



CT Metering Requirements

Single phase services 400 – 800 Amps
Three phase services 400 - 3500 Amps*

All services require a Current Transformer (CT) meter if service is greater than 320 Amps, this is dictated from the Load Data Sheet submitted. It is the member's responsibility to provide equipment and conductor from the point of service to the meter. The point of service is based on transformer location.

Use the following chart to determine where the point of service is for your project:

<u>If the transformer is:</u>	<u>The point of service is:</u>
Pad-mounted	The secondary connector blocks
Overhead with overhead secondary conductor to a building	The secondary bushings on the side of the transformer
Overhead with underground secondary conductor to a meter rack or a meter on a building	The secondary connector points in a new or existing secondary junction box at the base of the pole

Required Equipment

It is the member's responsibility to provide the following:

1. Secondary service conductor in conduit with 20 ft of tails from the point of service to the CTs.
2. A hinged CT cabinet:
 - Single Run Minimum Size: 24"x24"x12" for single run
 - Parallel Runs Minimum Size: 24"x30"x12" for parallel runs

****Please** upsize the cabinet if you are using larger conductors and if using multiple runs of conductor. Make sure it can all be accommodated without too tight of a fit. If in doubt 'bigger might be better'.
3. A CT cabinet with metering equipment mounted on the building or on a meter rack, no more than 15 ft from the meter socket.

LPEA will provide the CTs, CT meter socket, CT meter and make all connections from CTs to meter. Note for a single-phase installation, there will be 2 CT and a 3WCL20 4S meter. For a three-phase installation, there will be 3 CTs and a 4WCL20 9S meter set.

CT Meter Installation Check List

1. Once the work order has moved into Construction, please contact the LPEA Meter Shop to schedule to pick up the CTs and meter socket.

Send an email to metershop@lpea.coop with the following information:
Work order number, service address, amperage size of service, electrician's name/phone number.

*If greater than 3500A please contact metershop@lpea.coop

Please allow 1 week – 2 weeks to pick up CTs and meter socket.

2. Contact the appropriate LPEA Line Superintendent to get on the schedule.

Durango: Toby Allred (970) 382-3583

Pagosa Springs: Garrett Hammer (970) 946-9434

3. Build the metering location. Please see **Drawing TR-40, page 3**. Install the CT can, CT's and socket in a rack or on the building utilizing the following criteria:

- The hinged CT cabinet shall meet a minimum of NEMA 3R standards, will be NRTL listed and labeled as a CT enclosure (UL and/or third party certification). In addition, it shall:
 - Be furnished with factory installed landing pads and lugs for phase and neutral conductors.
 - Have a neutral lug for the neutral bus which will accommodate one #12 AWG solid through two #10 AWG stranded wire(s) for the metering neutral conductors.
 - Have barriers between adjacent compartment areas.
 - Be equipped with a hasp for a Company padlock with a 5/16" diameter shackle.
- Approved and recommended CT cabinets may be viewed at:
<https://ampmfg.com/products/current-transformer-cabinets/xcel-energy-except-xcel-energy-wi-mi>
- The CTs shall be installed in such a manner that:
 - The secondary metering terminals are readily accessible from the door of the CT compartment.
 - The installation height of the CTs shall be between two (2) feet minimum and six (6) feet maximum measured from the center of the CTs to final grade.
 - The minimum clearance from the bottom of a wall-mounted CT cabinet to final grade shall be one (1) foot.
- The CTs shall be mounted such that the H1 "white dot" marking for polarity is on the line side. As the saying goes "Dot to the pot".
- 400A – 800A services will have bar-type CTs provided by LPEA. If the CT cabinet includes bars, these shall not be greater width than 3".
- 801A – 3500A CT cabinets shall have a removable bus section with a twelve (12) inch minimum length, four (4) inch maximum width, and an insulated CT support which will accommodate window-type CTs. The removable bus section shall have an enclosed screw type compression terminal to accommodate a minimum #12 AWG metering potential conductor on the line-side section of the bus.
- The line-side and load-side conductors shall be terminated in the CT cabinet.
- Additional customer-owned equipment is **not** permitted inside the CT cabinet.

4. Contact LPEA Engineering at (970) 382-3555 to schedule a meterman to wire the service.

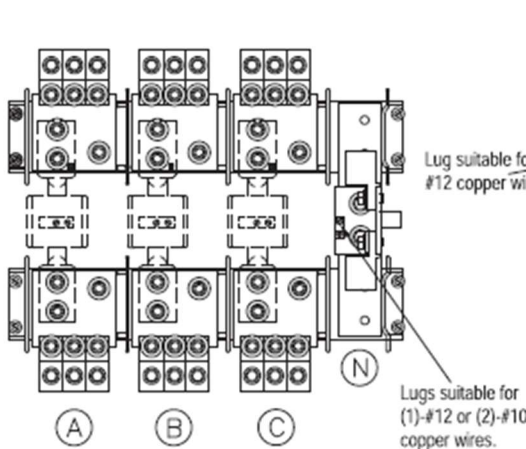
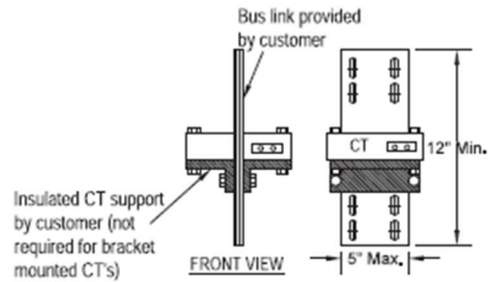
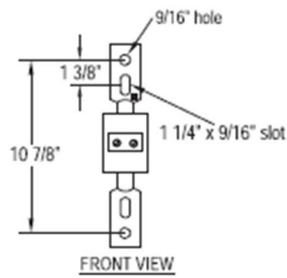
5. Following approval by the State Electrical Inspector, contact LPEA Engineering at (970) 382-3555 with the permit release number to request a CT meter set. The meter will only be set and the service energized after the electrical inspection is passed. This process can take up to 3 business days.



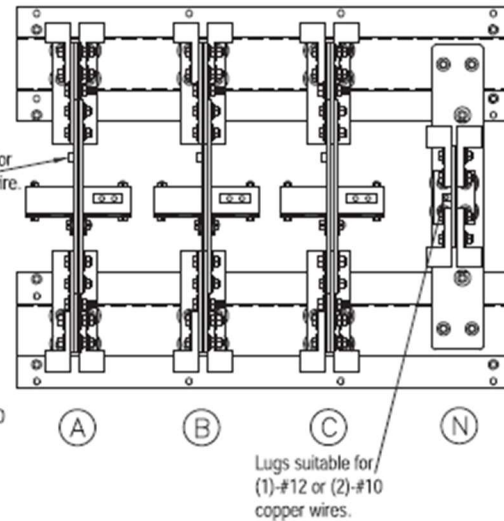
P.O. Box 2750 Durango, CO 81302-2750
 Phone: (970) 247-5786 • Fax (970) 247-2674
www.lpea.coop

DRAWING TR-40

CURRENT TRANSFORMER MOUNTING REQUIREMENTS FOR CABINETS AND SWITCHGEAR



For services 400-800 Amps



For services 801 - 4000 amps

NOTES:

1. White dot on CT is polarity mark and faces line-side.
2. See Section 4.12 for current transformer cabinet requirements.
3. Line side bus bar hole pattern shall have NEMA 2-hole spacing and be centered on bar in WI and MI only.