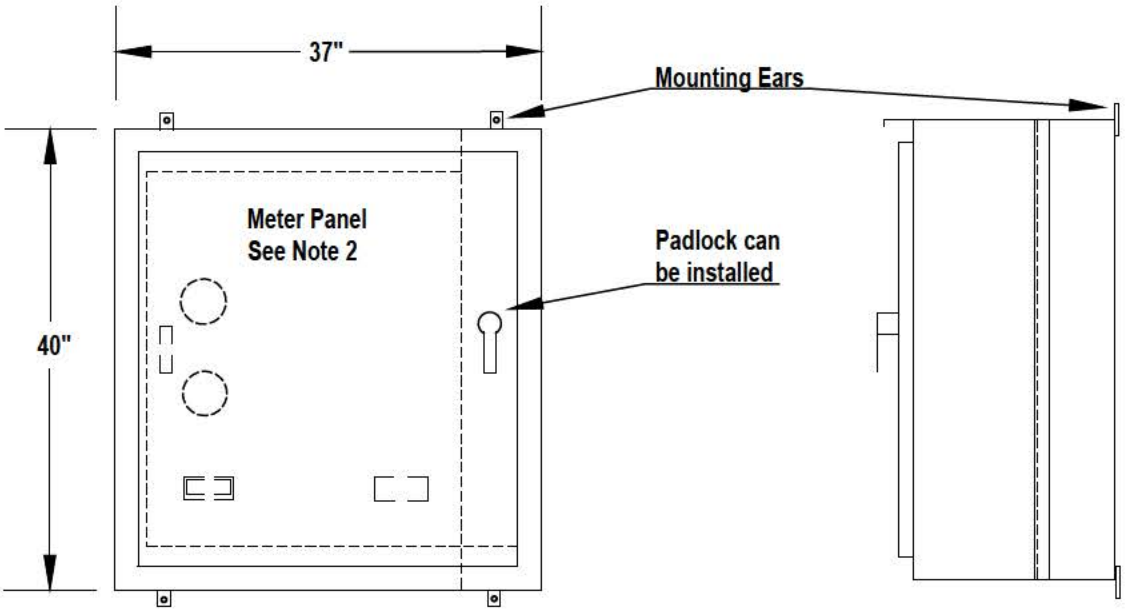
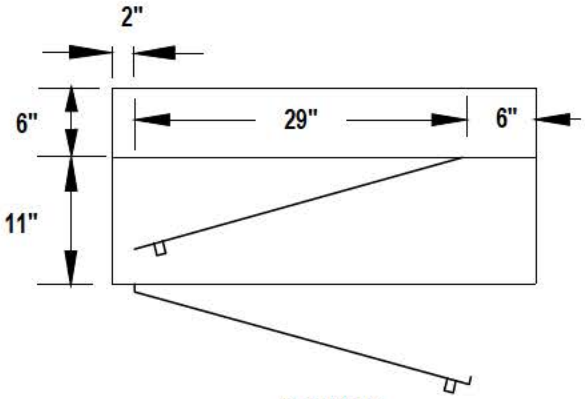
DETAIL FOR PRIMARY METERED SERVICE IN A REMOTE METERING CABINET 201A - 800A

USE: Metering single customer on remote primary metered equipment using CT's & PT's.

EUSERC DWG. NO. 338





Notes:

1. Enclosure door shall be:
   a. Equipped with a device to secure the door in the open position at 90° or more.
   b. Secured in the closed position with a handle operated latching mechanism, and lockable with a padlock having a 5/16" lockshaft.
2. For meter panel requirements, see Drawing 333.

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General Notes

1. A separate metering enclosure shall be installed near the Primary Dead End structure, underground equipment cabinet, or as indicated on the TEP Construction drawing.
2. Conduit for the metering wiring from the current and potential transformers (Junction Box/Safety Switch to the meter enclosure) shall enter the meter enclosure through the bottom and shall be installed behind the hinged meter panel. Conduit shall not interfere with the operation of the test switches or the hinged meter panel. The metering conduit shall not have more than three 90 degree bends or sweeps and shall not exceed 120ft in maximum length for lengths up to 90ft, conduit must be a minimum of 1 1/4" in diameter, and for lengths over 90ft up to 120ft conduit must be a minimum of 2" in diameter. A pull wire must be installed in conduit. Accessible and sealable pulling junctions are allowable if needed.
3. A CT junction box(es) rated NEMA 4X enclosures sized 12"x12"x6" with a back panel shall be installed near the instrument transformers. The junction box for the CT's shall be installed on the steel structure that the CT's are mounted. Conduit from the CT's shall run to the junction box and from the junction box to the metering enclosure. The enclosures shall have a latching system that will allow padlocking and the installation of metering seals. Each enclosure shall have a stainless steel identification plate mechanically fastened to the door. The plate shall have one line of text. Line 1 shall read "TEP METERING" in block lettering.
4. A three-phase safety switch shall be installed on the 120V side (secondary) of each set (3) of PT's. The safety switch shall have a ground bus included for connection of the X2 connections. Conduit from the PT's shall run to the safety switch and from the safety switch to the metering enclosure.

Safety Switch Specification for PT secondary

Square D Heavy Duty Safety Switch, 240V, fusible, Cat #H221DS (30A, 2 wire - 2 blades and fuseholders, NEMA 4, 304 Stainless Steel) or Cat #H321DS (30A, 3 wire - 3 blades and fuseholders, NEMA 4, 304 Stainless Steel). With a Neutral Assembly Cat #SN03 and a ground kit Cat #GTK03.

Safety Switch watertight hubs (one for the top and/or one for the bottom) for the conduit size required:

Conduit Size	Cat #
1/2"	H050
3/4"	HO75
1"	H100
1 1/4"	H125

5. New metering enclosures and equipment shall be installed as per TEP standard SR-431, and SR-430. The metering enclosure shall be constructed as per SR-438 (Figure 2, EUSERC DWG 333) and EUSERC DWG 338. Enclosure to contain two (2) form 9S meter sockets, two (2) Removable "I" Plates and two (2) test switches. Test switches shall be Milbank Cat # TS10-0016 and cover Milbank Cat # K3388-BLK-FL as per TEP standards SR-430 note 5 or exact equivalent must be provided. Meter sockets shall be 13 terminal sockets. The door of the enclosure shall have a three point padlockable door latch mechanism to hold the door closed and to lock it closed. The enclosure will have four (4) 4" tabs welded to the enclosure for mounting purposes. The tabs will be welded to the outside back of the enclosure. Two (2) tabs will be mounted at the top and two (2) mounted to the bottom of the enclosure. Enclosure shall have a stainless steel identification plate mechanically fastened to the door. The plate shall have one line of text. Line 1 shall read "TEP METERING" in 2" tall block lettering.
6. A conduit shall be installed between all metering panel enclosures to allow for meter communications wiring. The minimum conduit size shall be 1".
7. A dedicated telephone circuit shall be provided for TEP metering usage. The telephone wiring shall be installed in a minimum conduit size of 1" to the metering panel enclosure. Cat 3 cable shall be used for the telephone circuit.
8. All raceway installations shall be made with rigid steel conduit. For underground installations the raceway shall be rigid steel PVC coated conduit.
9. Customer shall provide a dedicated phone circuit to be utilized by TEP Metering to allow communications with the Metering Equipment.