 | 0.3 | 0.3 | 0.3 | 0.6 | 1.2 | 49,000 | 30,000 |
| CTWH5-S-110-301 | 300:5 | T100 | 0.3 | 0.3 | 0.3 | 1.2 | 2.4 | 66,200 | 47,800 |
| CTWH5-S-110-401 | 400:5 | T80 | 0.3 | 0.3 | 0.3 | 0.3 | 0.6 | 66,200 | 51,200 |
| CTWH5-S-110-601 | 600:5 | T100 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 66,200 | 60,000 |
| CTWH5-S-110-801 | 800:5 | T120 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 66,200 | 60,000 |
| CTWH5-S-110-102 | 1,000:5 | T150 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 66,200 | 66,200 |
| CTWH5-S-110-122 | 1,200:5 | T200 | 0.3 | 0.3 | 0.3 | 0.3 | 0.2 | 66,200 | 66,200 |

*With a burden of BO. 2 or greater connected to the secondary.
**With secondary short circuited.
${ }^{* * *}$ A test card is provided with each unit.

## RECOMMENDED MINIMUM SPACINGS

$A=$ Unit to Unit $=1.50^{\circ}$ minimum.
$\mathbf{B}=\mathrm{HV}$ to Ground in Air $=6.50^{\circ}$ minimum. Recommended spacing 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.
Bar Sizes

| Primary <br> Current | Dimenstions |  |
| :---: | :---: | :---: |
|  | A | B |
| 40 to 150 A | 0.25 | 2.00 |
| 200 to $1,200 \mathrm{~A}$ | 0.38 | 2.00 |



## Model CTWH6-125-T200

## Wound Primary Current Transformer Medium Voltage

## Application

Metering and relaying.
Frequency
$50-400 \mathrm{~Hz}$
Maximum System Voltage 25.5 kV, BIL 125 kV full wave.

Continuous Thermal Current Rating Factor
1.50 at $30^{\circ} \mathrm{C}$ amb., 1.33 at $55^{\circ} \mathrm{C}$. amb.

2,000:5-1.33 at $30^{\circ} \mathrm{C}$. amb.,
1.00 at $55^{\circ} \mathrm{C}$. amb.

2,500:5 and 3,000:5-1.00 at $30^{\circ} \mathrm{C}$. amb., 0.85 at $55^{\circ} \mathrm{C}$. amb.

## Specifications

Primary terminals are plated copper bars, configured as specified.

Secondary terminals are brass screws No. 10-32 with one flatwasher and lockwasher.

Vacuum cast polyurethane resin.
Dual bars spacing is $1 / 2$ inch.
Approximate weight 150 lbs .


REGULATORY AGENCY APPROVALS

E145172
LR89403
Manufactured to meet the requirements of ANSI//EEE C57.13.

Model CTWH6-125-T200

| Catalog Number** | Current <br> Ratio | Relay <br> Class | B0.1 |  | ANSI Metering Class at 60 Hz |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |

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

## RECOMMENDED MINIMUM SPACINGS

$A=$ Unit to Unit $=8.50^{\circ}$ minimum.
$\mathrm{B}=\mathrm{HV}$ to Ground in Air $=8.50^{\circ}$ minimum.
Recommended spacing 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

## Wound Primary Current Transformer Medium Voltage

## Application

Metering and relaying.
Frequency
$50-400 \mathrm{~Hz}$

## Maximum System Voltage

25.5 kV, BIL 125 kV full wave.

Continuous Thermal
Rating Factor
1.50 at $30^{\circ} \mathrm{C}$., 1.33 at $55^{\circ} \mathrm{C}$.

Primary terminals $1 / 2-13$ bolts with one Belleville washer.

Secondary terminals are brass screws No. 10-32 with one flatwasher and lockwasher.

Vacuum cast polyurethane resin.
Approximate weight: T100-95 Ibs.
T200-115 lbs.


REGULATORY AGENCY APPROVALS


LR89403
Manufactured to meet the requirements of ANSI/AEEE C57.13.

