



**CABINET - INSTRUMENT  
TRANSFORMER**  
Indoor - Outdoor, 480 Volt Maximum  
1200, 1600, 2000 Ampere

01-01-18  
**ER 3-140-I**  
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- USE:**
1. For commercial and industrial installation, purchased and installed by the customer.
  2. To enclose 600 volt insulation class instrument transformers on indoor or outdoor meter installations.
  3. For installing 2 or 3 each of current and voltage transformers.
  4. For use on the following services: 120/240 volt 1 phase 3 wire, 240 volt 3 phase 3 wire, 120/208 volt 3 phase 4 wire, 480 volt 3 phase 3 wire, 277/480 volt 3 phase 4 wire, 2,000 ampere maximum.

<b>PREVIOUS REVISION</b> 04-01-17	<b>ORIGINATED</b> 03-94	<b>PREVIOUS NUMBER</b> E 15-460-C, 03-29-90
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**LATEST REVISION:** Added Milbank underground entrance C.T. Cabinets (which are now UL approved), and updated Milbank catalog numbers on overhead entrance C.T. Cabinets.

**SPECIFICATION:**

**1. GENERAL:**

- 1.1 All current carrying parts should be designed on the basis of 1,000 amperes per square inch cross sectional area for copper and 700 amperes per square inch cross sectional area for aluminum.
- 1.2 Spacing between opposite polarity live parts and between live parts and ground mounted on the same surface, shall be a minimum of 2 inches and 1 inch, respectively, in accordance with the National Electric Code, latest revision, 408.56.
- 1.3 The cabinet shall have a hinged door with a sealing device so constructed that one padlock seal will effectively prevent opening the door. The cabinet shall be a minimum of 36" wide and high enough to provide adequate space for line and load side conductors.
- 1.4 Mounting provisions for voltage transformers used in 480 volt or 277/480 volt circuits are to be as follows:
  - 1.4.1 Mounting provisions are to be located inside the instrument transformer cabinet in such a manner that adequate space is available for current transformers and service conductors.
  - 1.4.2 An attached sealable side gutter (mounted on the right side of the cabinet) is to be used in lieu of mounting the voltage transformers inside the instrument cabinet when space limitations are a factor. Space limitations exist on services in which the total numbers of line and load conductors exceed 24 or when larger conductors such as 500 MCM copper or 750 MCM aluminum are used.
- 1.5 Cabinets shall be marked by the manufacturer with the voltage, current rating, and number of phases for which they are designed and with the manufacturer's name or trademark so as to be visible after installation, without disturbing interior parts or wiring, in accordance with National Electric Code, 408.58, latest revision.

