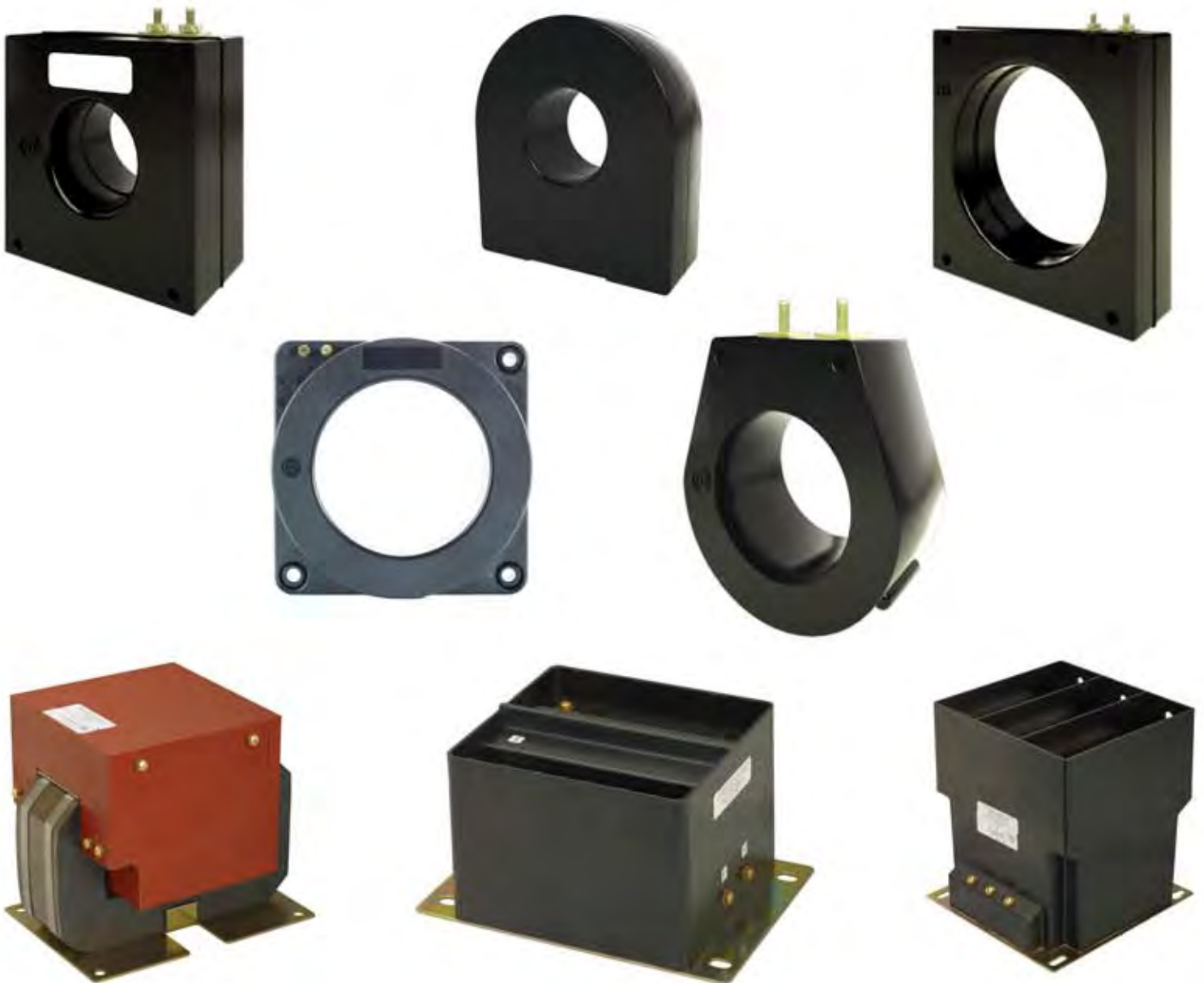


# MAGNETICS

## CATALOG



High Quality Current and Voltage Transformers

# M O D E L I N D E X

1 - 600V Current Transformers  
Non-ANSI Rated Window Type

2 - 600V Current Transformers  
ANSI Rated Window Type

3 - 600V Voltage Transformers

4 - 600V Current Transformers  
ANSI Rated Bushing Type

5 - 720V Current Transformers  
IEC Rated Busbar Type

6 - 720V Voltage Transformers  
IEC Rated

7 - MV Voltage Transformers

8 - MV Control Power Transformers

9 - MV Current Transformers

10 - Current Transformer Kits





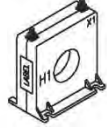



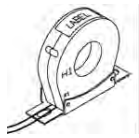






Technical Data



# CURRENT TRANSFORMERS

For Metering and Instrumentation

600V Current Transformers  
Non-ANSI Rated Window Type












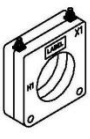

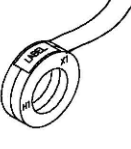
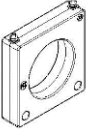
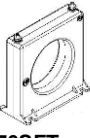


<b>WINDOW SIZES</b> 0.56"		<b>Page 1-3</b>
<b>MODEL 13</b>	<b>13</b>	
<b>WINDOW SIZES</b> 0.64"		<b>Page 1-4</b>
<b>MODEL 1A</b>	<b>1A</b>	
<b>WINDOW SIZES</b> 0.94"		<b>Page 1-5</b>
<b>MODEL 15</b>	<b>15 SFT</b>	
<b>WINDOW SIZES</b> 1.00", 1.05", 1.13"	   	<b>Page 1-6</b>
<b>MODEL 2</b>	<b>2SHT 2SFT 2RL 2DRL</b>	
<b>WINDOW SIZES</b> 0.69"		<b>Page 1-8</b>
<b>MODEL 3P2</b>		
<b>WINDOW SIZES</b> 1.25"		<b>Page 1-10</b>
<b>MODEL 58RBL</b>	<b>58RBL</b>	
<b>WINDOW SIZES</b> 1.56"	  	<b>Page 1-11</b>
<b>MODEL 5</b>	<b>5SHT 5SFT 5RL</b>	
<b>WINDOW SIZES</b> 1.56"	  	<b>Page 1-14</b>
<b>MODEL 5A</b>	<b>5ASHT 5ASFT 5ARL</b>	

600V Current Transformers Non-ANSI Rated Window Type

# CURRENT TRANSFORMERS

For Metering and Instrumentation

600V Current Transformers  
Non-ANSI Rated Window Type

<b>WINDOW SIZES</b> 1.56"				<b>Page 1-16</b>
<b>MODEL 5DRL</b>	<b>5DRL</b>			
<b>WINDOW SIZES</b> 2.06"	  			<b>Page 1-17</b>
<b>MODEL 6A</b>	<b>6ASHT</b>	<b>6ASFT</b>	<b>6ARL</b>	
<b>WINDOW SIZES</b> 1.56"				<b>Page 1-19</b>
<b>MODEL 10</b>	<b>10SFT</b>			
<b>WINDOW SIZES</b> 2.06"	  			<b>Page 1-21</b>
<b>MODEL 56</b>	<b>56SHT</b>	<b>56SFT</b>	<b>56RL</b>	
<b>WINDOW SIZES</b> 2.06"	  			<b>Page 1-23</b>
<b>MODEL 6</b>	<b>6SHT</b>	<b>6SFT</b>	<b>6RL</b>	
<b>WINDOW SIZES</b> 2.50"	  			<b>Page 1-25</b>
<b>MODEL 7</b>	<b>7SHT</b>	<b>7SFT</b>	<b>7RL</b>	
<b>WINDOW SIZES</b> 2.06"	   			<b>Page 1-29</b>
<b>MODEL 76</b>	<b>76SHT</b>	<b>76SFT</b>	<b>76RL</b>	<b>76RT</b>

600V Current Transformers Non-ANSI Rated Window Type



## Current Transformer

**Model 13**

rev 03182021

### CERTIFICATIONS:



#### APPLICATION:

For current to voltage conversion by use of a load resistor

#### FREQUENCY:

50-400 Hz.

#### INSULATION LEVEL:

600 Volts. 10 kV BIL. full wave

#### WINDOW DIAMETER:

0.56"

#### APPROXIMATE WEIGHT:

0.1 – 0.2 lbs.

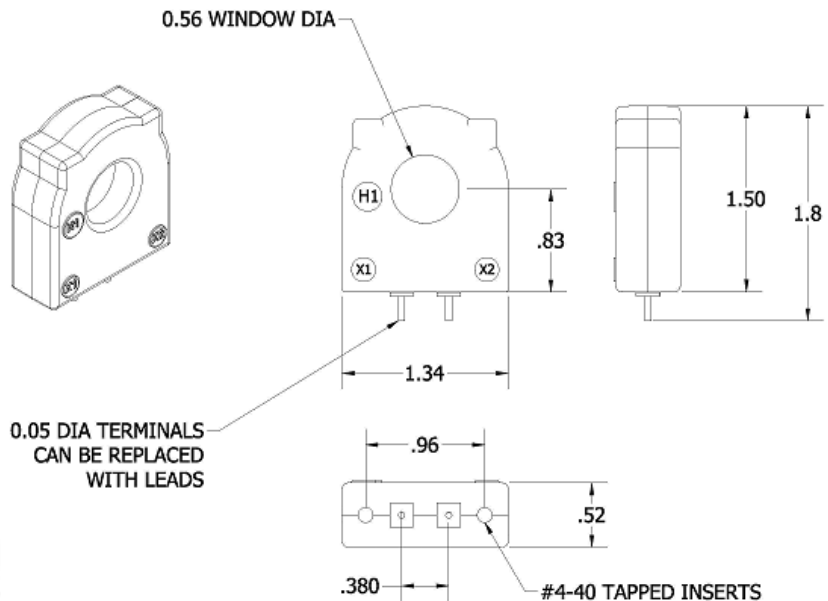
#### CONTINUOUS THERMAL CURRENT RATING FACTOR:

200A at 30°c amb., 120A at 55°c amb.

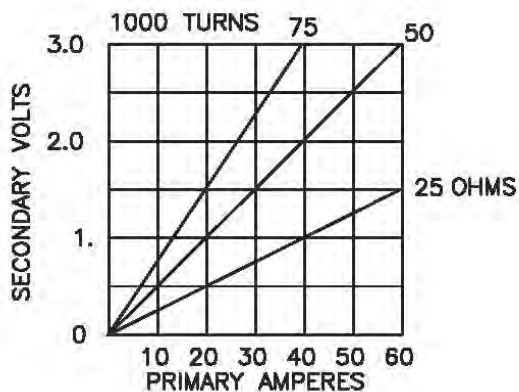
#### CONNECTIONS:

This lightweight, miniature current transformer is suitable for direct mounting on printed circuit boards. Model 13 is provided with standard hexagon nuts to secure the transformer to the board, so that the assembly can withstand vibration and shock while maintaining electrical integrity. The graph below illustrates the voltage capacity and over the ranges shown, will maintain a +/-3% linearity.

Model	13
Window Size	0.56
Width	1.34
Height	1.80
Depth	0.52



### TYPICAL PERFORMANCE CHARACTERISTICS





## Current Transformer

**Model 1A**

### APPLICATION:

With ammeters, energy management systems and instrumentation

### FREQUENCY:

50-400 Hz.

### INSULATION LEVEL:

600 Volts. 10 kV BIL. full wave

### WINDOW DIAMETER:

0.64"

### APPROXIMATE WEIGHT:

0.42 lbs.

### CONNECTIONS:

-Flexible Leads are UL 1015 105°C, CSA approved

#16AWG, 24" long

-Non-standard length to be specified

-1 Amp, and other secondary currents available upon request



Model	1A
Window Size	0.64
Width	1.99
Height	1.99
Depth	1.25

### CERTIFICATIONS:



E228202



223647



ISO 9001

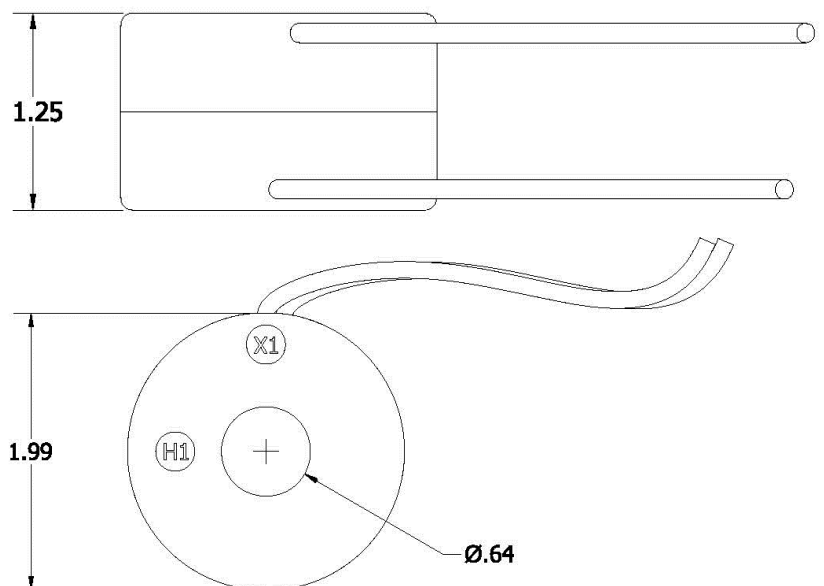
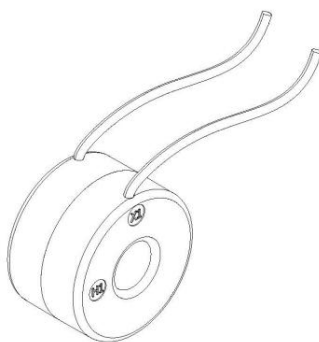
QUALITY  
MANAGEMENT

### MODEL 1A

Window Diameter 0.64"

Approximate weight: 0.42 lbs.

CATALOG NUMBER	CURRENT RATIO	ACCURACY AT 60 HZ	BURDEN VA AT 60 HZ
1A-500	50:5	+ 2%	1
1A-600	60:5	+ 1%	2
1A-750	75:5	+ 1%	2
1A-800	80:5	+ 1%	2
1A-101	100:5	+ 1%	2.5
1A-121	120:5	+ 1%	3
1A-1250	125:5	+ 1%	3
1A-151	150:5	+ 1%	4
1A-201	200:5	+ 1%	5
1A-251	250:5	+ 1%	7.5



Products are manufactured in a plant whose quality management system has been certified to be in compliance with ISO 9001:2015 by NQA



## Current Transformer

**Model 15**

### APPLICATION:

With ammeters, energy management systems and instrumentation

### FREQUENCY:

50-400 Hz.

### INSULATION LEVEL:

600 Volts. 10 kV BIL. full wave

### WINDOW DIAMETER:

0.94"

### APPROXIMATE WEIGHT:

0.9 lbs.

### CONNECTIONS:

- Non-standard lead length can be specified
- Flexible leads are UL 1015 105° C CSA approved, #16 AWG, 24" long
- Terminals are brass studs No. 8-32 UNC with one flat washer, lockwasher, and regular nut



### CERTIFICATIONS:



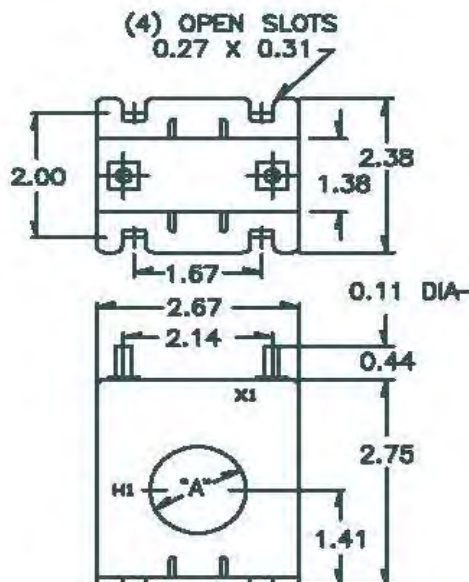
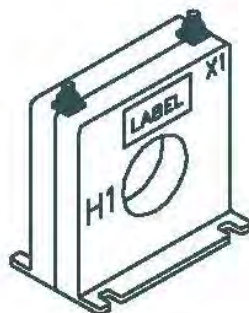
Model	15SFT
Window Size	0.94
Width	2.67
Height	2.75
Depth	1.38

### MODEL 15

Window Diameter 0.94"

Approximate weight: 0.9 lbs.

CATALOG NUMBER	CURRENT RATIO	ACCURACY AT 60 HZ	BURDEN VA AT 60 HZ
15SFT-500	50:5	± 1.5%	2
15SFT-600	60:5	± 1.5%	2
15SFT-750	75:5	± 1.5%	2.5
15SFT-800	80:5	± 1.0%	2
15SFT-101	100:5	± 1.0%	2
15SFT-121	120:5	± 1.0%	3
15SFT-1250	125:5	± 1.0%	4
15SFT-151	150:5	± 1.0%	5
15SFT-1750	175:5	± 1.0%	10
15SFT-201	200:5	± 1.0%	12.5





## Current Transformer

## Model 2

### APPLICATION:

Generally for Ammeter use only

### FREQUENCY:

50-400 Hz.

### INSULATION LEVEL:

600 Volts. 10 kV BIL. full wave

### WINDOW:

1.00", 1.05", 1.13"

### APPROXIMATE WEIGHT:

0.5 lbs.

### CONNECTIONS:

- Flexible Leads are UL 1015 105°C, CSA approved #16 AWG, 24" long
- Non-standard length to be specified
- Terminals are brass studs No. 8-32 UNC with one flat washer, lockwasher, and regular nut
- SHT and SFT case styles also available as SHL or SFL with Leads
- Mounting bracket for Model 2SHT part 59-0217



2SHT



2SFT



2RL



2DRL

### CERTIFICATIONS:



E228202



223647



Model	2SHT	2SFT	2RL	2DRL
Window Size	1.13	1.13	1.05	1.00
Width	2.40	2.40	2.46	2.42
Height	2.71	2.68	2.46	2.42
Depth	0.95	2.00	1.05	1.75

### MODEL 2

Window Diameter 1.00", 1.05", 1.13"

Approximate weight: 0.5 lbs.

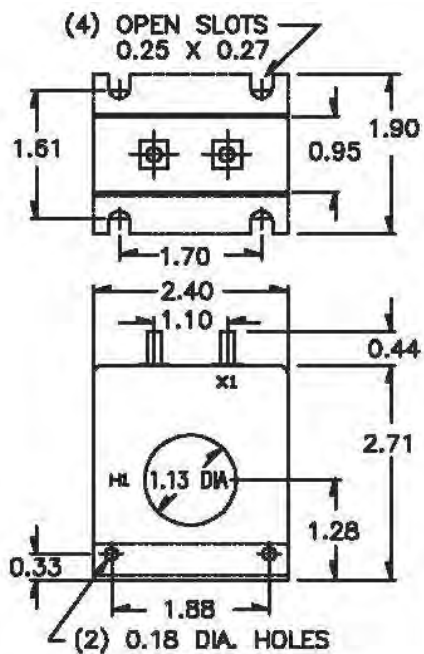
CATALOG NUMBER	CURRENT RATIO	MODELS 2SFT, 2SHT, 2RL		MODEL 2DRL	
		ACCURACY AT 60 HZ	BURDEN VA AT 60 HZ	ACCURACY AT 60 HZ	BURDEN VA AT 60 HZ
2**-250	25:5	-	-	± 5%	1
2**-500	50:5	± 4%	1	± 2%	1.5
2**-600	60:5	± 3%	2	± 2%	2
2**-750	75:5	± 3%	2	± 2%	3
2**-800	80:5	± 2%	2	± 2%	4
2**-101	100:5	± 1%	2	± 1%	5
2**-121	120:5	± 1%	2.5	± 1%	5
2**-1250	125:5	± 1%	2.5	± 1%	5
2**-151	150:5	± 1%	4	± 1%	8
2**-181	180:5	± 1%	4	± 1%	10
2**-201	200:5	± 1%	4	± 1%	10
2**-251	250:5	± 1%	6	± 1%	12.5
2**-301	300:5	± 1%	8	± 1%	15
2**-331	330:5	± 1.2%	10	± 1%	17.5

NOTE: When ordering, Prefix Cat. No. With model designation required, i.e. 2SFT-301, 2RL-301, or 2SHT-301 or 2DRL-301

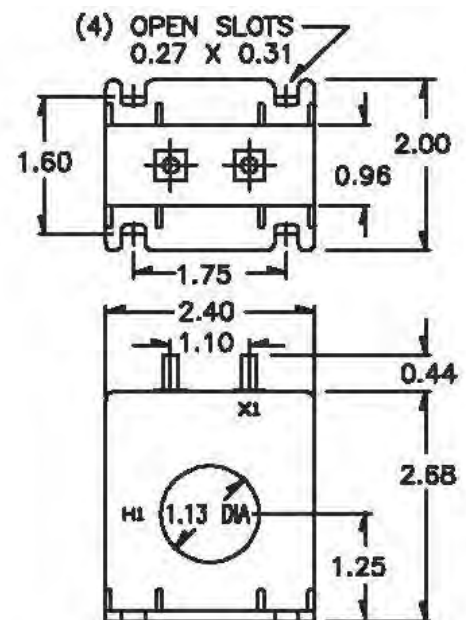




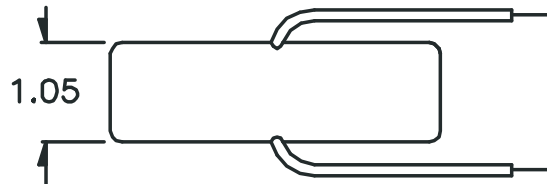
2SHT



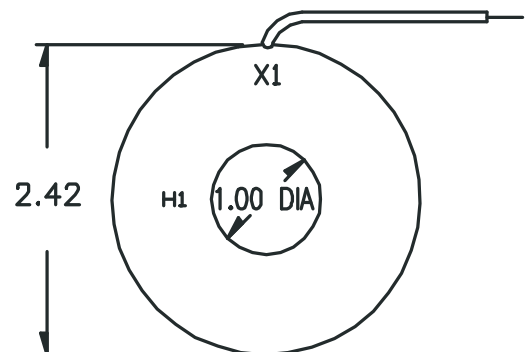
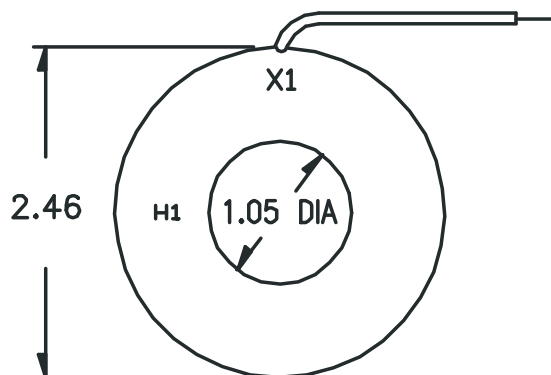
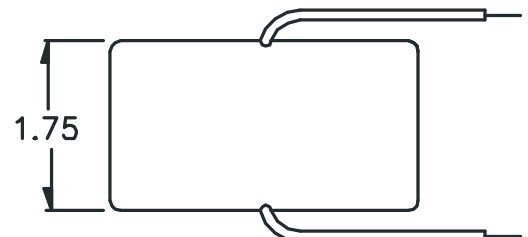
2SFT



2RL



2DRL







## Current Transformer

**Model 3P2**

**Rev 101419**

### CERTIFICATIONS:



**223647**



#### **APPLICATION:**

3 Phase metering and other switchboard applications and for current to voltage conversion by use of a loading resistor as illustrated in the graph below and having low primary current input.

#### **FREQUENCY:**

50-400 Hz.

#### **INSULATION LEVEL:**

600 Volts. 10 kV BIL. full wave

#### **WINDOW DIAMETER:**

0.69"

#### **APPROXIMATE WEIGHT:**

1.5 lbs.

#### **CONNECTIONS:**

- Transformers can be ordered with secondary leads configured in various ways (consult factory)
- Terminals are brass studs No. 8-32 with one flat washer, lock washer, and regular nut
- Load resistors may be mounted directly on terminals thus providing a "space saver" feature.



Continuous Thermal Current  
Rating Factor

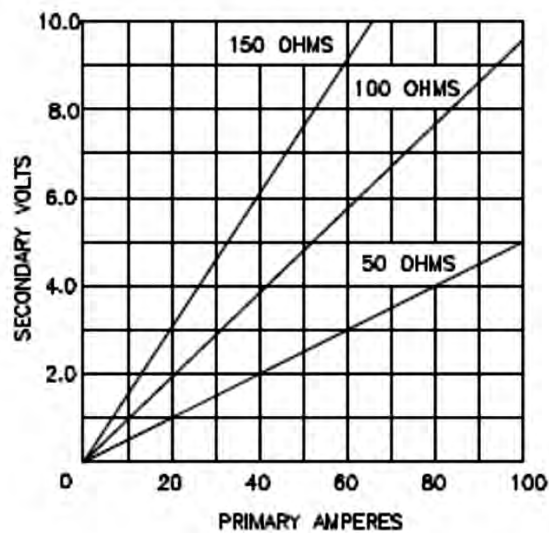
Models 3P2-500 – 3P2-201:  
1.33 at 30°C. ambient.  
1.0 at 55°C. ambient.

Models 3P2-1000T:  
350A at 30°C amb.,  
250A at 55° amb.

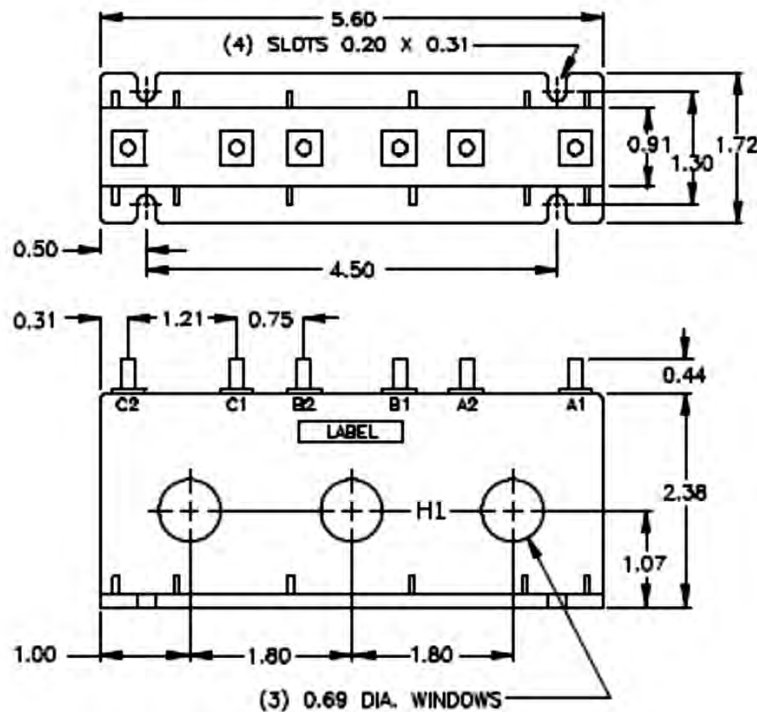
### **MODEL 3P2** **Window Diameter 0.69"** **Approximate weight: 1.5 lbs.**

CATALOG NUMBER	CURRENT RATIO	ACCURACY AT 60 HZ	BURDEN VA AT 60 HZ
3P2-500	50:5	$\pm 2\%$	0.75
3P2-600	60:5	$\pm 2\%$	0.75
3P2-750	75:5	$\pm 2\%$	1.0
3P2-800	80:5	$\pm 2\%$	1.0
3P2-101	100:5	$\pm 1\%$	1.0
3P2-121	120:5	$\pm 1\%$	1.0
3P2-1250	125:5	$\pm 1\%$	1.0
3P2-151	150:5	$\pm 1\%$	1.5
3P2-201	200:5	$\pm 1\%$	2.0
3P2-1000T	See Performance Graph		

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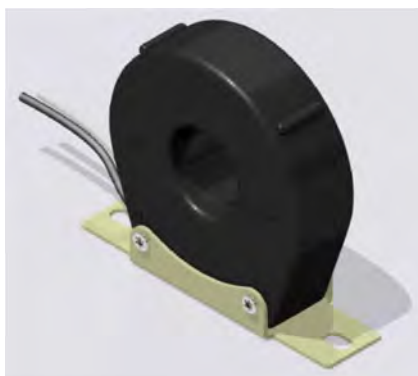


The graph illustrates voltage output capacity, and over the ranges shown, will maintain + 3% linearity.





## Current Transformer



### APPLICATION:

With ammeters, wattmeters and cross current compensation

### FREQUENCY:

50-400 Hz.

### INSULATION LEVEL:

600 Volts. 10 kV BIL. full wave

### WINDOW DIAMETER:

1.25"

### APPROXIMATE WEIGHT:

1.3 lbs.

### CONNECTIONS:

- Flexible Leads are UL 1015 105°C, # 16AWG, 24" long
- Non-standard length to be specified

<b>Model</b>	<b>58RBL</b>
<b>Window Size</b>	1.25
<b>Width</b>	4.50
<b>Height</b>	3.70
<b>Depth</b>	1.25

## Model 58RBL

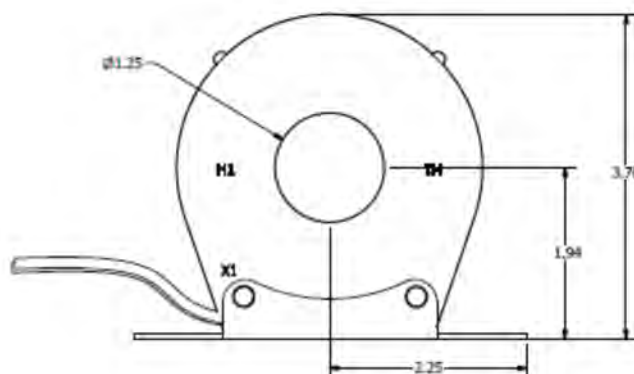
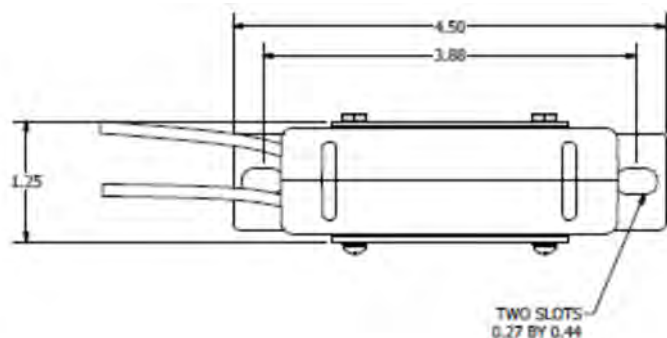
rev 02222024

### CERTIFICATIONS:



### MODEL 58RBL Window Diameter 1.25" Approximate weight: 1.3 lbs.

CATALOG NUMBER	CURRENT RATIO	ACCURACY AT 60 HZ	BURDEN VA AT 60 HZ
58RBL-500	50:5	$\pm 3\%$	1.5
58RBL-600	60:5	$\pm 2\%$	2.5
58RBL-750	75:5	$\pm 1.5\%$	2.5
58RBL-800	80:5	$\pm 1\%$	2.5
58RBL-101	100:5	$\pm 1.5\%$	5
58RBL-121	120:5	$\pm 1\%$	5
58RBL-1250	125:5	$\pm 1\%$	6
58RBL-151	150:5	$\pm 1\%$	7.5
58RBL-201	200:5	$\pm 1\%$	12.5
58RBL-251	250:5	$\pm 1\%$	12.5
58RBL-301	300:5	$\pm 1\%$	15
58RBL-401	400:5	$\pm 1\%$	25
58RBL-501	500:5	$\pm 1\%$	25
58RBL-601	600:5	$\pm 1\%$	25
58RBL-751	750:5	$\pm 1\%$	25
58RBL-801	800:5	$\pm 1\%$	25



Products are manufactured in a plant whose quality management system has been certified to be in compliance with ISO 9001:2015 by NQA



**TTL** Transformer  
Technologies Ltd.



## Current Transformer

**Model 5**

rev 07062022

### APPLICATION:

With ammeters, wattmeters and cross current compensation

### FREQUENCY:

50-400 Hz.

### INSULATION LEVEL:

600 Volts. 10 kV BIL. full wave

### WINDOW DIAMETER:

1.56"

### APPROXIMATE WEIGHT:

1.0 lbs.

### CONNECTIONS:

- Flexible Leads are UL 1015 105°C, CSA approved #16AWG, 24" long
- Non-standard length to be specified
- Terminals are brass studs No. 8-32 UNC with one flat washer, lock washer, and regular nut
- SHT and SFT case style also available as SHL and SFL with leads
- Mounting bracket Part # 59-0218



5RL



5RBT



5SHT



5SFT



E228202



223647



ISO 9001

QUALITY  
MANAGEMENT

Model	5SHT	5SFT	5RL	5RBT
Window Size	1.56	1.56	1.56	1.56
Width	3.53	3.53	3.56	3.50
Height	3.65	3.78	4.37	3.56
Depth	1.09	1.09	1.10	1.25

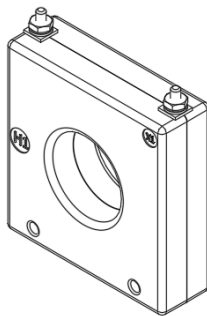
### MODEL 5

Window Diameter 1.56"

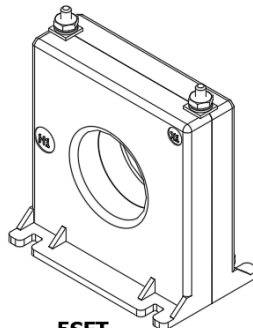
Approximate weight: 1.0 lbs.

CATALOG NUMBER	CURRENT RATIO	ACCURACY AT 60 HZ	BURDEN VA AT 60 HZ
5**-500	50:5	$\pm 2\%$	1
5**-750	75:5	$\pm 2\%$	1.5
5**-101	100:5	$\pm 2\%$	2
5**-151	150:5	$\pm 1\%$	5
5**-201	200:5	$\pm 1\%$	5
5**-251	250:5	$\pm 1\%$	10
5**-301	300:5	$\pm 1\%$	12.5
5**-401	400:5	$\pm 1\%$	12.5
5**-501	500:5	$\pm 1\%$	20
5**-601	600:5	$\pm 1\%$	25
5**-751	750:5	$\pm 1\%$	25
5**-801	800:5	$\pm 1\%$	25
5**-102	1000:5	$\pm 1\%$	25
5**-122	1200:5	$\pm 1\%$	30

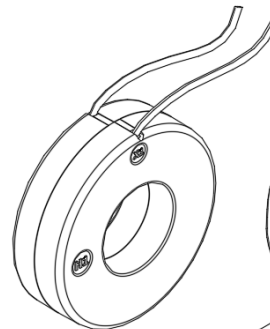
NOTE: WHEN ORDERING, PREFIX CAT NO. WITH MODEL DESIGNATION REQUIRED, I.E. 5SFT-500, 5RL-500, ETC.



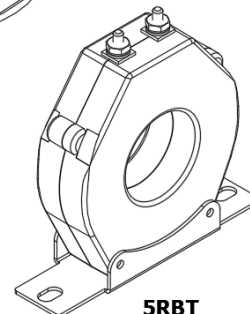
5SHT



5SFT



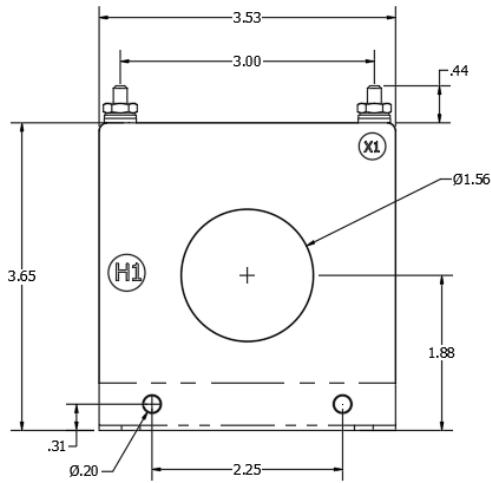
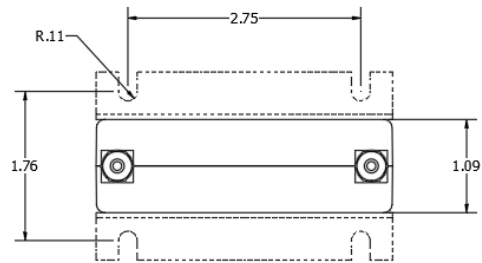
5RL



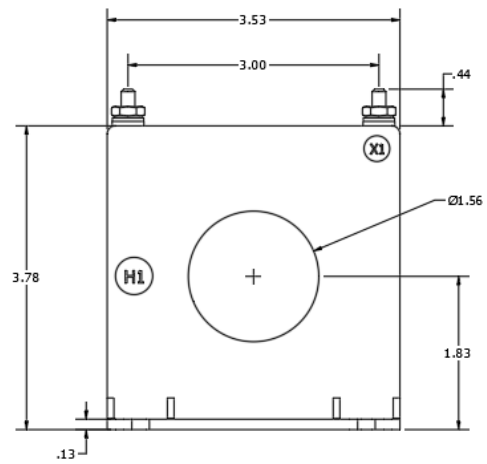
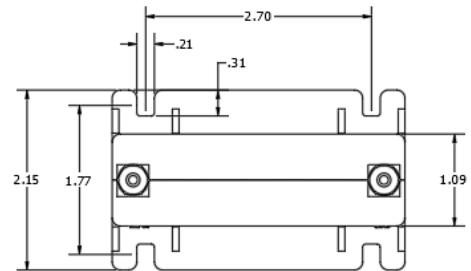
5RBT



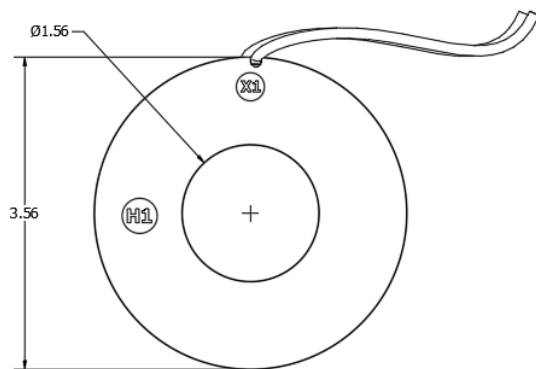
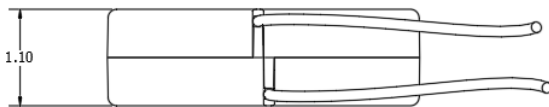
### 5SHT



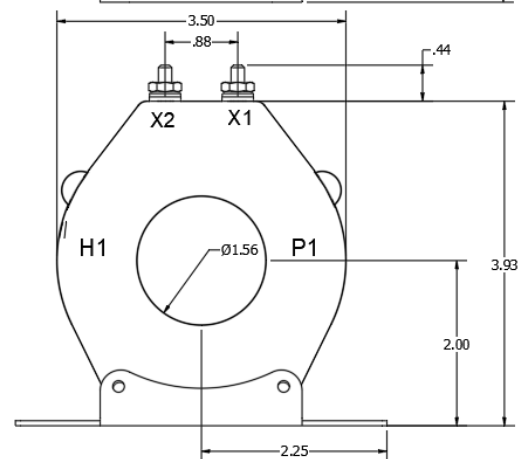
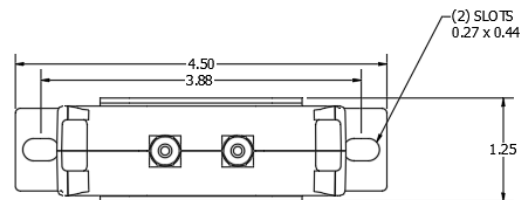
### 5SFT



### 5RL



### 5RBT





## Current Transformer

**Model 5SHT-0.333 /  
5SFT-0.333** rev 031821

### APPLICATION:

With ammeters, wattmeters and cross current compensation

### FREQUENCY:

50-400 Hz.

### INSULATION LEVEL:

600 Volts. 10 kV BIL. full wave

### WINDOW DIAMETER:

1.56"

### APPROXIMATE WEIGHT:

1.0 lbs.

### CONNECTIONS:

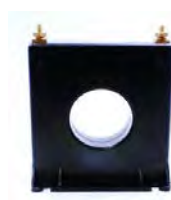
-Flexible Leads are UL 1015 105°C, CSA approved

#16AWG, 24" long

-Non-standard length to be specified

-Terminals are brass studs No. 8-32 UNC with one flat washer, lock washer, and regular nut

-Mounting bracket Part #59-0218

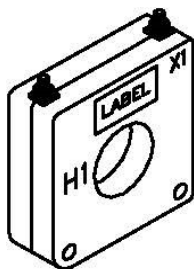


### CERTIFICATIONS:



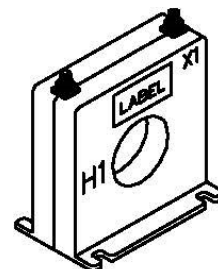
Model	5SHT	5SFT
Window Size	1.56	1.56
Width	3.53	3.53
Height	3.65	3.78
Depth	1.09	2.15

### MODEL 5\*\* Window Diameter 1.56" Approximate weight: 1.0 lbs.

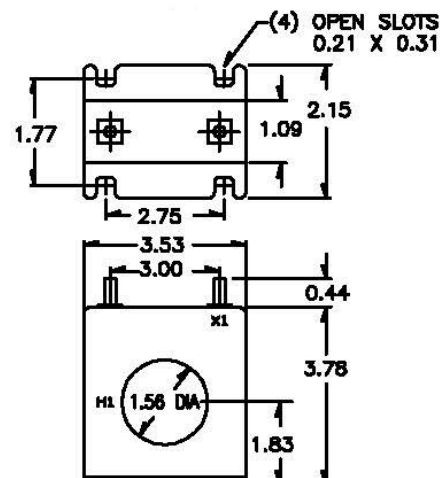
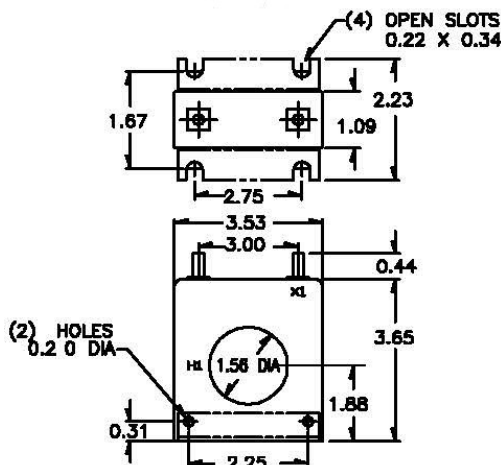


5SHT

CATALOG NUMBER	CURRENT VOLTAGE RATIO
5**201-0.333	200:0.333
5**251-0.333	250:0.333
5**301-0.333	300:0.333
5**401-0.333	400:0.333
5**501-0.333	500:0.333
5**601-0.333	600:0.333
5**751-0.333	750:0.333
5**801-0.333	800:0.333
5**102-0.333	1000:0.333
5**122-0.333	1200:0.333



5SFT



Products are manufactured in a plant whose quality management system has been certified to be in compliance with ISO 9001:2015 by NQA





## Current Transformer

**Model 5A**

rev 120418

### CERTIFICATIONS:



#### APPLICATION:

With ammeters and wattmeters.

#### FREQUENCY:

50-400 Hz.

#### INSULATION LEVEL:

600 Volts, 10 kV BIL, full wave

#### WINDOW DIAMETER:

1.56"

#### APPROXIMATE WEIGHT:

1.0 lbs.

#### CONNECTIONS:

-Terminals are brass studs No. 8-32

UNC with one flatwasher.

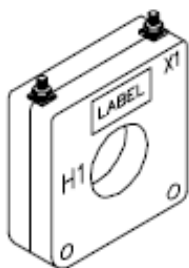
-Flexible Leads are UL 1015 105°C, CSA approved  
#16AWG, 24" long

-Non-standard length to be specified

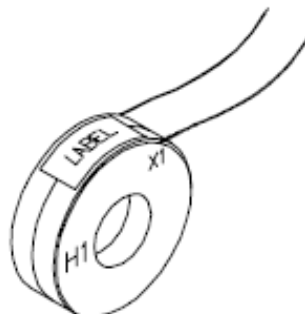


Model	5ASHT	5ASFT	5ARL
Window Size	1.56	1.56	1.56
Width	3.53	3.53	3.56
Height	3.70	3.77	3.56
Depth	1.10	1.09	1.10

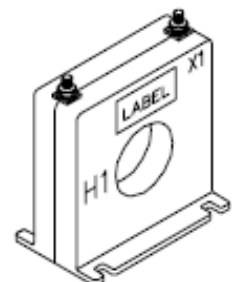
CATALOG NUMBER	CURRENT RATIO	V.A. FOR ± 1% CLASS	ANSI METERING CLASS AT 60 HZ					SECONDARY WINDING RESISTANCE (OHMS @ 75° C)	CONTINUOUS THERMAL RATING FACTOR	
			BO.1	BO.2	BO.5	BO.9	B1.8		@30°C	@55°C
5A**-500	50:5	1.0	4.8	-	-	-	-	0.009	2.0	2.0
5A**-750	75:5	1.0	2.4	4.8	-	-	-	0.010	2.0	2.0
5A**-101	100:5	1.0	1.2	2.4	-	-	-	0.012	2.0	2.0
5A**-151	150:5	5.0	0.6	1.2	2.4	4.8	-	0.019	2.0	2.0
5A**-201	200:5	5.0	0.6	0.6	1.2	2.4	4.8	0.024	2.0	2.0
5A**-251	250:5	12.5	0.3	0.3	1.2	2.4	2.4	0.033	2.0	1.5
5A**-301	300:5	15.0	0.3	0.3	0.6	1.2	2.4	0.040	2.0	1.5
5A**-401	400:5	20.0	0.3	0.3	0.6	1.2	1.2	0.091	1.5	1.0
5A**-501	500:5	25.0	0.3	0.3	0.6	0.6	1.2	0.105	1.33	0.8
5A**-601	600:5	30.0	0.3	0.3	0.3	0.6	1.2	0.158	1.0	0.8
5A**-751	750:5	30.0	0.3	0.3	0.3	0.6	0.6	0.147	1.0	0.8
5A**-801	800:5	30.0	0.3	0.3	0.3	0.6	0.6	0.156	1.0	0.8
5A**-102	1000:5	35.0	0.3	0.3	0.3	0.3	0.6	0.196	1.0	0.8
5A**-122	1200:5	40.0	0.3	0.3	0.3	0.3	0.3	0.291	1.0	0.6



5ASHT



5ARL



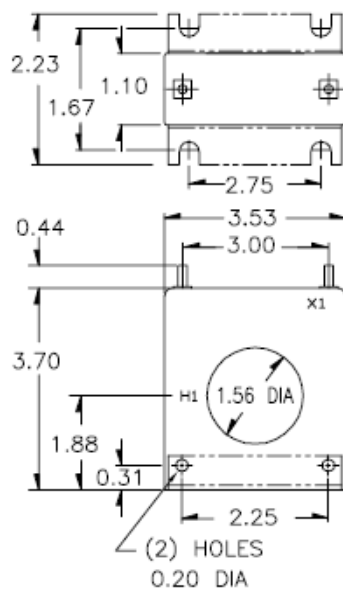
5ASFT

Products are manufactured in a plant whose quality management system has been certified to be in compliance with ISO 9001:2015 by NQA



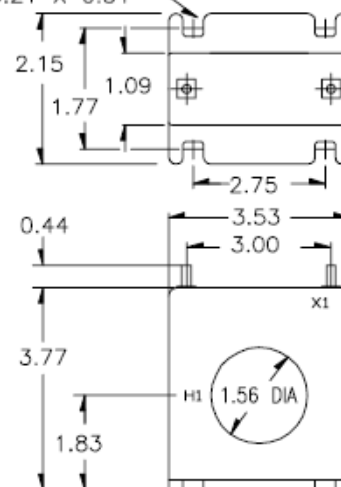
(4) OPEN SLOTS  
0.22 X 0.34

**5ASHT**

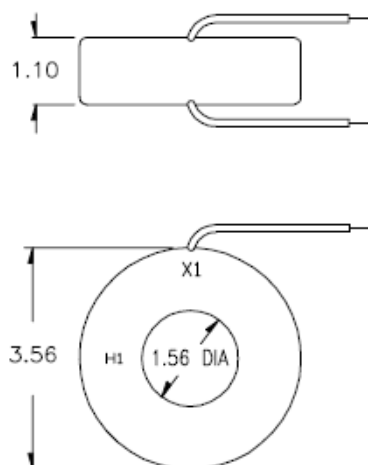


(4) OPEN SLOTS  
0.21 X 0.31

**5ASFT**



**5ARL**





## Current Transformer

**Model 5DRL**

### APPLICATION:

With ammeters, wattmeters and cross current compensation

### FREQUENCY:

50-400 Hz.

### INSULATION LEVEL:

600 Volts. 10 kV BIL. full wave

### WINDOW DIAMETER:

1.56"

### APPROXIMATE WEIGHT:

2.0 lbs.

### CONNECTIONS:

- Flexible Leads are UL 1015 105°C, CSA approved #16AWG, 24" long
- Non-standard length to be specified



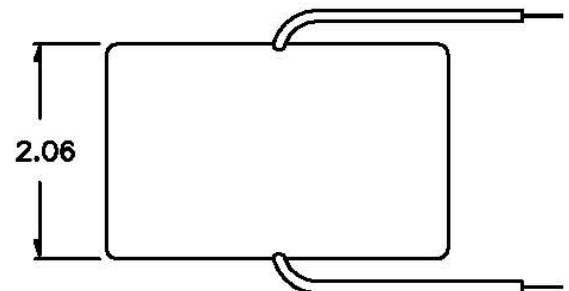
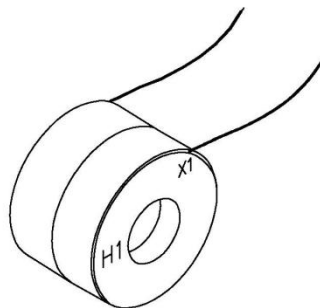
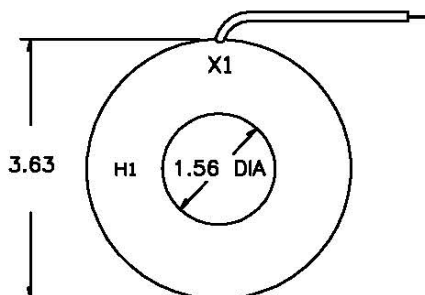
5DRL

Model	5DRL
Window Size	1.56
Width	3.63
Height	3.63
Depth	2.06



**MODEL 5DRL**  
Window Diameter 1.56"  
Approximate weight: 2.0 lbs.

CATALOG NUMBER	CURRENT RATIO	ACCURACY AT 60 Hz	BURDEN VA AT 60 Hz
5DRL-500	50:5	$\pm 2\%$	2.5
5DRL-600	60:5	$\pm 1\%$	2.5
5DRL-750	75:5	$\pm 1\%$	3.5
5DRL-101	100:5	$\pm 1\%$	5
5DRL-151	150:5	$\pm 1\%$	10
5DRL-201	200:5	$\pm 1\%$	12.5
5DRL-251	250:5	$\pm 1\%$	20
5DRL-301	300:5	$\pm 1\%$	20
5DRL-401	400:5	$\pm 1\%$	40
5DRL-501	500:5	$\pm 1\%$	50
5DRL-601	600:5	$\pm 1\%$	60
5DRL-751	750:5	$\pm 1\%$	60
5DRL-801	800:5	$\pm 1\%$	60
5DRL-102	1000:5	$\pm 1\%$	75
5DRL-122	1200:5	$\pm 1\%$	90



Products are manufactured in a plant whose quality management system has been certified to be in compliance with ISO 9001:2015 by NQA



## Current Transformer

**Model 6A**

rev 120418

### CERTIFICATIONS:



#### APPLICATION:

With ammeters, wattmeters.

#### FREQUENCY:

50-400 Hz.

#### INSULATION LEVEL:

600 Volts. 10 kV BIL. full wave

#### WINDOW DIAMETER:

2.06"

#### APPROXIMATE WEIGHT:

1.25 lbs.

#### CONNECTIONS:

-Flexible leads are UL 1015 105 C, CSA approved

#16 AWG24" long

-Non-standlength to be specified.

-Terminals are brass studs No. 8-32 UNC with one flat washer, lockwasher, and regular nut

-ASFT and ASHT case styles also available as ASFL and ASHL with leads

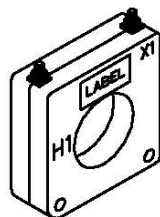
-Mounting kit – 59-0223 required for Model 6ASHT



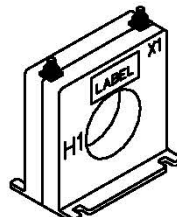
Model	6ASHT	6ASFT	6ARL
Window Size	2.06	2.06	2.06
Width	4.08	4.12	4.08
Height	4.22	4.21	4.08
Depth	1.10	1.10	1.10

CATALOG NUMBER	CURRENT RATIO	V.A. FOR ± 1% CLASS	ANSI METERING CLASS AT 60 HZ					SECONDARY WINDING RESISTANCE (OHMS @ 75° C)	CONTINUOUS THERMAL RATING FACTOR	
			BO.1	BO.2	BO.5	BO.9	B1.8		@30°C	@55°C
6A**-101	100:5	1.0	1.2	2.4	-	-	-	0.015	2.0	2.0
6A**-151	150:5	5.0	1.2	1.2	2.4	4.8	-	0.024	2.0	2.0
6A**-201	200:5	5.0	0.6	1.2	2.4	2.4	4.8	0.037	2.0	2.0
6A**-251	250:5	7.5	0.3	0.6	1.2	2.4	4.8	0.044	2.0	1.5
6A**-301	300:5	12.5	0.3	0.3	1.2	2.4	2.4	0.055	2.0	1.5
6A**-401	400:5	15.0	0.3	0.3	0.6	1.2	1.2	0.071	1.5	1.33
6A**-501	500:5	25.0	0.3	0.3	0.6	1.2	1.2	0.107	1.5	1.0
6A**-601	600:5	30.0	0.3	0.3	0.6	10.6	1.2	0.128	1.33	1.0
6A**-751	750:5	30.0	0.3	0.3	0.3	0.6	1.2	0.156	1.25	1.0
6A**-801	800:5	35.0	0.3	0.3	0.3	0.6	0.6	0.167	1.25	0.8
6A**-102	1000:5	35.0	0.3	0.3	0.3	0.3	0.6	0.208	1.0	0.8
6A**-122	1200:5	40.0	0.3	0.3	0.3	0.6	0.3	0.250	1.0	0.8
6A**-152	1500:5	50.0	0.3	0.3	0.3	0.3	0.3	0.388	1.0	0.8

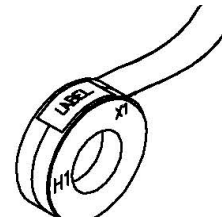
Note: When ordering, prefix Cat No. with model designation, i.e. 6ASHT-201, 6ARL-301 etc.



6ASHT



6ASFT

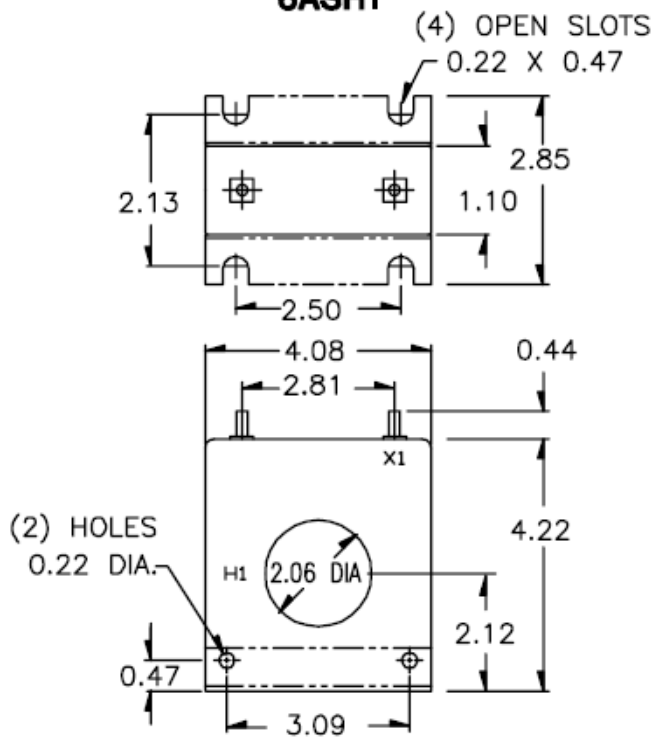


6ARL

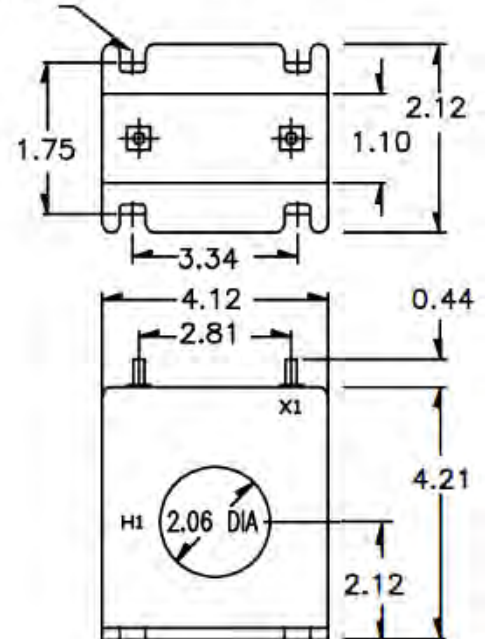
Products are manufactured in a plant whose quality management system has been certified to be in compliance with ISO 9001:2015 by NQA



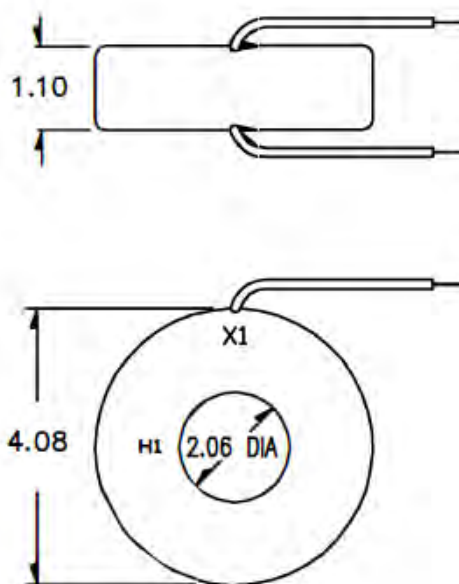
**6ASHT**



(4) OPEN SLOTS 0.25 X 0.31 **6ASFT**



**6ARL**





## Current Transformer

**Model 10**

### APPLICATION:

Metering

### FREQUENCY:

50-400 Hz.

### INSULATION LEVEL:

600 Volts. 10 kV BIL. full wave

### WINDOW DIAMETER:

1.56"

### APPROXIMATE WEIGHT:

2.5 lbs.

### CONNECTIONS:

-Terminals are brass studs No. 8-32 UNC with one flat washer, lockwasher, and regular nut



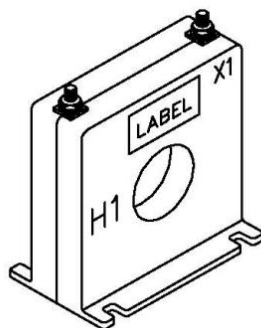
Model	10SFT
Window Size	1.56
Width	4.08
Height	4.59
Depth	2.10

### CERTIFICATIONS:



**MODEL 10**  
Window Diameter 1.56"  
Approximate weight: 2.5 lbs.

CATALOG NUMBER	CURRENT RATIO	V.A. FOR + 1% CLASS	ANSI METERING CLASS AT 60 HZ					SECONDARY WINDING RESISTANCE (OHMS @ 75° C)	CONTINUOUS THERMAL RATING FACTOR	
			BO.1	BO.2	BO.5	BO.9	B1.8		@30°C	@55°C
10SFT-500	50:5	2.0 ± 2%	4.8	-	-	-	-	0.007	2	2
10SFT-750	75:5	2.5	1.2	4.8	-	-	-	0.01	2	2
10SFT-101	100:5	3	1.2	2.4	4.8	-	-	0.018	2	2
10SFT-151	150:5	5	0.6	0.6	2.4	4.8	-	0.031	2	2
10SFT-201	200:5	7.5	0.3	0.6	1.2	2.4	4.8	0.043	2	1.5
10SFT-251	250:5	10	0.3	0.3	1.2	1.2	2.4	0.053	2	1.5
10SFT-301	300:5	15	0.3	0.3	0.6	1.2	2.4	0.07	2	1.5
10SFT-401	400:5	20	0.3	0.3	0.3	0.6	1.2	0.114	1.5	1
10SFT-501	500:5	30	0.3	0.3	0.3	0.6	1.2	0.128	1.33	1
10SFT-601	600:5	40	0.3	0.3	0.3	0.6	0.6	0.192	1.33	0.8



Products are manufactured in a plant whose quality management system has been certified to be in compliance with ISO 9001:2015 by NQA



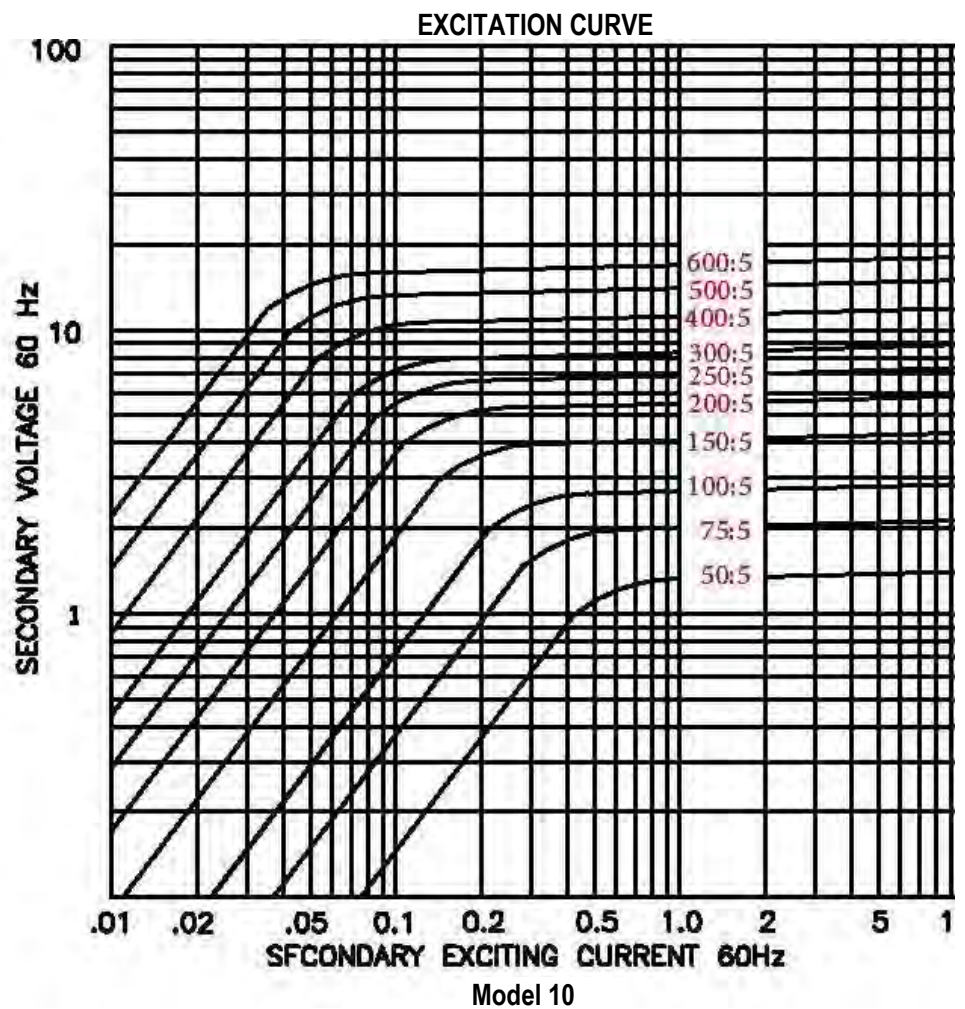
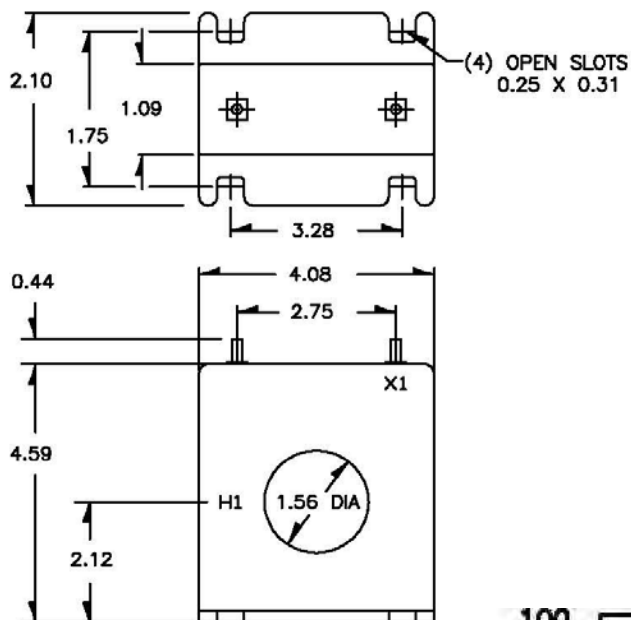
**TTL** Transformer  
Technologies Ltd.



## Current Transformer

**Model 10**

**Model 10**







## Current Transformer

**Model 56**

### CERTIFICATIONS:



#### **APPLICATION:**

With ammeters, wattmeters and cross current compensation

#### **FREQUENCY:**

50-400 Hz.

#### **INSULATION LEVEL:**

600 Volts. 10 kV BIL. full wave

#### **WINDOW DIAMETER:**

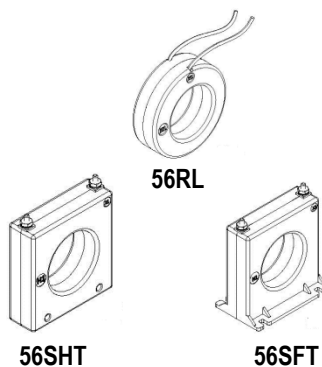
2.06"

#### **APPROXIMATE WEIGHT:**

0.6 lbs.

#### **CONNECTIONS:**

- Flexible Leads are UL 1015 105°C, CSA approved #16AWG, 24" long
- Non-standard length to be specified
- Terminals are brass studs No. 8-32 UNC with one flat washer, lock washer, and regular nut
- RBT and RT case styles also available and SHT and SFT as SHL and SFL with leads



Model	56SHT	56SFT	56RL
Window Size	2.06	2.06	2.06
Width	3.50	3.50	3.50
Height	3.63	3.63	3.50
Depth	1.10	1.10	1.09

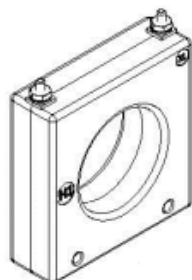
#### **MODEL 56**

**Window Diameter 2.06"**

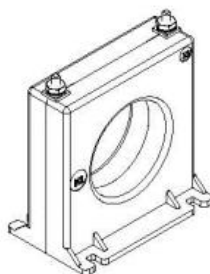
**Approximate weight: 0.6 lbs.**

CATALOG NUMBER	CURRENT RATIO	ACCURACY AT 60 HZ	BURDEN VA AT 60 HZ
56**-500	50:5	± 3%	0.5
56**-750	75:5	± 1%	0.5
56**-101	100:5	± 1%	1
56**-151	150:5	± 1%	2.5
56**-201	200:5	± 1%	4
56**-251	250:5	± 1%	6
56**-301	300:5	± 1%	7.5
56**-401	400:5	± 1%	10
56**-501	500:5	± 1%	12.5
56**-601	600:5	± 1%	15
56**-751	750:5	± 1%	7
56**-801	800:5	± 1%	8
56**-102	1000:5	± 1%	10
56**-122	1200:5	± 1%	12.5

**NOTE: WHEN ORDERING, PREFIX CAT NO. WITH MODEL DESIGNATION REQUIRED, I.E. 56SFT-500, 56RL-500, ETC.**



**56SHT**



**56SFT**

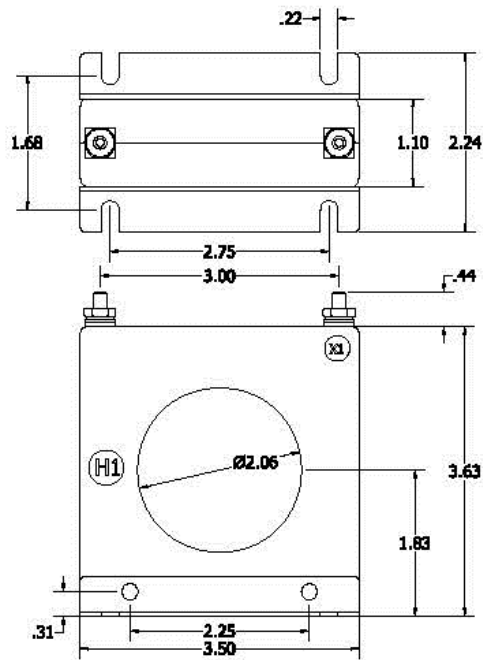


**56RL**

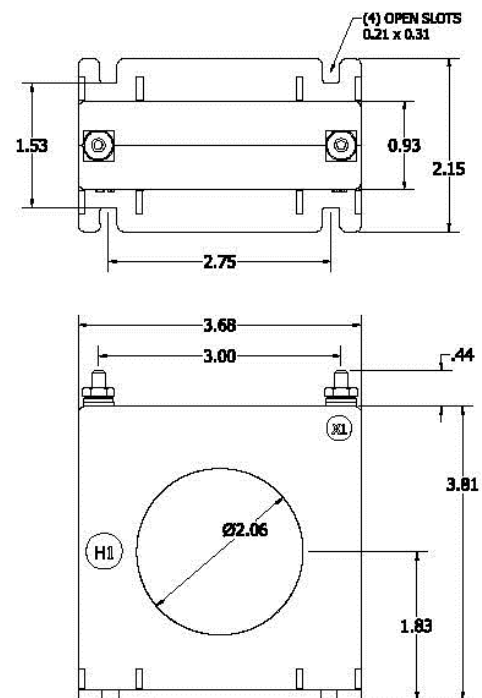




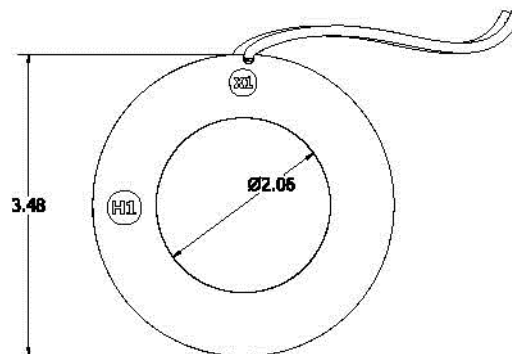
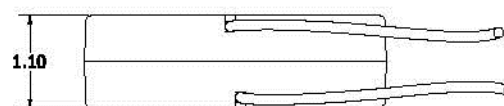
56SHT



56SFT



56RL





## Current Transformer

**Model 6**

### APPLICATION:

With ammeters, wattmeters and cross current compensation

### FREQUENCY:

50-400 Hz.

### INSULATION LEVEL:

600 Volts. 10 kV BIL. full wave

### WINDOW DIAMETER:

2.06"

### APPROXIMATE WEIGHT:

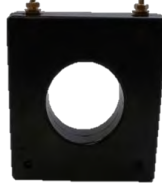
1.2 lbs.

### CONNECTIONS:

- Flexible leads are UL 1015 105 C, CSA approved #16 AWG, 24" long
- Non-standard length to be specified.
- Terminals are brass studs No. 8-32 UNC with one flat washer, lockwasher, and regular nut
- Mounting bracket 59-0223
- SFT and SHT case styles also available as SFL and SHL with leads
- Mounting kit – 59-0223



6RL



6SHT



6SFT

Model	6SHT	6SFT	6RL
Window Size	2.06	2.06	2.06
Width	4.08	4.12	4.08
Height	4.22	4.22	4.08
Depth	1.10	1.10	1.10

### CERTIFICATIONS:



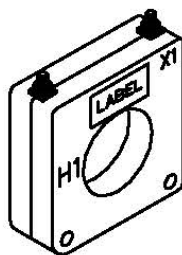
### MODEL 6

Window Diameter 2.06"

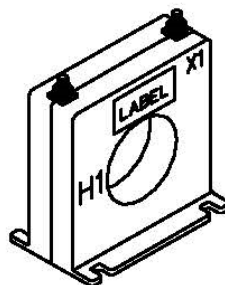
Approximate weight: 1.2 lbs.

CATALOG NUMBER	CURRENT RATIO	ACCURACY AT 60 HZ	BURDEN VA AT 60 HZ
6**-101	100:5	+ 2%	2
6**-151	150:5	+ 1%	5
6**-201	200:5	+ 1%	5
6**-251	250:5	+ 1%	7.5
6**-301	300:5	+ 1%	12.5
6**-401	400:5	+ 1%	15
6**-501	500:5	+ 1%	25
6**-601	600:5	+ 1%	30
6**-751	750:5	+ 1%	25
6**-801	800:5	+ 1%	25
6**-102	1000:5	+ 1%	35
6**-122	1200:5	+ 1%	40
6**-152	1500:5	+ 1%	50

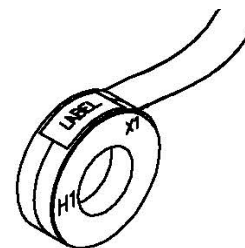
Note: When ordering, prefix Cat No. with model designation, i.e. 6SHT-201, 6RL-301 etc.



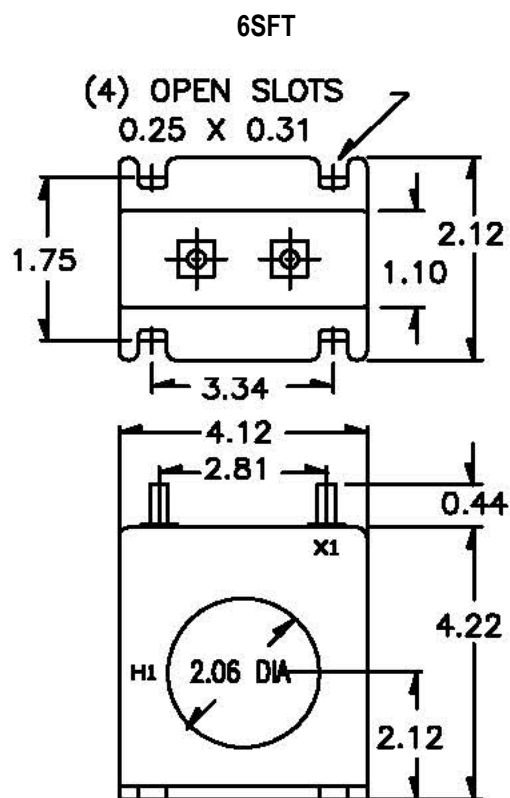
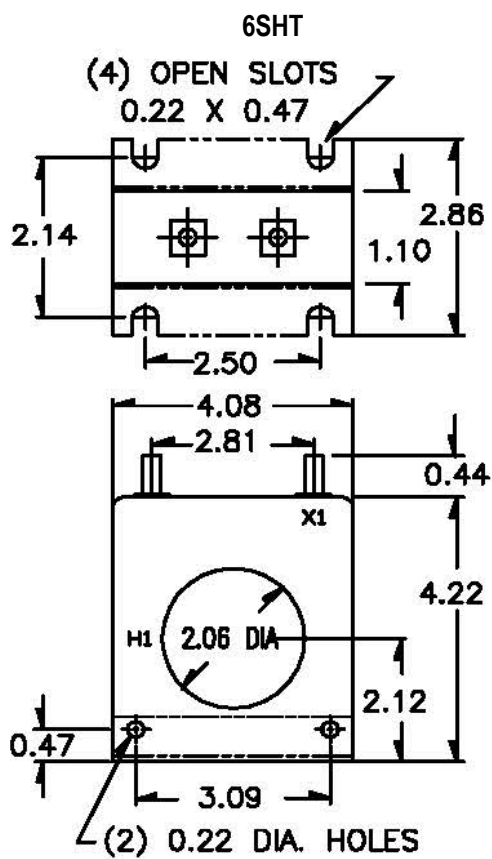
6SHT



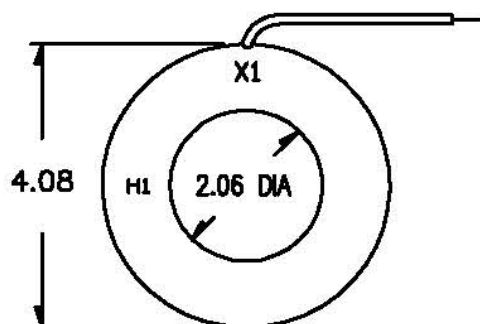
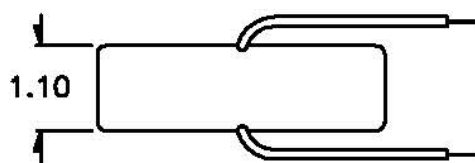
6SFT



6RL



**6RL**





## Current Transformer

**Model 7**

### APPLICATION:

With ammeters, wattmeters and cross current compensation.

### FREQUENCY:

50-400 Hz.

### INSULATION LEVEL:

600 Volts. 10 kV BIL. full wave

### WINDOW DIAMETER:

2.50"

### APPROXIMATE WEIGHT:

1.5 lbs.

### CONNECTIONS:

- Flexible leads are UL 1015 105 C, CSA approved #16 AWG, 24" long
- Non-standard length to be specified
- Terminals are brass studs No. 8-32 UNC with one flat washer, lockwasher, and regular nut
- SFT and SHT case styles also available as SFL and SHL with leads
- Mounting kit 59-0219



Model	7SHT	7SFT	7RL
Window Size	2.50	2.50	2.50
Width	4.56	4.56	4.58
Height	4.85	4.85	4.58
Depth	1.10	1.08	1.10

### CERTIFICATIONS:



E228202



223647



ISO 9001

QUALITY  
MANAGEMENT

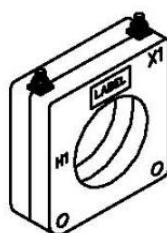
### MODEL 7

Window Diameter 2.50"

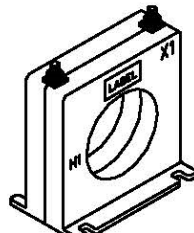
Approximate weight: 1.5 lbs.

CATALOG NUMBER	CURRENT RATIO	ACCURACY AT 60 HZ	BURDEN VA AT 60 HZ
7*-101	100:5	+ 2%	2.5
7*-151	150:5	+ 1%	5
7*-201	200:5	+ 1%	5
7*-251	250:5	+ 1%	5
7*-301	300:5	+ 1%	12.5
7*-401	400:5	+ 1%	15
7*-501	500:5	+ 1%	25
7*-601	600:5	+ 1%	30
7*-751	750:5	+ 1%	30
7*-801	800:5	+ 1%	35
7*-102	1000:5	+ 1%	35
7*-122	1200:5	+ 1%	35
7*-152	1500:5	+ 1%	40
7*-162	1600:5	+ 1%	45

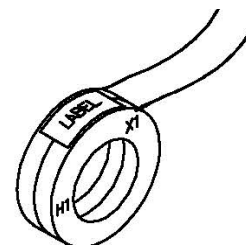
Note: When ordering, prefix Cat No. with model designation required, i.e. 7SFT-500, 7RL-500, etc.



7SHT



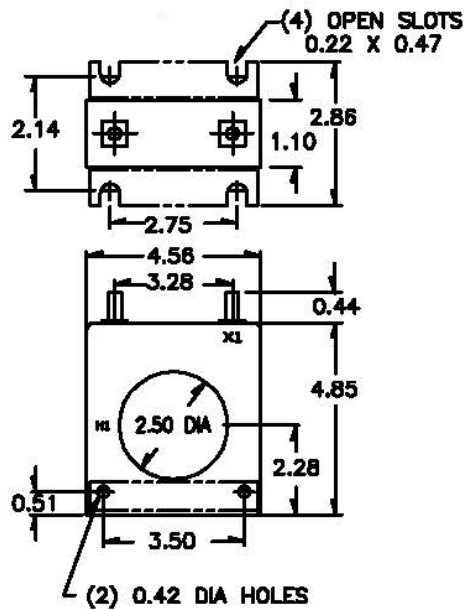
7SFT



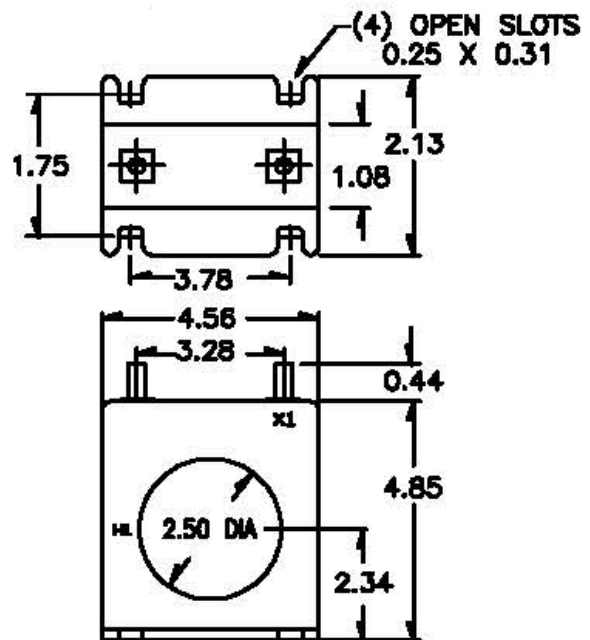
7RL



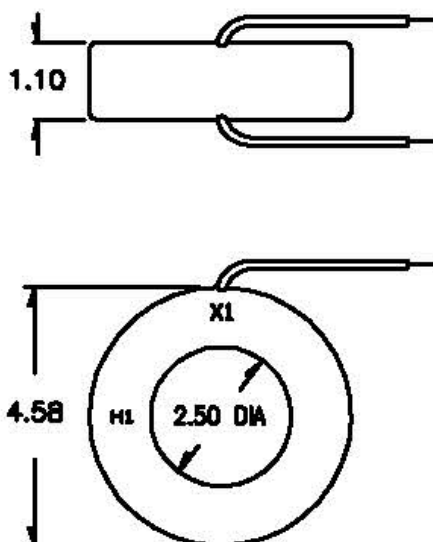
7SHT



7SFT



7RL





## Current Transformer

**Model 7SHT-0.333 /  
7SFT-0.333**

### CERTIFICATIONS:



E228202



223647



ISO 9001

QUALITY  
MANAGEMENT



Model	7SHT	7SFT
Window Size	2.50	2.50
Width	4.56	4.56
Height	4.85	4.85
Depth	1.10	1.08

#### APPLICATION:

With ammeters, wattmeters and cross current compensation.

#### FREQUENCY:

50-400 Hz.

#### INSULATION LEVEL:

600 Volts. 10 kV BIL. full wave

#### WINDOW DIAMETER:

2.50"

#### APPROXIMATE WEIGHT:

1.5 lbs.

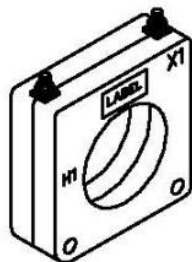
#### CONNECTIONS:

- Flexible leads are UL 1015 105 C, CSA approved #16 AWG, 24" long
- Non-standard length to be specified
- Terminals are brass studs No. 8-32 UNC with one flat washer, lockwasher, and regular nut
- Mounting kit 59-0219

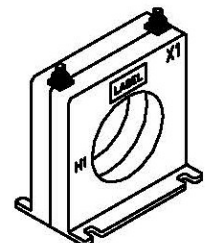
**7\*\***

**Window Diameter 2.50"**

**Approximate weight: 1.5 lbs.**

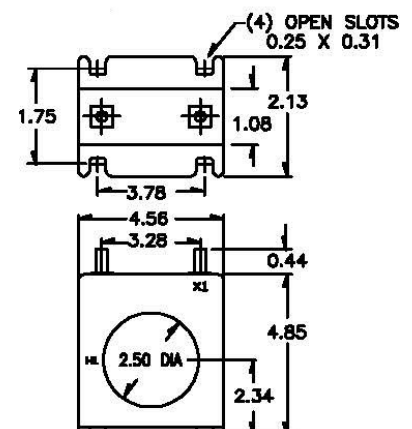
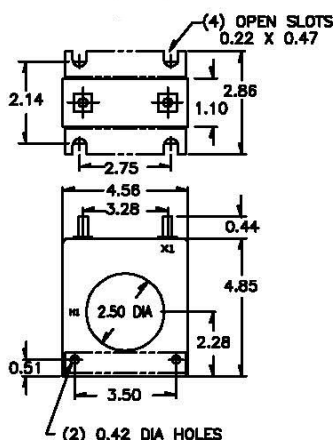


7SHT



7SFT

CATALOG NUMBER	CURRENT VOLTAGE RATIO
7**-201-0.333	200:0.333
7**-251-0.333	250:0.333
7**-301-0.333	300:0.333
7**-401-0.333	400:0.333
7**-501-0.333	500:0.333
7**-601-0.333	600:0.333
7**-751-0.333	750:0.333
7**-801-0.333	800:0.333
7**-102-0.333	1000:0.333
7**-122-0.333	1200:0.333
7**-152-0.333	1500:0.333
7**-162-0.333	1600:0.333



Products are manufactured in a plant whose quality management system has been certified to be in compliance with ISO 9001:2015 by NQA





## Current Transformer

**Model 76**

### APPLICATION:

With ammeters, wattmeters and cross current compensation.

### FREQUENCY:

50-400 Hz.

### INSULATION LEVEL:

600 Volts. 10 kV BIL. full wave

### WINDOW DIAMETER:

3.00"

### APPROXIMATE WEIGHT:

1.5 lbs.

### CONNECTIONS:

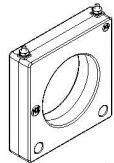
- Flexible leads are UL 1015 105 C, CSA approved #16 AWG, 24" long
- Non-standard length to be specified
- Terminals are brass studs No. 8-32 UNC with one flat washer, lockwasher, and regular nut
- RBT and RT case styles also available and SFT and SHT as SFL and SHL with leads



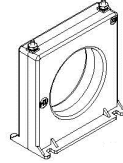
76RL



76RT



76SHT



76SFT

### CERTIFICATIONS:



E228202



223647



ISO 9001

QUALITY MANAGEMENT

Model	76SHT	76SFT	76RL	76RT
Window Size	3.00	3.00	3.00	3.00
Width	4.54	4.54	4.50	4.50
Height	4.68	4.68	4.50	4.64
Depth	1.12	1.12	1.13	1.10

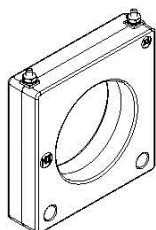
### MODEL 76

Window Diameter 3.00"

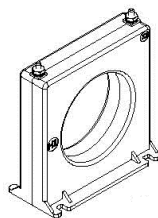
Approximate weight: 1.5 lbs.

CATALOG NUMBER	CURRENT RATIO	ACCURACY AT 60 HZ	BURDEN VA AT 60 HZ
76**-201	200:5	$\pm 1\%$	5
76**-251	250:5	$\pm 1\%$	5
76**-301	300:5	$\pm 1\%$	6
76**-401	400:5	$\pm 1\%$	10
76**-501	500:5	$\pm 1\%$	10
76**-601	600:5	$\pm 1\%$	10
76**-751	750:5	$\pm 1\%$	10
76**-801	800:5	$\pm 1\%$	12.5
76**-102	1000:5	$\pm 1\%$	10
76**-122	1200:5	$\pm 1\%$	10
76**-152	1500:5	$\pm 1\%$	12.5
76**-162	1600:5	$\pm 1\%$	12.5
76**-202	2000:5	$\pm 1\%$	15

Note: When ordering, prefix Cat No. with model designation required, i.e. 76SFT-201, 76RL-201, etc.



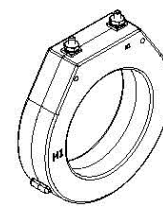
76SHT



76SFT



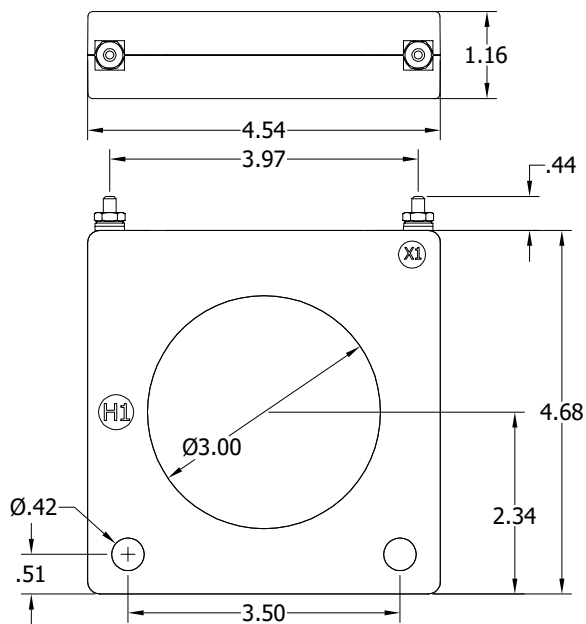
76RL



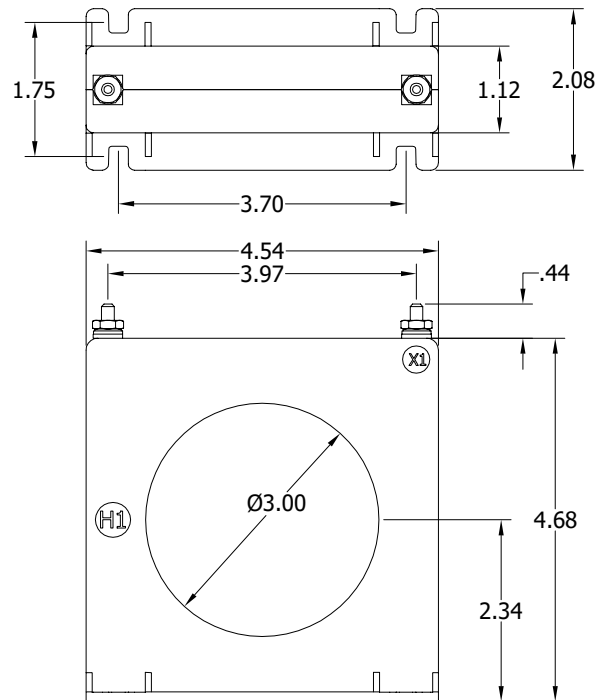
76RT



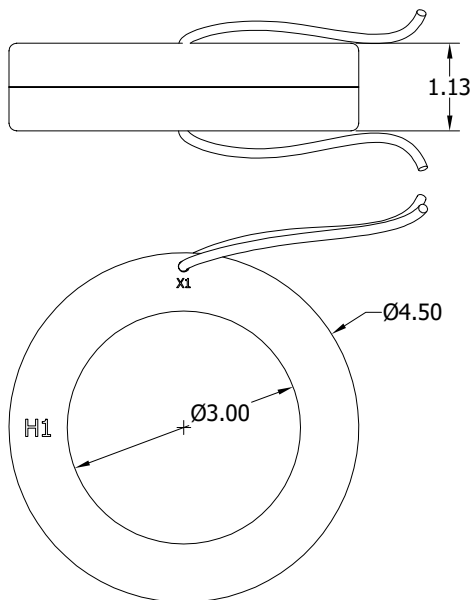
**76SHT**



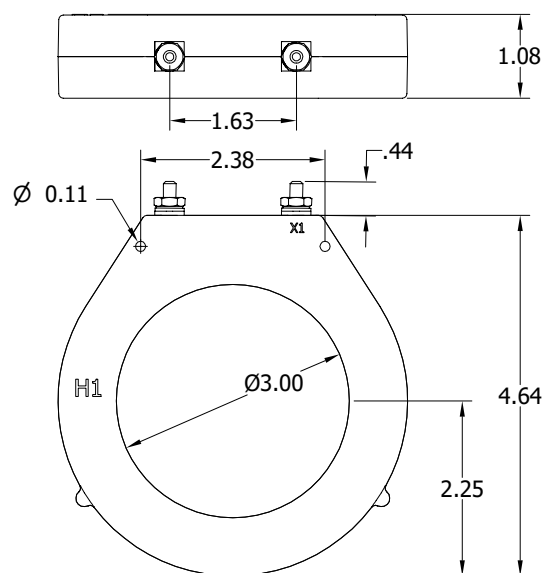
**76SFT**



76RL



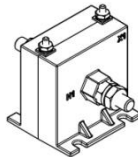
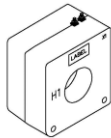
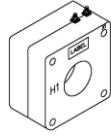
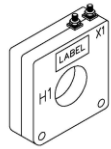
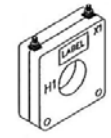
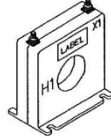

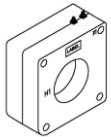



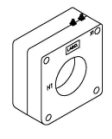
76RT



# CURRENT TRANSFORMERS

For Metering and Instrumentation



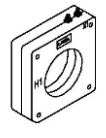

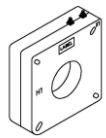
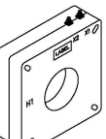
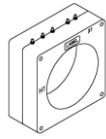


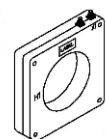

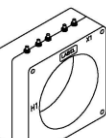
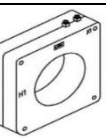
600V Current Transformers  
ANSI Rated Window Type

<b>WINDOW SIZES</b>	<b>Page 2-6</b>		
Wound Primary			
<b>MODEL 189</b>			
<b>WINDOW SIZES</b>	<b>Page 2-7</b>		
1.25", 1.63", 2.00", 2.50", 3.13"			
<b>MODELS 21, 22, 23, 24, 25</b>			
<b>WINDOW SIZES</b>	<b>Page 2-13</b>		
1.50", 2.25", 3.00", 3.38", 3.75"			
<b>MODEL 296, 297, 298, 299, 300</b>			
<b>WINDOW SIZES</b>	<b>Page 2-19</b>		
1.56", 2.00", 2.50"			
<b>MODEL 64, 65, 66</b>			
<b>WINDOW SIZES</b>	<b>Page 2-23</b>		
2.06"			
<b>MODEL 6A</b>	6ASHT	6ASFT	6ARL
<b>WINDOW SIZES</b>	<b>Page 2-25</b>		
2.25", 2.75", 3.25", 4.00", 4.62"			
<b>MODEL 112, 113, 114, 115, 117</b>			
<b>WINDOW SIZES</b>	<b>Page 2-31</b>		
2.50"			
<b>MODEL 7A</b>	7ASHT	7ASFT	7ARL
<b>WINDOW SIZES</b>	<b>Page 2-33</b>		
2.50"			
<b>MODEL 193, 194</b>			

# CURRENT TRANSFORMERS

For Metering and Instrumentation

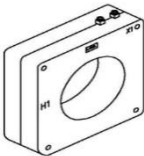
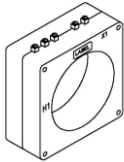
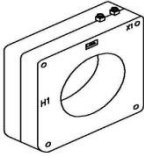
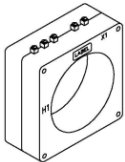
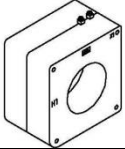
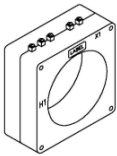
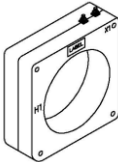
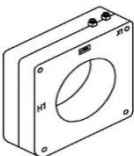
600V Current Transformers  
ANSI Rated Window Type

<b>WINDOW SIZES</b> 2.50"	 180SHT	 180RL	<b>Page 2-35</b>
<b>MODEL 180</b>			
<b>WINDOW SIZES</b> 3.25"	 8SHT	 8RL	<b>Page 2-37</b>
<b>MODEL 8</b>			
<b>WINDOW SIZES</b> 4.00"			<b>Page 2-40</b>
<b>MODEL 100</b>			
<b>WINDOW SIZES</b> 4.00"			<b>Page 2-42</b>
<b>MODEL 110</b>			
<b>WINDOW SIZES</b> 4.00"			<b>Page 2-44</b>
<b>MODEL 115MR</b>			
<b>WINDOW SIZES</b> 4.25"	 19SHT	 19RL	<b>Page 2-46</b>
<b>MODEL 19</b>			
<b>WINDOW SIZES</b> 4.25"	 170SHT	 170RL	<b>Page 2-48</b>
<b>MODEL 170</b>			
<b>WINDOW SIZES</b> 4.62"			<b>Page 2-51</b>
<b>MODEL 117MR</b>			
<b>WINDOW SIZES</b> 5.75"			<b>Page 2-53</b>
<b>MODEL 120</b>			

# CURRENT TRANSFORMERS

For Metering and Instrumentation

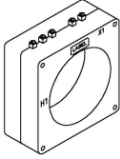
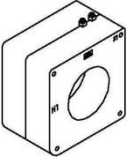
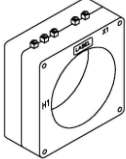
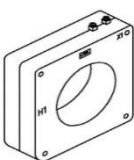
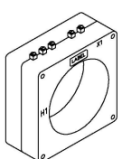
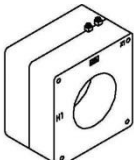
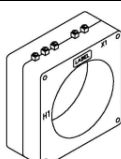

600V Current Transformers  
ANSI Rated Window Type

<b>WINDOW SIZES</b> 5.75"		<b>Page 2-55</b>
<b>MODEL 135</b>		
<b>WINDOW SIZES</b> 5.75"		<b>Page 2-57</b>
<b>MODEL 135MR</b>		
<b>WINDOW SIZES</b> 6.00"		<b>Page 2-59</b>
<b>MODEL 144</b>		
<b>WINDOW SIZES</b> 6.00"		<b>Page 2-61</b>
<b>MODEL 144MR</b>		
<b>WINDOW SIZES</b> 6.00"		<b>Page 2-63</b>
<b>MODEL 145</b>		
<b>WINDOW SIZES</b> 6.00"		<b>Page 2-65</b>
<b>MODEL 145MR</b>		
<b>WINDOW SIZES</b> 6.31"		<b>Page 2-67</b>
<b>MODEL 125</b>		
<b>WINDOW SIZES</b> 7.25"		<b>Page 2-69</b>
<b>MODEL 142</b>		

# CURRENT TRANSFORMERS

For Metering and Instrumentation

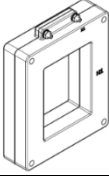
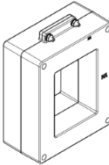
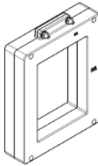

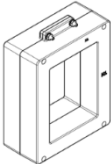
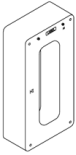
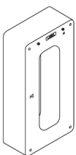
600V Current Transformers  
ANSI Rated Window Type

<b>WINDOW SIZES</b> 7.25"		<b>Page 2-71</b>
<b>MODEL 142MR</b>		
<b>WINDOW SIZES</b> 7.31"		<b>Page 2-73</b>
<b>MODEL 143</b>		
<b>WINDOW SIZES</b> 7.31"		<b>Page 2-75</b>
<b>MODEL 143MR</b>		
<b>WINDOW SIZES</b> 8.13"		<b>Page 2-77</b>
<b>MODEL 140</b>		
<b>WINDOW SIZES</b> 8.13"		<b>Page 2-79</b>
<b>MODEL 140MR</b>		
<b>WINDOW SIZES</b> 8.13"		<b>Page 2-81</b>
<b>MODEL 141</b>		
<b>WINDOW SIZES</b> 8.13"		<b>Page 2-83</b>
<b>MODEL 141MR</b>		
<b>WINDOW SIZES</b> 8.13"		<b>Page 2-85</b>
<b>MODEL 190 &amp; 190X</b>		

# CURRENT TRANSFORMERS

For Metering and Instrumentation

600V Current Transformers  
ANSI Rated Window Type

<b>WINDOW SIZES</b> 25" x 4.25"		<b>Page 2-86</b>
<b>MODEL 560</b>		
<b>WINDOW SIZES</b> 3.25" x 4.25"		<b>Page 2-88</b>
<b>MODEL 561</b>		
<b>WINDOW SIZES</b> 4.00" x 5.38"		<b>Page 2-90</b>
<b>MODEL 562</b>		
<b>WINDOW SIZES</b> 4.00" x 5.38"		<b>Page 2-92</b>
<b>MODEL 562-LONG LEAD</b>		
<b>WINDOW SIZES</b> 4.00" x 5.38"		<b>Page 2-94</b>
<b>MODEL 563</b>		
<b>WINDOW SIZES</b> 5.00" x 14.00"		<b>Page 2-96</b>
<b>MODEL 592</b>		
<b>WINDOW SIZES</b> 8.06" x 22.06"		<b>Page 2-98</b>
<b>MODEL 593</b>		





## Current Transformer

**Model 189**

### APPLICATION:

Ammeters and wattmeters

### FREQUENCY:

50-400 Hz.

### INSULATION LEVEL:

600 Volts. 10 kV BIL. full wave

### WINDOW DIAMETER:

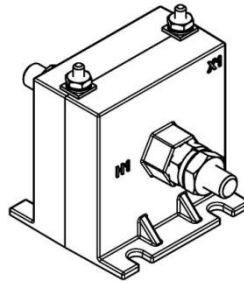
Wound Primary

### APPROXIMATE WEIGHT:

0.75 lbs.

### CONNECTIONS:

Primary terminals for the Model 189 for ratios of 30:5 and below are No. 10-32 brass screws with one lockwasher (Dimension A=3.28), for ratios 40:5 and above, 3/8-16 brass studs with one lockwasher and regular nut (Dimension A=4.10)



Model	189
Window Size	Wound Primary
Width	2.70
Height	2.75
Depth	2.40

**MODEL 189**  
Wound Primary  
Approximate weight: 0.75 lbs.

### CERTIFICATIONS:



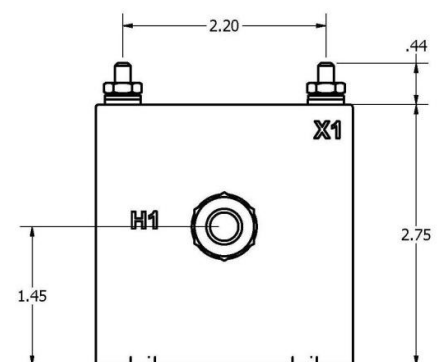
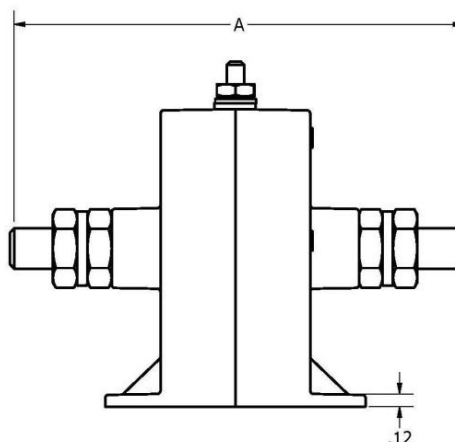
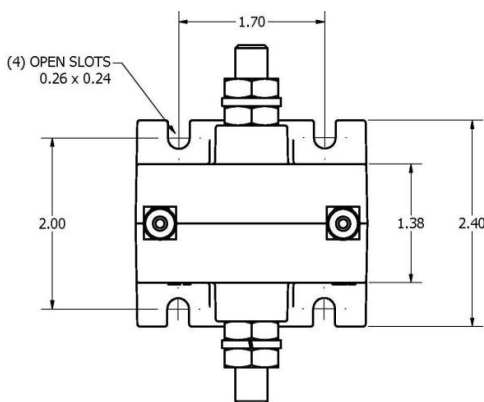
E228202



223647



CATALOG NUMBER	CURRENT RATIO	ANSI METERING CLASS AT 60 HZ	
		B0.1	B0.2
189-0025	2.5:5	0.6	0.6
189-005	5:5	0.6	0.6
189-0075	7.5:5	0.6	0.6
189-010	10:5	0.6	0.6
189-015	15:5	0.6	0.6
189-020	20:5	0.6	0.6
189-025	25:5	0.6	0.6
189-030	30:5	0.6	0.6
189-040	40:5	0.6	0.6
189-050	50:5	0.6	0.6
189-060	60:5	0.6	0.6
189-075	75:5	0.6	0.6
189-080	80:5	0.6	0.6
189-101	100:5	0.6	0.6





## Current Transformer

**Model 21, 22, 23, 24, 25**

rev 03182021

### APPLICATION:

Relaying and Metering

### FREQUENCY:

50-400 Hz.

### INSULATION LEVEL:

600 Volts. 10 kV BIL. full wave

### WINDOW DIAMETER:

1.25", 1.63", 2.00", 2.50", 3.13"

### APPROXIMATE WEIGHT:

21, 22, 23: 7 lbs. 24: 6 lbs. 25: 4 lbs.

### CONNECTIONS:

-Terminals are brass studs No. 8-32

UNC with one flat washer,

lockwasher, and regular nut

-Order Mounting bracket kit separately

59-0224



Model	21	22	23	24	25
Window Size	1.25	1.63	2.00	2.50	3.13
Width	4.63	4.63	4.63	4.63	4.63
Height	5.10	5.10	5.10	5.10	5.10
Depth	3.00	3.00	3.00	3.00	3.00

### MODEL 21

Window Diameter 1.25"

Approximate weight: 7 lbs.