Model CTW6-125
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 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | BO. 1 | BO. 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 | 1,700* |
| CTW6-125-T100-250 | 25:5 | T100 | 0.3 | 0.3 | 0.3 | 0.3 | 0.6 | 2,700* |
| CTW6-125-T100-500 | 50:5 | T100 | 0.3 | 0.3 | 0.3 | 0.3 | 0.6 | 4,700* |
| CTW6-125-T100-750 | 75:5 | T100 | 0.3 | 0.3 | 0.3 | 0.3 | 0.6 | 12,900* |
| CTW6-125-T100-101 | 100:5 | T100 | 0.3 | 0.3 | 0.3 | 0.3 | 0.6 | 12,900* |
| CTW6-125-T100-151 | 150:5 | T100 | 0.3 | 0.3 | 0.3 | 0.3 | 0.6 | 23,000* |
| CTW6-125-T100-201 | 200:5 | T100 | 0.3 | 0.3 | 0.3 | 0.3 | 0.6 | 28,200* |
| CTW6-125-T100-301 | 300:5 | T100 | 0.3 | 0.3 | 0.3 | 0.3 | 0.6 | 48,900* |
| CTW6-125-T100-401 | 400:5 | T100 | 0.3 | 0.3 | 0.3 | 0.3 | 0.6 | 66,200* |
| CTW6-125-T100-601 | 600:5 | T100 | 0.3 | 0.3 | 0.3 | 0.3 | 0.6 | 66,200* |

*With a burden of $B 0.2$ or greater connected to the secondary.

## Model CTW6-125

| 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-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 | 1,700* |
| CTW6-125-T200-250 | 25:5 | T200 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 2,700* |
| 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 | 12,900* |
| CTW6-125-T200-101 | 100:5 | T200 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 12,900* |
| CTW6-125-T200-151 | 150:5 | T200 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 23,000* |
| CTW6-125-T200-201 | 200:5 | T200 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 28,200* |
| CTW6-125-T200-301 | 300:5 | T200 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 48,900* |
| CTW6-125-T200-401 | 400:5 | T200 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 66,200* |
| CTW6-125-T200-601 | 600:5 | T200 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 66,200* |

**With a burden of $B 0.5$ or greater connected to the secondary.

## RECOMMENDED MINIMUM SPACINGS

$A=H V$ to $H V=8.50^{\circ}$ minimum.
$B=H V$ to Ground in Air $=8.50^{\circ}$ minimum.
$C=$ Unit to Unit $=2.00^{\circ}$ minimum.
Recommended spacing 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 otherconsiderations like configuration.



Manufactured to meet the requirements of ANSIIIEEE C57.13.

## APPLICATION:

Metering and relaying
FREQUENCY:
$50-400 \mathrm{~Hz}$.
MAXIMUM SYSTEM VOLTAGE:
36.5 kV , BIL 150 kV full wave.

CONTINUOUS THERMAL
CURRENT RATING FACTOR:
1.50 at $30^{\circ} \mathrm{C}$ amb., 1.33 at $55^{\circ} \mathrm{C}$. 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 polyurethane resin.
Approximate weight: T100-125 lbs.
T200-155 lbs.

Note: 200 kV BIL is available for 600:5 only.
CAUTION: Use only the Belleville washers supplied. Tighten to between 25 to 30 foot-pounds. DO NOT OVERTIGHTEN.

| CATALOG NUMBER | CURRENT RATIO | $\begin{aligned} & \text { RELAY } \\ & \text { CLASS } \end{aligned}$ | ANSI METERING CLASS AT 60 Hz |  |  |  |  | $\begin{aligned} & \text { THERMAL } \\ & \text { CURRENTRATING } \\ & \text { 1SECOND } \\ & \text { RMS AMPS } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | 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 B 0.2 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** |

[^0]
## Model CTWH7-150-T200

## Wound Primary Current Transformer Medium Voltage

## Application

Metering and relaying.
Frequency
$50-400 \mathrm{~Hz}$
Maximum System Voltage
36.5 kV, BIL 150 kV full wave.

Continuous Thermal Current Rating Factor
1.50 at $30^{\circ} \mathrm{C}$., 1.33 at $55^{\circ} \mathrm{C}$.
$2,000: 5-1.33$ at $30^{\circ} \mathrm{C}$., 1.00 at $55^{\circ} \mathrm{C}$.
2,500:5 and 3,000:5-1.00 at $30^{\circ} \mathrm{C}$., 0.85 at $55^{\circ} \mathrm{C}$.

## Specifications

Primary terminals are plated copper bars, configured as specified.

Secondary terminals are brass screws No. 10-32 with one flatwasher and lockwasher.

Vacuum cast polyurethane resin.
Dual bars spacing is $1 / 2$ inch.
Approximate weight 180 lbs .


REGULATORY AGENCY APPROVALS


E145172
LR89403
Manufactured to meet the requirements of ANSI/AEEE C57.13.