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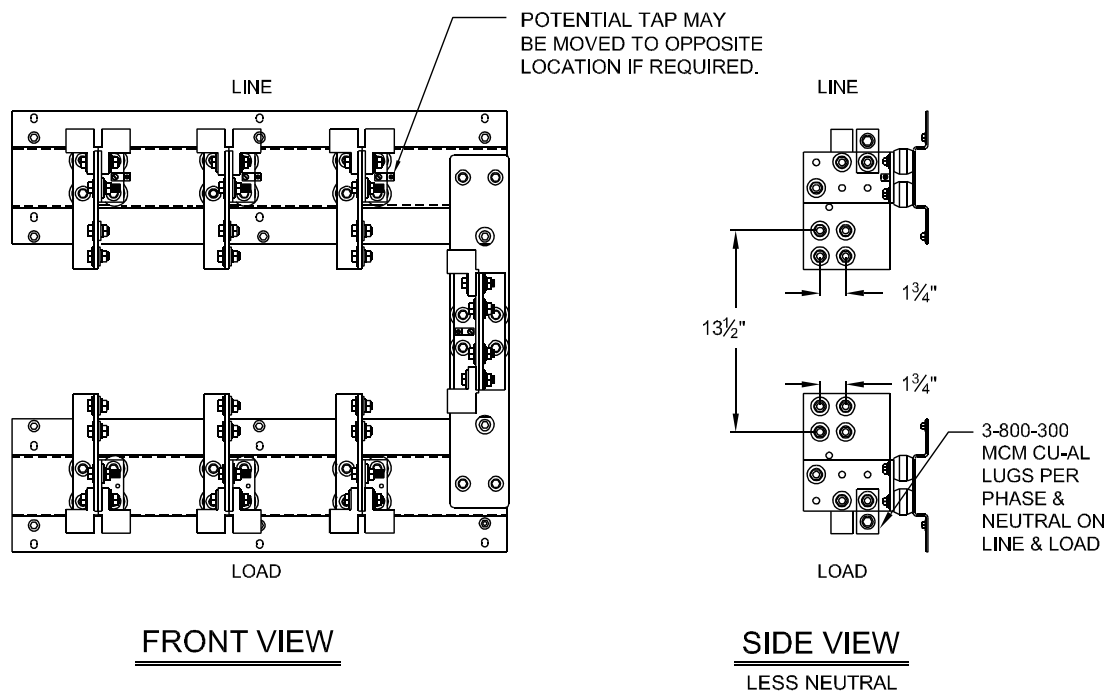


## 1.6 Voltage Transformer Gutter

- 1.6.1 The gutter shall be made of the same material and have the same thickness as the main cabinet.
- 1.6.2 The cover of the gutter shall be adequately secured by screws and shall be sealable.
- 1.6.3 Conduit connections are not to be made on this gutter assembly.

## 2. SPECIFICATIONS FOR INDOOR / OUTDOOR CABINET:

- 2.1 NIPSCO shall provide the bar type current transformers for the cabinet.
- 2.2 Connections shall be as follows: Line Connections shall be made on the top connection plate, and Load Connections shall be made on the bottom connection plate.
- 2.3 Underground service installations require a side wiring gutter and shall be mounted to the left side of the cabinet.



CT CABINET INTERIOR WITH NEUTRAL BAR INSTALLED SHOWN



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**3. ADDITIONAL REQUIREMENTS FOR OUTDOOR CABINETS:**

- 3.1 All hardware shall be rust resistant.
- 3.2 The door or front cover shall be made rain-tight and top shall be protected with a rain shield.
- 3.3 Rain tight screened vent kit shall be located in the upper side of the cabinet.
- 3.4 All conduit shall enter the cabinet through the sides or bottom; or, through the rain tight hub on the top.

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**4. APPROVED MANUFACTURERS FOR INDOOR / OUTDOOR CABINET:**

- 4.1 120/240 Volt, 1 Phase, 3 Wire:  
 Two (2) Current Transformers Required.

Approved Manufacturer	Size	Installation	
		Overhead	Underground
Erickson Electrical Equip. Co.* 475 Bonnie Ln. Elk Grove Village, Illinois	1200 AMP	CT 121-NI	CT 121-NI-SG
	1600 AMP	CT 161-NI	CT 161-NI-SG
	2000 AMP	CT 201-NI	CT 201-NI-SG
Milbank Manufacturing Co. 4801 Deramus Kansas City, Missouri 64141	1200 AMP	NIPM-1213	NIPM-1213UGBX
	1600 AMP	NIPM-1613	NIPM-1613UGBX
	2000 AMP	NIPM-2013	NIPM-2013UGBX

\* - Vent kit must be installed for outdoor installations.

- 4.2 240 Volt, 3 Phase, 3 Wire:  
 4.2.1 Omit neutral connection plate.  
 4.2.2 Two (2) current transformers required-provide copper link for B phase.  
 4.2.3 Two (2) voltage transformers required only for phase shifting transformers when reactive metering is required.