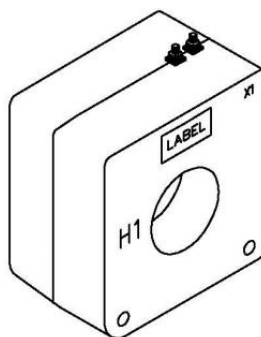
### CERTIFICATIONS:



ISO 9001

QUALITY  
MANAGEMENT

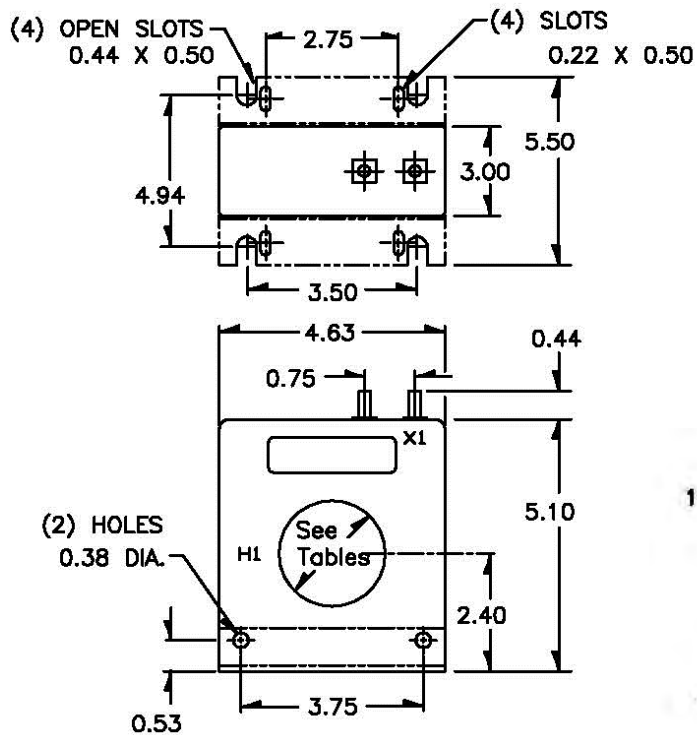
CATALOG NUMBER	CURRENT RATIO	RELAY CLASS	ANSI METERING CLASS AT 60 Hz					SECONDARY WINDING RESISTANCE (OHMS @ 75° C)	CONTINUOUS THERMAL RATING FACTOR	
			BO.1	BO.2	BO.5	BO.9	B1.8		@ 30°C	@55°C
21 - 500	50:5	-	1.2	2.4	-	-	-	0.026	2.0	2.0
21 - 750	75:5	C10	0.6	1.2	2.4	4.8	-	0.042	2.0	2.0
21 - 101	100:5	C10	0.6	1.2	1.2	2.4	4.8	0.063	2.0	2.0
21 - 151	150:5	C20	0.3	0.6	0.6	1.2	2.4	0.098	2.0	1.5
21 - 201	200:5	C20	0.3	0.3	0.6	0.6	1.2	0.126	2.0	1.5
21 - 251	250:5	C20	0.3	0.3	0.3	0.6	1.2	0.158	1.5	1.5
21 - 301	300:5	C20	0.3	0.3	0.3	0.3	0.3	0.168	1.5	1.33
21 - 401	400:5	C50	0.3	0.3	0.3	0.3	0.3	0.253	1.5	1.0
21 - 501	500:5	C20	0.3	0.3	0.3	0.3	0.6	0.283	1.5	1.0
21 - 601	600:5	C50	0.3	0.3	0.3	0.3	0.3	0.339	1.33	1.0
21 - 751	750:0	C50	0.3	0.3	0.3	0.3	0.3	0.424	1.0	0.8
21 - 801	800:5	C50	0.3	0.3	0.3	0.3	0.3	0.452	1.0	0.8
21 - 102	1000:5	C100	0.3	0.3	0.3	0.3	0.3	0.565	1.0	0.8



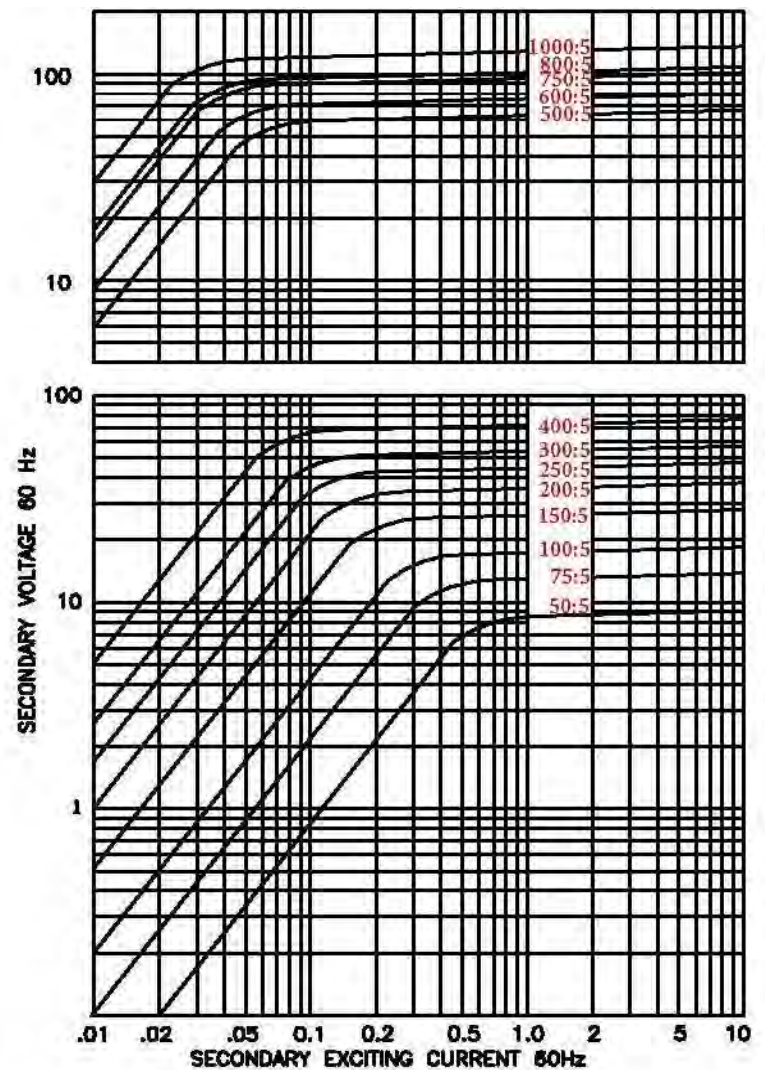
Products are manufactured in a plant whose quality management system has been certified to be in compliance with ISO 9001:2015 by NQA



Models 21, 22, 23, 24 & 25



EXCITATION CURVE



Model 21



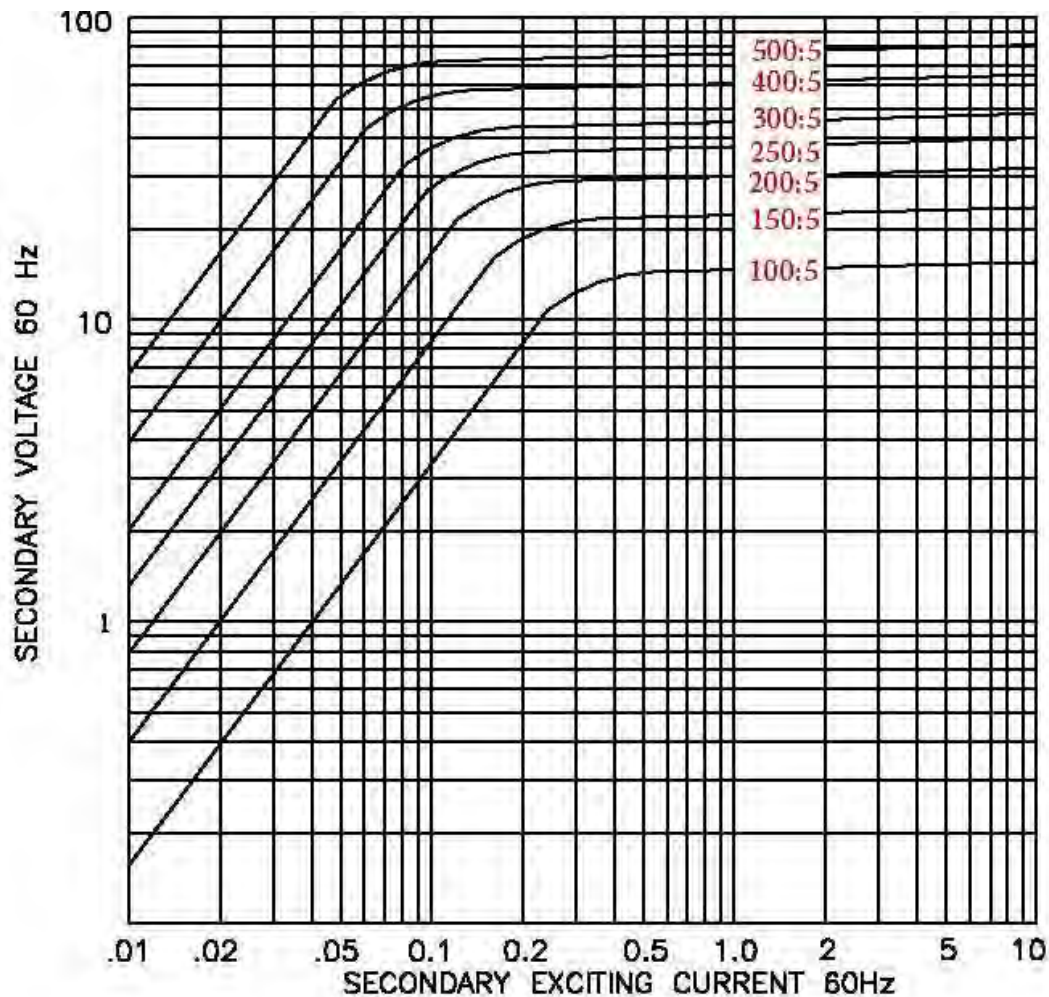
### MODEL 22

Window Diameter 1.63"

Approximate weight: 7 lbs.

CATALOG NUMBER	CURRENT RATIO	RELAY CLASS	ANSI METERING CLASS AT 60 Hz					SECONDARY WINDING RESISTANCE (OHMS @ 75° C)	CONTINUOUS THERMAL RATING FACTOR	
			BO.1	BO.2	BO.5	BO.9	B1.B		@ 30° C	@ 55° C
22 - 101	100:5	C10	0.6	1.2	2.4	2.4	4.8	0.060	2.0	2.0
22 - 151	150:5	C10	0.3	0.6	1.2	1.2	2.4	0.090	2.0	2.0
22 - 201	200:5	C20	0.3	0.3	0.6	1.2	1.2	0.120	2.0	1.5
22 - 251	250:5	C20	0.3	0.3	0.6	0.6	1.2	0.150	1.5	1.5
22 - 301	300:5	C20	0.3	0.3	0.3	0.6	0.6	0.180	1.5	1.33
22 - 401	400:5	C20	0.3	0.3	0.3	0.3	0.6	0.241	1.5	1.0
22 - 501	500:5	C50	0.3	0.3	0.3	0.3	0.3	0.301	1.5	1.0

### EXCITATION CURVE



Model 22



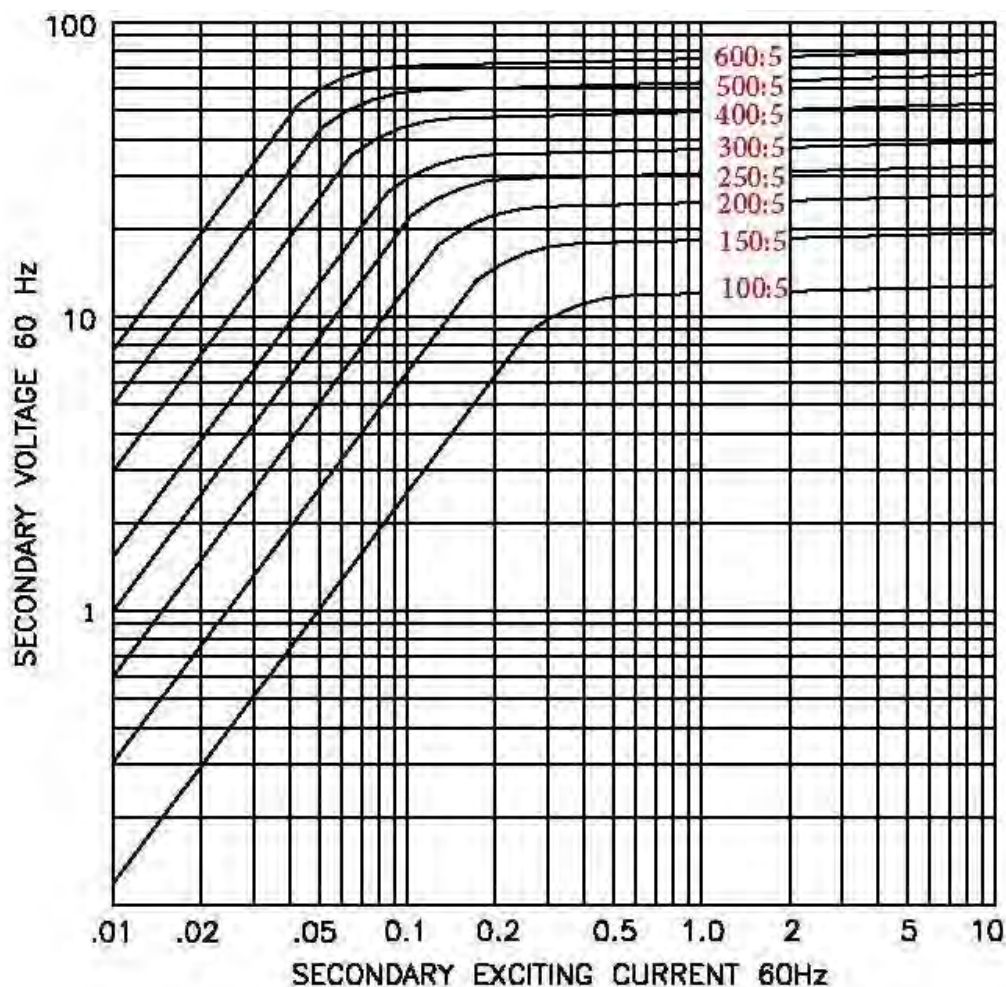
### MODEL 23

Window Diameter 2.00"

Approximate weight: 7 lbs.

CATALOG NUMBER	CURRENT RATIO	RELAY CLASS	ANSI METERING CLASS AT 60 HZ					SECONDARY WINDING RESISTANCE (OHMS @ 75° C)	CONTINUOUS THERMAL RATING FACTOR	
			BO.1	BO.2	BO.5	BO.9	B1.B		@ 30° C	@ 55° C
23 - 101	100:5	-	0.6	0.6	2.4	4.8	-	0.051	2.0	2.0
23 - 151	150:5	C10	0.6	0.6	0.6	1.2	2.4	0.076	2.0	2.0
23 - 201	200:5	C10	0.3	0.6	0.6	1.2	2.4	0.114	2.0	1.5
23 - 251	250:5	C20	0.3	0.3	0.6	0.6	1.2	0.143	2.0	1.5
23 - 301	300:5	C20	0.3	0.3	0.3	0.6	1.2	0.171	1.5	1.33
23 - 401	400:5	C20	0.3	0.3	0.3	0.3	0.8	0.228	1.5	1.0
23 - 501	500:5	C20	0.3	0.3	0.3	0.3	0.3	0.288	1.5	1.0
23 - 601	600:5	C50	0.3	0.3	0.3	0.3	0.3	0.343	1.33	1.0

### EXCITATION CURVE

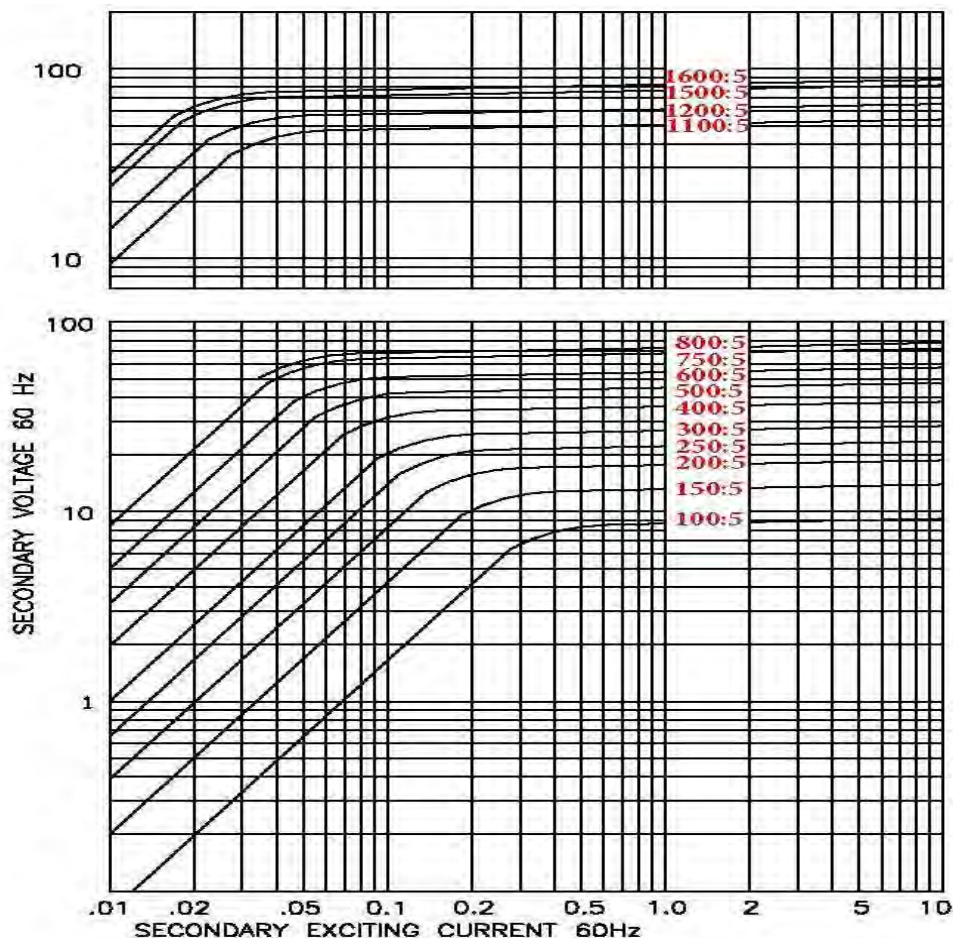


Model 23

**MODEL 24**  
Window Diameter 2.50"  
Approximate weight: 6.5 lbs.

CATALOG NUMBER	CURRENT RATIO	RELAY CLASS	ANSI METERING CLASS AT 60 Hz					SECONDARY WINDING RESISTANCE (OHMS @ 75°C)	CONTINUOUS THERMAL RATING FACTOR	
			B0.1	B0.2	B0.5	B0.9	B1.B		@ 30°C	@ 55°C
24 - 101	100:5	-	0.6	1.2	2.4	4.8	-	0.046	2.0	2.0
24 - 151	150:5	-	0.6	0.6	1.2	2.4	4.8	0.069	2.0	2.0
24 - 201	200:5	C10	0.3	0.3	0.6	1.2	2.4	0.096	2.0	1.5
24 - 251	250:5	C10	0.3	0.3	0.3	0.6	1.2	0.118	2.0	1.5
24 - 301	300:5	C10	0.3	0.3	0.3	0.6	1.2	0.133	2.0	1.5
24 - 401	400:5	C20	0.3	0.3	0.3	0.6	0.6	0.212	1.5	1.0
24 - 501	500:5	C20	0.3	0.3	0.3	0.3	0.6	0.265	1.5	1.0
24 - 601	600:5	C20	0.3	0.3	0.3	0.3	0.3	0.317	1.33	1.0
24 - 751	750:5	C20	0.3	0.3	0.3	0.3	0.3	0.396	1.0	1.0
24 - 801	800:5	C20	0.3	0.3	0.3	0.3	0.3	0.423	1.0	0.8
24 - 102	1000:5	C10	0.3	0.3	0.3	0.3	0.3	0.446	1.0	0.8
24 - 122	1200:5	C10	0.3	0.3	0.3	0.3	0.3	0.535	1.0	0.8
24 - 152	1500:5	C10	0.3	0.3	0.3	0.3	0.3	0.669	1.0	0.8
24 - 162	1600:5	C10	0.3	0.3	0.3	0.3	0.3	0.713	0.8	0.8

### EXCITATION CURVE



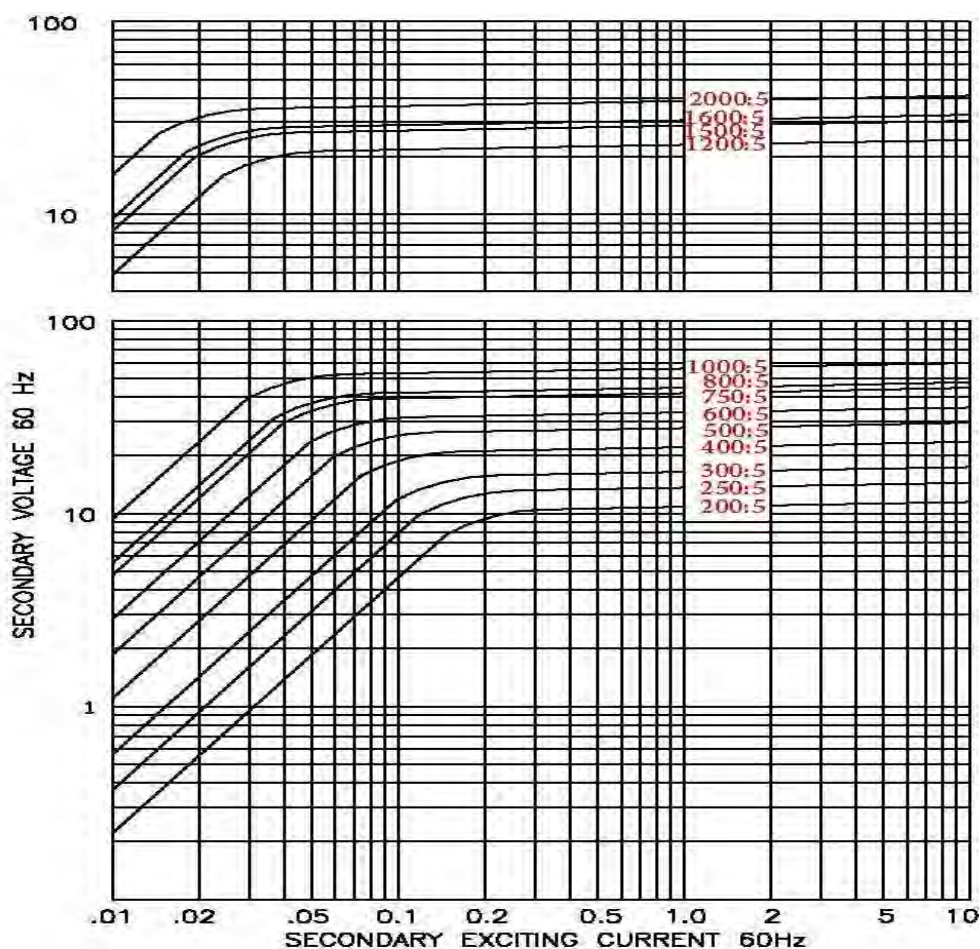
### Model 24



**MODEL 25**  
Window Diameter 3.13"  
Approximate weight: 4 lbs.

CATALOG NUMBER	CURRENT RATIO	V.A. FOR $\pm 1\%$ CLASS	ANSI METERING CLASS AT 60 Hz					SECONDARY WINDING RESISTANCE (OHMS @ 75°C)	CONTINUOUS THERMAL RATING FACTOR	
			BO.1	BO.2	BO.5	BO.9	B1.B		@ 30°C	@ 55°C
25 - 201	200:5	10	0.6	0.6	1.2	2.4	4.8	0.081	2.0	2.0
25 - 251	250:5	15	0.3	0.3	1.2	1.2	2.4	0.108	2.0	1.5
25 - 301	300:5	20	0.3	0.3	0.6	1.2	2.4	0.129	2.0	1.5
25 - 401	400:5	30	0.3	0.3	0.6	0.6	1.2	0.194	1.5	1.33
25 - 501	500:5	45	0.3	0.3	0.3	0.6	1.2	0.243	1.5	1.0
25 - 601	600:5	60	0.3	0.3	0.3	0.3	0.6	0.292	1.33	1.0
25 - 751	750:5	75	0.3	0.3	0.3	0.3	0.6	0.364	1.0	0.8
25 - 801	800:5	80	0.3	0.3	0.3	0.3	0.3	0.389	1.0	0.8
25 - 102	1000:5	100	0.3	0.3	0.3	0.3	0.3	0.486	1.0	0.8
25 - 122	1200:5	75	0.3	0.3	0.3	0.3	0.3	0.389	1.0	0.8
25 - 152	1500:5	90	0.3	0.3	0.3	0.3	0.3	0.617	1.0	0.8
25 - 162	1600:5	95	0.3	0.3	0.3	0.3	0.3	0.658	1.0	0.6
25 - 202	2000:5	100	0.3	0.3	0.3	0.3	0.3	0.822	0.8	0.6

### EXCITATION CURVE



Model 25



## Current Transformer

**Model 296-300**

rev 011218

### CERTIFICATIONS:



E228202



223647



ISO 9001

QUALITY  
MANAGEMENT



#### APPLICATION:

Metering

#### FREQUENCY:

50-400 Hz.

#### INSULATION LEVEL:

600 Volts. 10 kV BIL. full wave

#### WINDOW DIAMETER:

1.50", 2.25", 3.0", 3.38", 3.75"

#### APPROXIMATE WEIGHT:

18, 15, 12, 10, 5 lbs.

#### CONNECTIONS:

-Terminals are brass studs No. 8-32

UNC with one flat washer,

lockwasher, and regular nut

-Multi-ratios available upon request

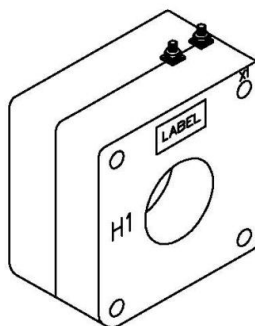
Model	296	297	298	299	300
Window Size	1.50	2.25	3.00	3.38	3.75
Width	5.96	5.96	5.96	5.96	5.96
Height	6.31	6.31	6.31	6.31	6.31
Depth	3.00	3.00	3.00	3.00	3.00

### MODEL 296

Window Diameter 1.50"

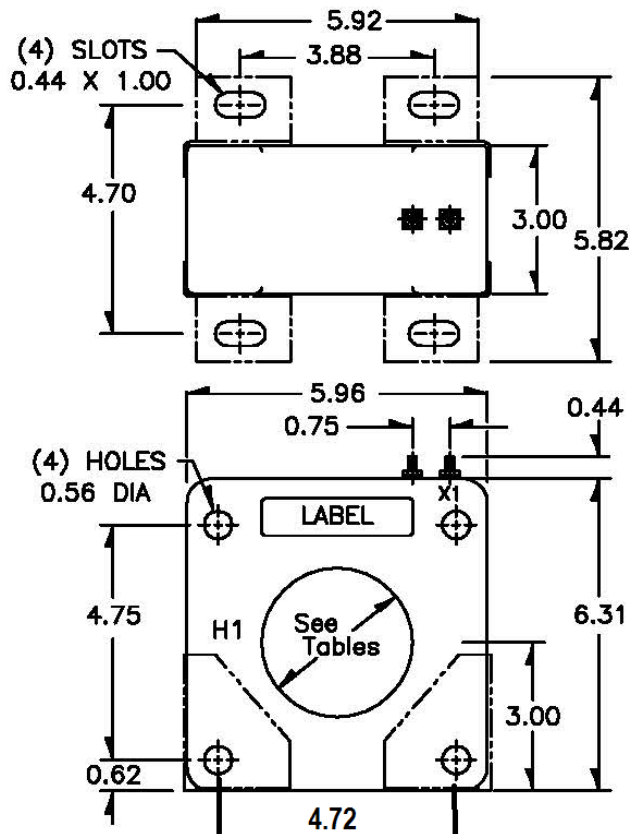
Approximate weight: 18 lbs.

CATALOG NUMBER	CURRENT RATIO	RELAY CLASS	ANSI METERING CLASS AT 60 HZ					SECONDARY WINDING RESISTANCE (OHMS @ 75°C)	CONTINUOUS THERMAL RATING FACTOR	
			B0.1	B0.2	B0.5	B0.9	B1.8		@ 30°C	@ 55°C
296 - 500	50:5	C10	1.2	2.4	4.8	-	-	0.018	2.0	2.0
296 - 750	75:5	C10	0.6	1.2	2.4	4.8	-	0.027	2.0	2.0
296 - 101	100:5	C20	0.6	0.6	1.2	2.4	4.8	0.035	2.0	2.0
296 - 151	150:5	C20	0.3	0.3	0.6	1.2	2.4	0.053	2.0	2.0
296 - 201	200:5	C20	0.3	0.3	0.6	0.6	1.2	0.071	2.0	2.0
296 - 251	250:5	C50	0.3	0.3	0.3	0.3	0.6	0.121	2.0	2.0
296 - 301	300:5	C50	0.3	0.3	0.3	0.3	0.6	0.168	2.0	1.5
296 - 401	400:5	C100	0.3	0.3	0.3	0.3	0.3	0.224	2.0	1.5
296 - 501	500:5	C50	0.3	0.3	0.3	0.3	0.3	0.249	1.5	1.5
296 - 601	600:5	C100	0.3	0.3	0.3	0.3	0.3	0.298	1.5	1.33
296 - 751	750:5	C100	0.3	0.3	0.3	0.3	0.3	0.373	1.5	1.0
296 - 801	800:5	C100	0.3	0.3	0.3	0.3	0.3	0.398	1.5	1.0
296 - 102	1000:5	C100	0.3	0.3	0.3	0.3	0.3	0.447	1.33	1.0

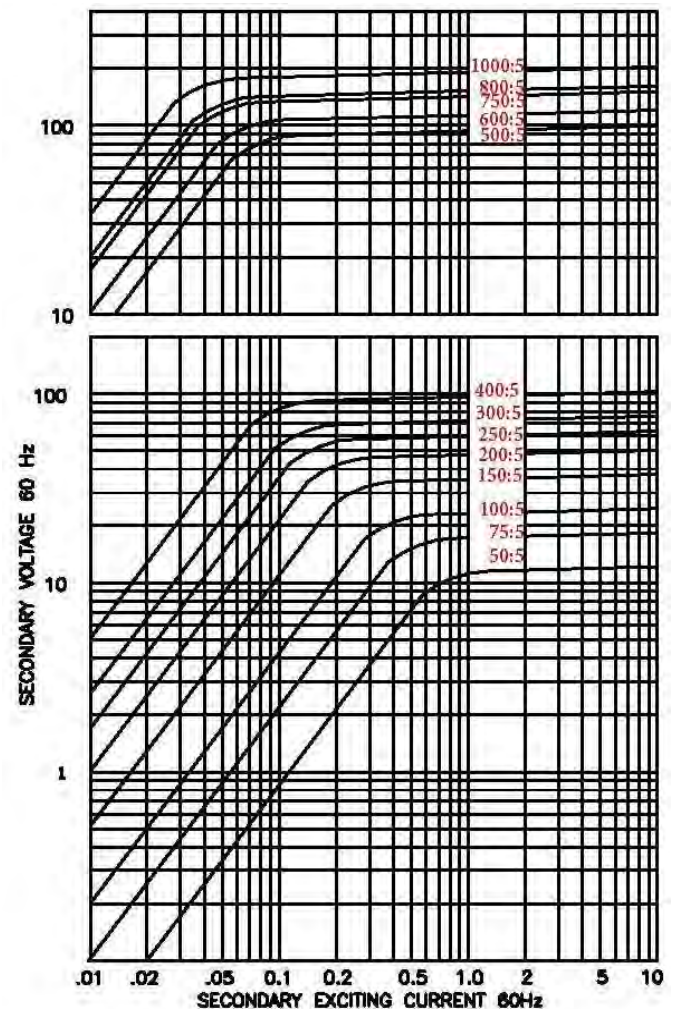




Model 296



EXCITATION CURVE



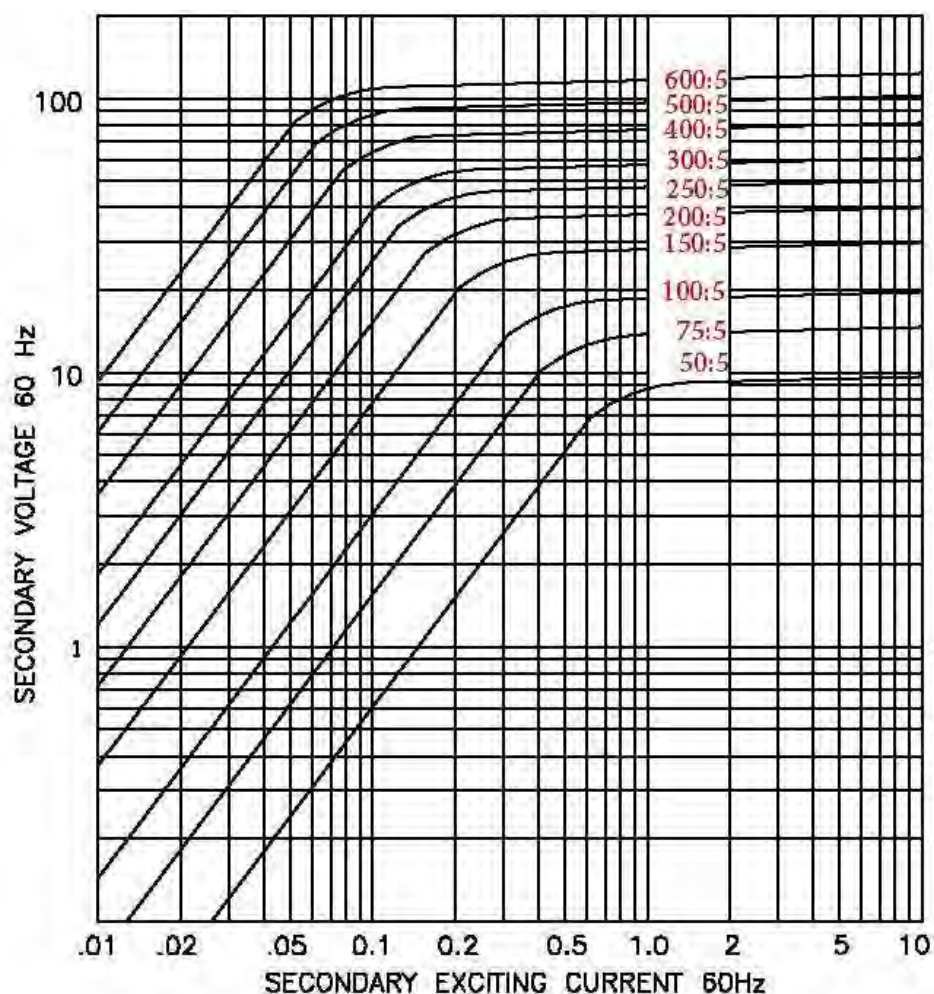
Model 296

**MODEL 297**

Window Diameter 2.25"

Approximate weight: 15 lbs.

CATALOG NUMBER	CURRENT RATIO	RELAY CLASS	ANSI METERING CLASS AT 60 HZ					SECONDARY WINDING RESISTANCE (OHMS @ 75°C)	CONTINUOUS THERMAL RATING FACTOR	
			B0.1	B0.2	B0.5	B0.9	B1.8		@ 30°C	@ 55°C
297 - 500	50:5	-	2.4	4.8	-	-	-	0.015	2.0	2.0
297 - 750	75:5	C10	1.2	2.4	4.8	4.8	-	0.023	2.0	2.0
297 - 101	100:5	C10	0.6	1.2	2.4	4.8	4.8	0.051	2.0	2.0
297 - 151	150:5	C20	0.6	0.6	1.2	2.4	2.4	0.048	2.0	2.0
297 - 201	200:5	C20	0.3	0.6	0.6	1.2	2.4	0.103	2.0	2.0
297 - 251	250:5	C20	0.3	0.3	0.3	0.6	1.2	0.111	2.0	2.0
297 - 301	300:5	C50	0.3	0.3	0.3	0.6	1.2	0.154	2.0	1.5
297 - 401	400:5	C50	0.3	0.3	0.3	0.3	0.6	0.205	2.0	1.5
297 - 501	500:5	C50	0.3	0.3	0.3	0.3	0.3	0.233	2.0	1.5
297 - 601	600:5	C100	0.3	0.3	0.3	0.3	0.3	0.308	1.5	1.33

**EXCITATION CURVE**


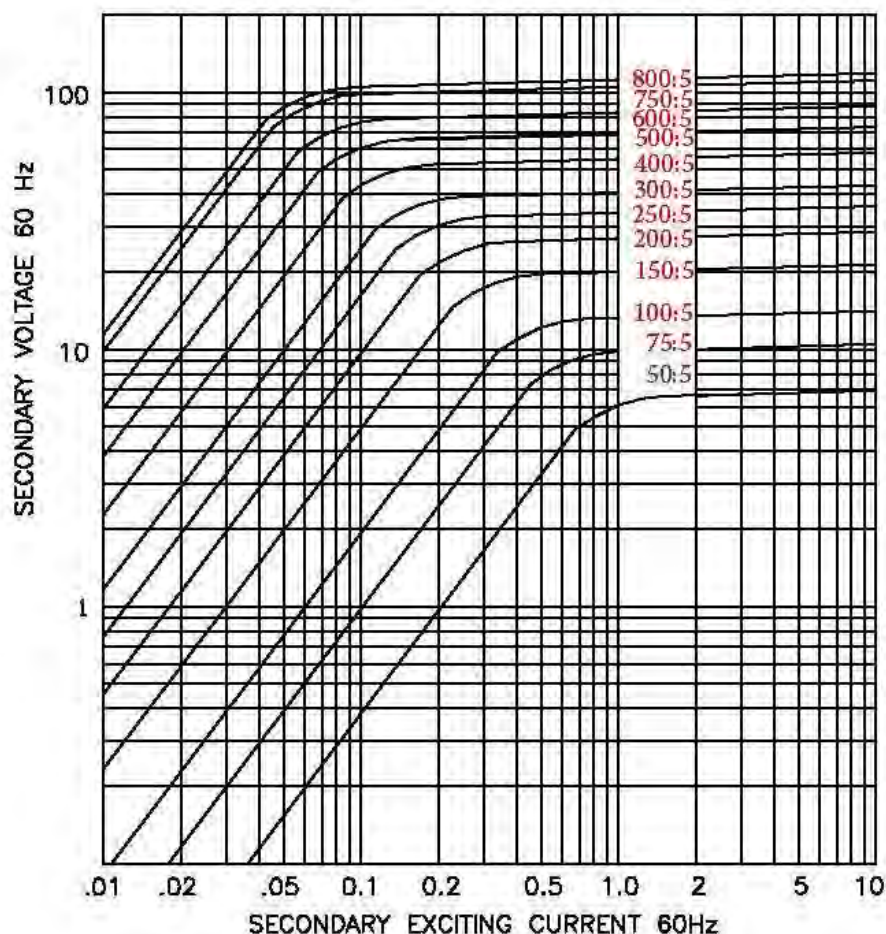
Model 297



**MODEL 298**  
Window Diameter 3.0"  
Approximate weight: 12 lbs.

CATALOG NUMBER	CURRENT RATIO	RELAY CLASS	ANSI METERING CLASS AT 60 HZ					SECONDARY WINDING RESISTANCE (OHMS @ 75°C)	CONTINUOUS THERMAL RATING FACTOR	
			B0.1	B0.2	B0.5	B0.9	B1.8		@ 30°C	@ 55°C
298 - 500	50:5	-	2.4	4.8	-	-	-	0.023	2.0	2.0
298 - 750	75:5	-	1.2	1.2	4.8	-	-	0.028	2.0	2.0
298 - 101	100:5	C10	0.6	0.6	2.4	4.8	-	0.040	2.0	2.0
298 - 151	150:5	C10	0.6	0.6	1.2	2.4	4.8	0.060	2.0	2.0
298 - 201	200:5	C20	0.6	0.6	0.6	1.2	2.4	0.080	2.0	2.0
298 - 251	250:5	C20	0.3	0.3	0.6	1.2	2.4	0.073	2.0	2.0
298 - 301	300:5	C20	0.3	0.3	0.6	0.6	1.2	0.087	2.0	2.0
298 - 401	400:5	C20	0.3	0.3	0.3	0.3	0.6	0.186	2.0	1.5
298 - 501	500:5	C50	0.3	0.3	0.3	0.3	0.6	0.233	2.0	1.5
298 - 601	600:5	C50	0.3	0.3	0.3	0.3	0.3	0.279	1.5	1.33
298 - 751	750:5	C50	0.3	0.3	0.3	0.3	0.3	0.349	1.5	1.0
298 - 801	800:5	C50	0.3	0.3	0.3	0.3	0.3	0.372	1.5	1.0

**EXCITATION CURVE**



Model 298

# Current Transformer

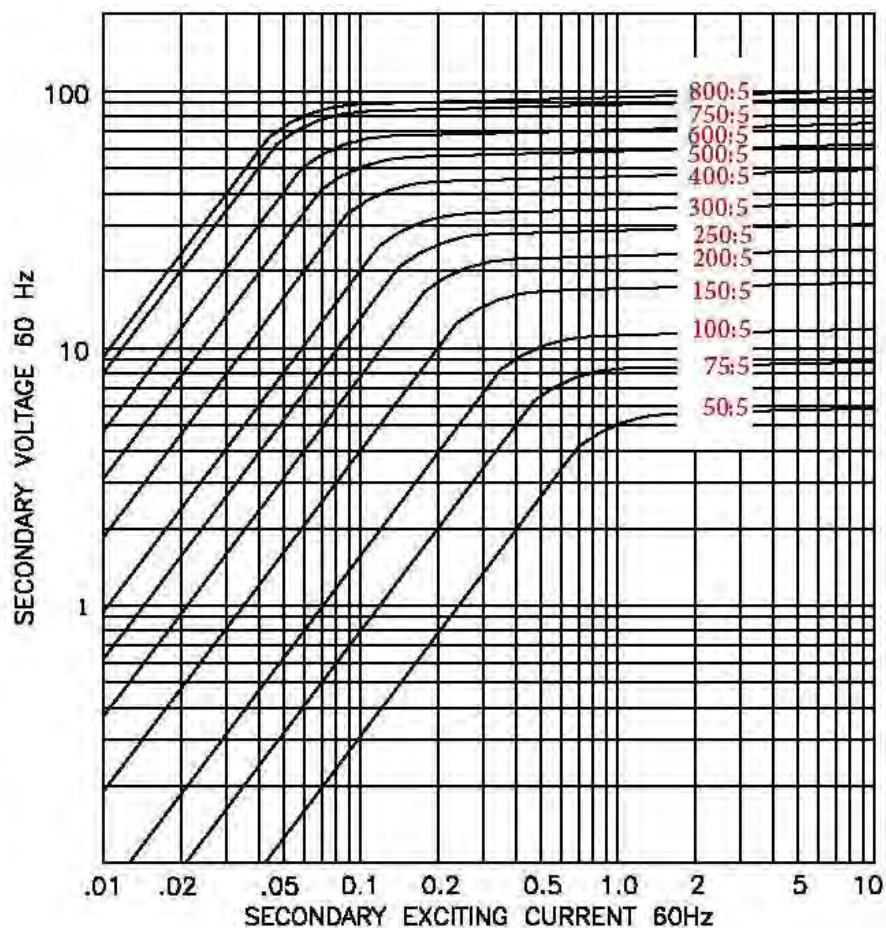
**Model 296-300**

rev 011218

**Model 299**  
**Window Diameter 3.38"**  
**Approximate weight: 10 lbs.**

CATALOG NUMBER	CURRENT RATIO	RELAY CLASS	ANSI METERING CLASS AT 60 HZ					SECONDARY WINDING RESISTANCE (OHMS @ 75°C)	CONTINUOUS THERMAL RATING FACTOR	
			B0.1	B0.2	B0.5	B0.9	B1.8		@ 30°C	@ 55°C
299 - 500	50:5	-	4.8	4.8	-	-	-	0.022	2.0	2.0
299 - 750	75:5	-	1.2	2.4	4.8	-	-	0.028	2.0	2.0
299 - 101	100:5	C10	0.6	1.2	2.4	4.8	-	0.038	2.0	2.0
299 - 151	150:5	C10	0.6	0.6	1.2	2.4	4.8	0.057	2.0	2.0
299 - 201	200:5	C10	0.6	0.6	1.2	1.2	2.4	0.088	2.0	2.0
299 - 251	250:5	C20	0.3	0.3	0.6	1.2	2.4	0.098	2.0	2.0
299 - 301	300:5	C20	0.3	0.3	0.3	0.6	1.2	0.118	2.0	2.0
299 - 401	400:5	C20	0.3	0.3	0.3	0.6	0.6	0.177	2.0	1.5
299 - 501	500:5	C20	0.3	0.3	0.3	0.3	0.6	0.221	2.0	1.5
299 - 601	600:5	C50	0.3	0.3	0.3	0.3	0.3	0.265	1.5	1.33
299 - 751	750:5	C50	0.3	0.3	0.3	0.3	0.3	0.331	1.5	1.0
299 - 801	800:5	C50	0.3	0.3	0.3	0.3	0.3	0.353	1.5	1.0

## EXCITATION CURVE



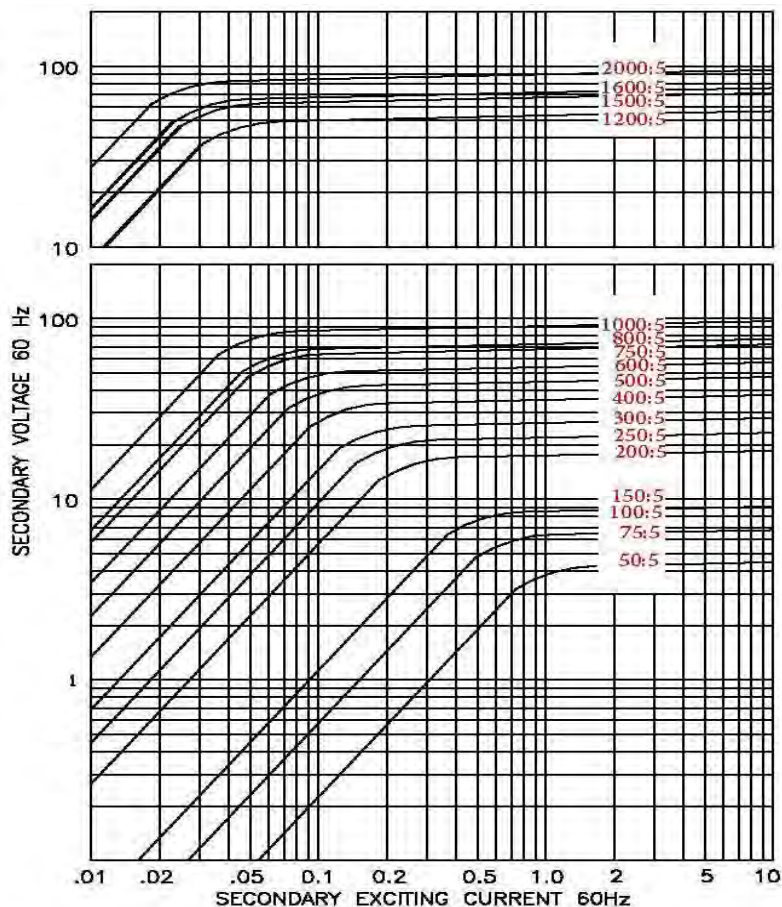
**Model 299**



Window Diameter 3.75"  
Approximate weight: 9 lbs.

CATALOG NUMBER	CURRENT RATIO	RELAY CLASS	ANSI METERING CLASS AT 60 HZ					SECONDARY WINDING RESISTANCE (OHMS @ 75°C)	CONTINUOUS THERMAL RATING FACTOR	
			B0.1	B0.2	B0.5	B0.9	B1.8		@ 30°C	@ 55°C
300 - 500	50:5	-	2.4	4.8	-	-	-	0.012	2.0	2.0
300 - 750	75:5	-	2.4	2.4	-	-	-	0.019	2.0	2.0
300 - 101	100:5	-	2.4	2.4	2.4	-	-	0.026	2.0	2.0
300 - 151	150:5	-	0.6	0.6	2.4	2.4	4.8	0.054	2.0	2.0
300 - 201	200:5	C10	0.6	0.6	1.2	2.4	4.8	0.072	2.0	2.0
300 - 251	250:5	C10	0.3	0.6	1.2	1.2	2.4	0.104	2.0	2.0
300 - 301	300:5	C10	0.3	0.3	0.3	0.6	1.2	0.108	2.0	2.0
300 - 401	400:5	C20	0.3	0.3	0.3	0.6	1.2	0.144	2.0	1.5
300 - 501	500:5	C20	0.3	0.3	0.3	0.6	0.6	0.209	2.0	1.5
300 - 601	600:5	C20	0.3	0.3	0.3	0.3	0.6	0.251	1.5	1.33
300 - 751	750:5	C20	0.3	0.3	0.3	0.3	0.3	0.329	1.5	1.0
300 - 801	800:5	C50	0.3	0.3	0.3	0.3	0.3	0.334	1.5	1.0
300 - 102	1000:5	C50	0.3	0.3	0.3	0.3	0.3	0.418	1.33	1.0
300 - 122	1200:5	C10	0.3	0.3	0.3	0.3	0.3	0.425	1.33	1.0
300 - 152	1500:5	C10	0.3	0.3	0.3	0.3	0.3	0.531	1.0	1.0
300 - 162	1600:5	C10	0.3	0.3	0.3	0.3	0.3	0.567	1.0	0.8
300 - 202	2000:5	C20	0.3	0.3	0.3	0.3	0.3	0.708	1.0	0.8

## EXCITATION CURVE



Model 300



## Current Transformer

**Model 64, 65, 66**

### APPLICATION:

Metering

### FREQUENCY:

50-400 Hz.

### INSULATION LEVEL:

600 Volts. 10 kV BIL. full wave

### WINDOW DIAMETER:

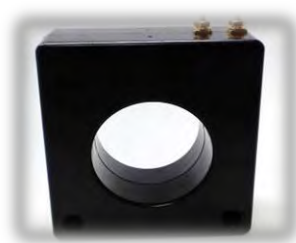
1.56", 2.0", 2.5"

### APPROXIMATE WEIGHT:

3.75, 3.25 and 2.5 lbs.

### CONNECTIONS:

-Terminals are brass studs No. 8 – 32 with one flat washer, lockwasher, and regular nut



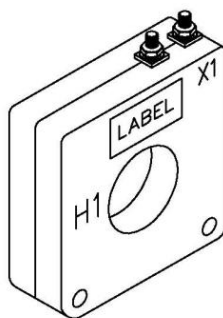
Model	64	65	66
Window Size	1.56	2.00	2.50
Width	4.00	4.00	4.00
Height	4.00	4.00	4.00
Depth	1.75	1.75	1.75

### CERTIFICATIONS:



**MODEL 64**  
Window Diameter 1.56"  
Approximate weight: 3.75 lbs.

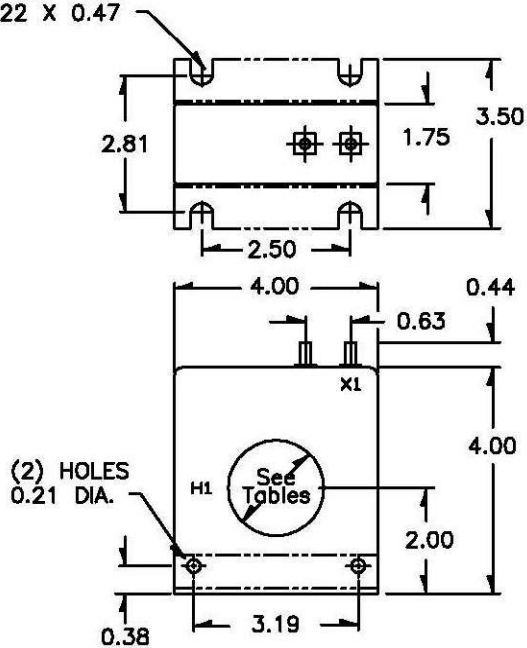
CATALOG NUMBER	CURRENT RATIO	V.A. FOR $\pm 1\%$ CLASS	ANSI METERING CLASS AT 60 Hz					SECONDARY WINDING RESISTANCE (OHMS @ 75° C)	CONTINUOUS THERMAL RATING FACTOR	
			BO. 1	BO.2	BO.5	BO.9	B1.B		@ 30° C	@ 55° C
64 – 500	50:5	2.5 $\pm 2\%$	2.4	-	-	-	-	0.011	2.0	2.0
64 – 750	75:5	4.0	1.2	2.4	-	-	-	0.020	2.0	2.0
64 – 101	100:5	5.0	1.2	1.2	4.8	4.8	-	0.026	2.0	2.0
64 – 151	150:5	7.5	0.6	0.6	1.2	2.4	4.8	0.043	2.0	2.0
64 – 201	200:5	12.5	0.3	0.3	1.2	1.2	2.4	0.063	2.0	1.5
64 – 251	250:5	20.0	0.3	0.3	0.6	1.2	2.4	0.074	2.0	1.5
64 – 301	300:5	35.0	0.3	0.3	0.3	0.6	1.2	0.086	2.0	1.5
64 – 401	400:5	50.0	0.3	0.3	0.3	0.6	1.2	0.110	1.5	1.33
64 – 501	500:5	50.0	0.3	0.3	0.3	0.3	0.6	0.173	1.5	1.0



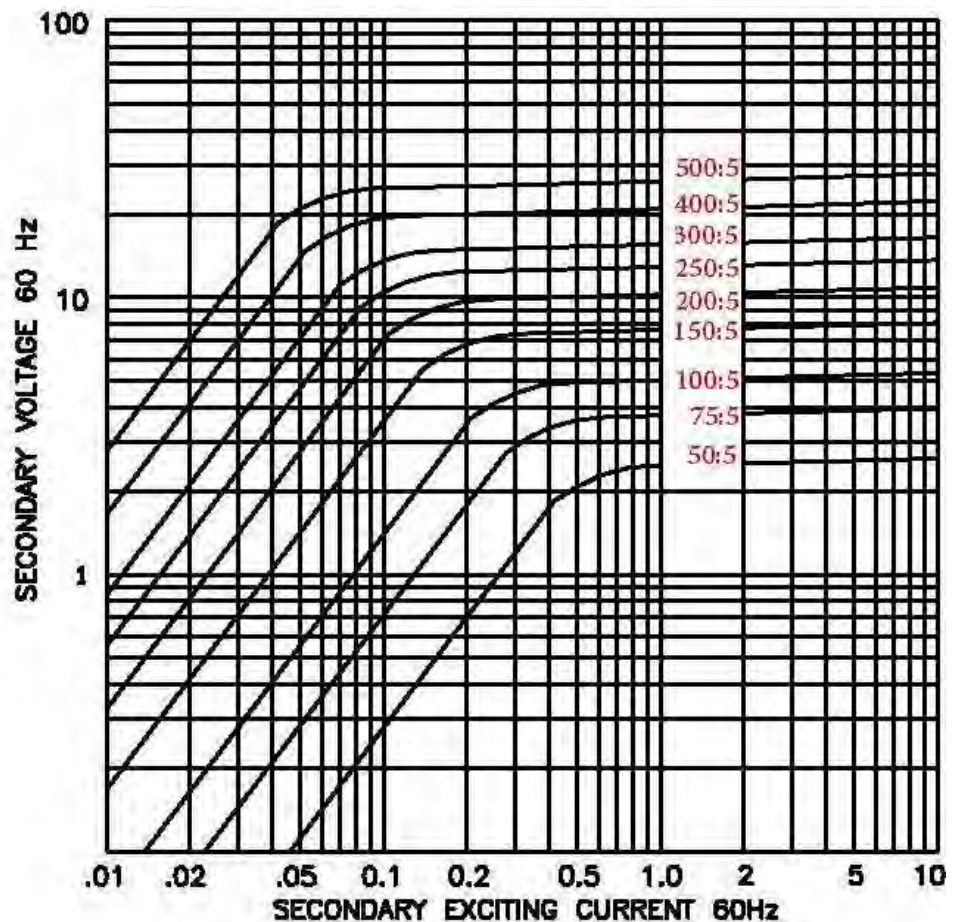


Models 64, 65 & 66

(4) OPEN SLOTS  
0.22 X 0.47



EXCITATION CURVE



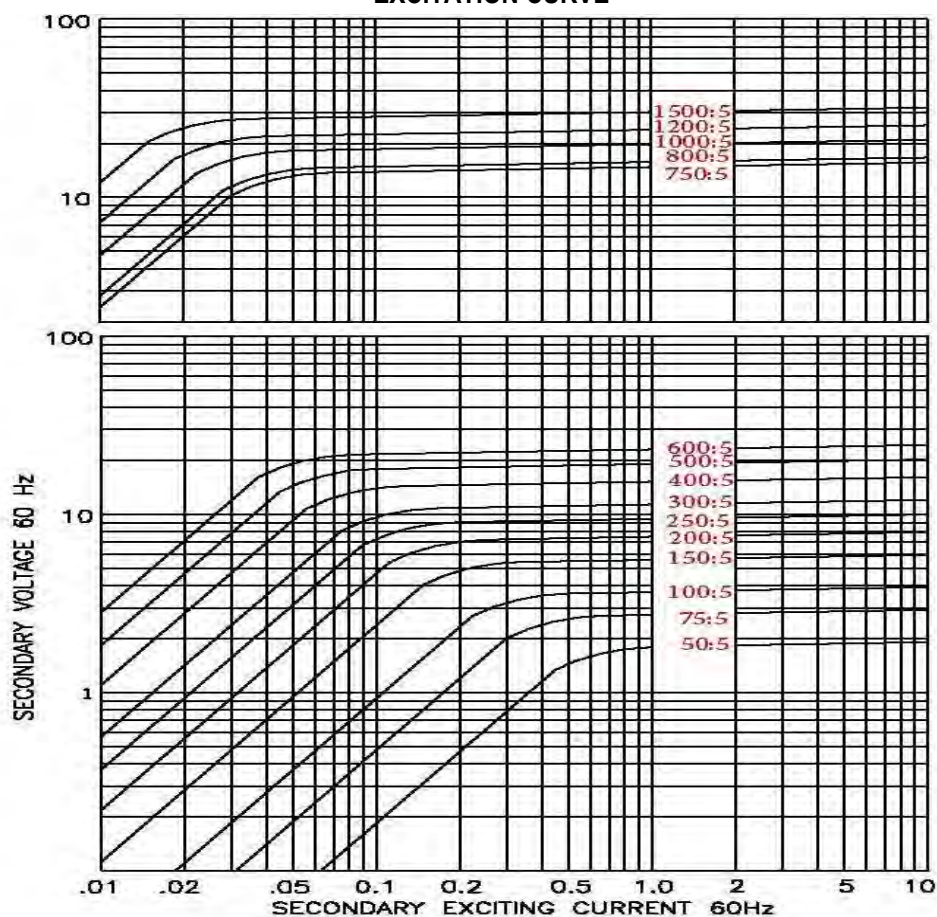
Model 64

### MODEL 65

Window Diameter 2.0"  
Approximate weight: 3.25 lbs.

CATALOG NUMBER	CURRENT RATIO	V.A. FOR ± 1% CLASS	ANSI METERING CLASS AT 50 Hz					SECONDARY WINDING RESISTANCE (OHMS @ 75° C)	CONTINUOUS THERMAL RATING FACTOR	
			BO.1	BO.2	BO.5	BO.9	B1.8		@ 30° C	@ 55° C
65 – 500	50:5	2.0	2.4	-	-	-	-	0.007	2.0	2.0
65 – 750	75:5	4.0	2.4	2.4	-	-	-	0.013	2.0	2.0
65 – 101	100:5	4.0	1.2	1.2	4.8	-	-	0.022	2.0	2.0
65 – 151	150:5	6.0	0.6	0.6	2.4	4.8	4.8	0.039	2.0	2.0
65 – 201	200:5	12.5	0.6	0.6	1.2	2.4	2.4	0.047	2.0	2.0
65 – 251	250:5	15.0	0.3	0.3	0.6	1.2	2.4	0.067	2.0	1.5
65 – 301	300:5	20.0	0.3	0.3	0.6	1.2	2.4	0.077	2.0	1.5
65 – 401	400:5	35.0	0.3	0.3	0.3	0.6	1.2	0.110	1.5	1.25
65 – 501	500:5	50.0	0.3	0.3	0.3	0.6	1.2	0.155	1.33	1.0
65 – 601	600:5	60.0	0.3	0.3	0.3	0.3	0.6	0.186	1.25	1.0
65 – 751	750:5	75.0	0.3	0.3	0.3	0.6	0.6	0.197	1.0	0.8
65 – 801	800:5	80.0	0.3	0.3	0.3	0.3	0.6	0.210	1.0	0.8
65 – 102	1000:5	100.0	0.3	0.3	0.3	0.3	0.6	0.253	1.0	0.8
65 – 122	1200:5	105.0	0.3	0.3	0.3	0.3	0.3	0.316	1.0	0.8
65 – 152	1500:5	140.0	0.3	0.3	0.3	0.3	0.3	0.491	1.0	0.8

### EXCITATION CURVE



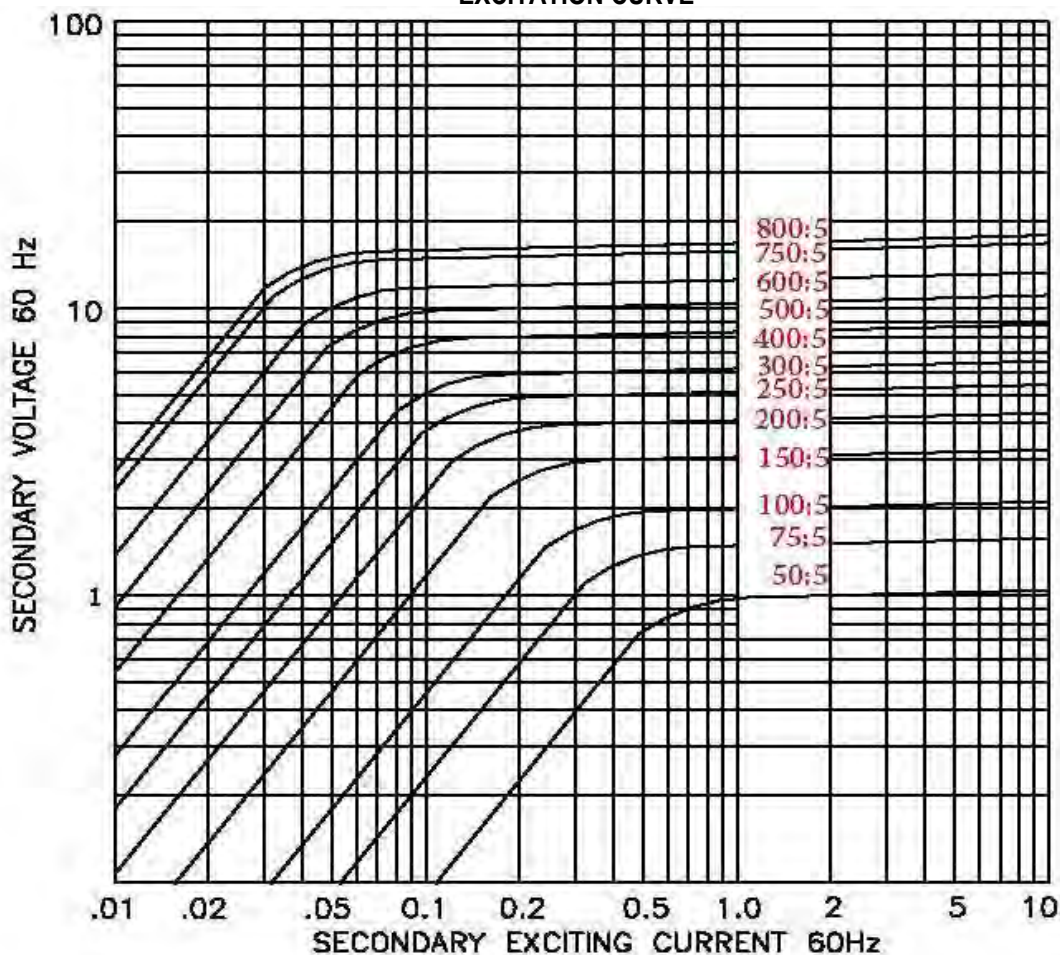
Model 65



**Model 66**  
Window Diameter 2.5"  
Approximate weight: 2.5 lbs.

CATALOG NUMBER	CURRENT RATIO	V.A. FOR $\pm 1.5\%$ CLASS	ANSI METERING CLASS AT 60 Hz					SECONDARY WINDING RESISTANCE (OHMS @ 75° C)	CONTINUOUS THERMAL RATING FACTOR	
			B0.1	B0.2	B0.5	B0.9	B1.8		@ 30° C	@ 55° C
66 - 500	50:5	1.5+2%	-	-	-	-	-	0.006	2.0	2.0
66 - 750	75:5	2.5+2%	2.4	-	-	-	-	0.008	2.0	2.0
66 - 101	100:5	2.5	1.2	2.4	-	-	-	0.013	2.0	2.0
66 - 151	150:5	4.0	1.2	1.2	2.4	4.8	-	0.020	2.0	2.0
66 - 201	200:5	5.0	0.6	0.6	2.4	2.4	4.8	0.038	2.0	2.0
66 - 251	250:5	10.0	0.6	0.6	1.2	2.4	4.8	0.045	2.0	2.0
66 - 301	300:5	12.5	0.3	0.3	1.2	2.4	2.4	0.065	2.0	1.5
66 - 401	400:5	20.0	0.3	0.3	0.6	1.2	1.2	0.082	1.5	1.33
66 - 501	500:5	30.0	0.3	0.3	0.6	1.2	1.2	0.107	1.5	1.25
66 - 601	600:5	40.0	0.3	0.3	0.6	0.6	1.2	0.162	1.33	1.0
66 - 751	750:5	50.0	0.3	0.3	0.3	0.6	0.6	0.202	1.0	0.8
66 - 801	800:5	60.0	0.3	0.3	0.3	0.6	0.6	0.216	1.0	0.8

**EXCITATION CURVE**



**Model 66**



## Current Transformer

**Model 6A**

### APPLICATION:

Ammeters, wattmeters.

### FREQUENCY:

50-400 Hz.

### INSULATION LEVEL:

600 Volts. 10 kV BIL full wave

### WINDOW DIAMETER:

2.06"

### APPROXIMATE WEIGHT:

1.25 lbs.

### CONNECTIONS:

- Terminal and brass studs No. 8-32 with one flat washer, lockwasher, and regular nut
- Flexible leads are UL 1015 105°C, CSA approved, #16 AWG, 24" long.
- Non-standard, lead length can be specified.
- Mounting bracket 59-0223
- Model 6ASHT and model 6ASFT also available as 6ASHL and 6ASFL with leads



Model	6ASHT	6ASFT	6ARL
Window Size	2.06	2.06	2.06
Width	4.08	4.12	4.08
Height	4.22	4.22	4.08
Depth	1.10	1.10	1.10



### MODEL 6A

Window Diameter 2.06"  
Approximate weight: 1.25 lbs.

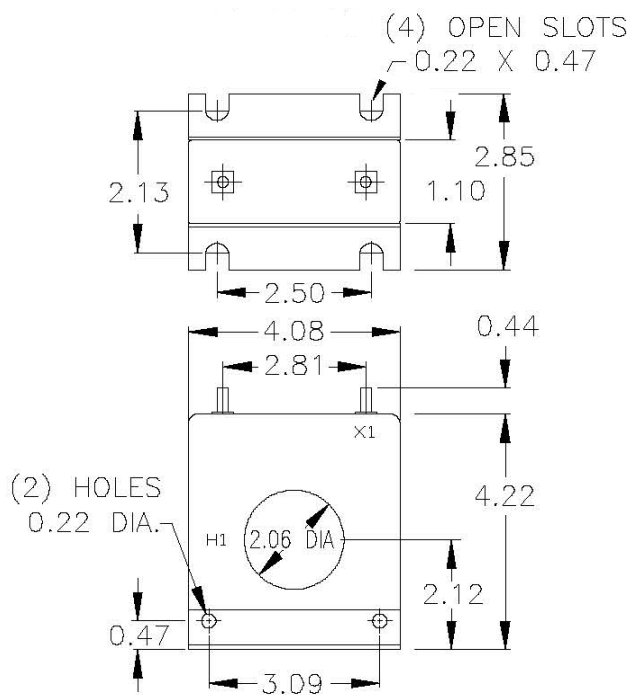
CATALOG NUMBER	CURRENT RATIO	V.A. $\pm$ 1% CLASS	ANSI METERING CLASS AT 60 HZ					SECONDARY WINDING RESISTANCE (OHMS @ 75°C)	CONTINUOUS THERMAL RATING FACTOR	
			B0.1	B0.2	B0.5	B0.9	B1.8		@ 30°C	@ 55°C
6A**--101	100:5	1.0	1.2	2.4	-	-	-	0.015	2.0	2.0
6A**--151	150:5	5.0	1.2	1.2	4.8	4.8	-	0.024	2.0	2.0
6A**--201	200:5	5.0	0.6	1.2	2.4	4.8	-	0.037	2.0	2.0
6A**--251	250:5	7.5	0.3	0.6	2.4	2.4	4.8	0.044	2.0	1.5
6A**--301	300:5	12.5	0.3	0.6	1.2	2.4	2.4	0.055	2.0	1.5
6A**--401	400:5	15.0	0.3	0.3	0.6	1.2	2.4	0.071	1.5	1.33
6A**--501	500:5	25.0	0.3	0.3	0.6	1.2	2.4	0.107	1.5	1.0
6A**--601	600:5	30.0	0.3	0.3	0.6	0.6	1.2	0.128	1.33	1.0
6A**--751	750:5	30.0	0.3	0.3	0.6	0.6	1.2	0.156	1.25	1.0
6A**--801	800:5	35.0	0.3	0.3	0.6	0.6	0.6	0.167	1.25	0.8
6A**--102	1000:5	35.0	0.3	0.3	0.3	0.6	0.6	0.208	1.0	0.8
6A**--122	1200:5	40.0	0.3	0.3	0.3	0.3	0.6	0.250	1.0	0.8
6A**--152	1500:5	50.0	0.3	0.3	0.3	0.3	0.6	0.388	1.0	0.8

\*Note: When ordering, prefix Cat No. with model designation, i.e. 6SHT-201, 6RL-301 etc.

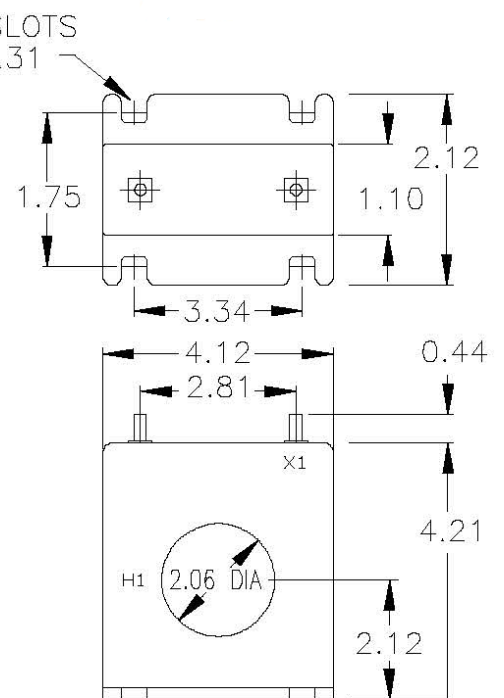




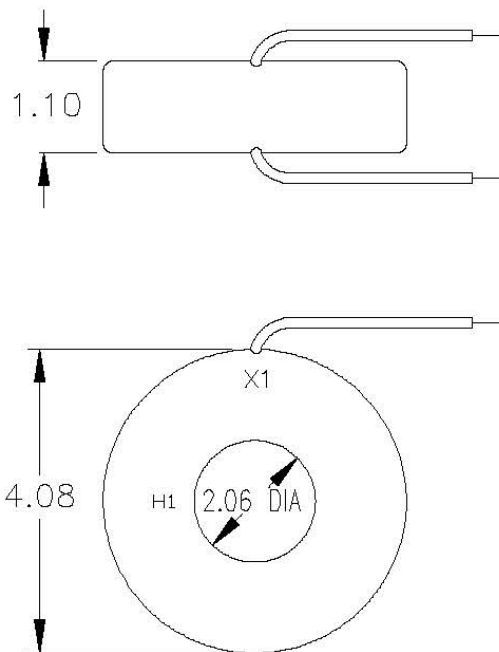
### Model 6ASHT



### Model 6ASFT



### Model 6ARL





## Current Transformer

**Model 112, 113, 114, 115, 117**

rev 03182021

### CERTIFICATIONS:



#### APPLICATION:

Metering

#### FREQUENCY:

50-400 Hz.

#### INSULATION LEVEL:

600 Volts. 10 kV BIL. full wave

**WINDOW DIAMETER:** 2.25",  
2.75", 3.25", 4.00", 4.62"

#### APPROXIMATE WEIGHT:

25, 22, 22, 17, 11.5 lbs.

#### CONNECTIONS:

- Terminals are brass studs No. 8-32 UNC with one flat washer, lockwasher, and regular nut
- Mounting kits 59-0215 (CR) and 59-0216 (CL)
- Multi-ratios available upon request

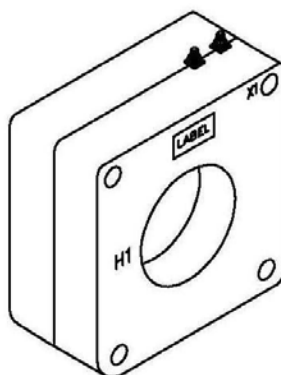
Model	112	113	114	115	117
Window Size	2.25	2.75	3.25	4.00	4.62
Width	7.00	7.00	7.00	7.00	7.00
Height	7.12	7.12	7.12	7.12	7.12
Depth	4.00	4.00	4.00	4.00	4.00

#### MODEL 112

Window Diameter 2.25"

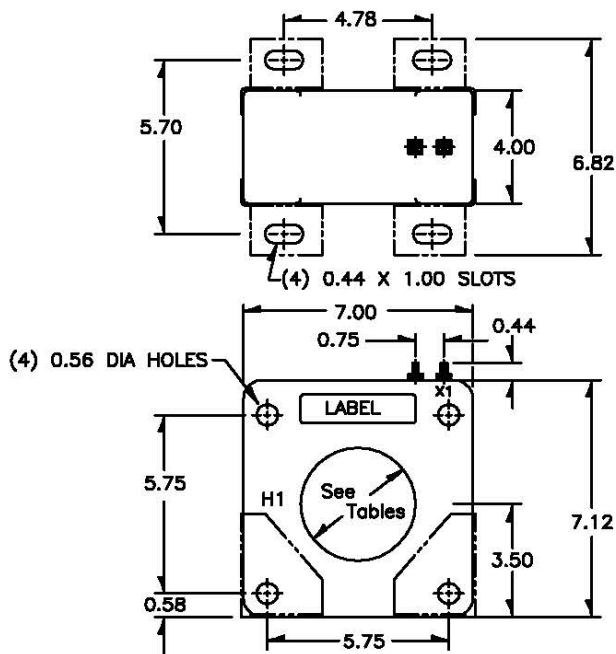
Approximate weight: 25 lbs.

CATALOG NUMBER	CURRENT RATIO	RELAY CLASS	ANSI METERING CLASS AT 60 HZ					SECONDARY WINDING RESISTANCE (OHMS @ 75°C)	CONTINUOUS THERMAL RATING FACTOR	
			B0.1	B0.2	B0.5	B0.9	B1.8		@ 30°C	@ 55°C
112-500	50:5	C10	1.2	2.4	-	-	-	0.029	2.0	2.0
112-750	75:5	C10	0.6	1.2	2.4	4.8	-	0.046	2.0	2.0
112-101	100:5	C20	0.6	0.6	2.4	2.4	4.8	0.062	2.0	2.0
112-151	150:5	C20	0.3	0.6	1.2	1.2	2.4	0.093	2.0	2.0
112-201	200:5	C50	0.3	0.3	0.3	0.6	1.2	0.124	2.0	2.0
112-251	250:5	C50	0.3	0.3	0.3	0.3	0.6	0.155	2.0	2.0
112-301	300:5	C50	0.3	0.3	0.3	0.3	0.6	0.186	2.0	2.0
112-401	400:5	C100	0.3	0.3	0.3	0.3	0.3	0.248	2.0	1.5
112-501	500:5	C100	0.3	0.3	0.3	0.3	0.3	0.341	2.0	1.5
112-601	600:5	C100	0.3	0.3	0.3	0.3	0.3	0.409	1.5	1.33
112-751	750:5	C200	0.3	0.3	0.3	0.3	0.3	0.495	1.5	1.0
112-801	800:5	C200	0.3	0.3	0.3	0.3	0.3	0.529	1.5	1.0
112-102	1000:5	C200	0.3	0.3	0.3	0.3	0.3	0.661	1.33	1.0
112-122	1200:5	C200	0.3	0.3	0.3	0.3	0.3	0.793	1.33	1.0

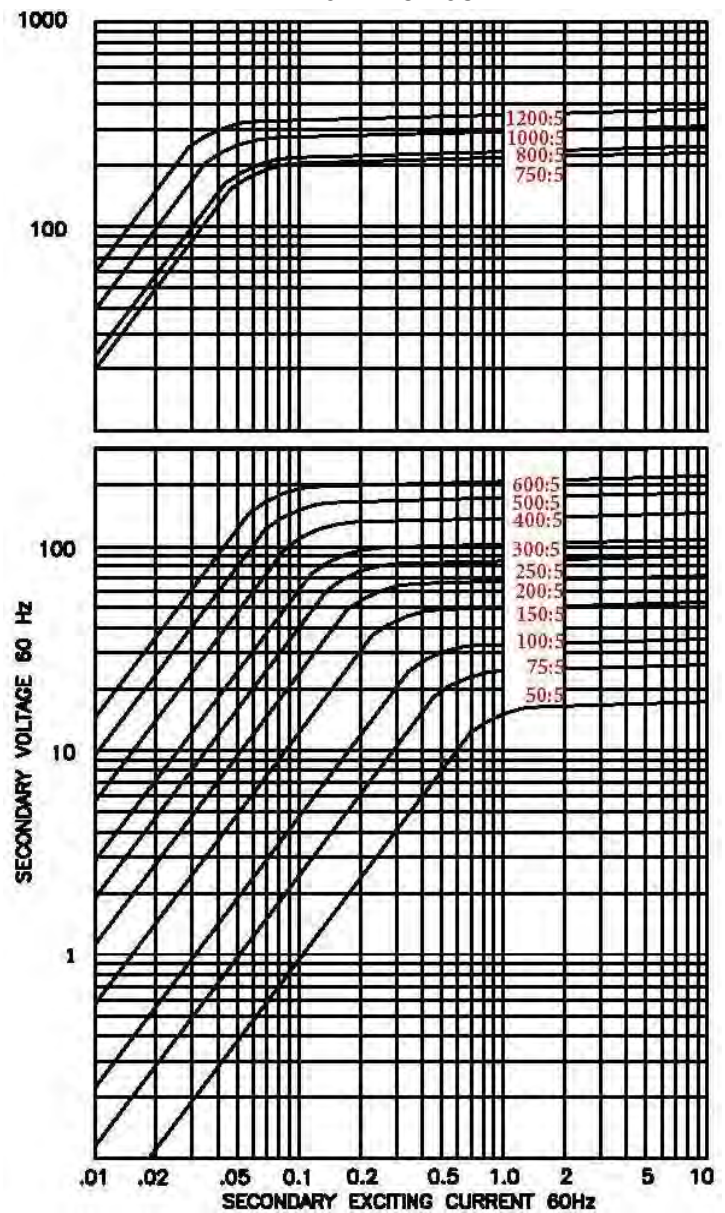




### Models 112, 113, 114, 115 & 117



### EXCITATION CURVE



Model 112

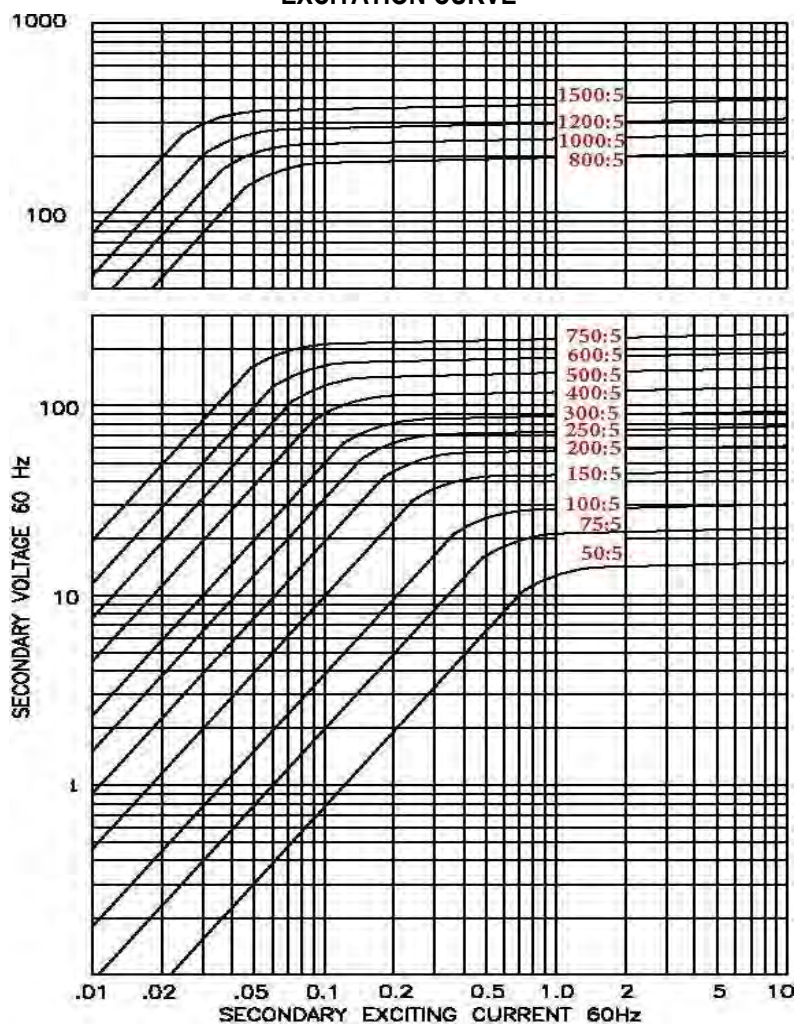
### MODEL 113

Window Diameter 2.75"

Approximate weight: 23 lbs.

CATALOG NUMBER	CURRENT RATIO	RELAY CLASS	ANSI METERING CLASS AT 50 Hz					SECONDARY WINDING RESISTANCE (OHMS @ 75° C)	CONTINUOUS THERMAL RATING FACTOR	
			BO.1	BO.2	BO.5	BO.9	B1.8		@ 30° C	@ 55° C
113 - 500	50:5	C10	2.4	4.8	-	-	-	0.033	2	2
113 - 750	75:5	C10	0.6	1.2	4.8	4.8	-	0.043	2	2
113 - 101	100:5	C20	0.6	0.6	2.4	2.4	4.8	0.059	2	2
113 - 151	150:5	C20	0.3	0.3	0.6	1.2	2.4	0.089	2	2
113 - 201	200:5	C20	0.3	0.3	0.6	0.6	1.2	0.118	2	2
113 - 251	250:5	C50	0.3	0.3	0.6	0.6	1.2	0.163	2	2
113 - 301	300:5	C50	0.3	0.3	0.3	0.6	1.2	0.195	2	2
113 - 401	400:5	C100	0.3	0.3	0.3	0.3	0.6	0.260	2	1.5
113 - 501	500:5	C100	0.3	0.3	0.3	0.3	0.3	0.325	2	1.5
113 - 601	600:5	C100	0.3	0.3	0.3	0.3	0.3	0.390	1.5	1.33
113 - 751	750:5	C200	0.3	0.3	0.3	0.3	0.3	0.488	1.5	1.0
113 - 801	800:5	C200	0.3	0.3	0.3	0.3	0.3	0.503	1.5	1.0
113 - 102	1000:5	C200	0.3	0.3	0.3	0.3	0.3	0.629	1.33	1.0
113 - 122	1200:5	C200	0.3	0.3	0.3	0.3	0.3	0.755	1.33	1.0
113 - 152	1500:5	C200	0.3	0.3	0.3	0.3	0.3	0.943	1.0	0.8

### EXCITATION CURVE



Model 113



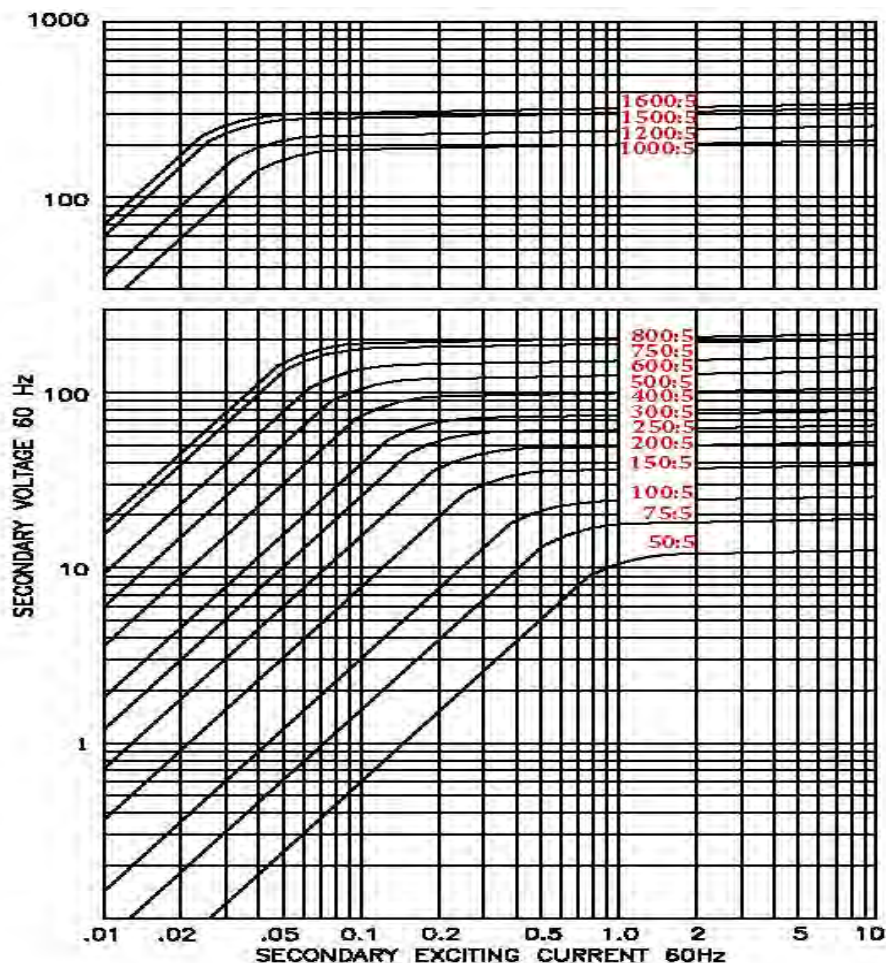
### MODEL 114

Window Diameter 3.25"

Approximate weight: 22 lbs.

CATALOG NUMBER	CURRENT RATIO	RELAY CLASS	ANSI METERING CLASS AT 60 Hz					SECONDARY WINDING RESISTANCE (OHMS @ 75° C)	CONTINUOUS THERMAL RATING FACTOR	
			BO.1	BO.2	BO.5	BO.9	B1.8		@ 30° C	@ 55° C
114 – 500	50:5	-	1.2	4.8	-	-	-	0.024	2.0	2.0
114 – 750	75:5	C10	1.2	2.4	4.8	-	-	0.040	2.0	2.0
114 – 101	100:5	C10	1.2	1.2	2.4	4.8	-	0.055	2.0	2.0
114 – 151	150:5	C20	0.6	0.6	1.2	2.4	4.8	0.082	2.0	2.0
114 – 201	200:5	C20	0.3	0.3	0.6	1.2	2.4	0.112	2.0	2.0
114 – 251	250:5	C50	0.3	0.3	0.6	1.2	1.2	0.141	2.0	2.0
114 – 301	300:5	C50	0.3	0.3	0.6	0.6	1.2	0.165	2.0	2.0
114 – 401	400:5	C100	0.3	0.3	0.3	0.3	0.6	0.220	2.0	1.5
114 – 501	500:5	C100	0.3	0.3	0.3	0.3	0.6	0.267	2.0	1.5
114 – 601	600:5	C100	0.3	0.3	0.3	0.3	0.3	0.371	1.5	1.33
114 – 751	750:5	C100	0.3	0.3	0.3	0.3	0.3	0.464	1.5	1.0
114 – 801	800:5	C200	0.3	0.3	0.3	0.3	0.3	0.495	1.5	1.0
114 – 102	1000:5	C100	0.3	0.3	0.3	0.3	0.3	0.597	1.5	1.0
114 – 122	1200:5	C200	0.3	0.3	0.3	0.3	0.3	0.716	1.33	1.0
114 – 152	1500:5	C200	0.3	0.3	0.3	0.3	0.3	0.896	1.0	0.8
114 – 162	1600:5	C200	0.3	0.3	0.3	0.3	0.3	0.955	1.0	0.8

### EXCITATION CURVE

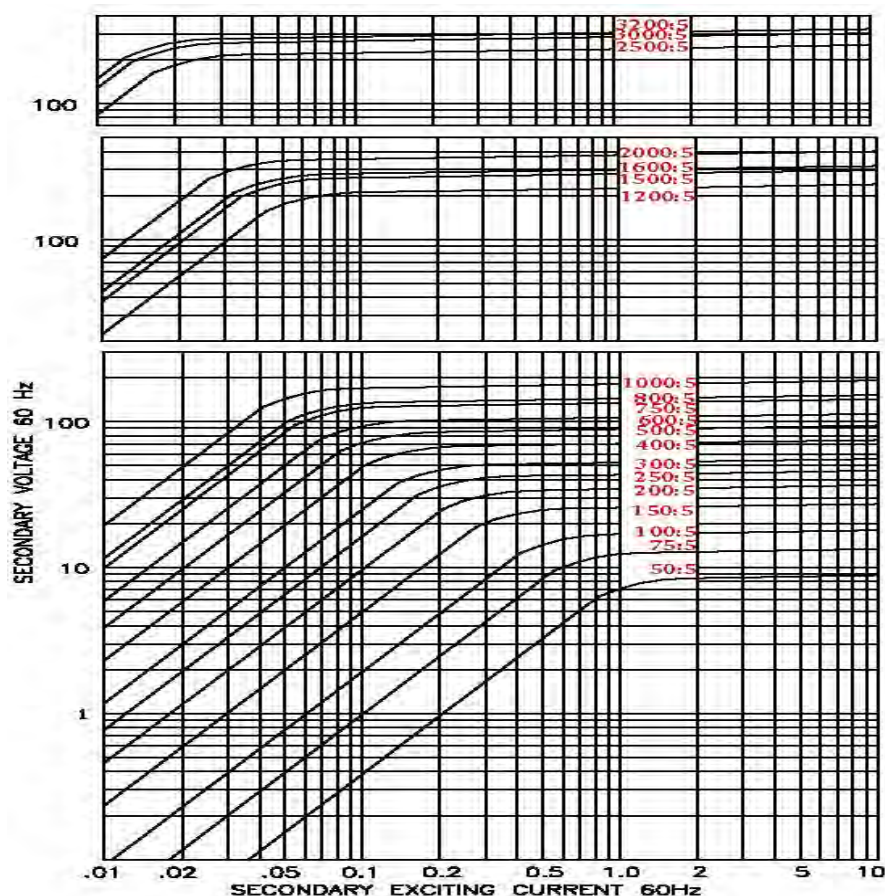


Model 114

**MODEL 115**  
Window Diameter 4.0"  
Approximate weight: 19 lbs.

CATALOG NUMBER	CURRENT RATIO	RELAY CLASS	ANSI METERING CLASS AT 60 Hz					SECONDARY WINDING RESISTANCE (OHMS @ 75° C)	CONTINUOUS THERMAL RATING FACTOR	
			BO.1	BO.2	BO.5	BO.9	B1.8		@ 30° C	@ 55° C
115 - 500	50:5	-	2.4	4.8	-	-	-	0.025	2.0	2.0
115 - 750	75:5	-	1.2	2.4	4.8	-	-	0.037	2.0	2.0
115 - 101	100:5	C10	1.2	1.2	2.4	4.8	-	0.046	2.0	2.0
115 - 151	150:5	C10	0.6	0.6	1.2	2.4	4.8	0.074	2.0	2.0
115 - 201	200:5	C20	0.3	0.3	0.6	1.2	2.4	0.099	2.0	2.0
115 - 251	250:5	C20	0.3	0.3	0.6	1.2	2.4	0.127	2.0	2.0
115 - 301	300:5	C20	0.3	0.3	0.3	0.6	1.2	0.148	2.0	2.0
115 - 401	400:5	C50	0.3	0.3	0.3	0.3	0.6	0.208	2.0	2.0
115 - 501	500:5	C50	0.3	0.3	0.3	0.3	0.3	0.247	2.0	1.5
115 - 601	600:5	C50	0.3	0.3	0.3	0.3	0.3	0.305	2.0	1.5
115 - 751	750:5	C100	0.3	0.3	0.3	0.3	0.3	0.428	1.5	1.33
115 - 801	800:5	C100	0.3	0.3	0.3	0.3	0.3	0.457	1.5	1.0
115 - 102	1000:5	C100	0.3	0.3	0.3	0.3	0.3	0.571	1.5	1.0
115 - 122	1200:5	C100	0.3	0.3	0.3	0.3	0.3	0.660	1.33	1.0
115 - 152	1500:5	C100	0.3	0.3	0.3	0.3	0.3	0.825	1.0	0.8
115 - 162	1600:5	C100	0.3	0.3	0.3	0.3	0.3	0.880	1.0	0.8
115 - 202	2000:5	C200	0.3	0.3	0.3	0.3	0.3	1.100	1.0	0.8
115 - 252	2500:5	C100	0.3	0.3	0.3	0.3	0.3	1.292	1.0	0.8
115 - 302	3000:5	C200	0.3	0.3	0.3	0.3	0.3	1.550	0.8	0.6
115 - 322	3200:5	C200	0.3	0.3	0.3	0.3	0.3	1.653	0.8	0.6

### EXCITATION CURVE



### MODEL 115

Products are manufactured in a plant whose quality management system has been certified to be in compliance with ISO 9001:2015 by NQA

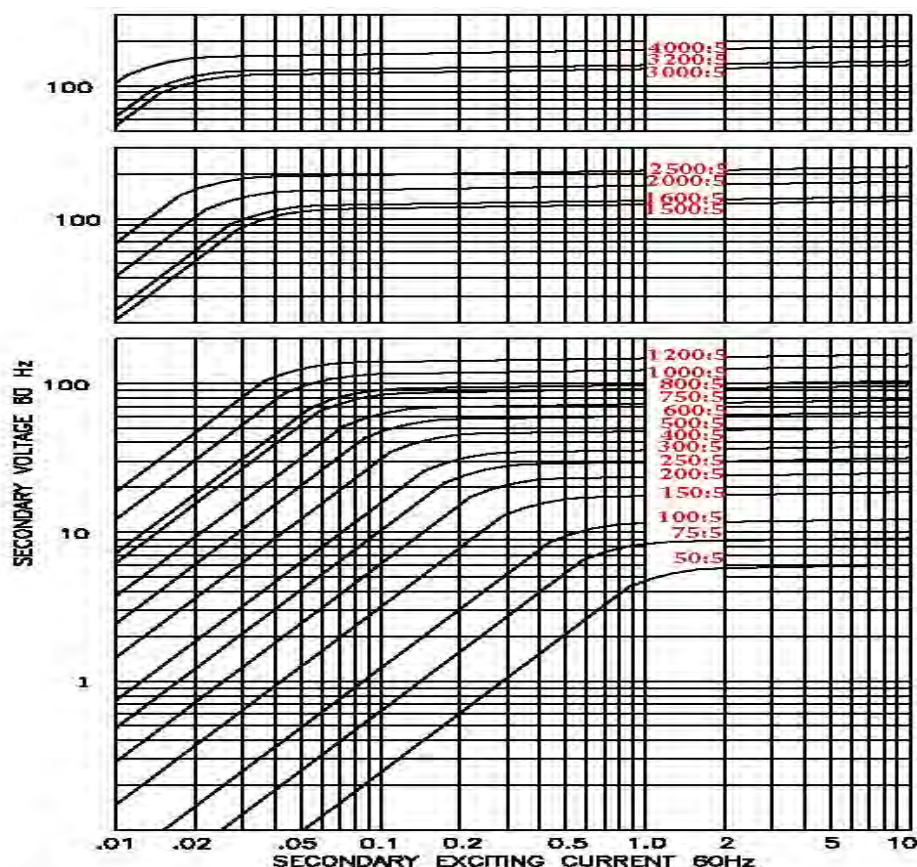
### MODEL 117

Window Diameter 4.62"

Approximate weight: 13 lbs.

CATALOG NUMBER	CURRENT RATIO	RELAY CLASS	ANSI METERING CLASS AT 60 Hz					SECONDARY WINDING RESISTANCE (OHMS @ 75° C)	CONTINUOUS THERMAL RATING FACTOR	
			BO.1	BO.2	BO.5	BO.9	B1.8		@ 30° C	@ 55° C
117 - 500	50:5	-	2.4	-	-	-	-	0.015	2.0	2.0
117 - 750	75:5	-	2.4	2.4	-	-	-	0.024	2.0	2.0
117 - 101	100:5	-	1.2	2.4	4.8	-	-	0.043	2.0	2.0
117 - 151	150:5	C10	0.6	0.6	2.4	4.8	4.8	0.069	2.0	2.0
117 - 201	200:5	C10	0.6	0.6	1.2	2.4	4.8	0.085	2.0	2.0
117 - 251	250:5	C20	0.6	0.6	0.6	1.2	2.4	0.106	2.0	2.0
117 - 301	300:5	C20	0.3	0.3	0.6	1.2	2.4	0.145	2.0	2.0
117 - 401	400:5	C20	0.3	0.3	0.3	0.6	1.2	0.184	2.0	2.0
117 - 501	500:5	C20	0.3	0.3	0.3	0.3	0.6	0.236	2.0	1.5
117 - 601	600:5	C20	0.3	0.3	0.3	0.3	0.6	0.283	2.0	1.5
117 - 751	750:5	C50	0.3	0.3	0.3	0.3	0.3	0.354	1.5	1.33
117 - 801	800:5	C50	0.3	0.3	0.3	0.3	0.3	0.425	1.5	1.33
117 - 102	1000:5	C50	0.3	0.3	0.3	0.3	0.3	0.531	1.5	1.0
117 - 122	1200:5	C100	0.3	0.3	0.3	0.3	0.3	0.637	1.33	1.0
117 - 152	1500:5	C50	0.3	0.3	0.3	0.3	0.3	0.768	1.33	1.0
117 - 162	1600:5	C50	0.3	0.3	0.3	0.3	0.3	0.819	1.0	0.8
117 - 202	2000:5	C50	0.3	0.3	0.3	0.3	0.3	1.024	1.0	0.6
117 - 252	2500:5	C100	0.3	0.3	0.3	0.3	0.3	1.279	1.0	0.6
117 - 302	3000:5	-	0.3	0.3	0.3	0.3	0.3	1.428	1.0	0.6
117 - 322	3200:5	-	0.3	0.3	0.3	0.3	0.3	1.523	1.0	0.6
117 - 402	4000:5	-	0.3	0.3	0.3	0.3	0.3	2.385	0.8	0.6

### EXCITATION CURVE



Model 117





## Current Transformer

**Model 7A**

rev 03182021

### CERTIFICATIONS:

#### APPLICATION:

Ammeters and wattmeters

#### FREQUENCY:

50-400 Hz.

#### INSULATION LEVEL:

600 Volts. 10 kV BIL. full wave

#### WINDOW DIAMETER:

2.50"

#### APPROXIMATE WEIGHT:

1.5 lbs.

#### CONNECTIONS:

- Terminals are brass studs No. 8-32 with one flat washer, lockwasher, and regular nut
- Flexible leads are UL 1015 105° C, CSA approved, #16 AWG, 24" long
- Non-standard, lead length can be specified
- Order Mounting Bracket Kit 0221B00182 separately for model 7ASHT
- Model 7ASHT and model 7ASFT also available as 7ASHL and 7ASFL with leads



Model	7ASHT	7ASFT	7ARL
Window Size	2.50	2.50	2.50
Width	4.56	4.56	4.60
Height	4.88	4.71	4.60
Depth	1.10	2.13	1.10



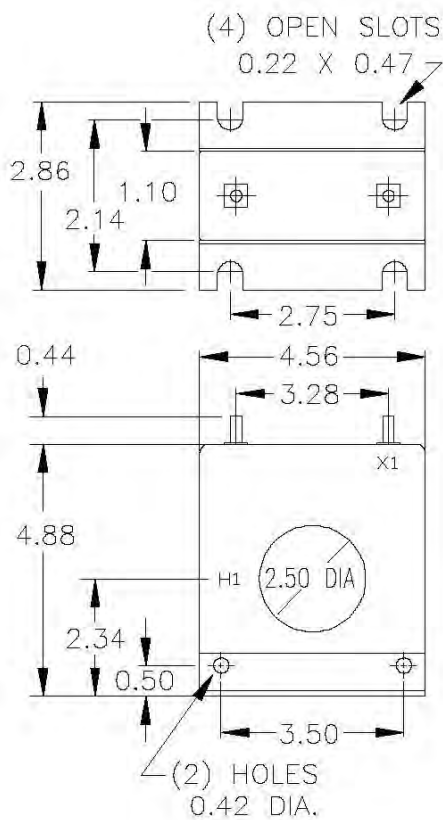
### MODEL 7A Window Diameter 2.50" Approximate weight: 1.5 lbs.

CATALOG NUMBER	CURRENT RATIO	V.A. ± 1% CLASS	ANSI METERING CLASS AT 60 HZ					SECONDARY WINDING RESISTANCE (OHMS @ 75°C)	CONTINUOUS THERMAL RATING FACTOR	
			B0.1	B0.2	B0.5	B0.9	B1.8		@ 30°C	@ 55°C
7A**--101	100:5	1.0	2.4	4.8	-	-	-	0.014	2.0	2.0
7A**--151	150:5	2.5	1.2	2.4	4.8	4.8	-	0.025	2.0	2.0
7A**--201	200:5	5.0	0.6	1.2	2.4	4.8	4.8	0.035	2.0	2.0
7A**--251	250:5	7.5	0.3	0.6	1.2	2.4	4.8	0.043	2.0	2.0
7A**--301	300:5	12.5	0.3	0.6	1.2	2.4	2.4	0.052	2.0	1.5
7A**--401	400:5	15.0	0.3	0.3	0.6	1.2	2.4	0.069	2.0	1.5
7A**--501	500:5	25.0	0.3	0.3	0.6	1.2	1.2	0.108	1.5	1.0
7A**--601	600:5	30.0	0.3	0.3	0.6	0.6	1.2	0.130	1.5	1.0
7A**--751	750:5	30.0	0.3	0.3	0.3	0.6	0.6	0.163	1.33	1.0
7A**--801	800:5	35.0	0.3	0.3	0.3	0.6	0.6	0.173	1.33	1.0
7A**--102	1000:5	35.0	0.3	0.3	0.3	0.6	0.6	0.157	1.33	1.0
7A**--122	1200:5	40.0	0.3	0.3	0.3	0.3	0.6	0.234	1.0	1.0
7A**--152	1500:5	50.0	0.3	0.3	0.3	0.3	0.6	0.292	1.0	0.8
7A**--162	1600:5	50.0	0.3	0.3	0.3	0.3	0.6	0.312	1.0	0.8

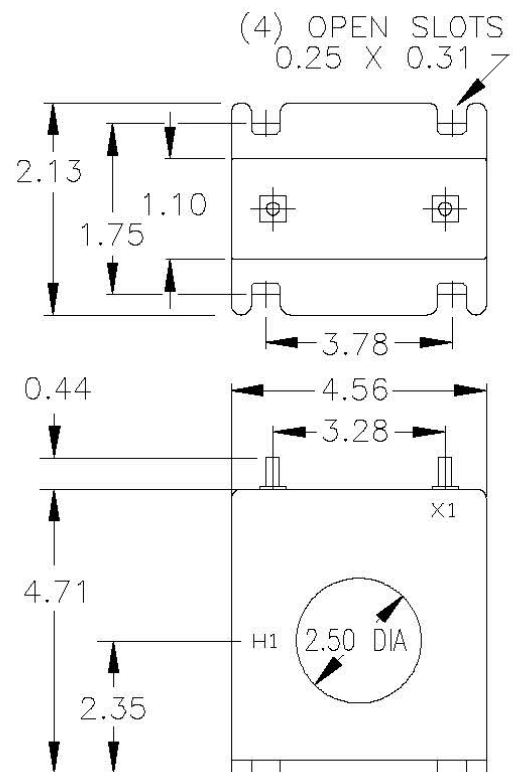
\*\*NOTE: When ordering, prefix Cat. No. with model designation required i.e. 7ASHT-201, 7ARL-301, etc.