Model CTWH7-150-T20

| Catalog Number** | Current Ratio | Relay <br> 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 | 87,000 |
| CTWH7-150-T200-102-** | 1,000:5 | T200 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 133,000 |
| CTWH7-150-T200-122-** | 1,200:5 | T200 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 133,000 |
| CTWH7-150-T200-152-** | 1,500:5 | T200 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 266,000 |
| CTWH7-150-T200-202-** | 2,000:5 | T200 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 266,000 |
| CTWH7-150-T200-252-** | 2,500:5 | T200 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 266,000 |
| CTWH7-150-T200-302-** | 3,000:5 | T200 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 358,000 |

*With a burden of B0.1 or greater connected to the secondary
**Specify primary bus arrangement number (1 through 8).
Approved for revenue metering by Industry Canada No. AE-0638 Rev. 1

## RECOMMENDED MINIMUM SPACINGS

$A=$ Unit to Unit $=8.50^{\circ}$ minimum
$B=H V$ to Ground in Air $=8.50^{\circ}$ minimum.
Recommended spacing 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.



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\#7

\#8

Medium Voltage Current Transformer Window Diameter 7.00"

## Application

Metering and relaying.
Frequencey
$50-400 \mathrm{~Hz}$
Maximum System Voltage
For 15 kV and below applications.

Continuous Thermal
Rating Factor
Up to 1,500:5 ratio
1.50 at $30^{\circ} \mathrm{C}$., 1.00 at $55^{\circ} \mathrm{C}$.

2,000:5 to 3,000:5 ratios 1.33 at $30^{\circ} \mathrm{C}$. amb., 1.00 at $55^{\circ} \mathrm{C}$.

4,000:5 ratio
1.00 at $30^{\circ} \mathrm{C}$. amb., 0.75 at $55^{\circ} \mathrm{C}$.

## Specifications



Secondary terminals are brass screws No.
10-32 with one flatwasher and lockwasher.

Vacuum cast polyurethane resin.
Steel mounting base.
Approximate weight 55 lbs .

## Model CTO

| Catalog Number | Current Ratio | Relay Class | Metering Class at 60 Hz |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | B0.1 | B0.2 | B0.5 | B0.9 | B1.8 | B1.0 | B2.0 |
| CTO-500 | 50:5 | - | 4.8 | - | - | - | - | - | - |
| CTO-750 | 75:5 | C10 | 2.4 | 2.4 | - | - | - | - | - |
| CTO-101 | 100:5 | C10 | 1.2 | 1.2 | 4.8 | - | - | - | - |
| CTO-151 | 150:5 | C20 | 0.6 | 1.2 | 2.4 | 4.8 | 4.8 | 4.8 | 4.8 |
| CTO-201 | 200:5 | C20 | 0.6 | 0.6 | 1.2 | 2.4 | 4.8 | 2.4 | 4.8 |
| CTO-251 | 250:5 | C20 | 0.3 | 0.6 | 1.2 | 1.2 | 2.4 | 1.2 | 2.4 |
| CTO-301 | 300:5 | C20 | 0.3 | 0.3 | 0.6 | 1.2 | 2.4 | 1.2 | 2.4 |
| CTO-401 | 400:5 | C50 | 0.3 | 0.3 | 0.6 | 0.6 | 1.2 | 0.6 | 1.2 |
| CTO-501 | 500:5 | C50 | 0.3 | 0.3 | 0.3 | 0.6 | 0.6 | 0.6 | 0.6 |
| CTO-601 | 600:5 | C100 | 0.3 | 0.3 | 0.3 | 0.3 | 0.6 | 0.3 | 0.6 |
| CTO-801 | 800:5 | C100 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 |
| CTO-102 | 1,000:5 | C100 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 |
| CTO-122 | 1,200:5 | C100 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 |
| CTO-152 | 1,500:5 | C200 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 |
| CTO-202 | 2,000:5 | C200 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 |
| СТО-252 | 2,500:5 | C200 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 |
| CTO-302 | 3,000:5 | C200 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 |
| CTO-402 | 4,000:5 | C100 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 |

Model CTO
The following applies ONLY after proper installation of bus bar.