Approved Manufacturer	Size	Installation	
		Overhead	Underground
Erickson Electrical Equip. Co.* 475 Bonnie Ln. Elk Grove Village, Illinois	1200 AMP	CT 123-NI	CT 123-NI-SG
	1600 AMP	CT 163-NI	CT 163-NI-SG
	2000 AMP	CT 203-NI	CT 203-NI-SG
Milbank Manufacturing Co. 4801 Deramus Kansas City, Missouri 64141	1200 AMP	NIPM-1233	NIPM-1233UGBX
	1600 AMP	NIPM-1633	NIPM-1633UGBX
	2000 AMP	NIPM-2033	NIPM-2033UGBX

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- 4.3 120/208, 3 Phase, 4 Wire:  
Three (3) current transformers required.

Approved Manufacturer	Size	Installation	
		Overhead	Underground
Erickson Electrical Equip. Co.* 475 Bonnie Ln. Elk Grove Village, Illinois	1200 AMP	CT 124-NI	CT 124-NI-SG
	1600 AMP	CT 164-NI	CT 164-NI-SG
	2000 AMP	CT 204-NI	CT 204-NI-SG
Milbank Manufacturing Co. 4801 Deramus Kansas City, Missouri 64141	1200 AMP	NIPM-1234	NIPM-1234UGBX
	1600 AMP	NIPM-1634	NIPM-1634UGBX
	2000 AMP	NIPM-2034	NIPM-2034UGBX

\* - Vent kit must be installed for outdoor installations.

- 4.4 480 Volt, 3 Phase, 3 Wire:
- 4.4.1 Omit neutral connection plate.
  - 4.4.2 Two (2) current transformers required-provided copper link for B phase.
  - 4.4.3 Two (2) voltage transformers required-mounting provisions to be located inside the instrument transformer cabinet in such a manner that adequate space is available for current transformers and service conductors. An attached sealable side gutter is to be provided with the instrument transformer cabinet for the mounting of the voltage transformers if space limitations do not allow mounting PT's inside the instrument transformer cabinet.

Approved Manufacturer	Size	Installation	
		Overhead	Underground
Erickson Electrical Equip. Co.* 475 Bonnie Ln. Elk Grove Village, Illinois	1200 AMP	CT 123-PT-NI	CT 123-PT-NI-SG
	1600 AMP	CT 163-PT-NI	CT 163-PT-NI-SG
	2000 AMP	CT 203-PT-NI	CT 203-PT-NI-SG
Milbank Manufacturing Co. 4801 Deramus Kansas City, Missouri 64141	1200 AMP	NIPM-1263	NIPM-1263UGBX
	1600 AMP	NIPM-1663	NIPM-1663UGBX
	2000 AMP	NIPM-2063	NIPM-2063UGBX

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- 4.5 277/480 Volt, 3 Phase, 4 Wire:
  - 4.5.1 Three (3) current transformers required.
  - 4.5.2 Three (3) voltage transformers required-mounting provisions to be located inside the instrument transformer cabinet in such a manner that adequate space is available for current transformers and service conductors. An attached sealable side gutter is to be provided with the instrument transformer cabinet for the mounting of voltage transformers if space limitations do not allow mounting the PT's inside the instrument transformer cabinet.

Approved Manufacturer	Size	Installation	
		Overhead	Underground
Erickson Electrical Equip. Co.* 475 Bonnie Ln. Elk Grove Village, Illinois	1200 AMP	CT 124-PT-NI	CT 124-PT-NI-SG
	1600 AMP	CT 164-PT-NI	CT 164-PT-NI-SG
	2000 AMP	CT 204-PT-NI	CT 204-PT-NI-SG
Milbank Manufacturing Co. 4801 Deramus Kansas City, Missouri 64141	1200 AMP	NIPM-1264	NIPM-1264UGBX
	1600 AMP	NIPM-1664	NIPM-1664UGBX
	2000 AMP	NIPM-2064	NIPM-2064UGBX

\* - Vent kit must be installed for outdoor installations.