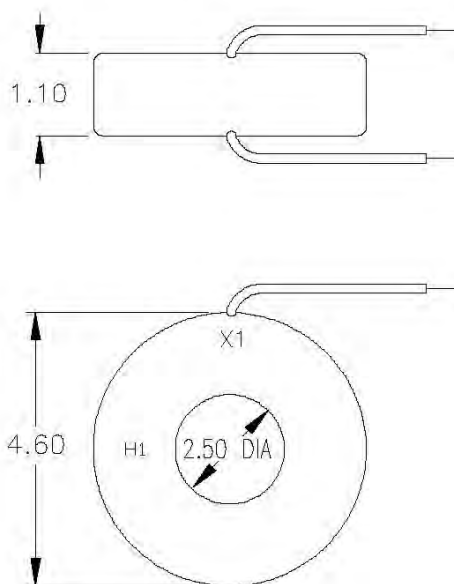
**MODEL 7ASHT**



**MODEL 7ASF**



**MODEL 7ARL**





## Current Transformer

**Model 193/194**

rev 10172019

### CERTIFICATIONS:



E228202

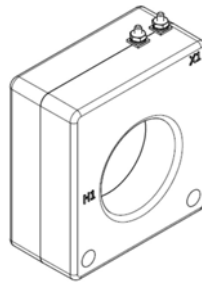


223647



ISO 9001

QUALITY  
MANAGEMENT



#### APPLICATION:

Relaying and Metering

#### FREQUENCY:

50-400 Hz.

#### INSULATION LEVEL:

600 Volts. 10 kV BIL. full wave

#### CONNECTIONS:

- Multi-ratios available upon request
- Terminals are brass studs No. 8-32 UNC with one flat washer, lockwasher, and regular nut
- Mounting kits 59-0215 (CR) and 59-0216 (CL)

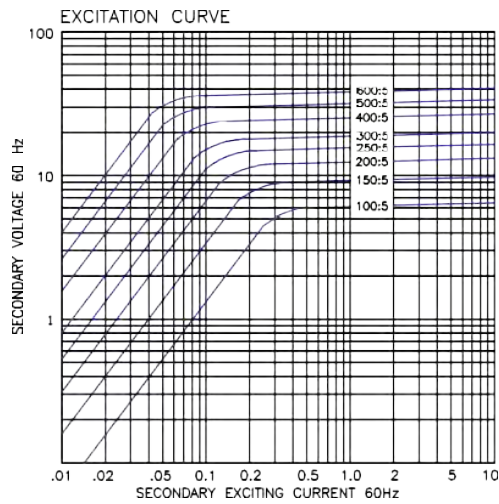
Model	193	194
Window Size	2.13	2.50
Width	4.50	4.50
Height	4.88	4.88
Depth	2.19	2.19

MODEL 193 Window Diameter 2.13" Approximate weight: 3.5 lbs.										
CATALOG NUMBER	CURRENT RATIO	RELAY CLASS	ANSI METERING CLASS AT 60 HZ					SECONDARY WINDING RESISTANCE (OHMS @ 75°C)	CONTINUOUS THERMAL RATING	
			B0.1	B0.2	B0.5	B0.9	B1.8		@ 30°C	@ 55°C
193 – 101	100:5	-	1.2	1.2	4.8	-	-	0.024	2.0	2.0
193 – 151	150:5	-	0.6	0.6	1.2	2.4	4.8	0.038	2.0	2.0
193 – 201	200:5	-	0.3	0.3	1.2	1.2	2.4	0.071	2.0	2.0
193 – 251	250:5	C10	0.3	0.3	0.6	1.2	2.4	0.072	2.0	1.5
193 – 301	300:5	C10	0.3	0.3	0.3	0.6	1.2	0.082	2.0	1.5
193 – 401	400:5	C10	0.3	0.3	0.3	0.3	0.6	0.142	1.5	1.33
193 – 501	500:5	C10	0.3	0.3	0.3	0.3	0.6	0.159	1.5	1.33
193 – 601	600:5	C10	0.3	0.3	0.3	0.3	0.6	0.191	1.5	1.0

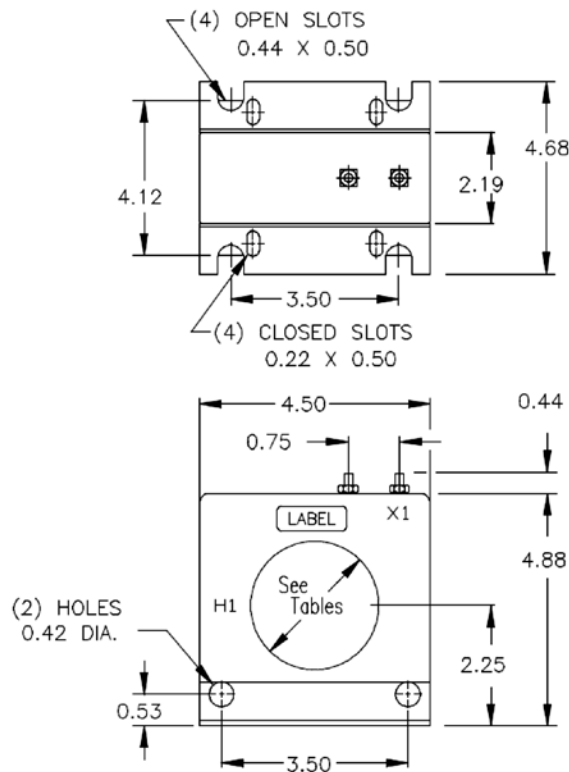
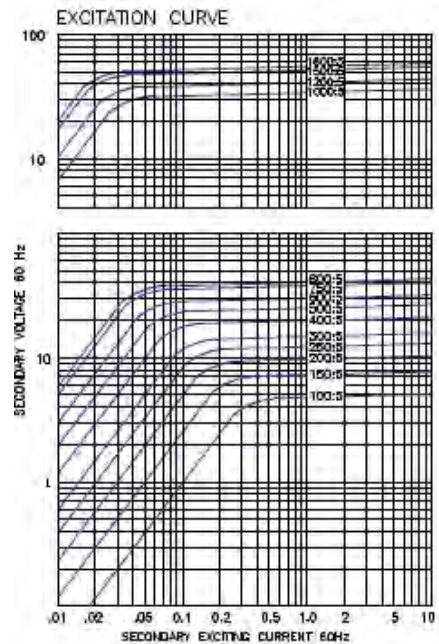
MODEL 194 Window Diameter 2.50" Approximate weight: 3.5 lbs.										
CATALOG NUMBER	CURRENT RATIO	RELAY CLASS	ANSI METERING CLASS AT 60 HZ					SECONDARY WINDING RESISTANCE (OHMS @ 75°C)	CONTINUOUS THERMAL RATING	
			B0.1	B0.2	B0.5	B0.9	B1.8		@ 30°C	@ 55°C
194 – 101	100:5	-	1.2	2.4	4.8	-	-	0.033	2	2
194 – 151	150:5	-	0.6	1.2	2.4	4.8	4.8	0.050	2	2
194 – 201	200:5	-	0.6	0.6	1.2	2.4	4.8	0.065	2	2
194 – 251	250:5	-	0.3	0.3	0.6	1.2	2.4	0.084	2	1.5
194 – 301	300:5	-	0.3	0.3	0.6	1.2	2.4	0.101	2	1.5
194 – 401	400:5	C10	0.3	0.3	0.3	0.6	1.2	0.104	2	1.5
194 – 501	500:5	C10	0.3	0.3	0.3	0.3	0.6	0.133	1.5	1
194 – 601	600:5	C10	0.3	0.3	0.3	0.3	0.6	0.180	1.5	1
194 – 751	750:5	C10	0.3	0.3	0.3	0.3	0.3	0.283	1	0.8
194 – 801	800:5	C10	0.3	0.3	0.3	0.3	0.3	0.302	1	0.8
194 – 102	1000:5	-	0.3	0.3	0.3	0.3	0.3	0.354	1	0.8
194 – 122	1200:5	-	0.3	0.3	0.3	0.3	0.3	0.425	1	0.8
194 – 152	1500:5	-	0.3	0.3	0.3	0.3	0.3	0.531	1	0.6
194 – 162	1600:5	-	0.3	0.3	0.3	0.3	0.3	0.566	0.8	0.6

Products are manufactured in a plant whose quality management system has been certified to be in compliance with ISO 9001:2015 by NQA

193



194





## Current Transformer

**Model 180**

rev 02222024

### CERTIFICATIONS:



#### APPLICATION:

Metering

#### FREQUENCY:

50-400 Hz.

#### INSULATION LEVEL:

600 Volts. 10 kV BIL. full wave

#### WINDOW DIAMETER:

2.50"

#### CONNECTIONS:

Non-standard lead length can be specified.

Mounting bracket -59-0225

Flexible leads are UL 1015 105° C ,

#16 AWG, 24" long

Terminals are brass studs No. 8-32 UNC with one flat washer, lockwasher, and regular nut

#### APPROXIMATE WEIGHT:

3 lbs.



180SHT



180RL

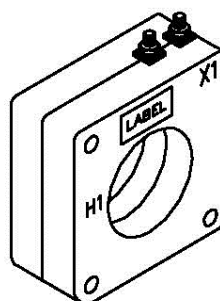
Model	180SHT	180RL
Window Size	2.50	2.50
Width	4.50	4.50
Height	4.50	4.50
Depth	2.19	2.19

### MODEL 180

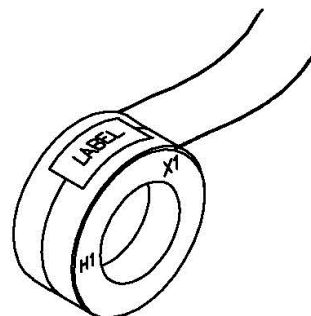
Window Diameter 2.50"

Approximate weight: 3 lbs.

CATALOG NUMBER	CURRENT RATIO	V.A. FOR ± 1% CLASS	ANSI METERING CLASS AT 60 HZ					SECONDARY WINDING RESISTANCE (OHMS @ 75°C)	CONTINUOUS THERMAL RATING FACTOR	
			B0.1	B0.2	B0.5	B0.9	B1.8		@ 30°C	@ 55°C
180 **---500	50:5	1.5	2.4	-	-	-	-	0.009	1.33	1
180 **---750	75:5	2.5	1.2	2.4	-	-	-	0.018	1.33	1
180 **---101	100:5	2.5	1.2	2.4	4.8	-	-	0.021	1.33	1
180 **---151	150:5	5	0.6	1.2	2.4	4.8	-	0.038	1.33	1
180 **---201	200:5	12.5	0.6	0.6	1.2	2.4	-	0.051	1.33	1
180 **---251	250:5	12.5	0.3	0.3	0.6	1.2	-	0.064	1.33	1
180 **---301	300:5	25	0.3	0.3	0.6	1.2	2.4	0.076	1.33	1
180 **---401	400:5	50	0.3	0.3	0.3	0.6	1.2	0.102	1.33	1
180 **---501	500:5	50	0.3	0.3	0.3	0.6	1.2	0.148	1.33	1
180 **---601	600:5	50	0.3	0.3	0.3	0.6	1.2	0.177	1.33	1
180 **---751	750:5	50	0.3	0.3	0.3	0.6	1.2	0.174	1.33	1
180 **---801	800:5	75	0.3	0.3	0.3	0.6	1.2	0.202	1.33	1
180 **---102	1000:5	100	0.3	0.3	0.3	0.3	0.6	0.253	1.33	1
180 **---122	1200:5	125	0.3	0.3	0.3	0.3	0.3	0.303	1.33	1
180 **---152	1500:5	160	0.3	0.3	0.3	0.3	0.3	0.307	1.33	1
180 **---162	1600:5	175	0.3	0.3	0.3	0.3	0.3	0.359	1.25	1
180 **---202	2000:5	200	0.3	0.3	0.3	0.3	0.3	0.449	1.00	0.75



180SHT

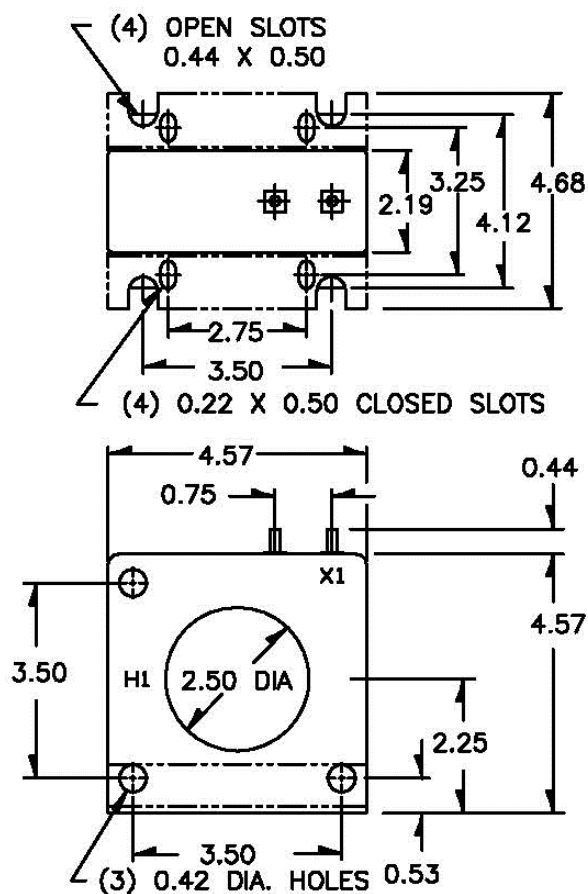


180RL

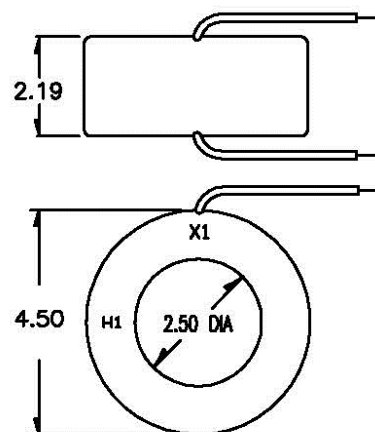
Products are manufactured in a plant whose quality management system has been certified to be in compliance with ISO 9001:2015 by NQA



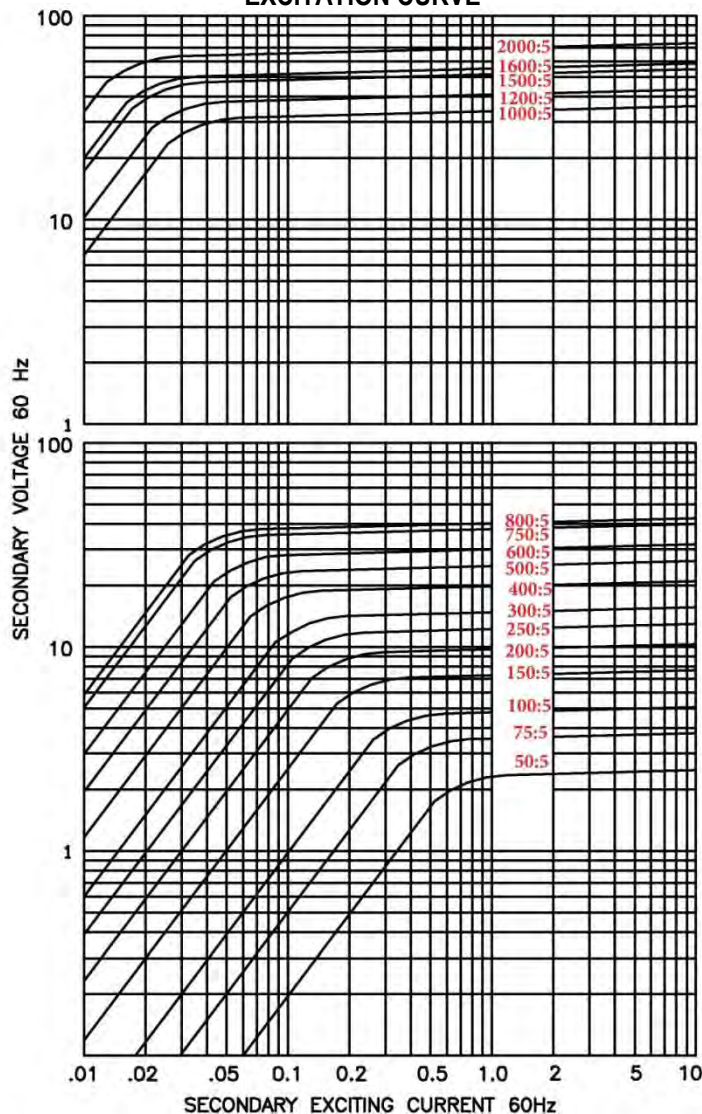
**180SHT**



**180RL**



**EXCITATION CURVE**



**Model 180**



## Current Transformer

**Model 8**

rev 03182021

### CERTIFICATIONS:



E228202



#### APPLICATION:

Metering

#### FREQUENCY:

50-400 Hz.

#### INSULATION LEVEL:

600 Volts. 10 kV BIL. full wave

#### WINDOW DIAMETER:

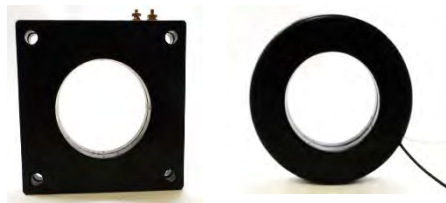
3.25"

#### APPROXIMATE WEIGHT:

2.5 lbs.

#### CONNECTIONS:

- Flexible Leads are UL 1015 105°C, CSA approved #16 AWG, 24" long
- Non-standard length to be specified
- Terminals are brass studs No. 8-32 UNC with one flat washer, lockwasher, and regular nut
- SHT case styles also available with Leads
- Order Mounting Bracket Kit E separately when required for Model 8SHT
- Mounting Kit 59-0220



8SHT

8RL

Model	8SHT	8RL
Window Size	3.25	3.25
Width	5.73	5.73
Height	5.73	5.73
Depth	1.15	1.15

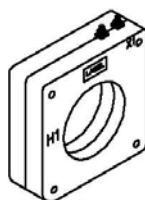
#### MODEL 8SHT and 8RL

Window Diameter 3.25"

Approximate weight: 2.5 lbs.

CATALOG NUMBER	CURRENT RATIO	VA FOR $\pm 1\%$ CLASS	ANSI METERING CLASS AT 60HZ					SECONDARY WINDING RESISTANCE (OHMS @ 75°C)	CONTINUOUS THERMAL RATING FACTOR	
			BO.1	BO.2	BO.5	BO.9	B1.8		@ 30° C	@ 55° C
8**-201	200:5	5	1.2	1.2	2.4	4.8	4.8	0.03	2	2
8**-251	250:5	7.5	0.6	0.6	1.2	2.4	4.8	0.044	2	2
8**-301	300:5	15	0.6	0.6	1.2	2.4	2.4	0.049	2	2
8**-401	400:5	25	0.3	0.3	0.6	1.2	2.4	0.079	2	1.5
8**-501	500:5	35	0.3	0.3	0.6	0.6	1.2	0.102	2	1.5
8**-601	600:5	50	0.3	0.3	0.6	0.6	1.2	0.147	1.5	1.33
8**-751	750:5	50	0.3	0.3	0.6	0.6	1.2	0.184	1.5	1
8**-801	800:5	60	0.3	0.3	0.3	0.6	0.6	0.197	1.5	1
8**-102	1000:5	75	0.3	0.3	0.3	0.6	0.6	0.246	1.33	1
8**-122	1200:5	75	0.3	0.3	0.3	0.3	0.6	0.169	1.5	1
8**-152	1500:5	90	0.3	0.3	0.3	0.3	0.6	0.316	1.33	1
8**-162	1600:5	100	0.3	0.3	0.3	0.3	0.6	0.337	1.33	0.8
8**-202	2000:5	120	0.3	0.3	0.3	0.3	-	0.422	1	0.8
8**-252	2500:5	50	0.3	0.3	0.3	0.3	-	0.438	1	0.8
8**-302	3000:5	60	0.3	0.3	0.3	0.3	-	0.526	1	0.8
8**-322	3200:5	70	0.3	0.3	0.3	0.3	-	0.561	1	0.8

Note: When ordering, Prefix Cat. No. with model designation required, i.e. 8RL-301 or 8SHT-301



8SHT



8RL



**TTL** Transformer  
Technologies Ltd.

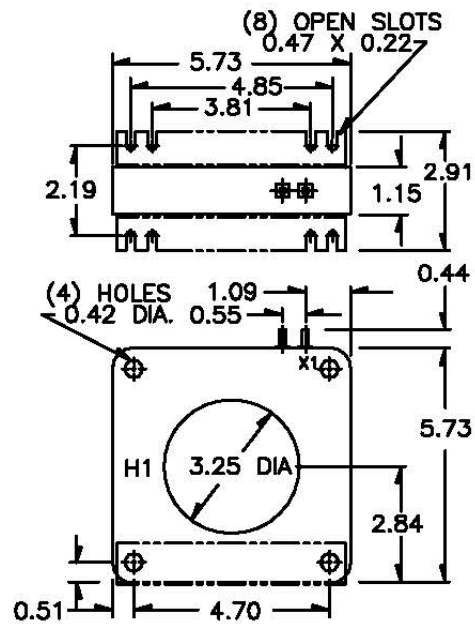


## Current Transformer

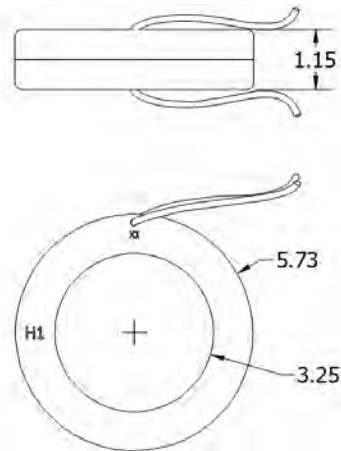
**Model 8**

rev 03182021

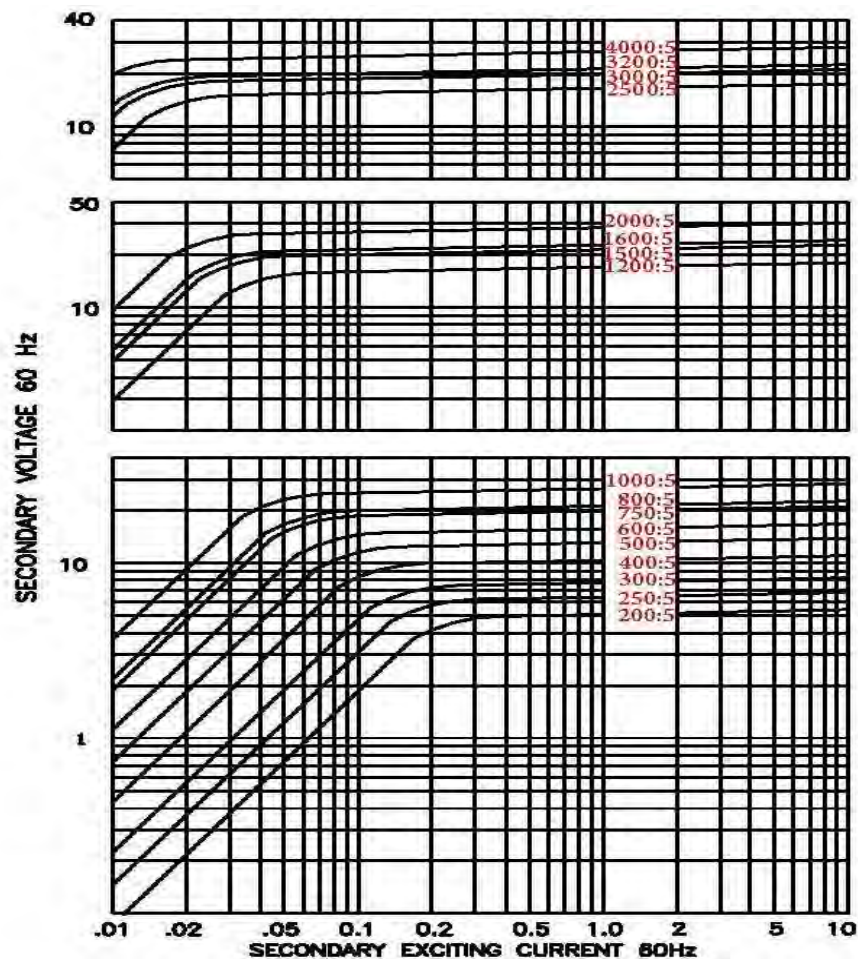
8SHT



8RL



### EXCITATION CURVE



Model 8



## Current Transformer



8SHT-0.333

Model	8SHT-0.333
Window Size	3.25
Width	5.73
Height	5.73
Depth	1.15

### MODEL 8SHT

Window Diameter 3.25"

Approximate weight: 2.5 lbs.

CATALOG NUMBER	CURRENT VOLTAGE RATIO
8SHT-201-0.333	200:0.333
8SHT-251-0.333	250:0.333
8SHT-301-0.333	300:0.333
8SHT-401-0.333	400:0.333
8SHT-501-0.333	500:0.333
8SHT-601-0.333	600:0.333
8SHT-751-0.333	750:0.333
8SHT-801-0.333	800:0.333
8SHT-102-0.333	1000:0.333
8SHT-122-0.333	1200:0.333
8SHT-152-0.333	1500:0.333
8SHT-162-0.333	1600:0.333
8SHT-202-0.333	2000:0.333
8SHT-252-0.333	2500:0.333
8SHT-302-0.333	3000:0.333
8SHT-322-0.333	3200:0.333

## Model 8SHT-0.333

### CERTIFICATIONS:



#### APPLICATION:

Metering

#### FREQUENCY:

50-400 Hz.

#### INSULATION LEVEL:

600 Volts. 10 kV BIL. full wave

#### WINDOW DIAMETER:

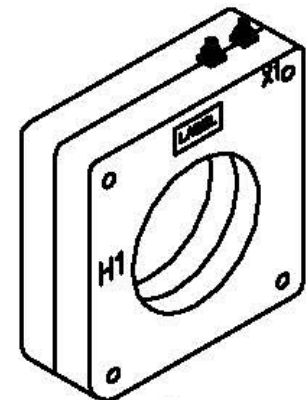
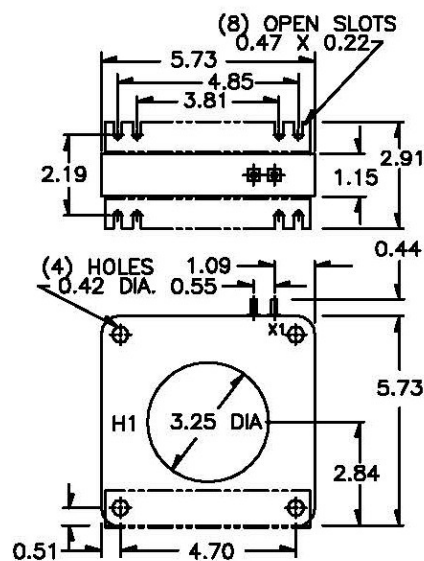
3.25"

#### APPROXIMATE WEIGHT:

2.5 lbs.

#### CONNECTIONS:

- Flexible Leads are UL 1015 105°C, CSA approved #16 AWG, 24" long
- Non-standard length to be specified
- Terminals are brass studs No. 8-32 UNC with one flat washer, lockwasher, and regular nut
- Mounting kit 59-0220



8SHT-0.333

Products are manufactured in a plant whose quality management system has been certified to be in compliance with ISO 9001:2015 by NQA





## Current Transformer

**Model 100**

rev 011218

### CERTIFICATIONS:



#### APPLICATION:

Relaying and Metering

#### FREQUENCY:

50-400 Hz.

#### INSULATION LEVEL:

600 Volts. 10 kV BIL. full wave

#### WINDOW DIAMETER:

4.0"

#### APPROXIMATE WEIGHT:

6.5 lbs.

#### CONNECTIONS:

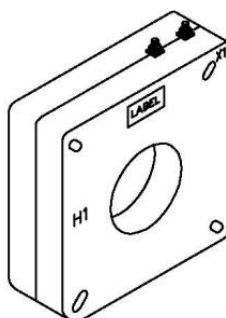
- Terminals are brass studs No. 8-32 UNC with one flat washer, lockwasher, and regular nut
- Multi-ratios available upon request
- Mounting Kit – 59-0215 (CR) and 59-0216 (CL)



Model	100
Window Size	4.00
Width	7.00
Height	7.00
Depth	2.17

**MODEL 100**  
Window Diameter 4.0"  
Approximate weight: 9.5 lbs.

CATALOG NUMBER	CURRENT RATIO	RELAY CLASS	ANSI METERING CLASS AT 60 HZ					SECONDARY WINDING RESISTANCE (OHMS @ 75° C)	CONTINUOUS THERMAL RATING FACTOR	
			B0.1	B0.2	B0.5	B0.9	B1.8		@ 30°C	@ 55°C
100 – 201	200:5	C10	0.6	0.6	1.2	2.4	-	0.057	2	2
100 – 301	300:5	C10	0.3	0.3	0.6	1.2	-	0.091	2	2
100 – 401	400:5	C20	0.3	0.3	0.6	0.6	1.2	0.133	2	2
100 – 501	500:5	C20	0.3	0.3	0.6	0.6	1.2	0.166	2	1.5
100 – 601	600:5	C20	0.3	0.3	0.3	0.6	0.6	0.199	2	1.5
100 – 801	800:5	C20	0.3	0.3	0.3	0.3	0.6	0.266	1.5	1.33
100 – 102	1000:5	C50	0.3	0.3	0.3	0.3	0.3	0.332	1.5	1
100 – 122	1200:5	C20	0.3	0.3	0.3	0.3	0.3	0.374	1.5	1
100 – 152	1500:5	C20	0.3	0.3	0.3	0.3	0.3	0.468	1.33	1
100 – 162	1600:5	C50	0.3	0.3	0.3	0.3	0.3	0.499	1.33	1
100 – 202	2000:5	C50	0.3	0.3	0.3	0.3	0.3	0.624	1	0.8
100 – 252	2500:5	C50	0.3	0.3	0.3	0.3	0.3	0.735	1	0.8
100 – 302	3000:5	C50	0.3	0.3	0.3	0.3	0.3	0.882	1	0.8



Products are manufactured in a plant whose quality management system has been certified to be in compliance with ISO 9001:2015 by NQA





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Technologies Ltd.

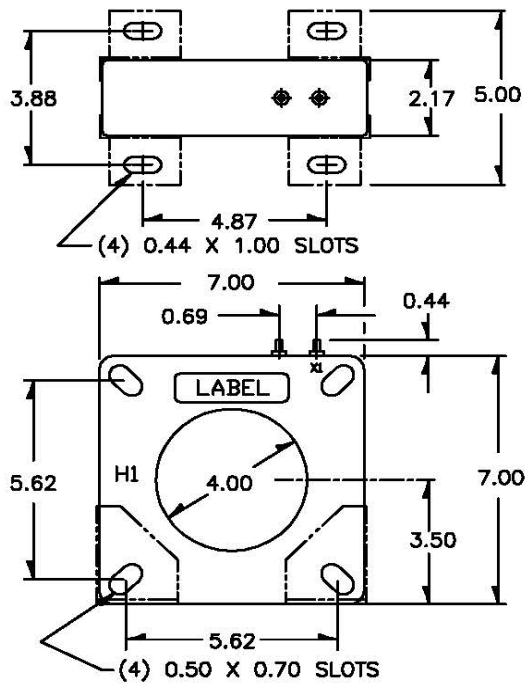


## Current Transformer

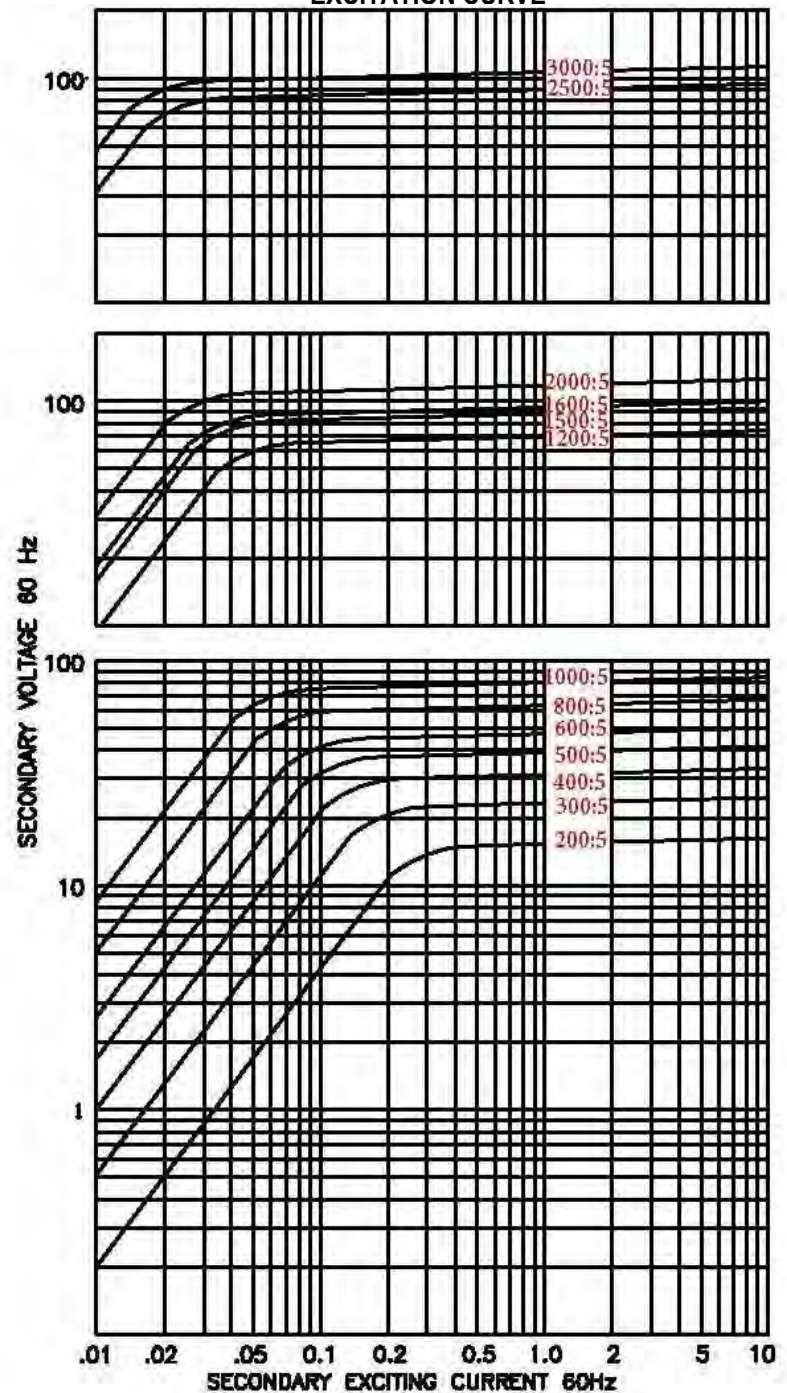
**Model 100**

rev 011218

Model 100



EXCITATION CURVE



Model 100



## Current Transformer

**Model 110**

rev 011218

### CERTIFICATIONS:



E228202



223647



ISO 9001

QUALITY  
MANAGEMENT



Model	110
Window Size	4.00
Width	7.00
Height	7.00
Depth	2.88

#### APPLICATION:

Relaying and Metering

#### FREQUENCY:

50-400 Hz.

#### INSULATION LEVEL:

600 Volts. 10 kV BIL. full

#### WINDOW DIAMETER:

4.0"

#### APPROXIMATE WEIGHT:

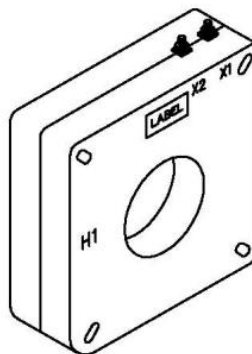
10 lbs.

#### CONNECTIONS:

- Terminals are brass studs No. 8-32 UNC with one flat washer, lockwasher and regular nut
- Mounting Bracket's 59-0215 (CR) and 59-0216 (CL)

**MODEL 110**  
**Window Diameter 4.0"**  
Approximate weight: 13 lbs.

CATALOG NUMBER	CURRENT RATIO	RELAY CLASS	ANSI METERING CLASS AT 60 HZ					SECONDARY WINDING RESISTANCE (OHMS @ 75° C)	CONTINUOUS THERMAL RATING FACTOR	
			B0.1	B0.2	B0.5	B0.9	B1.8		@ 30°C	@ 55°C
110 - 201	200:5	C10	0.6	1.2	1.2	2.4	-	0.085	2	2
110 - 301	300:5	C20	0.3	0.6	0.6	1.2	2.4	0.128	2	2
110 - 401	400:5	C20	0.3	0.3	0.3	0.6	1.2	0.152	2	2
110 - 501	500:5	C20	0.3	0.3	0.3	0.6	0.6	0.214	2	1.5
110 - 601	600:5	C50	0.3	0.3	0.3	0.3	0.6	0.256	2	1.5
110 - 801	800:5	C50	0.3	0.3	0.3	0.3	0.3	0.342	1.5	1.33
110 - 102	1000:5	C100	0.3	0.3	0.3	0.3	0.3	0.427	1.5	1
110 - 122	1200:5	C50	0.3	0.3	0.3	0.3	0.3	0.489	1.5	1
110 - 152	1500:5	C100	0.3	0.3	0.3	0.3	0.3	0.611	1.33	1
110 - 162	1600:5	C100	0.3	0.3	0.3	0.3	0.3	0.652	1	1
110 - 202	2000:5	C100	0.3	0.3	0.3	0.3	0.3	0.815	1	0.8
110 - 252	2500:5	C100	0.3	0.3	0.3	0.3	0.3	0.974	1	0.8
110 - 302	3000:5	C100	0.3	0.3	0.3	0.3	0.3	1.168	1	0.6





**TTL** Transformer  
Technologies Ltd.

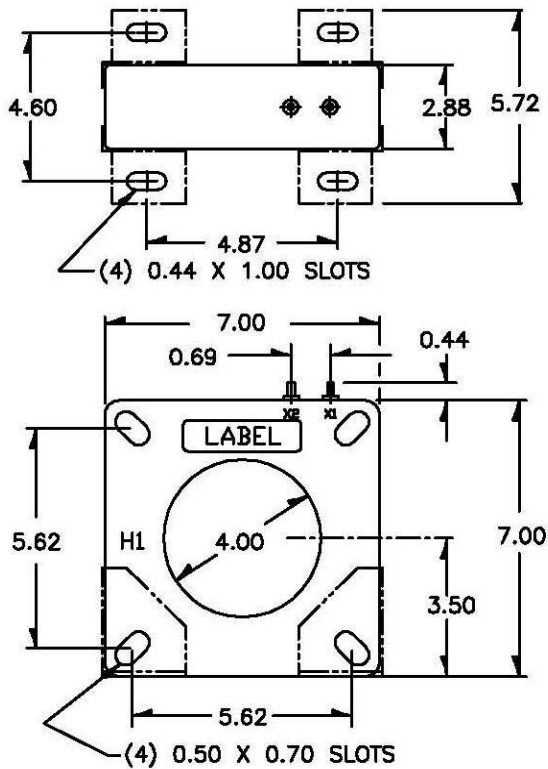


## Current Transformer

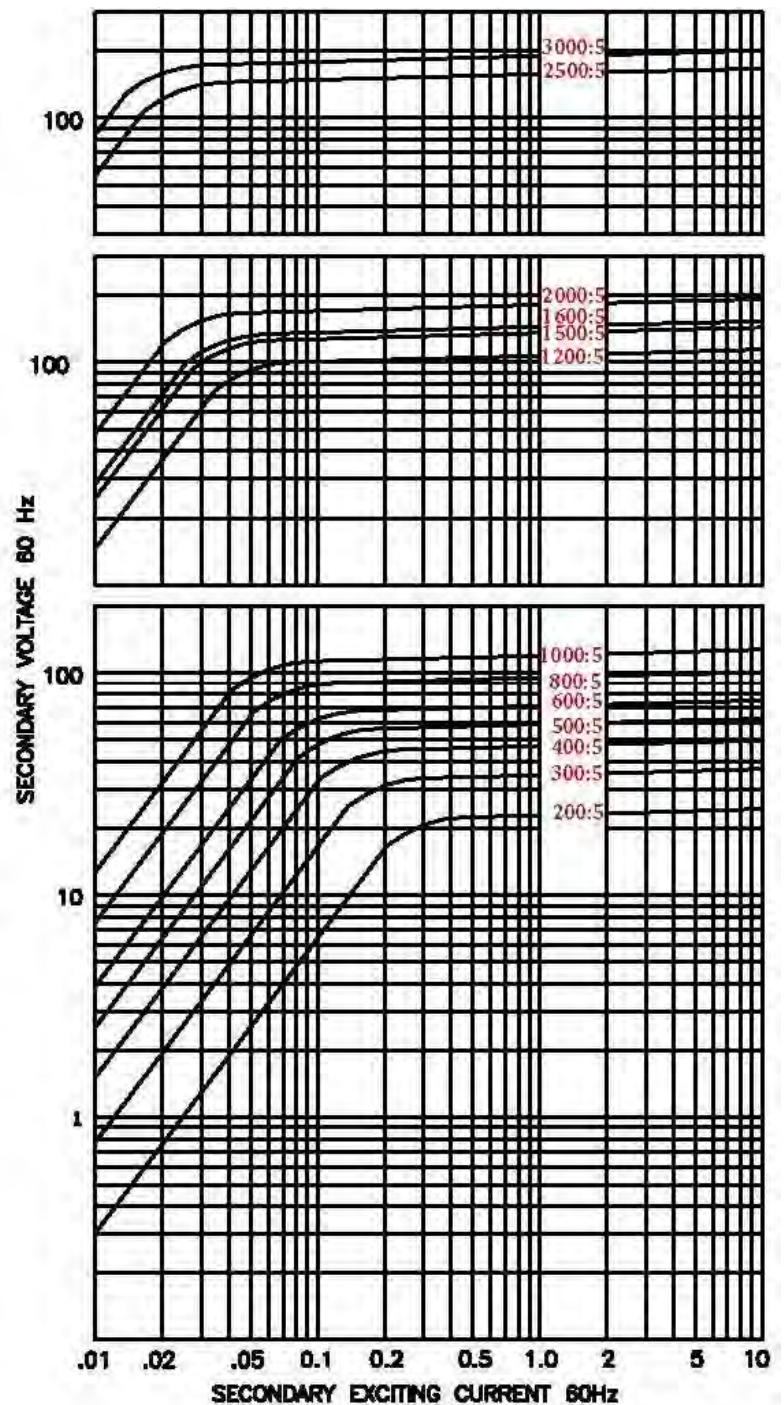
**Model 110**

rev 011218

Model 110



EXCITATION CURVE



Model 110



## Current Transformer

**Model 115MR**

### APPLICATION:

Relaying

### FREQUENCY:

50-400 Hz.

### INSULATION LEVEL:

600 Volts. 10 kV BIL. full wave

### WINDOW DIAMETER:

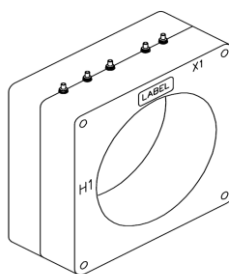
4.0"

### APPROXIMATE WEIGHT:

19 lbs.

### CONNECTIONS:

- Terminals are brass studs No. 8-32 UNC with one flat washer, lockwasher, and regular nut
- The transformer winding is arranged so that the turns are fully distributed between all taps



Model	115MR
Window Size	4.00
Width	7.00
Height	7.12
Depth	4.00

### CERTIFICATIONS:



E228202

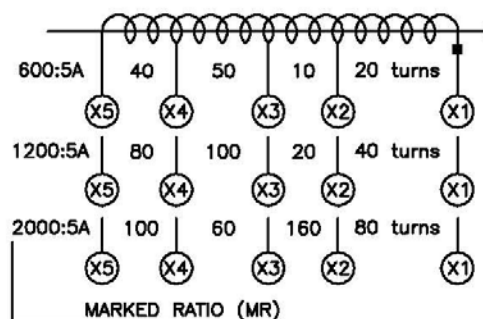
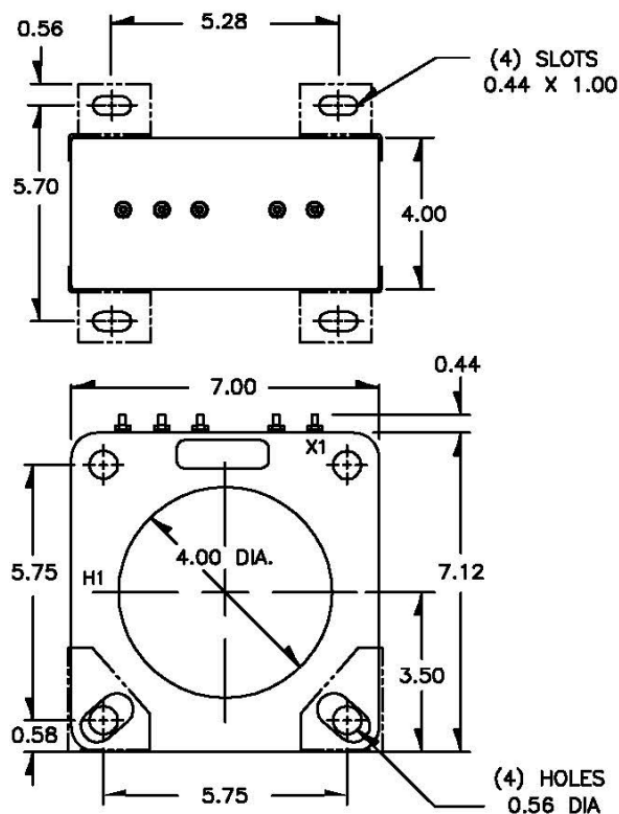


ISO 9001

QUALITY  
MANAGEMENT

**MODEL 115MR**  
Window Diameter 4.0"  
Approximate weight: 19 lbs.

Catalog Number	Relay Class	Continuous Thermal	
		@ 30°C	@ 50°C
115-601MR	C50	2.0	1.5
115-122MR	C100	1.33	1.0
115-202MR	C200	1.0	0.8







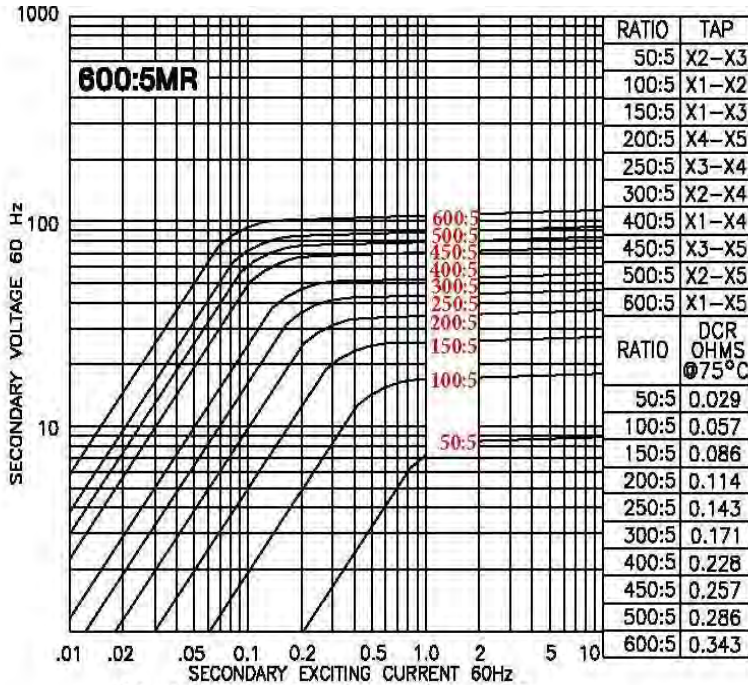
**TTL** Transformer  
Technologies Ltd.



## Current Transformer

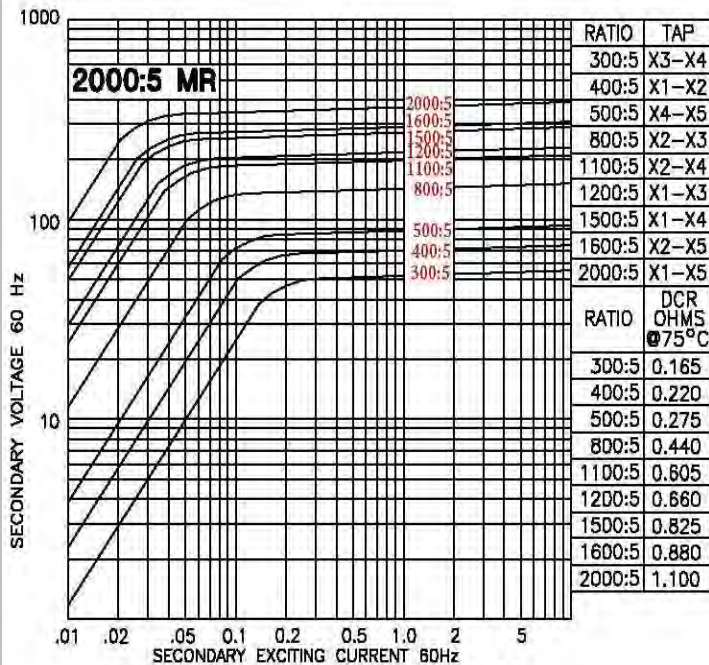
**Model 115MR**

### EXCITATION CURVE



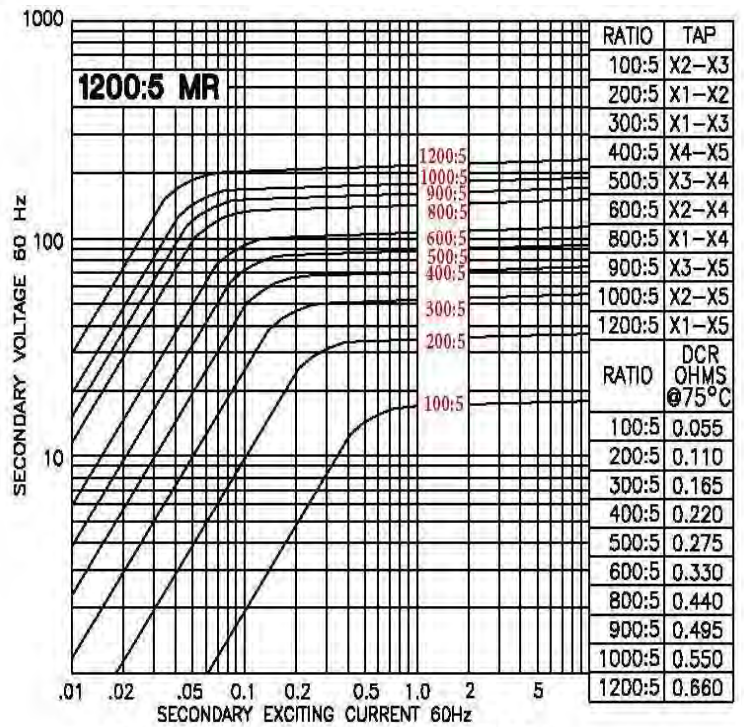
**Model 115-601MR - rating C50**

TRF= 2.00 @ 30°C, 1.5 @ 55°C amb.



**Model 115-202MR - rating C200**

TRF= 1.00 @ 30°C, 0.8 @ 55°C amb.



**Model 115-122MR - rating C100**

TRF= 1.33 @ 30°C, 1.0 @ 55°C amb.





## Current Transformer

**Model 19**

rev 012821

### CERTIFICATIONS:

#### APPLICATION:

Metering

#### FREQUENCY:

50-400 Hz.

#### INSULATION LEVEL:

600 Volts. 10 kV BIL. full wave

#### WINDOW DIAMETER:

4.25"

#### APPROXIMATE WEIGHT:

1.5 lbs.

#### CONNECTIONS:

- Flexible Leads are UL 1015 105°C, CSA approved #15AWG, 24" long
- Non-standard length to be specified
- SHT Terminals are brass studs No. 8-32 UNC with one flat washer, lockwasher, and regular nut



19SHT



19RL

Model	19SHT	19RL
Window Size	4.25	4.25
Width	5.92	5.92
Height	6.17	5.92
Depth	1.15	1.14



### MODEL 19SHT and 19RL

Window Diameter 4.25"

Approximate weight: 3 lbs.

CATALOG NUMBER	CURRENT RATIO	V.A. FOR $\pm 1\%$ CLASS	ANSI METERING CLASS AT 60 HZ					SECONDARY WINDING RESISTANCE (OHMS @ 75° C)	CONTINUOUS THERMAL RATING FACTOR	
			B0.1	B0.2	B0.5	B0.9	B1.8		@ 30°C	@ 55°C
19**-301	300:5	4	0.6	1.2	2.4	-	-	0.048	2	2
19**-401	400:5	10	0.3	0.6	1.2	-	-	0.064	2	2
19**-501	500:5	15	0.3	0.6	1.2	-	-	0.087	2	1.5
19**-601	600:5	15	0.3	0.3	0.6	1.2	-	0.116	2	1.5
19**-751	750:5	25	0.3	0.3	0.6	0.6	-	0.145	1.5	1.33
19**-801	800:5	30	0.3	0.3	0.6	0.6	-	0.155	1.5	1.33
19**-102	1000:5	30	0.3	0.3	0.6	0.6	-	0.242	1.33	1
19**-122	1200:5	40	0.3	0.3	0.3	0.6	-	0.291	1.33	1
19**-152	1500:5	15	0.3	0.3	0.6	1.2	-	0.200	1.5	1
19**-162	1600:5	15	0.3	0.3	0.3	0.6	-	0.213	1.5	1
19**-202	2000:5	20	0.3	0.3	0.3	0.6	-	0.266	1.33	1
19**-252	2500:5	20	0.3	0.3	0.3	0.3	-	0.333	1	0.8
19**-302	3000:5	25	0.3	0.3	0.3	0.3	-	0.399	1	0.8

Note: When ordering, prefix catalog number with model designation required., i.e. 19RL-301, or 19SHT-301 etc.



19SHT



19RL

Products are manufactured in a plant whose quality management system has been certified to be in compliance with ISO 9001:2015 by NQA



**TTL** Transformer  
Technologies Ltd.

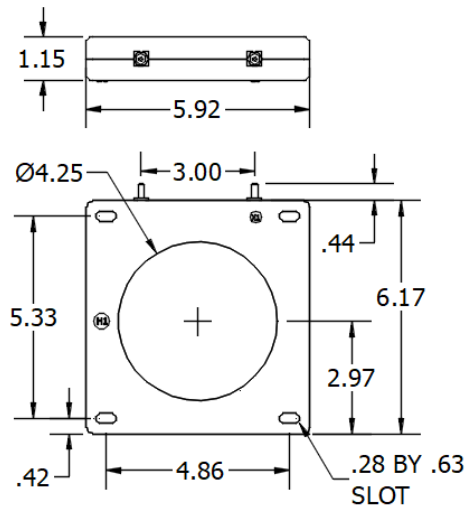


## Current Transformer

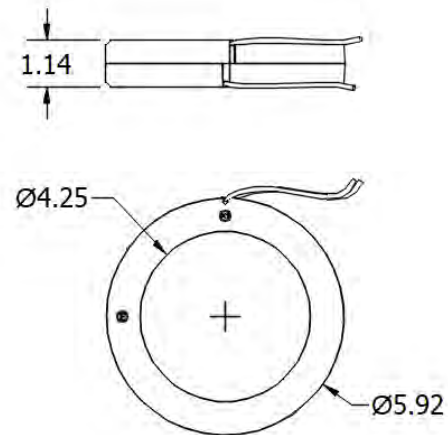
**Model 19**

rev 012821

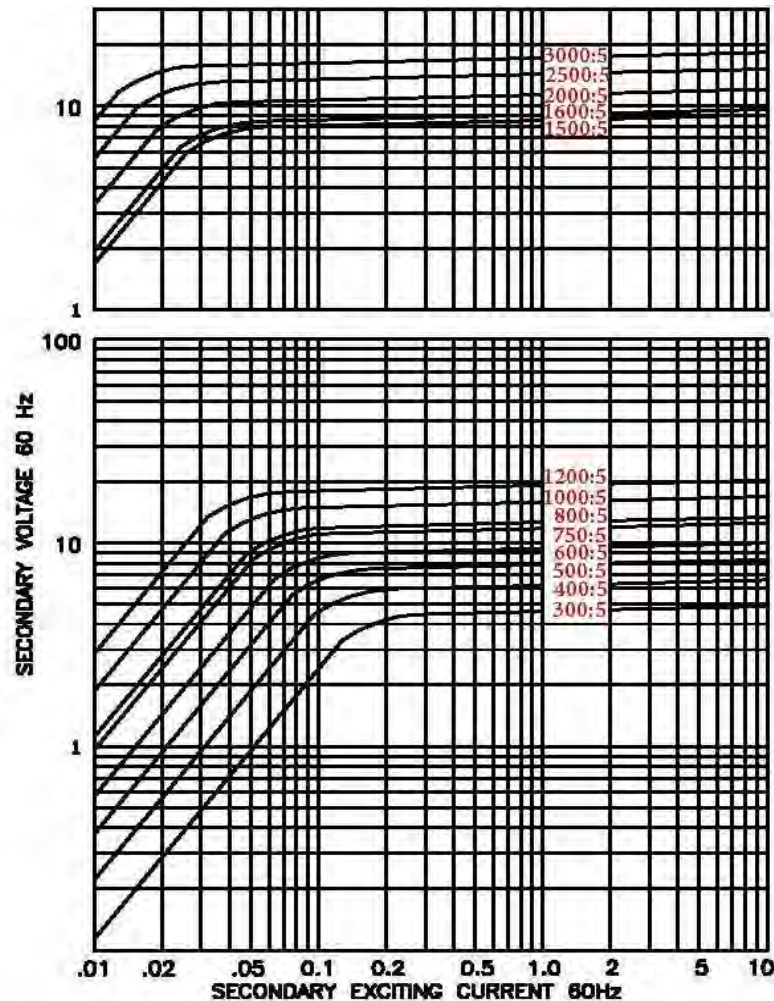
**19 SHT**



**19RL**



**EXCITATION CURVE**





## Current Transformer

**Model 170**

rev 03182021

### CERTIFICATIONS:



170SHT

170RL

#### APPLICATION:

Metering

#### FREQUENCY:

50-400 Hz.

#### INSULATION LEVEL:

600 Volts. 10 kV BIL. full wave

#### WINDOW DIAMETER:

4.25"

#### APPROXIMATE WEIGHT:

3 lbs.

#### CONNECTIONS:

-Flexible leads are UL 1015 105° C CSA approved, #16 AWG, 24" long

-Terminals are brass studs No. 8-32 UNC with one flat washer, lockwasher, and regular nut

-Also available as 170SHL with leads

Mounting kit – 59-0221

Model	170SHT	170RL
Window Size	4.25	4.25
Width	6.73	6.73
Height	6.73	6.73
Depth	1.28	1.25

### MODEL 170

Window Diameter 4.25"

Approximate weight: 3 lbs.

CATALOG NUMBER	CURRENT RATIO	V.A. FOR ± 1% CLASS	ANSI METERING CLASS AT 60 HZ					SECONDARY WINDING RESISTANCE (OHMS @ 75°C)	CONTINUOUS THERMAL RATING FACTOR	
			B0.1	B0.2	B0.5	B0.9	B1.8		@ 30°C	@ 55°C
170 **---201	200:5	5	0.6	1.2	2.4	-	-	0.040	2	2
170 **---251	250:5	5	0.6	0.6	1.2	2.4	-	0.047	2	2
170 **---301	300:5	12.5	0.6	0.6	1.2	2.4	-	0.053	2	2
170 **---401	400:5	25	0.3	0.3	0.6	1.2	2.4	0.080	2	2
170 **---501	500:5	25	0.3	0.3	0.6	1.2	1.2	0.110	2	1.5
170 **---601	600:5	25	0.3	0.3	0.6	0.6	1.2	0.121	2	1.5
170 **---751	750:5	40	0.3	0.3	0.3	0.6	0.6	0.151	2	1.5
170 **---801	800:5	50	0.3	0.3	0.3	0.6	0.6	0.162	2	1.5
170 **---102	1000:5	75	0.3	0.3	0.3	0.6	0.6	0.265	1.33	1
170 **---122	1200:5	100	0.3	0.3	0.3	0.3	0.6	0.318	1.33	1
170 **---152	1500:5	80	0.3	0.3	0.3	0.3	0.6	0.344	1.33	1
170 **---162	1600:5	90	0.3	0.3	0.3	0.3	0.6	0.367	1.33	1
170 **---202	2000:5	100	0.3	0.3	0.3	0.3	0.3	0.459	1	0.8
170 **---252	2500:5	130	0.3	0.3	0.3	0.3	0.3	0.573	1	0.8
170 **---302	3000:5	160	0.3	0.3	0.3	0.3	0.3	0.424	1	1
170 **---352	3500:5	190	0.3	0.3	0.3	0.3	0.3	0.495	1	0.8
170 **---402	4000:5	200	0.3	0.3	0.3	0.3	0.3	0.646	1	0.8

**Note:** When ordering, prefix \*\* catalog # with model designation required, i.e. 170SHT-201, or 170RL-301



**TTL** Transformer  
Technologies Ltd.

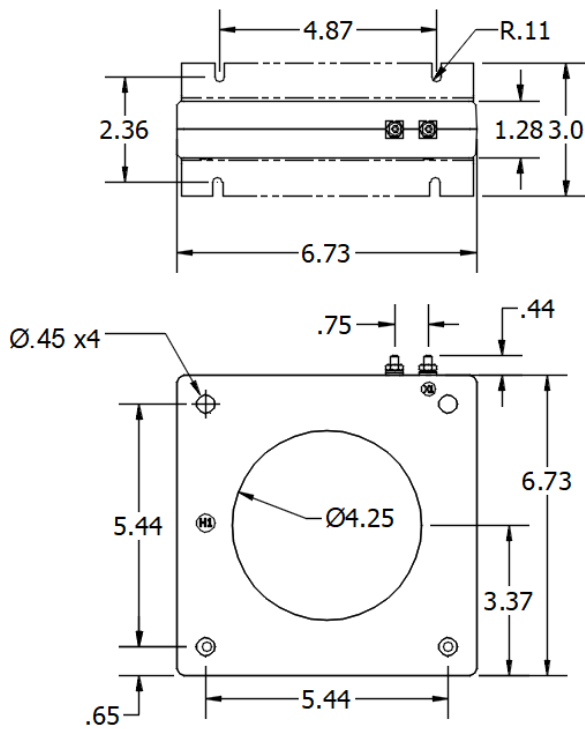


## Current Transformer

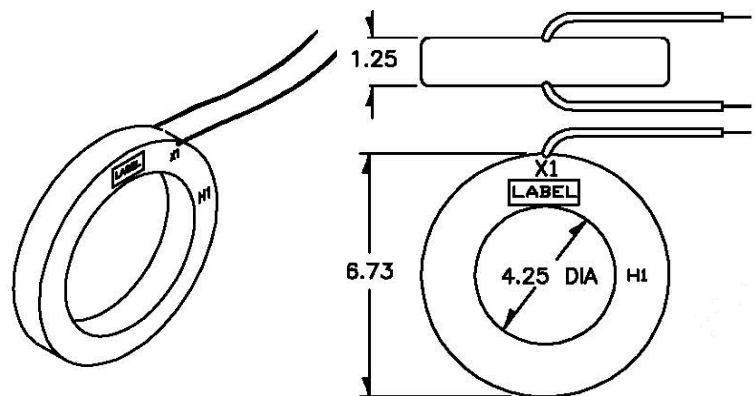
**Model 170**

rev 03182021

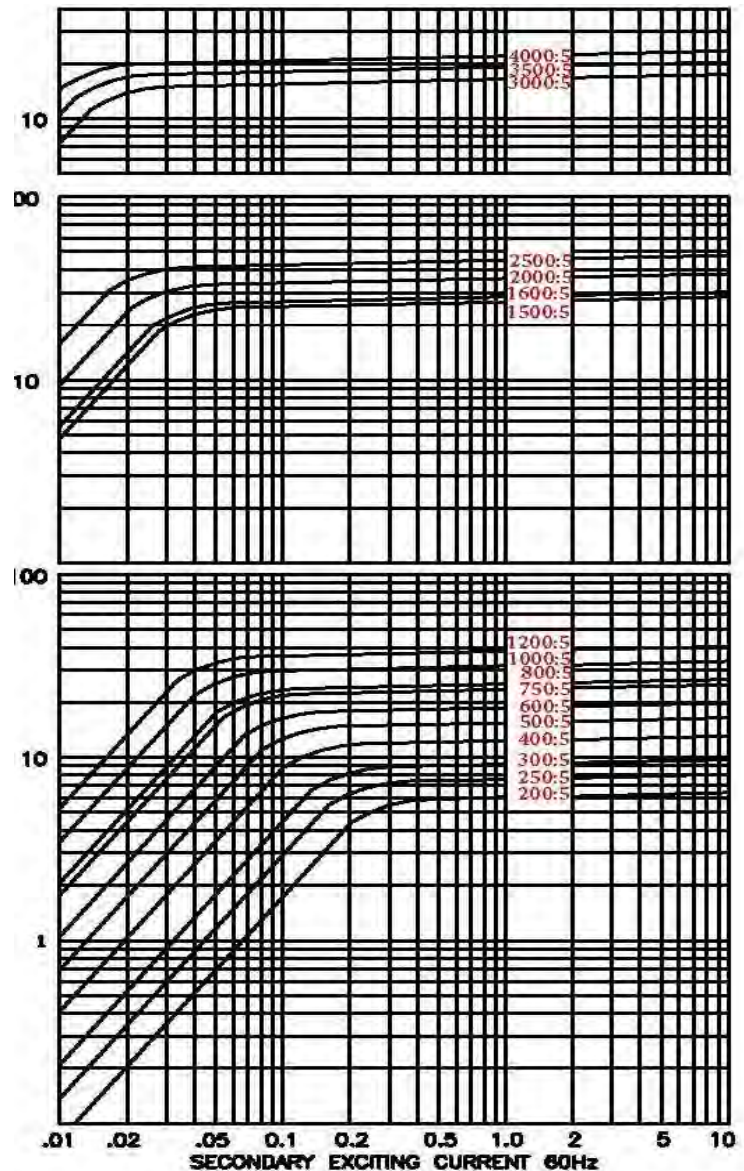
**170SHT**



**170RL**



**EXCITATION CURVE**







## Current Transformer

**Model 170SHT-0.333**  
rev 03182021

### CERTIFICATIONS:



#### APPLICATION:

Metering

#### FREQUENCY:

50-400 Hz.

#### INSULATION LEVEL:

600 Volts. 10 kV BIL. full wave

#### WINDOW DIAMETER:

4.25"

#### APPROXIMATE WEIGHT:

3 lbs.

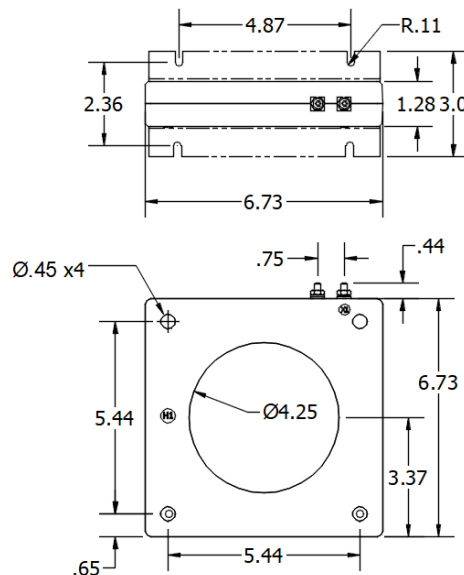
#### CONNECTIONS:

- Flexible leads are UL 1015 105° C CSA approved, #16 AWG, 24" long
- Terminals are brass studs No. 8-32 UNC with one flat washer, lockwasher, and regular nut
- Mounting kit – 59-0221

Model	170SHT
Window Size	4.25
Width	6.73
Height	6.73
Depth	1.28

**MODEL 170SHT**  
**Window Diameter 4.25"**  
**Approximate weight: 3 lbs.**

CATALOG NUMBER	CURRENT VOLTAGE RATIO
170SHT-201-0.333	200:0.333
170SHT-251-0.333	250:0.333
170SHT-301-0.333	300:0.333
170SHT-401-0.333	400:0.333
170SHT-501-0.333	500:0.333
170SHT-601-0.333	600:0.333
170SHT-751-0.333	750:0.333
170SHT-801-0.333	800:0.333
170SHT-102-0.333	1000:0.333
170SHT-122-0.333	1200:0.333
170SHT-152-0.333	1500:0.333
170SHT-162-0.333	1600:0.333
170SHT-202-0.333	2000:0.333
170SHT-252-0.333	2500:0.333
170SHT-302-0.333	3000:0.333
170SHT-352-0.333	3500:0.333
170SHT-402-0.333	4000:0.333



Products are manufactured in a plant whose quality management system has been certified to be in compliance with ISO 9001:2015 by NQA





**TTL** Transformer  
Technologies Ltd.



## Current Transformer

**Model 117MR**

### APPLICATION:

Relaying

### FREQUENCY:

50-400 Hz.

### INSULATION LEVEL:

600 Volts. 10 kV BIL. full wave

### WINDOW DIAMETER:

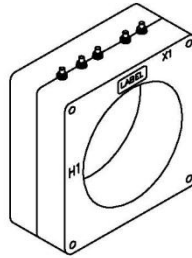
4.62"

### APPROXIMATE WEIGHT:

13 lbs.

### CONNECTIONS:

- Terminals are brass studs No. 8-32 UNC with one flat washer, lockwasher, and regular nut
- The transformer winding is arranged so that the turns are fully distributed between all taps



Model	117MR
Window Size	4.62
Width	7.00
Height	7.12
Depth	4.00

### CERTIFICATIONS:



E228202



223647



ISO 9001

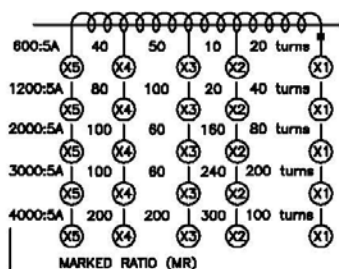
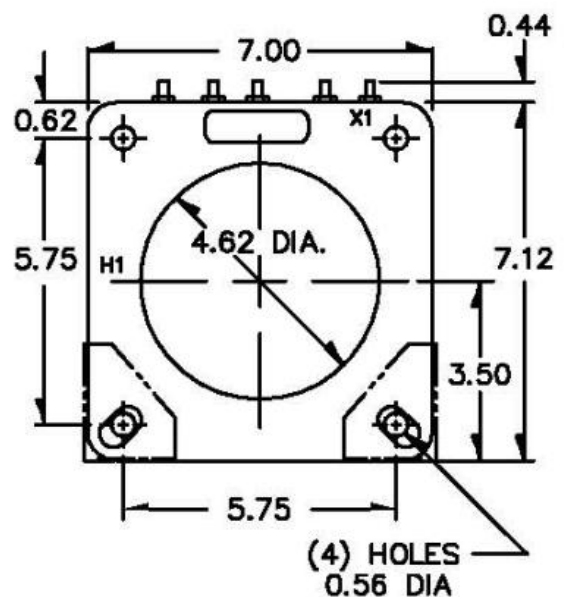
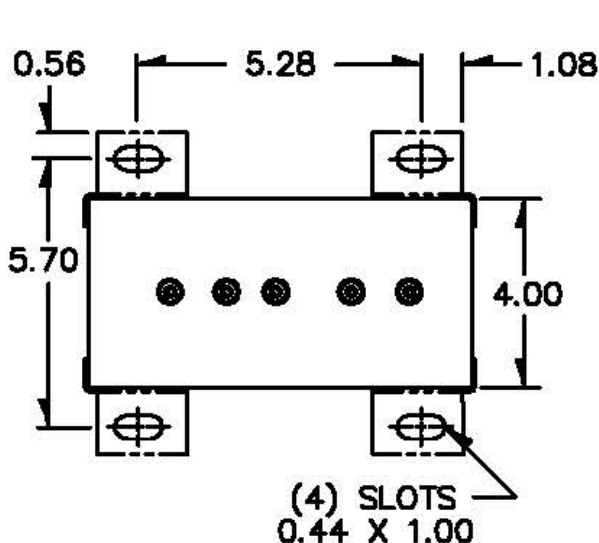
QUALITY  
MANAGEMENT

### MODEL 117MR

Window Diameter 4.62"

Approximate weight: 13 lbs.

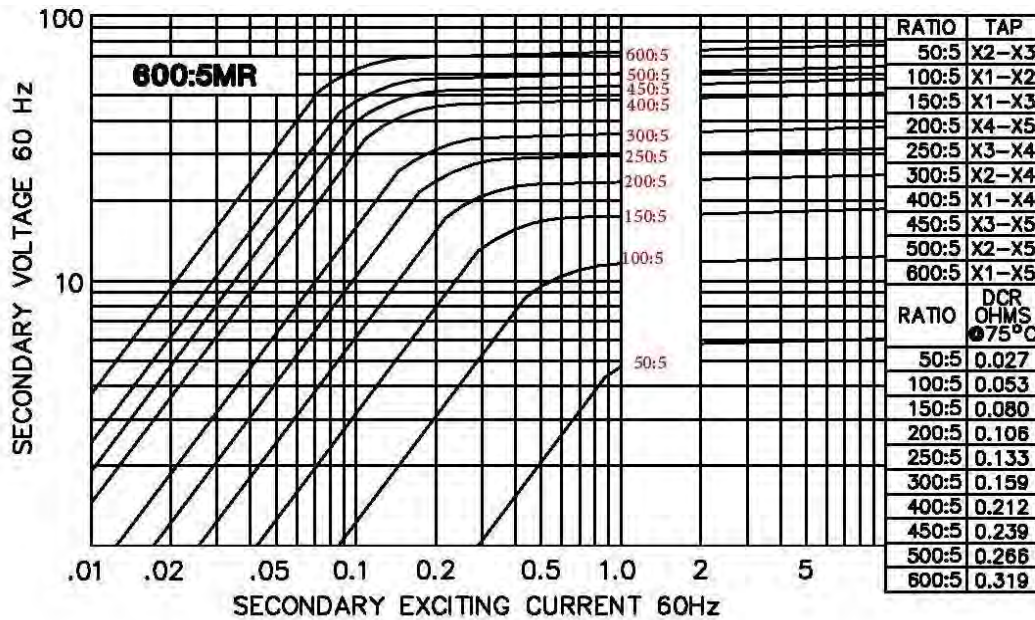
Catalog Number	Relay Class	Continuous Thermal	
		@ 30°C	@ 50°C
117-601MR	C20	2.0	1.5
117-122MR	C100	1.33	1.0
117-202MR	C50	1.0	0.6



Products are manufactured in a plant whose quality management system has been certified to be in compliance with ISO 9001:2015 by NQA

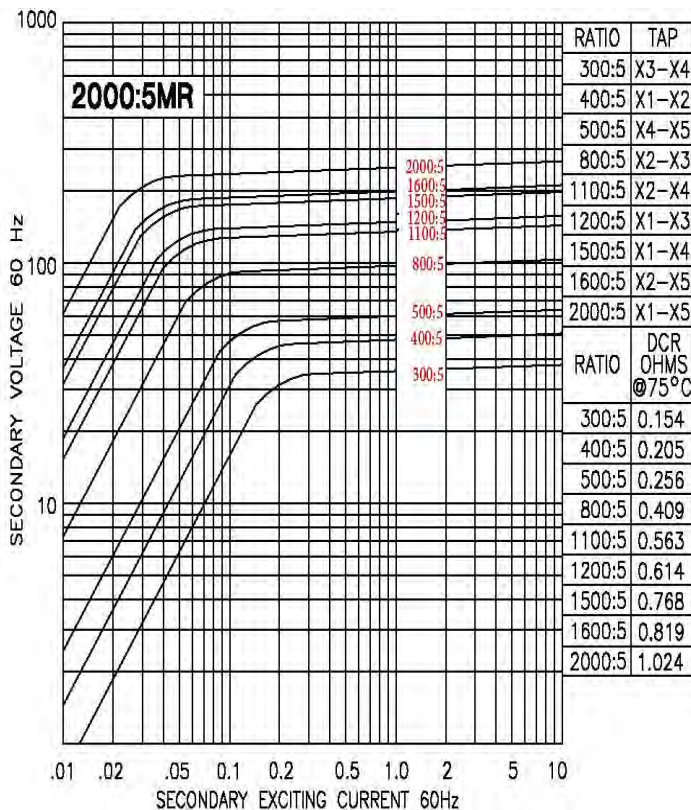


### EXCITATION CURVE



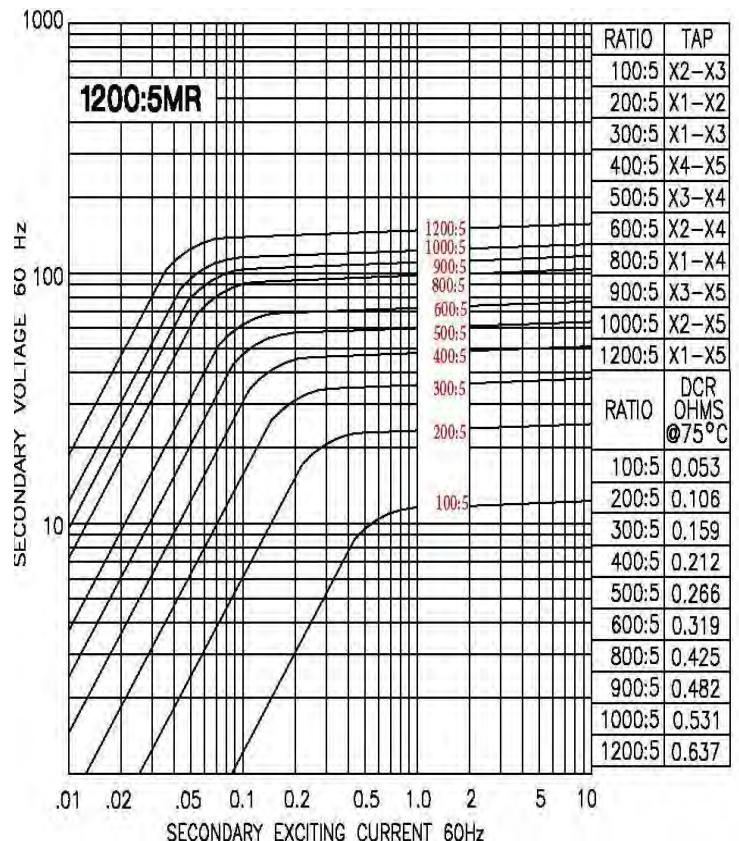
**Model 117-601MR - rating C20**

TRF= 2.0 @ 30°C, 1.5 @ 55°C amb.



**Model 117-202MR - rating C50**

TRF= 1.00 @ 30°C, 0.6 @ 55°C amb.



**Model 117-122MR - rating C100**

TRF= 1.33 @ 30°C, 1.0 @ 55°C amb.



## Current Transformer

**Model 120**

rev 011218

### CERTIFICATIONS:



#### APPLICATION:

Relaying and Metering

#### FREQUENCY:

50-400 Hz.

#### INSULATION LEVEL:

600 Volts. 10 kV BIL. full wave

#### WINDOW DIAMETER:

5.75"

#### APPROXIMATE WEIGHT:

8.5 lbs.

#### CONNECTIONS:

- Multi-ratios available upon request
- Terminals are brass studs No. 8-32 UNC with one flat washer, lockwasher, and regular nut
- Mounting kits 59-0215 (CR) and 59-0216 (CL)



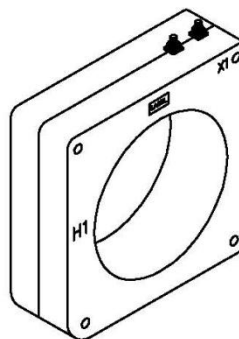
Model	120
Window Size	5.75
Width	8.50
Height	8.50
Depth	2.17

### MODEL 120

Window Diameter 5.75"

Approximate weight: 11 lbs.

CATALOG NUMBER	CURRENT RATIO	RELAY CLASS	ANSI METERING CLASS AT 60 HZ					SECONDARY WINDING RESISTANCE (OHMS @ 75°C)	CONTINUOUS THERMAL RATING FACTOR	
			B0.1	B0.2	B0.5	B0.9	B1.8		@ 30°C	@ 55°C
120 - 201	200:5	-	1.2	1.2	2.4	4.8	4.8	0.053	2	2
120 - 301	300:5	C10	0.3	0.6	1.2	2.4	2.4	0.063	2	2
120 - 401	400:5	C10	0.3	0.3	0.6	1.2	2.4	0.080	2	2
120 - 501	500:5	C20	0.3	0.3	0.6	0.6	1.2	0.137	2	2
120 - 601	600:5	C20	0.3	0.3	0.3	0.6	0.6	0.165	2	2
120 - 801	800:5	C20	0.3	0.3	0.3	0.3	0.6	0.220	2	1.5
120 - 102	1000:5	C20	0.3	0.3	0.3	0.3	0.6	0.309	1.5	1.5
120 - 122	1200:5	C50	0.3	0.3	0.3	0.3	0.3	0.371	1.5	1.33
120 - 152	1500:5	C50	0.3	0.3	0.3	0.3	0.3	0.464	1.5	1
120 - 162	1600:5	C50	0.3	0.3	0.3	0.3	0.3	0.494	1.33	1
120 - 202	2000:5	C50	0.3	0.3	0.3	0.3	0.3	0.592	1.33	1
120 - 252	2500:5	C50	0.3	0.3	0.3	0.3	0.3	0.740	1	0.8
120 - 302	3000:5	C50	0.3	0.3	0.3	0.3	0.3	0.888	1	0.8
120 - 352	3500:5	C20	0.3	0.3	0.3	0.3	0.3	0.964	1	0.8
120 - 402	4000:5	C50	0.3	0.3	0.3	0.3	0.3	1.102	1	0.8



Products are manufactured in a plant whose quality management system has been certified to be in compliance with ISO 9001:2015 by NQA





**TTL** Transformer Technologies Ltd.

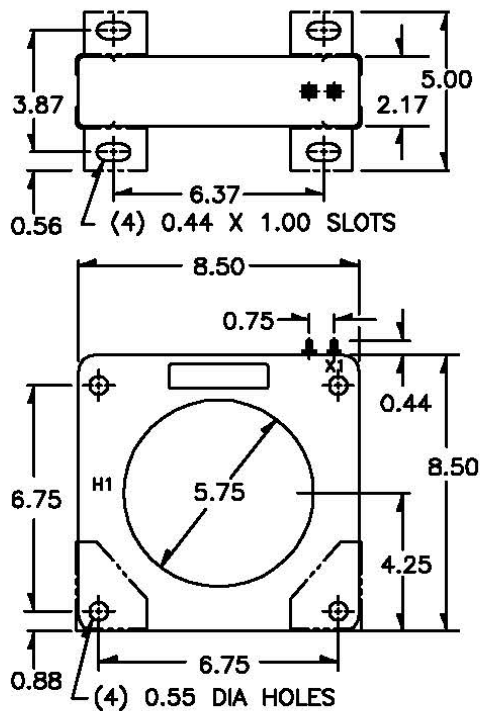


## Current Transformer

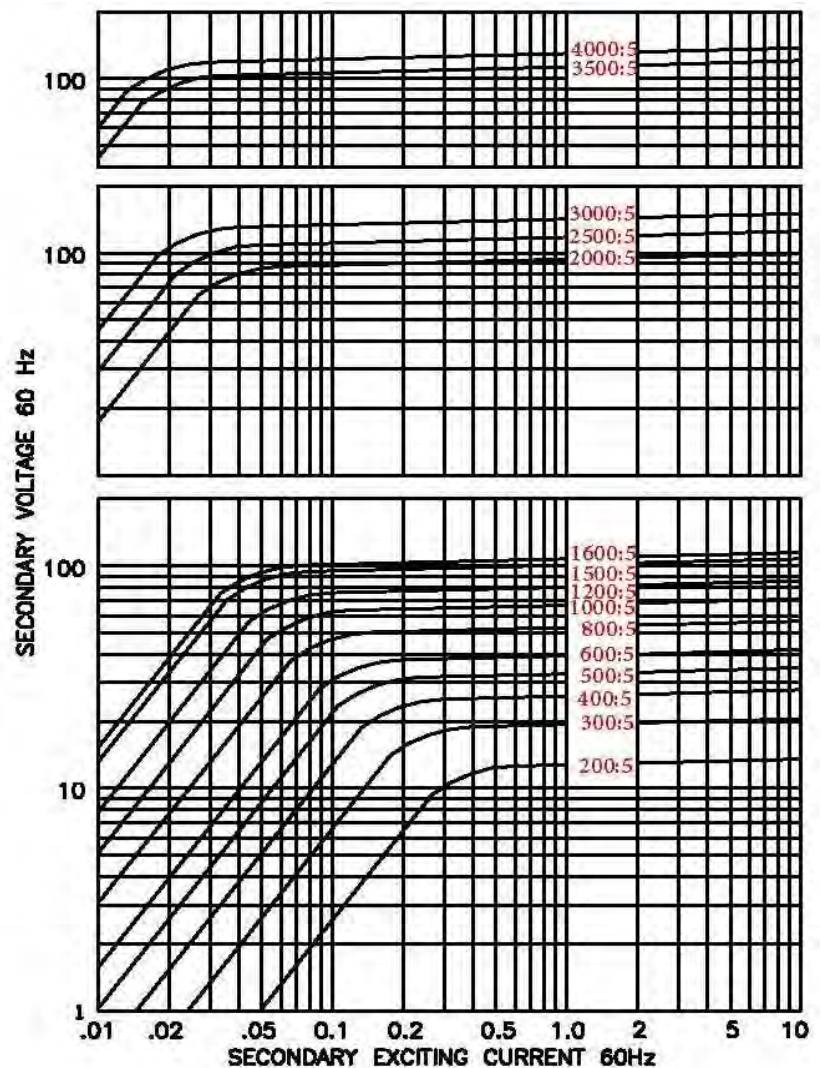
**Model 120**

rev 011218

Model 120



EXCITATION CURVE





## Current Transformer

**Model 135**

### APPLICATION:

Relaying and metering.

### FREQUENCY:

50-400 Hz.

### INSULATION LEVEL:

600 Volts. 10 kV BIL. full wave

### WINDOW DIAMETER:

5.75"

### APPROXIMATE WEIGHT:

18 lbs.

### CONNECTIONS:

- Terminals are brass connections No. 10-32 UNF with one flat washer, lockwasher, and regular nut
- Multi-ratios available upon request
- Brackets 59-0215 (CR) and 59-0216 (CL)



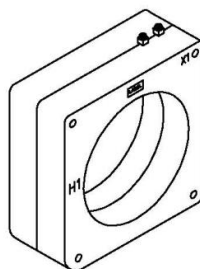
Model	135
Window Size	5.75
Width	9.21
Height	9.21
Depth	3.00

### CERTIFICATIONS:



**MODEL 135**  
Window Diameter 5.75"  
Approximate weight: 18 lbs.

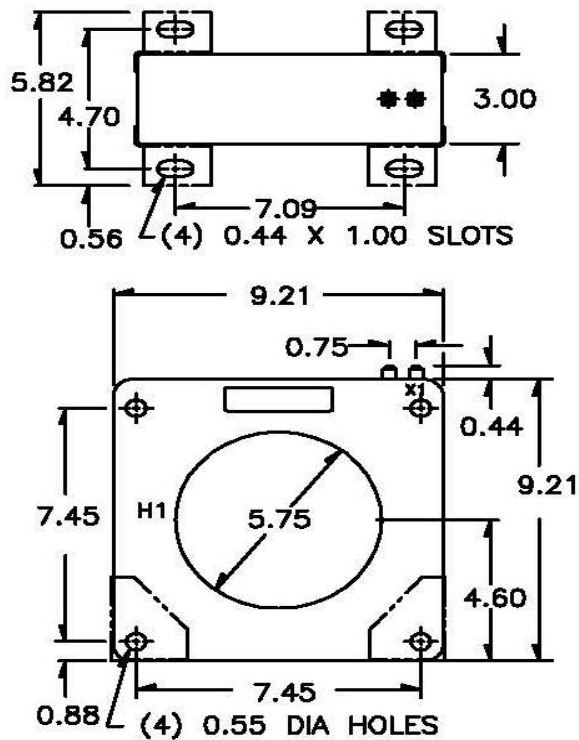
CATALOG NUMBER	CURRENT RATIO	RELAY CLASS	ANSI METERING CLASS AT 60 HZ					SECONDARY WINDING RESISTANCE (OHMS @ 75°C)	CONTINUOUS THERMAL RATING FACTOR	
			B0.1	B0.2	B0.5	B0.9	B1.8		@ 30°C	@ 55°C
135 - 500	50:5	-	4.8	-	-	-	-	0.015	2	2
135 - 750	75:5	-	2.4	4.8	-	-	-	0.027	2	2
135 - 101	100:5	-	1.2	2.4	4.8	-	-	0.036	2	2
135 - 151	150:5	C10	0.6	1.2	2.4	4.8	-	0.059	2	2
135 - 201	200:5	C10	0.6	0.6	1.2	2.4	4.8	0.078	2	2
135 - 251	250:5	C20	0.6	0.6	1.2	2.4	2.4	0.113	2	2
135 - 301	300:5	C20	0.3	0.3	0.6	1.2	2.4	0.117	2	2
135 - 401	400:5	C20	0.3	0.3	0.3	0.6	1.2	0.156	2	2
135 - 501	500:5	C50	0.3	0.3	0.3	0.3	0.6	0.181	2	2
135 - 601	600:5	C50	0.3	0.3	0.3	0.3	0.6	0.217	2	2
135 - 751	750:5	C50	0.3	0.3	0.3	0.3	0.6	0.339	2	1.5
135 - 801	800:5	C50	0.3	0.3	0.3	0.3	0.6	0.362	2	1.5
135 - 102	1000:5	C100	0.3	0.3	0.3	0.3	0.3	0.452	1.5	1.33
135 - 122	1200:5	C100	0.3	0.3	0.3	0.3	0.3	0.543	1.5	1.33
135 - 152	1500:5	C100	0.3	0.3	0.3	0.3	0.3	0.678	1.5	1
135 - 162	1600:5	C100	0.3	0.3	0.3	0.3	0.3	0.694	1.5	1
135 - 202	2000:5	C100	0.3	0.3	0.3	0.3	0.3	0.867	1.33	1
135 - 252	2500:5	C200	0.3	0.3	0.3	0.3	0.3	1.084	1	0.8
135 - 302	3000:5	C200	0.3	0.3	0.3	0.3	0.3	1.301	1	0.8
135 - 322	3200:5	C200	0.3	0.3	0.3	0.3	0.3	1.279	1	0.8
135 - 352	3500:5	C200	0.3	0.3	0.3	0.3	0.3	1.399	1	0.8
135 - 402	4000:5	C200	0.3	0.3	0.3	0.3	0.3	1.598	1	0.6
135 - 502	5000:5	C200	0.3	0.3	0.3	0.3	0.3	2.459	1	0.6



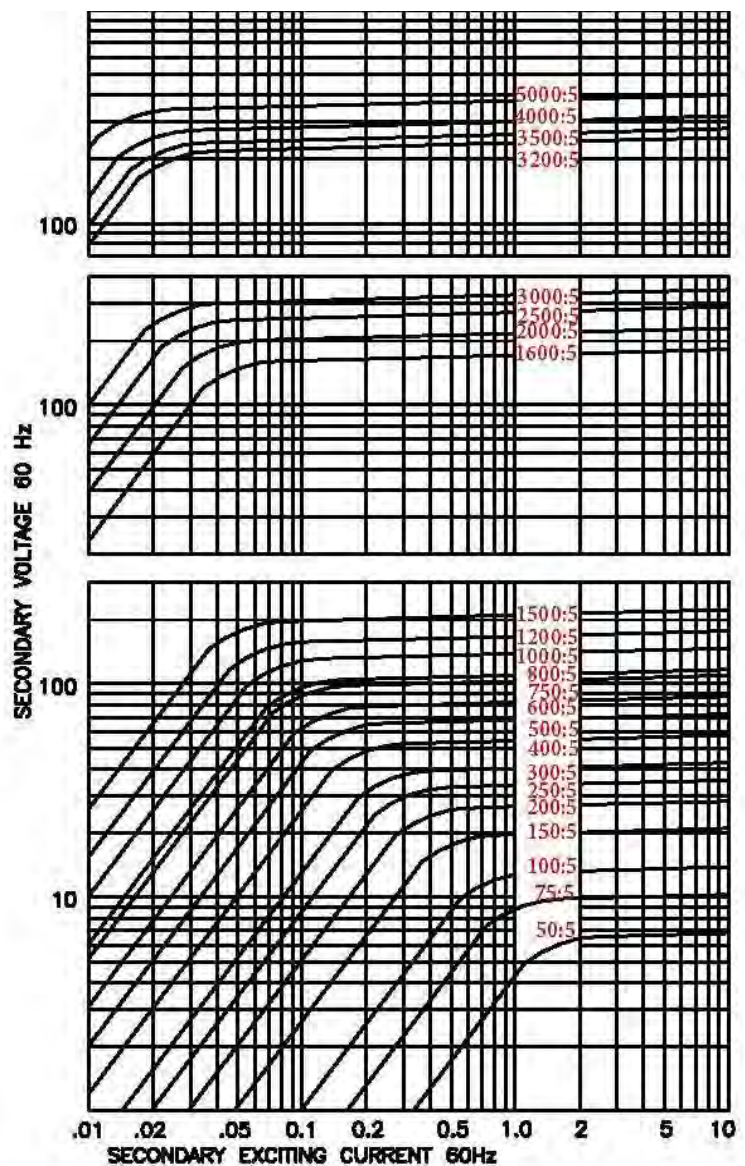




Model 135



EXCITATION CURVE



Model 135



## Current Transformer

**Model 135MR**

rev 03182021

### CERTIFICATIONS:



E228202



223647



ISO 9001

QUALITY  
MANAGEMENT



#### APPLICATION:

Relaying and metering

#### FREQUENCY:

50-400 Hz.

#### INSULATION LEVEL:

600 Volts. 10 kV BIL. full wave

#### WINDOW DIAMETER:

5.75"

#### APPROXIMATE WEIGHT:

18 lbs.

#### CONNECTIONS:

- Terminals are brass studs No. 10-32 UNF with one flat washer, lockwasher, and regular nut
- Brackets 59-0215 (CR) and 59-0216 (CL)

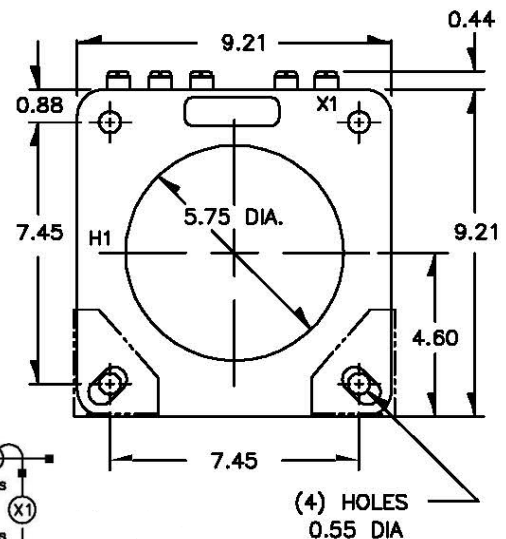
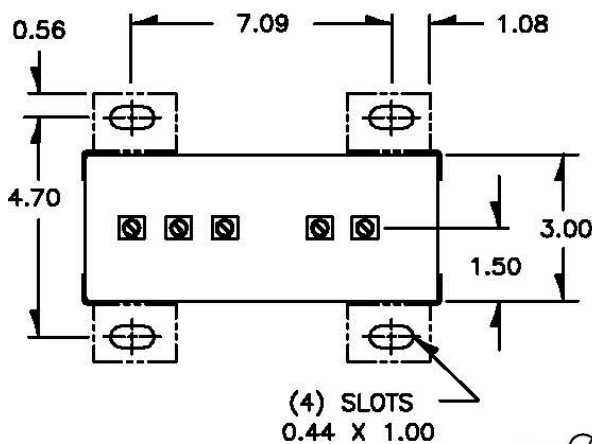
Model	135MR
Window Size	5.75
Width	9.21
Height	9.21
Depth	3.00

#### MODEL 135MR

Window Diameter 5.75"

Approximate weight: 18 lbs.

Catalog Number	Relay Class	Continuous Thermal	
		@ 30°C	@ 50°C
135-601MR	C50	2.0	2.0
135-122MR	C100	1.5	1.33
135-202MR	C100	1.0	0.8
135-302MR	C200	1.0	0.8
135-402MR	C200	1.0	0.6
135-502MR	C200	1.0	0.6

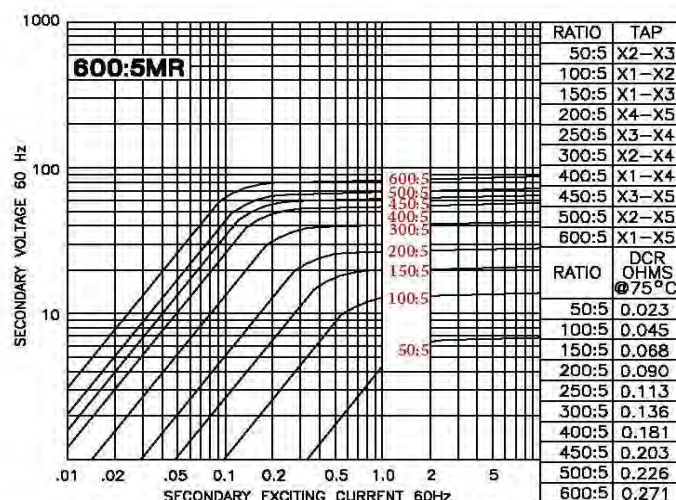


600:5A	40	50	10	20 turns	X1
1200:5A	80	100	20	40 turns	X1
2000:5A	100	60	160	80 turns	X1
3000:5A	100	60	240	200 turns	X1
4000:5A	200	200	300	100 turns	X1
5000:5A	200	400	100	300 turns	X1

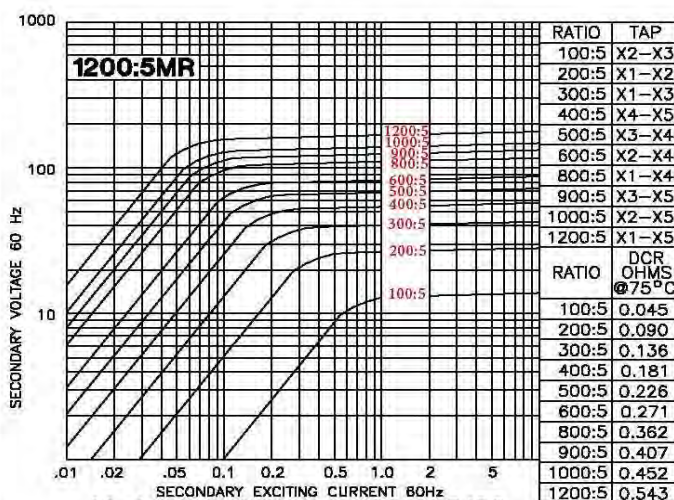
MARKED RATIO (MR)



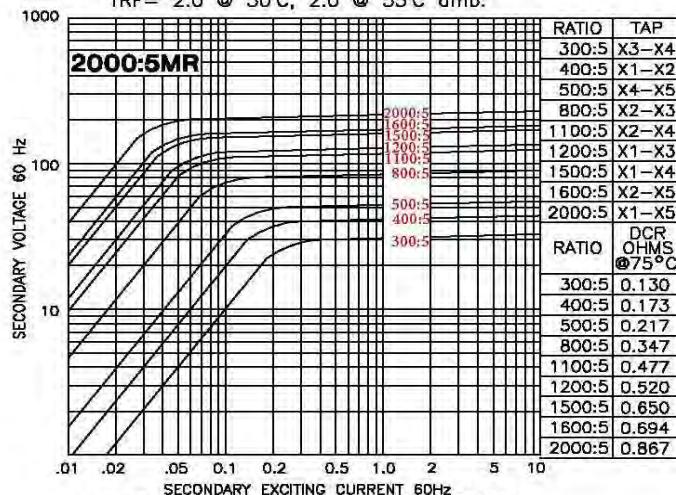
### EXCITATION CURVE



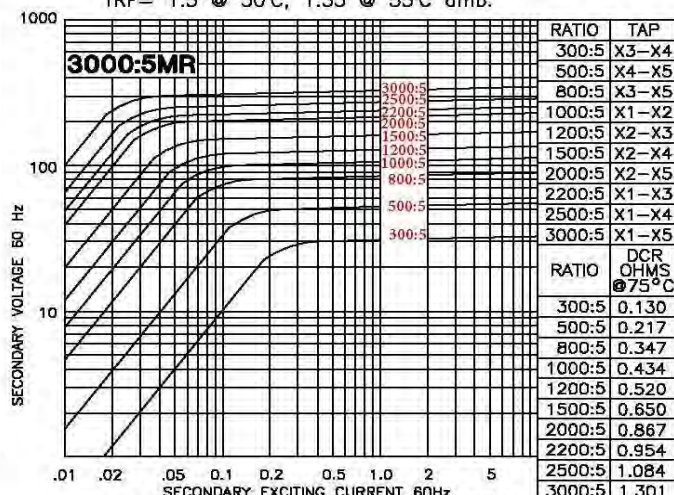
**Model 135-601MR - rating C50**  
TRF= 2.0 @ 30°C, 2.0 @ 55°C amb.



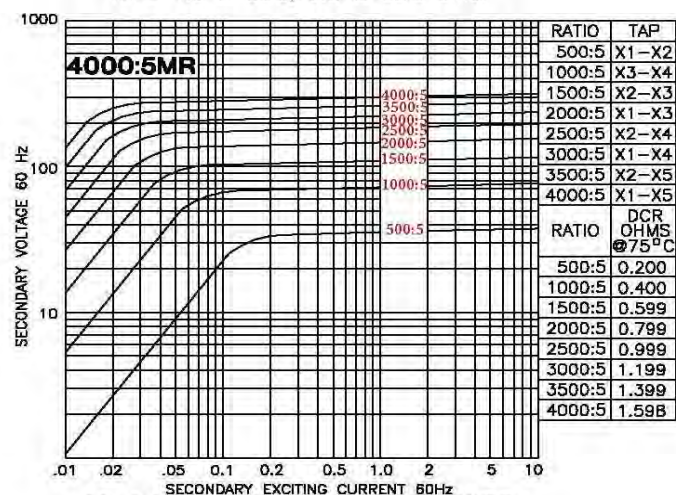
**Model 135-122MR - rating C100**  
TRF= 1.5 @ 30°C, 1.33 @ 55°C amb.



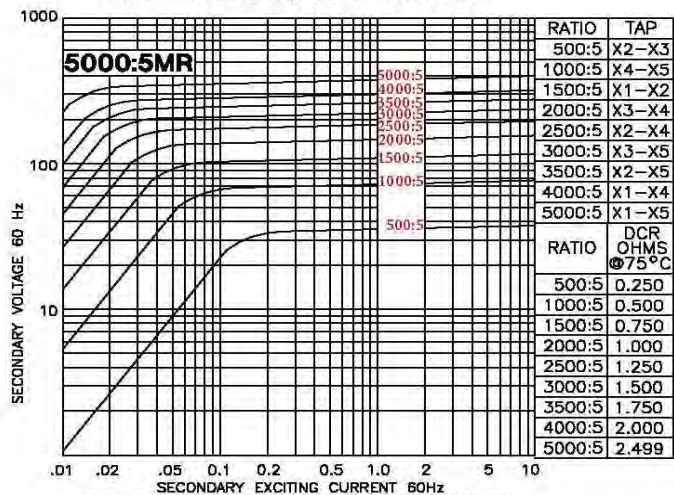
**Model 135-202MR - rating C100**  
TRF= 1.0 @ 30°C, 0.8 @ 55°C amb.



**Model 135-302MR - rating C200**  
TRF= 1.0 @ 30°C, 0.8 @ 55°C amb.



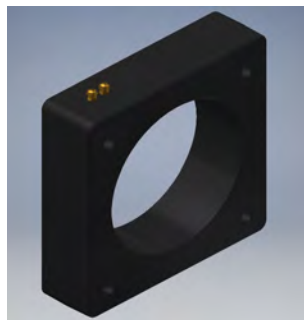
**Model 135-402MR - rating C200**  
TRF= 1.0 @ 30°C, 0.6 @ 55°C amb.



**Model 135-502MR - rating C200**  
TRF= 1.0 @ 30°C, 0.6 @ 55°C amb.



## Current Transformer



**Model 144**

rev 011218

### CERTIFICATIONS:



E228202



223647



ISO 9001

QUALITY  
MANAGEMENT

#### APPLICATION:

Relaying and metering.

#### FREQUENCY:

50-400 Hz.

#### INSULATION LEVEL:

600 Volts. 10 kV BIL. full wave

#### WINDOW DIAMETER:

6.00"

#### APPROXIMATE WEIGHT:

40 lbs.

