

# CURRENT TRANSFORMER INSTALLATION IN SWITCHGEAR, 0-600V



## 1. APPLICABLE LOADS AND VOLTAGES

Switchgear with a current transformer (CT) compartment may be used at all of the Company's service voltages less than 600V with service entrance ampacities as follows:

- a. Single-Phase, 3W, 401-800A (2 CTs)
- b. Three-Phase, 4W, 201-3000A (3 CTs)
- c. Three-Phase, 4W, 3001A and Larger (3 CTs), special engineering required

## 2. GENERAL PROCEDURE

The customer's switchgear shall contain a CT compartment which is for the exclusive use of the Service Provider. If the switchgear is located in an accessible place outside of the building or in a meter room, the meter socket(s) and test switch may be installed on a panel in the CT compartment door. If switchgear is not located outside of the building or in a meter room, see SR-405, Page 2 and Page 8, the customer installs a continuous metering conduit, minimum size of 2 inch diameter from the CT compartment to the meter socket(s), see SR-431. The meter socket(s) must be located outside of the building in an accessible space. Unused hubs shall be capped off with a rainproof access plate(s) that is secured internally utilizing a carriage bolt and a wingnut bar that spans beyond the opening, see SR-405. Following inspection and approval of the customer's installation by Design Services, the Company will provide and install the required number of CTs, the metering conductors and the meter(s).






## 3. CT COMPARTMENT REQUIREMENTS

The size and specifications of the compartment shall meet the requirements of SR-432 through SR-439. Different size and specifications are required based on service entrance ampacities. The CT compartment cover panels, any blank panels and the pull section cover shall be made sealable by using studs and wing nuts or captive sealing screws. The CT compartment must be barriered from all load bus or load conductors.

The bus structure in the CT compartment shall provide for mounting of the proper size and kind of CTs for the ampacity required. The customer shall furnish all bolts, nuts, flat washers and lock washers needed to mount the CTs. The CT bolts shall be maximum 1/2 inch and minimum 3/8 inch in diameter. They shall be fully threaded except for the portion within 3/8 inch of the bus and shall be long enough to be threaded completely through the nut when a CT with a bar 1/2 inch thick is mounted with flat and pressure maintaining spring washers.

## 4. DUAL LOCKING ARRANGEMENT FOR OUTDOOR OR RAIN TIGHT-TYPE SWITCHGEAR

To facilitate Company access to meters and/or the CT compartment, the customer shall provide a dual-hasp locking arrangement on the doors of outdoor or raintight-type switchgear.

 <b>Tucson Electric Power</b>	 <b>UniSource Energy SERVICES</b> SANTA CRUZ COUNTY	INITIATED BY	SC	REVISION NO.	13	SR-430  Pg. 1 of 2
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		ESR COMM.	2-81	EFFECTIVE DATE	9-20	

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### 5. TEST SWITCH AND METER SOCKET

Meter socket(s) are installed and supplied by the manufacturer; 13 terminal socket for three-phase, 6 terminal socket for single-phase.

NOTE: Test Switches are not supplied by the panel manufacturer and must be supplied by the customer.

For single and three-phase systems, a test switch and cover or exact equivalent must be provided.

#### Approved Test Switches

Milbank, Cat. No. TS10-0016

Durham, Cat. No. 1-1058F-129



Brooks Utility Products, Cat. No. 11 OU2455-1 PF, Three-phase

Brooks Utility Products, Cat. No. 107U9335-PF, Single-phase

#### Approved Covers

Milbank, Cat. No. K-3388-BLK-FL

Durham, Cat. No. 7943BC-00



Brooks Utility Products, Cat. No. 209-PF, Single and Three-phase

### 6. SWITCHGEAR

Switchgear manufactured according to the requirements of the Electric Utility Service Equipment Requirements Committee (EUSERC), is acceptable. The EUSERC plates relating to installations as described in SR-432 through SR-439 are noted on each SR drawing.

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