| CLASS | BIL | HI POT | A dia | B min. | C-D | E-F | G min |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 5 kV | 60 kV | 19 kV | $5.75^{\prime \prime}$ | $0.62^{\prime \prime}$ | $4.0^{\prime \prime}$ | $4.0^{\prime \prime}$ | 0.060 |
| 8.7 kV | 75 kV | 26 kV | $5.5^{\prime \prime}$ | $0.75^{\prime \prime}$ | $5.0^{\prime \prime}$ | $5.0^{\prime \prime}$ | 0.100 |
| 15 kV | 95 kV | 36 kV | $5.0^{\prime \prime}$ | $1.0^{\prime \prime}$ | $5.5^{\prime \prime}$ | $5.5^{\prime \prime}$ | 0.100 |
| 15 kV | 110 kV | 36 kV | $5.0^{\prime \prime}$ | $1.0^{\prime \prime}$ | $5.5^{\prime \prime}$ | $5.5^{\prime \prime}$ | 0.100 |
| 15 kV | 110 kV | 36 kV | $4.0^{\prime \prime}$ | $1.5^{\prime \prime}$ | $7.0^{\prime \prime}$ | $7.0^{\prime \prime}$ | 0.100 |

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

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) $1 / 2 \times 5$ bus bar, or multiples of $1 / 2 \times 4$ with $1 / 2^{\prime \prime}$ spacing to suit. Other sizes like $1 / 4^{\prime \prime}$ and $3 / 8$ can also be used.

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 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 $1 / 2^{\prime \prime}$ spacing and observe zones C-D and F-F at either end.

## Model CTOR

## Medium Voltage Current Transformer Window Size 8.44"x 4.50"

Application
Metering and relaying.
Frequency
$50-400 \mathrm{~Hz}$
Maximum System Voltage For 15 kV and below applications.

Continuous Thermal Rating Factor
Up to 800:5 ratio $=2.00$ at $30^{\circ} \mathrm{C}$., 1.50 at $55^{\circ} \mathrm{C}$.

1,200:5 to 4,000:5 ratios $=1.33$ at $30^{\circ} \mathrm{C}$. amb., 1.00 at $55^{\circ} \mathrm{C}$.

Secondary terminals are brass screws No. 10-32 with one flatwasher and lockwasher.

Vacuum cast polyurethane resin.


Approximate weight 80 lbs

## Application Notes for 15 kV, 95 kV BIL, 36 V HIPOT:

Bus bars must be suitably insulated with $0.100^{\prime \prime}$ coverage, and no breaks or bends $6.0^{\prime \prime}$ on either side of CT.
The bus bars and CT 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 CT window for 15 kV applications and 0.62 " air clearance for 5 kV . When mounting the CT , use non-metallic support angles, or bars and hardware.
By itself the CT is rated $600 \mathrm{~V}, 10 \mathrm{kV}$ BIL, 4 kV Hipot.
Model CTOR

| Catalog <br> Number | Current <br> Ratio | Relay <br> Class | Metering Class at 60 Hz |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | B0.1 | B0.2 | B0.5 | B0.9 | B1.8 | B1.0 | B2.0 |
| CTOR-500 | 50:5 | - | - | - | - | - | - | - | - |
| CTOR-750 | 75:5 | C10 | 2.4 | 4.8 | - | - | - | - | - |
| CTOR-101 | 100:5 | C10 | 1.2 | 2.4 | - | - | - | - | - |
| CTOR-151 | 150:5 | C20 | 0.6 | 1.2 | 2.4 | 4.8 | - | 4.8 | - |
| CTOR-201 | 200:5 | C20 | 0.6 | 0.6 | 2.4 | 2.4 | 4.8 | 2.4 | 4.8 |
| CTOR-301 | 300:5 | C20 | 0.3 | 0.3 | 0.6 | 1.2 | 2.4 | 1.2 | 2.4 |
| CTOR-401 | 400:5 | C50 | 0.3 | 0.3 | 0.6 | 0.6 | 1.2 | 0.6 | 1.2 |
| CTOR-601 | 600:5 | C100 | 0.3 | 0.3 | 0.6 | 0.6 | 1.2 | 0.6 | 1.2 |
| CTOR-801 | 800:5 | C100 | 0.3 | 0.3 | 0.3 | 0.6 | 1.2 | 0.6 | 1.2 |
| CTOR-122 | 1,200:5 | C200 | 0.3 | 0.3 | 0.3 | 0.3 | 0.6 | 0.6 | 0.6 |
| CTOR-152 | 1,500:5 | C200 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 |
| CTOR-202 | 2,000:5 | C200 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 |
| CTOR-302 | 3,000:5 | C200 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 |
| CTOR-402 | 4,000:5 | C200 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 |




[^0]:    **With a burden of BO.5 or greater connected to the secondary.
    Approved for revenue metering by Industry Canada No. AE-0637 Rev. 1