#### CONNECTIONS:

- Terminals are brass screws No. 10-32 UNF with one flat washer and a split lock washer
- Multi-ratios available upon request
- Mounting Kit – 59-0215 (CR) and 59-0216 (CL)

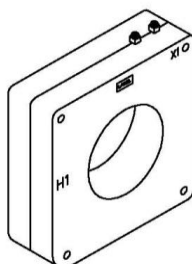
Model	144
Window Size	6.00
Width	11.10
Height	11.47
Depth	3.00

### MODEL 144

Window Diameter 6.00"

Approximate weight: 40 lbs.

CATALOG NUMBER	CURRENT RATIO	RELAY CLASS	ANSI METERING CLASS AT 60 HZ					SECONDARY WINDING RESISTANCE (OHMS @ 75°C)	CONTINUOUS THERMAL RATING FACTOR	
			B0.1	B0.2	B0.5	B0.9	B1.8		@ 30°C	@ 55°C
144 – 500	50:5	-	2.4	4.8	-	-	-	0.020	2	2
144 – 750	75:5	C10	1.2	2.4	-	-	-	0.032	2	2
144 – 101	100:5	C10	1.2	1.2	2.4	4.8	-	0.040	2	2
144 – 151	150:5	C20	0.6	0.6	1.2	2.4	4.8	0.057	2	2
144 – 201	200:5	C20	0.6	0.6	1.2	2.4	2.4	0.067	2	2
144 – 251	250:5	C50	0.3	0.3	0.6	1.2	2.4	0.125	2	2
144 – 301	300:5	C50	0.3	0.3	0.6	0.6	1.2	0.150	2	2
144 – 401	400:5	C50	0.3	0.3	0.3	0.6	0.6	0.195	2	2
144 – 501	500:5	C100	0.3	0.3	0.3	0.6	0.6	0.282	2	2
144 – 601	600:5	C100	0.3	0.3	0.3	0.3	0.6	0.338	2	1.5
144 – 751	750:5	C100	0.3	0.3	0.3	0.3	0.3	0.213	2	2
144 – 801	800:5	C100	0.3	0.3	0.3	0.3	0.3	0.451	2	1.5
144 – 102	1000:5	C200	0.3	0.3	0.3	0.3	0.3	0.563	2	1.5
144 – 122	1200:5	C200	0.3	0.3	0.3	0.3	0.3	0.676	1.5	1.33
144 – 152	1500:5	C200	0.3	0.3	0.3	0.3	0.3	0.845	1.5	1
144 – 162	1600:5	C200	0.3	0.3	0.3	0.3	0.3	0.902	1.5	1
144 – 202	2000:5	C200	0.3	0.3	0.3	0.3	0.3	1.002	1.5	1
144 – 252	2500:5	C400	0.3	0.3	0.3	0.3	0.3	1.252	1.33	1
144 – 302	3000:5	C400	0.3	0.3	0.3	0.3	0.3	1.503	1	0.8
144 – 322	3200:5	C400	0.3	0.3	0.3	0.3	0.3	1.603	1	0.8
144 – 352	3500:5	C200	0.3	0.3	0.3	0.3	0.3	1.592	1	0.8
144 – 402	4000:5	C400	0.3	0.3	0.3	0.3	0.3	1.820	1	0.8
144 – 502	5000:5	C400	0.3	0.3	0.3	0.3	0.3	2.275	1	0.6
144 – 602	6000:5	C400	0.3	0.3	0.3	0.3	0.3	2.730	0.8	0.6



Products are manufactured in a plant whose quality management system has been certified to be in compliance with ISO 9001:2015 by NQA





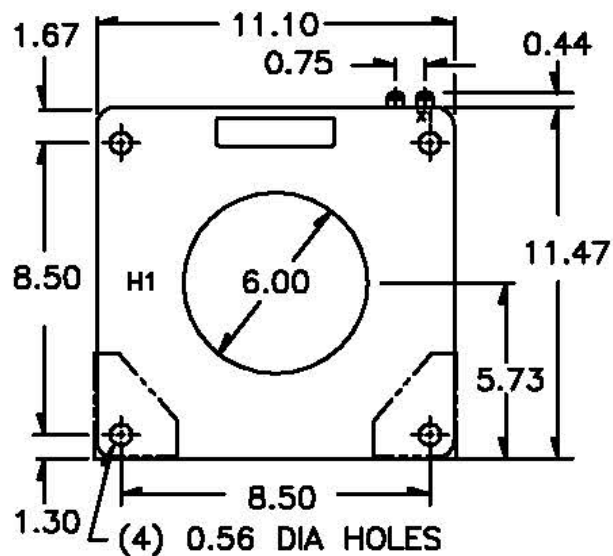
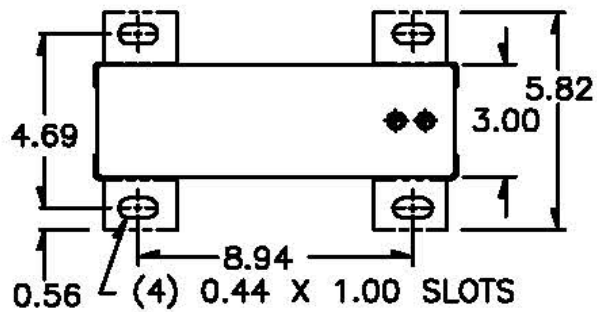
**TTL** Transformer  
Technologies Ltd.



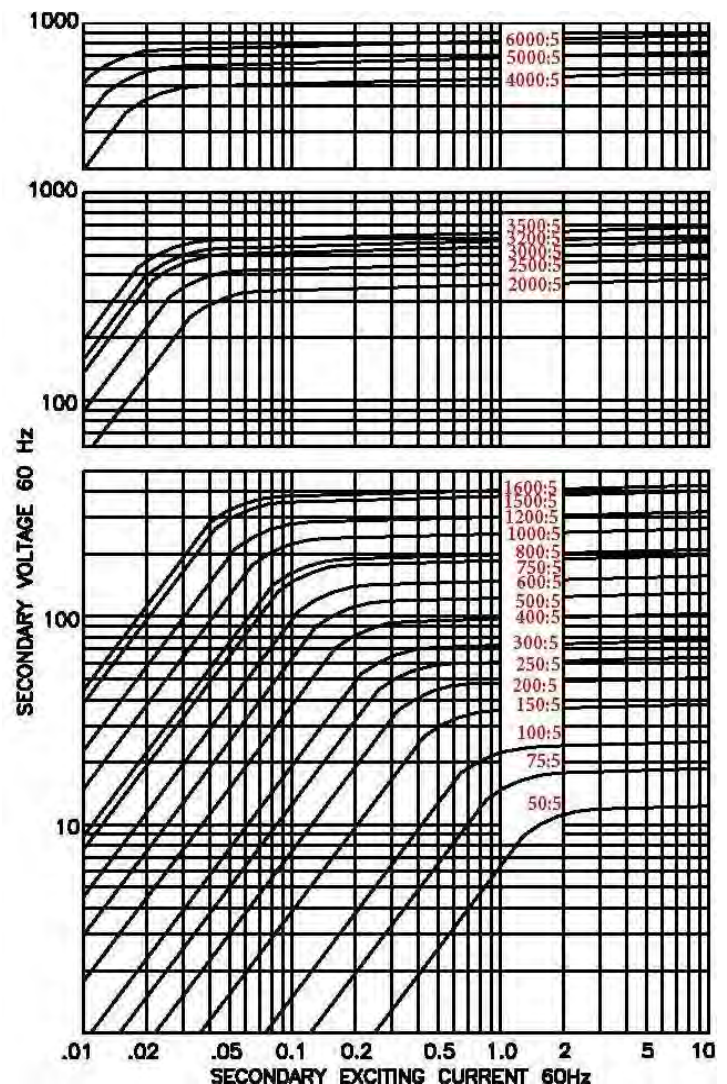
## Current Transformer

**Model 144**

rev 011218



EXCITATION CURVE



Products are manufactured in a plant whose quality management system has been certified to be in compliance with ISO 9001:2015 by NQA





## Current Transformer

**Model 144MR**

rev 03182021

### CERTIFICATIONS:



#### APPLICATION:

Relaying and metering

#### FREQUENCY:

50-400 Hz.

#### INSULATION LEVEL:

600 Volts. 10 kV BIL. full wave

#### WINDOW DIAMETER:

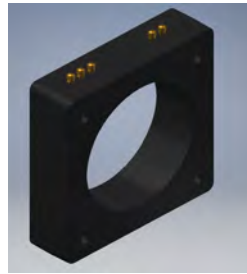
6.00"

#### APPROXIMATE WEIGHT:

40 lbs.

#### CONNECTIONS:

- Terminals are brass screws No. 10-32 UNF with one flat washer and a split lock washer
- Mounting kit – 59-0215 (CR) and 59-0216 (CL)



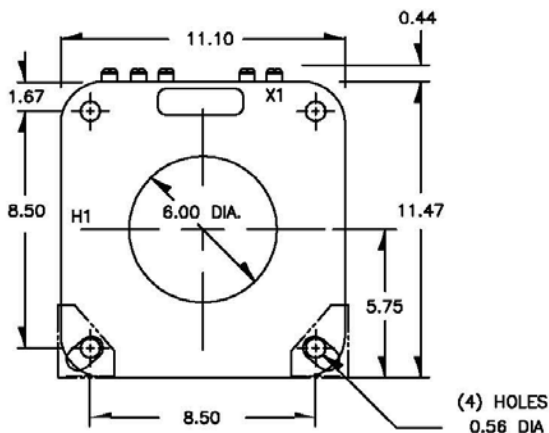
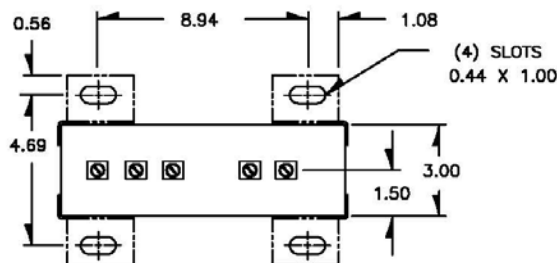
Model	144MR
Window Size	6.00
Width	11.10
Height	11.47
Depth	3.00

### MODEL 144MR

Window Diameter 6.00"

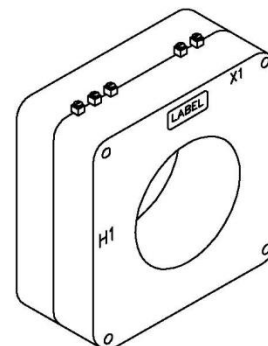
Approximate weight: 40 lbs.

Catalog Number	Relay Class	Continuous Thermal	
		@ 30°C	@ 50°C
144-601MR	C100	2.0	1.5
144-122MR	C200	2.0	1.5
144-202MR	C200	1.5	1.0
144-302MR	C400	1.0	0.8
144-402MR	C400	1.0	0.8
144-502MR	C400	1.0	0.6



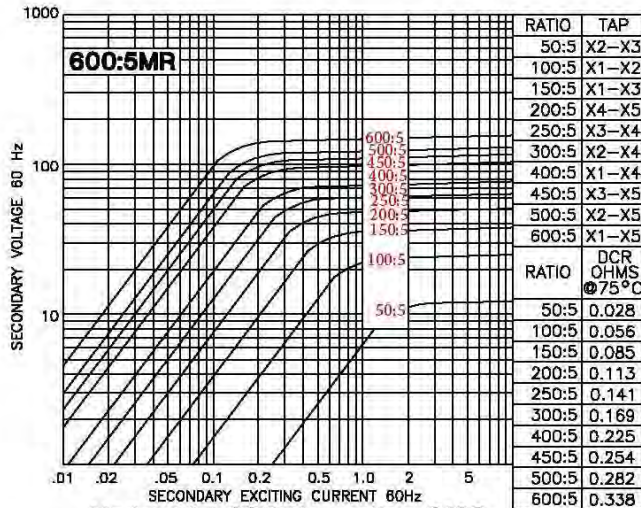
Primary	Secondary	Ratio	Turns
600:5A	X5	40	20 turns
1200:5A	X5	80	40 turns
2000:5A	X5	100	80 turns
3000:5A	X5	100	240 turns
4000:5A	X5	200	300 turns
5000:5A	X5	200	300 turns

MARKED RATIO (MR)



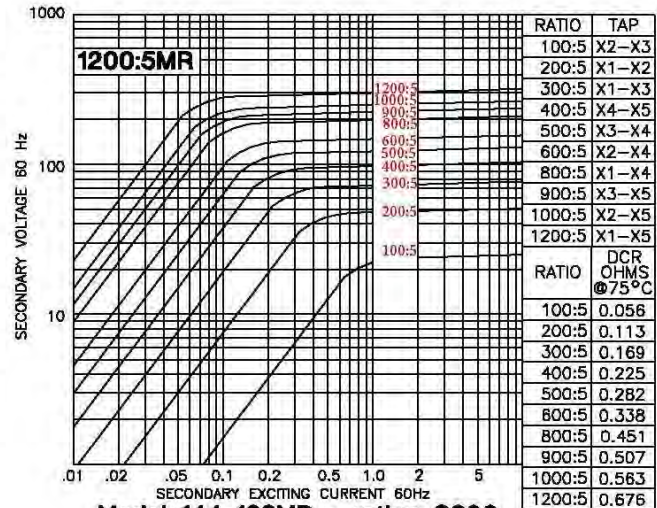
Products are manufactured in a plant whose quality management system has been certified to be in compliance with ISO 9001:2015 by NQA

### EXCITATION CURVE



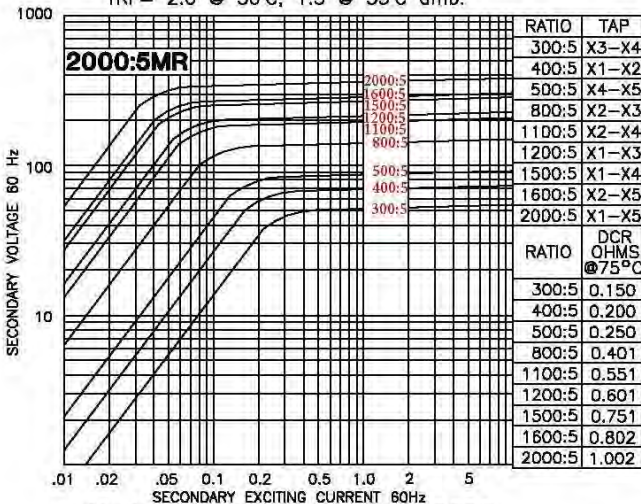
**Model 144-601MR - rating C100**

TRF= 2.0 @ 30°C, 1.5 @ 55°C amb.



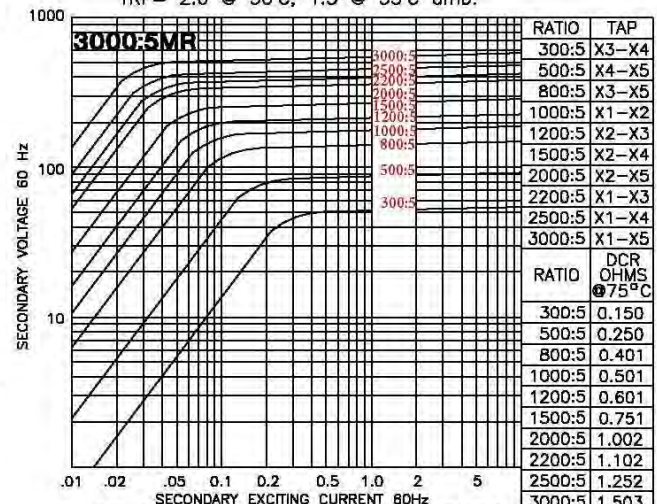
**Model 144-122MR - rating C200**

TRF= 2.0 @ 30°C, 1.5 @ 55°C amb.



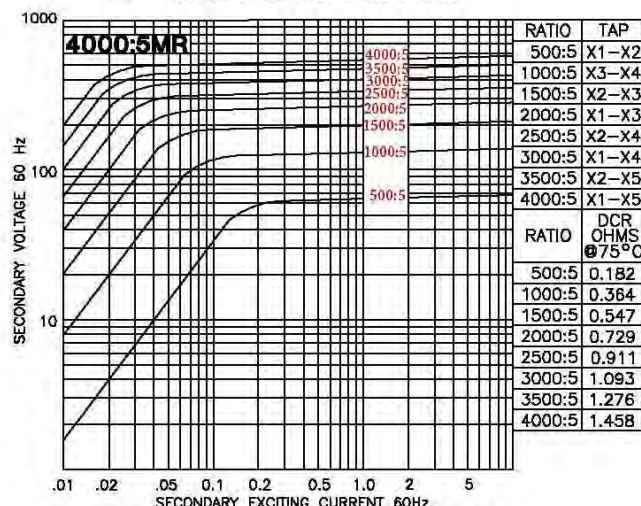
**Model 144-202MR - rating C200**

TRF= 1.5 @ 30°C, 1.0 @ 55°C amb.



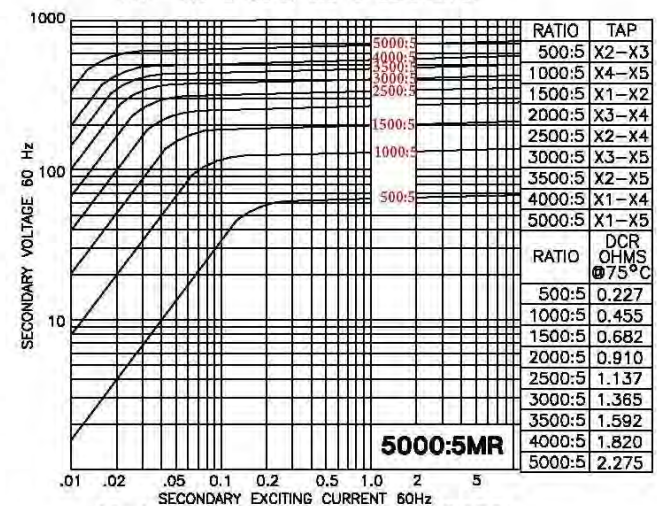
**Model 144-302MR - rating C400**

TRF= 1.0 @ 30°C, 0.8 @ 55°C amb.



**Model 144-402MR - rating C400**

TRF= 1.0 @ 30°C, 0.8 @ 55°C amb.



**Model 144-502MR - rating C400**

TRF= 1.0 @ 30°C, 0.6 @ 55°C amb.





## Current Transformer

**Model 145**

rev 011218

### CERTIFICATIONS:



#### APPLICATION:

Relaying and metering

#### FREQUENCY:

50-400 Hz.

#### INSULATION LEVEL:

600 Volts. 10 kV BIL. full wave

#### WINDOW DIAMETER:

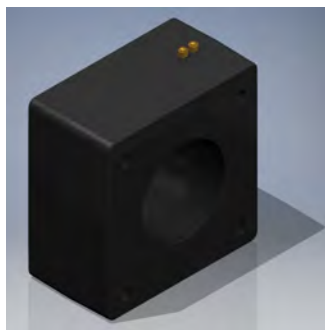
6.00"

#### APPROXIMATE WEIGHT:

83 lbs.

#### CONNECTIONS:

- Terminals are brass screws No. 10-32 UNF with one flat washer and a split lock washer
- Multi-ratios available upon request
- Mounting Kit – 59-0215 (CR) and 59-0216 (CL)



<b>Model</b>	<b>145</b>
<b>Window Size</b>	<b>6.00</b>
<b>Width</b>	<b>11.10</b>
<b>Height</b>	<b>11.47</b>
<b>Depth</b>	<b>6.00</b>

### MODEL 145

Window Diameter 6.00"

Approximate weight: 83 lbs.

CATALOG NUMBER	CURRENT RATIO	RELAY CLASS	ANSI METERING CLASS AT 60 HZ					SECONDARY WINDING RESISTANCE (OHMS @ 75°C)	CONTINUOUS THERMAL RATING FACTOR	
			B0.1	B0.2	B0.5	B0.9	B1.8		@ 30°C	@ 55°C
145 – 500	50:5	C20	1.2	4.8	-	-	-	0.030	2	2
145 – 750	75:5	C20	1.2	2.4	4.8	4.8	-	0.045	2	2
145 – 101	100:5	C20	0.6	1.2	2.4	4.8	4.8	0.061	2	2
145 – 151	150:5	C50	0.6	0.6	1.2	2.4	2.4	0.091	2	2
145 – 201	200:5	C100	0.3	0.6	0.6	1.2	2.4	0.121	2	2
145 – 251	250:5	C100	0.3	0.3	0.6	0.6	1.2	0.152	2	2
145 – 301	300:5	C100	0.3	0.3	0.3	0.6	1.2	0.288	2	2
145 – 401	400:5	C200	0.3	0.3	0.3	0.3	0.6	0.384	2	2
145 – 501	500:5	C200	0.3	0.3	0.3	0.3	0.3	0.480	2	1.5
145 – 601	600:5	C200	0.3	0.3	0.3	0.3	0.3	0.576	2	1.5
145 – 751	750:5	C400	0.3	0.3	0.3	0.3	0.3	0.720	2	1.5
145 – 801	800:5	C400	0.3	0.3	0.3	0.3	0.3	0.768	2	1.5
145 – 102	1000:5	C400	0.3	0.3	0.3	0.3	0.3	0.960	1.5	1.33
145 – 122	1200:5	C400	0.3	0.3	0.3	0.3	0.3	1.153	1.5	1
145 – 152	1500:5	C800	0.3	0.3	0.3	0.3	0.3	1.441	1.5	1
145 – 162	1600:5	C800	0.3	0.3	0.3	0.3	0.3	1.537	1.33	1
145 – 202	2000:5	C800	0.3	0.3	0.3	0.3	0.3	1.829	1	1
145 – 252	2500:5	C800	0.3	0.3	0.3	0.3	0.3	2.286	1	0.8
145 – 302	3000:5	C800	0.3	0.3	0.3	0.3	0.3	2.743	1	0.8
145 – 322	3200:5	C800	0.3	0.3	0.3	0.3	0.3	2.926	1	0.8
145 – 352	3500:5	C800	0.3	0.3	0.3	0.3	0.3	3.040	1	0.8
145 – 402	4000:5	C800	0.3	0.3	0.3	0.3	0.3	3.474	1	0.6
145 – 502	5000:5	C800	0.3	0.3	0.3	0.3	0.3	4.342	0.8	0.6
145 – 602	6000:5	C800	0.3	0.3	0.3	0.3	0.3	5.211	0.8	0.6



**TTL** Transformer  
Technologies Ltd.

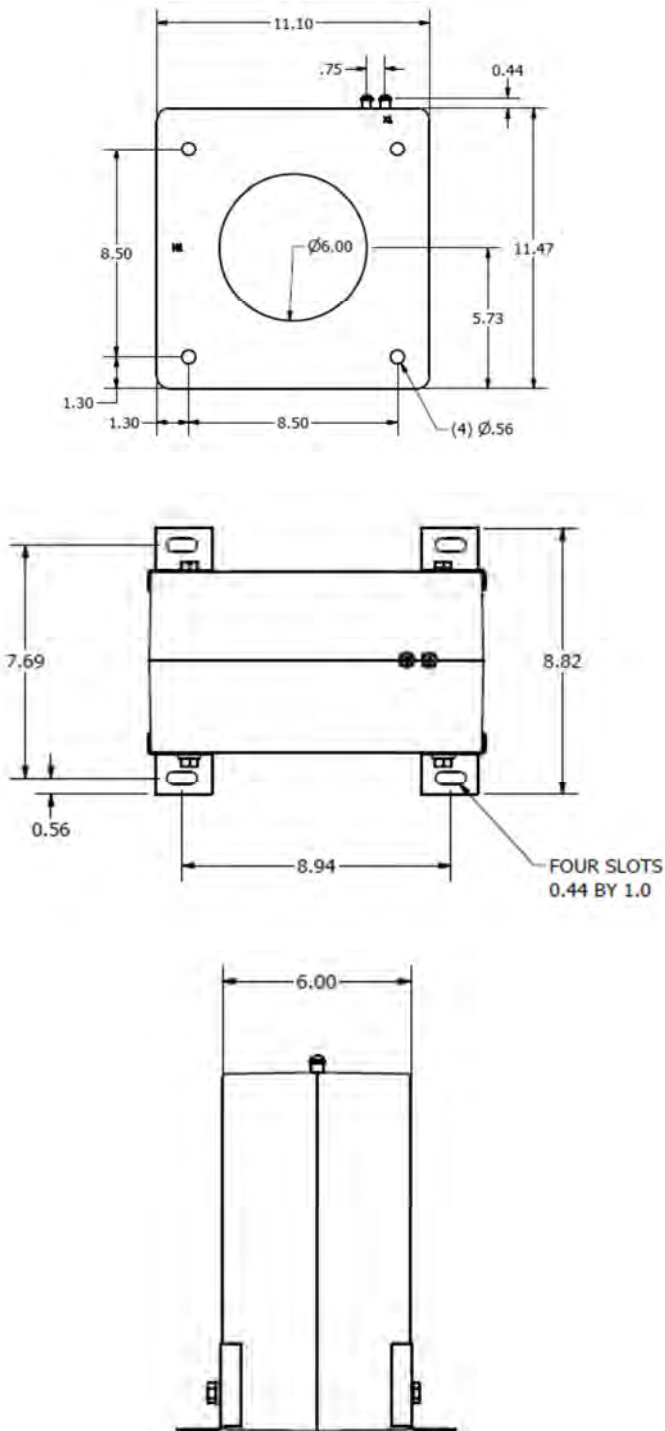
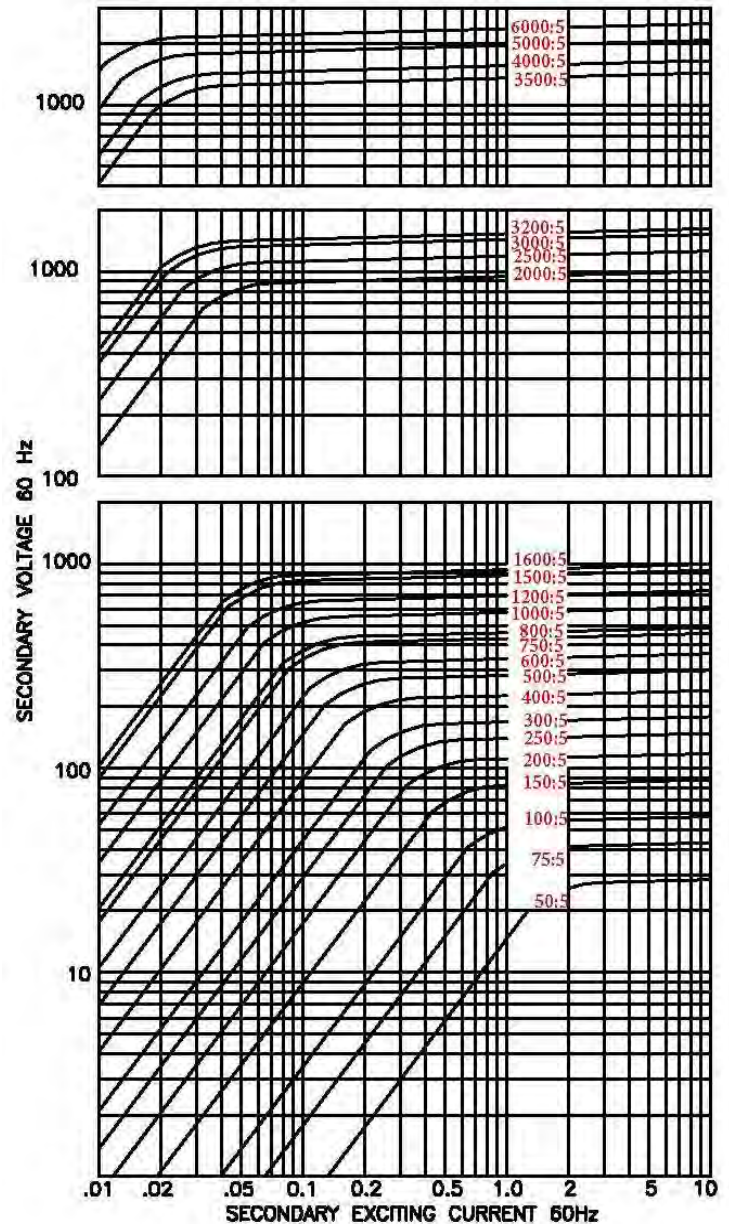


## Current Transformer

**Model 145**

rev 011218

### EXCITATION CURVE







## Current Transformer

**Model 145 MR**

rev 011218

### CERTIFICATIONS:



E228202



ISO 9001

QUALITY  
MANAGEMENT



Model	145MR
Window Size	6.00
Width	11.10
Height	11.47
Depth	6.00

#### APPLICATION:

Relaying and metering

#### FREQUENCY:

50-400 Hz.

#### INSULATION LEVEL:

600 Volts, 10 kV BIL, full wave

#### WINDOW DIAMETER:

6.00"

#### APPROXIMATE WEIGHT:

83 lbs.

#### CONNECTONS:

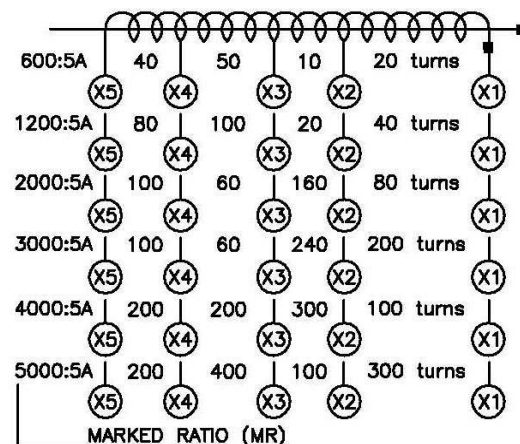
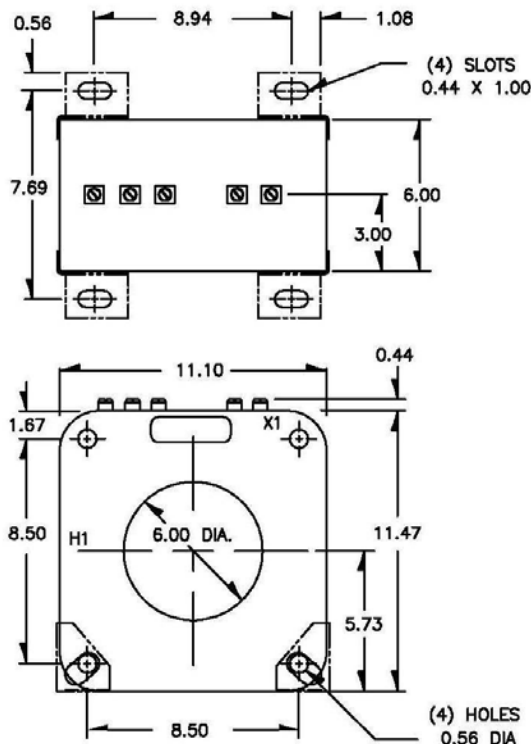
-Terminals are brass screws No. 10-32 UNF  
with one flat washer and a split lock washer

#### MODEL 145MR

Window Diameter 6.00"

Approximate weight: 83 lbs.

Catalog Number	Relay Class	Continuous Thermal	
		@ 30°C	@ 50°C
145-601MR	C200	2.0	1.5
145-122MR	C400	1.5	1.0
145-202MR	C800	1.33	1.0
145-302MR	C800	1.0	0.8
145-402MR	C800	1.0	0.6
145-502MR	C800	0.8	0.6



Products are manufactured in a plant whose quality management system has been certified to be in compliance with ISO 9001:2015 by NQA

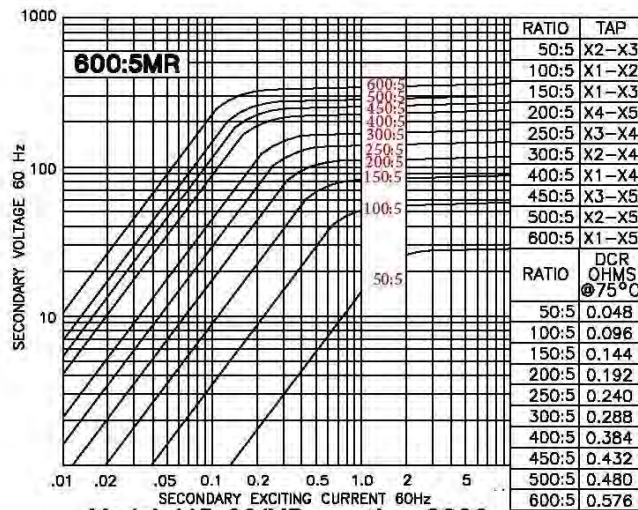


# Current Transformer

**Model 145 MR**

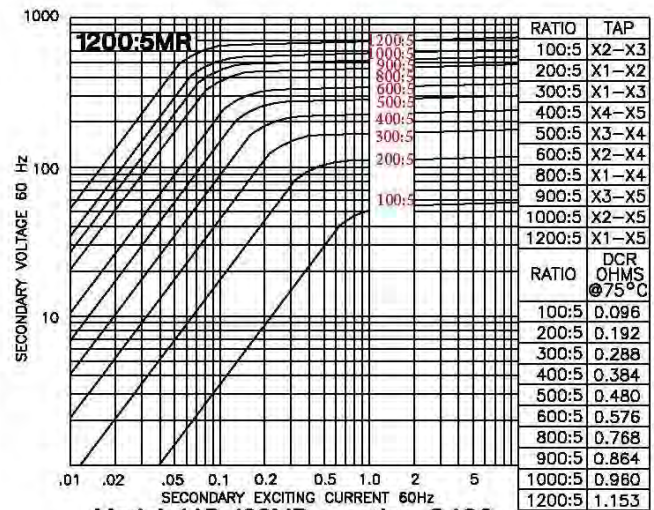
rev 011218

## EXCITATION CURVE



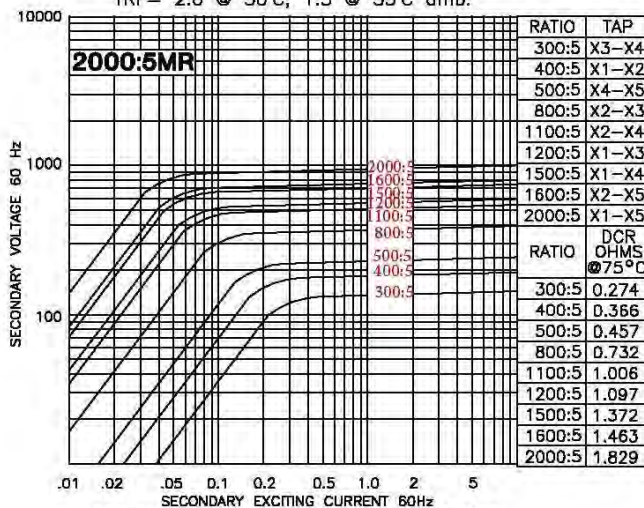
**Model 145-601MR - rating C200**

TRF= 2.0 @ 30°C, 1.5 @ 55°C amb.



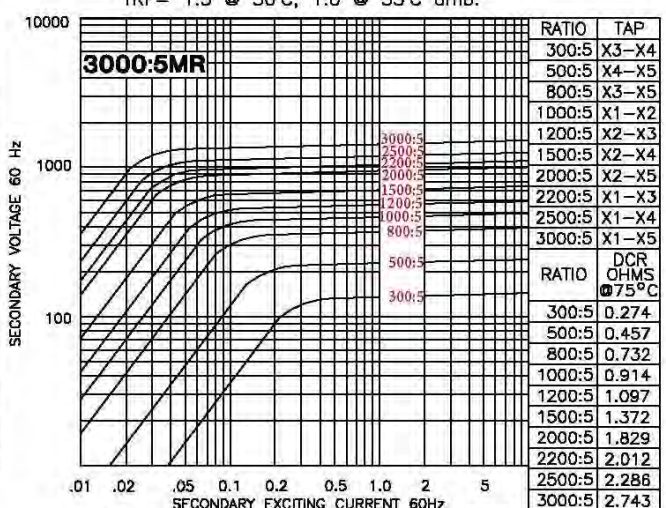
**Model 145-122MR - rating C400**

TRF= 1.5 @ 30°C, 1.0 @ 55°C amb.



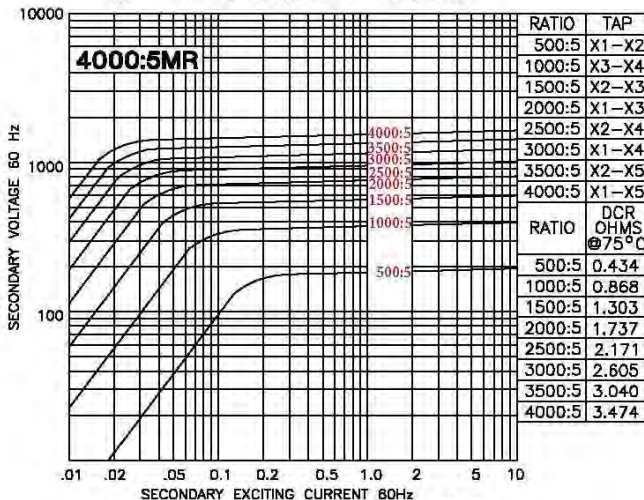
**Model 145-202MR - rating C800**

TRF= 1.33 @ 30°C, 1.0 @ 55°C amb.



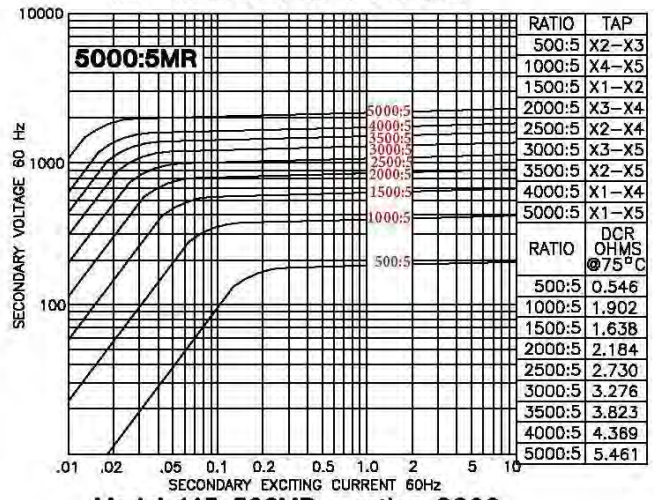
**Model 145-302MR - rating C800**

TRF= 1.0 @ 30°C, 0.8 @ 55°C amb.



**Model 145-402MR - rating C800**

TRF= 1.0 @ 30°C, 0.6 @ 55°C amb.



**Model 145-502MR - rating C800**

TRF= 0.8 @ 30°C, 0.6 @ 55°C amb.





## Current Transformer

**Model 125**

### APPLICATION:

Metering

### FREQUENCY:

50-400 Hz.

### INSULATION LEVEL:

600 Volts. 10 kV BIL. full wave

### WINDOW DIAMETER:

6.31"

### APPROXIMATE WEIGHT:

3 lbs.

### CONNECTIONS:

- Terminals are brass studs No. 8-32 UNC with one flat washer, lockwasher, and regular nut
- Brackets 59-0215 (CR) and 59-0216 (CL)



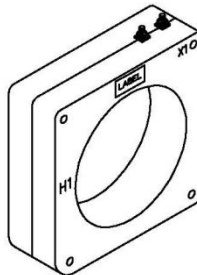
Model	125
Window Size	6.31
Width	8.50
Height	8.50
Depth	1.28

### CERTIFICATIONS:



**MODEL 125**  
Window Diameter 6.31"  
Approximate weight: 3 lbs.

CATALOG NUMBER	CURRENT RATIO	ANSI METERING CLASS AT 60 HZ					SECONDARY WINDING RESISTANCE (OHMS @ 75°C)	CONTINUOUS THERMAL RATING FACTOR	
		B0.1	B0.2	B0.5	B0.9	B1.8		@ 30°C	@ 55°C
125 - 601	600:5	0.3	0.3	1.2	1.2	2.4	0.071	1.5	1.33
125 - 751	750:5	0.3	0.3	0.6	1.2	2.4	0.143	1.5	1.33
125 - 801	800:5	0.3	0.3	0.6	1.2	2.4	0.116	1.5	1.33
125 - 102	1000:5	0.3	0.3	0.3	0.6	1.2	0.187	1.5	1.33
125 - 122	1200:5	0.3	0.3	0.3	0.6	1.2	0.224	1.5	1.33
125 - 152	1500:5	0.3	0.3	0.3	0.3	0.6	0.285	1.5	1.33
125 - 162	1600:5	0.3	0.3	0.3	0.3	0.6	0.304	1.5	1.33
125 - 202	2000:5	0.3	0.3	0.3	0.3	0.6	0.280	1.5	1.0
125 - 252	2500:5	0.3	0.3	0.3	0.3	0.6	0.351	1.33	1.0
125 - 302	3000:5	0.3	0.3	0.3	0.3	0.6	0.421	1.33	1.0
125 - 352	3500:5	0.3	0.3	0.3	0.3	0.3	0.491	1.33	1.0
125 - 402	4000:5	0.3	0.3	0.3	0.3	0.3	0.696	1.0	0.8



Products are manufactured in a plant whose quality management system has been certified to be in compliance with ISO 9001:2015 by NQA







## Current Transformer

**Model 142**

rev 011218

### CERTIFICATIONS:



E228202

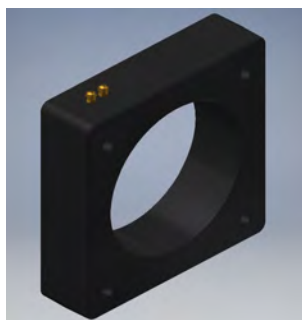


223647



ISO 9001

QUALITY  
MANAGEMENT



#### APPLICATION:

Relaying and metering.

#### FREQUENCY:

50-400 Hz.

#### INSULATION LEVEL:

600 Volts. 10 kV BIL. full wave

#### WINDOW DIAMETER:

7.25"

#### APPROXIMATE WEIGHT:

31 lbs.

#### CONNECTIONS:

- Terminals are brass screws No. 10-32 UNF with one flat washer and a split lock washer
- Multi-ratios available upon request
- Mounting Kit – 59-0215 (CR) and 59-0216 (CL)

Model	142
Window Size	7.25
Width	11.10
Height	11.47
Depth	3.00

### MODEL 142

Window Diameter 7.25"

Approximate weight: 31 lbs.

CATALOG NUMBER	CURRENT RATIO	RELAY CLASS	ANSI METERING CLASS AT 60 HZ					SECONDARY WINDING RESISTANCE (OHMS @ 75°C)	CONTINUOUS THERMAL RATING FACTOR	
			B0.1	B0.2	B0.5	B0.9	B1.8		@ 30°C	@ 55°C
142 – 500	50:5	-	-	-	-	-	-	0.031	2	2
142 – 750	75:5	-	2.4	4.8	-	-	-	0.035	2	2
142 – 101	100:5	C10	1.2	2.4	4.8	-	-	0.051	2	2
142 – 151	150:5	C10	1.2	1.2	2.4	4.8	-	0.070	2	2
142 – 201	200:5	C20	0.6	0.6	1.2	2.4	4.8	0.102	2	2
142 – 251	250:5	C20	0.6	0.6	1.2	1.2	2.4	0.127	2	2
142 – 301	300:5	C30	0.3	0.3	0.6	1.2	2.4	0.153	2	2
142 – 401	400:5	C50	0.3	0.3	0.3	0.6	1.2	0.196	2	2
142 – 501	500:5	C50	0.3	0.3	0.3	0.6	0.6	0.252	2	2
142 – 601	600:5	C50	0.3	0.3	0.3	0.3	0.6	0.255	2	2
142 – 751	750:5	C100	0.3	0.3	0.3	0.3	0.3	0.304	2	1.5
142 – 801	800:5	C100	0.3	0.3	0.3	0.3	0.3	0.336	2	1.5
142 – 102	1000:5	C100	0.3	0.3	0.3	0.3	0.3	0.486	2	1.5
142 – 122	1200:5	C100	0.3	0.3	0.3	0.3	0.3	0.735	1.5	1
142 – 152	1500:5	C200	0.3	0.3	0.3	0.3	0.3	0.918	1.5	1
142 – 162	1600:5	C200	0.3	0.3	0.3	0.3	0.3	0.979	1.33	1
142 – 202	2000:5	C200	0.3	0.3	0.3	0.3	0.3	0.544	2	1.5
142 – 252	2500:5	C200	0.3	0.3	0.3	0.3	0.3	1.066	1.5	1
142 – 302	3000:5	C200	0.3	0.3	0.3	0.3	0.3	1.280	1	0.8
142 – 322	3200:5	C200	0.3	0.3	0.3	0.3	0.3	1.365	1	0.8
142 – 352	3500:5	C200	0.3	0.3	0.3	0.3	0.3	1.493	1	0.8
142 – 402	4000:5	C200	0.3	0.3	0.3	0.3	0.3	1.452	1	0.8
142 – 502	5000:5	C200	0.3	0.3	0.3	0.3	0.3	1.915	1	0.8
142 – 602	6000:5	C200	0.3	0.3	0.3	0.3	0.3	2.298	1	0.6

Products are manufactured in a plant whose quality management system has been certified to be in compliance with ISO 9001:2015 by NQA



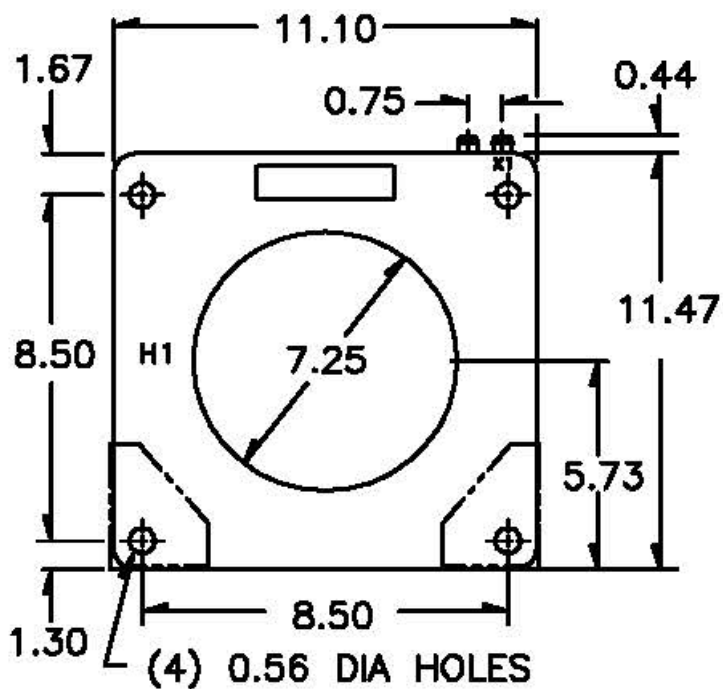
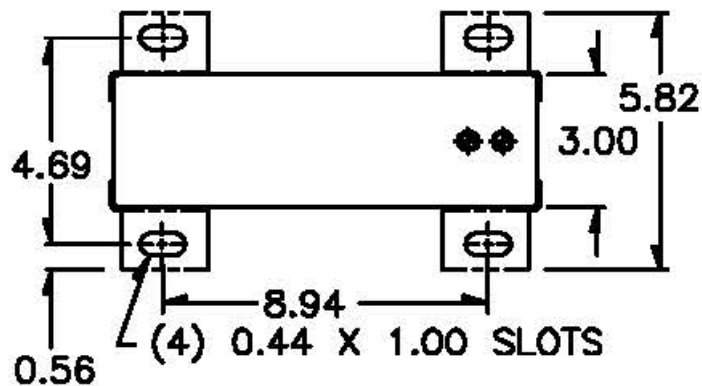
**TTL** Transformer Technologies Ltd.



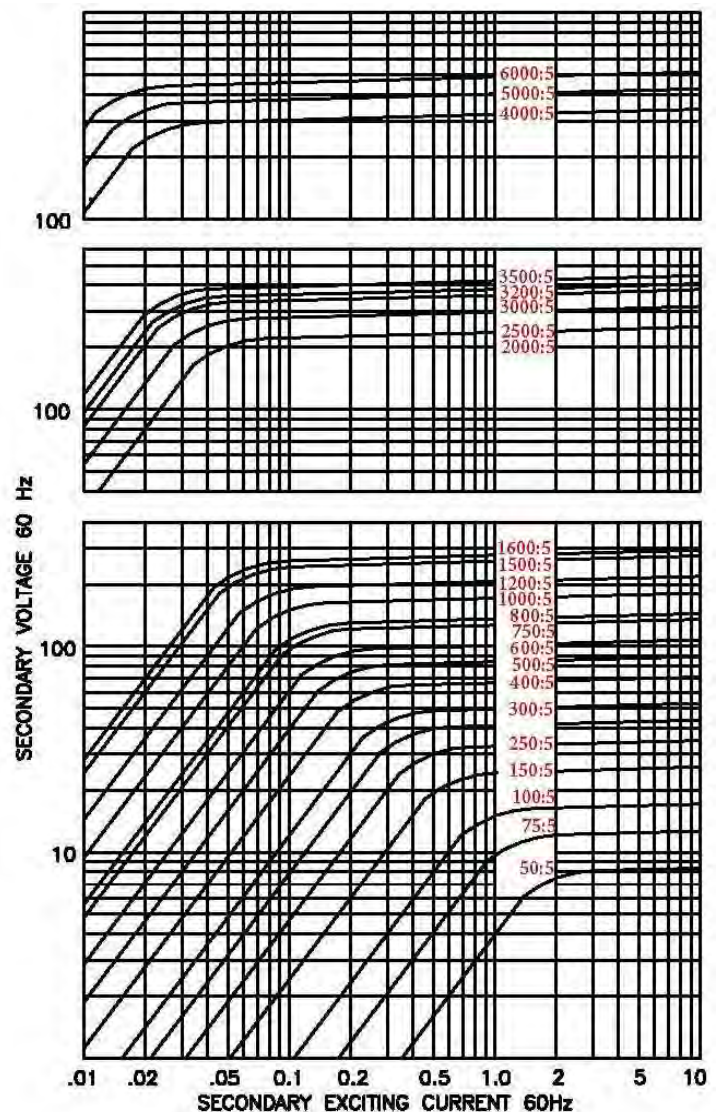
## Current Transformer

**Model 142**

rev 011218



EXCITATION CURVE



Products are manufactured in a plant whose quality management system has been certified to be in compliance with ISO 9001:2015 by NQA



## Current Transformer

**Model 142MR**

rev 011218

### APPLICATION:

Relaying and metering

### FREQUENCY:

50-400 Hz.

### INSULATION LEVEL:

600 Volts. 10 kV BIL. full wave

### WINDOW DIAMETER:

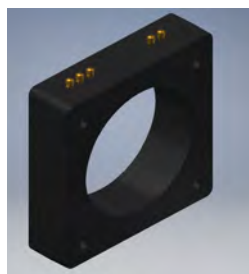
7.25"

### APPROXIMATE WEIGHT:

31 lbs.

### CONNECTIONS:

- Terminals are brass screws No. 10-32 UNF with one flat washer and a split lock washer
- Mounting Kit – 59-0215 (CR) and 59-0216 (CL)



Model	142MR
Window Size	7.25
Width	11.10
Height	11.47
Depth	3.00

### MODEL 142MR

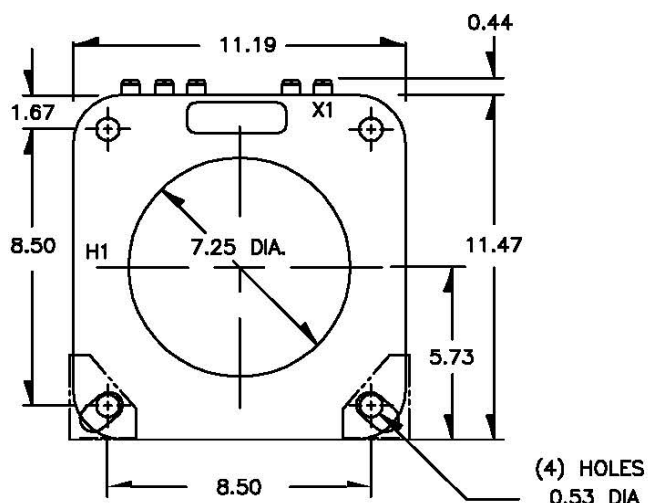
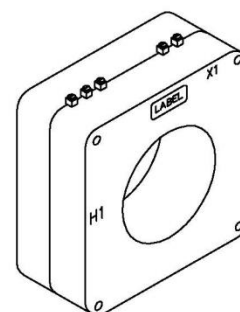
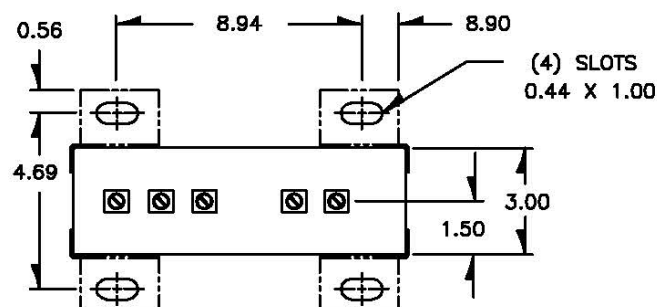
Window Diameter 7.25"

Approximate weight: 31 lbs.

### CERTIFICATIONS:



Catalog Number	Relay Class	Continuous Thermal	
		@ 30°C	@ 50°C
142-601MR	C50	2.0	2.0
142-122MR	C200	1.5	1.0
142-202MR	C200	2.0	1.5
142-302MR	C200	1.0	0.8
142-402MR	C200	1.0	0.8
142-502MR	C200	1.0	0.8



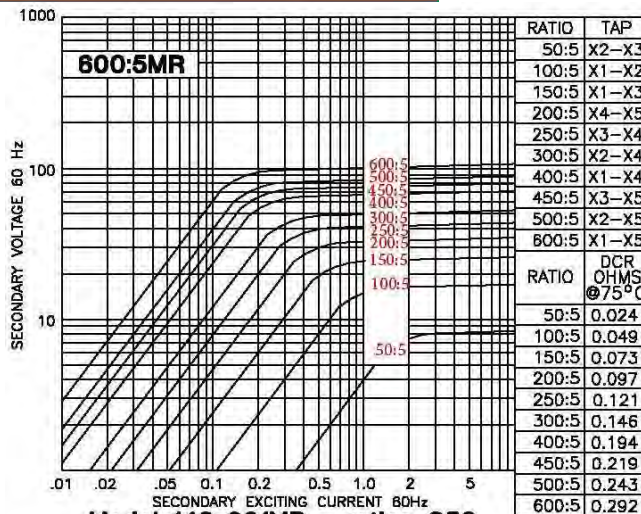
600:5A	40	50	10	20 turns	X1
1200:5A	80	100	20	40 turns	X1
2000:5A	100	60	160	80 turns	X1
3000:5A	100	60	240	200 turns	X1
4000:5A	200	200	300	100 turns	X1
5000:5A	200	400	100	300 turns	X1

MARKED RATIO (MR)



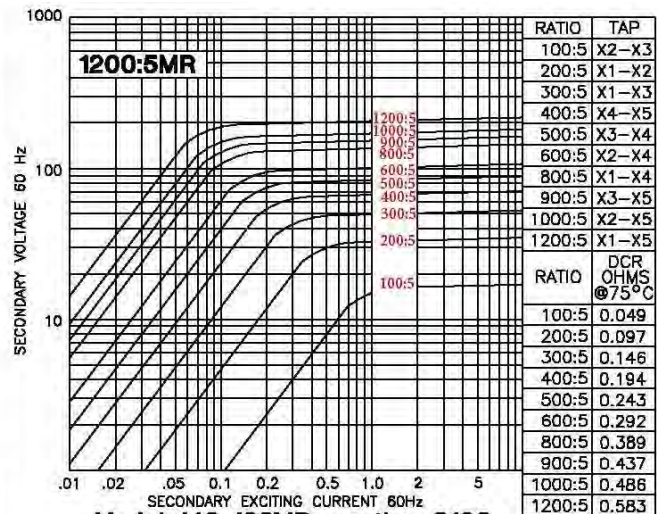


### EXCITATION CURVE



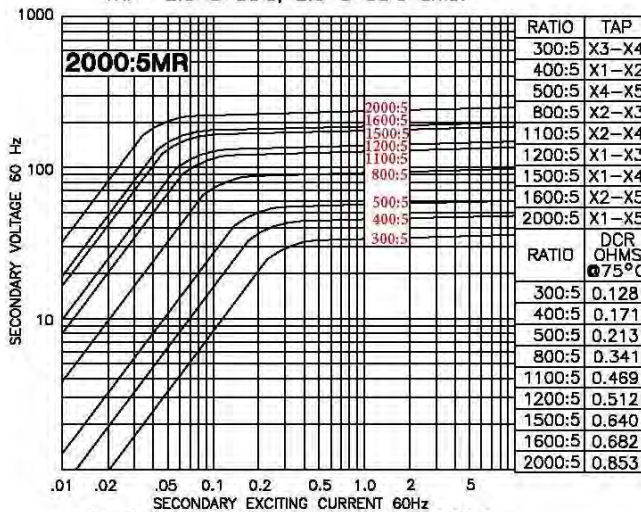
**Model 142-601MR - rating C50**

TRF= 2.0 @ 30°C, 2.0 @ 55°C amb.



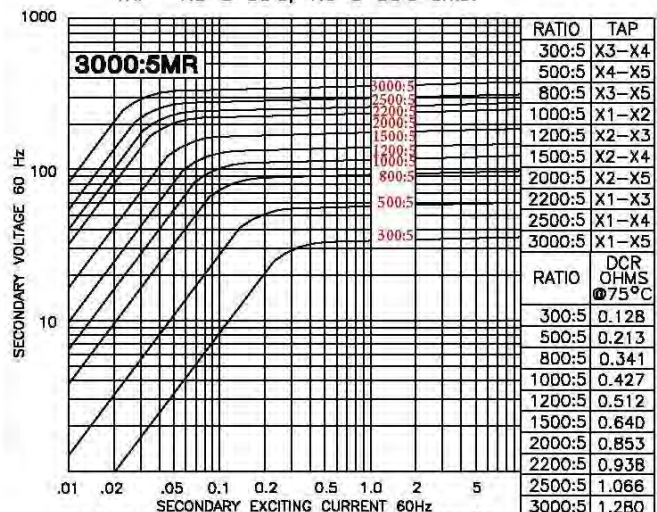
**Model 142-122MR - rating C100**

TRF= 1.5 @ 30°C, 1.0 @ 55°C amb.



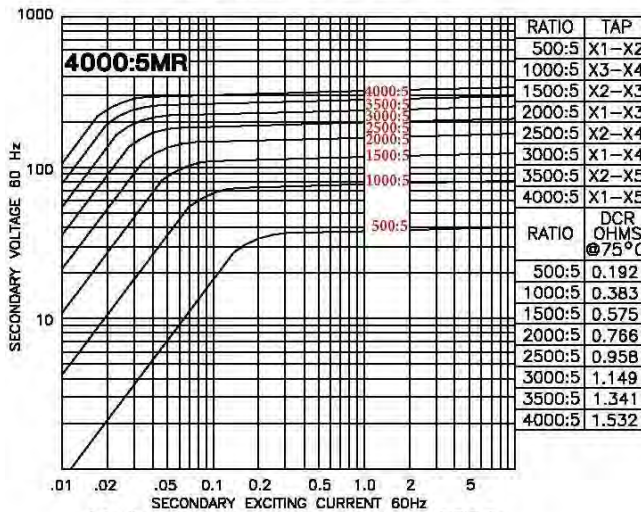
**Model 142-202MR - rating C200**

TRF= 2.0 @ 30°C, 1.5 @ 55°C amb.



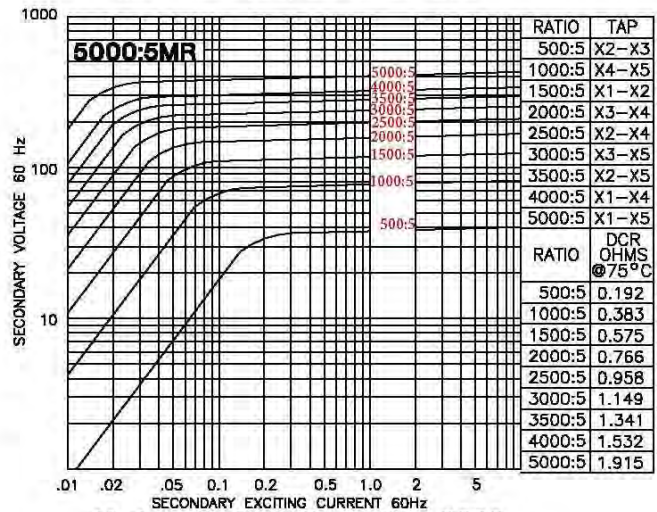
**Model 142-302MR - rating C200**

TRF= 1.0 @ 30°C, 0.8 @ 55°C amb.



**Model 142-402MR - rating C200**

TRF= 1.0 @ 30°C, 0.8 @ 55°C amb.



**Model 142-502MR - rating C200**

TRF= 1.0 @ 30°C, 0.8 @ 55°C amb.





## Current Transformer

**Model 143**

rev 011218

### CERTIFICATIONS:



E228202

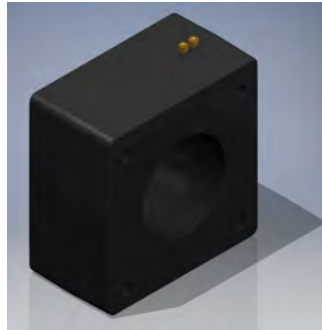


223647



ISO 9001

QUALITY  
MANAGEMENT



#### APPLICATION:

Relaying and metering.

#### FREQUENCY:

50-400 Hz.

#### INSULATION LEVEL:

600 Volts. 10 kV BIL. full wave

#### WINDOW DIAMETER:

7.31"

#### APPROXIMATE WEIGHT:

60 lbs.

#### CONNECTIONS:

- Terminals are brass screws No. 10-32 UNF with one flat washer and a split lock washer
- Multi-ratios available upon request
- Mounting Kit – 59-0215 (CR) and 59-0216 (CL)

Model	143
Window Size	7.31
Width	11.10
Height	11.47
Depth	6.00

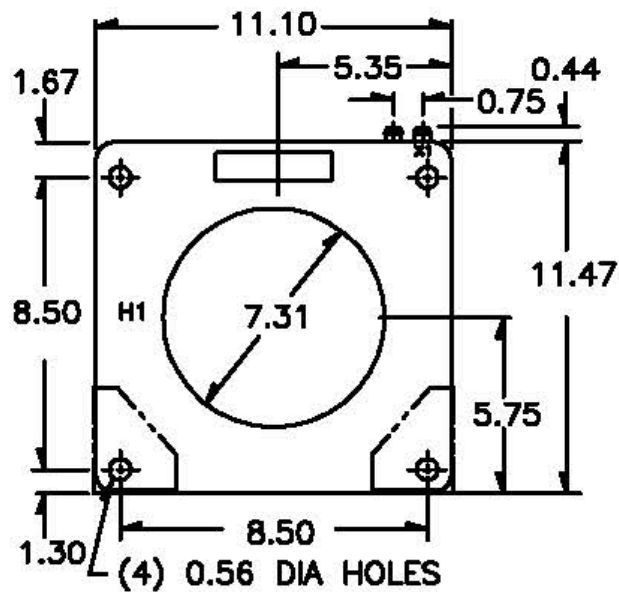
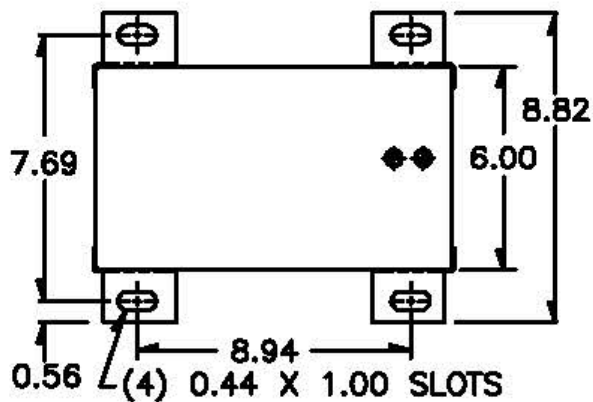
#### MODEL 143

Window Diameter 7.31"

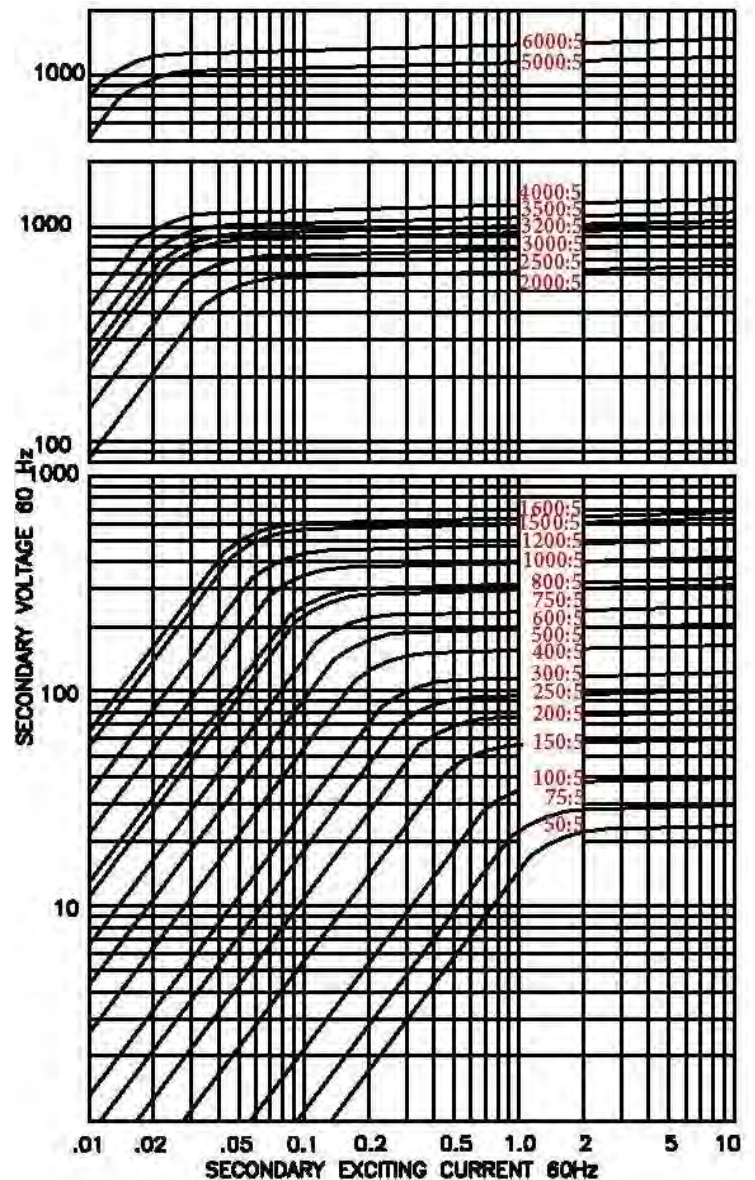
Approximate weight: 60 lbs.

CATALOG NUMBER	CURRENT RATIO	RELAY CLASS	ANSI METERING CLASS AT 60 HZ					SECONDARY WINDING RESISTANCE (OHMS @ 75°C)	CONTINUOUS THERMAL RATING FACTOR	
			B0.1	B0.2	B0.5	B0.9	B1.8		@ 30°C	@ 55°C
143 – 500	50:5	C20	4.8	4.8	-	-	-	0.014	2	2
143 – 750	75:5	C20	2.4	2.4	-	-	-	0.042	2	2
143 – 101	100:5	C20	1.2	2.4	4.8	-	-	0.056	2	2
143 – 151	150:5	C20	0.6	0.6	1.2	4.8	4.8	0.121	2	2
143 – 201	200:5	C50	0.3	0.3	0.6	2.4	2.4	0.161	2	2
143 – 251	250:5	C50	0.3	0.3	0.6	1.2	2.4	0.175	2	2
143 – 301	300:5	C100	0.3	0.3	0.3	1.2	1.2	0.241	2	2
143 – 401	400:5	C100	0.3	0.3	0.3	0.6	0.6	0.322	2	2
143 – 501	500:5	C100	0.3	0.3	0.3	0.3	0.6	0.441	2	2
143 – 601	600:5	C200	0.3	0.3	0.3	0.3	0.3	0.530	2	1.5
143 – 751	750:5	C200	0.3	0.3	0.3	0.3	0.3	0.662	2	1.5
143 – 801	800:5	C200	0.3	0.3	0.3	0.3	0.3	0.706	2	1.5
143 – 102	1000:5	C200	0.3	0.3	0.3	0.3	0.3	0.883	1.5	1.33
143 – 122	1200:5	C400	0.3	0.3	0.3	0.3	0.3	1.059	1.5	1
143 – 152	1500:5	C400	0.3	0.3	0.3	0.3	0.3	1.324	1.5	1
143 – 162	1600:5	C400	0.3	0.3	0.3	0.3	0.3	1.413	1.33	1
143 – 202	2000:5	C400	0.3	0.3	0.3	0.3	0.3	1.678	1.33	1
143 – 252	2500:5	C400	0.3	0.3	0.3	0.3	0.3	2.097	1	0.8
143 – 302	3000:5	C800	0.3	0.3	0.3	0.3	0.3	2.516	1	0.8
143 – 322	3200:5	C800	0.3	0.3	0.3	0.3	0.3	2.684	1	0.8
143 – 352	3500:5	C800	0.3	0.3	0.3	0.3	0.3	2.936	1	0.8
143 – 402	4000:5	C800	0.3	0.3	0.3	0.3	0.3	3.353	1	0.6
143 – 502	5000:5	C800	0.3	0.3	0.3	0.3	0.3	3.983	1	0.6
143 – 602	6000:5	C800	0.3	0.3	0.3	0.3	0.3	4.780	0.8	0.6

Products are manufactured in a plant whose quality management system has been certified to be in compliance with ISO 9001:2015 by NQA



EXCITATION CURVE





## Current Transformer

**Model 143MR**

rev 03182021

### CERTIFICATIONS:



ISO 9001

QUALITY  
MANAGEMENT



#### APPLICATION:

Relaying and metering.

#### FREQUENCY:

50-400 Hz.

#### INSULATION LEVEL:

600 Volts. 10 kV BIL. full wave

#### WINDOW DIAMETER:

7.31"

#### APPROXIMATE WEIGHT:

60 lbs.

#### CONNECTIONS:

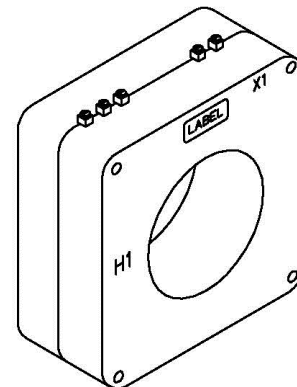
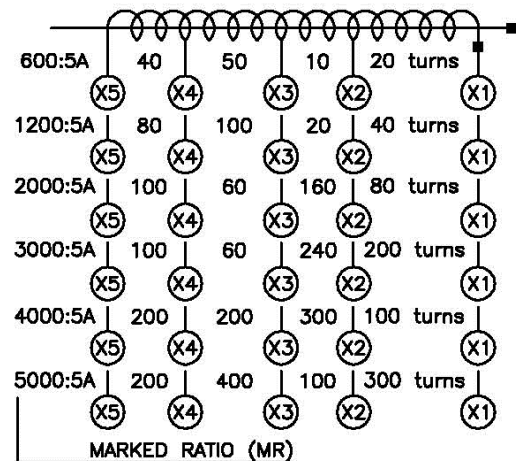
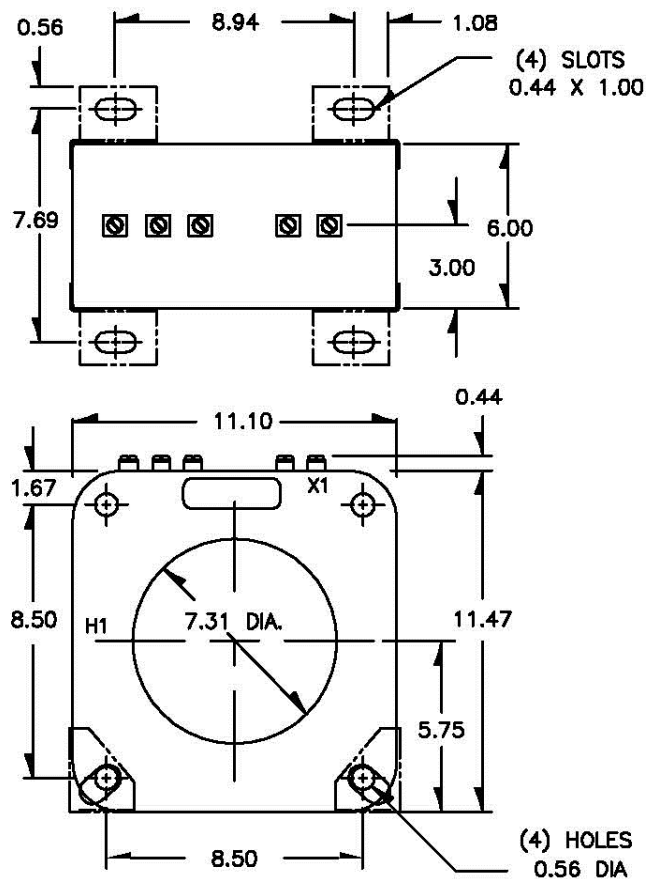
- Terminals are brass screws No. 10-32 UNF with one flat washer and a split lock washer
- Mounting kit – 59-0215 (CR) and 59-0216 (CL)

Model	143MR
Window Size	7.31
Width	11.10
Height	11.47
Depth	6.00

#### MODEL 143MR

Window Diameter 7.31"

Approximate weight: 60 lbs.







**TTL** Transformer  
Technologies Ltd.

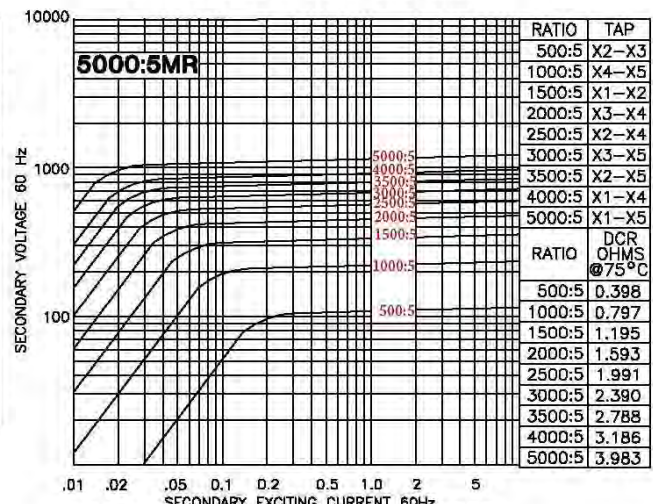
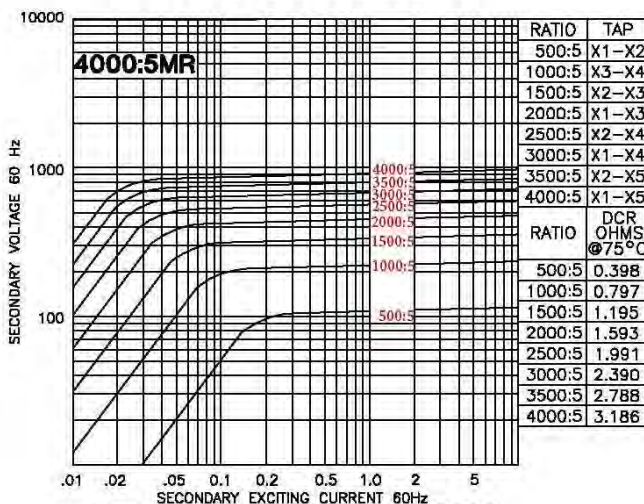
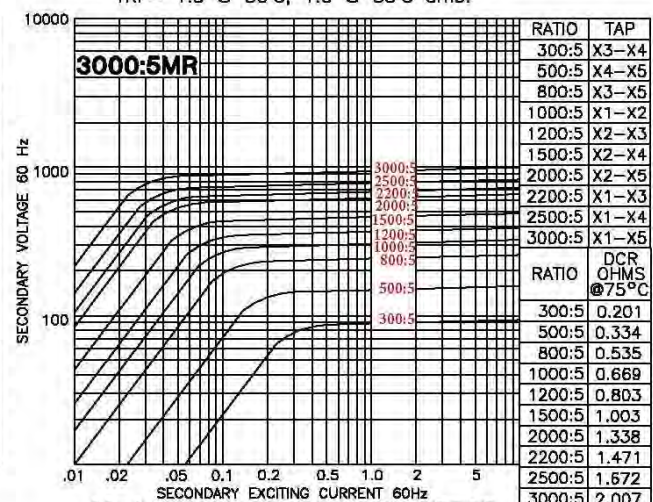
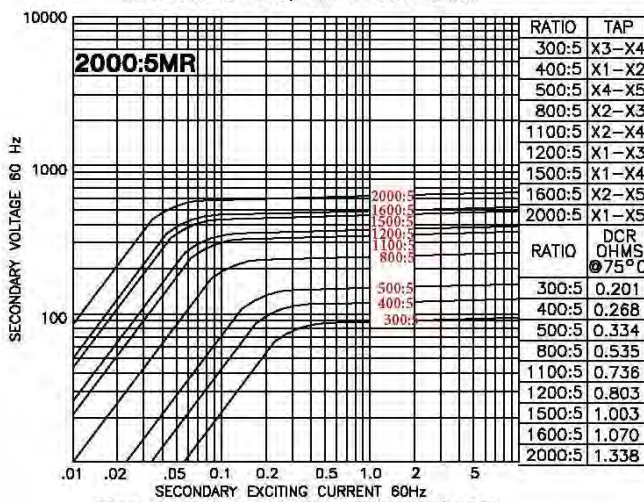
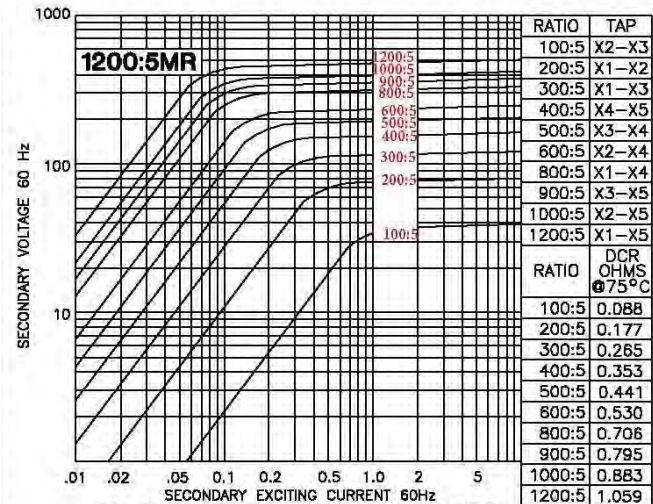
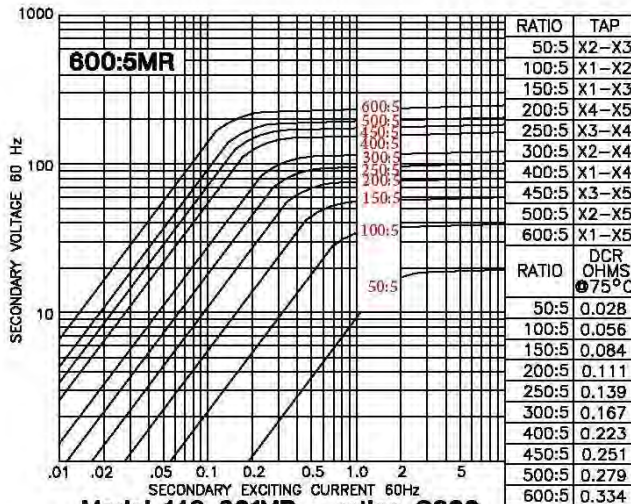


## Current Transformer

**Model 143MR**

rev 03182021

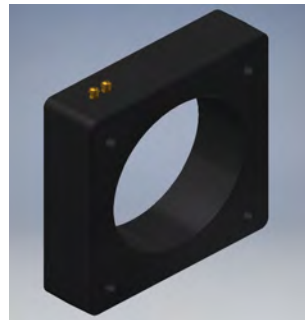
### EXCITATION CURVE







## Current Transformer



**Model 140**

rev 011218

### CERTIFICATIONS:



#### APPLICATION:

Relaying and metering.

#### FREQUENCY:

50-400 Hz.

#### INSULATION LEVEL:

600 Volts. 10 kV BIL. full wave

#### WINDOW DIAMETER:

8.13"

#### APPROXIMATE WEIGHT:

22 lbs.

#### CONNECTIONS:

- Terminals are brass screws No. 10-32 UNF with one flat washer and a split lock washer
- Multi-ratios available upon request
- Mounting Kit – 59-0215 (CR) and 59-0216 (CL)

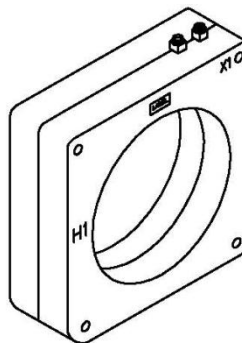
Model	140
Window Size	8.13
Width	11.10
Height	11.47
Depth	3.00

### MODEL 140

Window Diameter 8.13"

Approximate weight: 22 lbs.

CATALOG NUMBER	CURRENT RATIO	RELAY CLASS	ANSI METERING CLASS AT 60 HZ					SECONDARY WINDING RESISTANCE (OHMS @ 75°C)	CONTINUOUS THERMAL RATING FACTOR	
			B0.1	B0.2	B0.5	B0.9	B1.8		@ 30°C	@ 55°C
140 – 500	50:5	-	-	-	-	-	-	0.022	2	2
140 – 101	100:5	-	2.4	4.8	-	-	-	0.043	2	2
140 – 201	200:5	C10	1.2	1.2	2.4	4.8	-	0.088	2	2
140 – 251	250:5	C20	1.2	1.2	2.4	2.4	4.8	0.110	2	2
140 – 301	300:5	C20	0.6	1.2	1.2	2.4	2.4	0.131	2	2
140 – 401	400:5	C20	0.3	0.3	0.6	1.2	2.4	0.150	2	2
140 – 501	500:5	C20	0.3	0.3	0.6	1.2	1.2	0.216	2	2
140 – 601	600:5	C50	0.3	0.3	0.3	0.6	1.2	0.276	2	2
140 – 801	800:5	C50	0.3	0.3	0.3	0.3	0.6	0.351	2	2
140 – 102	1000:5	C50	0.3	0.3	0.3	0.3	0.6	0.432	2	1.5
140 – 122	1200:5	C100	0.3	0.3	0.3	0.3	0.3	0.529	1.5	1.5
140 – 152	1500:5	C100	0.3	0.3	0.3	0.3	0.3	0.657	1.5	1
140 – 202	2000:5	C100	0.3	0.3	0.3	0.3	0.3	0.865	1.33	1
140 – 252	2500:5	C100	0.3	0.3	0.3	0.3	0.3	1.009	1.33	1
140 – 302	3000:5	C100	0.3	0.3	0.3	0.3	0.3	1.211	1	0.8
140 – 402	4000:5	C200	0.3	0.3	0.3	0.3	0.3	1.614	1	0.8
140 – 502	5000:5	C50	0.3	0.3	0.3	0.3	0.3	1.836	1	0.8
140 – 602	6000:5	C100	0.3	0.3	0.3	0.3	0.3	2.203	1	0.6





**TTL** Transformer Technologies Ltd.

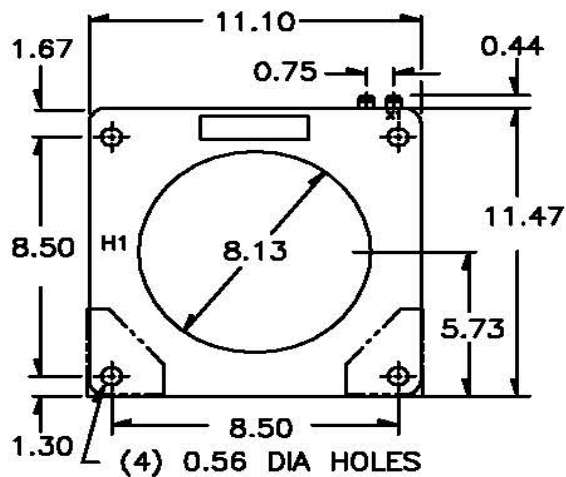
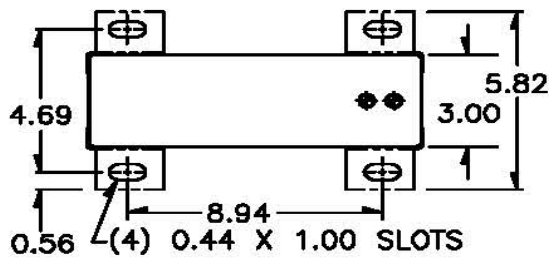


## Current Transformer

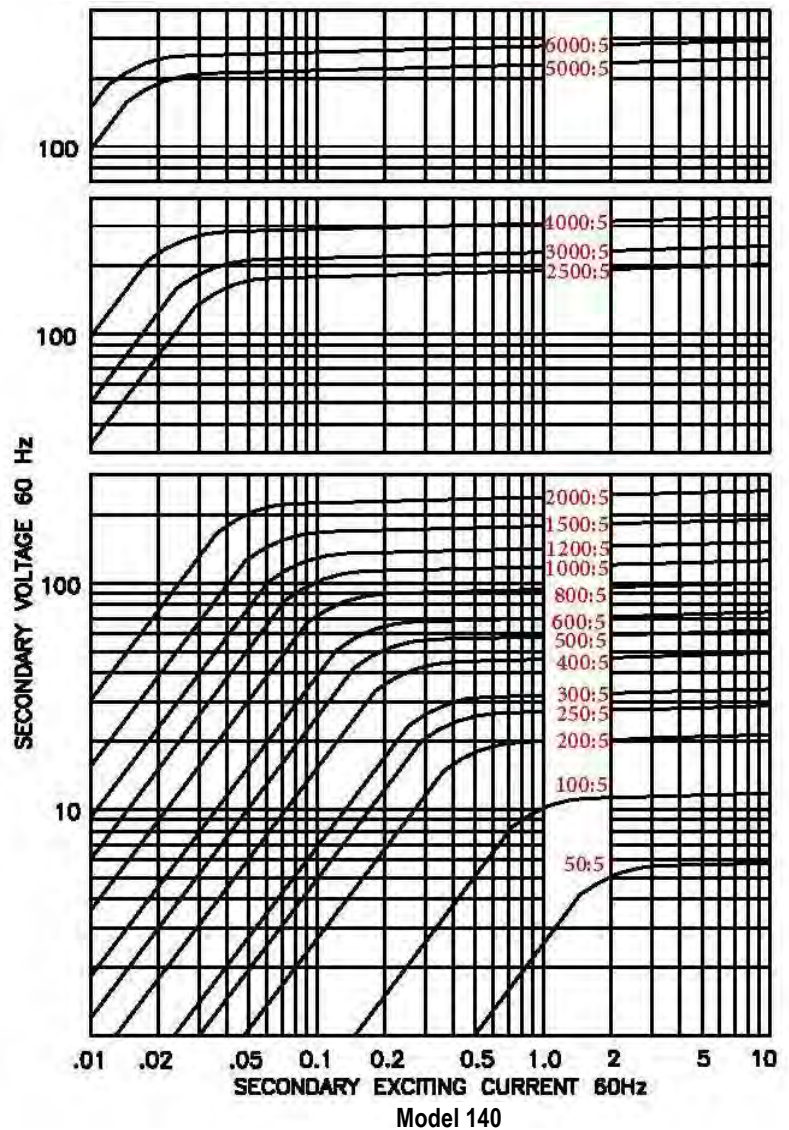
**Model 140**

rev 011218

Model 140



EXCITATION CURVE



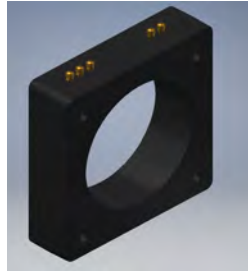


## Current Transformer

**Model 140MR**

rev 011218

### CERTIFICATIONS:



Model	140MR
Window Size	8.13
Width	11.10
Height	11.47
Depth	3.00

#### APPLICATION:

Relaying and metering

#### FREQUENCY:

50-400 Hz.

#### INSULATION LEVEL:

600 Volts, 10 kV BIL, full wave

#### WINDOW DIAMETER:

8.13"

#### APPROXIMATE WEIGHT:

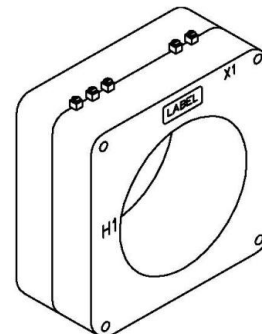
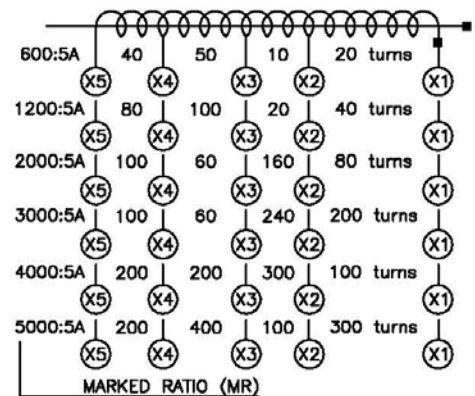
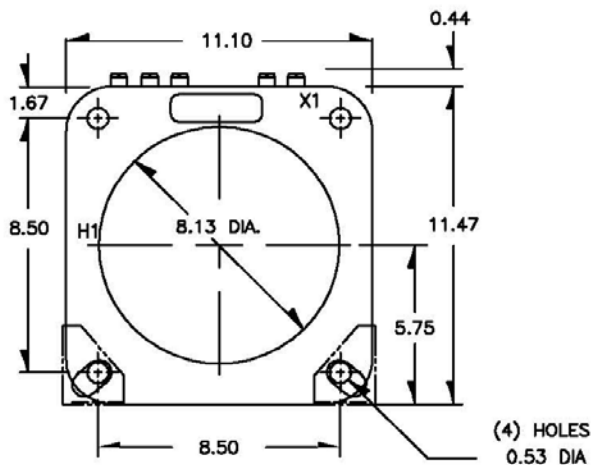
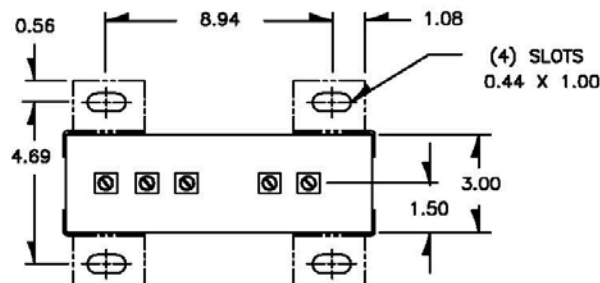
22 lbs.

#### CONNECTIONS:

- Terminals are brass screws No. 10-32 UNF with one flat washer and a split lock washer
- Mounting Kit – 59-0215 (CR) and 59-0216 (CL)

**MODEL 140MR**  
Window Diameter 8.13"  
Approximate weight: 22 lbs.

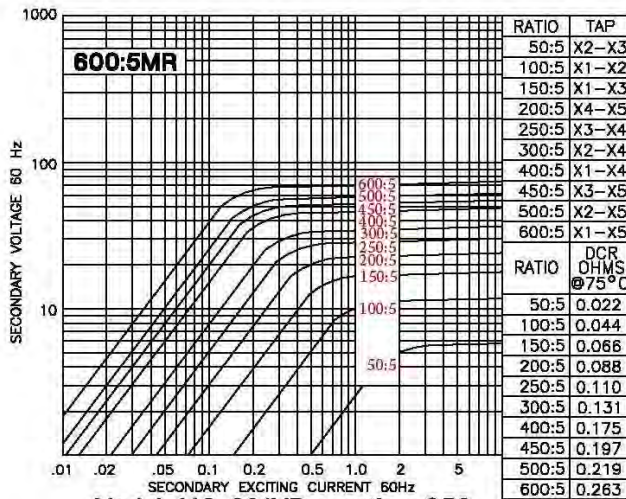
Catalog Number	Relay Class	Continuous Thermal	
		@ 30°C	@ 50°C
140-601MR	C50	2.0	2.0
140-122MR	C100	1.5	1.5
140-202MR	C100	1.33	1.0
140-302MR	C100	1.0	0.8
140-402MR	C100	1.0	0.8
140-502MR	C50	1.0	0.8





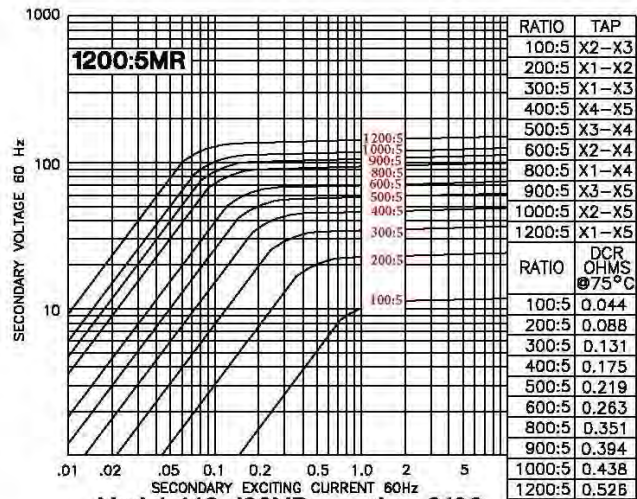


### EXCITATION CURVE



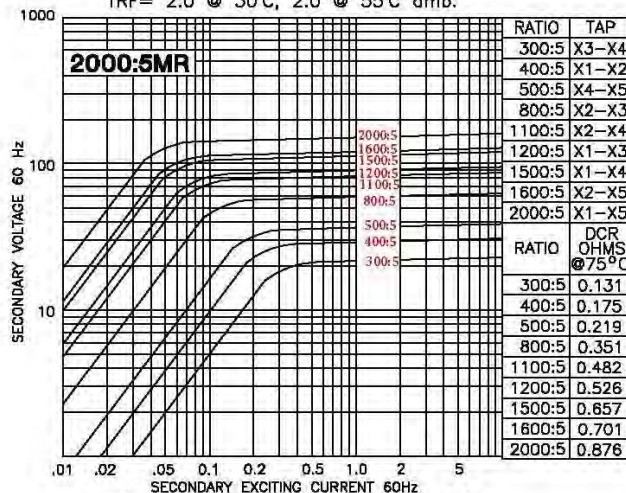
**Model 140-601MR - rating C50**

TRF= 2.0 @ 30°C, 2.0 @ 55°C amb.



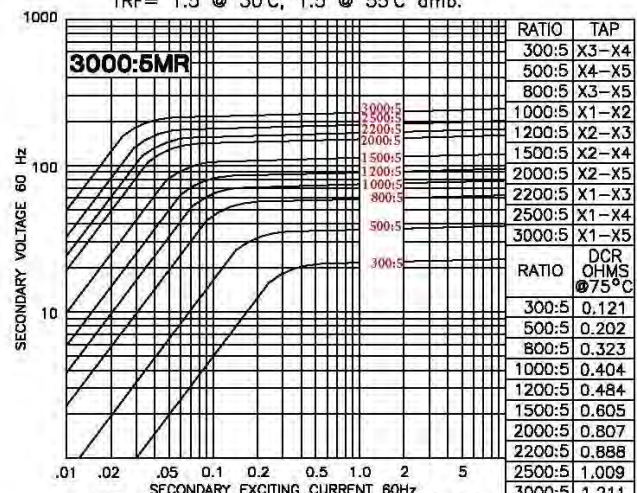
**Model 140-122MR - rating C100**

TRF= 1.5 @ 30°C, 1.5 @ 55°C amb.



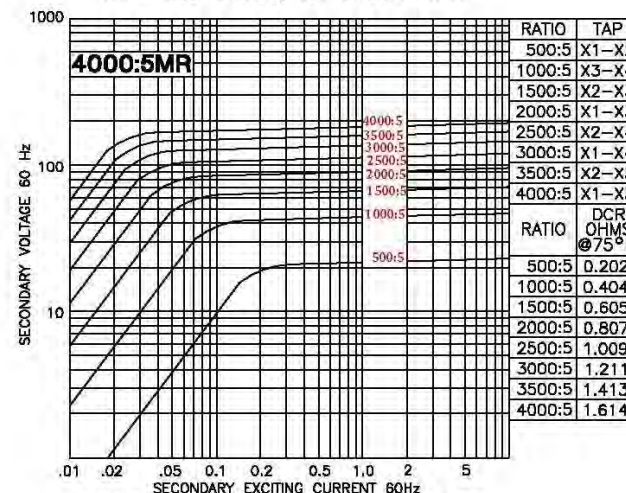
**Model 140-202MR - rating C100**

TRF= 1.33 @ 30°C, 1.0 @ 55°C amb.



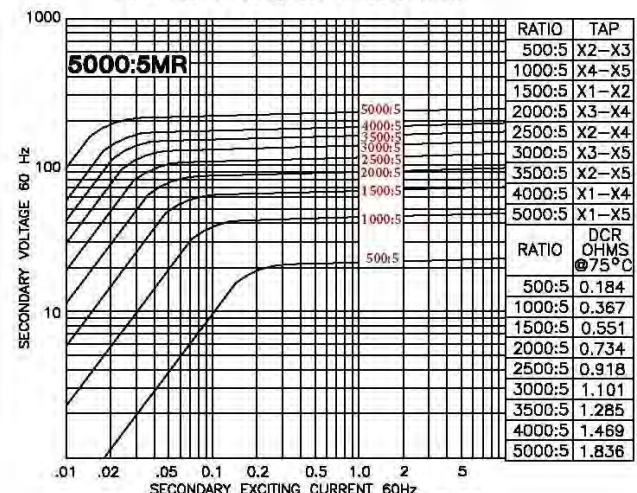
**Model 140-302MR - rating C100**

TRF= 1.0 @ 30°C, 0.8 @ 55°C amb.



**Model 140-402MR - rating C200**

TRF= 1.0 @ 30°C, 0.8 @ 55°C amb.



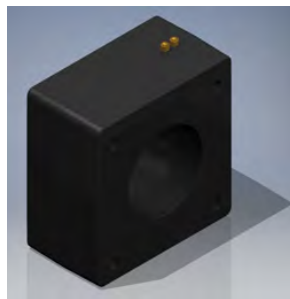
**Model 140-502MR - rating C50**

TRF= 1.0 @ 30°C, 0.8 @ 55°C amb.





## Current Transformer



**Model 141**

rev 011218

### CERTIFICATIONS:



#### APPLICATION:

Relaying and metering.

#### FREQUENCY:

50-400 Hz.

#### INSULATION LEVEL:

600 Volts. 10 kV BIL. full wave

#### WINDOW DIAMETER:

8.13"

#### APPROXIMATE WEIGHT:

44 lbs.

#### CONNECTIONS:

Terminals are brass screws No. 10-32 UNF with one flat washer and a split lock washer

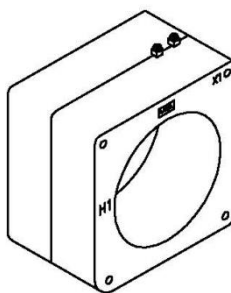
Model	141
Window Size	8.13
Width	11.10
Height	11.47
Depth	6.00

### MODEL 141

Window Diameter 8.13"

Approximate weight: 44 lbs.

CATALOG NUMBER	CURRENT RATIO	RELAY CLASS	ANSI METERING CLASS AT 60 HZ					SECONDARY WINDING RESISTANCE (OHMS @ 75°C)	CONTINUOUS THERMAL RATING FACTOR	
			B0.1	B0.2	B0.5	B0.9	B1.8		@ 30°C	@ 55°C
141 – 500	50:5	C10	4.8	-	-	-	-	0.033	2	2
141 – 101	100:5	C10	2.4	2.4	-	-	-	0.066	2	2
141 – 201	200:5	C20	0.6	1.2	1.2	2.4	4.8	0.117	2	2
141 – 301	300:5	C50	0.6	0.6	1.2	1.2	2.4	0.248	2	2
141 – 401	400:5	C50	0.3	0.3	0.6	0.6	1.2	0.277	2	2
141 – 501	500:5	C100	0.3	0.3	0.3	0.6	0.6	0.415	2	2
141 – 601	600:5	C100	0.3	0.3	0.3	0.3	0.6	0.498	2	1.5
141 – 801	800:5	C100	0.3	0.3	0.3	0.3	0.3	0.664	2	1.5
141 – 102	1000:5	C200	0.3	0.3	0.3	0.3	0.3	0.829	2	1.5
141 – 122	1200:5	C200	0.3	0.3	0.3	0.3	0.3	1.009	2	1.5
141 – 152	1500:5	C400	0.3	0.3	0.3	0.3	0.3	1.253	2	1.5
141 – 202	2000:5	C400	0.3	0.3	0.3	0.3	0.3	1.659	1.33	1
141 – 252	2500:5	C400	0.3	0.3	0.3	0.3	0.3	0.963	1.5	1.33
141 – 302	3000:5	C400	0.3	0.3	0.3	0.3	0.3	2.356	1.5	1
141 – 402	4000:5	C400	0.3	0.3	0.3	0.3	0.3	3.141	1	0.8
141 – 502	5000:5	C200	0.3	0.3	0.3	0.3	0.3	2.862	1	0.8
141 – 602	6000:5	C400	0.3	0.3	0.3	0.3	0.3	4.302	1	0.8



Products are manufactured in a plant whose quality management system has been certified to be in compliance with ISO 9001:2015 by NQA



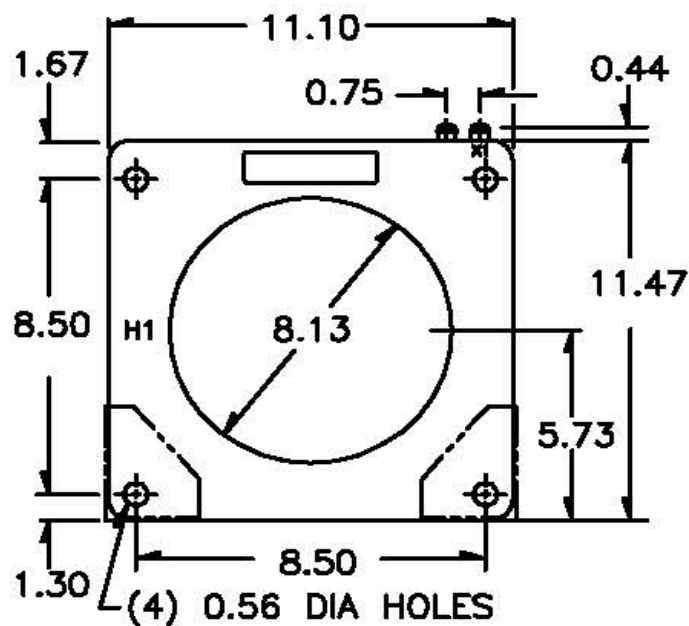
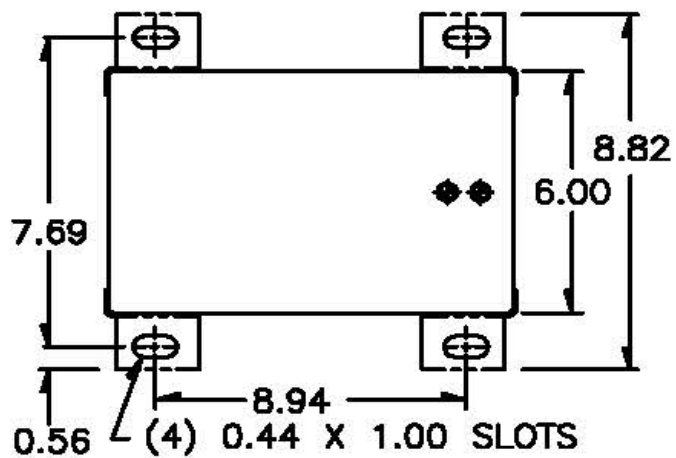
**TTL** Transformer  
Technologies Ltd.



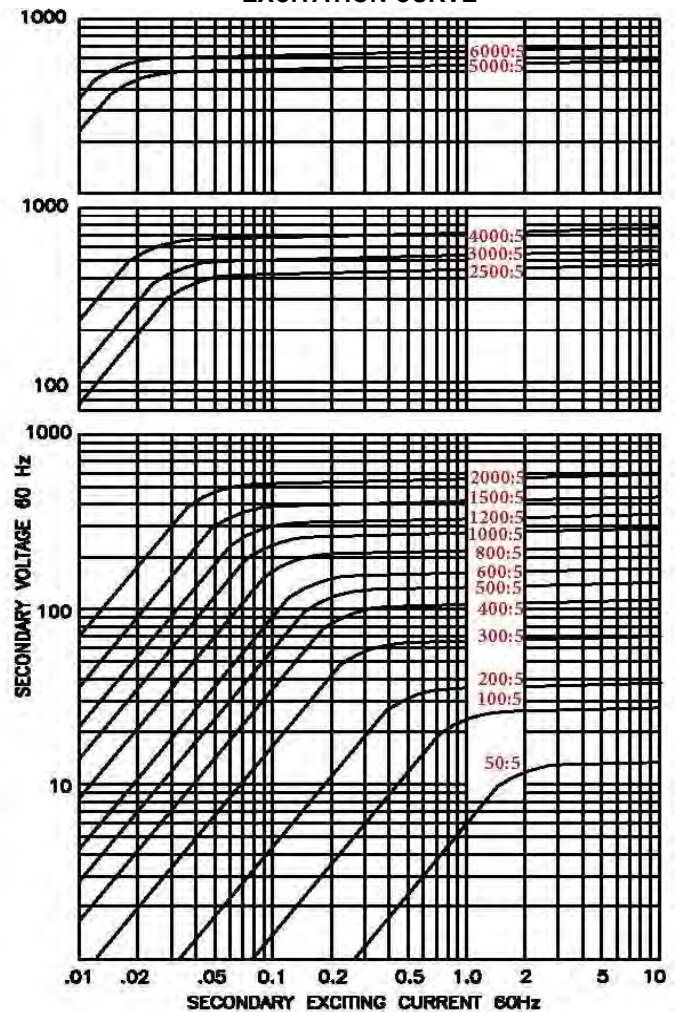
## Current Transformer

**Model 141**

rev 011218



EXCITATION CURVE





## Current Transformer

**Model 141MR**

rev 011218

### CERTIFICATIONS:



ISO 9001

QUALITY  
MANAGEMENT



#### APPLICATION:

Relaying and metering.

#### FREQUENCY:

50-400 Hz.

#### INSULATION LEVEL:

600 Volts. 10 kV BIL. full wave

#### WINDOW DIAMETER:

8.13"

#### APPROXIMATE WEIGHT:

44 lbs.

#### CONNECTIONS:

-Terminals are brass screws No. 10-32 UNF with one flat washer and a split lock washer

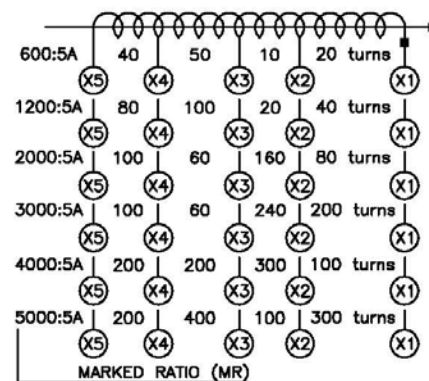
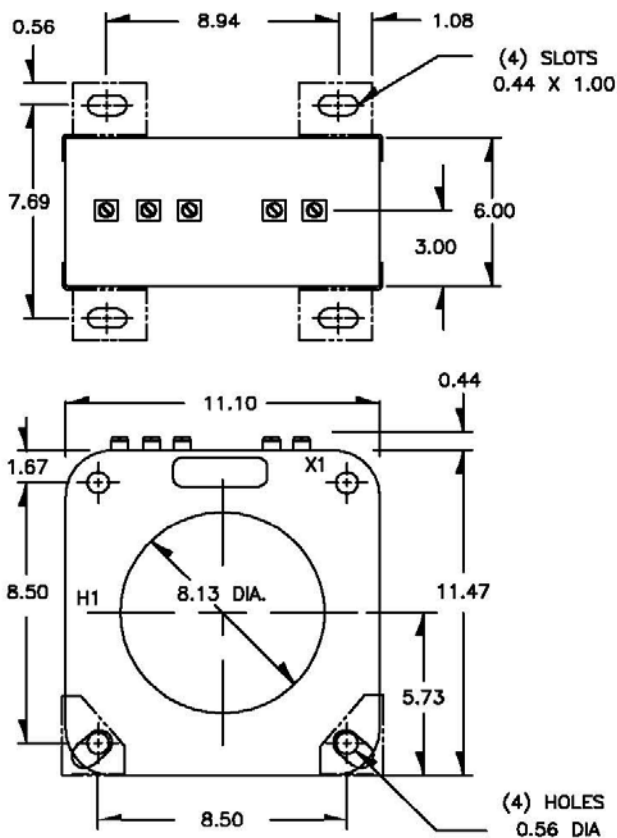
Model	141MR
Window Size	8.13
Width	11.10
Height	11.47
Depth	6.00

#### MODEL 141MR

Window Diameter 8.13"

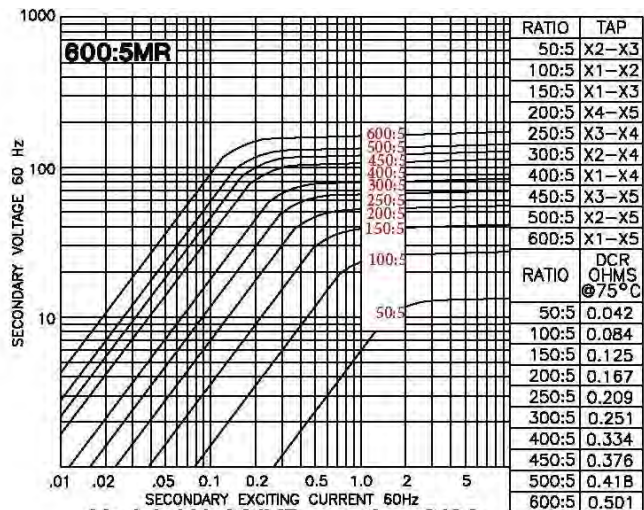
Approximate weight: 44 lbs.

Catalog Number	Relay Class	Continuous Thermal	
		@ 30°C	@ 50°C
141-601MR	C100	2.0	1.5
141-122MR	C200	2.0	1.5
141-202MR	C400	1.33	1.0
141-302MR	C400	1.5	1.33
141-402MR	C400	1.0	0.8
141-502MR	C200	1.0	0.8

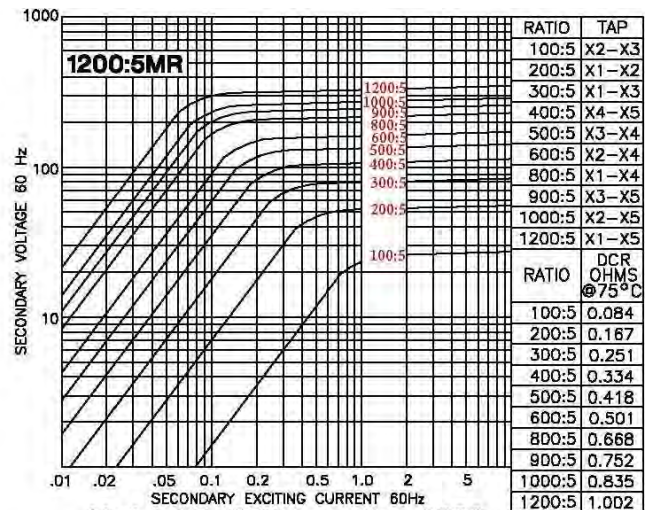




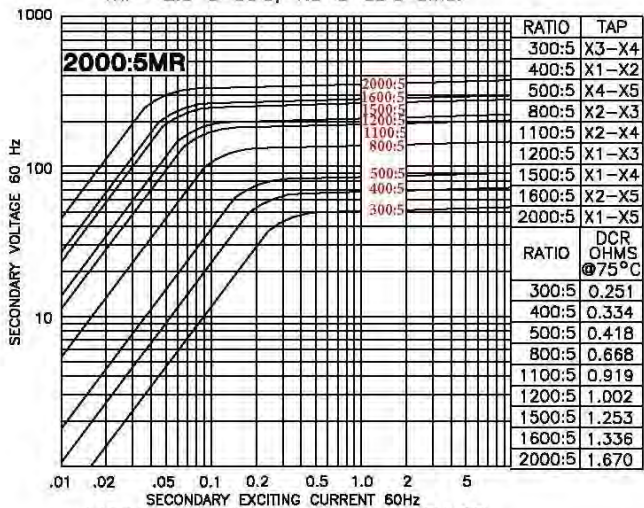
### EXCITATION CURVE



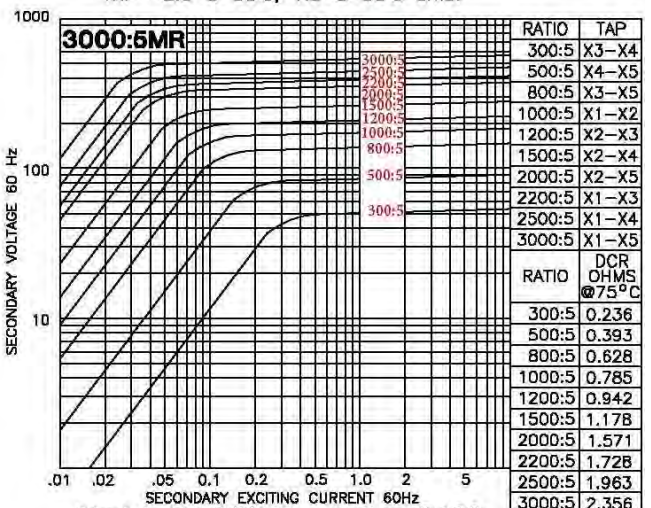
**Model 141-601MR - rating C100**  
TRF= 2.0 @ 30°C, 1.5 @ 55°C amb.



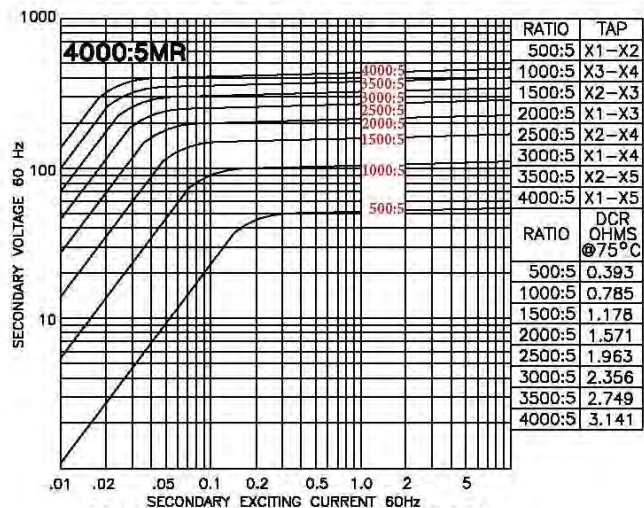
**Model 141-122MR - rating C200**  
TRF= 2.0 @ 30°C, 1.5 @ 55°C amb.



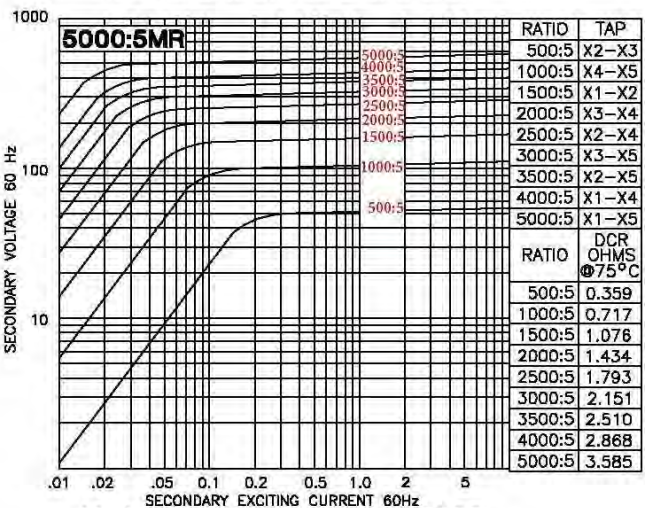
**Model 141-202MR - rating C400**  
TRF= 1.33 @ 30°C, 1.0 @ 55°C amb.



**Model 141-302MR - rating C400**  
TRF= 1.5 @ 30°C, 1.33 @ 55°C amb.



**Model 141-402MR - rating C400**  
TRF= 1.0 @ 30°C, 0.8 @ 55°C amb.



**Model 141-502MR - rating C200**  
TRF= 1.0 @ 30°C, 0.8 @ 55°C amb.



# Current Transformer

## Model 190 and 190X

Rev 020720

### APPLICATION:

### FREQUENCY:

50-400 Hz.

### INSULATION LEVEL:

0.6 kV, BIL 10 kV full wave

### APPROXIMATE WEIGHT:

4 lbs.

### CONNECTIONS:

-Terminals are brass studs No. 8-32 with one flatwasher, lockwasher and regular nut, for ratios up to 25:5 and ¼-20 studs for higher ratios.



E228202



223647



Catalog Number	V.A. ± 1% Class	ANSI Metering Class at 60 Hz				
		B0.1	B0.2	B0.5	B0.9	B1.8
190-2-XXX	12.5	0.6	0.6	1.2	2.4	-
190-4-XXX	30.0	0.3	0.3	0.3	0.3	1.2

Ratio	1:5	2.5:5	5:5	7.5:5	10:5	15:5	20:5	25:5	30:5	40:5	50:5	
Suffix	001	0025	005	0075	010	015	020	025	030*	040*	050*	*1/4-20 stud terminals

The Model 190 is a low ratio primary current transformer, suitable for primary currents up to 50 amperes. The table below lists the most common current ratings.

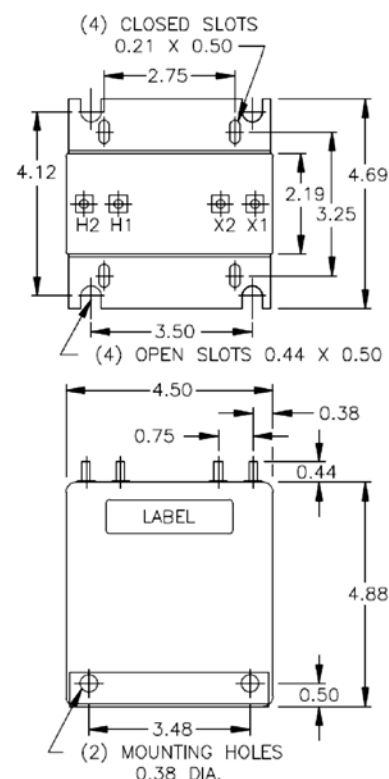
### Model 190 Wound Primary & 190X Auxiliary Transformer

#### ANSI Metering Class: 0.3 B0.5

The Model 190X is an auxiliary transformer for use in the secondary of main current transformers to change the ratio for metering applications. Since the Model 190X is used in the secondary of another current transformer it has no voltage rating. It is given a 2,500 volt 60 Hz potential test. It is designed to be used on circuits not to exceed 600 volts to ground or between windings.

Catalog Number	Current Ratio
190X0100	5:0.1
190X0200	5:0.2
190X0250	5:0.25
190X0500	5:0.5
190X0625	5:0.625
190X1000	5:1
190X1250	5:1.25
190X1667	5:1.667
190X2000	5:2
190X2395	5:2.395
190X2500	5:2.5
190X2890	5:2.89
190X3000	5:3
190X3330	5:3.33
190X3750	5:3.75
190X4000	5:4
190X5000	5:5
190X5330	5:5.33

Catalog Number	Current Ratio
190X6250	5:6.25
190X7500	5:7.5
190X8000	5:8
190X10000	5:10
190X12500	5:12.5
190X15000	5:15
190X1500-5	1.5:5
190X1667-5	1.667:5
190X2500-5	2.5:5
190X2875-5	2.875:5
190X7500-5	7.5:5
190X10000-5	10:5
190X0500-1	0.5:1
190X0923-1	0.923:1
190X0400-10	0.4:10
190XSUM-2**	5+5:5
190XSUM-4**	5+5+5+5:5
190XSUM-5**	5+5+5+5+5:5

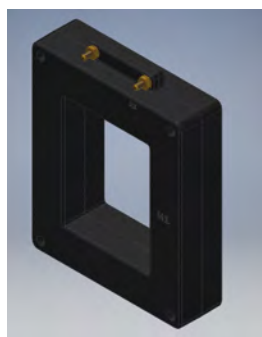


\*\*The circuits of up to five secondaries may be totaled. Equal or unequal line current transformers can be summed with this transformer. Advise the ratios of the line current transformers to be totaled for unequal ratios. Output terminals are X1-X2.

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## Current Transformer



<b>Model</b>	<b>560</b>
<b>Window Size</b>	<b>3.25 x 4.25</b>
<b>Width</b>	<b>5.75</b>
<b>Height</b>	<b>6.88</b>
<b>Depth</b>	<b>1.63</b>

### APPLICATION:

Metering

### FREQUENCY:

50-400 Hz.

### INSULATION LEVEL:

600 Volts, 10 kV BIL, full wave

### CONTINUOUS THERMAL RATING FACTOR:

1.33 at 30°C amb., 1.0 at 55°C amb.

### INSULATION SYSTEM:

Temperature Class H (180°C.)

### WINDOW DIAMETER:

3.25" x 4.25"

### APPROXIMATE WEIGHT:

3.5 lbs.

### CONNECTIONS:

Secondary terminals are No. 10-32 brass studs with one flat

## Model 560

rev 02222024

### CERTIFICATIONS:



E228202



223647

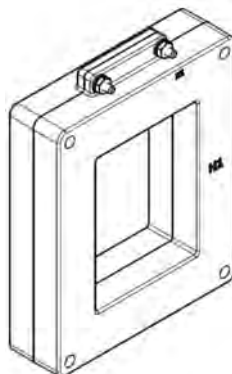


### MODEL 560

Window Diameter 3.25" x 4.25"

Approximate weight: 6 lbs.

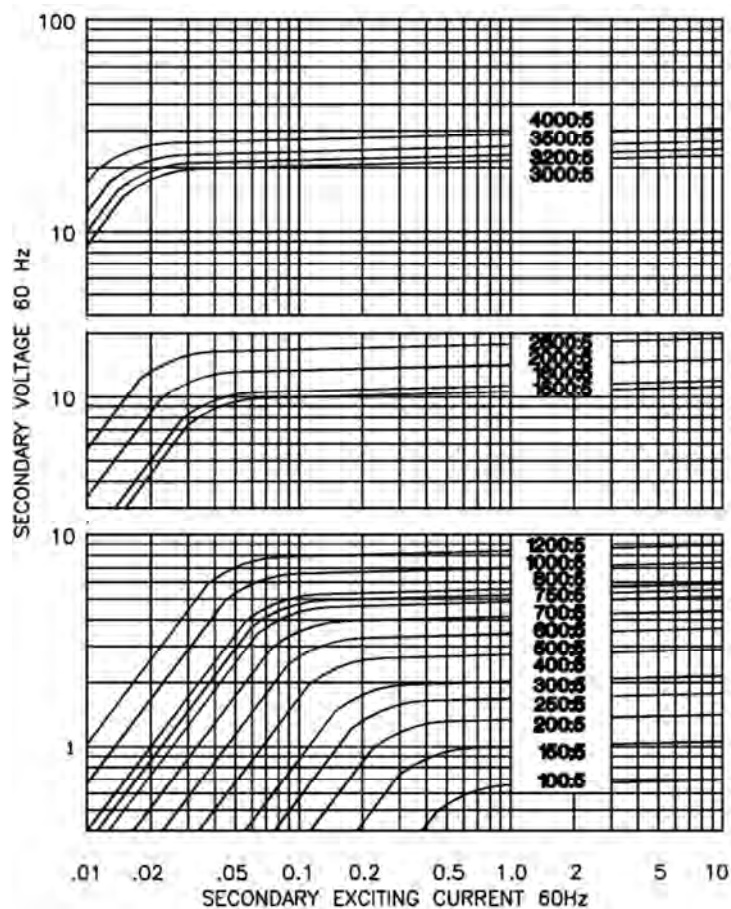
CATALOG NUMBER	CURRENT RATIO	ANSI METERING CLASS AT 60 HZ					SECONDARY WINDING RESISTANCE (OHMS @ 75°C)
		B0.1	B0.2	B0.5	B0.9	B1.8	
560-101	100:5	2.4	-	-	-	-	0.012
560-151	150:5	1.2	2.4	-	-	-	0.017
560-201	200:5	1.2	1.2	-	-	-	0.023
560-251	250:5	0.6	1.2	2.4	-	-	0.038
560-301	300:5	0.6	0.6	1.2	-	-	0.045
560-401	400:5	0.6	0.6	1.2	2.4	-	0.095
560-501	500:5	0.3	0.3	0.6	1.2	2.4	0.118
560-601	600:5	0.3	0.3	0.6	1.2	1.2	0.142
560-751	750:5	0.3	0.3	0.3	0.6	1.2	0.178
560-801	800:5	0.3	0.3	0.3	0.6	0.6	0.190
560-102	1000:5	0.3	0.3	0.3	0.6	0.6	0.211
560-122	1200:5	0.3	0.3	0.3	0.3	0.6	0.253
560-152	1500:5	0.3	0.3	0.3	0.3	0.6	0.368
560-162	1600:5	0.3	0.3	0.3	0.3	0.6	0.262
560-202	2000:5	0.3	0.3	0.3	0.3	0.6	0.328
560-252	2500:5	0.3	0.3	0.3	0.3	0.3	0.410
560-302	3000:5	0.3	0.3	0.3	0.3	0.3	0.347
560-322	3200:5	0.3	0.3	0.3	0.3	0.3	0.370
560-402	4000:5	0.3	0.3	0.3	0.3	0.3	0.462



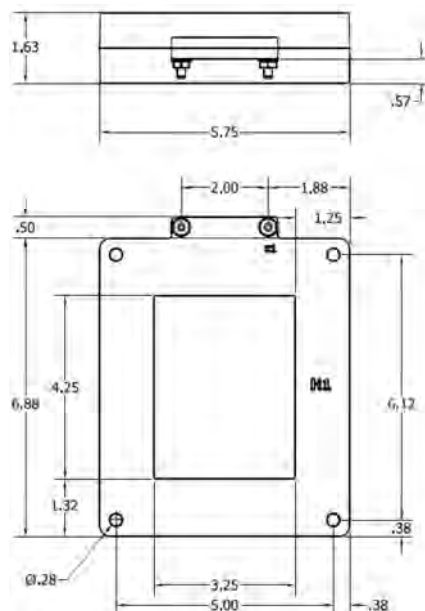
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### EXCITATION CURVE



### DIMENSIONS



Products are manufactured in a plant whose quality management system has been certified to be in compliance with ISO 9001:2015 by NQA



## Current Transformer

**Model 561**

rev 02222024

### APPLICATION:

Relaying and Metering

### FREQUENCY:

50-400 Hz.

### INSULATION LEVEL:

600 Volts, 10 kV BIL, full wave

### CONTINUOUS THERMAL RATING FACTOR:

1.33 at 30°C amb., 1.0 at 55°C amb.

### INSULATION SYSTEM:

Temperature Class H (150°C.)

### WINDOW DIAMETER:

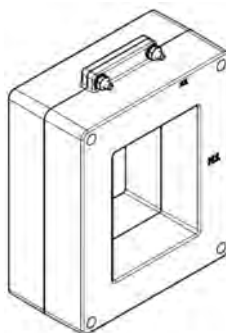
3.25" x 4.25"

### APPROXIMATE WEIGHT:

8 lbs.

### CONNECTIONS:

Secondary terminals are No. 10-32 brass studs with one flat



<b>Model</b>	<b>561</b>
<b>Window Size</b>	<b>3.25 x 4.25</b>
<b>Width</b>	<b>5.75</b>
<b>Height</b>	<b>6.88</b>
<b>Depth</b>	<b>2.88</b>

### CERTIFICATIONS:



E228202

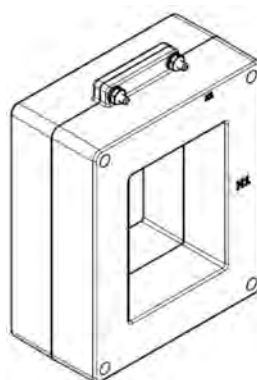


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**MODEL 561**  
Window Diameter 3.25" x 4.25"  
Approximate weight: 8 lbs.

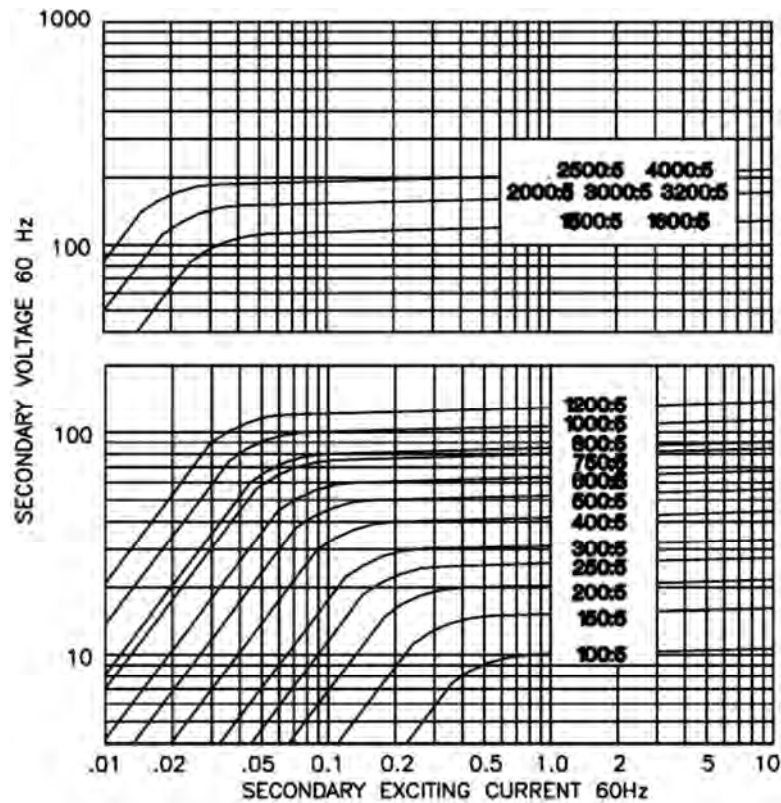
CATALOG NUMBER	CURRENT RATIO	RELAY CLASS	ANSI METERING CLASS AT 60 HZ					SECONDARY WINDING RESISTANCE (OHMS @ 75°C)
			B0.1	B0.2	B0.5	BO.9	B1.8	
561-101	100:5	-	2.4	-	-	-	-	0.021
561-151	150:5	C10	1.2	2.4	-	-	-	0.032
561-201	200:5	C10	0.6	1.2	2.4	2.4	-	0.043
561-251	250:5	C20	0.6	0.6	1.2	2.4	-	0.054
561-301	300:5	C20	0.3	0.6	1.2	1.2	2.4	0.064
561-401	400:5	C20	0.6	0.3	0.6	1.2	1.2	0.086
561-501	500:5	C20	0.3	0.3	0.3	0.6	0.6	0.170
561-601	600:5	C20	0.3	0.3	0.3	0.3	0.6	0.161
561-751	750:5	C50	0.3	0.3	0.3	0.3	0.6	0.202
561-801	800:5	C50	0.3	0.3	0.3	0.3	0.6	0.340
561-102	1000:5	C50	0.3	0.3	0.3	0.3	0.3	0.425
561-122	1200:5	C100	0.3	0.3	0.3	0.3	0.3	0.510
561-152	1500:5	C50	0.3	0.3	0.3	0.3	0.3	0.766
561-162	1600:5	C50	0.3	0.3	0.3	0.3	0.3	1.817
561-202	2000:5	C100	0.3	0.3	0.3	0.3	0.3	1.021
561-252	2500:5	C100	0.3	0.3	0.3	0.3	0.3	1.276
561-302	3000:5	C50	0.3	0.3	0.3	0.3	0.3	1.396
561-322	3200:5	C50	0.3	0.3	0.3	0.3	0.3	1.489
561-402	4000:5	C100	0.3	0.3	0.3	0.3	0.3	1.861



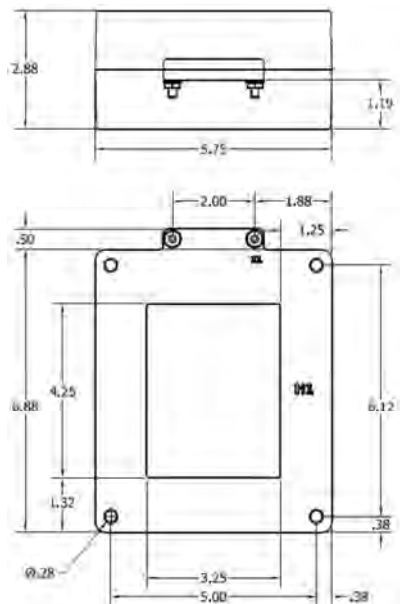




### EXCITATION CURVE



### DIMENSIONS





## Current Transformer

**Model 562**  
rev 11152021

### APPLICATION:

Metering

### FREQUENCY:

50-400 Hz.

### INSULATION LEVEL:

600 Volts, 10 kV BIL, full wave

### CONTINUOUS THERMAL RATING FACTOR:

1.33 at 30°C amb., 1.0 at 55°C amb.

### INSULATION SYSTEM:

Temperature Class H (150°C.)

### WINDOW DIAMETER:

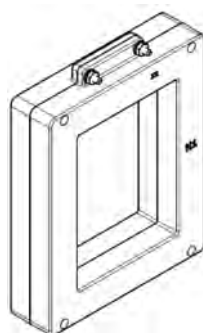
4.00" x 5.38"

### APPROXIMATE WEIGHT:

8 lbs.

### CONNECTIONS:

Secondary terminals are No. 10-32 brass studs with one flat



<b>Model</b>	<b>562</b>
<b>Window Size</b>	<b>4.00 x 5.38</b>
<b>Width</b>	<b>6.30</b>
<b>Height</b>	<b>7.63</b>
<b>Depth</b>	<b>1.63</b>

### CERTIFICATIONS:

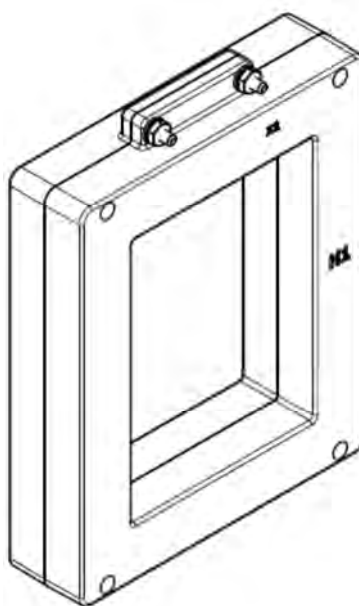


### MODEL 562

Window Diameter 4.00" x 5.38"

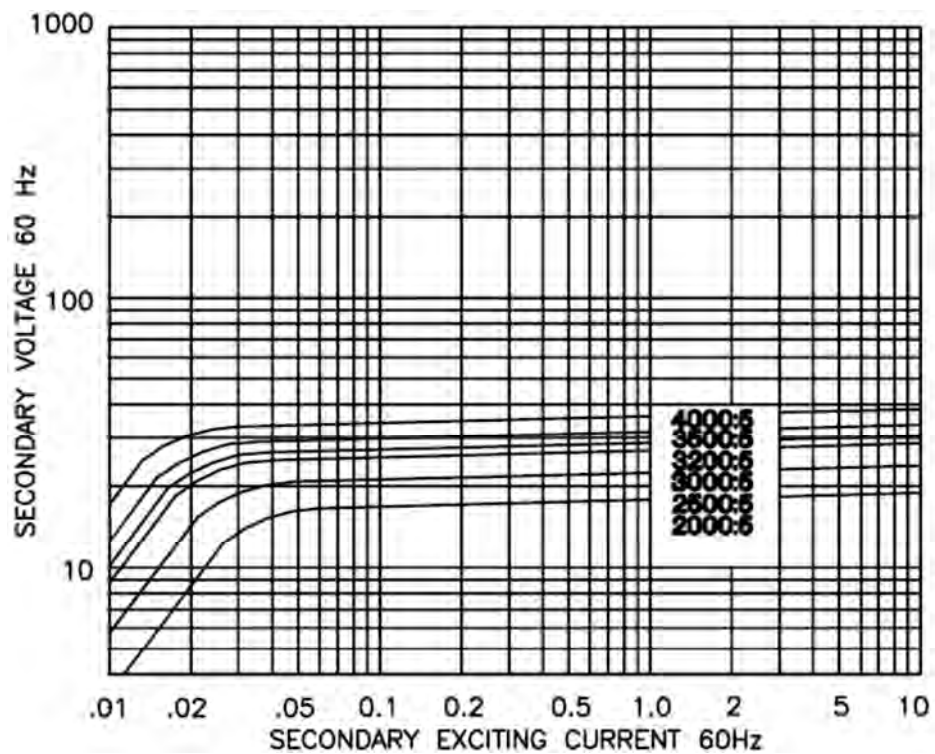
Approximate weight: 8 lbs.

CATALOG NUMBER	CURRENT RATIO	ANSI METERING CLASS AT 60 HZ					SECONDARY WINDING RESISTANCE (OHMS @ 75°C)
		B0.1	B0.2	B0.5	B0.9	B1.8	
562-202	2000:5	0.3	0.3	0.3	0.6	0.6	0.345
562-252	2500:5	0.3	0.3	0.3	0.3	0.6	0.431
562-302	3000:5	0.3	0.3	0.3	0.3	0.6	0.517
562-322	3200:5	0.3	0.3	0.3	0.3	0.6	0.552
562-352	3500:5	0.3	0.3	0.3	0.3	0.3	0.604
562-402	4000:5	0.6	0.3	0.3	0.3	0.3	0.600

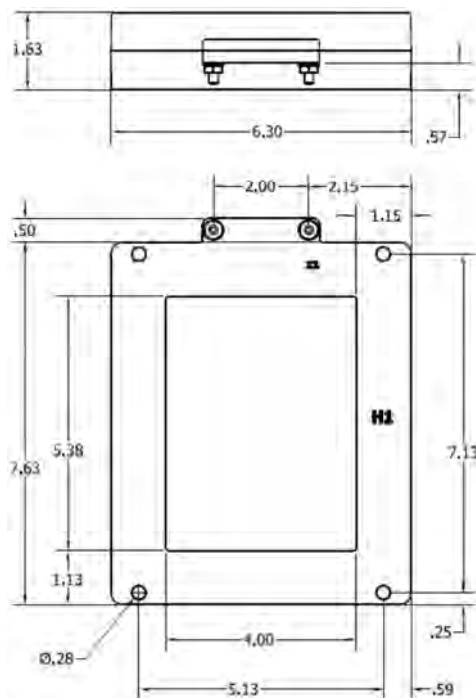


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**EXCITATION CURVE**



**DIMENSIONS**





## Current Transformer

Extended Lead 100 to 240 inch Leads

**Model 562-Long Lead**  
rev 111821

### APPLICATION

Metering

### FREQUENCY:

50-400 Hz.

### INSULATION LEVEL:

600 Volts. 10 kV BIL. full wave

### CONTINUOUS THERMAL RATING FACTOR:

1.33 at 30°C amb., 1.0 at 55°C amb.

### INSULATION SYSTEM:

Temperature Class H (150°C.)

### WINDOW DIAMETER:

4.00" x 5.38"

### APPROXIMATE WEIGHT:

8 lbs.

### CONNECTIONS:

-Flexible leads are UL 1015 105°C, #16 AWG

-Non-standard length to be specified



Model	562
Window Size	4.00 x 5.38
Width	6.30
Height	7.63
Depth	1.63

### CERTIFICATIONS:



**MODEL 562**  
**Window Diameter 4.00" x 5.38"**  
**Approximate weight: 8 lbs.**

CATALOG NUMBER	CURRENT RATIO	ANSI METERING CLASS AT 60 HZ					SECONDARY WINDING RESISTANCE (OHMS @ 75°C)
		B0.1	B0.2	B0.5	B0.9	B1.8	
562-122-LL-XXX	1200:5	0.6	0.6	0.6	1.2	N/A	0.115
562-202-LL-XXX	2000:5	0.3	0.3	0.6	0.6	0.6	0.345
562-252-LL-XXX	2500:5	0.3	0.3	0.6	0.6	0.6	0.431
562-302-LL-XXX	3000:5	0.3	0.3	0.6	0.6	0.6	0.517
562-322-LL-XXX	3200:5	0.3	0.3	0.6	0.6	0.6	0.552
562-352-LL-XXX	3500:5	0.3	0.3	0.6	0.6	0.6	0.604
562-402-LL-XXX	4000:5	0.3	0.3	0.6	0.6	0.6	0.600

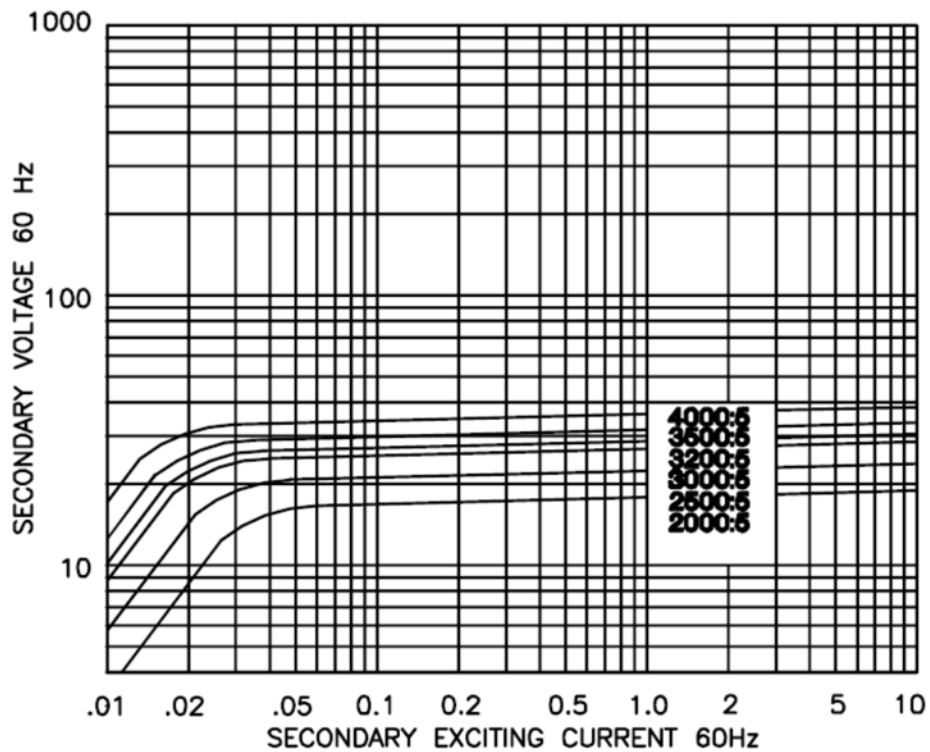
XXX = 100 to 240 inch leads



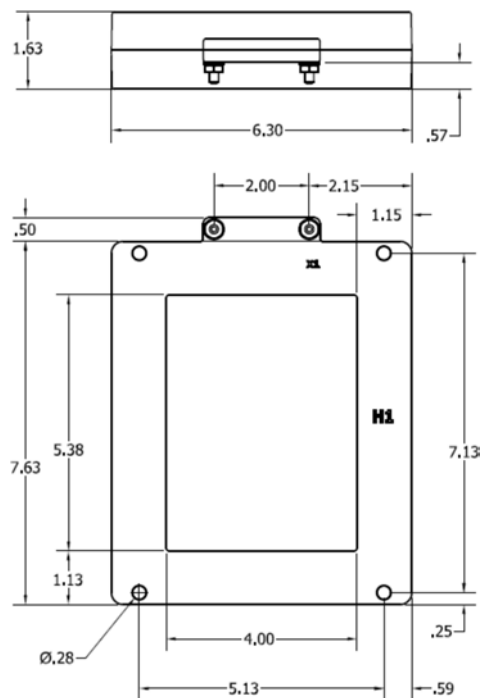
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## EXCITATION CURVE



## DIMENSIONS



## Current Transformer

**Model 563**  
rev 11152021

### CERTIFICATIONS:



#### APPLICATION:

Relaying and Metering

#### FREQUENCY:

50-400 Hz.

#### INSULATION LEVEL:

600 Volts. 10 kV BIL. full wave

#### INSULATION SYSTEM:

Temperature Class H (150°C.)

#### WINDOW DIAMETER:

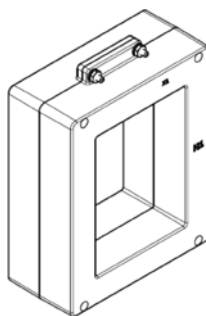
4.00" x 5.38"

#### APPROXIMATE WEIGHT:

12 lbs.

#### CONNECTIONS:

Secondary terminals are No. 10-32 brass studs with one flat



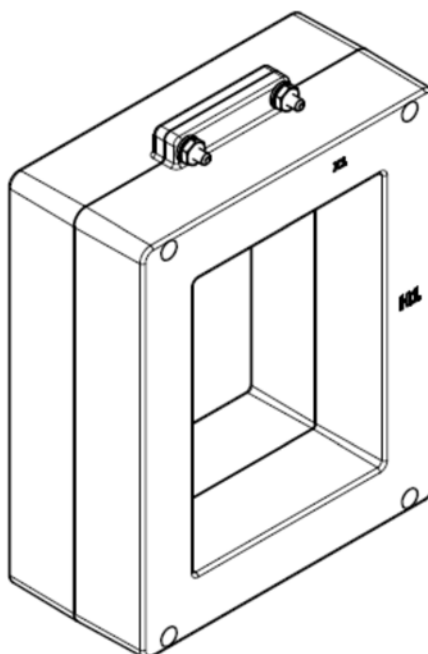
Model	563
Window Size	4.00 x 5.38
Width	6.30
Height	7.63
Depth	2.88

### MODEL 563

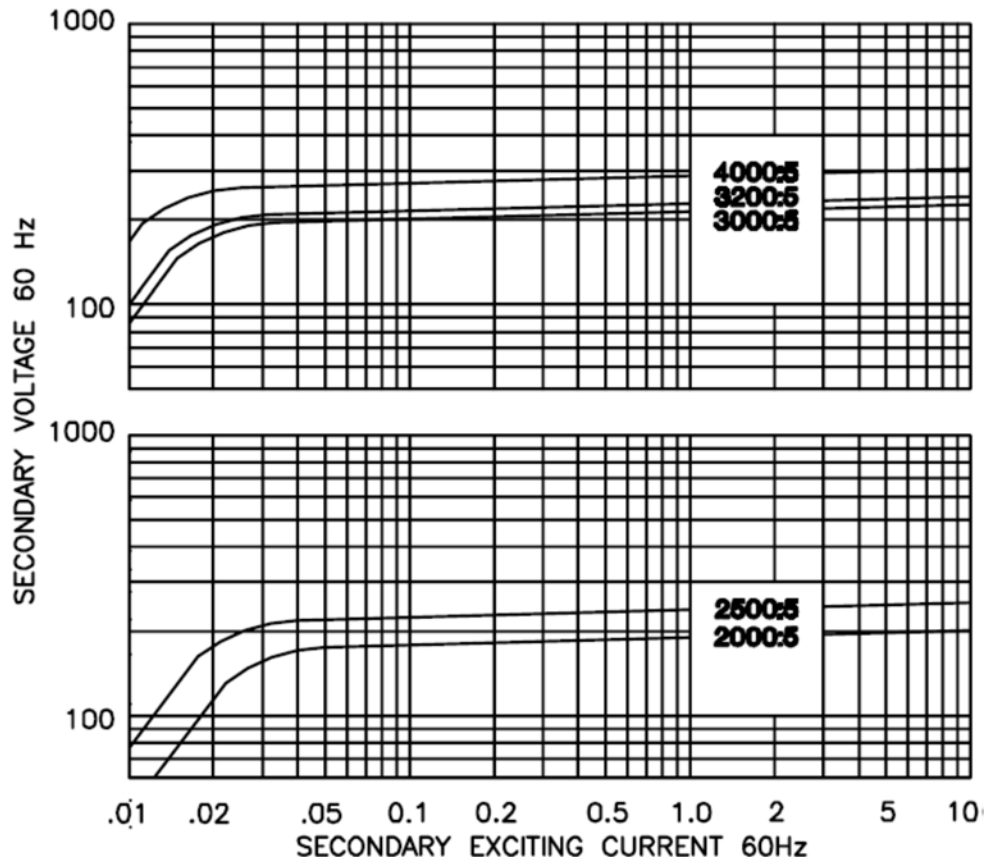
Window Diameter 4.00" x 5.38"

Approximate weight: 12 lbs.

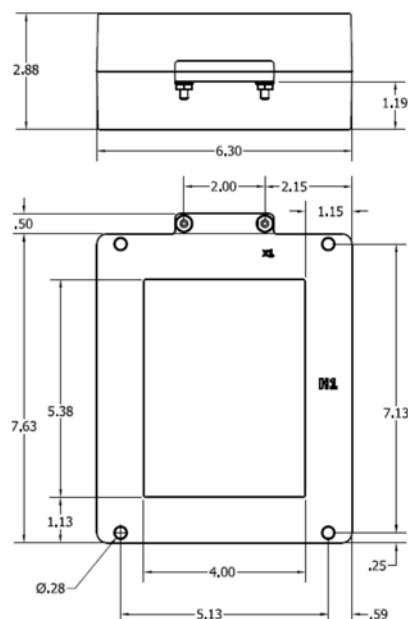
CATALOG NUMBER	CURRENT RATIO	RELAY CLASS	ANSI METERING CLASS AT 60 HZ					SECONDARY WINDING RESISTANCE (OHMS @ 75°C)	THERMAL RATING
			B.1	B.2	B0.5	B0.9	B1.8		
563-202	2000:5	C50	0.3	0.3	0.3	0.3	0.3	0.995	1.3
563-252	2500:5	C50	0.3	0.3	0.3	0.3	0.3	1.244	1.3
563-302	3000:5	C20	0.3	0.3	0.3	0.3	0.3	1.382	1.3
563-322	3200:5	C20	0.3	0.3	0.3	0.3	0.3	1.474	1.3
563-402	4000:5	C20	0.3	0.3	0.3	0.3	0.3	1.842	1.3
563-502	5000:5	C20	0.3	0.3	0.3	0.3	0.3	2.158	1.0



## EXCITATION CURVE



## DIMENSIONS



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## Current Transformer

**Model 592**

rev 03182021

### CERTIFICATIONS:



#### **APPLICATION:**

Relaying

#### **FREQUENCY:**

50-400 Hz.

#### **INSULATION LEVEL:**

600 Volts. 10 kV BIL. full wave

#### **CONTINUOUS THERMAL RATING FACTOR:**

2.0 at 30°C amb., 1.5 at 55°C amb.

#### **INSULATION SYSTEM:**

Cast in polyurethane resin. Temp. class 130 deg. C.  
Red

#### **WINDOW DIAMETER:**

5.00" x 14.00"

#### **APPROXIMATE WEIGHT:**

150 lbs.

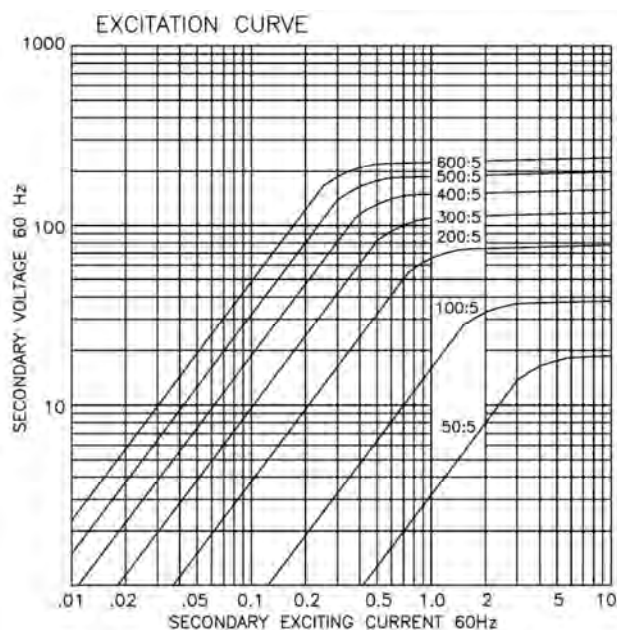
#### **CONNECTIONS:**

Secondary terminals are No. 10-32 brass studs with one flat washer, lockwasher and regular nut.



<b>Model</b>	<b>592</b>
<b>Window Size</b>	5.00 x 14.00
<b>Width</b>	14.00
<b>Height</b>	23.00
<b>Depth</b>	4.00

CATALOG NUMBER	CURRENT RATIO	RELAY CLASS	SECONDARY WINDING RESISTANCE (OHMS @ 75°C)
592-500	50:5	C15	0.014
592-101	100:5	C30	0.028
592-201	200:5	C60	0.056
592-301	300:5	C100	0.097
592-401	400:5	C120	0.123
592-501	500:5	C150	0.161
592-601	600:5	C200	0.193

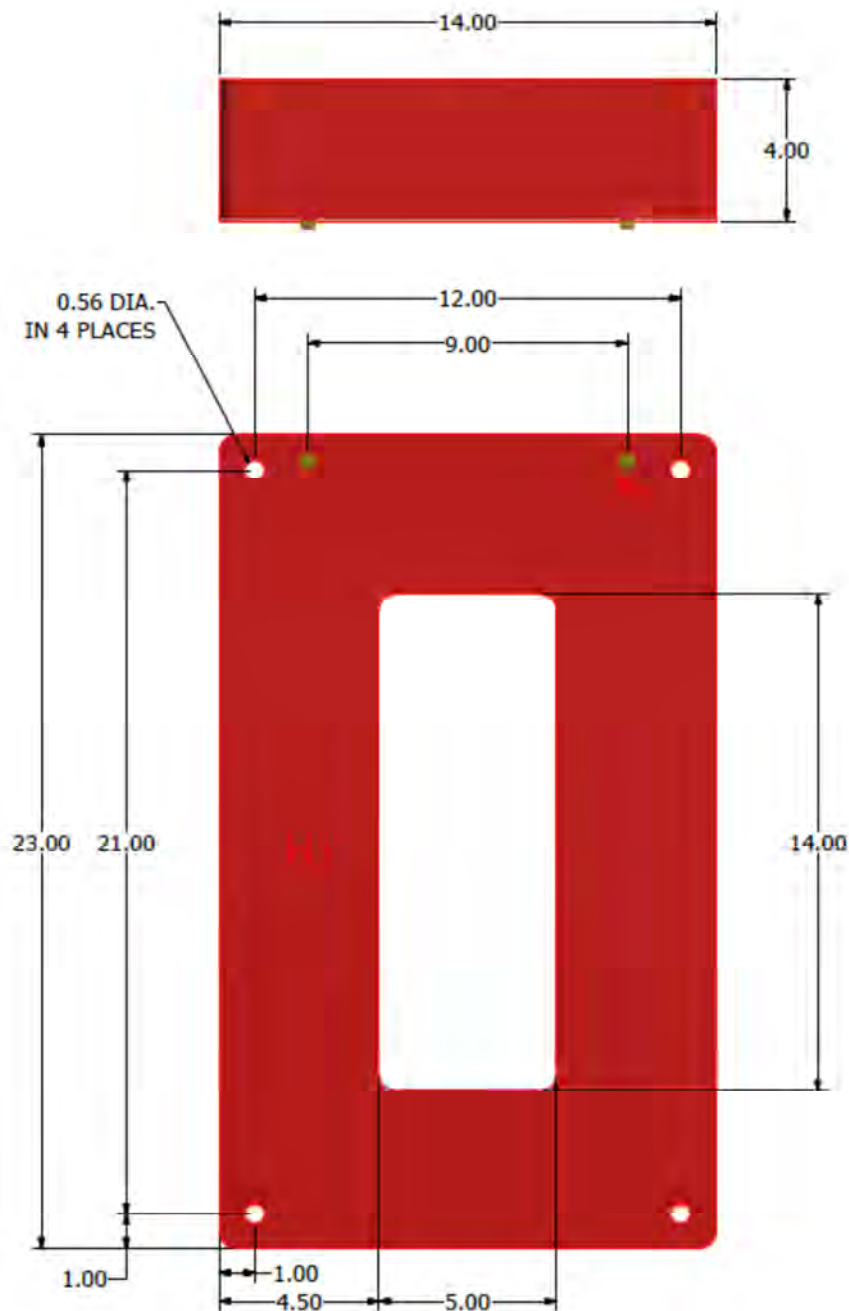


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### DIMENSIONS





# Current Transformer

**Model 593**

rev 08012023

## APPLICATION:

Relaying

## FREQUENCY:

50-400 Hz.

## INSULATION LEVEL:

600 Volts. 10 kV BIL. full wave

## CONTINUOUS THERMAL RATING FACTOR:

2.0 at 30°C amb., 2.0 at 55°C amb.

## WINDOW DIAMETER:

8.06" x 22.06"

## APPROXIMATE WEIGHT:

150 lbs.

## CONNECTIONS:

Secondary terminals are No. 10-32 brass studs with one flat washer, lockwasher and regular nut.

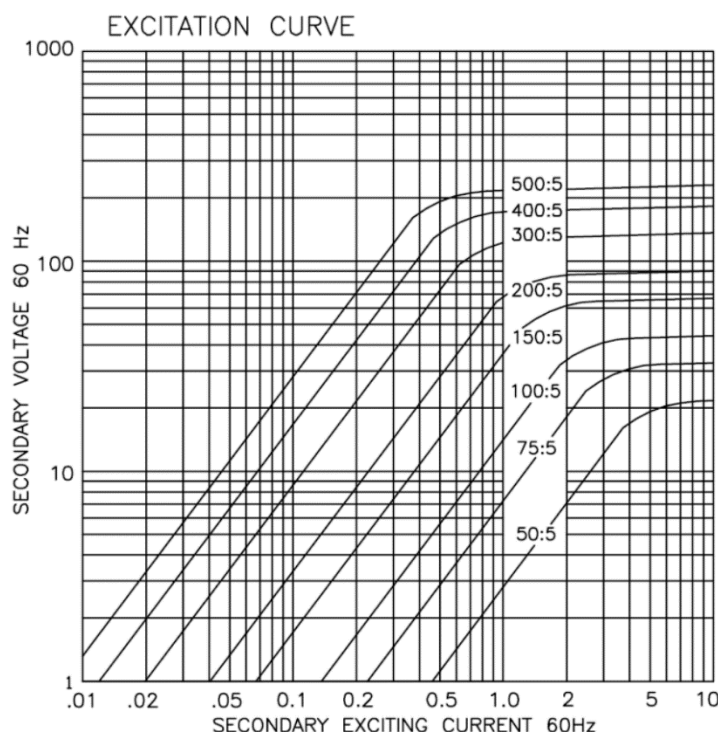


## CERTIFICATIONS:

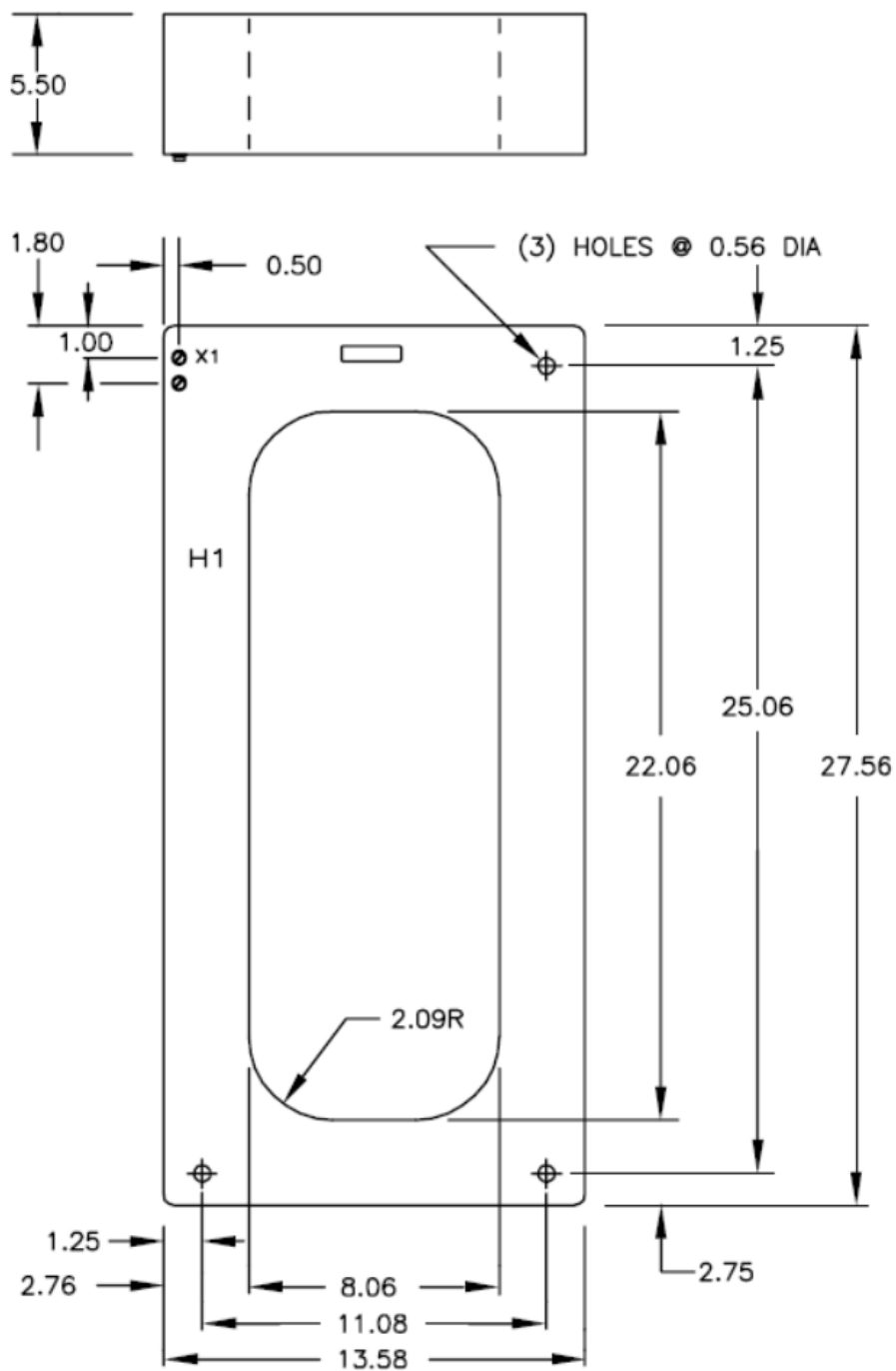


<b>Model</b>	593
<b>Window Size</b>	8.06 x 22.06
<b>Width</b>	13.58
<b>Height</b>	27.56
<b>Depth</b>	5.5

CATALOG NUMBER	CURRENT RATIO	RELAY CLASS	SECONDARY WINDING RESISTANCE (OHMS @ 75°C)
593-500	50:5	C10	0.013
593-750	75:5	C20	0.020
593-101	100:5	C30	0.027
593-151	150:5	C50	0.040
593-201	200:5	C50	0.054
593-301	300:5	C100	0.081
593-401	400:5	C100	0.108
593-501	500:5	C200	0.134



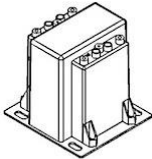
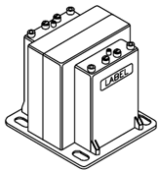
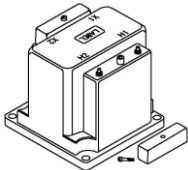
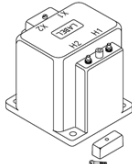
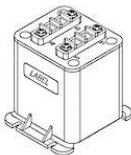
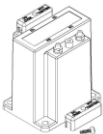

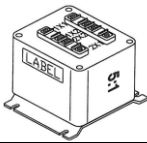
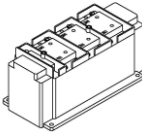
Products are manufactured in a plant whose quality management system has been certified to be in compliance with ISO 9001:2015 by NQA



# VOLTAGE TRANSFORMERS

For Metering and Instrumentation

600V Voltage Transformers

		Page 3-3
MODEL 450		
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MODEL 460		
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MODEL 468		
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MODEL 2VT460		
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		Page 3-11
MODEL 3VT460		


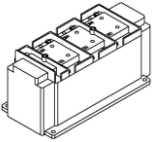

600V Voltage Transformers



# VOLTAGE TRANSFORMERS

For Metering and Instrumentation

*600V Voltage Transformers*

<b>MODEL 3VTL460MR</b>		<b>Page 3-12</b>
<b>MODEL 3VTN460</b>		<b>Page 3-13</b>
<b>MODEL 3VTN468</b>		<b>Page 3-14</b>

*600V Voltage Transformers*



## Voltage Transformer

**Model 450**

### FREQUENCY:

60 Hz.

### STANDARD SECONDARY VOLTAGE:

120 Volts

### INSULATION LEVEL:

600 Volts. 10 kV BIL. full wave

### ACCURACY CLASS:

0.3 W, X, M & Y, 1.2Z

@0.3 W, 0.6 X, M & Y

### THERMAL RATING:

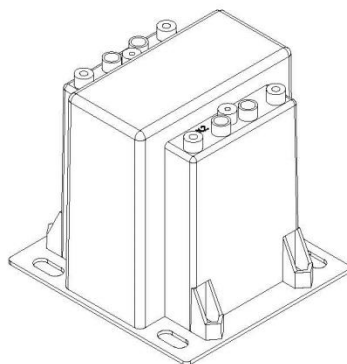
750 VA AT 30°C. AMB, 500 VA AT 55°C. amb.

### APPROXIMATE WEIGHT:

25 lbs.

### CONNECTIONS:

-The primary and secondary terminals are No. 10-32 screws into 3/8" deep brass inserts are fitted with one lockwasher and flat washer and are contained in a sealable terminal cover



### CERTIFICATIONS:



223647



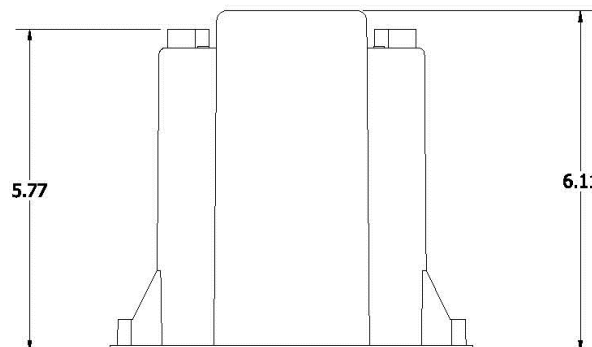
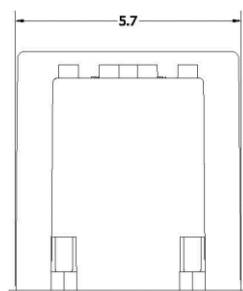
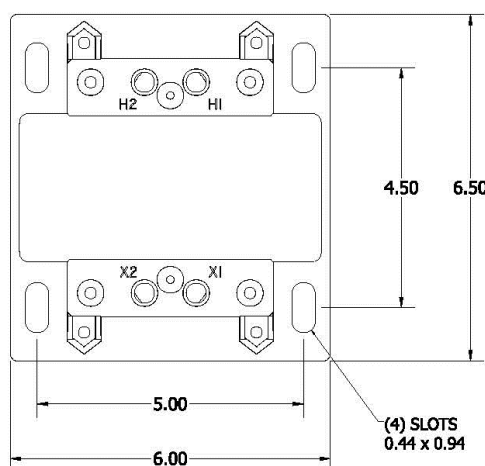
### MODEL 450

Approximate weight: 25 lbs.

CATALOG NUMBER NOT FUSED	VOLTAGE RATING	URNS RATIO	REC. PRIMARY FUSE RATING
<b>**450-069</b>	69.3:120	0.58:1	15.0
<b>**450-120</b>	120:120	1:1	10.0
<b>450-208</b>	208:120	1.73:1	8.0
<b>450-240</b>	240:120	2:1	8.0
<b>450-277</b>	277:120	2.31:1	8.0
<b>450-288</b>	288:120	2.4:1	6.0
<b>450-300</b>	300:120	2.5:1	6.0
<b>450-346</b>	346:120	2.88:1	5.0
<b>450-480*</b>	480:120	4:1	4.0
<b>450-600*</b>	600:120	5:1	3.0

\*Models marked \*\* have Accuracy Class of 0.3 W, 0.6 X, M & Y – All others without asterisks are 0.3 W, X, M & Y, 1.2Z

- Core and coil assembly is encased in a thermoplastic shell and filled with resin.
- These transformers are designed for operation line to line. They may also be operated line to ground or line to neutral at reduced voltage, (58% of rated volts).
- It is desirable to use an 8.0 Amp BBS type or equal fuse in the secondary to protect the transformer.
- With two exceptions these transformers are ANSI C57.13 group 1. Those marked \* are group 2.
- Model designed specifically for 50Hz operation are available with reduced performance consult factory for details.



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## Voltage Transformer

**Model 456**

rev 02142024

### CERTIFICATIONS:



Model	456
Width	6.00
Height	6.11
Depth	6.50

#### FREQUENCY:

60 Hz.

#### STANDARD SECONDARY VOLTAGE:

120 Volts

#### INSULATION LEVEL:

600 Volts. 10 kV BIL. full wave

#### ACCURACY CLASS:

0.3 W, X & M, 0.6 Y

Those marked with \*\* are

0.6 W, X, M & Y

#### THERMAL RATING:

500 VA AT 30°C. amb., 300 VA AT 55°C. amb.

#### APPROXIMATE WEIGHT:

18.5 lbs.

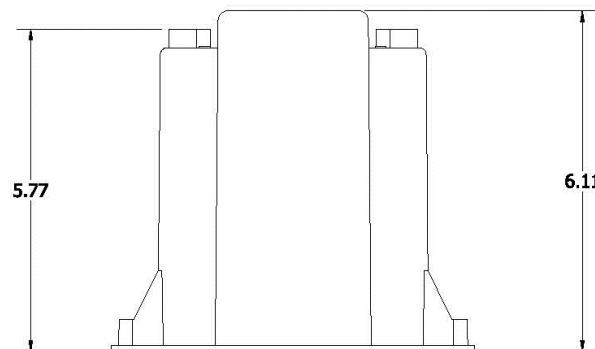
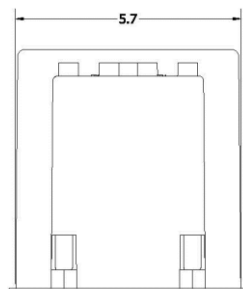
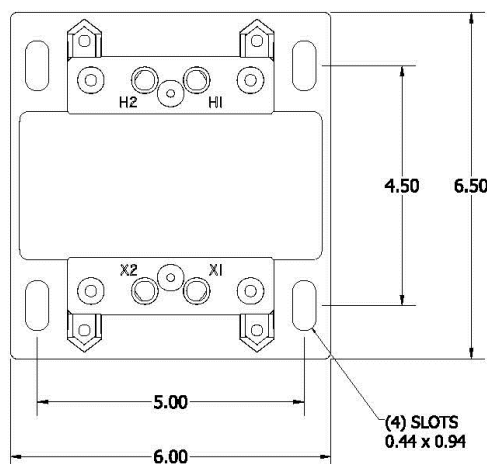
#### CONNECTIONS:

-Terminals are brass studs No. 10-32 with one lockwasher, flat washer, and regular nut

### MODEL 456 Approximate weight: 18.5 lbs.

CATALOG NUMBER	VOLTAGE RATING	URNS RATIO	REC. PRIMARY FUSE RATING
NOT FUSED			
**456-069	69.3:120	0.58:1	12
**456-120	120:120	1:1	10
456-208	208:120	1.73:1	6
456-240	240:120	2:1	6
456-277	277:120	2.31:1	6
456-288	288:120	2.4:1	5
456-300	300:120	2.5:1	4
456-346	346:120	2.88:1	4
456-480*	480:120	4:1	3
456-600*	600:120	5:1	2

- Each transformer has two plastic terminal covers.
- The core and coil assembly is encased in a thermoplastic shell and filled with resin.
- These transformers are designed for operation line to line. They may also be operated line to ground or line to neutral at reduced voltage (58% of rated volts).
- It is desirable to use a 1.6 amp fuse in the secondary to protect the transformer.
- With two exceptions these transformers are ANSI C57.13 group 1. Those marked \* are group 2.
- Models designed specifically for 50 Hz operation are available with reduced performance consult factory for details.



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## Voltage Transformer

**Model 460**

rev 03262024

### CERTIFICATIONS:



E228202

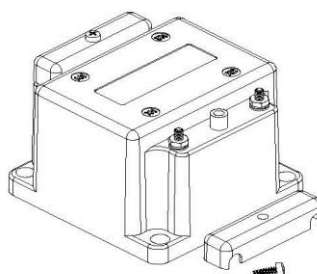


223647



ISO 9001

QUALITY  
MANAGEMENT



Model	460
Width	4.50
Height	3.50
Depth	4.63

#### FREQUENCY:

SEE CHART

#### STANDARD SECONDARY VOLTAGE:

120 Volts @ 60Hz, 110 Volts @ 50Hz

#### INSULATION LEVEL:

600 Volts. 10 kV BIL. full wave

#### ACCURACY CLASS:

0.6 W, 1.2 X at 60 Hz

#### THERMAL RATING:

150 VA AT 30°C. AMB, 100 VA AT 55°C. amb.

#### APPROXIMATE WEIGHT:

7.75 lbs.

#### CONNECTIONS:

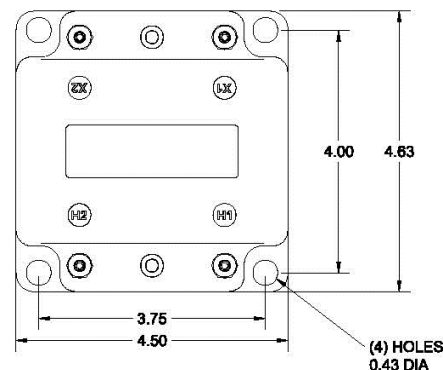
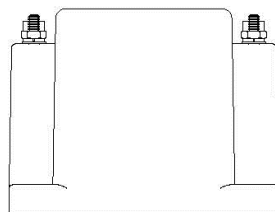
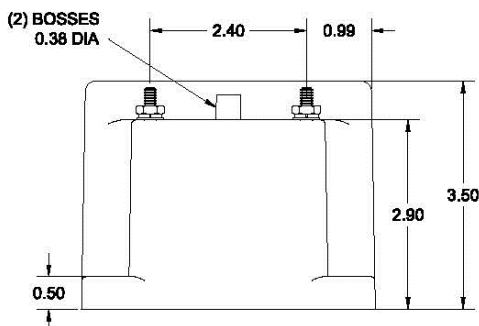
-Terminals are brass studs No. 10-32 with one lockwasher, flat washer, and regular nut

### MODEL 460

Approximate weight: 7.75 lbs.

CATALOG NUMBER NOT FUSED	VOLTAGE RATING	VOLT (TURN) RATIO	REC. PRIMARY FUSE RATING	FREQUENCY
460-069	69.3:120	0.58:1	5	60 Hz
460-120	120:120	1:1	4	60 Hz
460-208	208:120	1.73:1	2	60 Hz
460-240	240:120	2:1	2	60 Hz
460-277	277:120	2.31:1	2	60 Hz
460-288	288:120	2.4:1	1.5	60 Hz
460-300	300:120	2.5:1	1.5	60 Hz
460-346	346:120	2.88:1	1.5	60 Hz
460-480*	480:120	4:1	1	60 Hz
460-600*	600:120	5:1	0.75	60 Hz
460-690**	690:110	6.27:1	0.5	50 Hz

- Each transformer has two plastic terminal covers.
- The core and coil assembly is encased in a thermoplastic shell and filled with resin.
- These transformers are designed for operation line to line. They may also be operated line to ground or line to neutral at reduced voltage (58% of rated volts).
- It is desirable to use a 1.6 amp fuse in the secondary to protect the transformer.
- With three exceptions these transformers are ANSI C57.13 group 1. Those marked \* are group 2 and those marked \*\* are IEC
- Models designed specifically for 50 Hz operation are available with reduced performance consult factory for details.



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## Voltage Transformer

**Model 465**

rev 02222024

### CERTIFICATIONS:



ISO 9001

QUALITY  
MANAGEMENT



Model	465
Width	3.63
Height	4.25
Depth	3.75

#### FREQUENCY:

60 Hz.

#### STANDARD SECONDARY VOLTAGE:

120 Volts

#### INSULATION LEVEL:

600 Volts. 10 kV BIL. full wave

#### ACCURACY CLASS:

0.6 W, 1.2 X at 60 Hz

#### THERMAL RATING:

150 VA AT 30°C. amb., 100 VA AT 55°C. amb.

#### APPROXIMATE WEIGHT:

7.75 lbs.

#### CONNECTIONS:

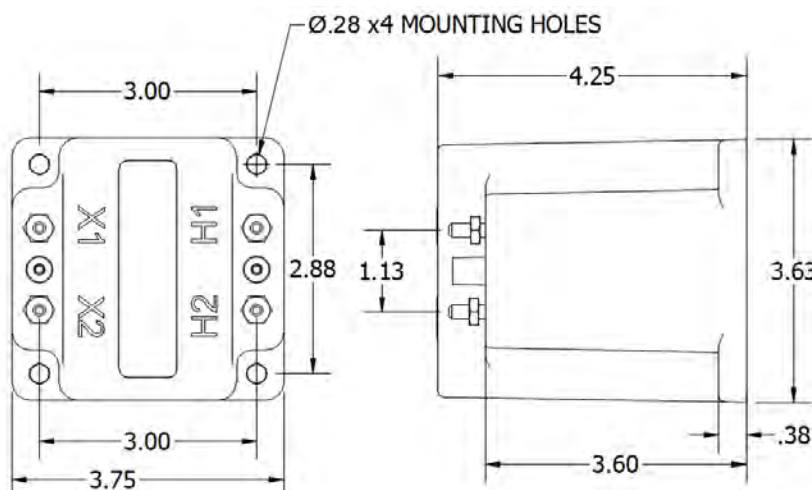
-Terminals are brass studs No. 10-32 with one lockwasher, flat washer, and regular nut

### MODEL 465

Approximate weight: 7.75 lbs.

CATALOG NUMBER NOT FUSED	VOLTAGE RATING	URNS RATIO	REC. PRIMARY FUSE RATING
465-069	69.3:120	0.58:1	5
465-120	120:120	1:1	4
465-208	208:120	1.73:1	2
465-240	240:120	2:1	2
465-277	277:120	2.31:1	2
465-288	288:120	2.4:1	1.5
465-300	300:120	2.5:1	1.5
465-346	346:120	2.88:1	1.5
465-480*	480:120	4:1	1
465-600*	600:120	5:1	0.75

- Each transformer has two plastic terminal covers.
- The core and coil assembly is encased in a thermoplastic shell and filled with resin.
- These transformers are designed for operation line to line. They may also be operated line to ground or line to neutral at reduced voltage (58% of rated volts).
- It is desirable to use a 1.6 amp fuse in the secondary to protect the transformer.
- With two exceptions these transformers are ANSI C57.13 group 1. Those marked \* are group 2.
- Models designed specifically for 50 Hz operation are available with reduced performance consult factory for details.





## Voltage Transformer

**Model 467**

rev 03182021

### **FREQUENCY:**

60 Hz.

### **STANDARD SECONDARY VOLTAGE:**

120 Volts

### **INSULATION LEVEL:**

600 Volts. 10 kV BIL. full wave

### **ACCURACY CLASS:**

± 1% at all burdens up to 5 VA at 1.0 and 0.95 P.F.

### **THERMAL RATING:**

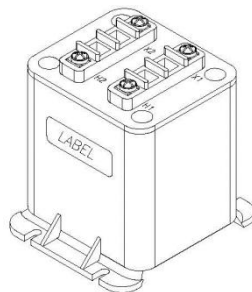
40 VA at 30°C . amb, 27 VA at 55°C. amb

### **APPROXIMATE WEIGHT:**

2.5 lbs.

### **CONNECTIONS:**

-Terminals are No. 6-32 screws with one lockwasher and one flat washer



<b>Model</b>	<b>467</b>
<b>Width</b>	<b>3.27</b>
<b>Height</b>	<b>3.76</b>
<b>Depth</b>	<b>3.55</b>

### **CERTIFICATIONS:**



E228202



223647



ISO 9001

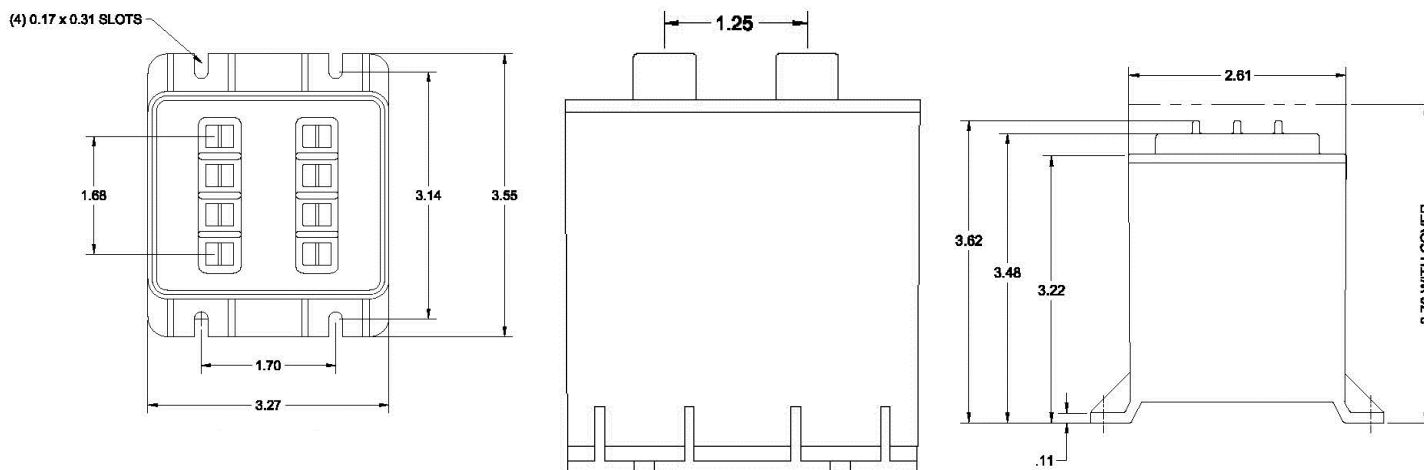
**QUALITY  
MANAGEMENT**

### **MODEL 467**

Approximate weight: 2.5 lbs.

CATALOG NUMBER	VOLTAGE RATING	TURNS RATIO	REC. PRIMARY FUSE RATING
467-069	69.3:120	0.58:1	1.5
467-120	120:120	1:1	1
467-208	208:120	1.73:1	0.5
467-240	240:120	2:1	0.5
467-277	277:120	2.31:1	0.5
467-288	288:120	2.4:1	0.4
467-300	300:120	2.5:1	0.4
467-346	346:120	2.88:1	0.4
467-480*	480:120	4:1	0.25
467-600*	600:120	5:1	0.25

- The core and coil assembly is encased in a thermoplastic shell and filled with resin.
- Each transformer has a clear plastic terminal cover.
- These transformers are designed for operation line to line. They may also be operated line to ground or line to neutral at reduced voltage (58% of rated volts).
- It is desirable to use a 0.40 amp fuse in the secondary to protect the transformer.
- With two exceptions these transformers are ANSI C57.13 group 1. Those marked \* are group 2.
- Models designed specifically for 50Hz operation are available with reduced performance consult factory for details.



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## Voltage Transformer

**Model 468**

rev 050418

### CERTIFICATIONS:

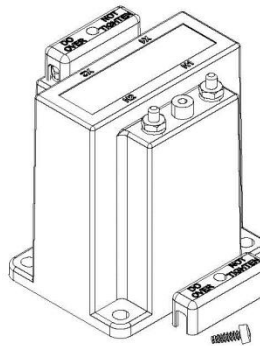


223647



ISO 9001

QUALITY  
MANAGEMENT



#### FREQUENCY:

60 Hz.

#### STANDARD SECONDARY VOLTAGE:

120 Volts

#### INSULATION LEVEL:

600 Volts, 10 kV BIL, full wave

#### ACCURACY CLASS:

± 0.6% at all burdens up to 7.5 VA and ±1.5% 20 VA Burden.

#### THERMAL RATING:

75 VA AT 30°C, amb., 50 VA AT 55°C, amb.

#### APPROXIMATE WEIGHT:

4 lbs.

#### CONNECTIONS:

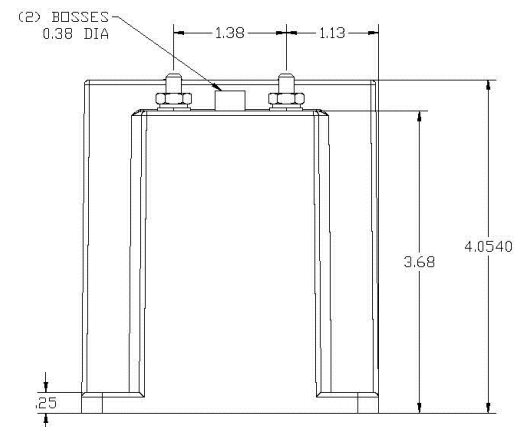
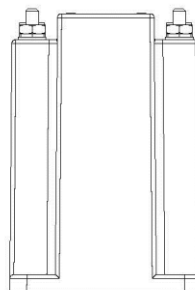
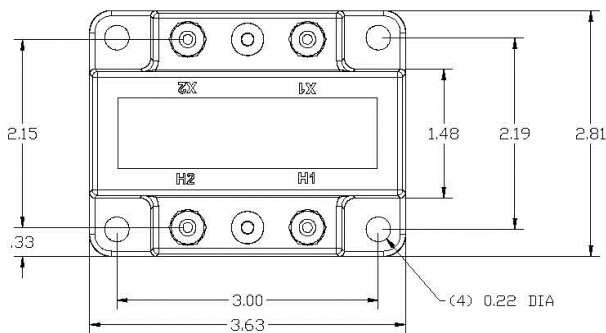
-Terminals are brass studs No. 10-32 screws with one lockwasher, one flat washer, and regular nut.

### MODEL 468

Approximate weight: 4 lbs.

CATALOG NUMBER	VOLTAGE RATING	TURNS RATIO	REC. PRIMARY FUSE RATING
468-069	69.3:120	0.58:1	3
468-120	120:120	1:1	2
468-208	208:120	1.73:1	1
468-240	240:120	2:1	1
468-277	277:120	2.31:1	1
468-288	288:120	2.4:1	0.75
468-300	300:120	2.5:1	0.75
468-346	346:120	2.88:1	0.75
468-480*	480:120	4:1	0.50
468-600*	600:120	5:1	0.40

- The core and coil assembly is encased in a thermoplastic shell and filled with resin.
- Each transformer has two plastic terminal covers.
- These transformers are designed for operation line to line. They may also be operated line to ground or line to neutral at reduced voltage (58% of rated volts).
- It is desirable to use a 0.80 amp fuse in the secondary to protect the transformer.
- With two exceptions these transformers are ANSI C57. 13 group 1. Those marked \* are group 2.



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## 3 Phase Voltage Transformer

**Model 2VT460-600MR**

rev 02222024

### **FREQUENCY:**

60 Hz.

### **STANDARD SECONDARY VOLTAGE:**

120 Volts Line-to-2X1

### **ACCURACY CLASS:** (Per Phase)

± 1% at all burdens up to 2 VA

### **INSULATION LEVEL**

600 Volts, 10 kV BIL. full wave

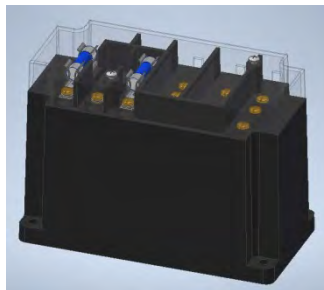
### **THERMAL RATING:** (Per Phase)

25 VA at 30°C amb.

15 VA at 55°C. amb.

### **APPROXIMATE WEIGHT:**

15.5 lbs.



### **CERTIFICATIONS:**



E228202



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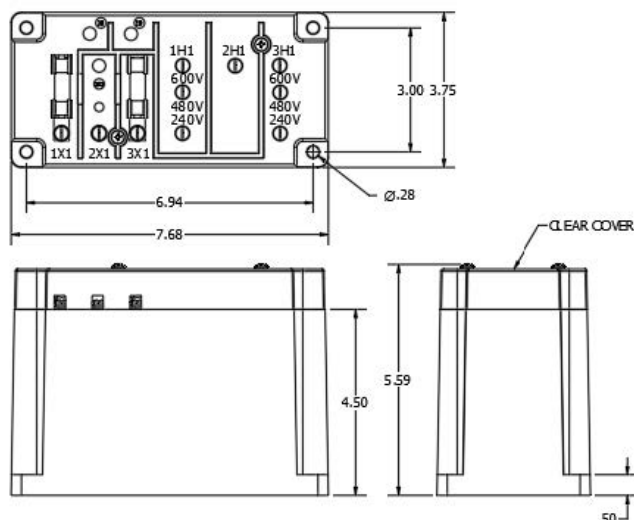


ISO 9001

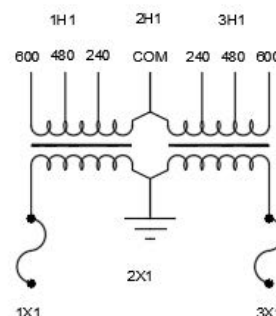
**QUALITY  
MANAGEMENT**

- The model 2VT460-600MR is an assembly of two Multi-tapped transformers in one case.
- The primary and secondary terminals are No. 6-32 screws and fitted with one lock washer and flat washer.
- The core and coil assembly are encased in a thermoplastic shell and filled with resin.
- Spacing between live parts per U.L. 1558.
- The transformer has three taps 600 "5 to 1", 480 "4 to 1", 240 "2 to 1" All to 120 vac
- The transformer has a clear plastic terminal cover.
- Taps are changed by moving three wires "see picture"
- A 0.40 amp fuse in recommend to protect the transformer

MODEL 2VT460-600MR		TAPS		
Catalog Number	Connections	240	480	600
2VT460-600MR	Screws	2 to 1	4 to 1	5 to 1
2VT460-600MR-FF	Secondary Fuses			
2VT460-600MR-CCC-X1	Secondary Clips Only			



CONNECTION DIAGRAM



- The core and coil assembly is encased in a thermoplastic shell and filled with resin.
- Transformers are designed for open delta connection.

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## Voltage Transformer

**Model 2VT469**

### FREQUENCY:

60 Hz.

### STANDARD SECONDARY VOLTAGE:

120 Volts

### INSULATION LEVEL:

600 Volts. 10 kV BIL. full wave

### ACCURACY CLASS:

± 1% at all burdens up to 5 VA at 1.0 and 0.95 P.F.

### THERMAL RATING:

40 VA AT 30°C. amb

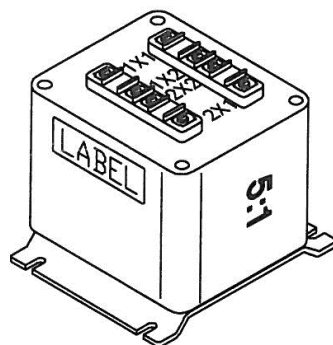
27 VA AT 55°C. amb.

### APPROXIMATE WEIGHT:

4.5 lbs.

### CONNECTIONS:

Terminals are No. 6-32 screws with one lockwasher and one flat washer



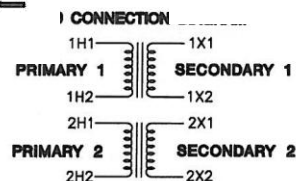
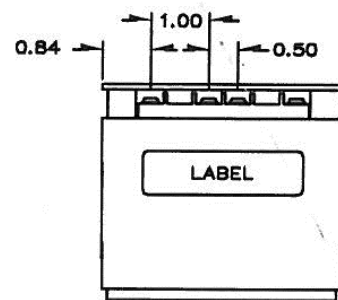
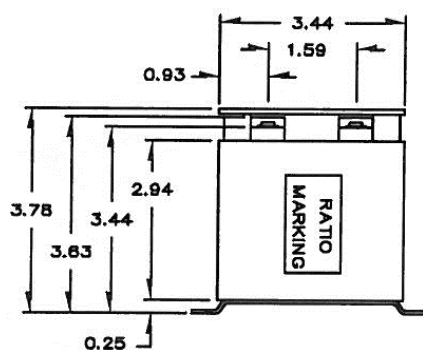
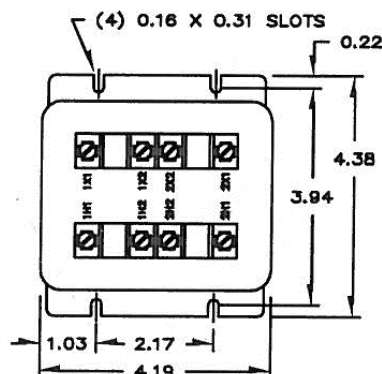
### CERTIFICATIONS:



### MODEL 2VT469 Approximate weight: 4.5 lbs.

CATALOG NUMBER	VOLTAGE RATING	TURNS RATIO	REC. PRIMARY FUSE RATING
2VT469-069	69.3:120	0.58:1	1.5
2VT469-120	120:120	1:1	1
2VT469-208	208:120	1.73:1	0.5
2VT469-240	240:120	2:1	0.5
2VT469-277	277:120	2.31:1	0.5
2VT469-288	288:120	2.4:1	0.4
2VT469-300	300:120	2.5:1	0.4
2VT469-346	346:120	2.88:1	0.4
2VT469-480*	480:120	4:1	0.25
2VT469-600*	600:120	5:1	0.25

- The core and coil assembly is encased in a thermoplastic shell and filled with resin.
- A clear plastic terminal cover is provided with each unit.
- These transformers are designed for operation line to line. They may also be operated line to ground or line to neutral at reduced voltage, (58% of rated volts).
- It is desirable to use a 0.40 amp fuse in the secondary to protect the transformer.
- With two exceptions these transformers are ANSI C57.13 group 1. Those marked \* are group 2.
- Model 469 is an assembly of two transformers in one case with all terminals accessible, for open delta connection.





## 3 Phase Voltage Transformer

**Model 3VTL460**

### FREQUENCY:

60 Hz.

### STANDARD SECONDARY VOLTAGE:

120 Volts Line-to-Line

### ACCURACY CLASS: (Per Phase)

0.6 W, 1.2 X at 60 Hz

### INSULATION LEVEL:

600 Volts, 10 kV BIL. full wave

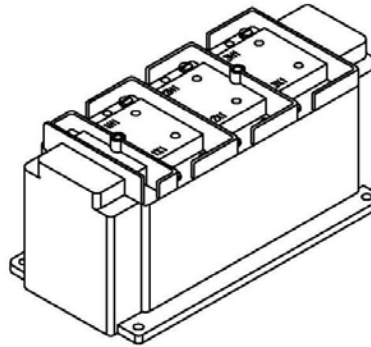
### THERMAL RATING: (Per Phase)

150 VA at 30°C amb.

100 VA at 55°C. amb.

### APPROXIMATE WEIGHT:

24 lbs.



### CERTIFICATIONS:



E228202



223647

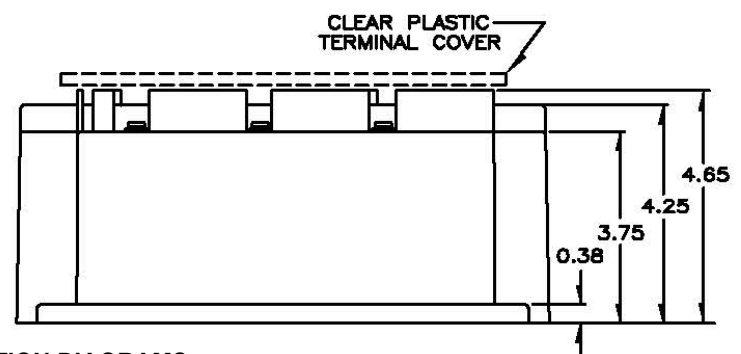
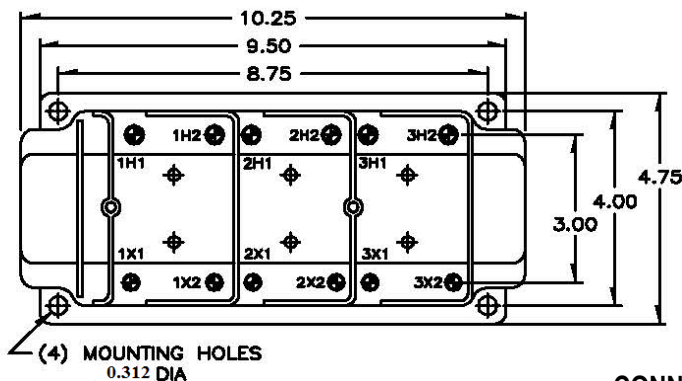


- The model 3VTL460 is an assembly of three transformers in one case.
- The primary and secondary terminals are No. 8-32 screws into 1/2" deep brass inserts fitted with one lockwasher and flat washer.
- The core and coil assembly is encased in a thermoplastic shell and filled with resin.
- These transformers are designed for operation line to line. All terminals are accessible.
- Spacing between live parts per U.L. 1558.
- The transformer has a clear plastic terminal cover.

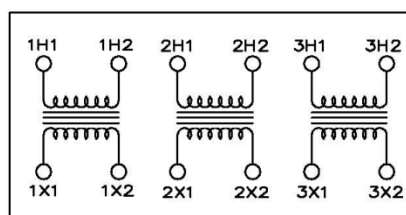
### MODEL 3VTL460

Approximate weight: 24 lbs.

CATALOG NUMBER	LINE TO LINE VOLTAGE RATING	TURNS RATIO	REC. PRIMARY FUSE RATING
3VTL460-120	120:120	1:1	4.0
3VTL460-208	208:120	1.73:1	2.0
3VTL460-240	240:120	2:1	2.0
3VTL460-288	288:120	2.4:1	1.5
3VTL460-480	480:120	4:1	1.0
3VTL460-600	600:120	5:1	0.75



### CONNECTION DIAGRAMS





## 3 Phase Voltage Transformer

**Model 3VTL460MR**

rev 03182021

### FREQUENCY:

60 Hz.

### STANDARD SECONDARY VOLTAGE:

120 Volts Line-to-neutral

### ACCURACY CLASS: (Per Phase)

± 1% at all burdens up to 2 VA

### INSULATION LEVEL

600 Volts, 10 kV BIL, full wave

### THERMAL RATING: (Per Phase)

25 VA at 30°C amb.

15 VA at 55°C. amb.

### APPROXIMATE WEIGHT:

8 lbs.



### CERTIFICATIONS:



E228202



223647



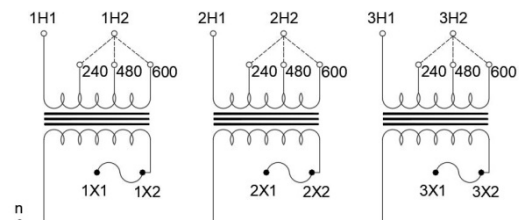
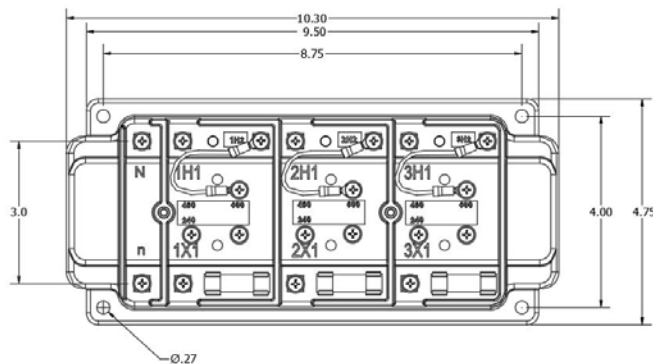
ISO 9001

QUALITY  
MANAGEMENT

- The model 3VTL460MR is an assembly of three Multi-tapped transformers in one case.
- The primary and secondary terminals are No. 6-32 screws and fitted with one lock washer and flat washer.
- The core and coil assembly are encased in a thermoplastic shell and filled with resin.
- These transformers are designed for operation line to neutral.
- Spacing between live parts per U.L. 1558.
- The transformer has three taps 600 "5 to 1", 480 "4 to 1", 240 "2 to 1" All to 120 vac
- The transformer has a clear plastic terminal cover.
- Only ground N/n terminals if source is 3 phase, 4 wire effectively grounded.
- Taps are changed by moving three wires "seepicture"
- A 0.40 amp fuse is recommended to protect the transformer

MODEL 3VTL460-MR		TAPS		
Catalog Number	Connections	240	480	600
3VTL460-600MR	Screws	2 to 1	4 to 1	5 to 1
3VTL460-600MR-FFF	Fuses			
3VTL460-600MR-CCC	Clips only			
3VTL460-600MR-CCC-X1	Secondary Clips Only			

### CONNECTION DIAGRAMS



Products are manufactured in a plant whose quality management system has been certified to be in compliance with ISO 9001:2015 by NQA



## 3 Phase Voltage Transformer

**Model 3VTN460**

rev 061319

### CERTIFICATIONS:



E228202

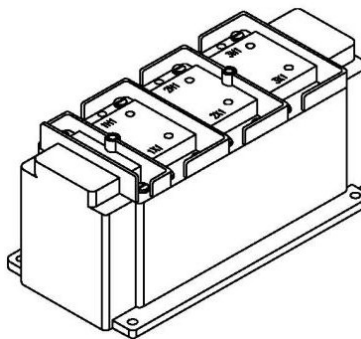


223647



ISO 9001

QUALITY  
MANAGEMENT



#### FREQUENCY:

60 Hz.

#### STANDARD SECONDARY VOLTAGE:

120 Volts Line-to-neutral

#### ACCURACY CLASS: (Per Phase)

0.6 W, 1.2 X at 60 Hz.

#### INSULATION LEVEL:

600 Volts, 10 kV BIL. full wave

#### THERMAL RATING: (Per Phase)

150 VA at 30°C amb.

100 VA at 55°C. amb.

#### APPROXIMATE WEIGHT:

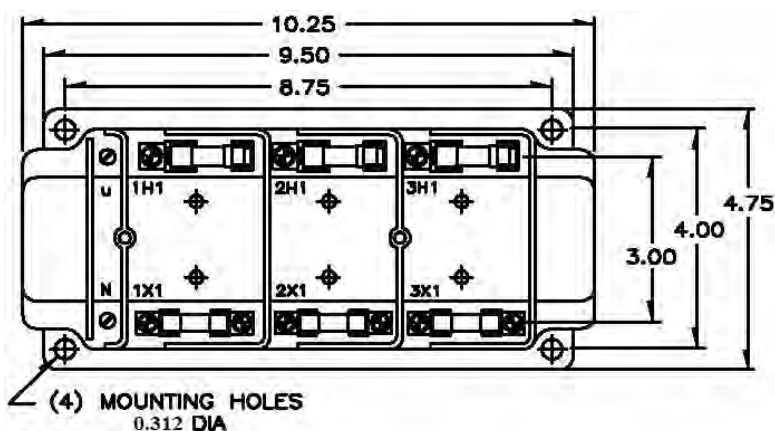
24 lbs.

- The model 3VTN460 is an assembly of three transformers in one case.
- The primary and secondary terminals are No. 6-32 screws and fitted with one lockwasher and flat washer.
- The core and coil assembly is encased in a thermoplastic shell and filled with resin.
- These transformers are designed for operation line to neutral.
- Spacing between live parts per U.L. 1558.
- It is desirable to use a 1.6 amp BBS type or equal fuse in the secondary to protect the transformer.
- The transformer has a clear plastic terminal cover.
- Only ground N/n terminals if source is 3 phase, 4 wire effectively grounded.

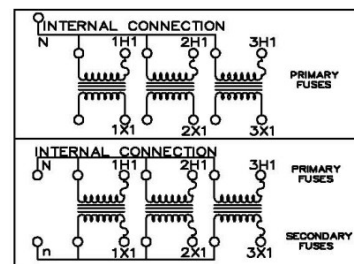
#### MODEL 3VTN460

Approximate weight: 24 lbs.

CATALOG NUMBER		LINE TO NEUTRAL VOLTAGE RATING	TURNS RATIO	REC. PRIMARY FUSE RATING
PRIMARY FUSES ONLY	PRIMARY AND SECONDARY FUSES			
3VTN460-069*	3VTN460-069FF*	69.3:120	0.58:1	5.0
3VTN460-120F*	3VTN460-120FF*	120:120	1:1	4.0
3VTN460-240F*	3VTN460-240FF*	240:120	2:1	2.0
3VTN460-277F*	3VTN460-277FF*	277:120	2.31:1	2.0
3VTN460-300F*	3VTN460-300FF*	300:120	2.5:1	1.5
3VTN460-346F*	3VTN460-346FF*	346:120	2.88:1	1.5



### CONNECTION DIAGRAMS



Products are manufactured in a plant whose quality management system has been certified to be in compliance with ISO 9001:2015 by NQA



## 3 Phase Voltage Transformer

**Model 3VTN468**

rev 02222024

### FREQUENCY:

60 Hz.

### STANDARD SECONDARY VOLTAGE:

120 Volts

### ACCURACY CLASS: (Per Phase)

± 0.6% at 7.5 VA

### INSULATION LEVEL

600 Volts, 10 kV BIL. full wave

### THERMAL RATING: (Per Phase)

75 VA at 30°C amb.

50 VA at 55°C. amb.

### APPROXIMATE WEIGHT:

8 lbs.



### CERTIFICATIONS:



E228202



223647



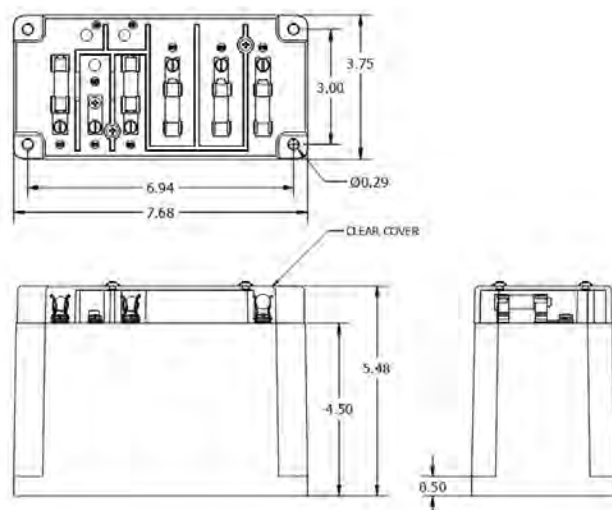
ISO 9001

QUALITY  
MANAGEMENT

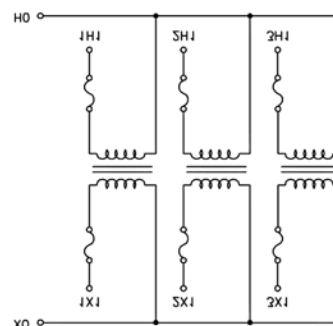
- The primary and secondary terminals are No. 8-32 screws and fitted with one lock washer and flat washer.
- The core and coil assembly are encased in a thermoplastic shell and filled with resin.
- These transformers are designed for application to Y connected systems.
- Models designed specifically for 50Hz operation are available with reduced performance. Consult factory for details.
- Only ground XO/HO terminals of source is 3 phase, 4 wire effectively grounded.
- Primary fuses are class CC rejection type
- It is desirable to use a 0.80 amp BBS type or equal fuse in the secondary to protect the transformer.
- Supplied with a clear plastic terminal cover.

### MODEL 3VTN468

CATALOG NUMBERS					
NOT FUSED	PRIMARY FUSES ONLY	PRIMARY AND SECONDARY FUSES	LINE/NEUTRAL VOLTAGE RATING	TURNS RATION	REC. PRIMARY FUSE RATING
3VTN468-069	3VTN468-069F	3VTN468-069FF	69.3:120	0.58:1	3.0
3VTN468-120	3VTN468-120F	3VTN468-120FF	120:120	1:1	2.0
3VTN468-208	3VTN468-208F	3VTN468-208FF	208:120	1.73:1	1.0
3VTN468-240	3VTN468-240F	3VTN468-240FF	240:120	2:1	1.0
3VTN468-277	3VTN468-277F	3VTN468-277FF	277:120	2.31:1	1.0
3VTN468-288	3VTN468-288F	3VTN468-288FF	288:120	2.4:1	0.75
3VTN468-300	3VTN468-300F	3VTN468-300FF	300:120	2.5:1	0.75
3VTN468-346	3VTN468-346F	3VTN468-346FF	346:120	2.88:1	0.75



### CONNECTION DIAGRAM



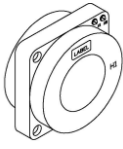
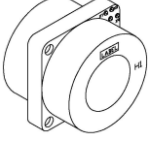
- The core and coil assembly is encased in a thermoplastic shell and filled with resin.

Products are manufactured in a plant whose quality management system has been certified to be in compliance with ISO 9001:2015 by NQA

# CURRENT TRANSFORMERS

For Metering and Instrumentation

600V Current Transformers  
ANSI Rated Bushing Type

<b>WINDOW SIZES</b> 6.50"		<b>Page 4-2</b>
<b>MODEL 780</b>		
<b>WINDOW SIZES</b> 6.50"		<b>Page 4-4</b>
<b>MODEL 781MR</b>		
<b>WINDOW SIZES</b> 6.50"		<b>Page 4-6</b>
<b>MODEL 785</b>		
<b>WINDOW SIZES</b> 6.50"		<b>Page 4-7</b>
<b>MODEL 786MR</b>		

600V Current Transformers ANSI Rated Bushing Type



## Current Transformer



### Model 780

rev 090117

#### CERTIFICATIONS:



E228202



223647



ISO 9001

QUALITY  
MANAGEMENT

#### APPLICATION:

Relaying and Metering

#### FREQUENCY:

50-400 Hz.

#### INSULATION LEVEL:

600 Volts. 10 kV BIL. full wave

#### CONTINUOUS THERMAL RATING FACTOR:

50:5 thru 1200:5 2.0 at 30°C amb, 1.5 at 55°C amb,  
1500:5 thru 4000:5 1.5 at 30°C amb., 1.33 at 55°C amb.

#### WINDOW DIAMETER:

6.50"

#### APPROXIMATE WEIGHT:

30 lbs.

#### CONNECTIONS:

-Secondary terminals are No. 10-32 brass screws with one  
flat washer, lockwasher and regular nut.

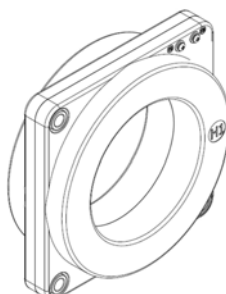
Model	780
Window Size	6.50
Width	9.88
Height	9.88
Depth	3.38

#### MODEL 780

Window Diameter 6.50"

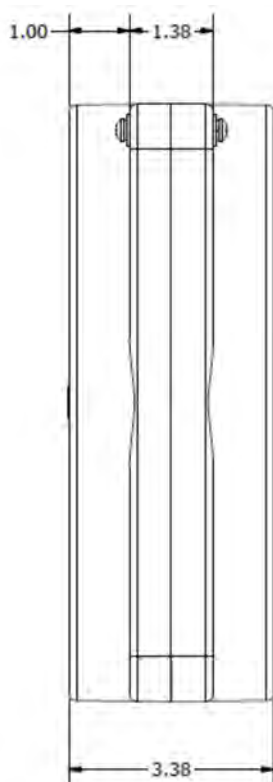
Approximate weight: 30 lbs.

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	
780-500	50:5	-	4.8	-	-	-	-	0.008
780-750	75:5	C10	4.8	4.8	-	-	-	0.016
780-101	100:5	C10	1.2	2.4	4.8	-	-	0.027
780-151	150:5	C20	0.6	1.2	2.4	2.4	4.8	0.042
780-201	200:5	C20	0.6	0.6	1.2	2.4	4.8	0.054
780-251	250:5	C20	0.6	0.6	0.6	1.2	2.4	0.067
780-301	300:5	C20	0.3	0.6	0.6	1.2	2.4	0.097
780-401	400:5	C50	0.3	0.3	0.6	0.6	1.2	0.129
780-501	500:5	C50	0.3	0.3	0.3	0.6	0.6	0.161
780-601	600:5	C100	0.3	0.3	0.3	0.3	0.6	0.193
780-751	750:5	C100	0.3	0.3	0.3	0.3	0.6	0.242
780-801	800:5	C100	0.3	0.3	0.3	0.3	0.3	0.258
780-102	1000:5	C100	0.3	0.3	0.3	0.3	0.3	0.322
780-122	1200:5	C200	0.3	0.3	0.3	0.3	0.3	0.387
780-152	1500:5	C200	0.3	0.3	0.3	0.3	0.3	0.608
780-162	1600:5	C200	0.3	0.3	0.3	0.3	0.3	0.649
780-202	2000:5	C200	0.3	0.3	0.3	0.3	0.3	0.588
780-252	2500:5	C200	0.3	0.3	0.3	0.3	0.3	0.735
780-302	3000:5	C200	0.3	0.3	0.3	0.3	0.3	1.105
780-322	3200:5	C200	0.3	0.3	0.3	0.3	0.3	0.859
780-352	3500:5	C200	0.3	0.3	0.3	0.3	0.3	0.940
780-402	4000:5	C200	0.3	0.3	0.3	0.3	0.3	1.074
780-502	5000:5	C200	0.3	0.3	0.3	0.3	0.3	1.858





## rev 090117



4-3





## Current Transformer

**Model 781MR**

### APPLICATION:

Relaying and metering

### FREQUENCY:

50-400 Hz.

### INSULATION LEVEL:

600 Volts. 10 kV BIL. full wave

### WINDOW DIAMETER:

6.5"

### APPROXIMATE WEIGHT:

31 lbs.

### CONTINUOUS THERMAL CURRENT RATING FACTOR:

2.0 at 30°C amb., 1.5 at 55°C amb

### CONNECTIONS:

-Secondary terminals are No. 10-32 brass screws with one flat washer, lockwasher, and regular nut



Model	781MR
Window Size	6.50
Width	9.88
Height	9.88
Depth	3.38

### CERTIFICATIONS:



E228202



223647



ISO 9001

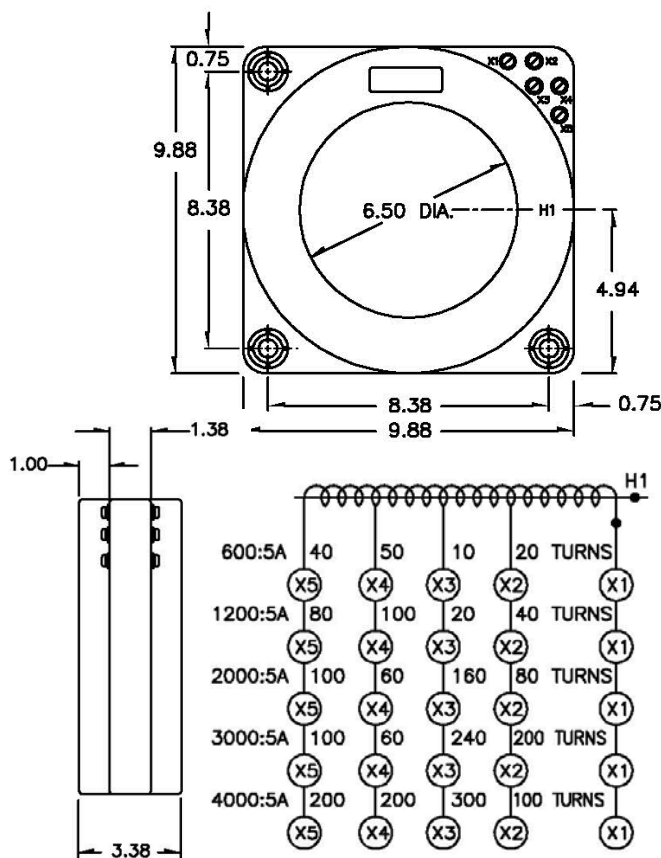
QUALITY  
MANAGEMENT

### MODEL 781MR

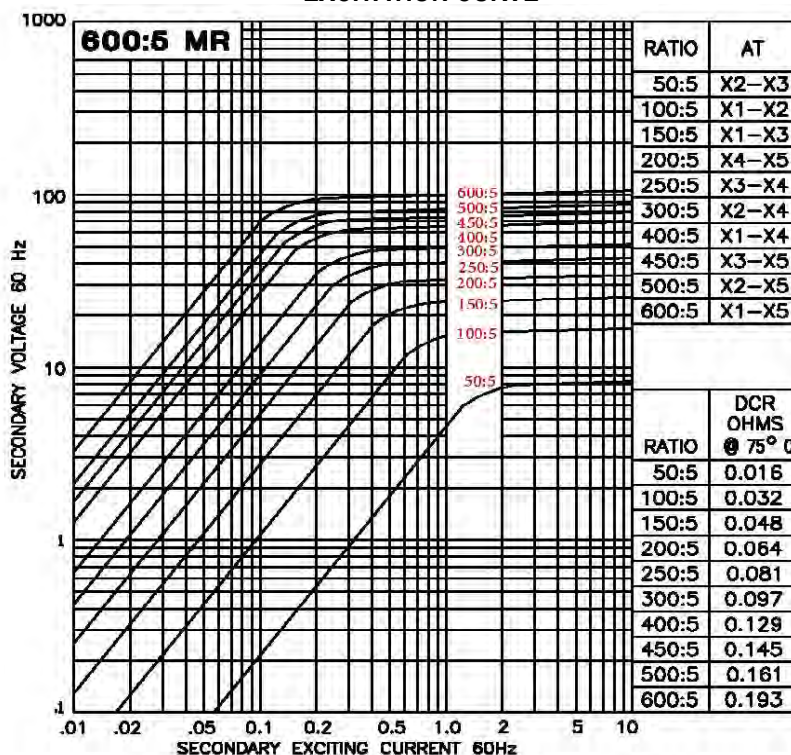
Window Diameter 6.5"

Approximate weight: 31 lbs.

Catalog Number	Relay Class	ANSI Metering Class at 60Hz	Continuous Thermal	
			@ 30°C	@ 50°C
781-601MR	C100	0.3 B0.5	2.0	1.5
781-122MR	C200	0.3 B1.8	2.0	1.5
781-202MR	C200	0.3 B1.8	2.0	1.5
781-302MR	C200	0.3 B1.8	1.33	1.33
781-402MR	C200	0.3 B1.8	1.33	0.8



### EXCITATION CURVE

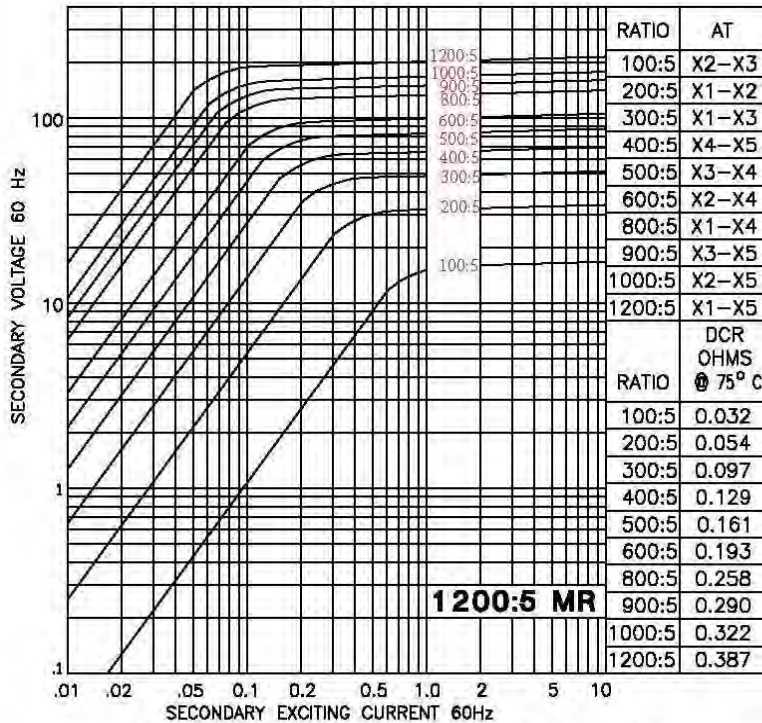


MODEL 781 - 601MR - rating C100

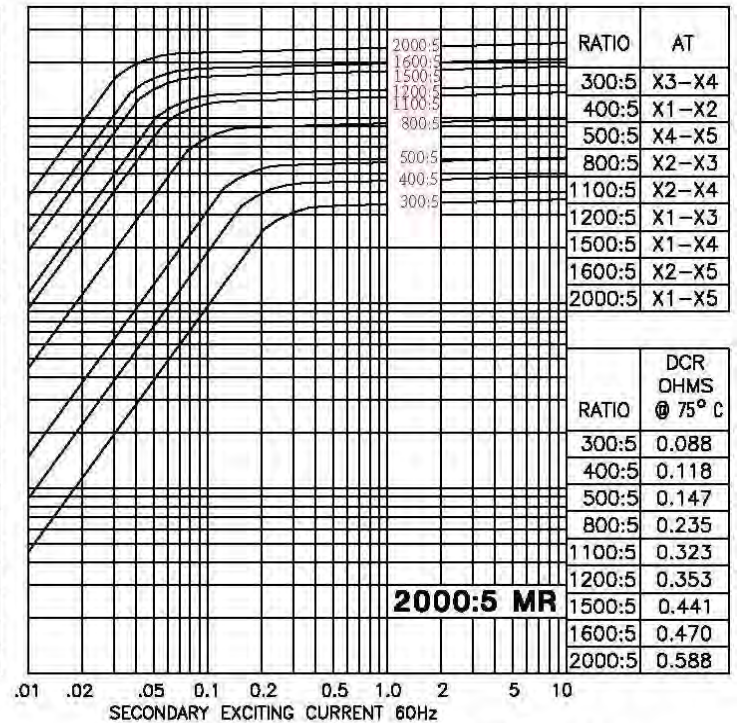




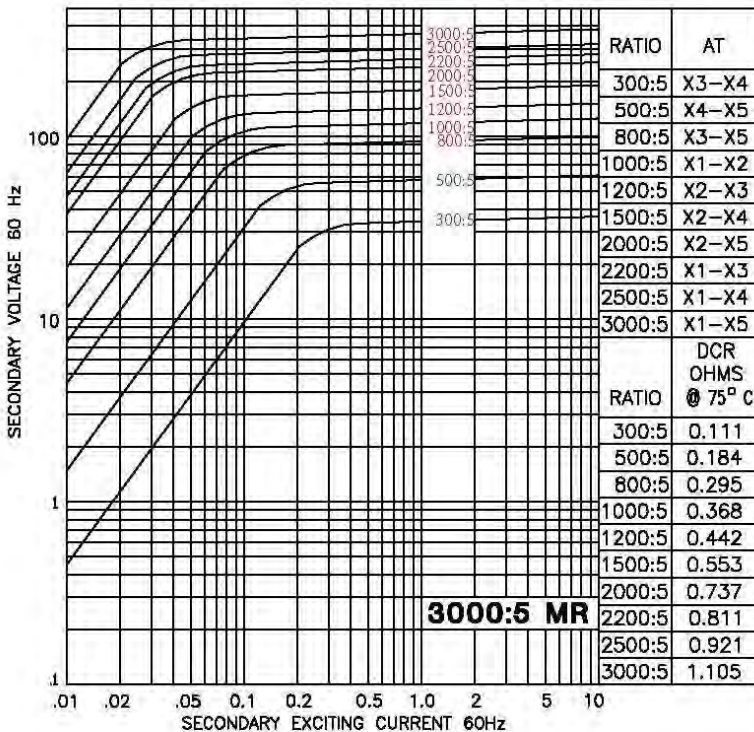
### EXCITATION CURVES



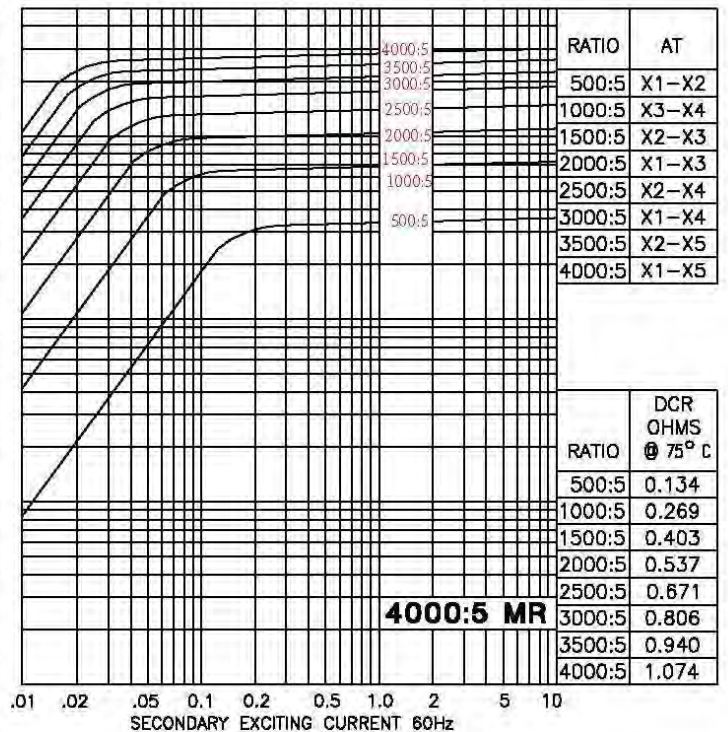
**MODEL 781 - 122MR - rating C200**



**MODEL 781 - 202MR - rating C200**



**MODEL 781 - 302MR - rating C200**



**MODEL 781 - 402MR - rating C200**



## Current Transformer

**Model 785**

### APPLICATION:

Relaying and Metering

### FREQUENCY:

50-400 Hz.

### INSULATION LEVEL:

600 Volts. 10 kV BIL. full wave

### CONTINUOUS THERMAL CURRENT RATING FACTOR:

50:5 thru 1200:5 2.0 at 30°C amb., 1.5 at 55°C amb.

1500:5 thru 2500:5 1.5 at 30°C amb., 1.33 at 55°C amb.

3000:5 thru 4000:5 1.33 at 30°C amb., 1.0 at 55°C amb.

### WINDOW DIAMETER:

6.5"

### APPROXIMATE WEIGHT:

58 lbs.

### CONNECTIONS:

-Secondary terminals are No. 10-32 brass screws with one flat washer, lockwasher, and regular nut.



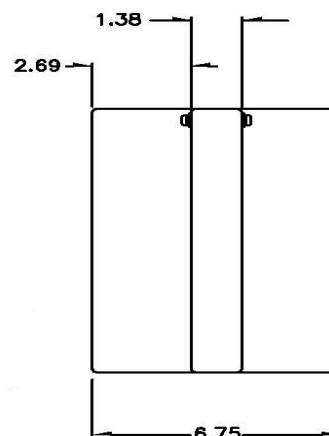
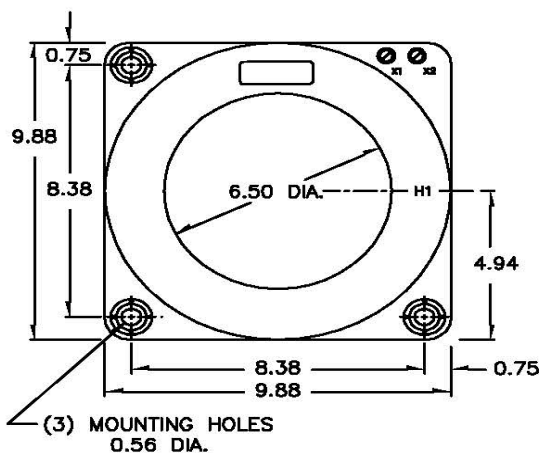
Model	785
Window Size	6.50
Width	9.88
Height	9.88
Depth	6.75

### CERTIFICATIONS:



### MODEL 785 Window Diameter 6.5" Approximate weight: 58 lbs.

CATALOG NUMBER	CURRENT RATIO	RELAY CLASS	ANSI METERING CLASS AT 60 HZ				
			B0.1	B0.2	B0.5	B0.9	B1.8
785-500	50:5	C10	2.4	4.8	-	-	-
785-750	75:5	C20	1.2	1.2	4.8	-	-
785-101	100:5	C20	0.6	1.2	2.4	-	-
785-151	150:5	C50	0.6	0.6	1.2	2.4	-
785-201	200:5	C50	0.3	0.3	0.6	1.2	2.4
785-251	250:5	C50	0.3	0.3	0.6	1.2	2.4
785-301	300:5	C100	0.3	0.3	0.3	0.6	1.2
785-401	400:5	C100	0.3	0.3	0.3	0.6	1.2
785-501	500:5	C100	0.3	0.3	0.3	0.3	0.6
785-601	600:5	C200	0.3	0.3	0.3	0.3	0.6
785-751	750:5	C200	0.3	0.3	0.3	0.3	0.3
785-801	800:5	C200	0.3	0.3	0.3	0.3	0.3
785-102	1000:5	C200	0.3	0.3	0.3	0.3	0.3
785-122	1200:5	C400	0.3	0.3	0.3	0.3	0.3
785-152	1500:5	C400	0.3	0.3	0.3	0.3	0.3
785-162	1600:5	C400	0.3	0.3	0.3	0.3	0.3
785-202	2000:5	C400	0.3	0.3	0.3	0.3	0.3
785-252	2500:5	C400	0.3	0.3	0.3	0.3	0.3
785-302	3000:5	C400	0.3	0.3	0.3	0.3	0.3
785-402	4000:5	C400	0.3	0.3	0.3	0.3	0.3



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## Current Transformer

**Model 786MR**

rev 03182021

### APPLICATION:

Relaying and metering

### FREQUENCY:

50-400 Hz.

### INSULATION LEVEL:

600 Volts, 10 kV BIL. Full wave

### CONTINUOUS THERMAL CURRENT RATING FACTOR:

2.0 at 30°C amb., 1.5 at 55°C amb

### WINDOW DIAMETER:

6.5"

### APPROXIMATE WEIGHT:

58lbs.

### CONNECTIONS:

-Secondary terminals are brass studs No. 10-32 with one flat washer, lockwasher, and regular nut



Model	786MR
Window Size	6.50
Width	9.88
Height	9.88
Depth	6.75

### CERTIFICATIONS:



ISO 9001

QUALITY  
MANAGEMENT

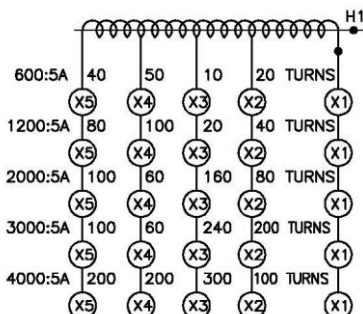
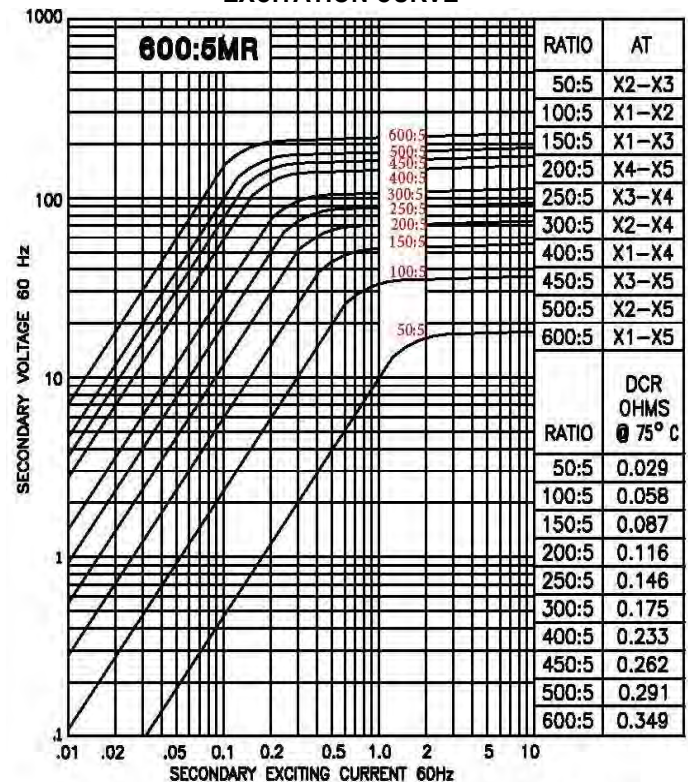
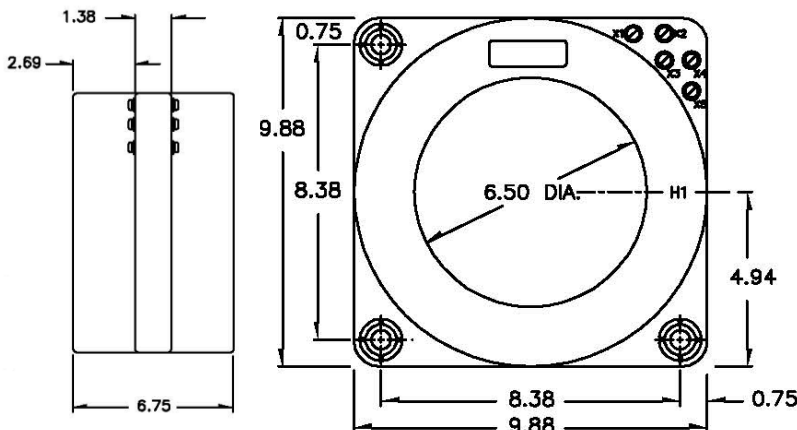
### MODEL 786MR

Window Diameter 6.5"

Approximate weight: 58 lbs.

Catalog Number	Relay Class	ANSI Metering Class at 60Hz	Continuous Thermal	
			@ 30°C	@ 50°C
786-601MR	C200	0.6 B0.9	2.0	1.5
786-122MR	C400	0.3 B1.8	2.0	1.5
786-202MR	C400	0.3 B1.8	2.0	1.5
786-302MR	C400	0.3 B1.8	1.33	1.0
786-402MR	C400	0.3 B1.8	1.33	1.0

### EXCITATION CURVE

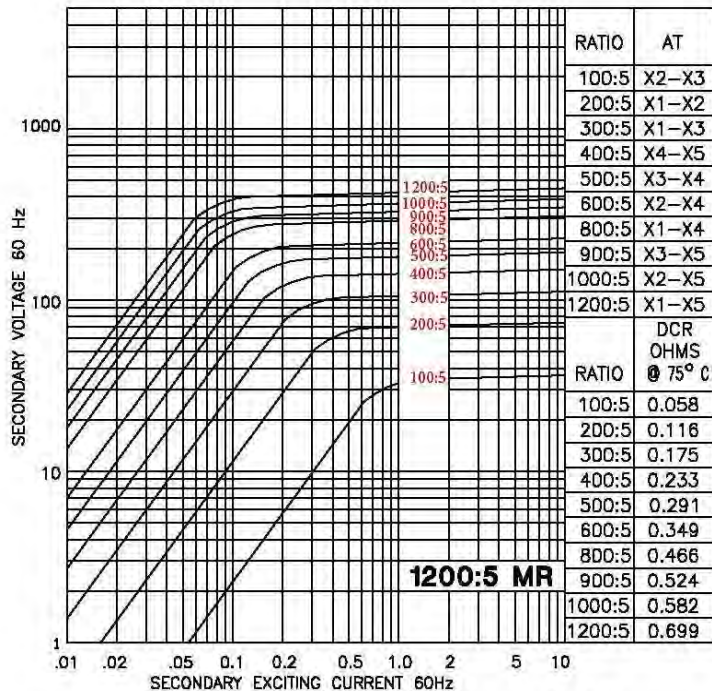


### MODEL 786 - 601MR - rating C200

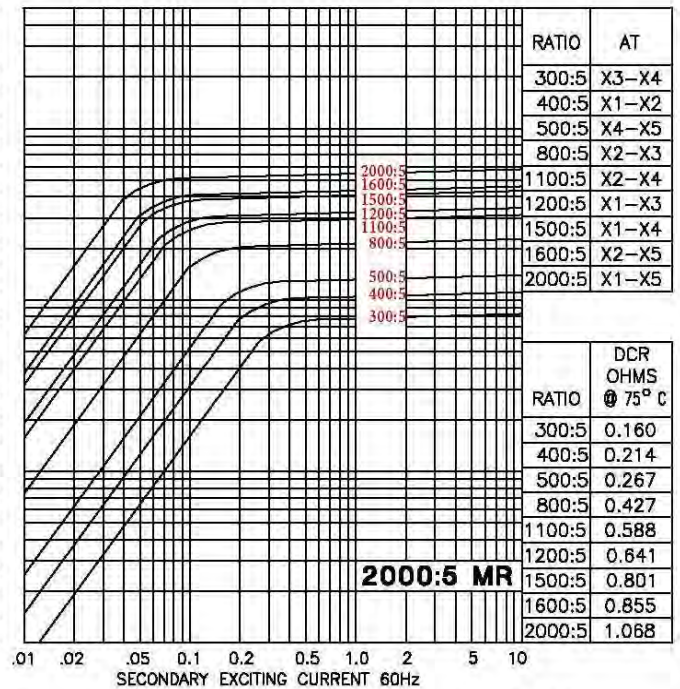
Products are manufactured in a plant whose quality management system has been certified to be in compliance with ISO 9001:2015 by NQA



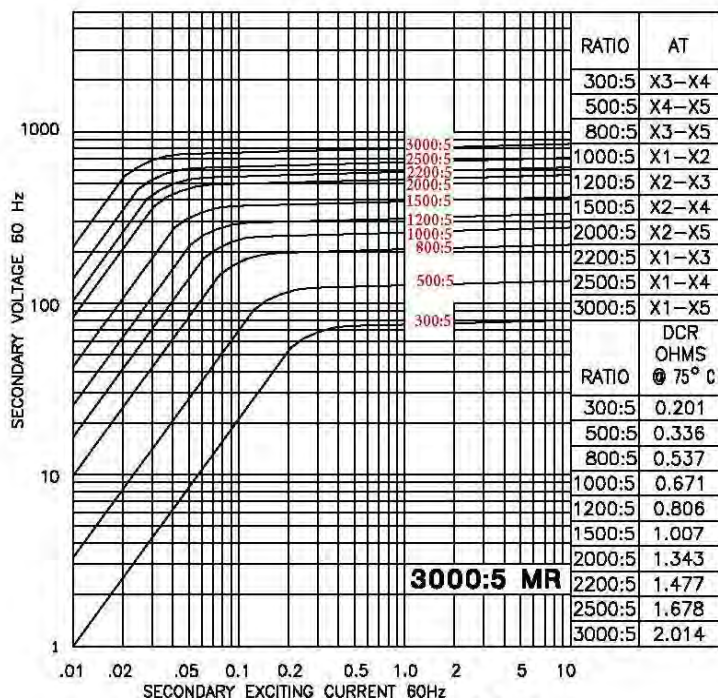
### EXCITATION CURVE



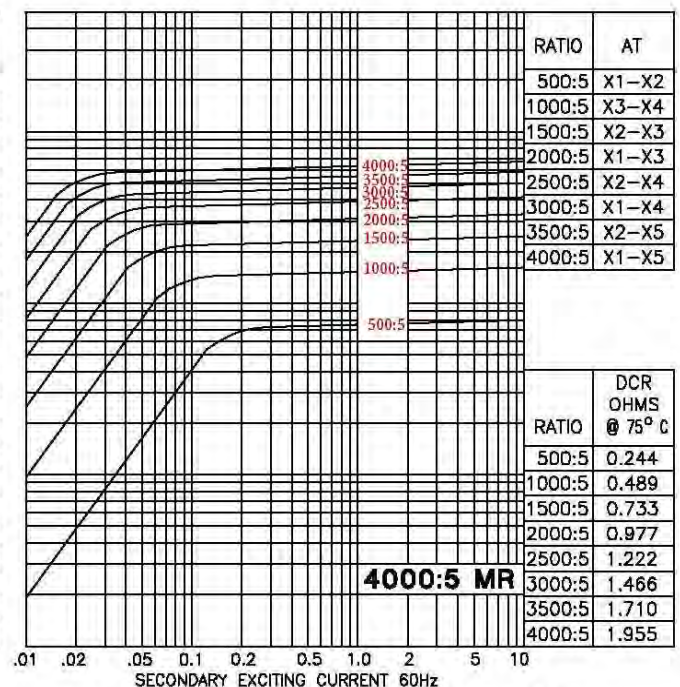
**MODEL 786 - 122MR - rating C400**



**MODEL 786 - 202MR - rating C400**



**MODEL 786 - 302MR - C400**











**MODEL 786 - 402MR - rating C400**

# CURRENT TRANSFORMERS

For Metering and Instrumentation

720V Current Transformers  
IEC Rated Busbar Type

<b>WINDOW SIZES</b> 30 x 10mm, 25 x 15mm, 20 x 20mm Diameter 25mm		<b>Page 5-3</b>
<b>MODEL IE53J</b> <b>WINDOW SIZES</b> 20 x 6mm Diameter 21mm		<b>Page 5-4</b>
<b>MODEL IE53Q</b> <b>WINDOW SIZES</b> 15 x 5mm Diameter 16mm		<b>Page 5-5</b>
<b>MODEL IE55E</b> <b>WINDOW SIZES</b> 40 x 10mm Diameter 32mm		<b>Page 5-6</b>
<b>MODEL IE63N</b> <b>WINDOW SIZES</b> 20 x 10mm Diameter 23mm		<b>Page 5-7</b>
<b>MODEL IE65F</b> <b>WINDOW SIZES</b> 50 x 10mm, 40 x 40mm, Diameter 42mm		<b>Page 5-8</b>
<b>MODEL IE93L</b> <b>WINDOW SIZES</b> 64 x 12.6mm, 60 x 30mm		<b>Page 5-9</b>
<b>MODEL IE93R</b> <b>WINDOW SIZES</b> 76.5 x 19mm, 60 x 30mm		<b>Page 5-10</b>
<b>MODEL IE93S</b>		

720V Current Transformers IEC Rated Busbar Type

# CURRENT TRANSFORMERS

For Metering and Instrumentation

720V Current Transformers  
IEC Rated Busbar Type

<b>WINDOW SIZES</b> 40 x 10mm, 30 x 30mm, Diameter 36mm  <b>MODEL IEA5G</b>		<b>Page 5-11</b>
<b>WINDOW SIZES</b> 20 x 6mm Diameter 21mm  <b>MODEL IEA5Y</b>		<b>Page 5-12</b>
<b>WINDOW SIZES</b> 80 x 30mm, 60 x 30mm, 50 x 50mm Diameter 63mm  <b>MODEL IEB5D</b>		<b>Page 5-13</b>
<b>WINDOW SIZES</b> 104 x 35mm  <b>MODEL IEB5Z</b>		<b>Page 5-14</b>
<b>WINDOW SIZES</b> 160 x 50mm  <b>MODEL IEC5T</b>		<b>Page 5-15</b>
<b>WINDOW SIZES</b> 160 x 50mm  <b>MODEL IED5T</b>		<b>Page 5-16</b>

720V Current Transformers IEC Rated Busbar Type



## Current Transformer

**Model IE53J**

rev 032916

### CERTIFICATIONS:



#### APPLICATION:

Metering

#### FREQUENCY:

50/60 Hz.

#### INSULATION LEVEL:

720 Volts. 10 kV BIL. full wave

#### APPROXIMATE WEIGHT:

0.22 kg

#### CONNECTIONS:

Secondary terminals screw clamp up to 10mm<sup>2</sup> cable. 'Fast on' 6.3mm type. Integral Terminal Cover IP20B

#### ENCLOSURE CODE:

IP40

#### INSULATION CLASS:

Class E BS2757 IEC85

#### COMPLIES WITH / APPROVALS:

IEC60044-1:2003 / BSEN61010-1, EN60044-1

#### MOUNTING HARDWARE OPTION:

Order p/n: IE53J-FIXING-KIT



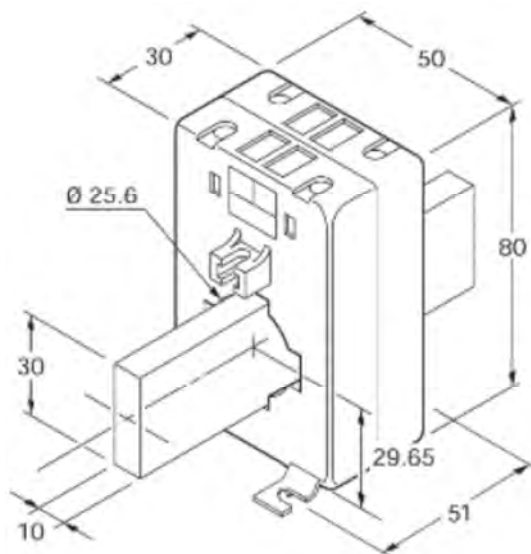
<b>Model</b>	<b>IE53J</b>
<b>Window Size</b>	30 x 10mm 25 x 15mm 20 x 20mm 25mm diameter
<b>Width</b>	50mm
<b>Height</b>	80mm
<b>Depth</b>	30mm

### MODEL IE53J

CATALOG NUMBER	CURRENT RATIO	VA at Class 3	VA at Class 1
IE53J-100/5	100:5	1.25	-
IE53J-125/5	125:5	1.25	-
IE53J-150/5	150:5	2.5	-
IE53J-160/5	160:5	2.5	-
IE53J-200/5	200:5	2.5	2.5
IE53J-250/5	250:5	3.75	2.5
IE53J-300/5	300:5	5	3.75
IE53J-400/5	400:5	7.5	3.75

Note: Change the end suffix to depict required secondary. For example IE53J-200/1.

### DIMENSIONS



Products are manufactured in a plant whose quality management system has been certified to be in compliance with ISO 9001:2015 by NQA





## Current Transformer

**Model IE53Q**

rev 032916

### CERTIFICATIONS:



QUALITY  
MANAGEMENT



#### APPLICATION:

Metering

#### FREQUENCY:

50/60 Hz.

#### INSULATION LEVEL:

720 Volts. 10 kV BIL. full wave

#### APPROXIMATE WEIGHT:

0.25 kg

#### CONNECTIONS:

Secondary terminals screw clamp up to 10mm<sup>2</sup> cable. 'Fast on' 6.3mm type. Integral Terminal Cover IP20B

#### ENCLOSURE CODE:

IP40

#### INSULATION CLASS:

Class E BS2757 IEC85

#### COMPLIES WITH / APPROVALS:

IEC60044-1:2003 / BSEN61010-1, EN60044-1

#### MOUNTING HARDWARE OPTION:

Order p/n: IE53Q-FIXING-KIT

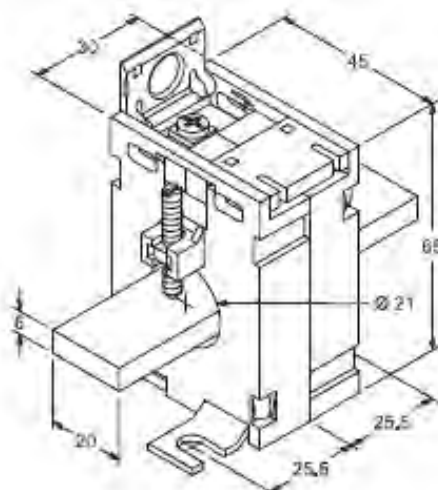
Model	IE53Q
Window Size	20 x 6mm 21mm diameter
Width	45mm
Height	65mm
Depth	30mm

### MODEL IE53Q

CATALOG NUMBER	CURRENT RATIO	VA at Class 3	VA at Class 1
IE53Q-50/5	50:5	1	-
IE53Q-60/5	60:5	1.25	-
IE53Q-75/5	75:5	1.5	-
IE53Q-80/5	80:5	1.25	-
IE53Q-100/5	100:5	2.5	1.5
IE53Q-125/5	125:5	3	2.5
IE53Q-150/5	150:5	3.75	2.5
IE53Q-200/5	200:5	5	3.75
IE53Q-250/5	250:5	-	5
IE53Q-300/5	300:5	7.5	5

Note: Change the end suffix to depict required secondary. For example IE53Q-200/1.

### DIMENSIONS





## Current Transformer

**Model IE55E**

rev 032916

### CERTIFICATIONS:



#### APPLICATION:

Metering

#### FREQUENCY:

50/60 Hz.

#### INSULATION LEVEL:

720 Volts. 10 kV BIL. full wave

#### APPROXIMATE WEIGHT:

0.40 kg

#### CONNECTIONS:

Secondary terminals screw clamp up to 10mm<sup>2</sup> cable. 'Fast on' 6.3mm type. Integral Terminal Cover IP20B

#### ENCLOSURE CODE:

IP40

#### INSULATION CLASS:

Class E BS2757 IEC85

#### COMPLIES WITH / APPROVALS:

IEC60044-1:2003 / BSEN61010-1, EN60044-1

#### MOUNTING HARDWARE OPTION:

Order p/n: IE55E-FIXING-KIT

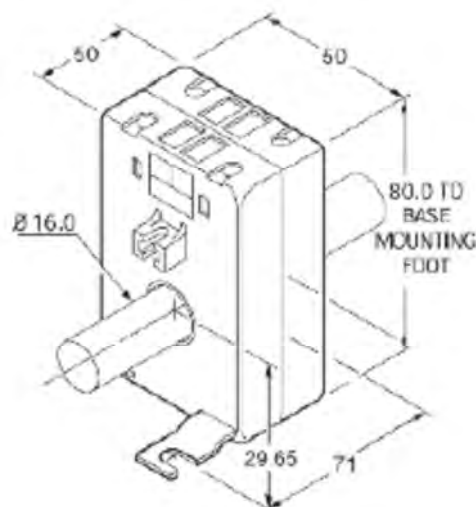
<b>Model</b>	<b>IE55E</b>
<b>Window Size</b>	15 x 5mm 16mm diameter
<b>Width</b>	50mm
<b>Height</b>	80mm
<b>Depth</b>	50mm

### MODEL IE55E

CATALOG NUMBER	CURRENT RATIO	VA at Class 3	VA at Class 1
IE55E-30/5	30:5	1.25	-
IE55E-40/5	40:5	2.5	-
IE55E-50/5	50:5	2.5	-
IE55E-60/5	60:5	3.75	2.5
IE55E-75/5	75:5	5	3.75
IE55E-80/5	80:5	5	3.75
IE55E-100/5	100:5	7.5	5

**Note:** Change the end suffix to depict required secondary. For example IE55E-80/1.

### DIMENSIONS



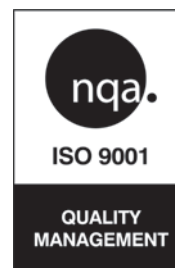


## Current Transformer

**Model IE63N**

rev 032916

### CERTIFICATIONS:



#### APPLICATION:

Metering

#### FREQUENCY:

50/60 Hz.

#### INSULATION LEVEL:

720 Volts. 10 kV BIL. full wave

#### APPROXIMATE WEIGHT:

0.30 kg

#### CONNECTIONS:

Secondary terminals screw clamp up to 10mm<sup>2</sup> cable. 'Fast on' 6.3mm type. Integral Terminal Cover IP20B

#### ENCLOSURE CODE:

IP40

#### INSULATION CLASS:

Class E BS2757 IEC85

#### COMPLIES WITH / APPROVALS:

IEC60044-1:2003 / BSEN61010-1, EN60044-1

#### MOUNTING HARDWARE OPTION:

Order p/n: IE63N-FIXING-KIT



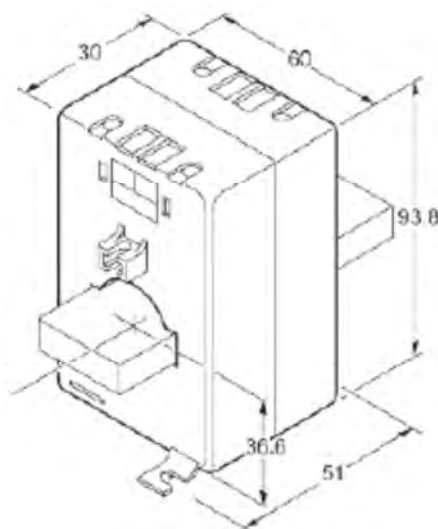
<b>Model</b>	<b>IE63N</b>
<b>Window Size</b>	40 x 10mm 32mm diameter
<b>Width</b>	60mm
<b>Height</b>	94mm
<b>Depth</b>	30mm

### MODEL IE63N

CATALOG NUMBER	CURRENT RATIO	VA at Class 3	VA at Class 1	VA at Class 0.5
IE63N-200/5	200:5	2.5	-	-
IE63N-250/5	250:5	3.75	2.5	-
IE63N-300/5	300:5	5	3.75	-
IE63N-400/5	400:5	7.5	5	-
IE63N-500/5	500:5	10	7.5	3.75
IE63N-600/5	600:5	10	7.5	5
IE63N-750/5	750:5	15	10	7.5
IE63N-800/5	800:5	15	10	7.5

Note: Change the end suffix to depict required secondary. For example IE63N-500/1.

### DIMENSIONS



Products are manufactured in a plant whose quality management system has been certified to be in compliance with ISO 9001:2015 by NQA



## Current Transformer

**Model IE65F**

rev 032916

### CERTIFICATIONS:



#### APPLICATION:

Metering

#### FREQUENCY:

50/60 Hz.

#### INSULATION LEVEL:

720 Volts. 10 kV BIL. full wave

#### APPROXIMATE WEIGHT:

0.40 kg

#### CONNECTIONS:

Secondary terminals screw clamp up to 10mm<sup>2</sup> cable. 'Fast on' 6.3mm type. Integral Terminal Cover IP20B

#### ENCLOSURE CODE:

IP40

#### INSULATION CLASS:

Class E BS2757 IEC85

#### COMPLIES WITH / APPROVALS:

IEC60044-1:2003 / BSEN61010-1, EN60044-1

#### MOUNTING HARDWARE OPTION:

Order p/n: IE65F-FIXING-KIT



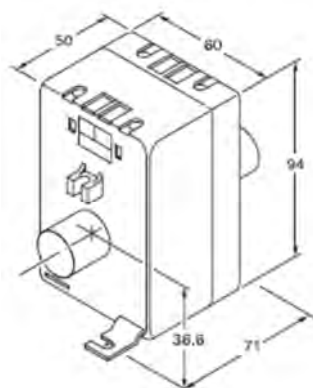
Model	IE65F
Window Size	20 x 10mm 23mm diameter
Width	60mm
Height	94mm
Depth	50mm

### MODEL IE65F

CATALOG NUMBER	CURRENT RATIO	VA at Class 3	VA at Class 1	VA at Class 0.5
IE65F-30/5	30:5	1.25	-	-
IE65F-40/5	40:5	2.5	-	-
IE65F-50/5	50:5	2.5	-	-
IE65F-60/5	60:5	3.75	-	-
IE65F-75/5	75:5	5	2.5	-
IE65F-80/5	80:5	5	2.5	-
IE65F-100/5	100:5	7.5	5	2.5
IE65F-125/5	125:5	7.5	5	2.5
IE65F-150/5	150:5	15	10	5
IE65F-200/5	200:5	20	15	7.5
IE65F-250/5	250:5	20	20	10
IE65F-300/5	300:5	30	30	10

Note: Change the end suffix to depict required secondary. For example IE65F-125/1.

### DIMENSIONS



Products are manufactured in a plant whose quality management system has been certified to be in compliance with ISO 9001:2015 by NQA





## Current Transformer

**Model IE93L**

rev 03182021

### CERTIFICATIONS:



#### APPLICATION:

Metering

#### FREQUENCY:

50/60 Hz.

#### INSULATION LEVEL:

720 Volts. 10 kV BIL. full wave

#### APPROXIMATE WEIGHT:

0.45 kg

#### CONNECTIONS:

Secondary terminals screw clamp up to 10mm<sup>2</sup> cable. 'Fast on' 6.3mm type. Integral Terminal Cover IP20B

#### ENCLOSURE CODE:

IP40

#### INSULATION CLASS:

Class E BS2757 IEC85

#### COMPLIES WITH / APPROVALS:

IEC60044-1:2003 / BSEN61010-1, EN60044-1

#### MOUNTING HARDWARE OPTION:

Order p/n: IE93L-FIXING-KIT

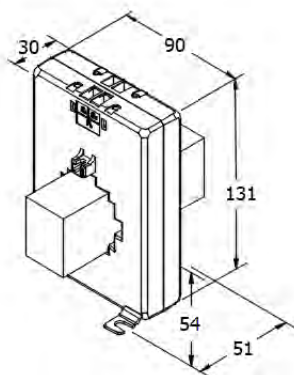
<b>Model</b>	<b>IE93L</b>
<b>Window Size</b>	50 x 10mm 40 x 30mm 42mm diameter
<b>Width</b>	90mm
<b>Height</b>	131mm
<b>Depth</b>	30mm

### MODEL IE93L

CATALOG NUMBER	CURRENT RATIO	VA at Class 3	VA at Class 1	VA at Class 0.5
IE93L-400/5	400:5	15	7.5	3.75
IE93L-500/5	500:5	20	15	5
IE93L-600/5	600:5	30	20	10
IE93L-750/5	750:5	20	15	7.5
IE93L-800/5	800:5	20	15	10
IE93L-1000/5	1000:5	20	20	15
IE93L-1200/5	1200:5	30	30	20
IE93L-1250/5	1250:5	30	30	20
IE93L-1500/5	1500:5	30	30	20
IE93L-1600/5	1600:5	30	30	20

Note: Change the end suffix to depict required secondary. For example IE93L-750/1.

### DIMENSIONS



Products are manufactured in a plant whose quality management system has been certified to be in compliance with ISO 9001:2015 by NQA



## Current Transformer

**Model IE93R**

rev 032916

### CERTIFICATIONS:



#### APPLICATION:

Metering

#### FREQUENCY:

50/60 Hz.

#### INSULATION LEVEL:

720 Volts. 10 kV BIL. full wave

#### APPROXIMATE WEIGHT:

0.60 kg

#### CONNECTIONS:

Secondary terminals screw clamp up to 10mm<sup>2</sup> cable. 'Fast on' 6.3mm type. Integral Terminal Cover IP20B

#### ENCLOSURE CODE:

IP40

#### INSULATION CLASS:

Class E BS2757 IEC85

#### COMPLIES WITH / APPROVALS:

IEC60044-1:2003 / BSEN61010-1, EN60044-1

#### MOUNTING HARDWARE OPTION:

Order p/n: IE93R-FIXING-KIT



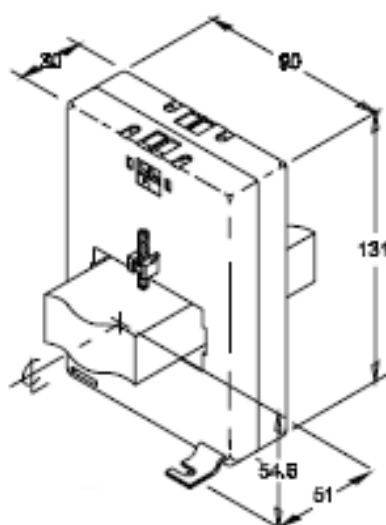
<b>Model</b>	<b>IE93R</b>
<b>Window Size</b>	64 x 12.6mm 60 x 30mm
<b>Width</b>	90mm
<b>Height</b>	131mm
<b>Depth</b>	30mm

### MODEL IE93R

CATALOG NUMBER	CURRENT RATIO	VA at Class 3	VA at Class 1	VA at Class 0.5
IE93R-800/5	800:5	10	10	5
IE93R-1000/5	1000:5	15	10	7.5
IE93R-1200/5	1200:5	20	15	10
IE93R-1250/5	1250:5	20	15	10
IE93R-1500/5	1500:5	20	20	15
IE93R-1600/5	1600:5	20	20	15
IE93R-2000/5	2000:5	30	20	20

**Note:** Change the end suffix to depict required secondary. For example IE93R-800/1.

### DIMENSIONS



Products are manufactured in a plant whose quality management system has been certified to be in compliance with ISO 9001:2015 by NQA



## Current Transformer

**Model IE93S**

rev 032916

### CERTIFICATIONS:



#### APPLICATION:

Metering

#### FREQUENCY:

50/60 Hz.

#### INSULATION LEVEL:

720 Volts. 10 kV BIL. full wave

#### APPROXIMATE WEIGHT:

0.60 kg

#### CONNECTIONS:

Secondary terminals screw clamp up to 10mm<sup>2</sup> cable. 'Fast on' 6.3mm type. Integral Terminal Cover IP20B

#### ENCLOSURE CODE:

IP40

#### INSULATION CLASS:

Class E BS2757 IEC85

#### COMPLIES WITH / APPROVALS:

IEC60044-1:2003 / BSEN61010-1, EN60044-1

#### MOUNTING HARDWARE OPTION:

Order p/n: IE93S-FIXING-KIT

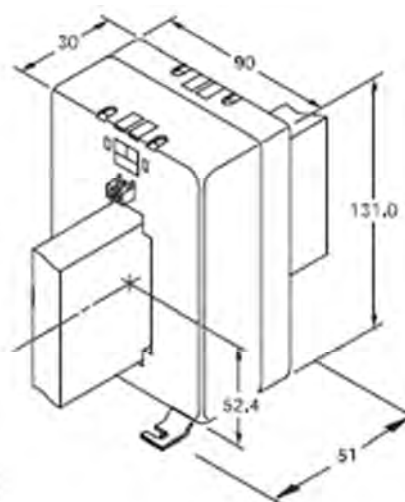
<b>Model</b>	<b>IE93S</b>
<b>Window Size</b>	76.5 x 19mm 60 x 30mm
<b>Width</b>	90mm
<b>Height</b>	131mm
<b>Depth</b>	30mm

### MODEL IE93S

CATALOG NUMBER	CURRENT RATIO	VA at Class 3	VA at Class 1	VA at Class 0.5
IE93S-800/5	800:5	10	10	5
IE93S-1000/5	1000:5	15	10	7.5
IE93S-1200/5	1200:5	20	15	10
IE93S-1250/5	1250:5	20	20	15
IE93S-1500/5	1500:5	20	20	15
IE93S-1600/5	1600:5	30	20	15
IE93S-2000/5	2000:5	30	20	15

**Note:** Change the end suffix to depict required secondary. For example IE93S-1200/1.

### DIMENSIONS



Products are manufactured in a plant whose quality management system has been certified to be in compliance with ISO 9001:2015 by NQA



## Current Transformer

**Model IEA5G**

rev 032916

### CERTIFICATIONS:



#### APPLICATION:

Metering

#### FREQUENCY:

50/60 Hz.

#### INSULATION LEVEL:

720 Volts. 10 kV BIL. full wave

#### APPROXIMATE WEIGHT:

0.60 kg

#### CONNECTIONS:

Secondary terminals screw clamp up to 10mm<sup>2</sup> cable. 'Fast on' 6.3mm type. Integral Terminal Cover IP20B

#### ENCLOSURE CODE:

IP40

#### INSULATION CLASS:

Class E BS2757 IEC85

#### COMPLIES WITH / APPROVALS:

IEC60044-1:2003 / BSEN61010-1, EN60044-1

#### MOUNTING HARDWARE OPTION:

Order p/n: IEA5G-FIXING-KIT



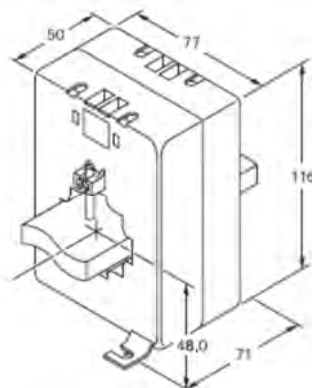
<b>Model</b>	<b>IEA5G</b>
<b>Window Size</b>	40 x 10mm 30 x 30mm 36mm diameter
<b>Width</b>	77mm
<b>Height</b>	116mm
<b>Depth</b>	50mm

### MODEL IEA5G

CATALOG NUMBER	CURRENT RATIO	VA at Class 3	VA at Class 1	VA at Class 0.5
IEA5G-100/5	100:5	2.5	-	-
IEA5G-125/5	125:5	5	2.5	-
IEA5G-150/5	150:5	5	3.75	-
IEA5G-200/5	200:5	10	5	2.5
IEA5G-250/5	250:5	10	7.5	5
IEA5G-300/5	300:5	10	7.5	5
IEA5G-400/5	400:5	10	7.5	5
IEA5G-500/5	500:5	10	7.5	5
IEA5G-600/5	600:6	10	10	7.5
IEA5G-750/5	750:5	15	10	10
IEA5G-800/5	800:5	15	10	10
IEA5G-1000/5	1000:5	20	15	15

Note: Change the end suffix to depict required secondary. For example IEA5G-125/1.

### DIMENSIONS



Products are manufactured in a plant whose quality management system has been certified to be in compliance with ISO 9001:2015 by NQA





## Current Transformer

**Model IEA5Y**

rev 03182021

### CERTIFICATIONS:



#### APPLICATION:

Metering

#### FREQUENCY:

50/60 Hz.

#### INSULATION LEVEL:

720 Volts. 10 kV BIL. full wave

#### APPROXIMATE WEIGHT:

0.45 kg

#### CONNECTIONS:

Secondary terminals screw clamp up to 10mm<sup>2</sup> cable. 'Fast on' 6.3mm type. Integral Terminal Cover IP20B

#### ENCLOSURE CODE:

IP40

#### INSULATION CLASS:

Class E BS2757 IEC85

#### COMPLIES WITH / APPROVALS:

IEC60044-1:2003 / BSEN61010-1, EN60044-1

#### MOUNTING HARDWARE OPTION:

Order p/n: IEA5Y-FIXING-KIT



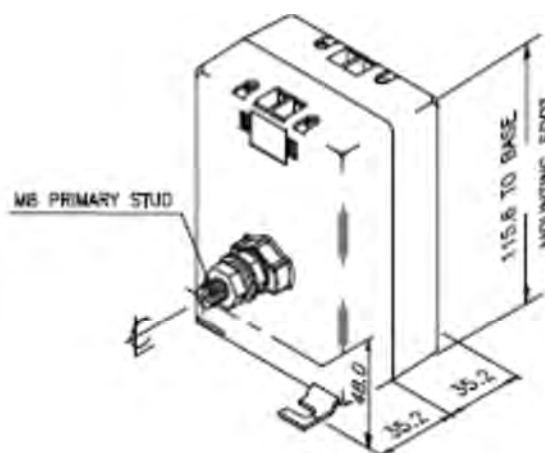
Model	IEA5Y
Stud Size	M8
Width	45mm
Height	65mm
Depth	30mm

### MODEL IEA5Y

CATALOG NUMBER	CURRENT RATIO	VA at Class 3	VA at Class 1
IEA5Y-1/5	1:5	7.5	5
IEA5Y-5/5	5:5	7.5	5
IEA5Y-10/5	10:5	7.5	5
IEA5Y-15/5	15:5	7.5	5
IEA5Y-20/5	20:5	7.5	5
IEA5Y-30/5	30:5	7.5	5
IEA5Y-40/5	40:5	7.5	5

Note: Change the end suffix to depict required secondary. For example IEA5Y-30/1.

### DIMENSIONS





## Current Transformer

**Model IEB5D**

rev 032916

### CERTIFICATIONS:



#### APPLICATION:

Metering

#### FREQUENCY:

50/60 Hz.

#### INSULATION LEVEL:

720 Volts. 10 kV BIL. full wave

#### APPROXIMATE WEIGHT:

0.50 kg

#### CONNECTIONS:

Secondary terminals screw clamp up to 10mm<sup>2</sup> cable. 'Fast on' 6.3mm type. Integral Terminal Cover IP20B

#### ENCLOSURE CODE:

IP40

#### INSULATION CLASS:

Class E BS2757 IEC85

#### COMPLIES WITH / APPROVALS:

IEC60044-1:2003 / BSEN61010-1, EN60044-1

#### MOUNTING HARDWARE OPTION:

Order p/n: IEB5D-FIXING-KIT



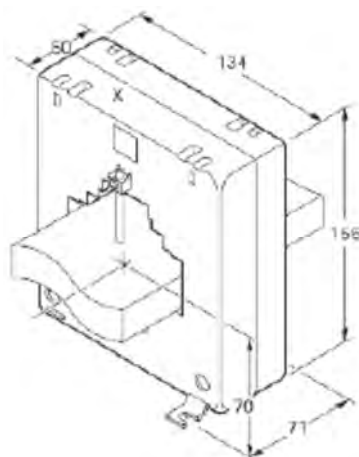
Model	IEB5D
Window Size	80 x 30mm 60 x 30mm 50 x 50mm 63mm diameter
Width	134mm
Height	156mm
Depth	50mm

### MODEL IEB5D

CATALOG NUMBER	CURRENT RATIO	VA at Class 3	VA at Class 1	VA at Class 0.5
IEB5D-400/5	400:5	15	10	7.5
IEB5D-500/5	500:5	20	15	10
IEB5D-600/5	600:5	15	10	5
IEB5D-750/5	750:5	15	10	5
IEB5D-800/5	800:5	20	15	7.5
IEB5D-1000/5	1000:5	22.5	20	10
IEB5D-1200/5	1200:5	30	20	15
IEB5D-1250/5	1250:5	30	20	15
IEB5D-1500/5	1500:5	30	20	15
IEB5D-1600/5	1600:5	40	30	20
IEB5D-2000/5	2000:5	50	40	30

Note: Change the end suffix to depict required secondary. For example IEB5D-800/1.

### DIMENSIONS



Products are manufactured in a plant whose quality management system has been certified to be in compliance with ISO 9001:2015 by NQA



## Current Transformer

**Model IEB5Z**

rev 071316

### CERTIFICATIONS:



#### APPLICATION:

Metering

#### FREQUENCY:

50/60 Hz.

#### INSULATION LEVEL:

720 Volts. 10 kV BIL. full wave

#### APPROXIMATE WEIGHT:

0.70 kg

#### CONNECTIONS:

Secondary terminals screw clamp up to 10mm<sup>2</sup> cable. 'Fast on' 6.3mm type. Integral Terminal Cover IP20B

#### ENCLOSURE CODE:

IP40

#### INSULATION CLASS:

Class E BS2757 IEC85

#### COMPLIES WITH / APPROVALS:

IEC60044-1:2003 / BSEN61010-1, EN60044-1

#### MOUNTING HARDWARE OPTION:

Order p/n: IEB5Z-FIXING-KIT



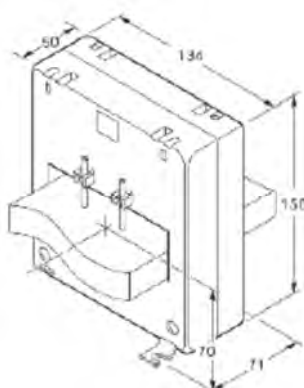
<b>Model</b>	<b>IEB5Z</b>
<b>Window Size</b>	104 x 35mm 35mm diameter
<b>Width</b>	134mm
<b>Height</b>	156mm
<b>Depth</b>	50mm

### MODEL IEB5Z

CATALOG NUMBER	CURRENT RATIO	VA at Class 3	VA at Class 1	VA at Class 0.5
IEB5Z-750/5	750:5	15	7.5	2.5
IEB5Z-800/5	800:5	20	10	2.5
IEB5Z-1000/5	1000:5	22.5	15	2.5
IEB5Z-1200/5	1200:5	30	20	10
IEB5Z-1250/5	1250:5	30	20	15
IEB5Z-1500/5	1500:5	30	20	15
IEB5Z-1600/5	1600:5	30	20	15
IEB5Z-2000/5	2000:5	30	20	15
IEB5Z-2400/5	2400:5	30	20	15
IEB5Z-2500/5	2500:5	30	20	15
IEB5Z-3000/5	3000:5	30	20	15
IEB5Z-4000/5	4000:5	30	20	15

Note: Change the end suffix to depict required secondary. For example IEB5Z-800/1.

### DIMENSIONS



Products are manufactured in a plant whose quality management system has been certified to be in compliance with ISO 9001:2015 by NQA



## Current Transformer

**Model IEC5T**

rev 03182021

### CERTIFICATIONS:



#### APPLICATION:

Metering

#### FREQUENCY:

50/60 Hz.

#### INSULATION LEVEL:

720 Volts. 10 kV BIL. full wave

#### APPROXIMATE WEIGHT:

1.6 kg

#### CONNECTIONS:

Secondary terminals screw clamp up to 10mm<sup>2</sup> cable. 'Fast on' 6.3mm type. Integral Terminal Cover IP20B

#### ENCLOSURE CODE:

IP40

#### INSULATION CLASS:

Class E BS2757 IEC85

#### COMPLIES WITH / APPROVALS:

IEC60044-1:2003 / BSEN61010-1, EN60044-1

#### MOUNTING HARDWARE OPTION:

Order p/n: IEC5T-FIXING-KIT

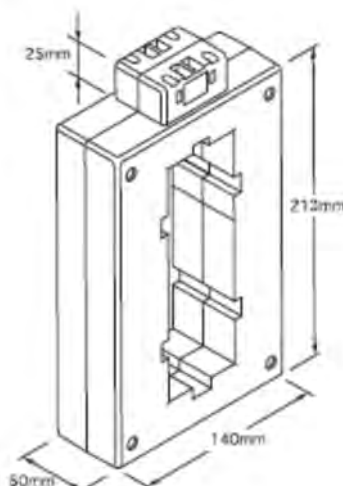
<b>Model</b>	<b>IEC5T</b>
<b>Window Size</b>	160 x 50mm
<b>Width</b>	140mm
<b>Height</b>	238mm
<b>Depth</b>	50mm

### MODEL IEC5T

CATALOG NUMBER	CURRENT RATIO	VA at Class 3	VA at Class 1	VA at Class 0.5
IEC5T-1600/5	1600:5	45	30	20
IEC5T-2000/5	2000:5	45	30	20
IEC5T-2500/5	2500:5	60	45	30
IEC5T-3000/5	3000:5	60	45	30
IEC5T-3200/5	3200:5	60	45	30
IEC5T-4000/5	4000:5	60	45	30
IEC5T-5000/5	5000:5	60	45	30
IEC5T-6000/5	6000:5	60	45	30

**Note: Change the end suffix to depict required secondary. For example IEC5T-4000/1.**

### DIMENSIONS



Products are manufactured in a plant whose quality management system has been certified to be in compliance with ISO 9001:2015 by NQA





## Current Transformer

**Model IED5T**

rev 03182021

### CERTIFICATIONS:



#### APPLICATION:

Metering

#### FREQUENCY:

50/60 Hz.

#### INSULATION LEVEL:

720 Volts. 10 kV BIL. full wave

#### APPROXIMATE WEIGHT:

1.5 kg

#### CONNECTIONS:

Secondary terminals screw clamp up to 10mm<sup>2</sup> cable. 'Fast on' 6.3mm type. Integral Terminal Cover IP20B

#### ENCLOSURE CODE:

IP40

#### INSULATION CLASS:

Class E BS2757 IEC85

#### COMPLIES WITH / APPROVALS:

IEC60044-1:2003 / BSEN61010-1, EN60044-1

#### MOUNTING HARDWARE OPTION:

Order p/n: IED5T-FIXING-KIT



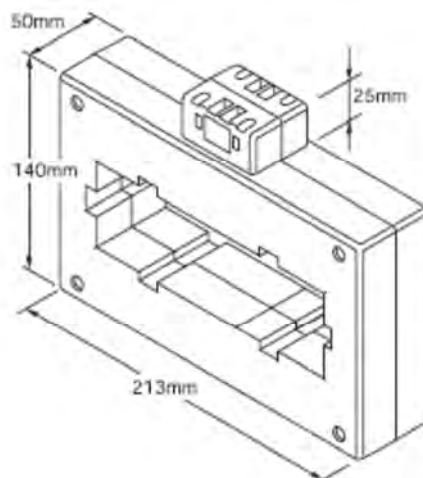
<b>Model</b>	<b>IED5T</b>
<b>Window Size</b>	160 x 50mm
<b>Width</b>	213mm
<b>Height</b>	165mm
<b>Depth</b>	50mm

### MODEL IED5T

CATALOG NUMBER	CURRENT RATIO	VA at Class 3	VA at Class 1	VA at Class 0.5
IED5T-1600/5	1600:5	45	30	20
IED5T-2000/5	2000:5	45	30	20
IED5T-2500/5	2500:5	60	45	30
IED5T-3000/5	3000:5	60	45	30
IED5T-3200/5	3200:5	60	45	30
IED5T-4000/5	4000:5	60	45	30
IED5T-5000/5	5000:5	60	45	30
IED5T-6000/5	6000:5	60	45	30

**Note: Change the end suffix to depict required secondary. For example IED5T-3200/1.**

### DIMENSIONS



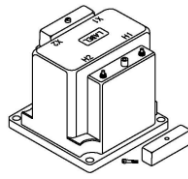
Products are manufactured in a plant whose quality management system has been certified to be in compliance with ISO 9001:2015 by NQA

# VOLTAGE TRANSFORMERS

For Metering and Instrumentation

*720V Voltage Transformers (IEC)*

**Page 6-2**



**MODEL 460I**

*720V Voltage Transformers IEC Rated*



## Voltage Transformer

**Model 460I**

rev 03182021

### CERTIFICATIONS:



E228202



223647



ISO 9001

QUALITY  
MANAGEMENT



Model	460I
Width	4.50
Height	3.50
Depth	4.63

#### FREQUENCY:

50 Hz.

#### STANDARD SECONDARY VOLTAGE:

110 Volts

#### INSULATION LEVEL:

720 Volts.

#### ACCURACY CLASS:

0.5 @ 10VA, 1.0 @ 20VA

#### THERMAL RATING:

125VA AT 30°C. amb., 75VA AT 55°C. amb.

#### APPROXIMATE WEIGHT:

3.5 kg

#### CONNECTIONS:

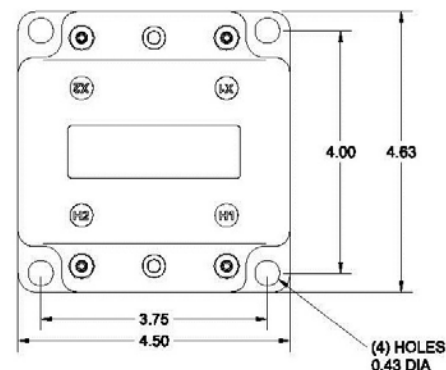
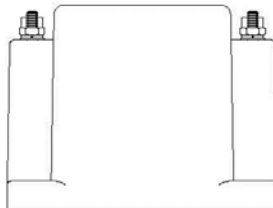
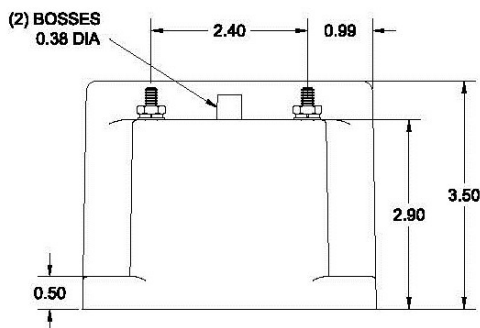
-Terminals are brass studs ASA 10-32 with one lockwasher, flat washer, and regular nut

### MODEL 460I

Approximate weight: 3.5 kg

CATALOG NUMBER NOT FUSED	VOLTAGE RATING	URNS RATIO	REC. PRIMARY FUSE RATING
460I-110	110:110	1:1	3
460I-220	220:110	2:1	2
460I-380	380:110	3.45:1	1
460I-400	400:110	3.64:1	1
460I-416	416:110	3.78:1	1
460I-440	440:110	4:1	1

- Each transformer has two plastic terminal covers.
- The core and coil assembly is encased in a thermoplastic shell and filled with resin.
- These transformers are designed for operation line to line. They may also be operated line to ground or line to neutral at reduced voltage (58% of rated volts).
- It is desirable to use a 1.75 amp fuse in the secondary to protect the transformer.

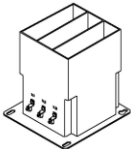
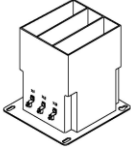
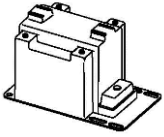
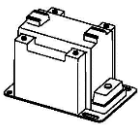
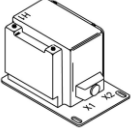
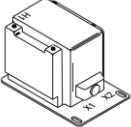
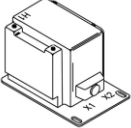


Products are manufactured in a plant whose quality management system has been certified to be in compliance with ISO 9001:2015 by NQA

# VOLTAGE TRANSFORMERS

For Metering and Instrumentation

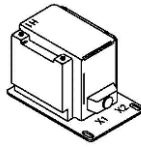
*MV Voltage Transformers*

<b>MODEL PT3-60</b>		<b>Page 7-3</b>
<b>MODEL 3PT3-60</b>		<b>Page 7-4</b>
<b>MODEL PTG3-1-60 PTG3-2-60</b>		<b>Page 7-5</b>
<b>MODEL PTW3-1-60 PTW3-2-60</b>		<b>Page 7-6</b>
<b>MODEL PTG4-1-75 PTG4-2-75</b>		<b>Page 7-9</b>
<b>MODEL PTG4T-1-75 PTG4T-2-75</b>		<b>Page 7-11</b>
<b>MODEL PTW4-1-75 PTW4-2-75</b>		<b>Page 7-13</b>

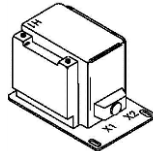
*MV Voltage Transformers*



**MODEL PTG5-1-110**  
**PTG5-2-110**



**MODEL PTW5-1-110**  
**PTW5-2-110**





## Indoor Voltage Transformer

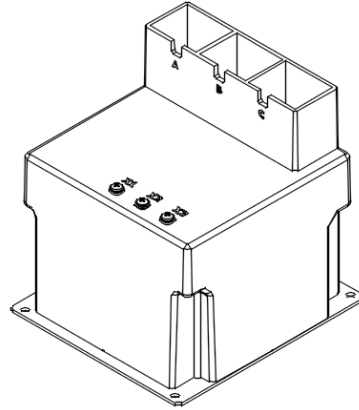
**Model PT3-60**

### CERTIFICATIONS:



ISO 9001

QUALITY  
MANAGEMENT



#### **ACCURACY CLASS:**

0.3 WX, 0.6M, 1.2Y at 100% rated voltage with 120V based ANSI burden

#### **FREQUENCY:**

50/60 Hz.

#### **THERMAL RATING:**

300 VA total, 150 VA at 30°C. amb.

200 VA total, 100 VA at 50° C. amb.

#### **STANDARD SECONDARY**

110/120 volts

#### **MAXIMUM SYSTEM VOLTAGE:**

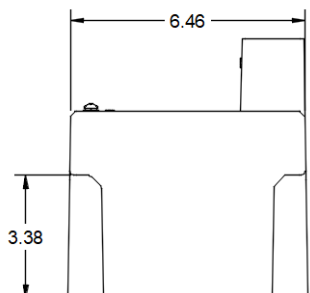
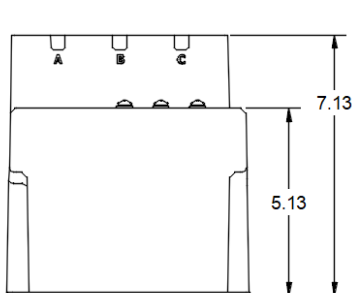
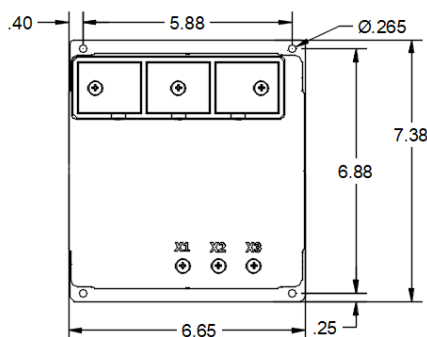
7.2 kV, BIL 60kV full wave

#### **APPROXIMATE WEIGHT:**

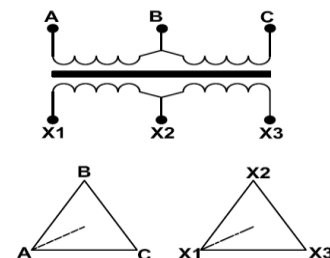
26 lbs.

- Primary terminals are No. 10-32 brass screws with one flatwasher and lockwasher.
- The core and coil assembly is encased in a plastic enclosure and vacuum encapsulated in polyurethane resin.
- The transformers are tested for partial discharge to Canadian Standards CAN 3-C13-M83. This test can also be carried out to IEC requirements if requested.
- Recommended Spacing is for guidance only. The user needs to set appropriate values to assure performance for: high potential test; impulse test; high humidity; partial discharge; high altitude.

CATALOG NUMBER	PRIMARY VOLTAGE	RATIO	SECONDARY VOLTAGE	FREQUENCY Hz	THERMAL RATING	SUGGESTED FUSE RATING
PT3-60-841	840	7:1	120	60	0.3 kVA	1.0 E
PT3-60-242	2400	20:1	120	60	0.3 kVA	1.0 E
PT3-60-332	3300	30:1	110	50	0.3 kVA	1.0 E
PT3-60-422	4200	35:1	120	60	0.3 kVA	1.0 E
PT3-60-482	4800	40:1	120	60	0.3 kVA	1.0 E
PT3-60-555	5500	50:1	110	50	0.3 kVA	0.5 E
PT3-60-602	6000	50:1	120	60	0.3 kVA	0.5 E
PT3-60-662	6600	60:1	110	50	0.3 kVA	0.5 E
PT3-60-722	7200	60:1	120	60	0.3 kVA	0.5 E



CONNECTION DIAGRAM



Products are manufactured in a plant whose quality management system has been certified to be in compliance with ISO 9001:2015 by NQA



## Indoor Voltage Transformer

**Model 3PT3-60**

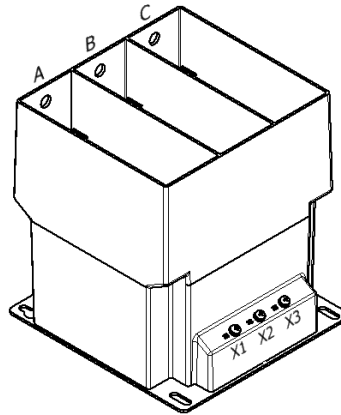
Rev 100821

### CERTIFICATIONS:



ISO 9001

QUALITY  
MANAGEMENT



#### ACCURACY CLASS:

0.3 WX, 0.6M, 1.2Y at 100% rated voltage with 120V based ANSI burden

#### FREQUENCY:

50/60 Hz.

#### THERMAL RATING:

700 VA total, 350 VA per phase, at 30°C. amb.

450 VA total, 225 VA per phase, at 55°C. amb.

#### STANDARD SECONDARY VOLTAGE:

120 volts

#### MAXIMUM SYSTEM VOLTAGE: 7

7.2 kV, BIL 60kV full wave

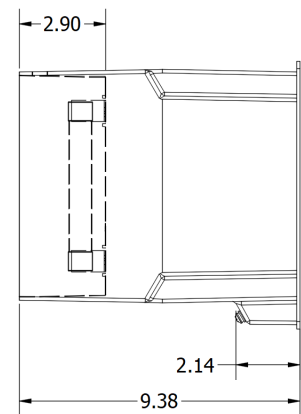
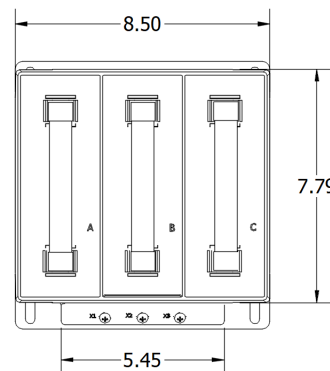
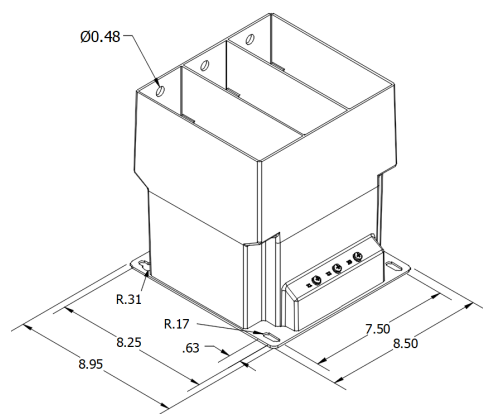
#### APPROXIMATE WEIGHT:

38 lbs.

- Primary terminals are No. 10-32 brass screws with one flatwasher and lockwasher.
- The core and coil assembly is encased in a plastic enclosure and vacuum encapsulated in polyurethane resin.

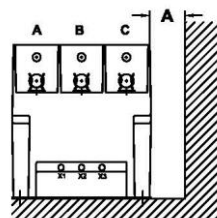
- The transformers are tested for partial discharge to Canadian Standards CAN 3-C13-M83. This test can also be carried out to IEC requirements if requested.
- Recommended Spacing is for guidance only. The user needs to set appropriate values to assure performance for: high potential test; impulse test; high humidity; partial discharge; high altitude.

CATALOG NUMBER	PRIMARY VOLTAGE	RATIO	SECONDARY VOLTAGE	FREQUENCY Hz	THERMAL RATING	SUGGESTED FUSE RATING
3PT3-60-841-FFF	840	7:1	120	60	0.7 kVA	1.0 E
3PT3-60-242-FFF	2400	20:1	120	60	0.7 kVA	1.0 E
3PT3-60-332-FFF	3300	30:1	110	50	0.7 kVA	1.0 E
3PT3-60-422-FFF	4200	35:1	120	60	0.7 kVA	1.0 E
3PT3-60-482-FFF	4800	40:1	120	60	0.7 kVA	1.0 E
3PT3-60-555-FFF	5500	50:1	110	50	0.7 kVA	0.5 E
3PT3-60-602-FFF	6000	50:1	120	60	0.7 kVA	0.5 E
3PT3-60-662-FFF	6600	60:1	110	50	0.7 kVA	0.5 E
3PT3-60-722-FFF	7200	60:1	120	60	0.7 kVA	0.5 E

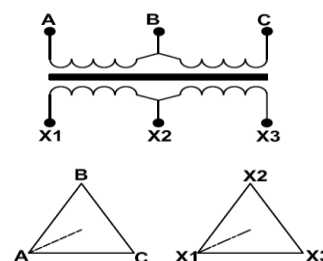


#### RECOMMENDED SPACING

A - CASE TO GROUND = 1.5" MIN



#### CONNECTION DIAGRAM



Products are manufactured in a plant whose quality management system has been certified to be in compliance with ISO 9001:2015 by NQA



## Indoor Voltage Transformer

**Models PTG3-1-60  
PTG3-2-60**

### CERTIFICATIONS:



ISO 9001

QUALITY  
MANAGEMENT

#### **ACCURACY CLASS:**

0.3 WXY, 1.2Z at 100% rated voltage with 120V based ANSI burden; 0.3 WX, 0.6 M, 1.2 Y at 58% rated voltage with 69.3V based ANSI burden

#### **FREQUENCY:**

60 Hz.

#### **MAXIMUM SYSTEM VOLTAGE:**

5.6kV, BIL 60kV full wave

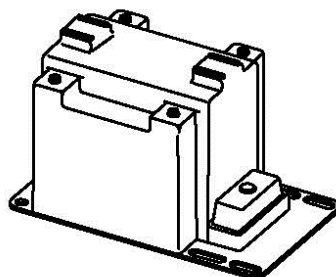
#### **THERMAL RATING:**

750 VA at 30°C. amb.

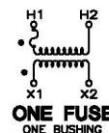
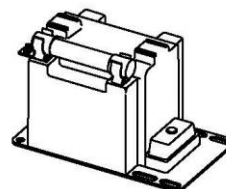
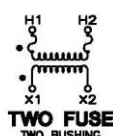
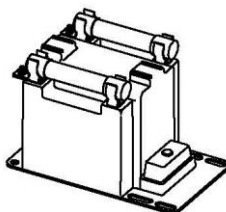
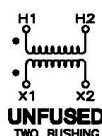
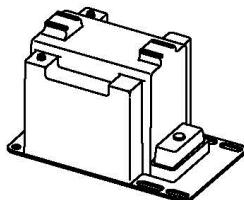
500 VA at 55°C. amb.

#### **APPROXIMATE WEIGHT:**

34 lbs.. unfused



- Primary terminals that are unfused are 1/4 - 20 brass screws with one flat washer and lockwasher.
- Primary terminals that are fused are 1/4 - 20 brass screws with one flat washer, lockwasher, and two nuts.
- Secondary terminals are No. 10-32 brass screws with one flat washer and lockwasher.
- The core and coil assembly is encased in a plastic enclosure and vacuum encapsulated in polyurethane resin.
- Thermal burden rating is for 120 volt secondaries
- Plated steel mounting base.
- Fuses have 1" Dia Caps and 5" clip centers.
- Switchgear style is similar to fused style. No fuse or fuse clip is provided, but inserts for fuse clips are supplied.



GROUP	ONE BUSHING (b)			RFR FR (c)	CATALOG NUMBERS		
					FUSES	FUSE CLIPS ONLY (d)	SWITCHGEAR STYLE
4A	2400	20:1	120	230	PTG3-1-60-242F	PTG3-1-60-242CSorCL	PTG3-1-60-242S
4B	4200	35:1	120	230	PTG3-1-60-422F	PTG3-1-60-422CSorCL	PTG3-1-60-422S
4B	4800	40:1	120	230	PTG3-1-60-482F	PTG3-1-60-482CSorCL	PTG3-1-60-482S

TWO BUSHING (a)					CATALOG NUMBERS		
GROUP	PRIMARY VOLTAGE	RATIO	SECONDARY VOLTAGE	UNFUSED	FUSES	FUSE CLIPS ONLY (d)	SWITCHGEAR STYLE
1	2400	20:1	120	PTG3-2-60-242	PTG3-2-60-242FF	PTG3-2-60-242CCSorCL	PTG3-2-60-242SS
2	3300	30:1	110-50Hz	PTG3-2-60-332	PTG3-2-60-332FF	PTG3-2-60-332CCSorCL	PTG3-2-60-332SS
2	4200	35:1	120	PTG3-2-60-422	PTG3-2-60-422FF	PTG3-2-60-422CCSorCL	PTG3-2-60-422SS
2	4800	40:1	120	PTG3-2-60-482	PTG3-2-60-482FF	PTG3-2-60-482CCSorCL	PTG3-2-60-482SS

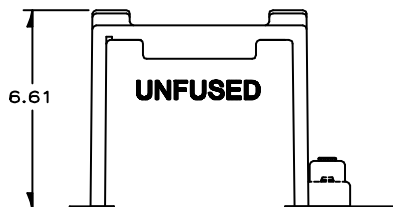
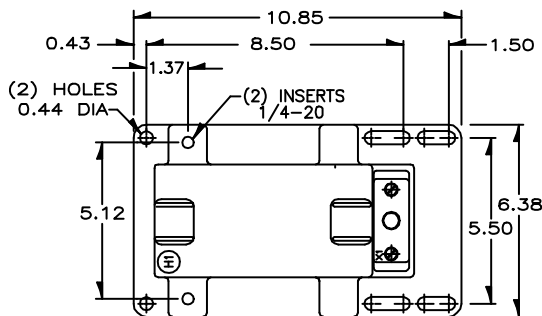
- (a) Two fuse transformers should not be used for Y connections. It is preferred practice to connect one lead from each voltage transformer directly to the neutral terminal using a fuse in the line side of the primary only. By using this connection, a transformer can never be made "live" from the line side by reason of a blown fuse in the neutral side. For continuous operation, the transformer primary voltage should not exceed 110% of rated value.
- (b) Voltage transformers connected line-to-ground cannot be considered to be grounding transformers and must not be operated with the secondaries in closed delta because excessive currents may flow in the delta.
- (c) Fuse clips noted as "CCS" or "CS" accept fuses with 1" Dia. Caps and 5" clip centers. Fuse clips noted as "CCL" or "CL" accept fuses with 1.63" Dia. Caps and 5.88" clip centers

**NOTE:** It is recommended the system line-to-line voltage not exceed the transformer maximum system voltage level.

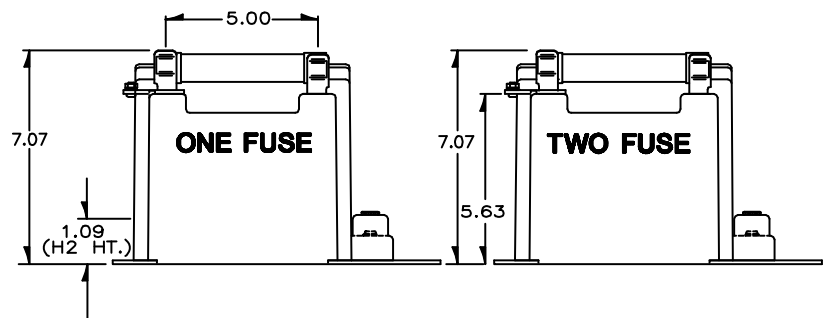
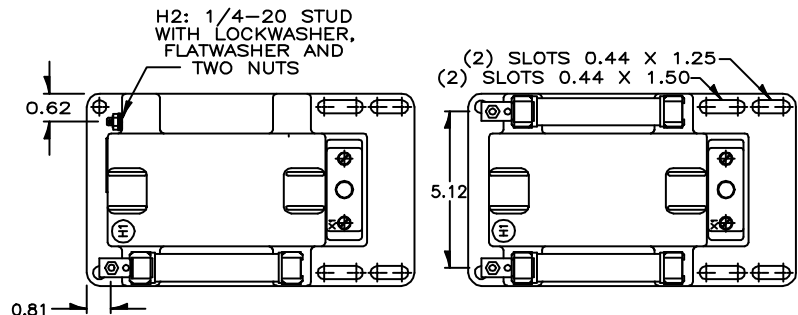
Products are manufactured in a plant whose quality management system has been certified to be in compliance with ISO 9001:2015 by NQA



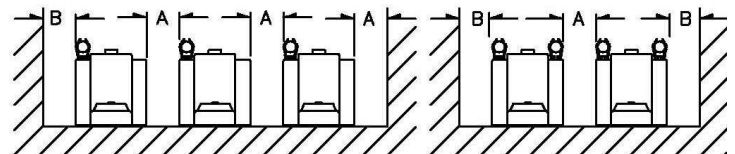
PTG3-1-60



PTG3-2-60



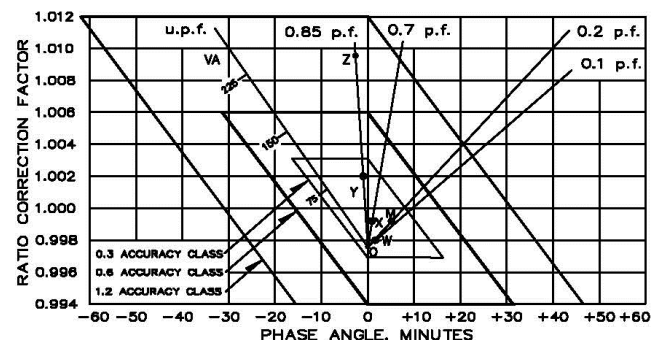
Recommended spacing is for guidance only. User needs to set appropriate values to assure performance for: high potential test; impulse test; high humidity; partial discharge, high altitude; and other considerations like configuration.



FUSE FOR MODEL PTG3 TRANSFORMER	RATING VOLTS	INTERRUPTING AMPERES (SYM)	SUGGESTED RATING * CONTINUOUS AMPERES	CAP DIA. INCHES	LENGTH INCHES	CLIP CENTERS INCHES
2400:120V	5.5kV	45,000	2.0E	1.0	5.63	5.00
3300:110V	5.5kV	45,000	2.0E	1.0	5.63	5.00
4200:120V	5.5kV	45,000	1.0E	1.0	5.63	5.00
4800:120V	5.5kV	45,000	1.0E	1.0	5.63	5.00

CIRCLE DIAGRAM

The circle diagram can be used to predict the performance of a transformer for various loads and power factors. A convenient scale of volt-amperes is shown on the unity power factor line (u.p.f.) and commences at the zero or no-load locus. To use the diagram, measure the known V.A. and scribe an arc about the "zero" locus of a length that contains the angle of the burden power factor. The point at which the arc terminates is the error locus in phase angle minutes and ratio correction factor.





## Indoor Voltage Transformer

**Models PTW3-1-60  
PTW3-2-60**

### CERTIFICATIONS:



ISO 9001

QUALITY  
MANAGEMENT

#### **ACCURACY CLASS:**

0.3 WXY, 1.2Z at 100% rated voltage with 120V based ANSI burden; 0.6 WX, 1.2 MY, 1.2 Y at 58% rated voltage with 69.3V based ANSI burden

#### **FREQUENCY:**

60 Hz.

#### **MAXIMUM SYSTEM VOLTAGE:**

5.6kV, BIL 60kV full wave

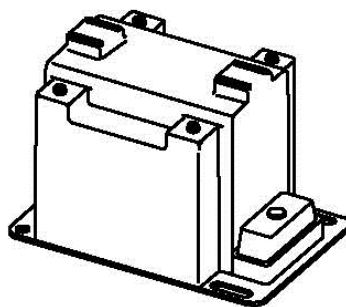
#### **THERMAL RATING:**

750 VA at 30°C. amb.

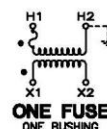
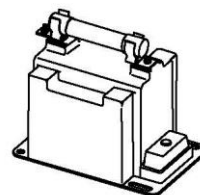
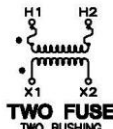
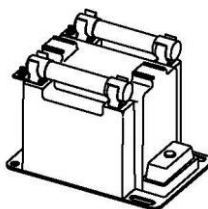
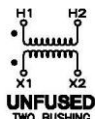
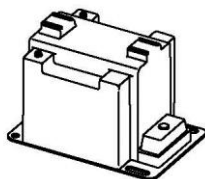
500 VA at 55°C. amb.

#### **APPROXIMATE WEIGHT:**

34 lbs.. unfused



- Primary terminals that are unfused are ¼ - 20 brass screws with one flat washer and lockwasher.
- Primary terminals that are fused are ¼ - 20 brass screws with one flat washer, lockwasher and two nuts.
- Secondary terminals are No. 10-32 brass screws with one flat washer and lockwasher.
- The core and coil assembly is encased in a plastic enclosure and vacuum encapsulated in polyurethane resin.
- Thermal burden rating is for 120 volt secondaries
- Plated steel mounting base.
- Fuses have 1" Dia Caps and 5" clip centers.
- Switchgear style is similar to fused style. No fuse or fuse clip is provided, but inserts for fuse clips are supplied.



GROUP	ONE BUSHING (b)			RFR FR (c)	CATALOG NUMBERS		
					FUSES	FUSE CLIPS ONLY (d)	SWITCHGEAR STYLE
4A	2400	20:1	120	230	PTW3-1-60-242F	PTW3-1-60-242CSorCL	PTW3-1-60-242S
4B	4200	35:1	120	230	PTW3-1-60-422F	PTW3-1-60-422CSorCL	PTW3-1-60-422S
4B	4800	40:1	120	230	PTW3-1-60-482F	PTW3-1-60-482CSorCL	PTW3-1-60-482S

TWO BUSHING (a)					CATALOG NUMBERS		
GROUP	PRIMARY VOLTAGE	RATIO	SECONDARY VOLTAGE	UNFUSED	FUSES	FUSE CLIPS ONLY (d)	SWITCHGEAR STYLE
1	2400	20:1	120	PTW3-2-60-242	PTW3-2-60-242FF	PTW3-2-60-242CCSorCCL	PTW3-2-60-242SS
2	3300	30:1	110-50Hz	PTW3-2-60-332	PTW3-2-60-332FF	PTW3-2-60-332CCSorCCL	PTW3-2-60-332SS
2	4200	35:1	120	PTW3-2-60-422	PTW3-2-60-422FF	PTW3-2-60-422CCSorCCL	PTW3-2-60-422SS
2	4800	40:1	120	PTW3-2-60-482	PTW3-2-60-482FF	PTW3-2-60-482CCSorCCL	PTW3-2-60-482SS

- (a) Two fuse transformers should not be used for Y connections. It is preferred practice to connect one lead from each voltage transformer directly to the neutral terminal using a fuse in the line side of the primary only. By using this connection, a transformer can never be made "live" from the line side by reason of a blown fuse in the neutral side. For continuous operation, the transformer primary voltage should not exceed 110% of rated value.
- (b) Voltage transformers connected line-to-ground cannot be considered to be grounding transformers and must not be operated with the secondaries in closed delta because excessive currents may flow in the delta.
- (c) Fuse clips noted as "CCS" or "CS" accept fuses with 1" Dia. Caps and 5" clip centers. Fuse clips noted as "CCL" or "CL" accept fuses with 1.63" Dia. Caps and 5.88" clip centers

**NOTE:** It is recommended the system line-to-line voltage not exceed the transformer maximum system voltage level.

Products are manufactured in a plant whose quality management system has been certified to be in compliance with ISO 9001:2015 by NQA



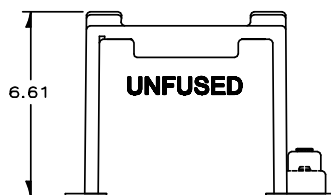
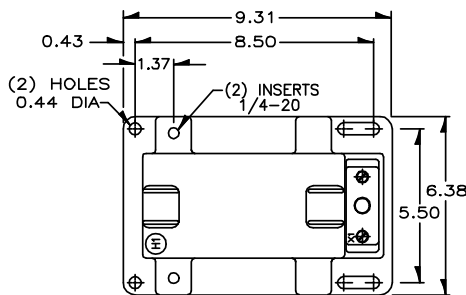
**TTL** Transformer  
Technologies Ltd.



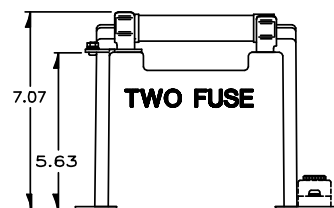
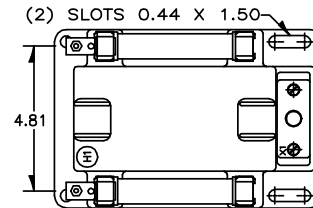
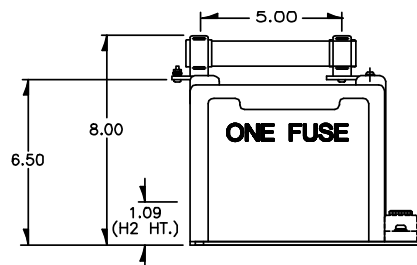
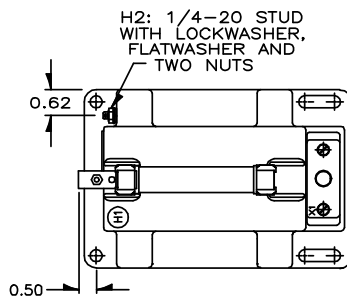
## Indoor Voltage Transformer

**Models PTW3-1-60  
PTW3-2-60**

**PTW3-2-60**

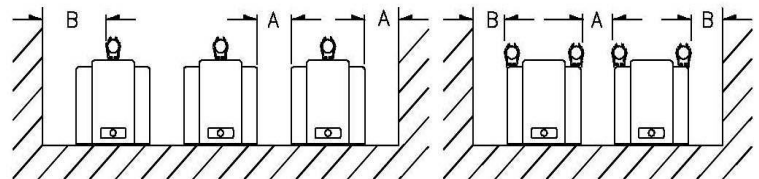


**PTW3-1-60**



Recommended spacing is 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.

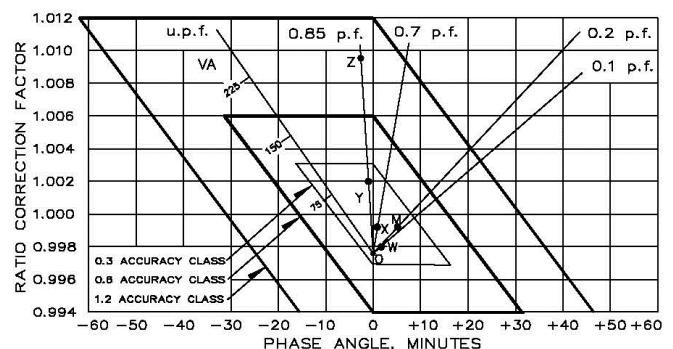
A=UNIT TO UNIT OR TO GROUND=1.0" MIN.  
B=HV TO GROUND IN AIR=3.0" MIN.



FUSE FOR MODEL PTW3 TRANSFORMER	RATING VOLTS	INTERRUPTING AMPERES (SYM)	SUGGESTED RATING * CONTINUOUS AMPERES	CAP DIA. INCHES	LENGTH INCHES	CLIP CENTERS INCHES
2400:120V	5.5kV	45,000	2.0E	1.0	5.63	5.00
3300:110V	5.5kV	45,000	2.0E	1.0	5.63	5.00
4200:120V	5.5kV	45,000	1.0E	1.0	5.63	5.00
4800:120V	5.5kV	45,000	1.0E	1.0	5.63	5.00

The circle diagram can be used to predict the performance of a transformer for various loads and power factors. A convenient scale of volt-amperes is shown on the unity power factor line (u.p.f.) and commences at the zero or no-load locus. To use the diagram, measure the known V.A. and scribe an arc about the "zero" locus of a length that contains the angle of the burden power factor. The point at which the arc terminates is the error locus in phase angle minutes and ratio correction factor.

**CIRCLE DIAGRAM**



Products are manufactured in a plant whose quality management system has been certified to be in compliance with ISO 9001:2015 by NQA



## Indoor Voltage Transformer

**Models PTG4-1-75**

**PTG4-2-75**

rev 053023

### ACCURACY CLASS:

0.3 WXYZ, 1.2ZZ at 100% rated voltage with 120V based ANSI burden.

0.3 WXYZ, 1.2Z at 58% rated voltage with 69.3V based ANSI burden.

### FREQUENCY:

60 Hz.

### MAXIMUM SYSTEM VOLTAGE:

12 kV, BIL 75kV full wave

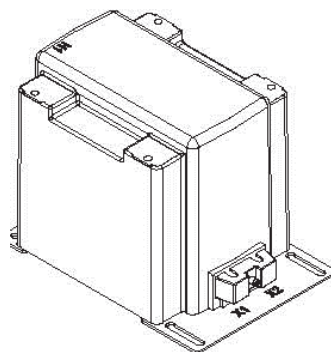
### THERMAL RATING:

1000 va AT 30°C amb.

750 VA at 55°C. amb.

### APPROXIMATE WEIGHT:

60 lbs., unfused



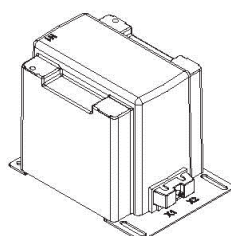
### CERTIFICATIONS:



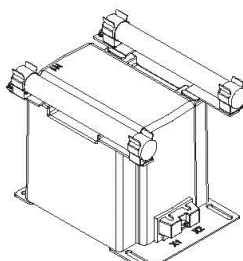
ISO 9001

QUALITY  
MANAGEMENT

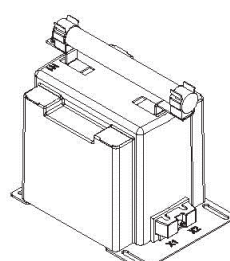
- Primary terminals that are unfused are 1/4-20 brass screws with one lockwasher and flat washer.
- Primary terminals that are fused are 1/4-20 brass screws with one flat washer, lockwasher and two nuts.
- Secondary terminals are No. 10-32 brass screws with one flat washer and lockwasher.
- The transformers are tested for partial discharge to Canadian Standards CAN 3-C13-M83. This test can also be carried out to IEC requirements if requested.
- The core and coil assembly is vacuum encapsulated in polyurethane resin.
- Thermal burden rating is for 120 volt secondaries
- Plated steel mounting base.
- Fuses have 1.63" Dia Caps and 11.50" clip centers.
- Switchgear style is similar to fused style. No fuse or fuse clip is provided, but inserts for fuse clips are supplied.
- A test cord is provided with each unit.



H1 H2  
X1 X2  
**UNFUSED**  
TWO BUSHING



H1 H2  
X1 X2  
**TWO FUSE**  
TWO BUSHING



H1 H2  
X1 X2  
**ONE FUSE**  
ONE BUSHING

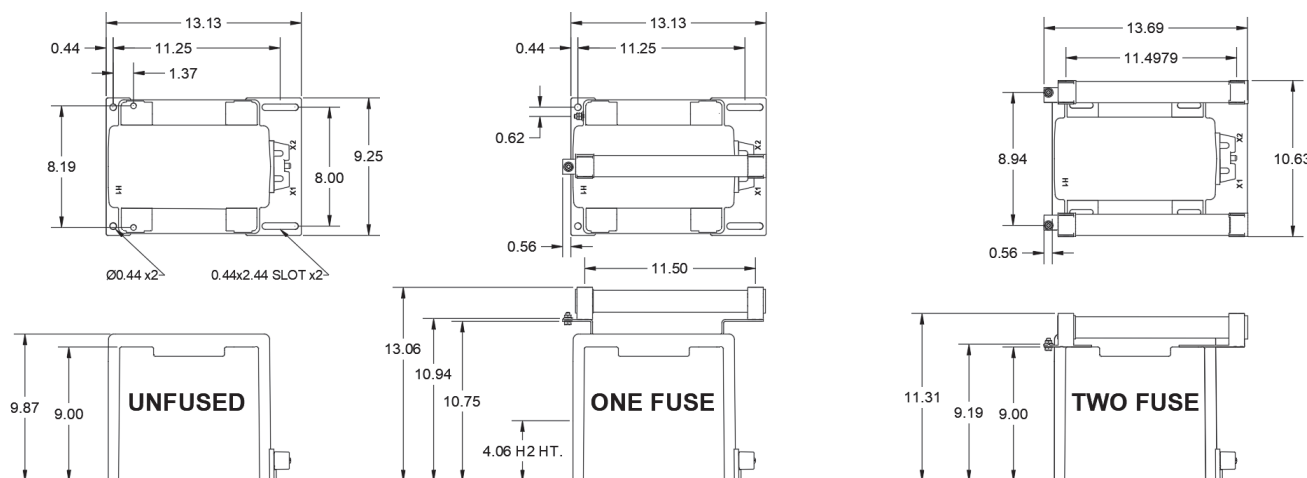
ONE BUSHING(b)					CATALOG NUMBERS		
GROUP	PRIMARY VOLTAGE	RATIO	SECONDARY VOLTAGE	R FR (c)	FUSES	FUSE CLIPS ONLY	SWITCHGEAR STYLE
4A	4200	35:1	120	65	PTG4-1-75-422F	PTG4-1-75-422C	PTG4-1-75-422S
4A	4800	40:1	120	65	PTG4-1-75-482F	PTG4-1-75-482C	PTG4-1-75-482S
4B	6600	60:1	110-50Hz	65	PTG4-1-75-662F	PTG4-1-75-662C	PTG4-1-75-662S
4B	7200	60:1	120	65	PTG4-1-75-722F	PTG4-1-75-722C	PTG4-1-75-722S
4B	8400	70:1	120	65	PTG4-1-75-842F	PTG4-1-75-842C	PTG4-1-75-842S
4B	11000	100:1	110-50Hz	65	PTG4-1-75-113F	PTG4-1-75-113C	PTG4-1-75-113S
4B	12000	100:1	120	65	PTG4-1-75-123F	PTG4-1-75-123C	PTG4-1-75-123S

TWO BUSHING(a)					CATALOG		
GROUP	PRIMARY VOLTAGE	RATIO	SECONDARY VOLTAGE	UNFUSED	FUSES	FUSE CLIPS ONLY	SWITCHGEAR STYLE
1	4200	35:1	120	PTG4-2-75-422	PTG4-2-75-422FF	PTG4-2-75-422CC	PTG4-2-75-422SS
1	4800	40:1	120	PTG4-2-75-482	PTG4-2-75-482FF	PTG4-2-75-482CC	PTG4-2-75-482SS
2	6600	60:1	110-50Hz	PTG4-2-75-662	PTG4-2-75-662FF	PTG4-2-75-662CC	PTG4-2-75-662SS
2	7200	60:1	120	PTG4-2-75-722	PTG4-2-75-722FF	PTG4-2-75-722CC	PTG4-2-75-722SS
2	8400	70:1	120	PTG4-2-75-842	PTG4-2-75-842FF	PTG4-2-75-842CC	PTG4-2-75-842SS
2	11000	100:1	110-50Hz	PTG4-2-75-113	PTG4-2-75-113FF	PTG4-2-75-113CC	PTG4-2-75-113SS
2	12000	100:1	120	PTG4-2-75-123	PTG4-2-75-123FF	PTG4-2-75-123CC	PTG4-2-75-123SS

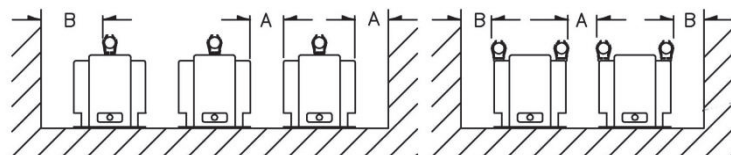
Products are manufactured in a plant whose quality management system has been certified to be in compliance with ISO 9001:2015 by NQA



- (a) Two fuse transformers should not be used for Y connections. It is preferred practice to connect one lead from each voltage transformer directly to the neutral terminal using a fuse in the line side of the primary only. By using this connection, a transformer can never be made "live" from the line side by reason of a blown fuse in the neutral side. For continuous operation, the transformer primary voltage should not exceed 110% of rated value.
- (b) Voltage transformers connected line-to-ground cannot be considered to be grounding transformers and must not be operated with the secondaries in closed delta because excessive currents may flow in the delta.
- (c) Possibility of ferroresonance should be considered.

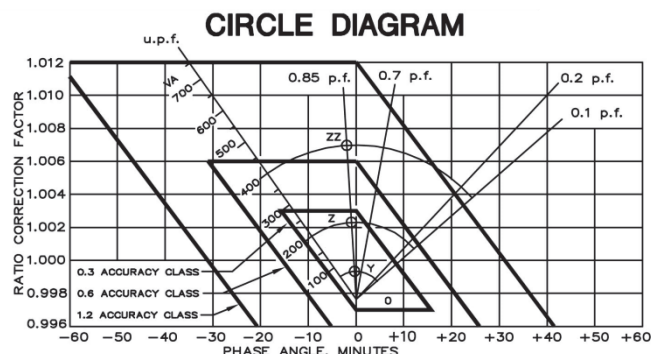


Recommended spacing is for guidance only. User needs to set appropriate values to assure performance for: high potential test; impulse test; high humidity; partial discharge, high altitude; and other considerations like configuration.



FUSE FOR MODEL PTG4 TRANSFORMER	RATING VOLTS	INTERRUPTING AMPERES (SYM)	SUGGESTED RATING * CONTINUOUS AMPERES	CAP DIA. INCHES	LENGTH INCHES	CLIP CENTERS INCHES
4200:120V	12 kV	50,000	2.0E	0.812	10	9.5
4800:120V	12 kV	50,000	2.0E	0.812	10	9.5
6600:110V	12 kV	50,000	1.0E	0.812	10	9.5
7200:120V	12 kV	50,000	1.0E	0.812	10	9.5
8400:120V	12 kV	50,000	1.0E	0.812	10	9.5
11000:110V	12 kV	50,000	0.5E	0.812	10	9.5
12000:120V	12 kV	50,000	0.5E	0.812	10	9.5

The circle diagram can be used to predict the performance of a transformer for various loads and power factors. A convenient scale of volt-amperes is shown on the unity power factor line (u.p.f.) and commences at the zero or no-load locus. To use the diagram, measure the known V.A. and scribe an arc about the "zero" locus of a length that contains the angle of the burden power factor. The point at which the arc terminates is the error locus in phase angle minutes and ratio correction factor.





## Indoor Voltage Transformer

**Models PTG4T-1-75**  
**PTG4T-2-75 rev 53023**

### ACCURACY CLASS:

0.3 WXY, 1.2Z at 100% rated voltage with 120V based ANSI burden.  
0.3 WXY, 1.2Z at 58% rated voltage with 69.3V based ANSI burden.

### FREQUENCY:

60 Hz.

### MAXIMUM SYSTEM VOLTAGE:

12 kV, BIL 75kV full wave

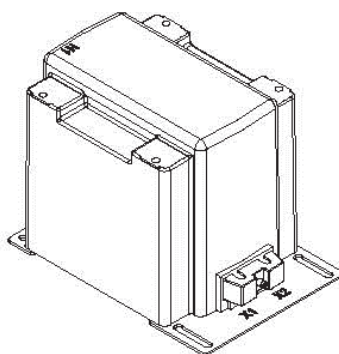
### THERMAL RATING:

1000 va AT 30°C amb.

750 VA at 55°C. amb.

### APPROXIMATE WEIGHT:

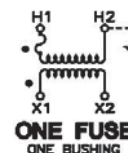
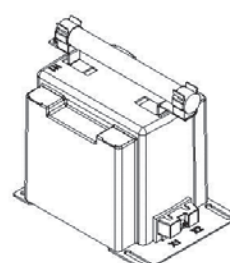
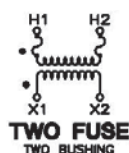
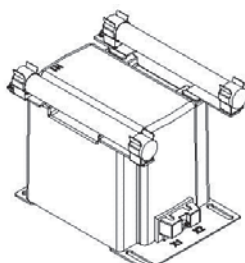
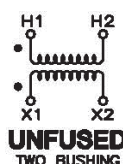
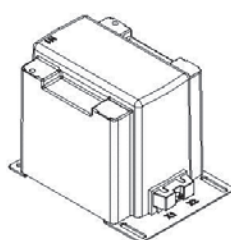
60 lbs., unfused



### CERTIFICATIONS:



- Primary terminals that are unfused are 1/4-20 brass screws with one lockwasher and flat washer.
- Primary terminals that are fused are 1/4-20 brass screws with one flat washer, lockwasher and two nuts.
- Secondary terminals are No. 10-32 brass screws with one flat washer and lockwasher.
- The transformers are tested for partial discharge to Canadian Standards CAN 3-C13-M83. This test can also be carried out to IEC requirements if requested.
- The core and coil assembly is vacuum encapsulated in polyurethane resin.
- Thermal burden rating is for 120 volt secondaries
- Plated steel mounting base.
- Fuses have 0.81" Dia Caps and 9.5" clip centers.
- Switchgear style is similar to fused style. No fuse or fuse clip is provided, but inserts for fuse clips are supplied.
- A test cord is provided with each unit.



### ONE BUSHING(b)

### CATALOG NUMBERS

GROUP	PRIMARY VOLTAGE	RATIO	SECONDARY VOLTAGE	R FR (c)	FUSES	FUSE CLIPS ONLY	SWITCHGEAR STYLE
4A	4200	35:1	120	65	PTG4T-1-75-422F	PTG4T-1-75-422C	PTG4T-1-75-422S
4A	4800	40:1	120	65	PTG4T-1-75-482F	PTG4T-1-75-482C	PTG4T-1-75-482S
4B	6600	60:1	110-50Hz	65	PTG4T-1-75-662F	PTG4T-1-75-662C	PTG4T-1-75-662S
4B	7200	60:1	120	65	PTG4T-1-75-722F	PTG4T-1-75-722C	PTG4T-1-75-722S
4B	8400	70:1	120	65	PTG4T-1-75-842F	PTG4T-1-75-842C	PTG4T-1-75-842S
4B	11000	100:1	110-50Hz	65	PTG4T-1-75-113F	PTG4T-1-75-113C	PTG4T-1-75-113S
4B	12000	100:1	120	65	PTG4T-1-75-123F	PTG4T-1-75-123C	PTG4T-1-75-123S

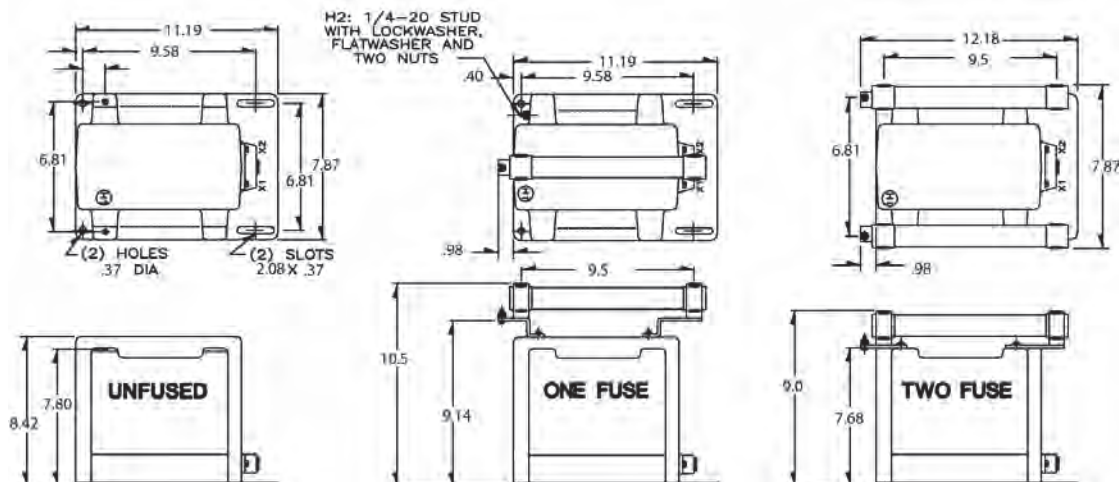
### TWO BUSHING(a)

### CATALOG

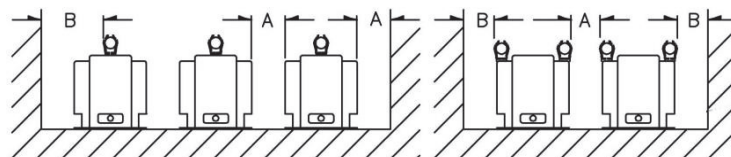
GROUP	PRIMARY VOLTAGE	RATIO	SECONDARY VOLTAGE	UNFUSED	FUSES	FUSE CLIPS ONLY	SWITCHGEAR STYLE
1	4200	35:1	120	PTG4T-2-75-422	PTG4T-2-75-422FF	PTG4T-2-75-422CC	PTG4T-2-75-422SS
1	4800	40:1	120	PTG4T-2-75-482	PTG4T-2-75-482FF	PTG4T-2-75-482CC	PTG4T-2-75-482SS
2	6600	60:1	110-50Hz	PTG4T-2-75-662	PTG4T-2-75-662FF	PTG4T-2-75-662CC	PTG4T-2-75-662SS
2	7200	60:1	120	PTG4T-2-75-722	PTG4T-2-75-722FF	PTG4T-2-75-722CC	PTG4T-2-75-722SS
2	8400	70:1	120	PTG4T-2-75-842	PTG4T-2-75-842FF	PTG4T-2-75-842CC	PTG4T-2-75-842SS
2	11000	100:1	110-50Hz	PTG4T-2-75-113	PTG4T-2-75-113FF	PTG4T-2-75-113CC	PTG4T-2-75-113SS
2	12000	100:1	120	PTG4T-2-75-123	PTG4T-2-75-123FF	PTG4T-2-75-123CC	PTG4T-2-75-123SS

Products are manufactured in a plant whose quality management system has been certified to be in compliance with ISO 9001:2015 by NQA

- Two fuse transformers should not be used for Y connections. It is preferred practice to connect one lead from each voltage transformer directly to the neutral terminal using a fuse in the line side of the primary only. By using this connection, a transformer can never be made "live" from the line side by reason of a blown fuse in the neutral side. For continuous operation, the transformer primary voltage should not exceed 110% of rated value.
- Voltage transformers connected line-to-ground cannot be considered to be grounding transformers and must not be operated with the secondaries in closed delta because excessive currents may flow in the delta.
- Possibility of ferroresonance should be considered.

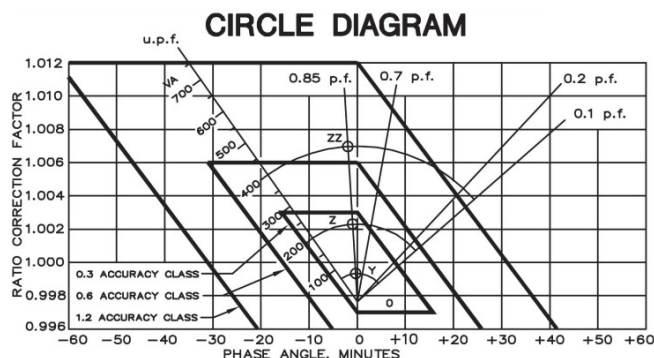


Recommended spacing is for guidance only. User needs to set appropriate values to assure performance for: high potential test; impulse test; high humidity; partial discharge, high altitude; and other considerations like configuration.



FUSE FOR MODEL PTG4 TRANSFORMER	RATING VOLTS	INTERRUPTING AMPERES (SYM)	SUGGESTED RATING * CONTINUOUS AMPERES	CAP DIA. INCHES	LENGTH INCHES	CLIP CENTERS INCHES
4200:120V	12 kV	50,000	2.0E	0.812	10	9.5
4800:120V	12 kV	50,000	2.0E	0.812	10	9.5
6600:110V	12 kV	50,000	1.0E	0.812	10	9.5
7200:120V	12 kV	50,000	1.0E	0.812	10	9.5
8400:120V	12 kV	50,000	1.0E	0.812	10	9.5
11000:110V	12 kV	50,000	0.5E	0.812	10	9.5
12000:120V	12 kV	50,000	0.5E	0.812	10	9.5

The circle diagram can be used to predict the performance of a transformer for various loads and power factors. A convenient scale of volt-amperes is shown on the unity power factor line (u.p.f.) and commences at the zero or no-load locus. To use the diagram, measure the known V.A. and scribe an arc about the "zero" locus of a length that contains the angle of the burden power factor. The point at which the arc terminates is the error locus in phase angle minutes and ratio correction factor.





## Indoor Voltage Transformer

**Models PTW4-1-75  
PTW4-2-75 rev 053123**

### ACCURACY CLASS:

0.3 WXY, 1.2Z at 100% rated voltage with 120V based ANSI burden.  
0.3 WXY, 1.2Z at 58% rated voltage with 69.3V based ANSI burden.

### FREQUENCY:

60 Hz.

### MAXIMUM SYSTEM VOLTAGE:

12 kV, BIL 75kV full wave

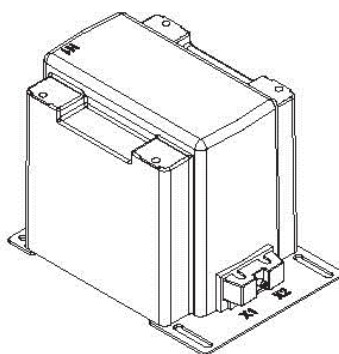
### THERMAL RATING:

1500 va AT 30°C amb.

1000 VA at 55°C. amb.

### APPROXIMATE WEIGHT:

85 lbs., unfused

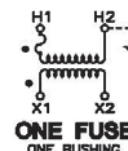
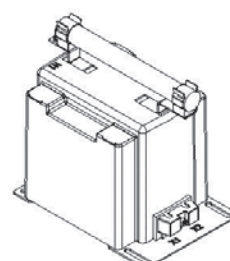
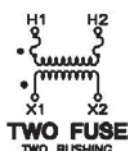
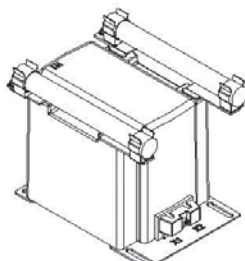
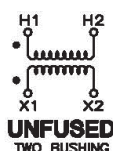
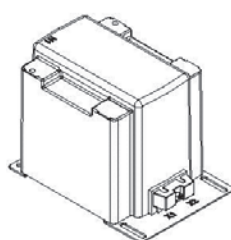


### CERTIFICATIONS:



- Primary terminals that are unfused are 1/4-20 brass screws with one lockwasher and flat washer.
- Primary terminals that are fused are 1/4-20 brass screws with one flat washer, lockwasher and two nuts.
- Secondary terminals are No. 10-32 brass screws with one flat washer and lockwasher.
- The transformers are tested for partial discharge to Canadian Standards CAN 3-C13-M83. This test can also be carried out to IEC requirements if requested.

- The core and coil assembly is vacuum encapsulated in polyurethane resin.
- Thermal burden rating is for 120 volt secondaries
- Plated steel mounting base.
- Fuses have 1.63" Dia Caps and 11.50" clip centers.
- Switchgear style is similar to fused style. No fuse or fuse clip is provided, but inserts for fuse clips are supplied.
- A test cord is provided with each unit.



### ONE BUSHING(b)

### CATALOG NUMBERS

GROUP	PRIMARY VOLTAGE	RATIO	SECONDARY VOLTAGE	R FR (c)	FUSES	FUSE CLIPS ONLY	SWITCHGEAR STYLE
4A	4200	35:1	120	65	PTW4-1-75-422F	PTW4-1-75-422C	PTW4-1-75-422S
4A	4800	40:1	120	65	PTW4-1-75-482F	PTW4-1-75-482C	PTW4-1-75-482S
4B	6600	60:1	110-50Hz	65	PTW4-1-75-662F	PTW4-1-75-662C	PTW4-1-75-662S
4B	7200	60:1	120	65	PTW4-1-75-722F	PTW4-1-75-722C	PTW4-1-75-722S
4B	8400	70:1	120	65	PTW4-1-75-842F	PTW4-1-75-842C	PTW4-1-75-842S
4B	11000	100:1	110-50Hz	65	PTW4-1-75-113F	PTW4-1-75-113C	PTW4-1-75-113S
4B	12000	100:1	120	65	PTW4-1-75-123F	PTW4-1-75-123C	PTW4-1-75-123S

### TWO BUSHING(a)

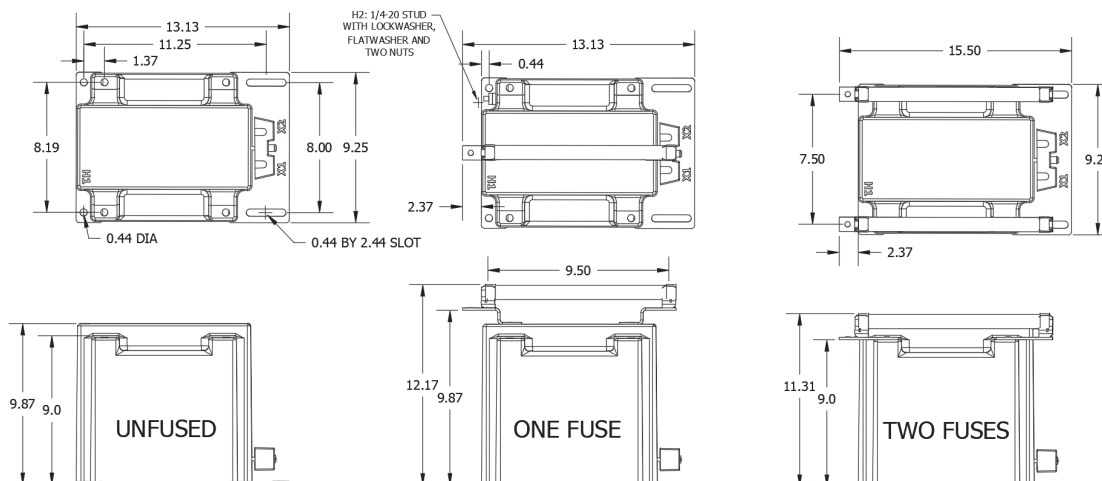
### CATALOG

GROUP	PRIMARY VOLTAGE	RATIO	SECONDARY VOLTAGE	UNFUSED	FUSES	FUSE CLIPS ONLY	SWITCHGEAR STYLE
1	4200	35:1	120	PTW4-2-75-422	PTW4-2-75-422FF	PTW4-2-75-422CC	PTW4-2-75-422SS
1	4800	40:1	120	PTW4-2-75-482	PTW4-2-75-482FF	PTW4-2-75-482CC	PTW4-2-75-482SS
2	6600	60:1	110-50Hz	PTW4-2-75-662	PTW4-2-75-662FF	PTW4-2-75-662CC	PTW4-2-75-662SS
2	7200	60:1	120	PTW4-2-75-722	PTW4-2-75-722FF	PTW4-2-75-722CC	PTW4-2-75-722SS
2	8400	70:1	120	PTW4-2-75-842	PTW4-2-75-842FF	PTW4-2-75-842CC	PTW4-2-75-842SS
2	11000	100:1	110-50Hz	PTW4-2-75-113	PTW4-2-75-113FF	PTW4-2-75-113CC	PTW4-2-75-113SS
2	12000	100:1	120	PTW4-2-75-123	PTW4-2-75-123FF	PTW4-2-75-123CC	PTW4-2-75-123SS

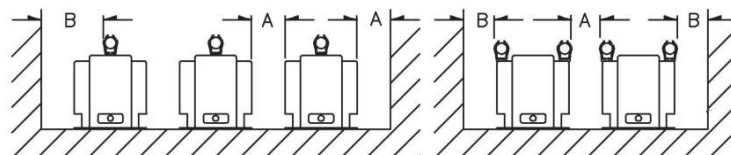
Products are manufactured in a plant whose quality management system has been certified to be in compliance with ISO 9001:2015 by NQA



- (a) Two fuse transformers should not be used for Y connections. It is preferred practice to connect one lead from each voltage transformer directly to the neutral terminal using a fuse in the line side of the primary only. By using this connection, a transformer can never be made "live" from the line side by reason of a blown fuse in the neutral side. For continuous operation, the transformer primary voltage should not exceed 110% of rated value.
- (b) Voltage transformers connected line-to-ground cannot be considered to be grounding transformers and must not be operated with the secondaries in closed delta because excessive currents may flow in the delta.
- (c) Possibility of ferroresonance should be considered.

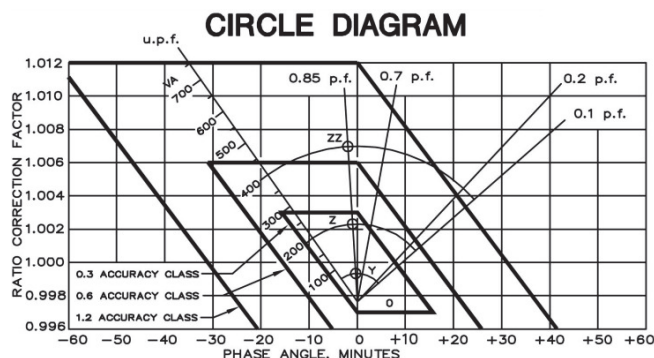


Recommended spacing is for guidance only. User needs to set appropriate values to assure performance for: high potential test; impulse test; high humidity; partial discharge, high altitude; and other considerations like configuration.



FUSE FOR MODEL PTW4 TRANSFORMER	RATING VOLTS	INTERRUPTING AMPERES (SYM)	SUGGESTED RATING * CONTINUOUS AMPERES	CAP DIA. INCHES	LENGTH INCHES	CLIP CENTERS INCHES
4200:120V	12 kV	50,000	2.0E	0.812	10	9.5
4800:120V	12 kV	50,000	2.0E	0.812	10	9.5
6600:110V	12 kV	50,000	1.0E	0.812	10	9.5
7200:120V	12 kV	50,000	1.0E	0.812	10	9.5
8400:120V	12 kV	50,000	1.0E	0.812	10	9.5
11000:110V	12 kV	50,000	0.5E	0.812	10	9.5
12000:120V	12 kV	50,000	0.5E	0.812	10	9.5

The circle diagram can be used to predict the performance of a transformer for various loads and power factors. A convenient scale of volt-amperes is shown on the unity power factor line (u.p.f.) and commences at the zero or no-load locus. To use the diagram, measure the known V.A. and scribe an arc about the "zero" locus of a length that contains the angle of the burden power factor. The point at which the arc terminates is the error locus in phase angle minutes and ratio correction factor.



Products are manufactured in a plant whose quality management system has been certified to be in compliance with ISO 9001:2015 by NQA



## Indoor Voltage Transformer

**Models PTG5-1-110  
PTG5-2-110**

### CERTIFICATIONS:



ISO 9001

QUALITY  
MANAGEMENT

### **ACCURACY CLASS:**

0.3 WXYZ, 1.2ZZ at 100% rated voltage with 120V based ANSI burden; 0.3 WXYZ, 1.2Z at 58% rated voltage with 69.3V based ANSI burden

### **FREQUENCY:**

60 Hz.

### **MAXIMUM SYSTEM VOLTAGE:**

15.5kV, BIL 110kV full wave

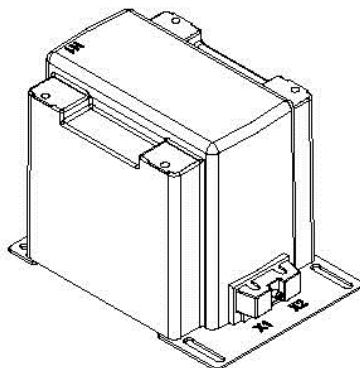
### **THERMAL RATING:**

1500 VA at 30°C. amb.

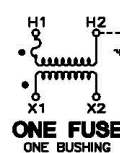
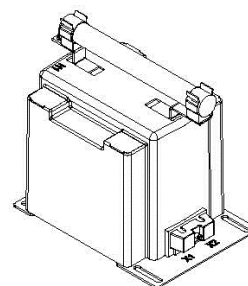
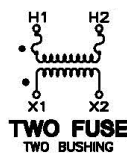
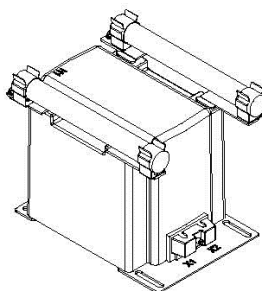
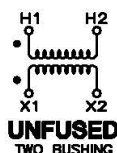
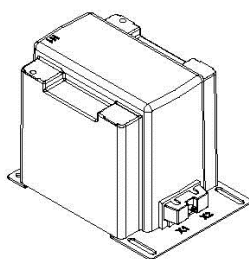
1000 VA at 55°C. amb.

### **APPROXIMATE WEIGHT:**

85 lbs., unfused



- Primary terminals that are unfused are 1/4 - 20 brass screws with one flat washer and lockwasher, unless otherwise specified.
- Primary terminals that are fused are 1/4 - 20 brass screws with one flat washer, lockwasher and two nuts.
- Secondary terminals are No. 10-32 brass screws with one flat washer and lockwasher.
- The core and coil assembly is vacuum encapsulated in polyurethane resin.
- Thermal burden rating is for 120 volt secondaries
- Plated steel mounting base.
- Fuses have 1.63" Dia Caps and 11.50" clip centers.
- Switchgear style is similar to fused style. No fuse or fuse clip is provided, but inserts for fuse clips are supplied.
- A test cord is provided with each unit.

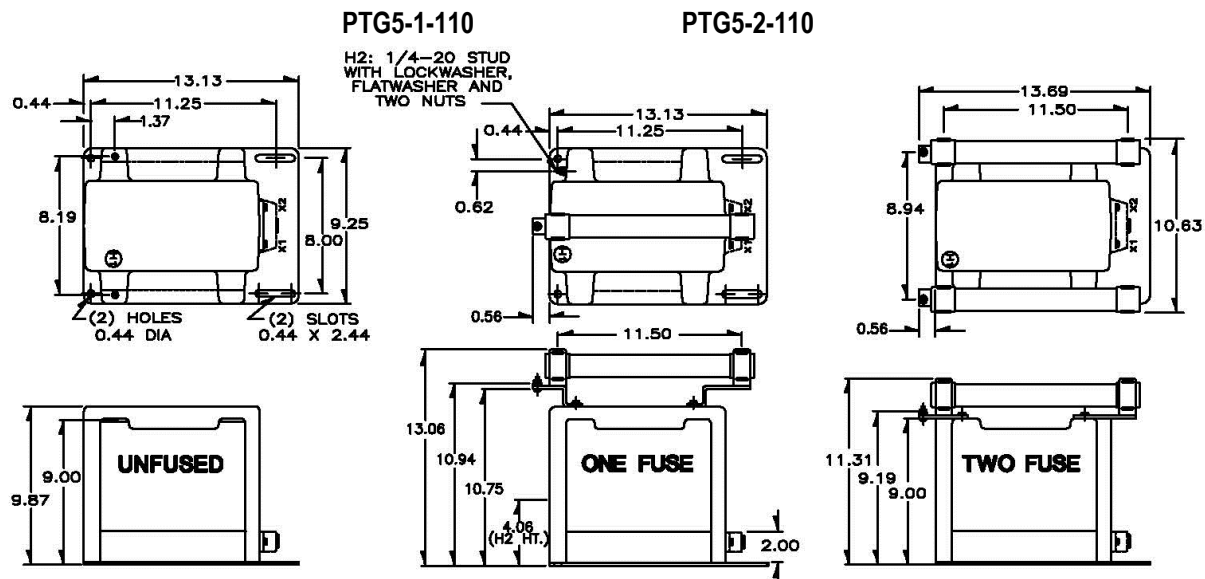


GROUP	ONE BUSHING (b)			RFR FR (c)	CATALOG NUMBERS		
					FUSES	FUSE CLIPS ONLY	SWITCHGEAR STYLE
4A	7200	60:1	120	65	PTG5-1-110-722F	PTG5-1-110-722C	PTG5-1-110-722S
4A	8400	70:1	120	65	PTG5-1-110-842F	PTG5-1-110-842C	PTG5-1-110-842S
4B	11000	100:1	110-50Hz	65	PTG5-1-110-113F	PTG5-1-110-113C	PTG5-1-110-113S
4B	12000	100:1	120	65	PTG5-1-110-123F	PTG5-1-110-123C	PTG5-1-110-123S
4B	13200	110:1	120	65	PTG5-1-110-1322F	PTG5-1-110-1322C	PTG5-1-110-1322S
4B	14400	120:1	120	65	PTG5-1-110-1442F	PTG5-1-110-1442C	PTG5-1-110-1442S

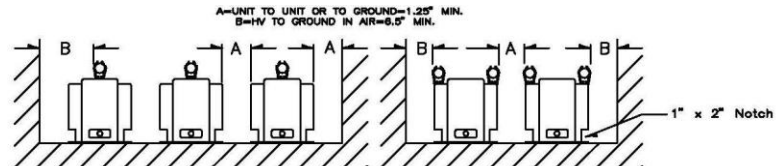
TWO BUSHING (a)				CATALOG NUMBERS			
GROUP	PRIMARY VOLTAGE	RATIO	SECONDARY VOLTAGE	UNFUSED	FUSES	FUSE CLIPS ONLY	SWITCHGEAR STYLE
1	7200	60:1	120	PTG5-2-110-722	PTG5-2-110-722FF	PTG5-2-110-722CC	PTG5-2-110-722SS
1	8400	70:1	120	PTG5-2-110-842	PTG5-2-110-842FF	PTG5-2-110-842CC	PTG5-2-110-842SS
2	11000	100:1	110-50Hz	PTG5-2-110-113	PTG5-2-110-113FF	PTG5-2-110-113CC	PTG5-2-110-113SS
2	12000	100:1	120	PTG5-2-110-123	PTG5-2-110-123FF	PTG5-2-110-123CC	PTG5-2-110-123SS
2	13200	110:1	120	PTG5-2-110-1322	PTG5-2-110-1322FF	PTG5-2-110-1322CC	PTG5-2-110-1322SS
2	14400	120:1	120	PTG5-2-110-1442	PTG5-2-110-1442FF	PTG5-2-110-1442CC	PTG5-2-110-1442SS

Products are manufactured in a plant whose quality management system has been certified to be in compliance with ISO 9001:2015 by NQA

- Two fuse transformers should not be used for Y connections. It is preferred practice to connect one lead from each voltage transformer directly to the neutral terminal using a fuse in the line side of the primary only. By using this connection, a transformer can never be made "live" from the line side by reason of a blown fuse in the neutral side. For continuous operation, the transformer primary voltage should not exceed 100% of rated value.
- Voltage transformers connected line-to-ground cannot be considered to be grounding transformers and must not be operated with the secondaries in closed delta because excessive currents may flow in the delta.
- Possibility of ferroresonance should be considered.

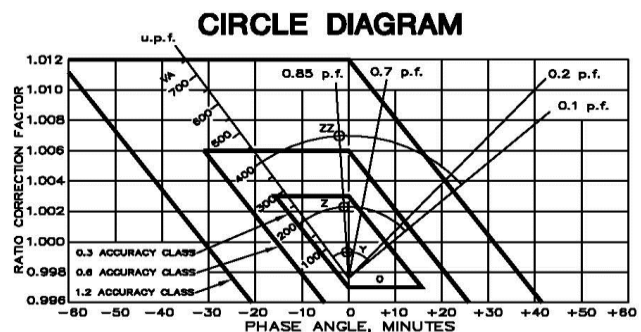


Recommended spacing is for guidance only. User needs to set appropriate values to assure performance for: high potential test; impulse test; high humidity; partial discharge, high altitude; and other considerations like configuration.



FUSE FOR MODEL PTG5 TRANSFORMER	RATING VOLTS	INTERRUPTING AMPERES (SYM)	SUGGESTED RATING * CONTINUOUS AMPERES	CAP DIA. INCHES	LENGTH INCHES	CLIP CENTERS INCHES
7200:120V	15.5kV	80,000	1.0E	1.63	13	11.50
8400:120V	15.5kV	80,000	1.0E	1.63	13	11.50
11000:110V	15.5kV	80,000	0.5E	1.63	13	11.50
12000:120V	15.5kV	80,000	0.5E	1.63	13	11.50
13200:120V	15.5kV	80,000	0.5E	1.63	13	11.50
14400:120V	15.5kV	80,000	0.5E	1.63	13	11.50

The circle diagram can be used to predict the performance of a transformer for various loads and power factors. A convenient scale of volt-amperes is shown on the unity power factor line (u.p.f.) and commences at the zero or no-load locus. To use the diagram, measure the known V.A. and scribe an arc about the "zero" locus of a length that contains the angle of the burden power factor. The point at which the arc terminates is the error locus in phase angle minutes and ratio correction factor.





## Indoor Voltage Transformer

**Models PTW5-1-110  
PTW5-2-110**

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

### ACCURACY CLASS:

0.3 WXYZ, 1.2ZZ at 100% rated voltage with 120V based ANSI burden; 0.3 WXYZ, 1.2Z at 58% rated voltage with 69.3V based ANSI burden

### FREQUENCY:

60 Hz.

### MAXIMUM SYSTEM VOLTAGE:

15.5kV, BIL 110kV full wave

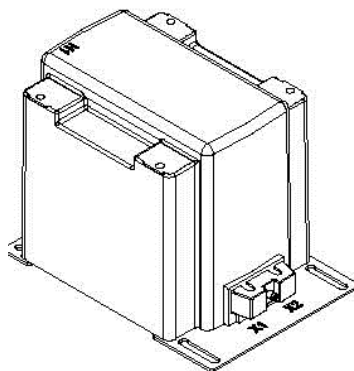
### THERMAL RATING:

1500 VA at 30°C. amb.

1000 VA at 55°C. amb.

### APPROXIMATE WEIGHT:

85 lbs., unfused



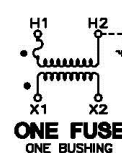
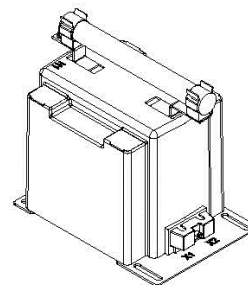
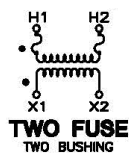
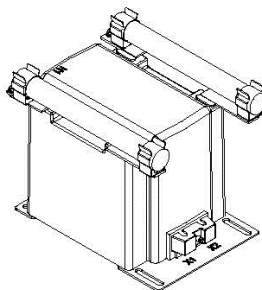
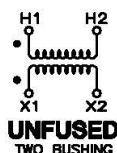
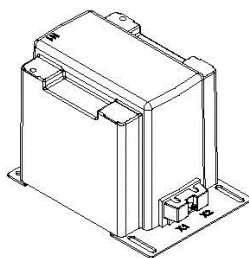
### CERTIFICATIONS:



ISO 9001

QUALITY  
MANAGEMENT

- Primary terminals that are unfused are 1/4 - 20 brass screws with one flat washer and lockwasher, unless otherwise specified.
- Primary terminals that are fused are 1/4 - 20 brass screws with one flat washer, lockwasher and two nuts.
- Secondary terminals are No. 10-32 brass screws with one flat washer and lockwasher.
- The core and coil assembly is vacuum encapsulated in polyurethane resin.
- Thermal burden rating is for 120 volt secondaries
- Plated steel mounting base.
- Fuses have 1.63" Dia Caps and 11.50" clip centers.
- Switchgear style is similar to fused style. No fuse or fuse clip is provided, but inserts for fuse clips are supplied.



GROUP	ONE BUSHING (b)			RFR FR (c)	CATALOG NUMBERS		
					FUSES	FUSE CLIPS ONLY	SWITCHGEAR STYLE
4A	7200	60:1	120	65	PTW5-1-110-722F	PTW5-1-110-722C	PTW5-1-110-722S
4A	8400	70:1	120	65	PTW5-1-110-842F	PTW5-1-110-842C	PTW5-1-110-842S
4B	11000	100:1	110-50Hz	65	PTW5-1-110-113F	PTW5-1-110-113C	PTW5-1-110-113S
4B	12000	100:1	120	65	PTW5-1-110-123F	PTW5-1-110-123C	PTW5-1-110-123S
4B	13200	110:1	120	65	PTW5-1-110-1322F	PTW5-1-110-1322C	PTW5-1-110-1322S
4B	14400	120:1	120	65	PTW5-1-110-1442F	PTW5-1-110-1442C	PTW5-1-110-1442S

TWO BUSHING (a)				CATALOG NUMBERS			
GROUP	PRIMARY VOLTAGE	RATIO	SECONDARY VOLTAGE	UNFUSED	FUSES	FUSE CLIPS ONLY	SWITCHGEAR STYLE
1	7200	60:1	120	PTW5-2-110-722	PTW5-2-110-722FF	PTW5-2-110-722CC	PTW5-2-110-722SS
1	8400	70:1	120	PTW5-2-110-842	PTW5-2-110-842FF	PTW5-2-110-842CC	PTW5-2-110-842SS
2	11000	100:1	110-50Hz	PTW5-2-110-113	PTW5-2-110-113FF	PTW5-2-110-113CC	PTW5-2-110-113SS
2	12000	100:1	120	PTW5-2-110-123	PTW5-2-110-123FF	PTW5-2-110-123CC	PTW5-2-110-123SS
2	13200	110:1	120	PTW5-2-110-1322	PTW5-2-110-1322FF	PTW5-2-110-1322CC	PTW5-2-110-1322SS
2	14400	120:1	120	PTW5-2-110-1442	PTW5-2-110-1442FF	PTW5-2-110-1442CC	PTW5-2-110-1442SS

Products are manufactured in a plant whose quality management system has been certified to be in compliance with ISO 9001:2015 by NQA





**TTL** Transformer Technologies Ltd.



## Indoor Voltage Transformer

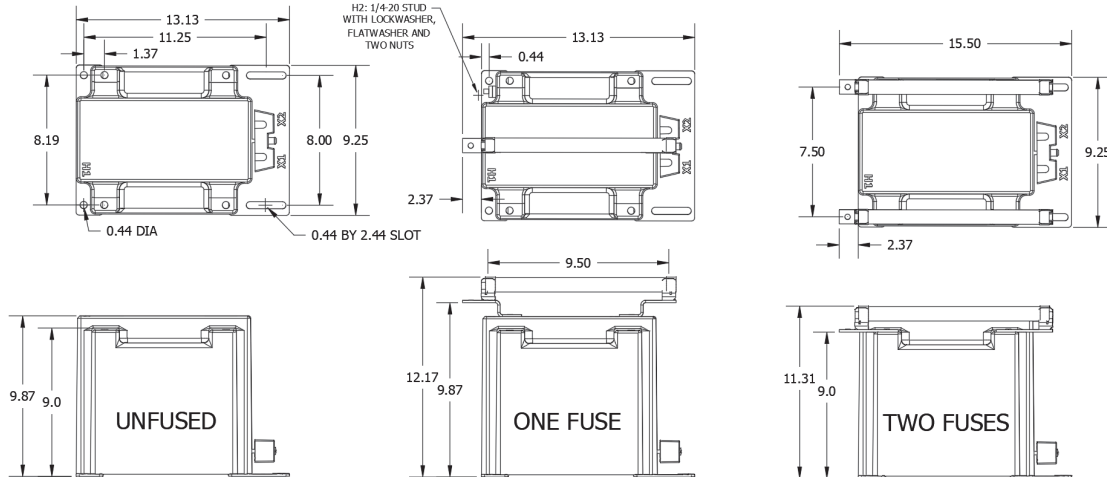
**Models PTW5-1-110  
PTW5-2-110 rev 053123**

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

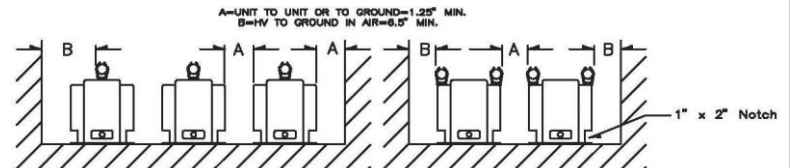
- (a) Two fuse transformers should not be used for Y connections. It is preferred practice to connect one lead from each voltage transformer directly to the neutral terminal using a fuse in the line side of the primary only. By using this connection, a transformer can never be made "live" from the line side by reason of a blown fuse in the neutral side. For continuous operation, the transformer primary voltage should not exceed 100% of rated value.
- (b) Voltage transformers connected line-to-ground cannot be considered to be grounding transformers and must not be operated with the secondaries in closed delta because excessive currents may flow in the delta.
- (c) Possibility of ferroresonance should be considered.

**PTW5-1-110**

**PTW5-2-110**

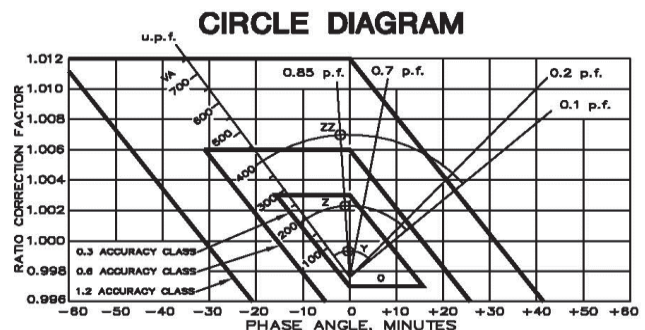


Recommended spacing is for guidance only. User needs to set appropriate values to assure performance for: high potential test; impulse test; high humidity; partial discharge, high altitude; and other considerations like configuration.



FUSE FOR MODEL PTW5 TRANSFORMER	RATING VOLTS	INTERRUPTING AMPERES (SYM)	SUGGESTED RATING * CONTINUOUS AMPERES	CAP DIA. INCHES	LENGTH INCHES	CLIP CENTERS INCHES
7200:120V	15.5kV	80,000	1.0E	1.63	13	11.50
8400:120V	15.5kV	80,000	1.0E	1.63	13	11.50
11000:110V	15.5kV	80,000	0.5E	1.63	13	11.50
12000:120V	15.5kV	80,000	0.5E	1.63	13	11.50
13200:120V	15.5kV	80,000	0.5E	1.63	13	11.50
14400:120V	15.5kV	80,000	0.5E	1.63	13	11.50

The circle diagram can be used to predict the performance of a transformer for various loads and power factors. A convenient scale of volt-amperes is shown on the unity power factor line (u.p.f.) and commences at the zero or no-load locus. To use the diagram, measure the known V.A. and scribe an arc about the "zero" locus of a length that contains the angle of the burden power factor. The point at which the arc terminates is the error locus in phase angle minutes and ratio correction factor.

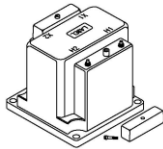
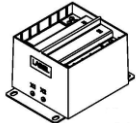
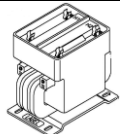
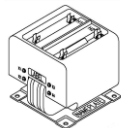
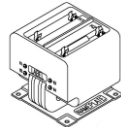
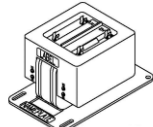
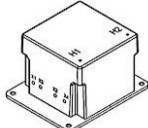
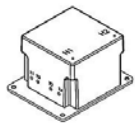
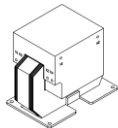


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# VOLTAGE TRANSFORMERS

For Metering and Instrumentation

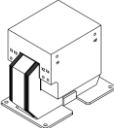
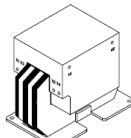
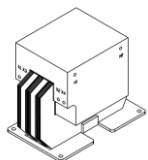

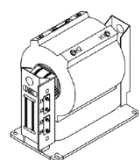
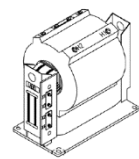
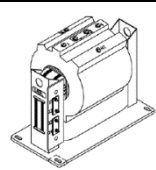
*MV Control Power Transformers*

		<b>Page 8-4</b>
<b>MODEL CPT3-45-0.3</b>		
		<b>Page 8-5</b>
<b>MODEL CPT3-60-0.5</b>		
		<b>Page 8-6</b>
<b>MODEL CPT3-60-1.0</b>		
		<b>Page 8-7</b>
<b>MODEL CPT3-60-1.5</b>		
		<b>Page 8-8</b>
<b>MODEL CPT3-60-2</b>		
		<b>Page 8-9</b>
<b>MODEL CPT3-60-3</b>		
		<b>Page 8-10</b>
<b>MODEL CPT3-60-05-6</b>		
		<b>Page 8-11</b>
<b>MODEL CPT3-60-05-5</b>		
		<b>Page 8-12</b>
<b>MODEL CPT3-60-075-6</b>		

# VOLTAGE TRANSFORMERS

For Metering and Instrumentation

*MV Control Power Transformers*

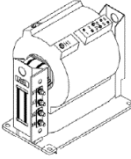
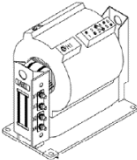
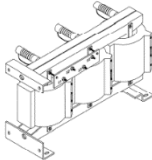
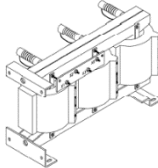
		Page 8-13
<b>MODEL CPT3-60-075-5</b>		
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<b>MODEL CPT3-60-2-6</b>		
		Page 8-15
<b>MODEL CPT3-60-2-5</b>		
<b>MODEL CPT3-60-5</b> <b>MODEL CPT5-95-5</b>		Page 8-16
<b>MODEL CPT3-60-10</b> <b>MODEL CPT5-95-10</b>		Page 8-17
<b>MODEL CPT3-60-15</b> <b>MODEL CPT5-95-15</b>		Page 8-18
<b>MODEL CPTS3-60-5</b> <b>MODEL CPTS5-95-5</b>		Page 8-19

*MV Control Power Transformers*

# VOLTAGE TRANSFORMERS

For Metering and Instrumentation

*MV Control Power Transformers*

<b>MODEL CPTS3-60-10</b> <b>MODEL CPTS5-95-10</b>		<b>Page 8-20</b>
<b>MODEL CPTS3-60-15</b> <b>MODEL CPTS5-95-15</b>		<b>Page 8-21</b>
<b>MODEL 3CPT3-60-15</b> <b>MODEL 3CPT5-95-15</b>		<b>Page 8-22</b>
<b>MODEL 3CPT3-60-30</b> <b>MODEL 3CPT5-95-30</b> <b>MODEL 3CPT3-60-45</b> <b>MODEL 3CPT5-95-45</b>		<b>Page 8-24</b>





## Control Power Transformer

**Model CPT3-45-0.3**

rev 03182021

### CERTIFICATIONS:



#### **APPLICATION:**

To provide control power in distribution equipment and motor starters. May also be used for indicating and recording voltmeters.

#### **FREQUENCY:**

See below.

#### **ACCURACY:**

+ 1% at 25 VA.

#### **INSULATION LEVEL:**

5 kV, 45 kV BIL. full wave

#### **THERMAL RATING:**

At 30°C. amb., see below

#### **APPROXIMATE WEIGHT:**

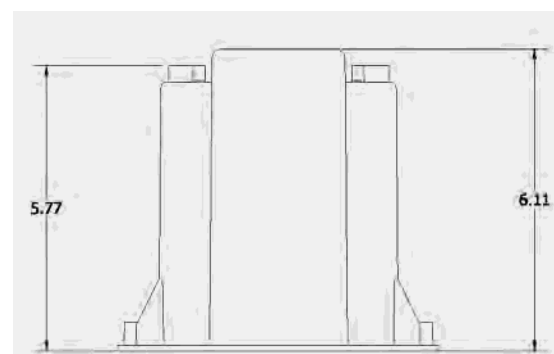
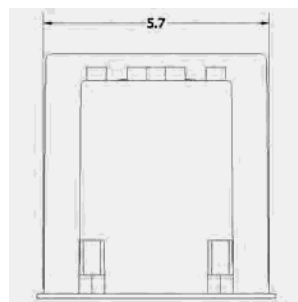
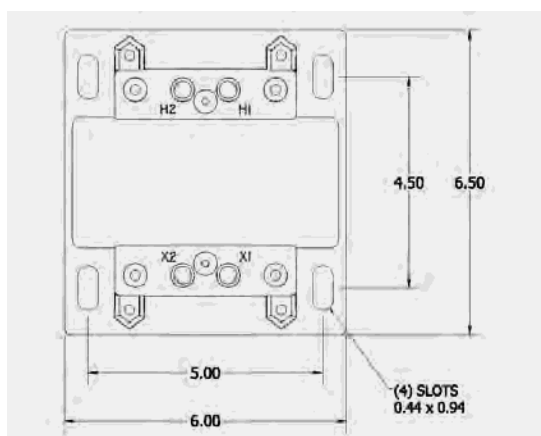
18 lbs.



<b>Model</b>	<b>CPT3-45-0.3</b>
<b>Width</b>	6.00
<b>Height</b>	6.11
<b>Depth</b>	6.50

- Primary fuses are not supplied, but are recommended. Use a 5kV class 0.5E fuse for all ratings 4160V and above, and 1E fuse for all ratings 3300V and below.
- Primary and secondary terminals are brass screws No. 10-32 with on flat washer and lockwasher.
- The transformer winding is vacuum encapsulated in a polyurethane resin.
- Plated steel mounting base.
- For indoor use.

CATALOG NUMBER	PRIMARY VOLTAGE	RATIO	SECONDARY VOLTAGE	THERMAL RATING
CPT3-45-0.3-841	840	7:1	120	300VA
CPT3-45-0.3-122	1200	10:1	120	300VA
CPT3-45-0.3-242	2400	20:1	120	300VA
CPT3-45-0.3-332	3300	20:1	120	200VA
CPT3-45-0.3-4161	4160	34.7:1	110	200VA
CPT3-45-0.3-482	4800	40:1	120	200VA



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## Control Power Transformer

**Model CPT3-60-0.5**

rev 03182021

### CERTIFICATIONS:



#### **APPLICATION:**

To provide control power in distribution equipment and motor starters. May also be used for indicating and recording voltmeters.

#### **FREQUENCY:**

60 Hz.

#### **ACCURACY:**

+ 1% at 100 VA.

#### **INSULATION LEVEL:**

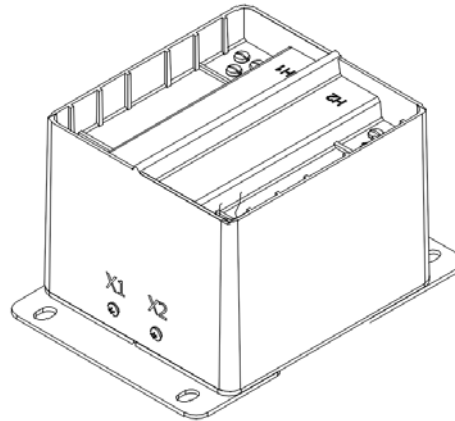
5 kV, 60 kV BIL. full wave

#### **THERMAL RATING:**

At 30°C. amb., see below

#### **APPROXIMATE WEIGHT:**

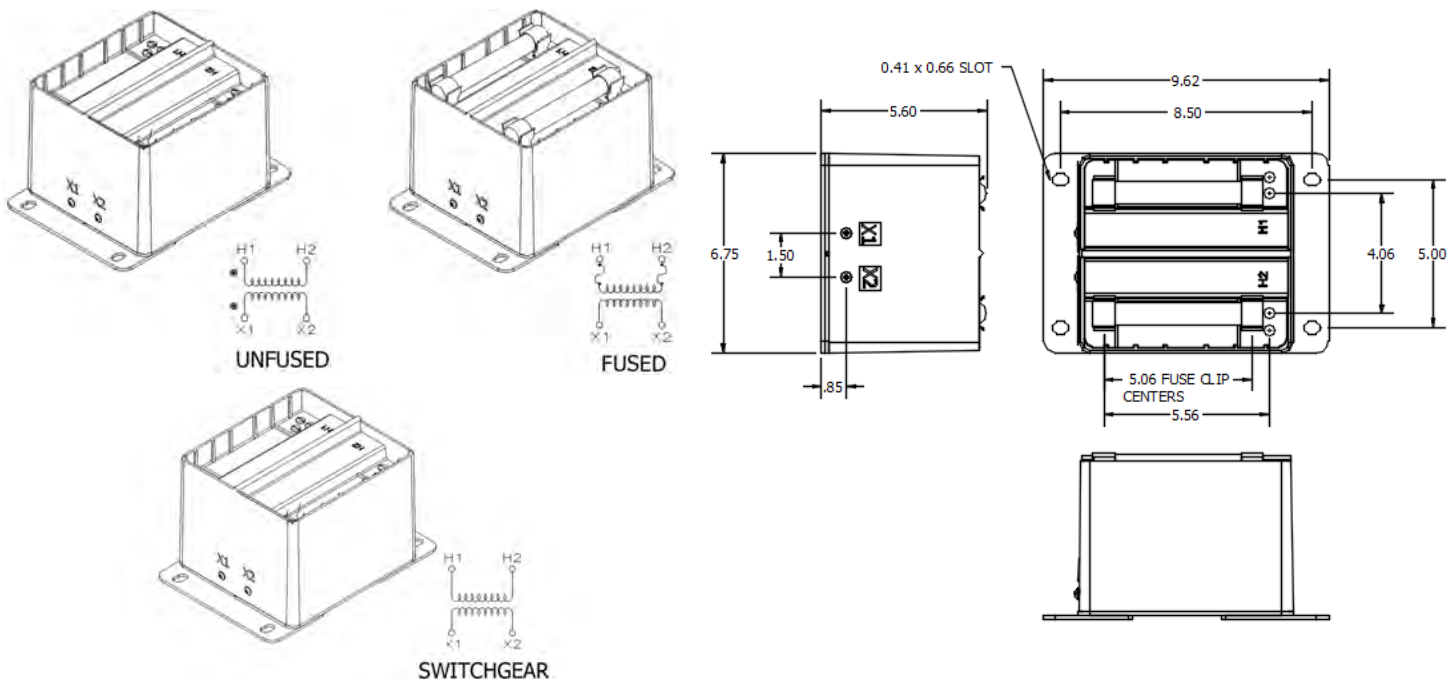
22 lbs.



- Suggested fuse rating: See below, 50kA RMS Symmetrical. Fuse diameter is 0.81 inches. Higher fuse ratings available at users option.
- Primary and secondary terminals are brass screws No. 10-32 with on flat washer and lockwasher.
- The transformer winding is vacuum encapsulated in a polyurethane resin.
- Plated steel mounting base is removable. CPT can be mounted with base as shown, with base rotated 90 degrees, or without a base.
- For indoor use.

PRIMARY VOLTAGE	RATIO	SECONDARY VOLTAGE	THERMAL RATING	CATALOG NUMBERS				SUGGESTED FUSE RATING CONTINUOUS AMPERES
				UNFUSED (a)	FUSED	FUSE CLIPS ONLY	SWITCHGEAR	
2400	20:1	120	500VA	CPT3-60-0.5-242	CPT3-60-0.5-242FF	CPT3-60-0.5-242CC	CPT3-60-0.5-242SS	2.0E
3300	30:1	110-50Hz	450VA	CPT3-60-0.5-332	CPT3-60-0.5-332FF	CPT3-60-0.5-332CC	CPT3-60-0.5-332SS	1.0E
4200	35:1	120	500VA	CPT3-60-0.5-422	CPT3-60-0.5-422FF	CPT3-60-0.5-422CC	CPT3-60-0.5-422SS	1.0E
4800	40:1	120	450VA	CPT3-60-0.5-482	CPT3-60-0.5-482FF	CPT3-60-0.5-482CC	CPT3-60-0.5-482SS	1.0E
6600	60:1	110-50Hz	300VA	CPT3-60-0.5-662	CPT3-60-0.5-662FF	CPT3-60-0.5-662CC	CPT3-60-0.5-662SS	0.5E
7200	60:1	120	300VA	CPT3-60-0.5-722	CPT3-60-0.5-722FF	CPT3-60-0.5-722CC	CPT3-60-0.5-722SS	0.5E

(a) FUSES MUST BE MOUNTED SEPARATELY



Products are manufactured in a plant whose quality management system has been certified to be in compliance with ISO 9001:2015 by NQA



**TTL** Transformer  
Technologies Ltd.



## Control Power Transformer

**Model CPT3-60-1.0**

### CERTIFICATIONS:



#### APPLICATION:

To provide control power in distribution equipment and motor starters.

#### FREQUENCY:

See below

#### INSULATION LEVEL:

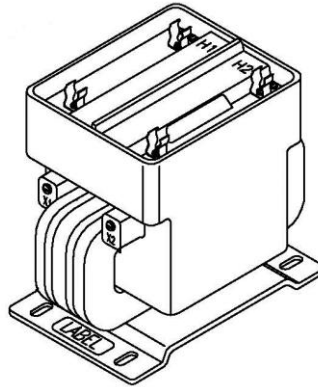
5 kV, 60 kV BIL, full wave

#### THERMAL RATING:

At 30°C. amb., see below.

#### APPROXIMATE WEIGHT:

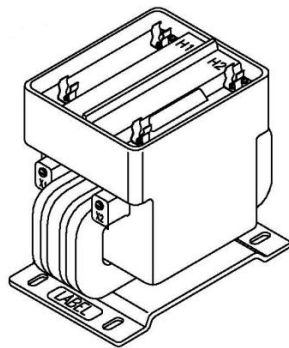
40 lbs.



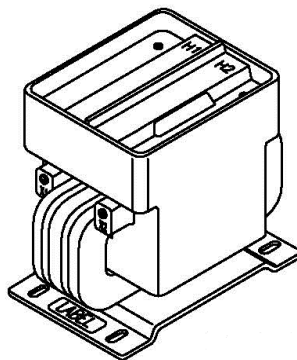
- An optional clear molded cover is available for added safety when desired.
- Primary and secondary terminals are brass screws No. 10-32 with one flat washer and lockwasher.
- The transformer winding is vacuum encapsulated in polyurethane resin.
- Plated steel mounting base.
- For indoor use.

CATALOG NUMBER	PRIMARY VOLTAGE	RATIO	SECONDARY VOLTAGE	FREQUENCY	THERMAL RATING	PRIMARY FUSE
CPT3-60-1.0-242FF	2400V	20:1	120V	60Hz	1.0kVA	2E
CPT3-60-1.0-332FF	3300V	30:1	110V	50Hz	0.8kVA	2E
CPT3-60-1.0-4161FF	4160V	34.7:1	120V	60Hz	1.0kVA	2E
CPT3-60-1.0-482FF	4800V	40:1	120V	60Hz	1.0kVA	2E
CPT3-60-1.0-662FF	6600V	60:1	110V	50Hz	0.6kVA	1E
CPT3-60-1.0-722FF	7200V	60:1	120V	60Hz	0.6kVA	1E

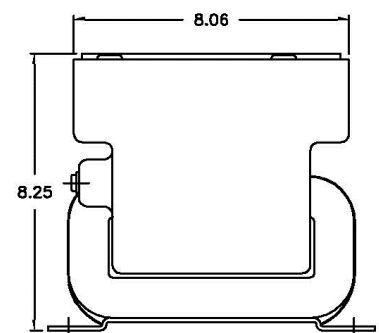
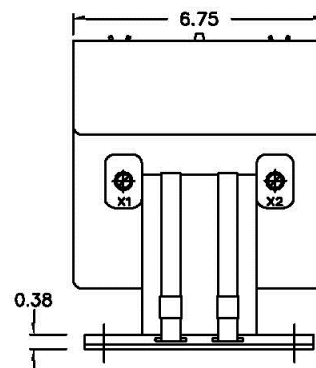
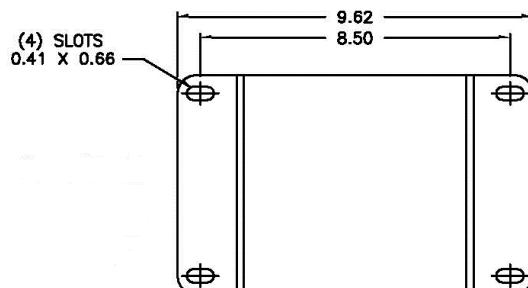
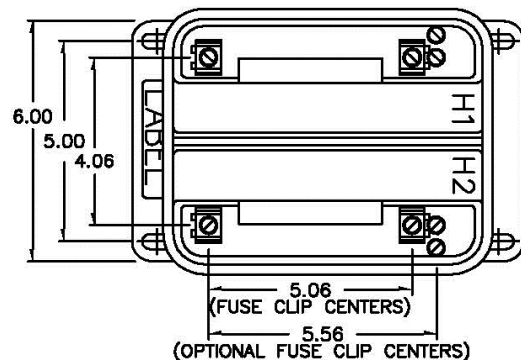
\*For fuse clips only, change FF to CC



**FUSED STYLE**



**UNFUSED STYLE**



**BASE PLATE**

Products are manufactured in a plant whose quality management system has been certified to be in compliance with ISO 9001:2015 by NQA



## Control Power Transformer

**Model CPT3-60-1.5**

### CERTIFICATIONS:



#### **APPLICATION:**

To provide control power in distribution equipment and motor starters

#### **FREQUENCY:**

See below

#### **INSULATION LEVEL:**

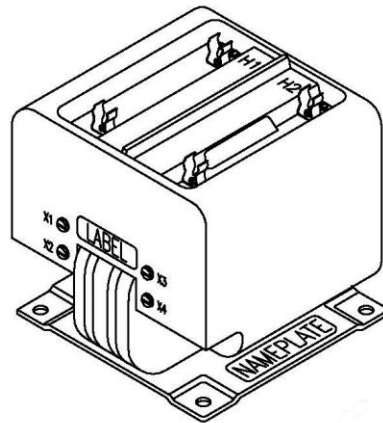
5 kV, 60 kV BIL, full wave

#### **THERMAL RATING:**

1.5 kVA at 30°C. amb.

#### **APPROXIMATE WEIGHT:**

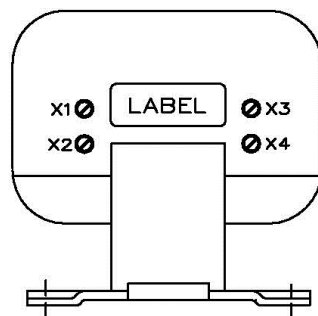
54 lbs.



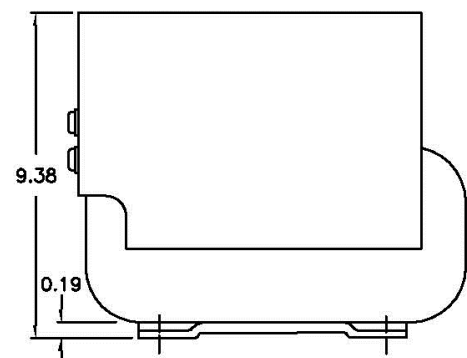
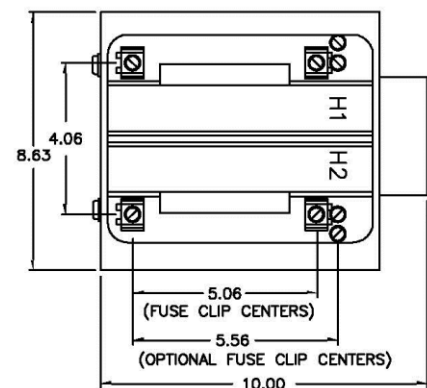
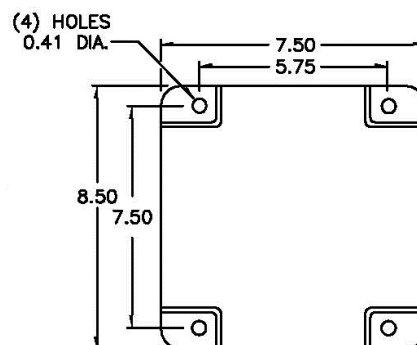
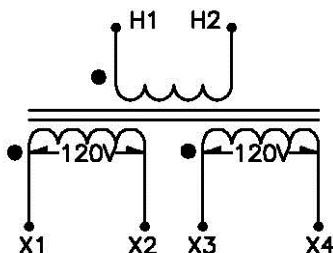
- Primary terminals are brass screws No. 10-32 with one flat washer and lockwasher.
- Secondary terminals are brass screws No. 10-32 with one flat washer and lockwasher.
- The transformer winding is vacuum encapsulated in polyurethane resin.
- Plated steel mounting base
- For indoor use.

CATALOG NUMBER	PRIMARY VOLTAGE	RATIO	SECONDARY VOLTAGE	FREQUENCY	PRIMARY FUSE
CPT3-60-1.5-242FF	2400V	20:1	120/240V	60Hz	3E
CPT3-60-1.5-332FF	3300V	30:1	110/220V	50Hz	2E
CPT3-60-1.5-4161FF	4160V	34.7:1	120/240V	60Hz	2E
CPT3-60-1.5-482FF	4800V	40:1	120/240V	60Hz	2E

\*For fuse clips only, change FF to CC



CONNECTION DIAGRAM







**TTL** Transformer  
Technologies Ltd.



## Control Power Transformer

**Model CPT3-60-2**

### CERTIFICATIONS:



#### **APPLICATION:**

To provide control power in distribution equipment and motor starters

#### **FREQUENCY:**

See below

#### **INSULATION LEVEL:**

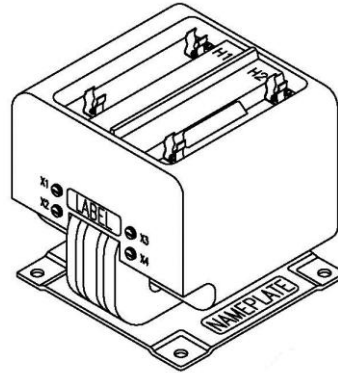
5 kV, 60 kV BIL, full wave

#### **THERMAL RATING:**

At 30°C. amb., see below

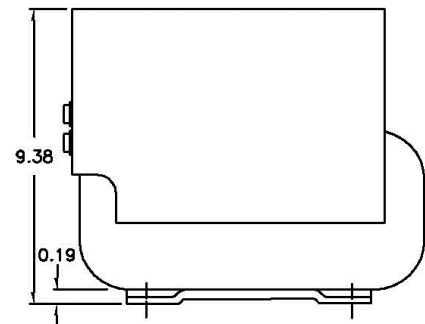
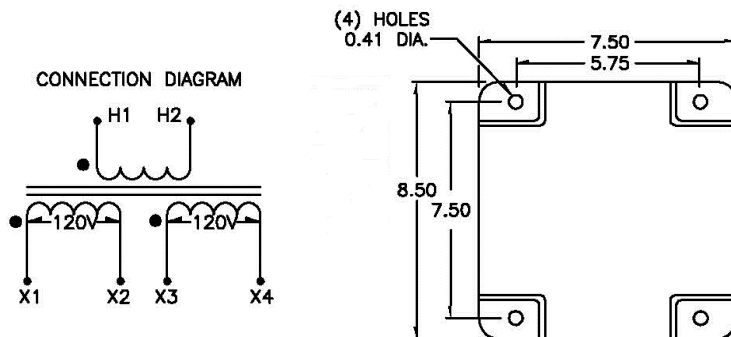
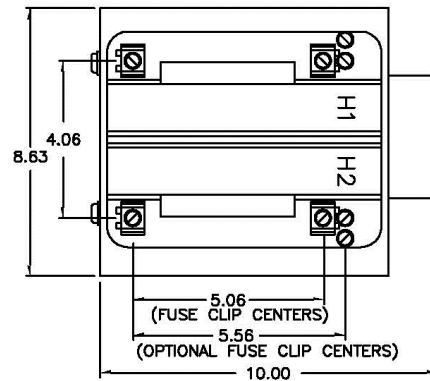
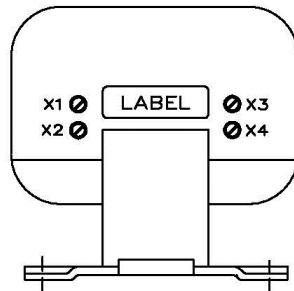
#### **APPROXIMATE WEIGHT:**

63 lbs.



- Primary terminals are brass screws No. 10-32 with one flat washer and lockwasher.
- Secondary terminals are brass screws No. 10-32 with one flat washer and lockwasher.
- The transformer winding is vacuum encapsulated in polyurethane resin
- Plated steel mounting base
- For indoor use

CATALOG NUMBER	PRIMARY VOLTAGE	RATIO	SECONDARY VOLTAGE	FREQUENCY	THERMAL RATING	PRIMARY FUSE
CPT3-60-2-242FF	2400V	20:1	120/240V	60Hz	2.0kVA	3E
CPT3-60-2-332FF	3300V	30:1	110/220V	50Hz	1.8kVA	2E
CPT3-60-2-4161FF	4160V	34.7:1	120/240V	60Hz	2.0kVA	2E
CPT3-60-2-482FF	4800V	40:1	120/240V	60Hz	2.0kVA	2E
*For fuse clips only, change FF to CC						





## Control Power Transformer

**Model CPT3-60-3**

### CERTIFICATIONS:



#### **APPLICATION:**

To provide control power in distribution equipment and motor starters

#### **FREQUENCY:**

60 Hz.

#### **INSULATION LEVEL:**

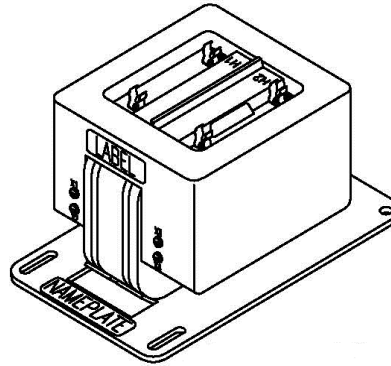
5 kV, 60 kV BIL, full wave

#### **THERMAL RATING:**

3 kVA at 30°C. amb.

#### **APPROXIMATE WEIGHT:**

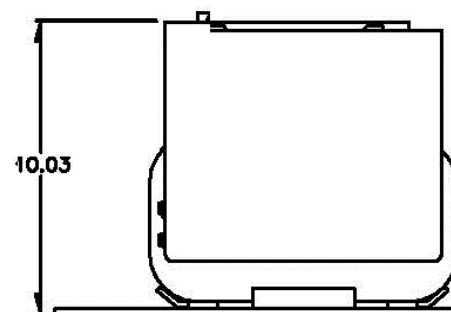
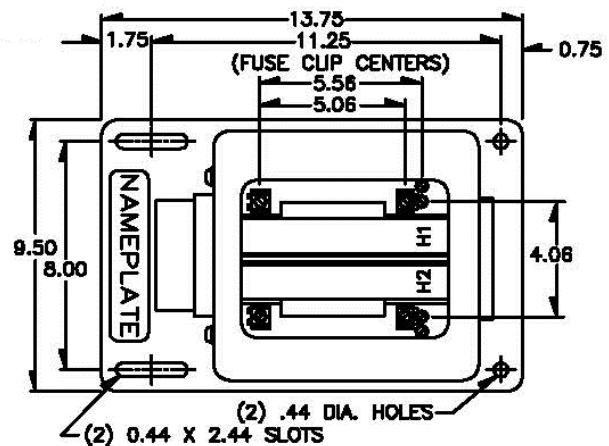
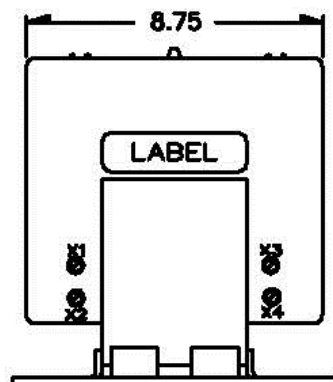
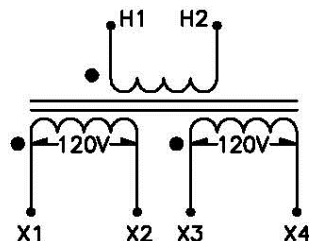
85 lbs.



CATALOG NUMBER	PRIMARY VOLTAGE	RATIO AT 120 V	SECONDARY VOLTAGE	CATALOG NUMBER	PRIMARY FUSE
CPT3-60-3-242-XXX	2400	20:1	120/240	CPT3-60-3-242FF	5E
CPT3-60-3-4161-XXX	4160	34.7:1	120/240	CPT3-60-3-4161FF	3E
CPT3-60-3-482-XXX	4800	40:1	120/240	CPT3-60-3-482FF	3E

- Primary terminals are brass screws No. 10-32 with one flat washer and lockwasher or HV lead kit shown below.
- Secondary terminals are brass screws No. ¼ - 20 with one flat washer and lockwasher.

- The transformer winding is vacuum encapsulated in polyurethane resin.
- Plated steel mounting base
- For indoor use



### CERTIFICATIONS:



#### APPLICATION:

To provide power in Motor Control centers and Distribution Switchgear

#### FREQUENCY:

50/60 Hz.

#### INSULATION LEVEL:

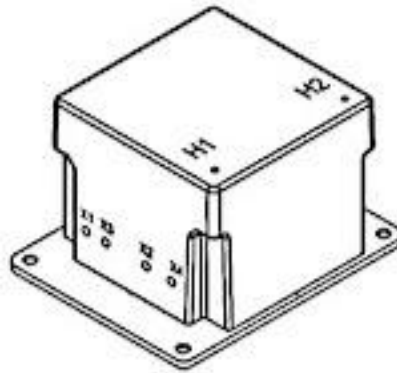
6.9 kV, 60 kV BIL. full wave

#### THERMAL RATING:

At 30°C. amb.

#### APPROXIMATE WEIGHT:

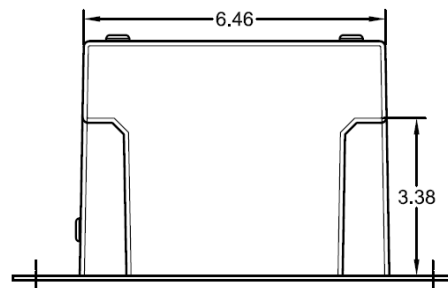
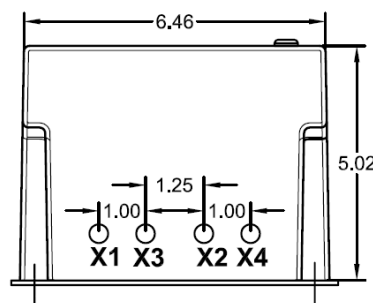
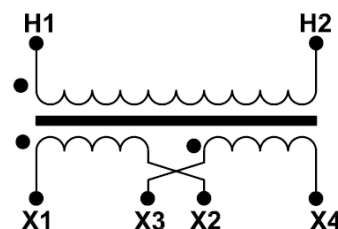
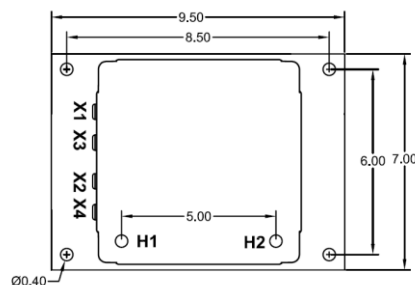
25 lbs.



CATALOG NUMBER	PRIMARY VOLTAGE	RATIO AT 120 V	SECONDARY VOLTAGE	FREQUENCY Hz	THERMAL RATING
CPT3 60 05 2400 – 6	2400	20.00	120/240	50/60	0.5 kVA
CPT3 60 05 3300 – 6	3300	27.50	120/240	50/60	0.5 kVA
CPT3 60 05 4160 – 6	4160	34.66	120/240	50/60	0.5 kVA
CPT3 60 05 4800 – 6	4800	40.00	120/240	50/60	0.5 kVA
CPT3 60 05 5000 – 6	5000	41.66	120/240	50/60	0.5 kVA
CPT3 60 05 5500 – 6	5500	45.83	120/240	50/60	0.5 kVA
CPT3 60 05 6000 – 6	6000	50.00	120/240	50/60	0.5 kVA
CPT3 60 05 6600 – 6	6600	55.00	120/240	50/60	0.5 kVA
CPT3 60 05 6900 - 6	6900	57.50	120/240	50/60	0.5 kVA

- Primary and secondary terminal are brass screws No. 10-32 with one flat washer and lockwasher.
- Transformer winding is vacuum encapsulated in polyurethane resin with temperature insulation class of 105°C
- Plated steel mounting base
- For indoor use

### CONNECTION DIAGRAM





**TTL** Transformer  
Technologies Ltd.



## Control Power Transformer

**Model CPT3-60-05-5**

### CERTIFICATIONS:



#### **APPLICATION:**

To provide power in Motor Control centers and Distribution Switchgear

#### **FREQUENCY:**

50/60 Hz.

#### **INSULATION LEVEL:**

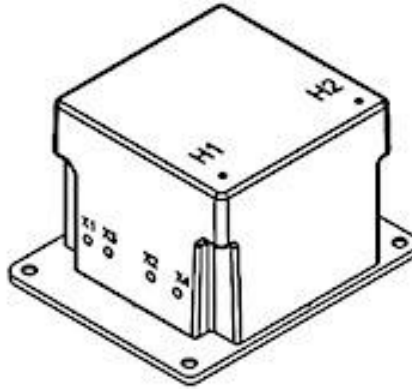
6.9 kV, 60 kV BIL. full wave

#### **THERMAL RATING:**

At 30°C. amb.

#### **APPROXIMATE WEIGHT:**

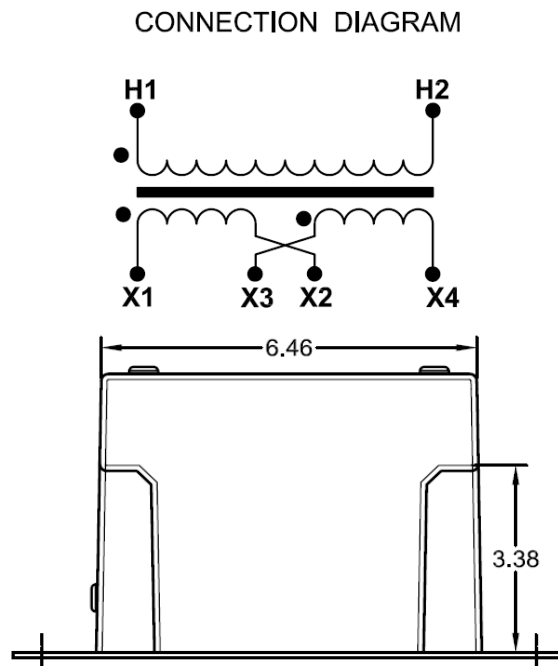
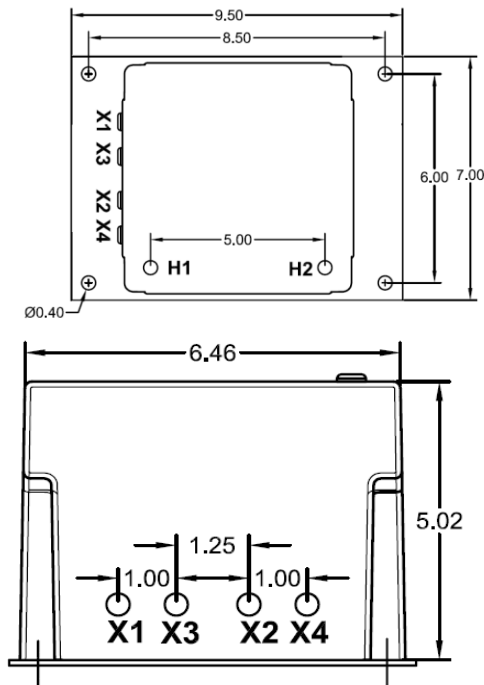
25 lbs.



CATALOG NUMBER	PRIMARY VOLTAGE	RATIO AT 110 V	SECONDARY VOLTAGE	FREQUENCY Hz	THERMAL RATING
CPT3 60 05 2400 – 5	2400	21.81	110/220	50/60	0.5 kVA
CPT3 60 05 3300 – 5	3300	30.00	110/220	50/60	0.5 kVA
CPT3 60 05 4160 – 5	4160	37.81	110/220	50/60	0.5 kVA
CPT3 60 05 4800 – 5	4800	43.63	110/220	50/60	0.5 kVA
CPT3 60 05 5000 – 5	5000	45.45	110/220	50/60	0.5 kVA
CPT3 60 05 5500 – 5	5500	50.00	110/220	50/60	0.5 kVA
CPT3 60 05 6000 – 5	6000	54.54	110/220	50/60	0.5 kVA
CPT3 60 05 6600 – 5	6600	60.00	110/220	50/60	0.5 kVA
CPT3 60 05 6900 - 5	6900	62.72	110/220	50/60	0.5 kVA

- Primary and secondary terminal are brass screws No. 10-32 with one flat washer and lockwasher.
- Transformer winding is vacuum encapsulated in polyurethane resin with temperature insulation class of 105°C

- Plated steel mounting base
- For indoor use



Products are manufactured in a plant whose quality management system has been certified to be in compliance with ISO 9001:2015 by NQA





**TTL** Transformer  
Technologies Ltd.



## Control Power Transformer

**Model CPT3-60-075-6**

### CERTIFICATIONS:



#### APPLICATION:

To provide power in Motor Control centers and Distribution Switchgear

#### FREQUENCY:

50/60 Hz.

#### INSULATION LEVEL:

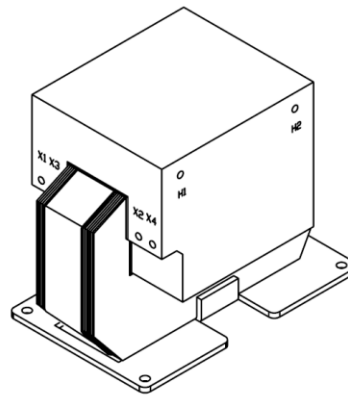
6.9 kV, 60 kV BIL. full wave

#### THERMAL RATING:

At 30°C. amb.

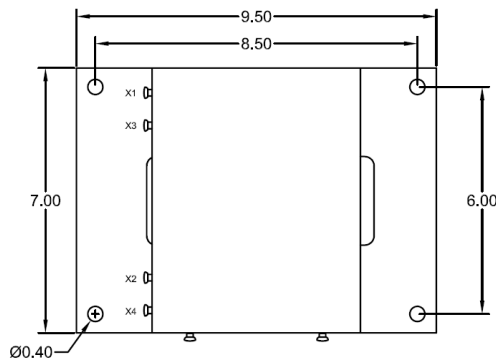
#### APPROXIMATE WEIGHT:

25 lbs.

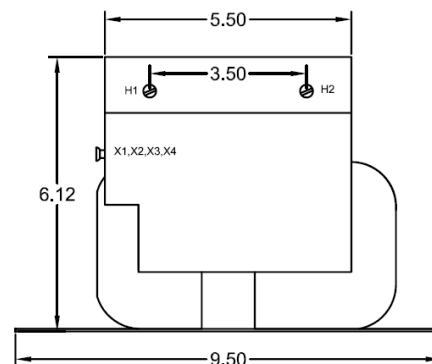
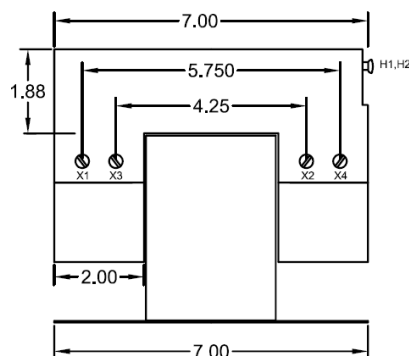
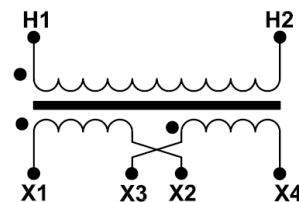


CATALOG NUMBER	PRIMARY VOLTAGE	RATIO AT 120 V	SECONDARY VOLTAGE	FREQUENCY Hz	THERMAL RATING
CPT3 60 075 2400 – 6	2400	20.00	120/240	50/60	0.75 kVA
CPT3 60 075 3300 – 6	3300	27.50	120/240	50/60	0.75 kVA
CPT3 60 075 4160 – 6	4160	34.66	120/240	50/60	0.75 kVA
CPT3 60 075 4800 – 6	4800	40.00	120/240	50/60	0.75 kVA
CPT3 60 075 5000 – 6	5000	41.66	120/240	50/60	0.75 kVA
CPT3 60 075 5500 – 6	5500	45.83	120/240	50/60	0.75 kVA
CPT3 60 075 6000 – 6	6000	50.00	120/240	50/60	0.75 kVA
CPT3 60 075 6600 – 6	6600	55.00	120/240	50/60	0.75 kVA
CPT3 60 075 6900 – 6	6900	57.50	120/240	50/60	0.75 kVA

- Primary and secondary terminal are brass screws No. 10-32 with one flat washer and lockwasher.
- Transformer winding is vacuum encapsulated in polyurethane resin with temperature insulation class of 105°C
- Plated steel mounting base
- For indoor use



CONNECTION DIAGRAM



Products are manufactured in a plant whose quality management system has been certified to be in compliance with ISO 9001:2015 by NQA

### CERTIFICATIONS:



#### APPLICATION:

To provide power in Motor Control centers and Distribution Switchgear

#### FREQUENCY:

50/60 Hz.

#### INSULATION LEVEL:

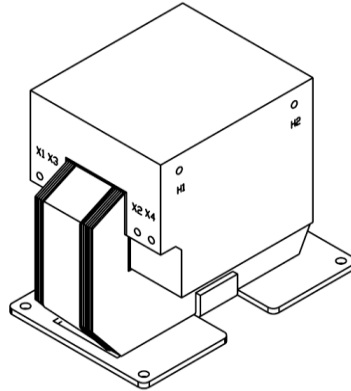
6.9 kV, 60 kV BIL. full wave

#### THERMAL RATING:

At 30°C. amb.

#### APPROXIMATE WEIGHT:

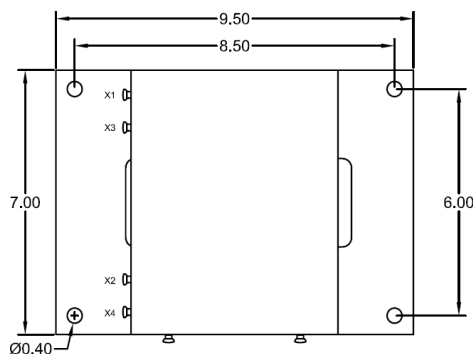
27 lbs.



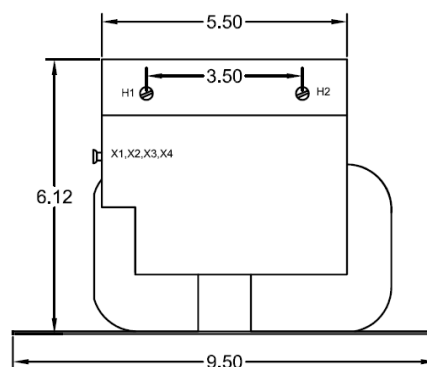
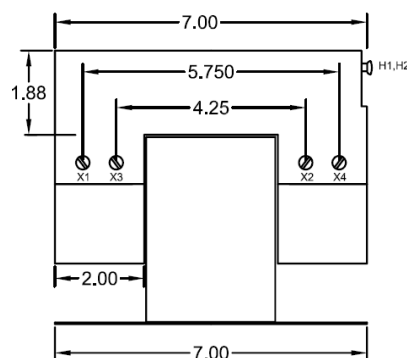
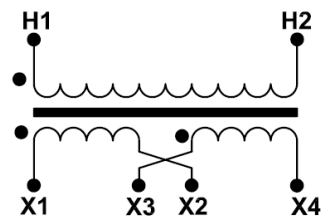
CATALOG NUMBER	PRIMARY VOLTAGE	RATIO AT 110 V	SECONDARY VOLTAGE	FREQUENCY Hz	THERMAL RATING
CPT3 60 075 2400 – 5	2400	21.81	110/220	50/60	0.75 kVA
CPT3 60 075 3300 – 5	3300	30.00	110/220	50/60	0.75 kVA
CPT3 60 075 4160 – 5	4160	37.81	110/220	50/60	0.75 kVA
CPT3 60 075 4800 – 5	4800	43.63	110/220	50/60	0.75 kVA
CPT3 60 075 5000 – 5	5000	45.45	110/220	50/60	0.75 kVA
CPT3 60 075 5500 – 5	5500	50.00	110/220	50/60	0.75 kVA
CPT3 60 075 6000 – 5	6000	54.54	110/220	50/60	0.75 kVA
CPT3 60 075 6600 – 5	6600	60.00	110/220	50/60	0.75 kVA
CPT3 60 075 6900 – 5	6900	62.72	110/220	50/60	0.75 kVA

- Primary and secondary terminal are brass screws No. 10-32 with one flat washer and lockwasher.
- Transformer winding is vacuum encapsulated in polyurethane resin with temperature insulation class of 105°C

- Plated steel mounting base
- For indoor use



#### CONNECTION DIAGRAM





**TTL** Transformer  
Technologies Ltd.



## Control Power Transformer

**Model CPT3-60-2-6**

### CERTIFICATIONS:



#### APPLICATION:

To provide power in Motor Control centers and Distribution Switchgear

#### FREQUENCY:

50/60 Hz.

#### INSULATION LEVEL:

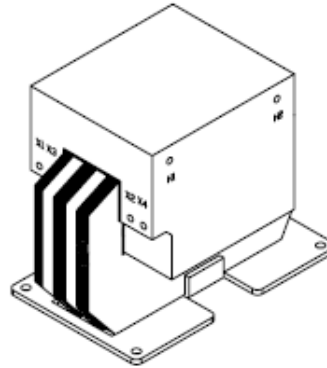
6.9 kV, 60 kV BIL, full wave

#### THERMAL RATING:

At 30°C. amb.

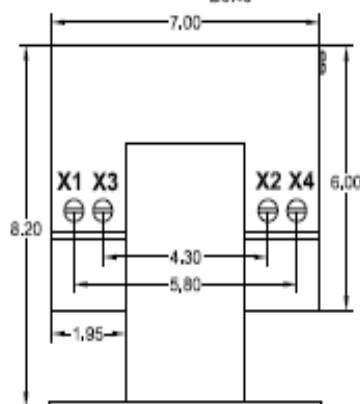
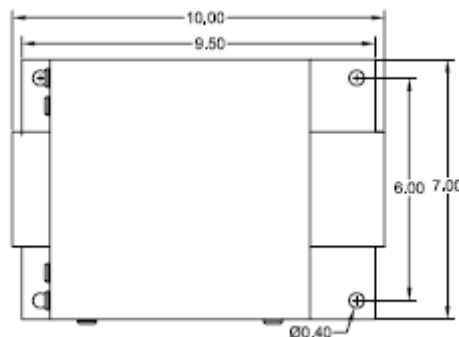
#### APPROXIMATE WEIGHT:

57 lbs.

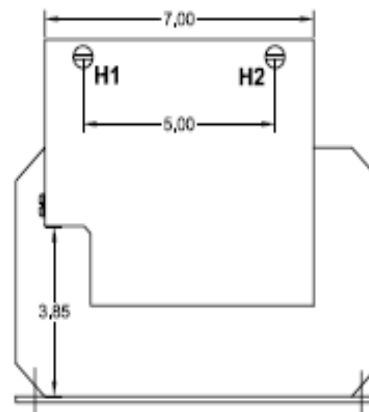
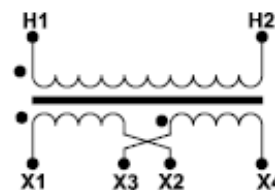


CATALOG NUMBER	PRIMARY VOLTAGE	RATIO AT 120 V	SECONDARY VOLTAGE	FREQUENCY Hz	THERMAL RATING
CPT3 60 2 2400 - 6	2400	20.00	120/240	50/60	2.0 kVA
CPT3 60 2 3300 - 6	3300	27.50	120/240	50/60	2.0 kVA
CPT3 60 2 4160 - 6	4160	34.66	120/240	50/60	2.0 kVA
CPT3 60 2 4800 - 6	4800	40.00	120/240	50/60	2.0 kVA
CPT3 60 2 5000 - 6	5000	41.66	120/240	50/60	2.0 kVA
CPT3 60 2 5500 - 6	5500	45.83	120/240	50/60	2.0 kVA
CPT3 60 2 6000 - 6	6000	50.00	120/240	50/60	2.0 kVA
CPT3 60 2 6600 - 6	6600	55.00	120/240	50/60	2.0 kVA
CPT3 60 2 6900 - 6	6900	57.50	120/240	50/60	2.0 kVA

- Primary and secondary terminal are brass screws No. 10-32 with one flat washer and lockwasher.
- Transformer winding is vacuum encapsulated in polyurethane resin with temperature insulation class of 105°C
- Plated steel mounting base
- For indoor use



#### CONNECTION DIAGRAM



Products are manufactured in a plant whose quality management system has been certified to be in compliance with ISO 9001:2015 by NQA

### CERTIFICATIONS:



#### APPLICATION:

To provide power in Motor Control centers and Distribution Switchgear

#### FREQUENCY:

50/60 Hz.

#### INSULATION LEVEL:

6.9 kV, 60 kV BIL. full wave

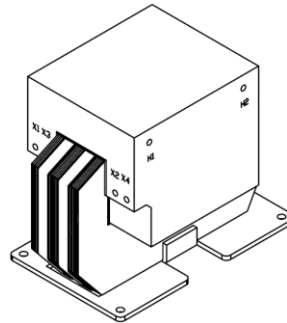
#### THERMAL RATING:

At 30°C. amb.

#### CONNECTIONS:

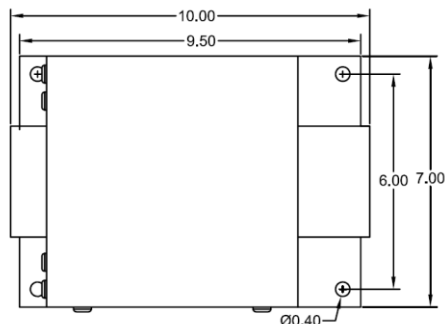
#### APPROXIMATE WEIGHT:

57 lbs.

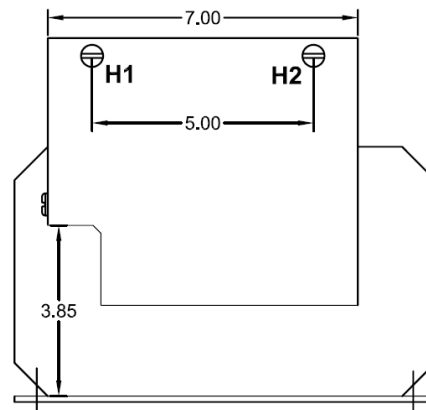
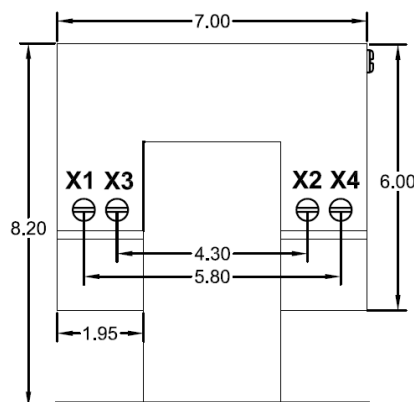
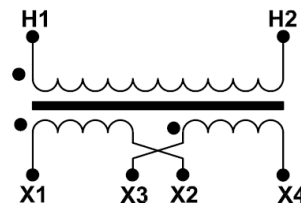


CATALOG NUMBER	PRIMARY VOLTAGE	RATIO AT 110 V	SECONDARY VOLTAGE	FREQUENCY Hz	THERMAL RATING
CPT3 60 2 2400 – 5	2400	21.81	110/220	50/60	2.0 kVA
CPT3 60 2 3300 – 5	3300	30.00	110/220	50/60	2.0 kVA
CPT3 60 2 4160 – 5	4160	37.81	110/220	50/60	2.0 kVA
CPT3 60 2 4800 – 5	4800	43.63	110/220	50/60	2.0 kVA
CPT3 60 2 5000 – 5	5000	45.45	110/220	50/60	2.0 kVA
CPT3 60 2 5500 – 5	5500	50.00	110/220	50/60	2.0 kVA
CPT3 60 2 6000 – 5	6000	54.54	110/220	50/60	2.0 kVA
CPT3 60 2 6600 – 5	6600	60.00	110/220	50/60	2.0 kVA
CPT3 60 2 6900 - 5	6900	62.72	110/220	50/60	2.0 kVA

- Primary and secondary terminal are brass screws No. 10-32 with one flat washer and lockwasher.
- Transformer winding is vacuum encapsulated in polyurethane resin with temperature insulation class of 105°C
- Plated steel mounting base
- For indoor use



#### CONNECTION DIAGRAM





# Control Power Transformer

**Model CPT3-60-5**

**CPT5-95-5 rev 050919**

## CERTIFICATIONS:



ISO 9001

QUALITY  
MANAGEMENT

### FREQUENCY:

60 Hz.

### THERMAL RATING:

5 kVA at 30°C. ambient

4.3 kVA at 55°C. ambient

### STANDARD SECONDARY VOLTAGE:

120 volts

### INSULATION LEVEL:

CPT3:

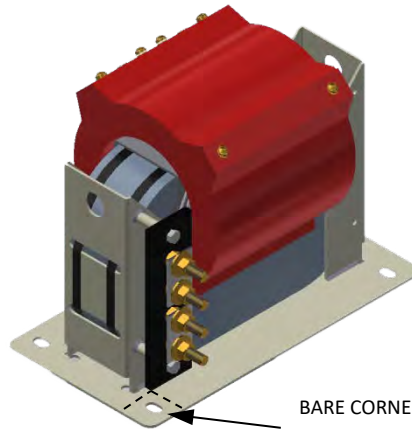
5 kV, 60 kV BIL full wave.

CPT5:

15 kV, 95 kV BIL full wave.

### APPROXIMATE WEIGHT:

165 lbs.



BARE CORNER FOR  
GROUNDING

- Primary terminals are ¼ - 20 brass screws with one flat washer and star washer.
- Secondary terminals are brass studs 3/8-16 with one flat washer, lock washer and two nuts, plus series/parallel links.
- The transformer High Voltage winding is vacuum encapsulated in epoxy resin.

- Supplied with 1±7-1/2% or 2±2-1/2% taps above & below nominal voltage on the primary winding.
- Available as unfused only.
- Self cooled.
- Steel mounting base.
- For indoor use.

***CATALOG NO.	PRIMARY VOLTAGE	RATIO	SECONDARY VOLTAGE	**FUSE RATING
CPT3-60-5-242	2400	20:1	120/240	7E
CPT3-60-5-4161	4160	34.7:1	120/240	5E
CPT3-60-5-482	4800	40:1	120/240	5E
CPT5-95-5-722	7200	60:1	120/240	3E
CPT5-95-5-842	8400	70:1	120/240	3E
CPT5-95-5-123	12000	100:1	120/240	2E
CPT5-95-5-1242	12470	104:1	120/240	2E
CPT5-95-5-1322	13200	110:1	120/240	2E
CPT5-95-5-1382	13800	115:1	120/240	2E
CPT5-95-5-1442*	14400	120:1	120/240	2E

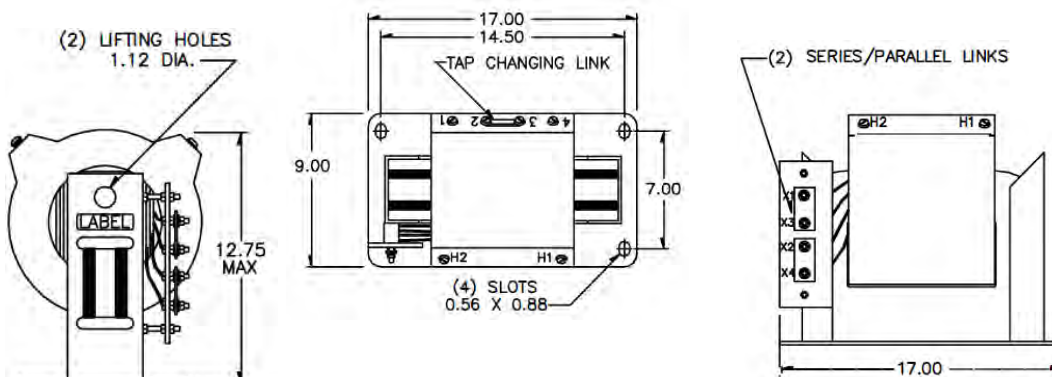
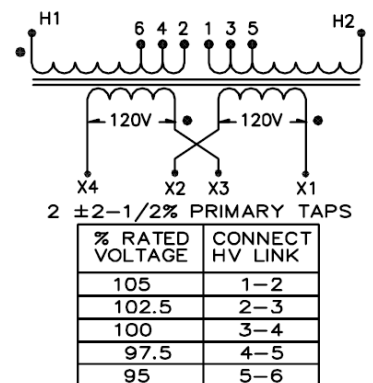
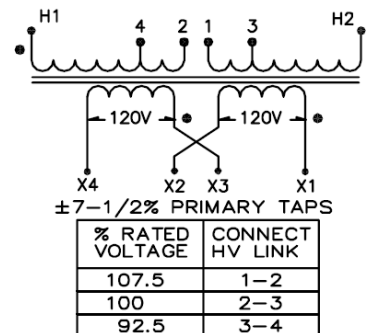
\*Not available with primary taps.

\*\*Note all fuse ratings are based upon NEC transformer overcurrent protection recommendations. Specific applications may require other ratings.

\*\*\*For 1±7-1/2% taps use suffix "A" after Catalog No.

\*\*\*For 2±2-1/2% taps use suffix "B" after Catalog No.

## CONNECTION DIAGRAMS



Products are manufactured in a plant whose quality management system has been certified to be in compliance with ISO 9001:2015 by NQA

# Control Power Transformer

**Model CPT3-60-10**

**CPT5-95-10** rev 050919

## CERTIFICATIONS:



### FREQUENCY:

60 Hz.

### THERMAL RATING:

10 kVA at 30°C. ambient

8.6 kVA at 55°C. ambient

### STANDARD SECONDARY VOLTAGE:

120 volts

### INSULATION LEVEL:

CPT3:

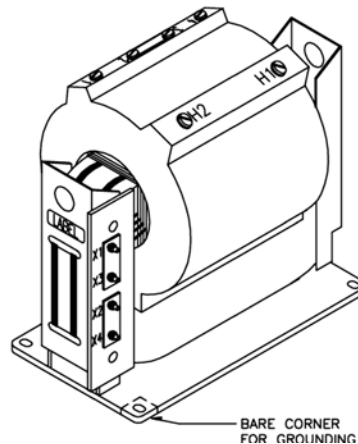
5 kV, 60 kV BIL full wave.

CPT5:

15 kV, 95 kV BIL full wave.

### APPROXIMATE WEIGHT:

250 lbs.



- Primary terminals are ¼-20 brass screws with one flat washer and star washer.
- Secondary terminals are brass studs ½-13 with one flat washer, lock washer and two nuts, plus series/parallel links.
- The transformer High Voltage winding is vacuum encapsulated in epoxy resin.

- Supplied with 1±7-1/2% or 2±2-1/2% taps above & below nominal voltage on the primary winding.
- Available as unfused only.
- Self cooled.
- Steel mounting base.
- For indoor use.

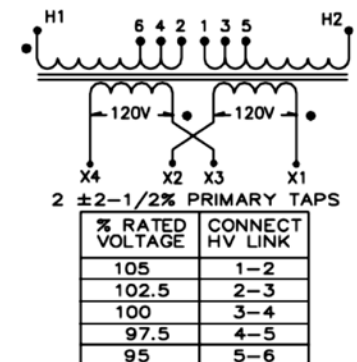
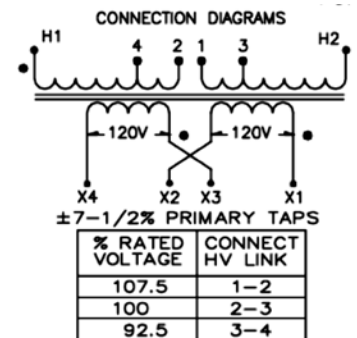
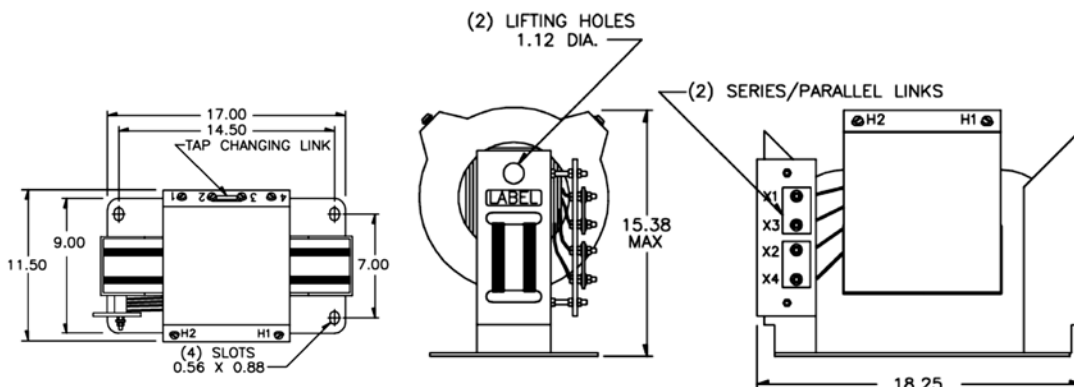
***CATALOG NO.	PRIMARY VOLTAGE	RATIO	SECONDARY VOLTAGE	**FUSE RATING
CPT3-60-10-242	2400	20:1	120/240	15E
CPT3-60-10-4161	4160	34.7:1	120/240	7E
CPT3-60-10-482	4800	40:1	120/240	7E
CPT5-95-10-722	7200	60:1	120/240	5E
CPT5-95-10-842	8400	70:1	120/240	5E
CPT5-95-10-123	12000	100:1	120/240	3E
CPT5-95-10-1242	12470	104:1	120/240	3E
CPT5-95-10-1322	13200	110:1	120/240	3E
CPT5-95-10-1382	13800	115:1	120/240	3E
CPT5-95-10-1442*	14400	120:1	120/240	3E

\*Not available with primary taps.

\*\*Note all fuse ratings are based upon NEC transformer overcurrent protection recommendations. Specific applications may require other ratings.

\*\*\*For 1±7-1/2% taps use suffix "A" after Catalog No.

\*\*\*For 2±2-1/2% taps use suffix "B" after Catalog No.



Products are manufactured in a plant whose quality management system has been certified to be in compliance with ISO 9001:2015 by NQA

# Control Power Transformer

**Model CPT3-60-15**

**CPT5-95-15** rev 050919

## CERTIFICATIONS:



### FREQUENCY:

60 Hz.

### THERMAL RATING:

15 kVA at 30°C. ambient  
12.9 kVA at 55°C. ambient

### STANDARD SECONDARY VOLTAGE:

120 volts

### INSULATION LEVEL:

CPT3:

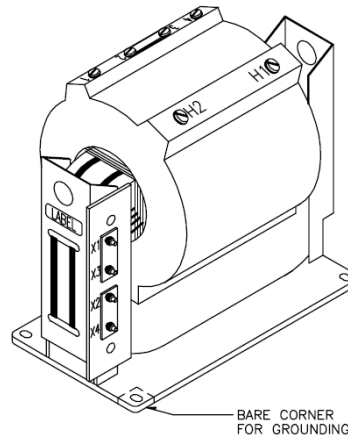
5 kV, 60 kV BIL full wave.

CPT5:

15 kV, 95 kV BIL full wave.

### APPROXIMATE WEIGHT:

290 lbs.



- Primary terminals are ¼-20 brass screws with one flat washer and star washer.
- Secondary terminals are brass studs ½-13 with one flat washer, lock washer and two nuts, plus series/parallel links.
- The transformer High Voltage winding is vacuum encapsulated in epoxy resin.

- Supplied with 1±7-1/2% or 2±2-1/2% taps above & below nominal voltage on the primary winding.
- Available as unfused only.
- Self cooled.
- Steel mounting base.
- For indoor use.

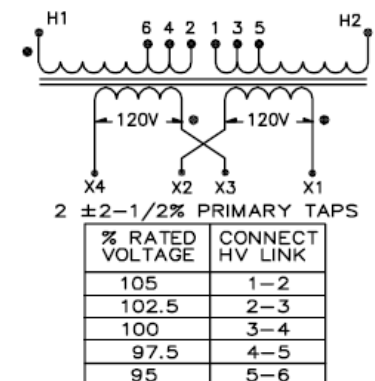
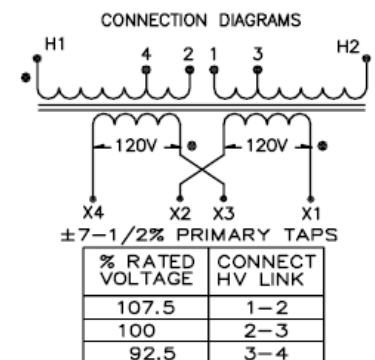
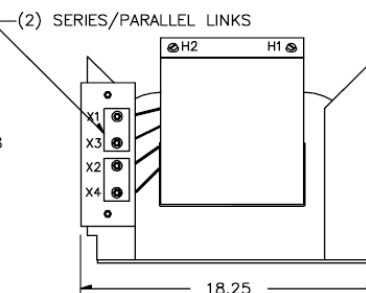
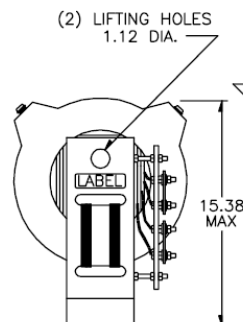
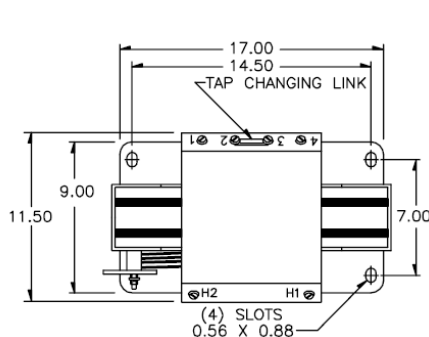
***CATALOG NO.	PRIMARY VOLTAGE	RATIO	SECONDARY VOLTAGE	**FUSE RATING
CPT3-60-15-242	2400	20:1	120/240	15E
CPT3-60-15-4161	4160	34.7:1	120/240	10E
CPT3-60-15-482	4800	40:1	120/240	10E
CPT5-95-15-722	7200	60:1	120/240	7E
CPT5-95-15-842	8400	70:1	120/240	7E
CPT5-95-15-123	12000	100:1	120/240	5E
CPT5-95-15-1242	12470	104:1	120/240	5E
CPT5-95-15-1322	13200	110:1	120/240	5E
CPT5-95-15-1382	13800	115:1	120/240	5E
CPT5-95-15-1442*	14400	120:1	120/240	5E

\*Not available with primary taps.

\*\*Note all fuse ratings are based upon NEC transformer overcurrent protection recommendations. Specific applications may require other ratings.

\*\*\*For 1±7-1/2% taps use suffix "A" after Catalog No.

\*\*\*For 2±2-1/2% taps use suffix "B" after Catalog No.



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# Control Power Transformer

**Model CPTS3-60-5**

**CPTS5-95-5** rev 050919

## CERTIFICATIONS:



### FREQUENCY:

60 Hz.

### THERMAL RATING:

5 kVA at 30°C. ambient

4.3 kVA at 55°C. ambient

### STANDARD SECONDARY VOLTAGE:

120 volts

### INSULATION LEVEL:

CPT3:

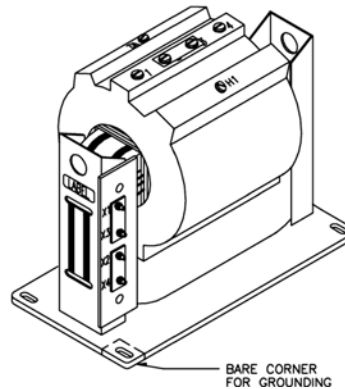
5 kV, 60 kV BIL full wave.

CPT5:

15 kV, 95 kV BIL full wave.

### APPROXIMATE WEIGHT:

165 lbs.



BARE CORNER  
FOR GROUNDING

- Primary terminals are ¼-20 brass screws with one flat washer and star washer.
- Secondary terminals are brass studs ½-13 with one flat washer, lock washer and two nuts, plus series/parallel links.
- The transformer High Voltage winding is vacuum encapsulated in epoxy resin.

- Supplied with 1±7-1/2% or 2±2-1/2% taps above & below nominal voltage on the primary winding.
- Available as unfused only.
- Self cooled.
- Steel mounting base.
- For indoor use.

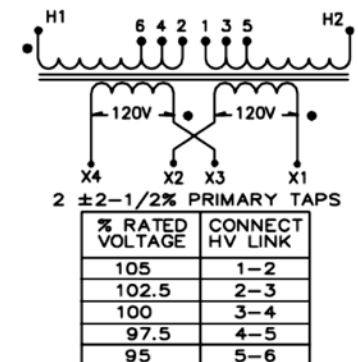
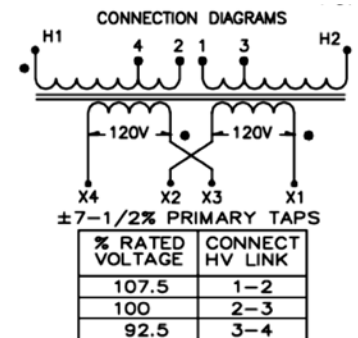
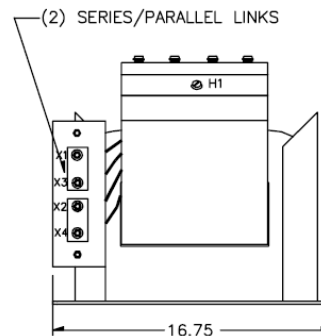
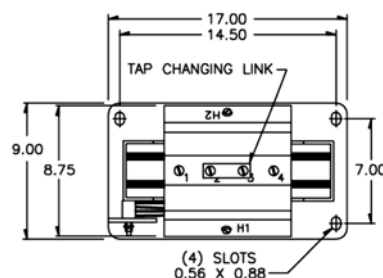
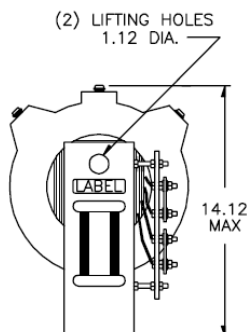
***CATALOG NO.	PRIMARY VOLTAGE	RATIO	SECONDARY VOLTAGE	**FUSE RATING
CPTS3-60-5-242	2400	20:1	120/240	7E
CPTS3-60-5-4161	4160	34.7:1	120/240	5E
CPTS3-60-5-482	4800	40:1	120/240	5E
CPTS5-95-5-722	7200	60:1	120/240	3E
CPTS5-95-5-842	8400	70:1	120/240	3E
CPTS5-95-5-123	12000	100:1	120/240	2E
CPTS5-95-5-1242	12470	104:1	120/240	2E
CPTS5-95-5-1322	13200	110:1	120/240	2E
CPTS5-95-5-1382	13800	115:1	120/240	2E
CPTS5-95-5-1442*	14400	120:1	120/240	2E

\*Not available with primary taps.

\*\*Note all fuse ratings are based upon NEC transformer overcurrent protection recommendations. Specific applications may require other ratings.

\*\*\*For 1±7-1/2% taps use suffix "A" after Catalog No.

\*\*\*For 2±2-1/2% taps use suffix "B" after Catalog No.



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# Control Power Transformer

**Model CPTS3-60-10**

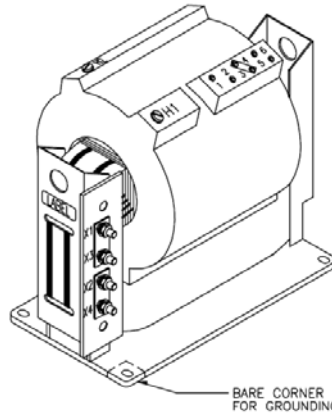
**CPTS5-95-10** rev 050919

## CERTIFICATIONS:



ISO 9001

QUALITY  
MANAGEMENT



### FREQUENCY:

60 Hz.

### THERMAL RATING:

10 kVA at 30°C. ambient

8.6 kVA at 55°C. ambient

### STANDARD SECONDARY VOLTAGE:

120 volts

### INSULATION LEVEL:

CPT3:

5 kV, 60 kV BIL full wave.

CPT5:

15 kV, 95 kV BIL full wave.

### APPROXIMATE WEIGHT:

250 lbs.

- Primary terminals are ¼-20 brass screws with one flat washer and star washer.
- Secondary terminals are brass studs ½-13 with one flat washer, lock washer and two nuts, plus series/parallel links.
- The transformer High Voltage winding is vacuum encapsulated in epoxy resin.

- Supplied with 1±7-1/2% or 2±2-1/2% taps above & below nominal voltage on the primary winding.
- Available as unfused only.
- Self cooled.
- Steel mounting base.
- For indoor use.

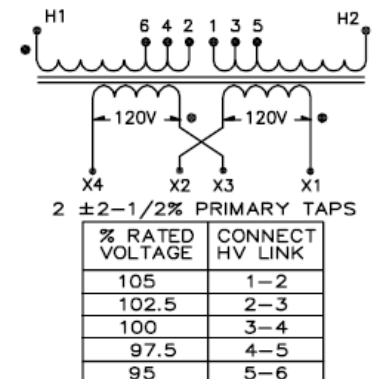
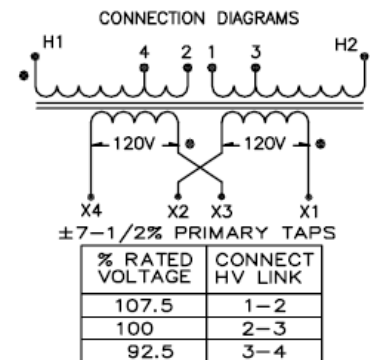
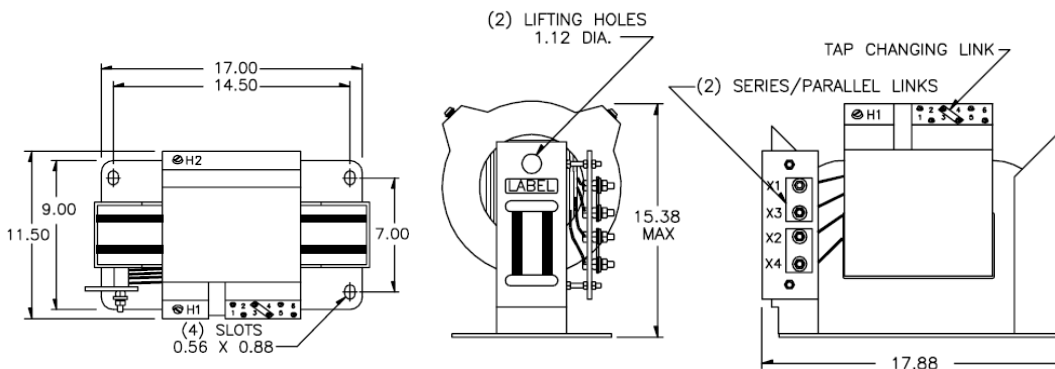
***CATALOG NO.	PRIMARY VOLTAGE	RATIO	SECONDARY VOLTAGE	**FUSE RATING
CPTS3-60-10-242	2400	20:1	120/240	15E
CPTS3-60-10-4161	4160	34.7:1	120/240	7E
CPTS3-60-10-482	4800	40:1	120/240	7E
CPTS5-95-10-722	7200	60:1	120/240	5E
CPTS5-95-10-842	8400	70:1	120/240	5E
CPTS5-95-10-123	12000	100:1	120/240	3E
CPTS5-95-10-1242	12470	104:1	120/240	3E
CPTS5-95-10-1322	13200	110:1	120/240	3E
CPTS5-95-10-1382	13800	115:1	120/240	3E
CPTS5-95-10-1442*	14400	120:1	120/240	3E

\*Not available with primary taps.

\*\*Note all fuse ratings are based upon NEC transformer overcurrent protection recommendations. Specific applications may require other ratings.

\*\*\*For 1±7-1/2% taps use suffix "A" after Catalog No.

\*\*\*For 2±2-1/2% taps use suffix "B" after Catalog No.



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# Control Power Transformer

**Model CPTS3-60-15**

**CPTS5-95-15** rev 050919

## CERTIFICATIONS:



### FREQUENCY:

60 Hz.

### THERMAL RATING:

15 kVA at 30°C. ambient  
12.9 kVA at 55°C. ambient

### STANDARD SECONDARY VOLTAGE:

120 volts

### INSULATION LEVEL:

CPT3:

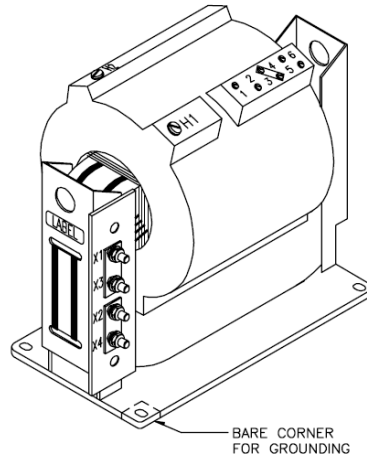
5 kV, 60 kV BIL full wave.

CPT5:

15 kV, 95 kV BIL full wave.

### APPROXIMATE WEIGHT:

290 lbs.



BARE CORNER  
FOR GROUNDING

- Primary terminals are ¼-20 brass screws with one flat washer and star washer.
- Secondary terminals are brass studs ½-13 with one flat washer, lock washer and two nuts, plus series/parallel links.
- The transformer High Voltage winding is vacuum encapsulated in epoxy resin.

- Supplied with 1±7-1/2% or 2±2-1/2% taps above & below nominal voltage on the primary winding.
- Available as unfused only.
- Self cooled.
- Steel mounting base.
- For indoor use.

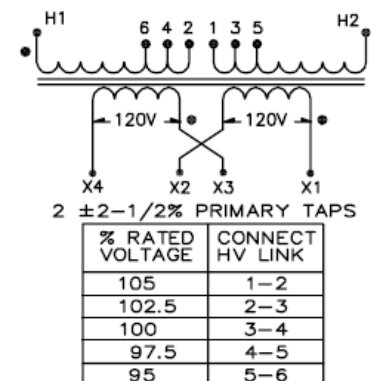
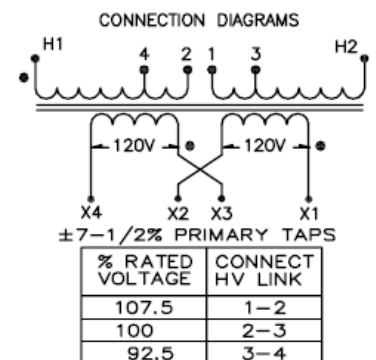
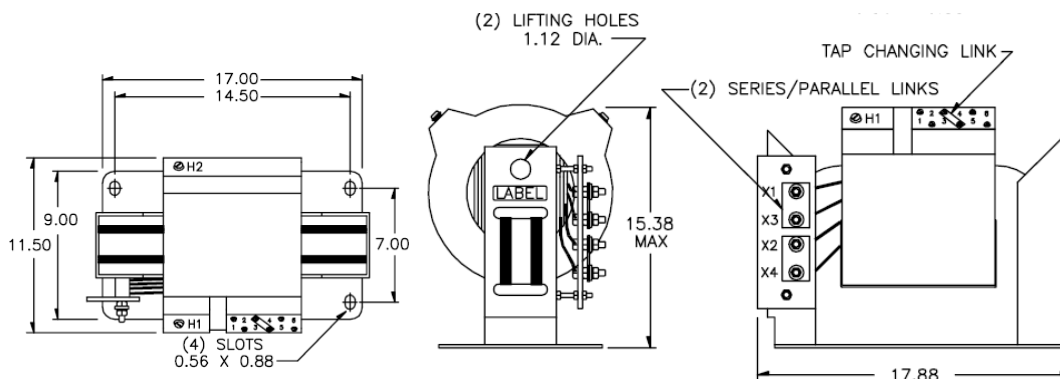
***CATALOG NO.	PRIMARY VOLTAGE	RATIO	SECONDARY VOLTAGE	**FUSE RATING
CPTS3-60-15-242	2400	20:1	120/240	15E
CPTS3-60-15-4161	4160	34.7:1	120/240	10E
CPTS3-60-15-482	4800	40:1	120/240	10E
CPTS5-95-15-722	7200	60:1	120/240	7E
CPTS5-95-15-842	8400	70:1	120/240	7E
CPTS5-95-15-123	12000	100:1	120/240	5E
CPTS5-95-15-1242	12470	104:1	120/240	5E
CPTS5-95-15-1322	13200	110:1	120/240	5E
CPTS5-95-15-1382	13800	115:1	120/240	5E
CPTS5-95-15-1442*	14400	120:1	120/240	5E

\*Not available with primary taps.

\*\*Note all fuse ratings are based upon NEC transformer overcurrent protection recommendations. Specific applications may require other ratings.

\*\*\*For 1±7-1/2% taps use suffix "A" after Catalog No.

\*\*\*For 2±2-1/2% taps use suffix "B" after Catalog No.



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# Control Power Transformer

**Model 3CPT3-60-15**

**3CPT5-95-15** rev 050919

## CERTIFICATIONS:



### FREQUENCY:

60 Hz.

### THERMAL RATING:

15 kVA at 30°C. ambient

13 kVA at 55°C. ambient

80°C rise.

### STANDARD SECONDARY VOLTAGE:

120 volts

### INSULATION LEVEL:

CPT3: 5kV

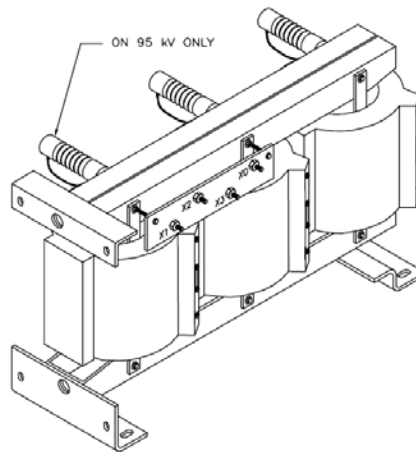
60 kV, 60 kV BIL full wave. 130°C

CPT5: 15kV,

95 kV, 95 kV BIL full wave. 130°C

### APPROXIMATE WEIGHT:

650 lbs.



- Primary terminals are copper compression type lugs.
- Secondary terminals are brass studs ½-13 with one flat washer, star washer and two regular nuts.
- The high voltage coils are vacuum encapsulated in epoxy resin. Complete unit is varnish dipped.
- Supplied with taps on the primary side:  
Cat. Suffix A –(1) ± 7-1/2% taps or  
Cat. Suffix B –(2) ± 2-1/2% taps.
- Secondary typically 120/240 V operation.
- Available as unfused only.
- Vertical or horizontal mounting.
- Mounting base and frame is 7 ga. (0.188" thk) steel, with (8) 0.56 x 0.875 slots.
- For indoor use.

***CATALOG NO.	PRIMARY VOLTAGE	SECONDARY VOLTAGE	**FUSE RATING
3CPT3-60-15-242	2400	208Y/120	10E
3CPT3-60-15-4161	4160	208Y/120	7E
3CPT3-60-15-482	4800	208Y/120	5E
3CPT5-95-15-722	7200	208Y/120	5E
3CPT5-95-15-842	8400	208Y/120	5E
3CPT5-95-15-123	12000	208Y/120	3E
3CPT5-95-15-1242	12470	208Y/120	3E
3CPT5-95-15-1322	13200	208Y/120	3E
3CPT5-95-15-1382	13800	208Y/120	3E

\*Note all fuse ratings are based upon NEC transformer overcurrent protection recommendations. Specific applications may require other ratings.

PRIMARY VOLTS	CONNECT
107.5%	1 – 2
100%	2 – 3
92.5%	3 – 4

1 ± 7-1/2% PRIMARY TAPS – SUFFIX "A"

PRIMARY VOLTS	CONNECT
105%	1 – 2
102.5%	2 – 3
100%	3 – 4
97.5%	4 – 5
92.5%	5 – 6

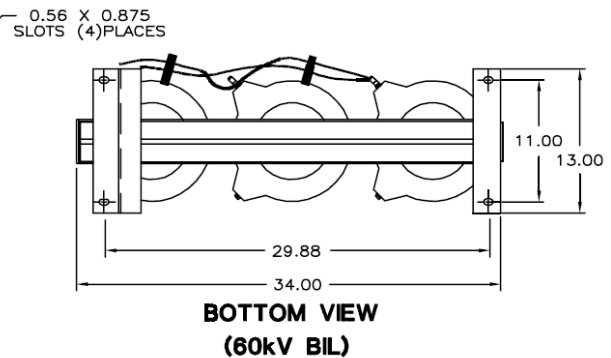
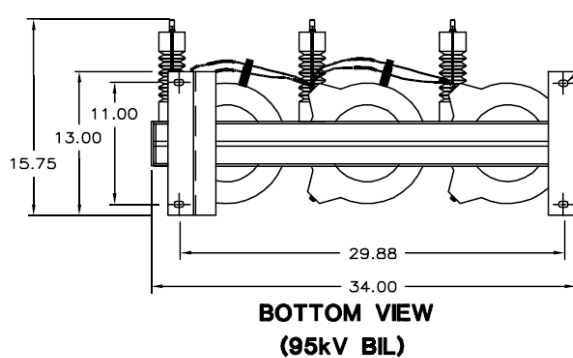
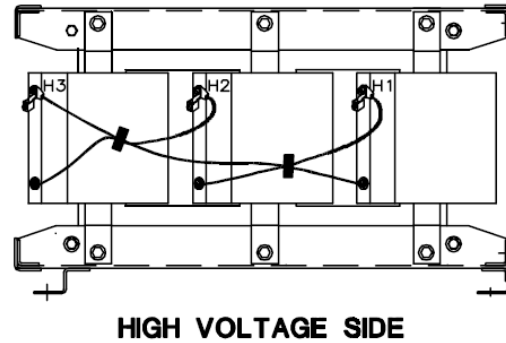
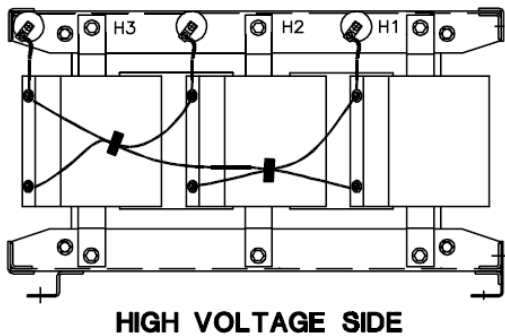
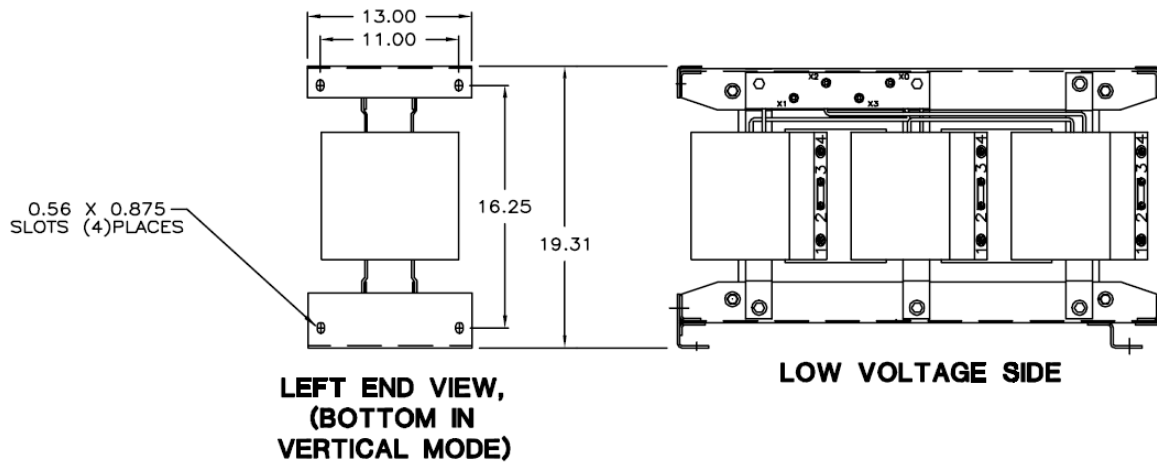
2 ± 2-1/2% PRIMARY TAPS – SUFFIX "B"

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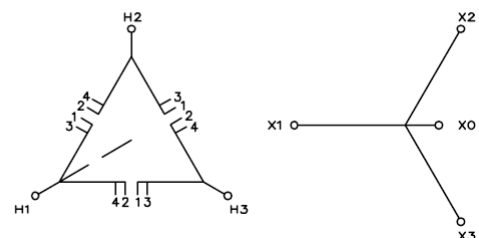
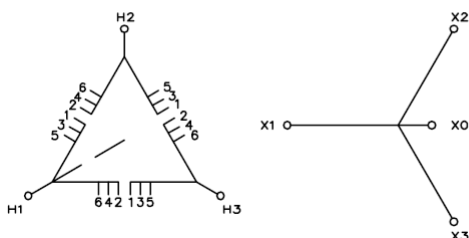
# Control Power Transformer

**Model 3CPT3-60-15**

**3CPT5-95-15** rev 050919



FOR HORIZONTAL OR VERTICAL MOUNTING



Products are manufactured in a plant whose quality management system has been certified to be in compliance with ISO 9001:2015 by NQA



# Control Power Transformer

**Model 3CPT3-60-30, 3CPT5-95-30, 3CPT3-60-45, 3CPT5-95-45 rev 050919**

## FREQUENCY:

60 Hz.

## THERMAL RATING:

30 kVA at 30°C. ambient  
25.7 kVA at 55°C. ambient  
80°C rise.  
45 kVA at 30°C ambient  
38.6 kVA at 55° ambient.  
80°C rise.

## STANDARD SECONDARY VOLTAGE:

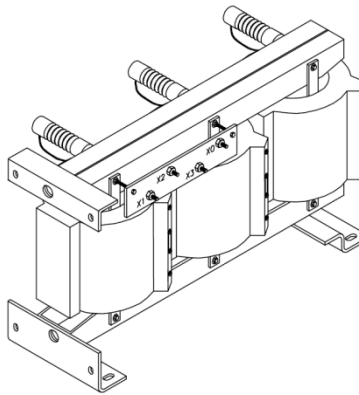
120 volts

## INSULATION LEVEL:

3CPT3: 5kV  
60 kV, 60 kV BIL full wave. 130°C  
3CPT5: 15kV,  
95 kV, 95 kV BIL full wave. 130°C

## APPROXIMATE WEIGHT:

730 lbs.



## CERTIFICATIONS:



- Primary terminals are copper compression type lugs.
- Secondary terminals are brass studs ½-13 with one flat washer, star washer and two regular nuts.
- The high voltage coils are vacuum encapsulated in epoxy resin. Complete unit is varnish dipped.
- Supplied with taps on the primary side:  
Cat. Suffix A –(1) ± 7-1/2% taps or  
Cat. Suffix B –(2) ± 2-1/2% taps.
- Secondary typically 120/240 V operation.
- Available as unfused only.
- Vertical or horizontal mounting.
- Mounting base and frame is 7 ga. (0.188" thk) steel, with (8) 0.56 x 0.875 slots.
- For indoor use.

***CATALOG NO.	PRIMARY VOLTAGE	SECONDARY VOLTAGE	**FUSE RATING	***CATALOG NO.	PRIMARY VOLTAGE	SECONDARY VOLTAGE	**FUSE RATING
3CPT3-60-15-242	2400	208Y/120	10E	3CPT3-60-45-242	2400	208Y/120	25E
3CPT3-60-15-4161	4160	208Y/120	7E	3CPT3-60-45-4161	4160	208Y/120	15E
3CPT3-60-15-482	4800	208Y/120	5E	3CPT3-60-45-482	4800	208Y/120	15E
3CPT5-95-15-722	7200	208Y/120	5E	3CPT5-95-45-722	7200	208Y/120	15E
3CPT5-95-15-842	8400	208Y/120	5E	3CPT5-95-45-842	8400	208Y/120	15E
3CPT5-95-15-123	12000	208Y/120	3E	3CPT5-95-45-123	12000	208Y/120	7E
3CPT5-95-15-1242	12470	208Y/120	3E	3CPT5-95-45-1242	12470	208Y/120	7E
3CPT5-95-15-1322	13200	208Y/120	3E	3CPT5-95-45-1322	13200	208Y/120	7E
3CPT5-95-15-1382	13800	208Y/120	3E	3CPT5-95-45-1382	13800	208Y/120	7E

\*Note all fuse ratings are based upon NEC transformer overcurrent protection recommendations. Specific applications may require other ratings.

PRIMARY VOLTS	CONNECT
107.5%	1 – 2
100%	2 – 3
92.5%	3 – 4

1 ± 7-1/2% PRIMARY TAPS – SUFFIX "A"

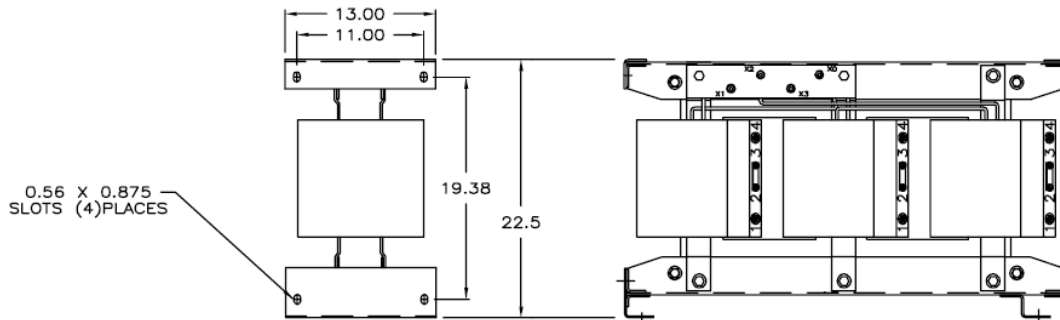
PRIMARY VOLTS	CONNECT
105%	1 – 2
102.5%	2 – 3
100%	3 – 4
97.5%	4 – 5
92.5%	5 – 6

2 ± 2-1/2% PRIMARY TAPS – SUFFIX "B"

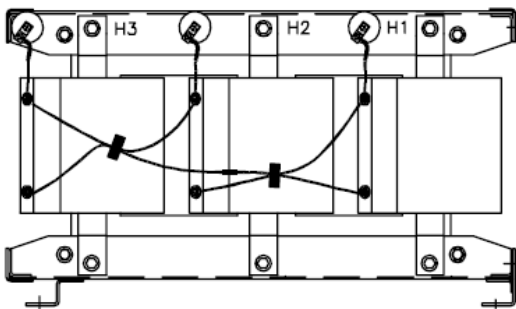
Products are manufactured in a plant whose quality management system has been certified to be in compliance with ISO 9001:2015 by NQA

# Control Power Transformer

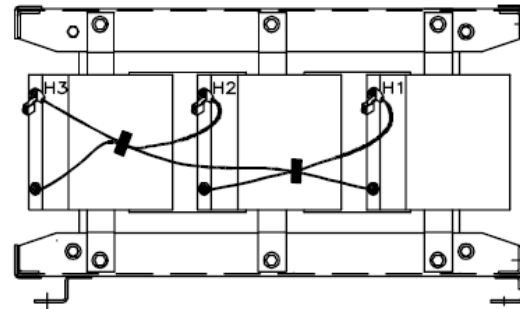
Model 3CPT3-60-30,  
3CPT5-95-30, 3CPT3-60-45,  
3CPT5-95-45 rev 050919



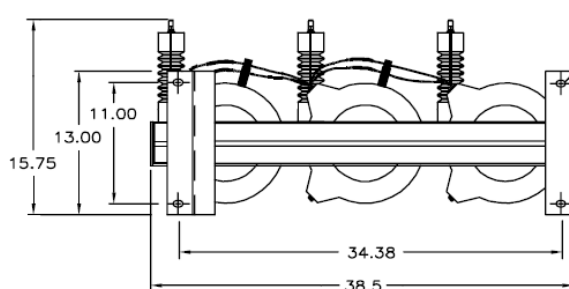
LEFT END VIEW,  
(BOTTOM IN  
VERTICAL MODE)



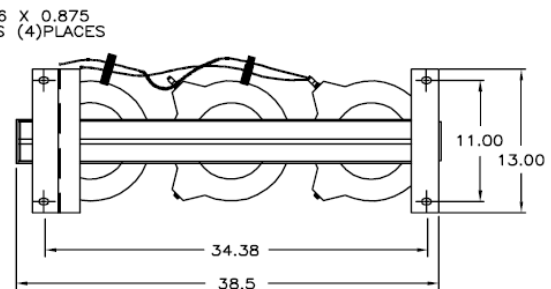
HIGH VOLTAGE SIDE



HIGH VOLTAGE SIDE

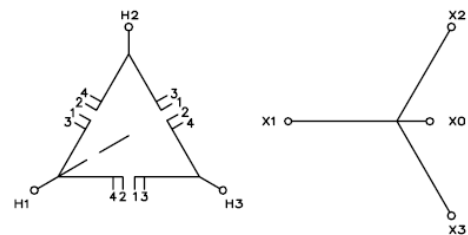
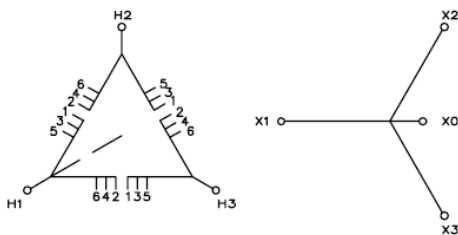


BOTTOM VIEW  
(95kV BIL)



BOTTOM VIEW  
(60kV BIL)

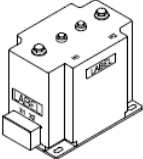
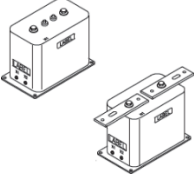

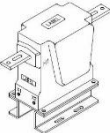



FOR HORIZONTAL OR VERTICAL MOUNTING



# CURRENT TRANSFORMERS

For Metering and Instrumentation

*MV Current Transformers*

<b>MODEL CTW3-60-T50</b> <b>MODEL CTWH3-60-T50</b>		<b>Page 9-2</b>
<b>MODEL CTW5-L110</b> <b>MODEL CTWH5-L-110</b>		<b>Page 9-4</b>
<b>MODEL CTWH3-60-T100</b>		<b>Page 9-6</b>
<b>MODEL CTWH4-75-T100</b>		<b>Page 9-8</b>
<b>MODEL CTWH5-B-110-T200**</b>		<b>Page 9-10</b>
<b>MODEL JKM-3C</b>		<b>Page 9-12</b>
<b>MODEL JKM-5C</b>		<b>Page 9-14</b>

*MV Current Transformers*

## Wound Primary Indoor Current Transformer

**Model CTW3-60-T50**  
**CTWH3-60-T50** rev 051223

### CERTIFICATIONS:

#### APPLICATION:

Relaying and metering

#### FREQUENCY:

50-400 Hz.

#### MAXIMUM SYSTEM VOLTAGE:

5.6Kv, BIL 60kV

#### APPROXIMATE WEIGHT:

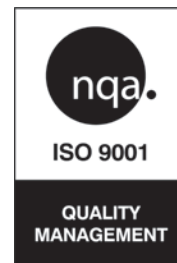
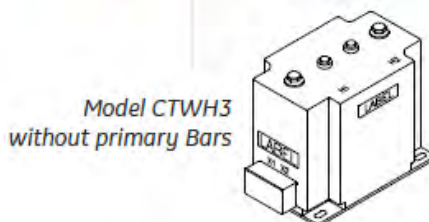
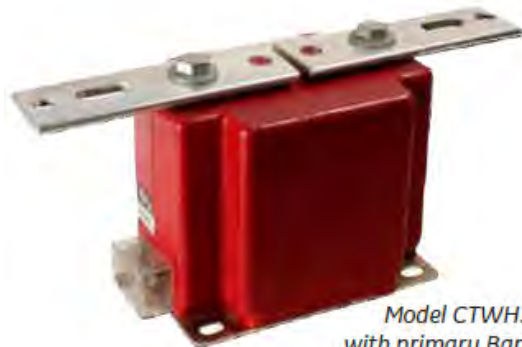
20 lbs.

#### CONTINUOUS THERMAL RATING FACTOR:

1.5 at 30°C., 1.33 at 55°C.

150:5 and 600:5- 1.33 at 30°C., 1.00 at 55°C.

250:5- 1.00 at 30°C., 0.85 at 55°C.



Primary terminals are ½ - 13 bolts with one Belleville washer.

Secondary terminals are brass studs No. 10-32 with one flatwasher, lockwasher and regular nut.

Supplied with short circuit secondary terminal cover. Vacuum cast polyurethane resin. Other ratios, secondary currents and dual ratios are available. Refer to factory.

### MODEL CTW3-60-T50 & CTWH3-60-T50

Approximate weight: 20 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
			BO.1	BO.2	BO.5	BO.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.

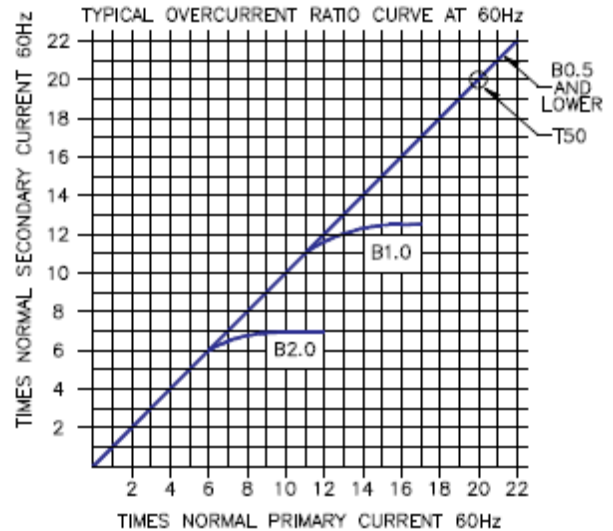
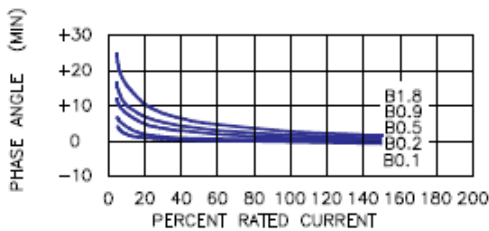
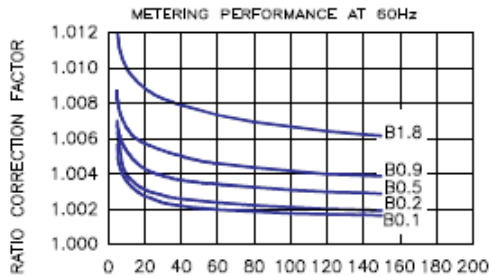
\*\*With a burden of B0.1 or greater connected to the secondary.

Products are manufactured in a plant whose quality management system has been certified to be in compliance with ISO 9001:2015 by NQA



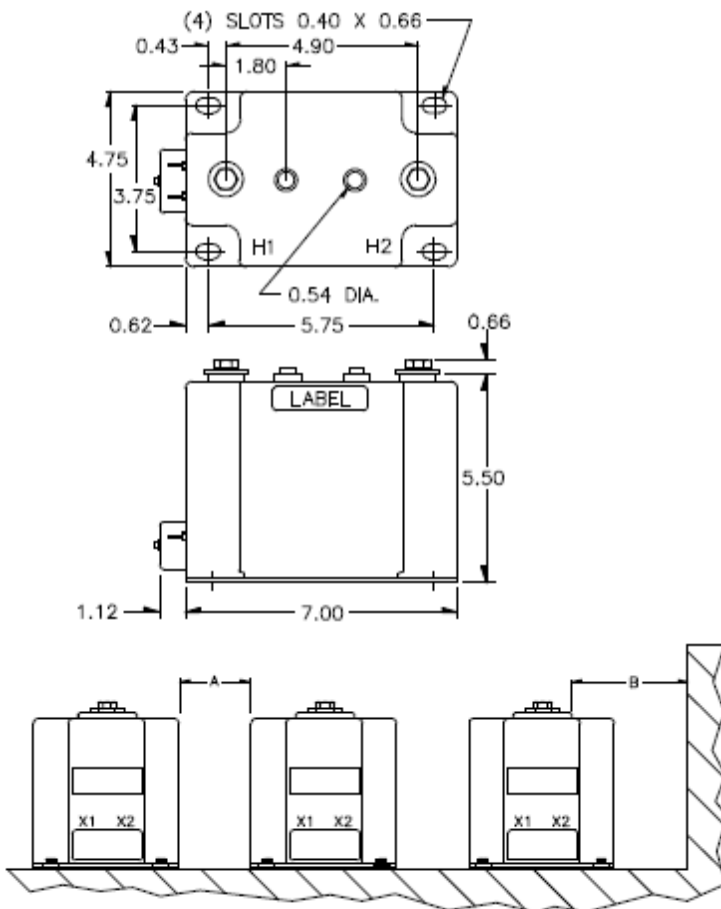
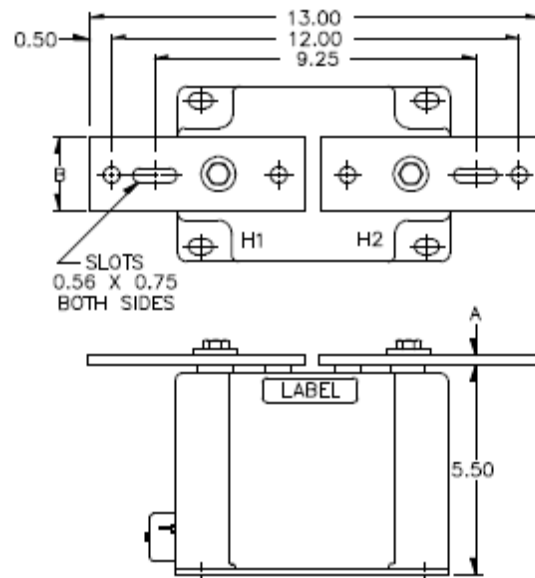
# Wound Primary Indoor Current Transformer

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



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

WITH PRIMARY BARS



## RECOMMENDED MINIMUM SPACINGS

**A** = Unit to Unit = 0.75" minimum.

**B** = 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.

# Wound Primary Indoor Current Transformer

**Model CTW5-L-110**  
**CTWH5-L-110** rev 051223

## CERTIFICATIONS:

### APPLICATION:

Relaying and metering

### FREQUENCY:

50-400 Hz.

### CONTINUOUS THERMAL RATING

### FACTOR:

1.00 at 30°C., 0.85 at 55°C

### APPROXIMATE WEIGHT:

34 lbs.

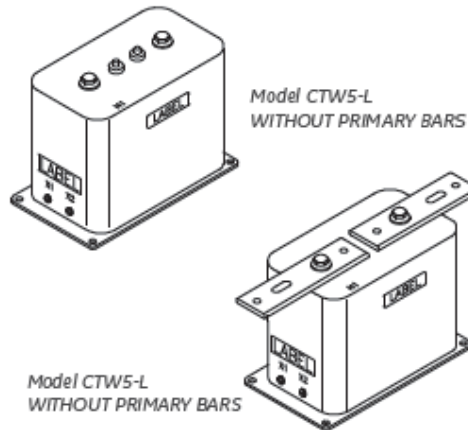
### CONNECTIONS:

Primary terminals are ½ - 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.



## MODEL 1CTW5-L-110 & CTWH5-6-110

Window Diameter 6.00"

Approximate weight: 34 lbs.

Catalog Number	Current Ratio	Relay Class	ANSI Metering Class at 60 Hz					**Thermal current Rating 1 Second RMS Amps
			BO.1	BO.2	BO.5	BO.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-100-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

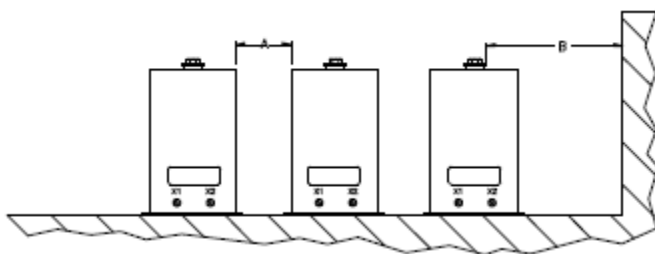
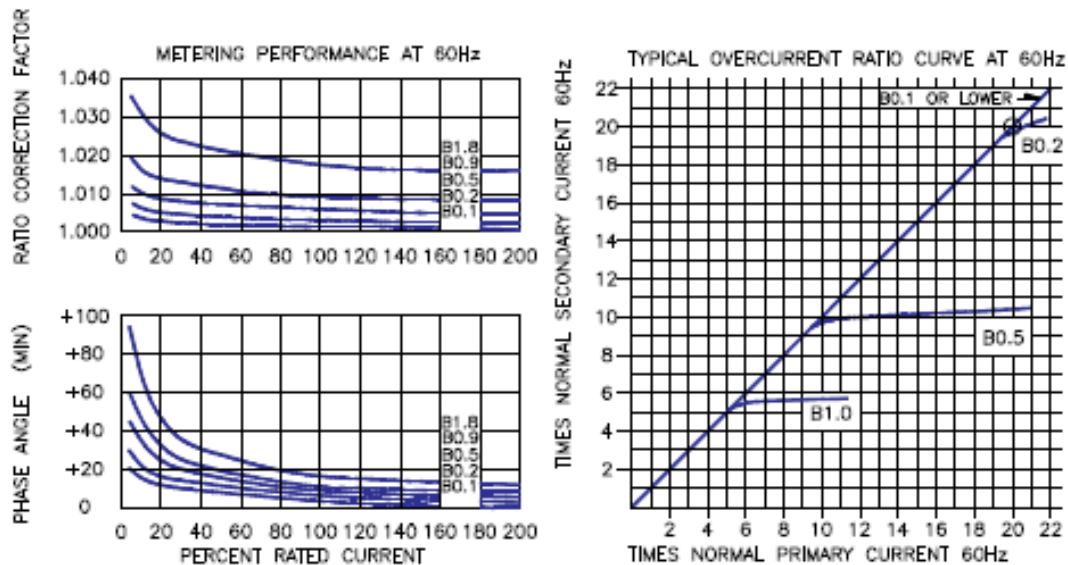
\*For ordering with primary bars, change model number to CTWH5-L

A test card is provided with each unit.

Products are manufactured in a plant whose quality management system has been certified to be in compliance with ISO 9001:2015 by NQA

# Wound Primary Indoor Current Transformer

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

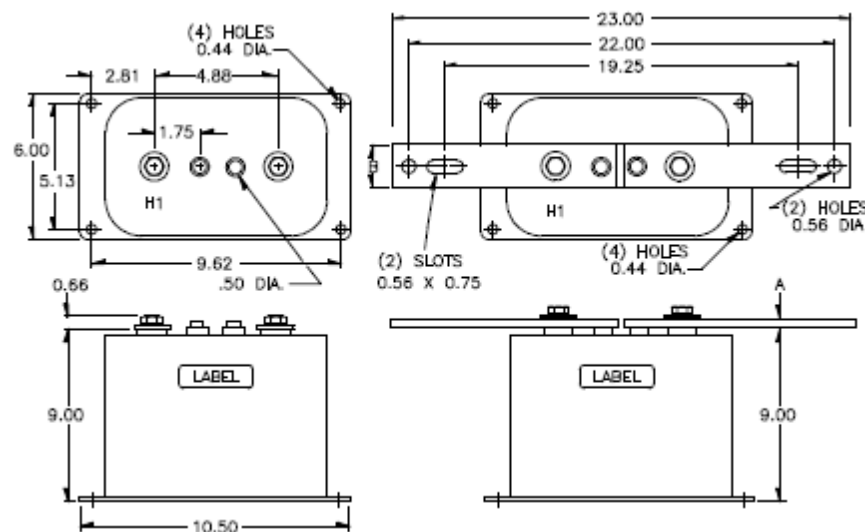


## RECOMMENDED MINIMUM SPACINGS

**A** = Unit to Unit = 2.00" minimum.

**B** = HV to Ground in Air = 6.50" 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.



## Wound Primary Indoor Current Transformer

**Model CTWH3-60-T100**

rev 051223

### CERTIFICATIONS:

**APPLICATION:**

Relaying and metering

**FREQUENCY:**

50-400 Hz.

**MAXIMUM SYSTEM VOLTAGE:**

5.6Kv, BIL 60kV

**APPROXIMATE WEIGHT:**

41 lbs.

**CONTINUOUS THERMAL RATING FACTOR:**

1.5 at 30°C., 1.33 at 55°C.

250:5, 1000:5 AND 1,200:5-

1.10 at 30°C., 0.85 at 55°C.



Primary terminals are copper bars. See chart next pages for sizes.

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

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

### MODEL CTWH3-60-T100

Approximate weight: 41 lbs.

Catalog Number	Current Ratio	Relay Class	ANSI Metering Class at 60 Hz					**Thermal current Rating 1 Second RMS Amps
			BO.1	BO.2	BO.5	BO.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-T600-500	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	34,500
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
CTWH3-600-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.

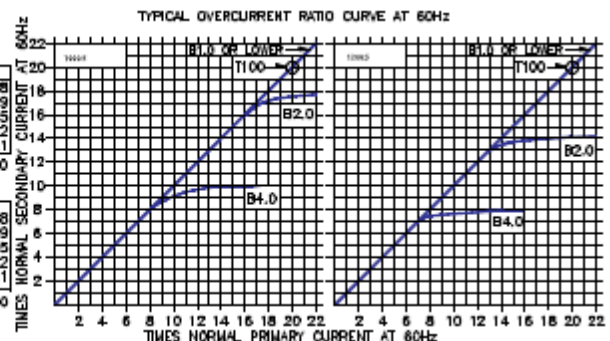
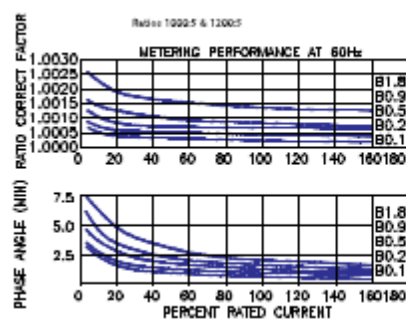
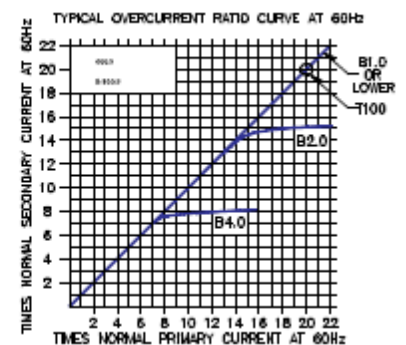
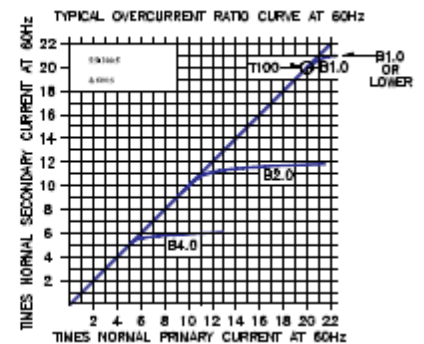
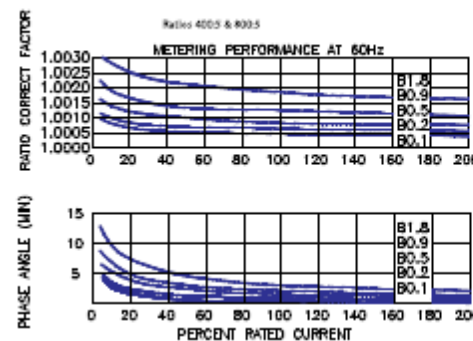
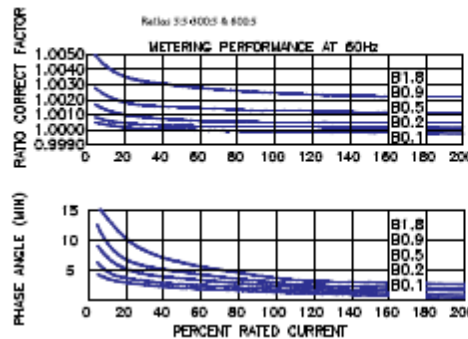


# Wound Primary Indoor Current Transformer

**Model CTWH3-60-T100**

## Bar Sizes

Primary Current	Dimensions	
	A	B
5 to 250 A	0.25	1.50
300 to 1,200 A	0.38	2.00

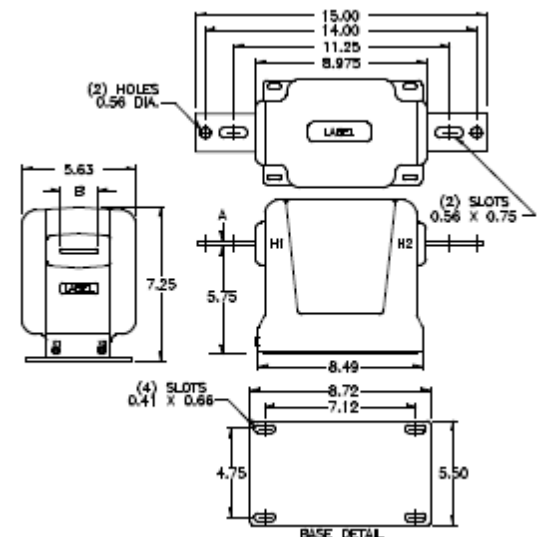
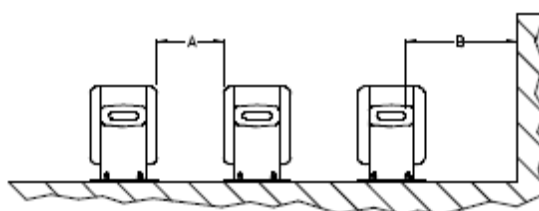


## RECOMMENDED MINIMUM SPACINGS

**A** = Unit to Unit = 0.75" minimum.

**B** = 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.



## Wound Primary Indoor Current Transformer

**Model CTWH4-75-T100**

rev 051223

### APPLICATION:

Relaying and metering

### FREQUENCY:

50-400 Hz.

### MAXIMUM SYSTEM VOLTAGE:

9.52 kV, BIL 75 kV

### APPROXIMATE WEIGHT:

42 lbs.

### CONTINUOUS THERMAL RATING FACTOR:

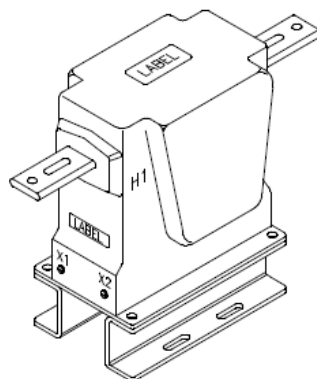
1.50 at 30°C., 1.33 at 55°C.

250:5 and 1000:5

1.10 at 30°C., 0.85 at 55°C.

1,000:5-

1.0 at 30°C., 0.75 at 55°C.



Primary terminals are plated copper bars. See chart next pages for sizes.

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

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

### MODEL CTWH4-75-T100

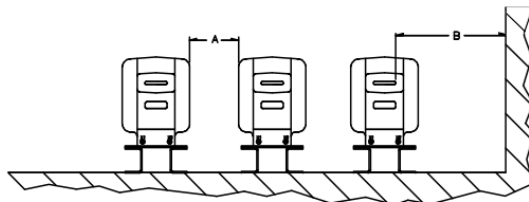
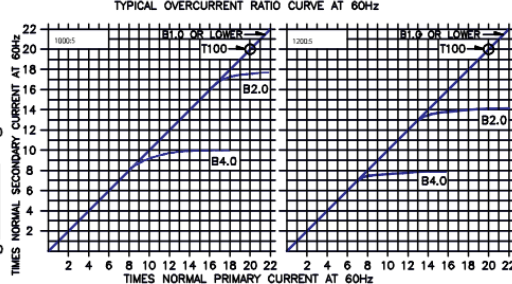
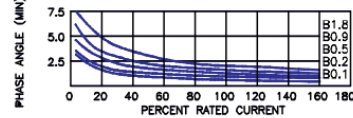
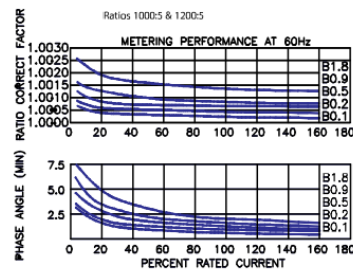
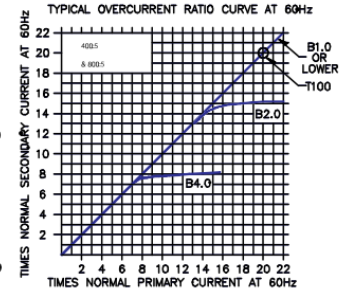
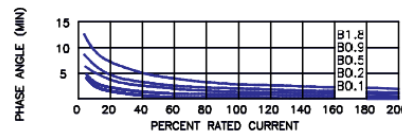
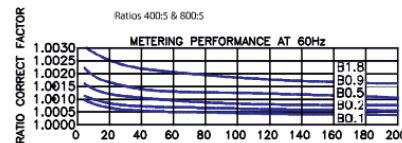
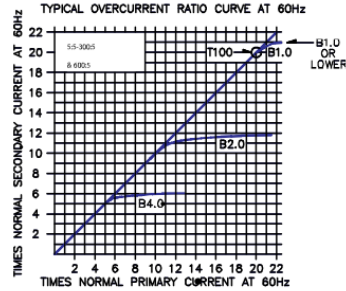
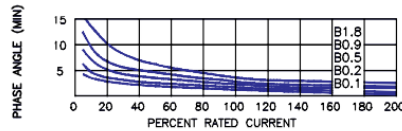
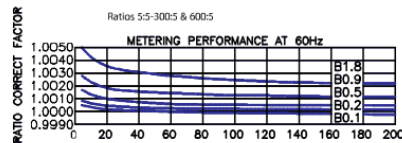
Approximate weight: 42 lbs.

Catalog Number	Current Ratio	Relay Class	ANSI Metering Class at 60 Hz					**Thermal current Rating 1 Second RMS Amps
			BO.1	BO.2	BO.5	BO.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.

# Wound Primary Indoor Current Transformer

**Model CTWH4-75-T100**



## RECOMMENDED MINIMUM SPACINGS

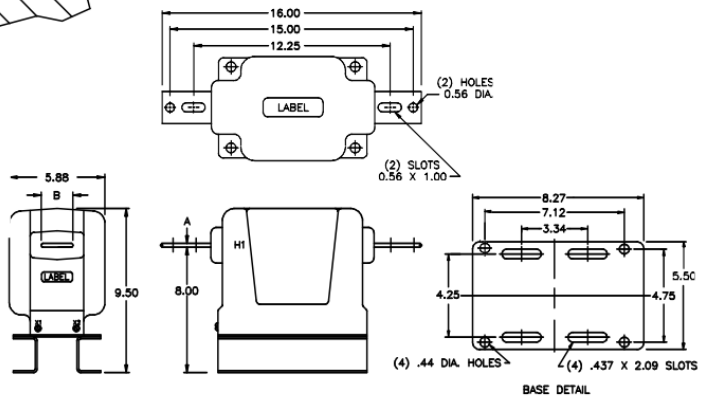
A = Unit to Unit = 1.00" minimum.

B = HV to Ground in Air = 4.50" 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 A	0.38	2.00



## Wound Primary Indoor Current Transformer

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

rev 051223

### CERTIFICATIONS:

#### **APPLICATION:**

Metering and relaying.

#### **FREQUENCY:**

50-400 Hz.

#### **MAXIMUM SYSTEM VOLTAGE:**

15.5 kV, BIL 110 kV

#### **APPROXIMATE WEIGHT:**

76 lbs.

#### **CONTINUOUS THERMAL RATING FACTOR:**

5:5 thru 600:5-

1.50 at 30°C., 1.33 at 55°C.

800:5 and over-

1.0 at 30°C., 0.8 at 55°C.



Primary terminals are plated copper bars. See chart next pages for sizes.

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

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

### **MODEL CTWH5-B-110-T200\*\***

Approximate weight: 76 lbs.

Catalog Number	Current Ratio	Relay Class	ANSI Metering Class at 60 Hz					**Thermal current Rating 1 Second RMS Amps
			BO.1	BO.2	BO.5	BO.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 approved 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.

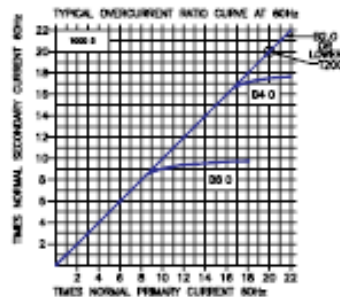
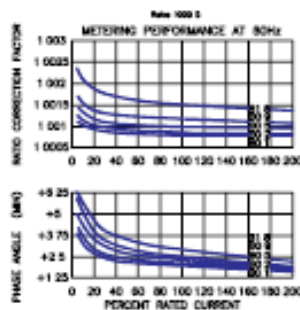
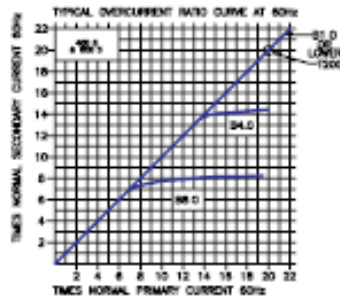
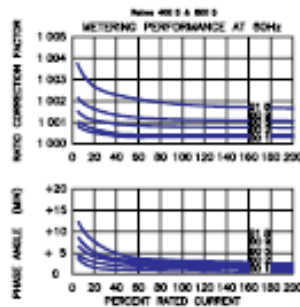
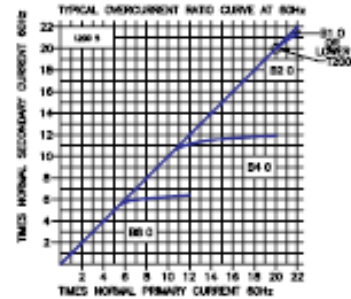
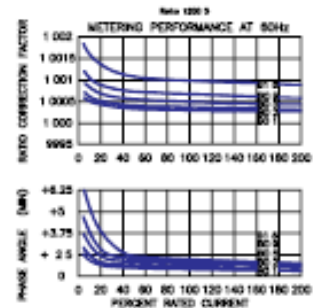
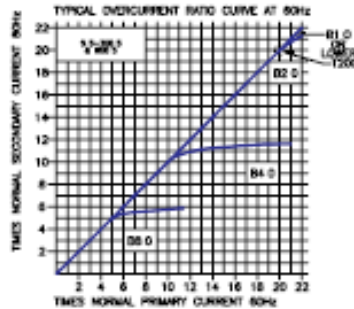
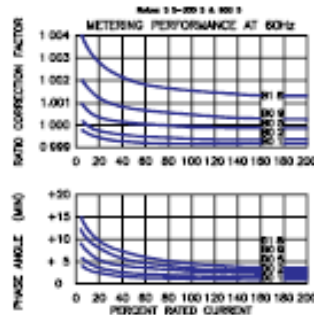
\*\*\*With a burden of B0.1 or greater connected to the secondary.

Products are manufactured in a plant whose quality management system has been certified to be in compliance with ISO 9001:2015 by NQA



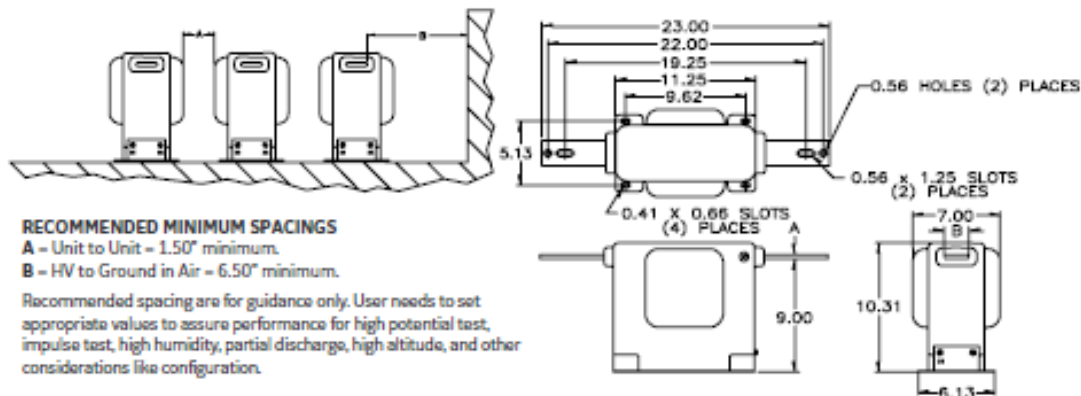
# Wound Primary Indoor Current Transformer

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



## Bar Sizes

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



# Wound Primary Indoor Current Transformer

**Model JKM-3C**

rev 051223

## CERTIFICATIONS:

### APPLICATION:

Designed for indoor service; Suitable for operating meters, instruments and control devices.

### FREQUENCY:

50-60 Hz.

### INSULATION LEVEL:

5 kV: BIL 60 kV full wave

### APPROXIMATE WEIGHT:

30 lbs.



ISO 9001

QUALITY  
MANAGEMENT

Current Ratio (Amps) Pri:Sec	ANSI Accuracy Class, 60 Hz			Continuous Thermal Current Rating Factor		Primary Bar Size		One Second Thermal Limit Amps	Mech. Limit Amps
	ANSI Meter Class Burden		Relay Class	@30°C Amb.	@55°C Amb.	Width ins.	Thick ins.		
	B0.1 to B0.5	B0.9 to 1.8							
Single Ratio									
5:5	0.3	0.3	T100	1.5	1.0	1.50	0.188	465	550
10:5	0.3	0.3	T100	1.5	1.0	1.50	0.188	930	1,100
15:5	0.3	0.3	T100	1.5	1.0	1.50	0.188	1,470	1,620
20:5	0.3	0.3	T100	1.5	1.0	1.50	0.188	1,850	2,200
25:5	0.3	0.3	T100	1.5	1.0	1.50	0.188	2,300	2,750
30:5	0.3	0.3	T100	1.5	1.0	1.50	0.188	2,450	3,300
40:5	0.3	0.3	T100	1.5	1.0	1.50	0.188	3,700	4,400
50:5	0.3	0.3	T100	1.5	1.0	1.50	0.188	4,600	5,500
75:5	0.3	0.3	T100	1.5	1.0	1.50	0.188	6,400	8,250
100:5	0.3	0.3	T100	1.5	1.0	1.50	0.188	8,600	11,000
150:5	0.3	0.3	T100	1.5	1.0	1.50	0.188	12,800	16,500
200:5	0.3	0.3	T100	1.5	1.0	2.00	0.25	17,300	22,000
300:5	0.3	0.3	T100	1.5	1.0	2.00	0.25	25,700	33,000
400:5	0.3	0.3	T100	1.5	1.0	2.00	0.25	36,000	44,000
500:5	0.3	0.3	T100	1.33	1.0	2.00	0.38	43,100	47,000
600:5	0.3	0.3	T100	1.5	1.0	2.00	0.38	51,500	66,000
800:5	0.3	0.3	T100	1.33	1.0	2.00	0.38	63,300	70,500
Tapped Secondary									
50/100:5	0.3	---	T50	2.0	1.5	1.50	0.188	4,300	11,000
	0.3	0.3	T100	1.5	1.0			8,600	
75/150:5	0.3	---	T50	2.0	1.5	1.50	0.188	6,400	16,500
	0.3	0.3	T100	1.5	1.0			12,800	
100/200:5	0.3	---	T50	2.0	1.5	2.00	0.25	8,650	22,000
	0.3	0.3	T100	1.5	1.0			17,300	
150/300:5	0.3	---	T50	2.0	1.5	2.00	.025	13,750	33,000
	0.3	0.3	T100	1.5	1.0			27,500	
200/400:5	0.3	---	T50	2.0	1.5	2.00	0.25	18,000	44,000
	0.3	0.3	T100	1.5	1.0			36,000	
300/600:5	0.3	---	T50	2.0	1.5	2.00	.038	25,750	66,000
	0.3	0.3	T100	1.5	1.0			51,500	
400/800:5	0.3	---	T50	2.0	1.5	2.00	0.38	31,650	70,500
	0.3	0.3	T100	1.33	1.0			63,300	

## Model JKM-3C



# Wound Primary Indoor Current Transformer

**Model JKM-5C**

## CERTIFICATIONS:

### APPLICATION:

Designed for indoor service; Suitable for operating meters, instruments and control devices.

### FREQUENCY:

50-60 Hz.

### INSULATION LEVEL:

15.5 kV; BIL 110 kV full wave

### APPROXIMATE WEIGHT:

53 lbs.



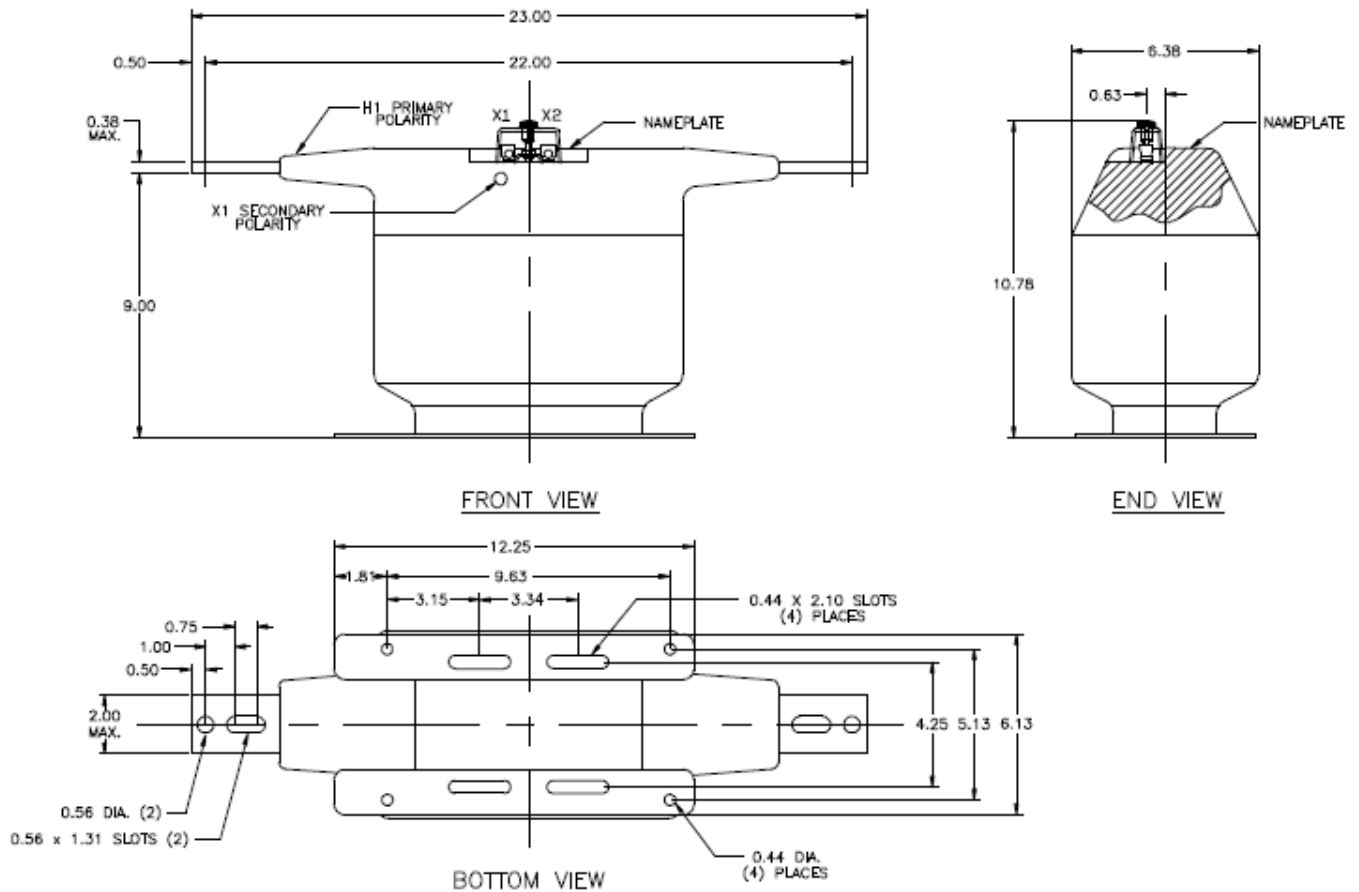
Current Ratio (Amps) Pri:Sec	ANSI Accuracy Class, 60 Hz		Continuous Thermal Current Rating Factor			Primary Bar Size		One Second Thermal Limit Amps	Mech. Limit Amps
	ANSI Meter Class Burden		Relay Class	@30°C Amb.	@55°C Amb.	Width ins.	Thick ins.		
	B0.1 to B0.5	B0.9 to 1.8							
Single Ratio									
5:5	0.3	0.3	T200	1.5	1.33	1.50	0.188	465	625
10:5	0.3	0.3	T200	1.5	1.33	1.50	0.188	930	1,250
15:5	0.3	0.3	T200	1.5	1.33	1.50	0.188	1,470	1,875
20:5	0.3	0.3	T200	1.5	1.33	1.50	0.188	1,850	2,500
25:5	0.3	0.3	T200	1.5	1.33	1.50	0.188	2,300	3,125
30:5	0.3	0.3	T200	1.5	1.33	1.50	0.188	2,460	3,750
40:5	0.3	0.3	T200	1.5	1.33	1.50	0.188	3,720	5,000
50:5	0.3	0.3	T200	1.5	1.33	1.50	0.188	4,600	6,250
75:5	0.3	0.3	T200	1.5	1.33	1.50	0.188	6,375	9,375
100:5	0.3	0.3	T200	1.5	1.33	1.50	0.188	8,600	12,500
150:5	0.3	0.3	T200	1.5	1.33	1.50	0.188	12,750	18,750
200:5	0.3	0.3	T200	1.5	1.33	2.00	0.25	17,200	25,000
300:5	0.3	0.3	T200	1.5	1.33	2.00	0.25	25,800	37,500
400:5	0.3	0.3	T200	1.5	1.33	2.00	0.25	36,000	50,000
500:5	0.3	0.3	T200	1.5	1.33	2.00	0.38	42,000	53,500
600:5	0.3	0.3	T200	1.5	1.33	2.00	0.38	51,600	75,000
800:5	0.3	0.3	T200	1.2	0.85	2.00	0.38	63,200	80,000
Tapped Secondary									
50/100:5	0.3	---	T100	2.0	1.5	1.50	0.188	4,300	12,500
	0.3	0.3	T200	1.5	1.0			8,600	
75/150:5	0.3	---	T100	2.0	1.5	1.50	0.188	6,375	18,750
	0.3	0.3	T200	1.5	1.0			12,750	
100/200:5	0.3	---	T100	2.0	1.5	2.00	0.25	8,600	25,000
	0.3	0.3	T200	1.5	1.0			17,200	
150/300:5	0.3	---	T100	2.0	1.5	2.00	0.25	12,900	37,500
	0.3	0.3	T200	1.5	1.0			25,800	
200/400:5	0.3	---	T100	2.0	1.5	2.00	.25	18,000	50,000
	0.3	0.3	T200	1.5	1.0			36,000	
300/600:5	0.3	---	T100	2.0	1.5	2.00	0.38	25,800	75,000
	0.3	0.3	T200	1.5	1.0			51,600	
400/800:5	0.3	---	T100	2.0	1.5	2.00	0.38	31,600	80,000
	0.3	0.3	T200	1.2	0.85			63,200	

Products are manufactured in a plant whose quality management system has been certified to be in compliance with ISO 9001:2015 by NQA



# Wound Primary Indoor Current Transformer

**Model JKM-5C**



## Construction and Insulation

The core and coil assembly is encapsulated in vacuum cast polyurethane resin. This tough material has excellent electrical and mechanical properties over a wide temperature range, has low water absorption and is resistant to oil and a variety of chemicals.

## Core and Coils

The core is made from high quality grain oriented silicon steel, annealed under rigidly controlled factory conditions. The primary winding consists of two coils in series, one around each leg of the core. This construction minimizes flux leakage thus improving the accuracy of the transformer. The secondary winding consists of two coils in parallel. Each coil is located inside the corresponding primary coil and surrounds one leg of the core.

## Terminals

Secondary terminals are tin plated brass, compression type with a 0.275" diameter cross-hole for wiring and a ¼ - 28 clamp screw. A shorting device is provided and interlocked to the terminal cover. The terminal cover is made of a clear plastic. Provision is made for sealing the cover.

## Primary Bars

The primary terminals are tin plated copper bars molded into the cast resin insulation. They have one hole and one slot at each end, suitable for ½" bolts.

## Polarity

The primary and secondary polarity markers H1, X1, are molded in the insulation. They are thus permanent and integral parts of the transformer and cannot be readily obliterated. They are also marked white.

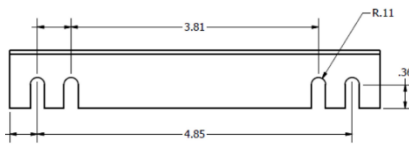
## Base plate and mounting

The base plate is made of stainless steel; it is provided with four slots for mounting. The transformer may be mounted in any orientation.

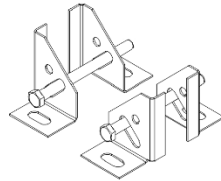
## Maintenance

These transformers require no maintenance, other than occasional cleaning, if installed where air contamination is severe.

**MODEL 8SHT-KIT**



**MODEL 115-KIT**





**TTL** Transformer  
Technologies Ltd.



## Current Transformer

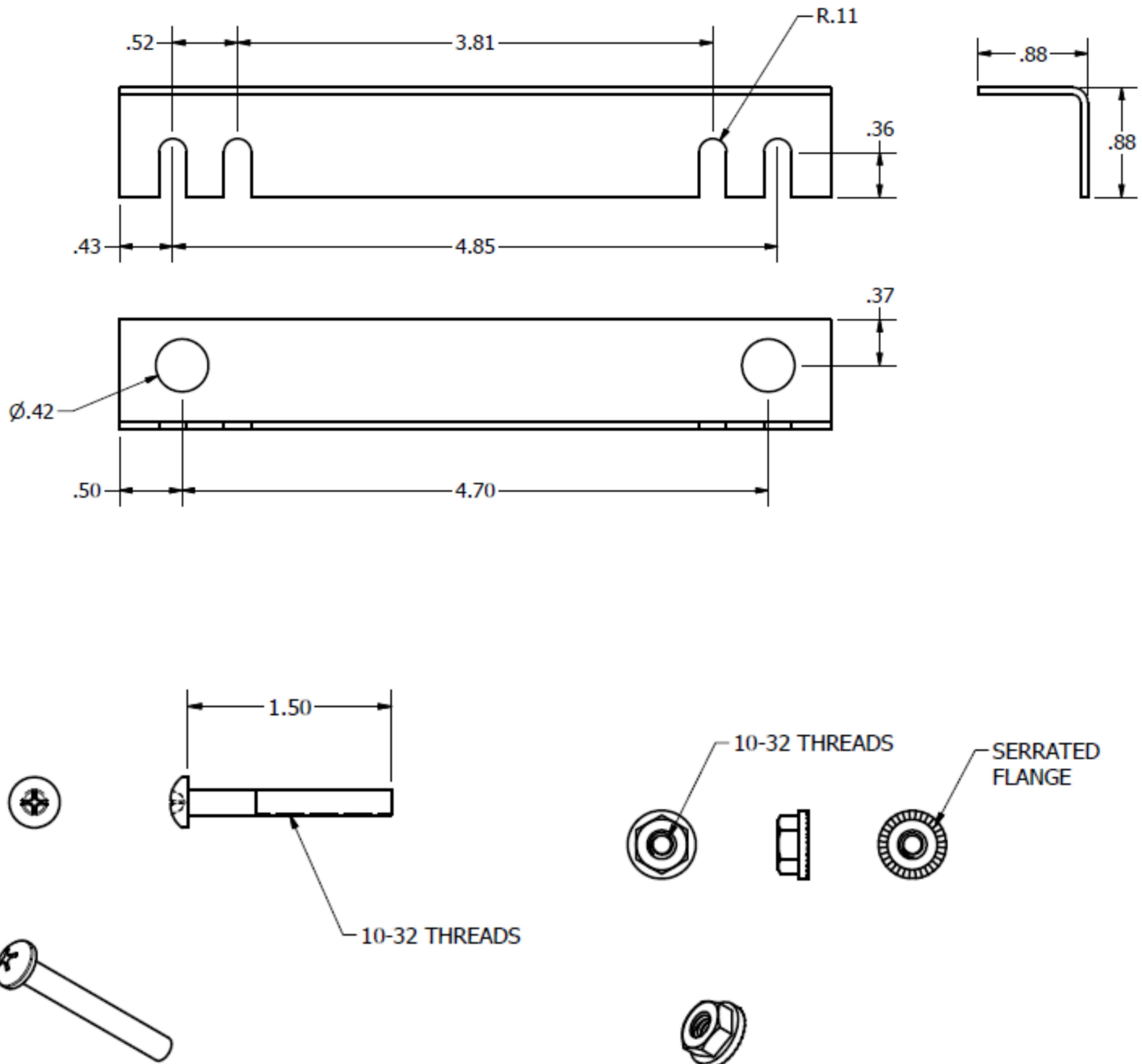
**Model 8SHT-KIT**

rev 020518

### APPLICATION:

Mounting kit for use with model 8SHT.

Each kit contains 2 brackets, 2 bolts and 2 nuts.





# TECHNICAL DATA

## STANDARDS

- I. Current Transformers
  - a. I.E.E.E. / A.N.S.I. Publication I.E.E.E. Std. C57.13-2008
  - b. I.E.C. Publication No. I.E.C. 61869-2
- II. Voltage Transformers
  - a. I.E.E.E. / A.N.S.I. Publication I.E.E.E. Std. C57-13-2008
  - b. I.E.C. Publication No. 61869-3

Standards listed are ones we most commonly use in the field. It should be understood that standards are not laws, but are suggested guidelines for users and manufacturers alike. The standards usually suggest test and testing procedures as well.

The following is based on U.S.A. standards (C57.13-2008) which is the standard of choice in the U.S.A.

I.E.C. (International Electro technical Commission) is the standard of choice of the international community.

## CURRENT TRANSFORMERS

Accuracy & Burden – Accuracy is defined for two different types of applications (metering and relaying).

The following table defines metering accuracy classes.

The limits of transformer correction factor in standard shall be as shown in Table 1.

**STANDARD ACCURACY CLASSES**  
**TABLE 1**

METERING ACCURACY CLASS	VOLTAGE TRANSFORMERS (at 100% rated voltage)		CURRENT TRANSFORMERS			
			RATIO CORRECTION FACTORS			
			*At 100% rated current		*At 100% rated current	
	Minimum	Maximum	Minimum	Maximum	Minimum	Maximum
0.3	0.997	1.003	0.997	1.003	0.994	1.006
0.6	0.994	1.006	0.994	1.006	0.988	1.012
1.2	0.998	1.012	0.988	1.012	0.976	1.024

\*For current transformers the 100% rated current limit also applies to the current corresponding to the continuous thermal current rating factor.

Accuracy statement (0.3, 0.6, 1.2) is not complete unless it is stated at a given burden. Table 2 defines the standard burdens for metering and relaying as well.



## TECHNICAL DATA

**STANDARD BURDENS FOR CURRENT TRANSFORMERS WITH 5 SECONDARY WINDINGS**  
**TABLE 2**

BURDENS	BURDEN DESIGNATION**	RESISTANCE (Ω)	INDUCTANCE (mH)	IMPEDANCE (Ω)	VOLTAMPERES (at 5 A)	POWER FACTOR
Metering Burdens	B-0.1	0.09	0.116	0.1	2.5	0.9
	B-0.2	0.18	0.232	0.2	5.0	0.9
	B-.05	0.45	0.580	0.5	12.5	0.9
	B-0.9	0.81	1.040	0.9	22.5	0.9
	B-1.8	1.62	2.080	1.8	45.0	0.9
Relaying Burdens	B-1	0.50	2.300	1.0	25.0	0.5
	B-2	1.00	4.600	2.0	50.0	0.5
	B-4	2.00	9.200	4.0	100.0	0.5
	B-8	4.00	18.400	8.0	200.0	0.5

\*If a current transformer secondary winding is rated at other than 5 A, ohmic burdens for specification and rating shall be derived by multiplying the resistance and inductance of the table  $[5 / (\text{ampere rating})]^2$ , the VA at rated current, the power factor, and the burden designation remaining the same.

\*\*These standard burden designations have no significance at frequencies other than 60 Hz.

There is another factor which must be considered, that is, phase error. Table 3 gives the maximum acceptable phase error associated with the standard accuracy classes.

**TABLE 3**

ACCURACY CLASSES	± PHASE ERROR AT 100% PRIMARY CURRENT	± PHASE ERROR AT 10% PRIMARY CURRENT
0.3	15.6 MINUTES	31.2 MINUTES
0.6	31.2 MINUTES	62.4 MINUTES
1.2	62.4 MINUTES	24.8 MINUTES

If you have a metering accuracy statement of "0.3 BO.5", it indicates the following:

(0.3) maximum ratio error of 0.3% at 100% of rated primary current or  $\pm 0.6\%$  ratio error at 10% of rated primary current. With a maximum phase error of  $\pm 15.6$  minutes at 100% rated primary current or  $\pm 31.2$  minutes maximum phase error at 10% of rated primary current. All of the above is based on a burden of (BO.5) 0.5 OHMS at power factor of 0.9.

## TECHNICAL DATA

### CURRENT TRANSFORMERS RELAYING ACCURACY

All relaying accuracies are  $\pm 10\%$  maximum ratio error when there is 20 times current flowing in the CT secondary ( $20 \times 5A=100A$ ). There are two designations which are “C” and “T”.

Designation “C” stands for “Calculate”. This type of CT’s performance can be very accurately calculated. The “T” designation stands for “Test”. This type of CT’s performance must be verified by testing. Table 4 gives the relaying accuracy designations:

**TABLE 4**

DESIGNATION	BURDEN	POWER FACTOR	SECONDARY VOLTAGE
C 10 or T10	0.1 $\Omega$	0.5	10V
C 20 or T20	0.2 $\Omega$	0.5	20V
C 50 or T50	0.5 $\Omega$	0.5	50V
C 100 or T100	1.0 $\Omega$	0.5	100V
C 200 or T200	2.0 $\Omega$	0.5	200V
C 400 or T400	4.0 $\Omega$	0.5	400V
C 800 or T800	8.0 $\Omega$	0.5	800V

### VOLTAGE TRANSFORMERS

Voltage transformers have the same accuracy classes as indicated in Table 1 (i.e. 0.3, 0.6 & 1.2). These accuracy classes must be given at a stated burden in order to be meaningful. Table 5 gives the standard burden data:

**VOLTAGE TRANSFORMER BURDEN DATA**  
**TABLE 5**

BURDEN	VOLT AMPERES	POWER FACTOR	P.F. ANGLE
W	12.5	0.10	84.3°
X	25	0.70	45.6°
M	35	0.20	78.5°
Y	75	0.85	31.8°
Z	200	0.85	31.8°
ZZ	400	0.85	31.8°

If you have a “0.6Y” accuracy and burden statement, it indicates the following:

This means: (0.6) maximum ratio error of + 0.6% at a burden of 75VA with a power factor of 0.85.

## TECHNICAL DATA

### CURRENT TRANSFORMERS RATIO MODIFICATION

Relatively large changes in ratio may be achieved through the use of primary turns. For example:

**TABLE 6**

CT RATIO	NUMBER OF PRIMARY TURNS	MODIFIED RATIO
100:5A	2	50:5A
200:5A	2	100:5A
300:5A	2	150:5A
100:5A	3	33.3:5A
200:5A	3	66.6:5A
300:5A	3	100:5A
100:5A	4	25:5A
200:5A	4	50:5A
300:5A	4	75:5A

A primary turn is the number of times the primary conductor passes through the CT's window. The main advantage of this ratio modification is maintaining the accuracy and burden capabilities of the higher ratio. The higher the primary rating the better the accuracy and burden rating.

Smaller ratio modification adjustments can be made by using additive or subtractive secondary turns. For example, if a CT with a ratio of 100:5A: By adding one additive secondary turn, the ratio modification is 105:5A; by adding on subtractive secondary turn, the ratio modification is 95:5A. Subtractive secondary turns are achieved by placing the "X1" lead through the window from the H1 side and out the H2 side. Additive secondary turns are achieved by placing the "X1" lead through the window from the H2 and out of the H1 side. So, when there is only one primary turn, each secondary turn modifies the primary rating by 5 amperes. If there is more than one primary turn, each secondary turn value is changes (i.e. 5A divided by 2 primary turns = 2.5A). Table 7 illustrates the effects of different combinations of primary and secondary turns:

**TABLE 7**

PRIMARY TURNS	SECONDARY TURNS	RATIO ADJUSTMENT
1	-0-	100:5A
1	1+	105:5A
1	1-	95:5A
2	-0-	50:5
2	1+	52.5:5A
2	2-	45.0:5A
3	-0-	33.3:5A
3	1+	34.97:5A
3	1-	31.63:5A

The use of primary/secondary turns makes it is possible to modify any CT ratio, since low ratio CT's generally have poorer performances characteristics and high ratio CT's have

## TECHNICAL DATA

better performance. By using added primary/secondary turns, you can modify a higher ratio CT to have a lower ratio and enjoy the better performance of the higher ratio.

**\*Use Table 8 to determine size window needed for number and primary conductor(s)**

**TABLE 8**

WINDOW DIAMETER		1/2"	3/4"	1"	1 1/2"	2"	1 1/2"	3"	3 1/2"	4"	5"	6"
INSULATION TYPE RHW	AWG MCM											
	14	3	6	10	25	41	58	90	121	155	-	-
	12	3	5	9	21	35	50	77	103	132	-	-
	10	2	4	7	18	29	41	64	86	110	-	-
	8	1	2	4	9	16	22	35	47	60	94	137
	6	1	1	2	6	11	15	24	32	41	64	93
	4	1	1	1	5	8	12	18	24	31	50	72
	3	1	1	1	4	7	10	16	22	38	44	63
	2	-	1	1	4	6	9	14	19	24	38	56
	1	-	1	1	3	5	7	11	14	18	29	42
	0	-	1	1	2	4	6	9	12	16	25	47
	00	-	-	1	1	3	5	8	11	14	22	32
	000	-	-	1	1	3	4	7	9	12	19	28
	0000	-	-	1	1	2	4	6	8	10	16	24
	250	-	-	-	1	1	3	5	6	8	13	19
	300	-	-	-	1	1	3	4	5	7	11	17
	350	-	-	-	1	1	2	4	5	6	10	15
	400	-	-	-	1	1	1	3	4	6	9	14
	500	-	-	-	1	1	1	3	4	5	8	11
	600	-	-	-	1	1	1	2	3	4	6	9
	700	-	-	-	1	1	1	1	3	3	6	8
	750	-	-	-	1	1	1	1	3	3	5	8

Burden is the opposition to the flow of current from the transformers secondary. Burden may be expressed in terms of resistance of volt-amperes. The following table may be used to convert volt-ampere values to resistance values for 5 amp secondary CT's:

## TECHNICAL DATA

### BURDEN

TABLE 9

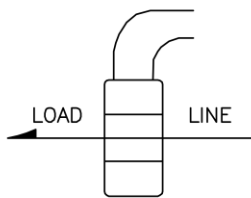
VOLTAMPERE (VA)	RESISTANCE (OHMS) $\Omega$
0.5	0.02
1.0	0.04
1.5	0.06
2.0	0.08
2.5	0.10
3.0	0.12
3.5	0.14
4.0	0.16
4.5	0.18
5.0	0.20
5.5	0.22
6.0	0.24
6.5	0.26
7.0	0.28
7.5	0.30
8.0	0.32
8.5	0.34
9.0	0.36
9.5	0.38
10.0	0.40
12.5	0.50
15.0	0.60
20.0	0.80
25.0	1.00
45.0	1.80
50.0	2.00
75.0	3.00
100.0	4.00



# APPLICATION GUIDE

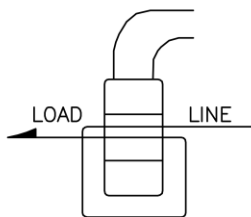
## Primary Turn Ratio Modification

The nameplate of the current transformer is based on the condition that the primary conductor will be passed once through the transformer opening. The rating can be reduced in even multiples by looping this conductor two or more times through the opening. A transformer having a rating of 200 to 5 amperes will be changed to 50 to 5 amperes if four loops or turns are made with the primary cable as illustrated.



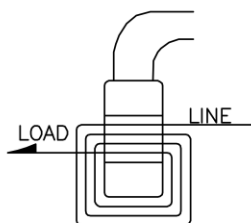
### 1 Primary Turn

NAMEPLATE RATIO	ACTUAL RATIO
100:5	100:5
150:5	150:5
200:5	200:5
300:5	300:5
400:5	400:5
500:5	500:5
600:5	600:5
800:5	800:5



### 2 Primary Turns

NAMEPLATE RATIO	ACTUAL RATIO
100:5	50:5
150:5	75:5
200:5	100:5
300:5	150:5
400:5	200:5
500:5	250:5
600:5	300:5
800:5	400:5



### 4 Primary Turns

NAMEPLATE RATIO	ACTUAL RATIO
100:5	25:5
150:5	37.5:5
200:5	50:5
300:5	75:5
400:5	100:5
500:5	125:5
600:5	150:5
800:5	200:5

## Secondary Turn Ratio Modification

Formula:  $\frac{I_p}{I_s} = \frac{N_s}{N_p}$

Where:   
 $I_p$  – Primary Amperage   
 $I_s$  – Secondary Amperage   
 $N_p$  – Number of Primary Turns   
 $N_s$  – Number of Secondary Turns

Example: A 300:5 Current Transformer –

$$\frac{300 p}{5 s} = \frac{60 s}{1 p}$$

(In practicality one turn is dropped from the secondary as a ratio correction factor).

The ratio of the current transformer can be modified by altering the number of secondary turns by forward or backwinding the secondary lead through the window of the current transformer.

By adding secondary turns the same primary amperage will result in a decrease in secondary output. By subtracting secondary turns the same primary amperage will result in greater secondary output.

Again, using the 300:5 example adding five secondary turns will require 325 amps on the primary to maintain the 5 amp secondary output or:

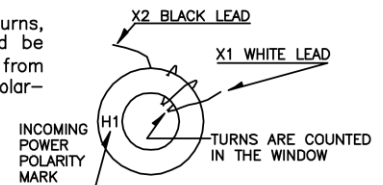
$$\frac{325 p}{5 s} = \frac{65 s}{1 p}$$

Deducting 5 secondary turns will only require 275 amps on the primary to maintain the 5 amp secondary output or:

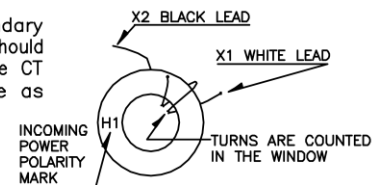
$$\frac{275 p}{5 s} = \frac{55 s}{1 p}$$

The above ratio modifications are achieved in the following manner:

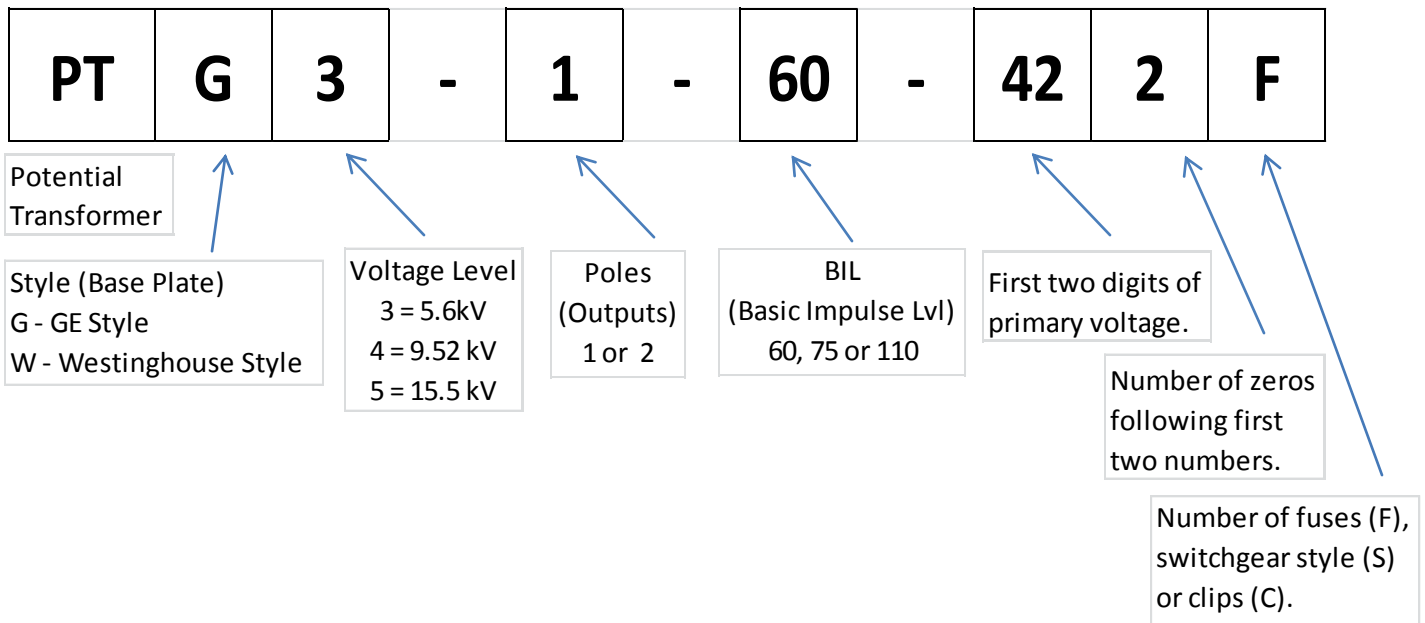
To add secondary turns, the white lead should be wound through the CT from the side opposite the polarity mark.



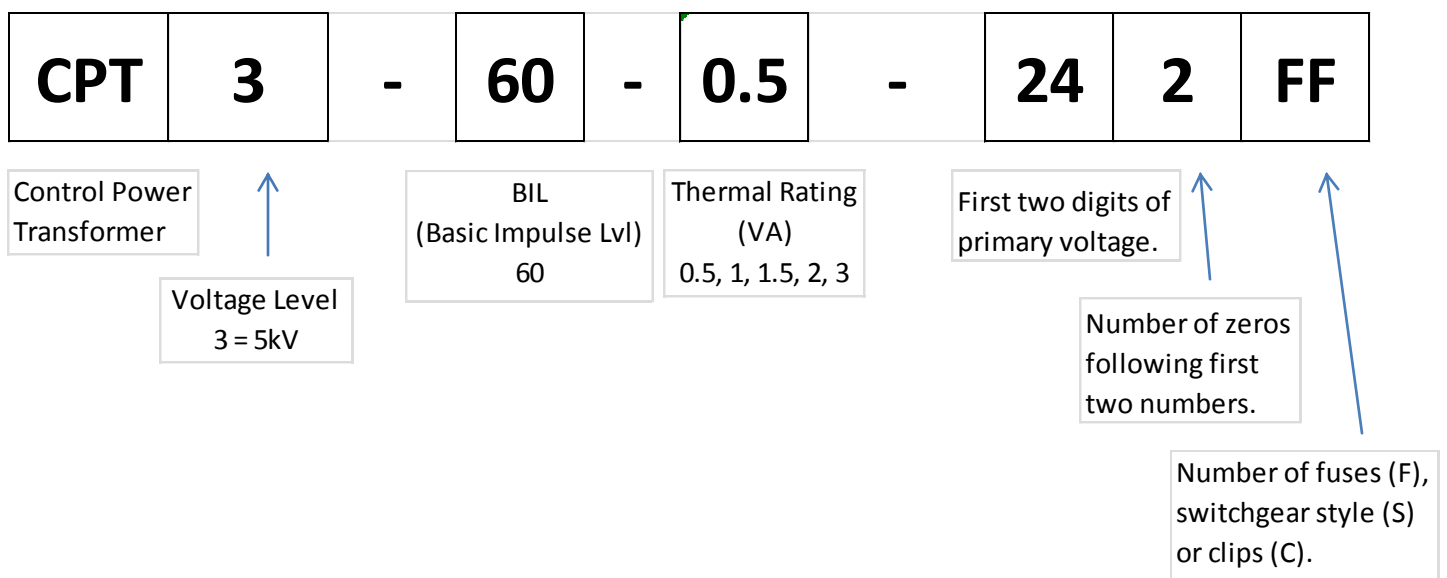
To subtract secondary turns the white lead should be wound through the CT from the same side as the polarity mark.



# Medium Voltage PT Part Number



# Control Power Transformer Part Number



# Current Transformer Part Number

<b>2</b>	<b>RL</b>	<b>-</b>	<b>10</b>	<b>2</b>	<b>-</b>	<b>1</b>	<b>-</b>	<b>LL</b>	<b>48</b>
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Model

## Frame Type

RL = Round with Leads  
SHT = Square with Holes and Terminals  
SFT = Square with Feet and Terminals  
DRL = Double Core Round with Leads  
RT = Round with Terminals

First two  
digits of  
primary  
current.

Number  
of zeros  
following  
first two  
numbers.

Secondary  
if other  
than 5A

Lead length if  
longer than 24".  
Also for twisted  
leads (TL).

Customized  
lead length.

# Low Voltage VT Part Number

<b>450</b>	<b>I</b>	<b>-</b>	<b>480</b>	<b>FF</b>
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Model

Use 'I' if IEC class (50 Hz,  
110V Secondary

Primary Voltage Rating

Number of fuses  
(if appropriate)



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