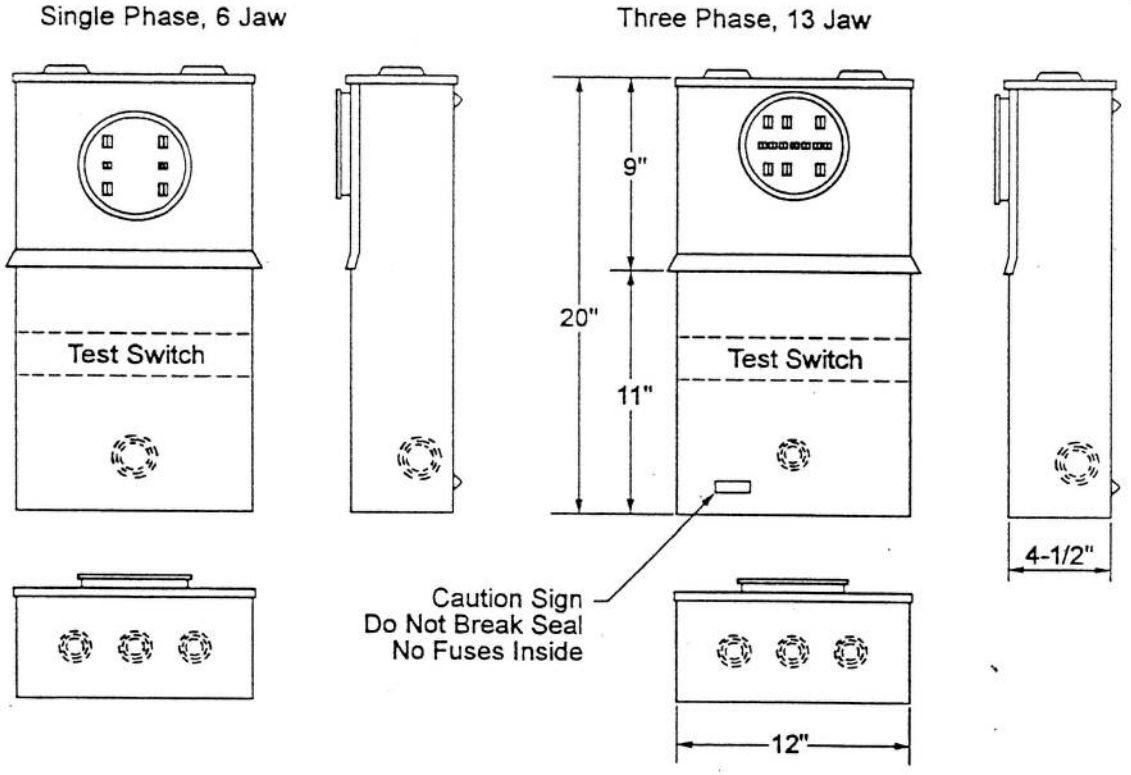
CURRENT TRANSFORMER METER SOCKET REQUIREMENTS

Type of Service	Socket Type
120/240 volt, single-phase, 3 wire	6 jaw
120/208 volt, network, 3 wire	8 jaw
120/208 volt, three-phase, 4 wire 277/480 volt, three-phase, 4 wire 240/120 volt, three-phase, 4 wire	13 jaw

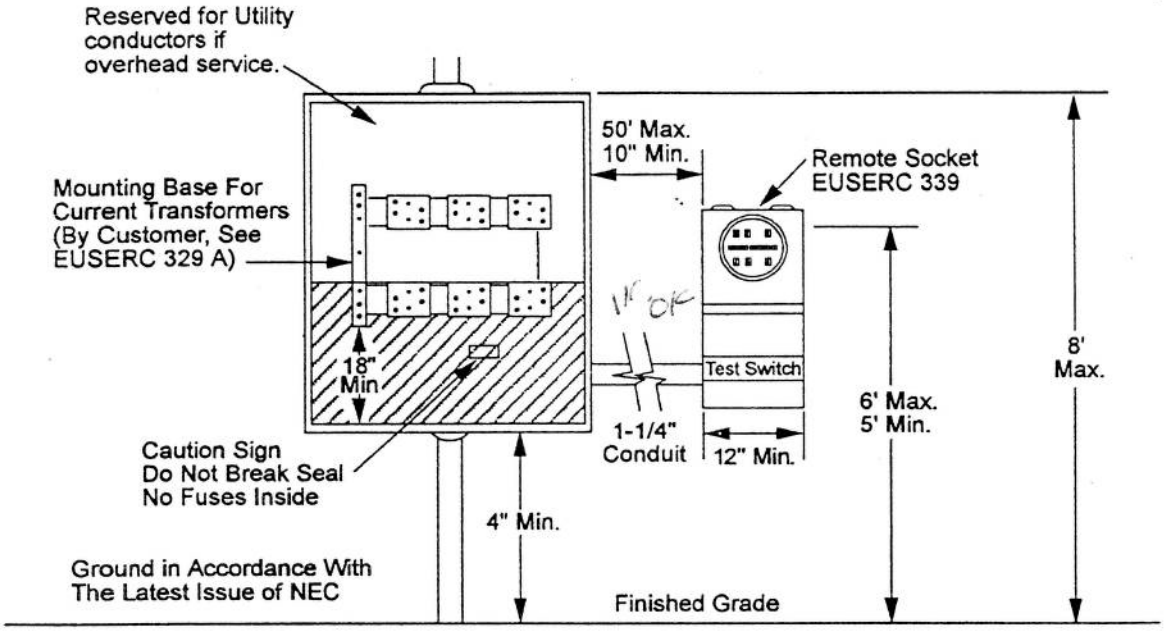


Use a meter socket enclosure for current transformer metering with a space reserved below the socket for a Utility test switch 9-1/2 inches in length. Use the following guidelines for the enclosure and meter socket:

- ❑ Verify that the enclosure contains a perch, drilled and tapped, for a test switch.The Utility will furnish, install, and wire the test switch.
- ❑ Do NOT use meter sockets with circuit closers or bypass clips. They will not be approved.

Figure A
Remote Socket for Current Transformer Meters
EUSERC 339

CURRENT TRANSFORMER METERING - WALL MOUNT
Service Below 600 Volts
800 Amps Max



Type of Service	Cabinet Dimensions			CT Mounting Base
	Width	Height	Depth	
Single-phase, 4 Wire	24"	48"	11"	EUSERC 328A
Three-phase, 4 Wire	36"			EUSERC 329A

Above 800 amps see (Switchboard Metering)

A. Current transformer cabinet door must be hinged.

B. Transformer landing pads shall be 50,000 amps (AIC) rated.

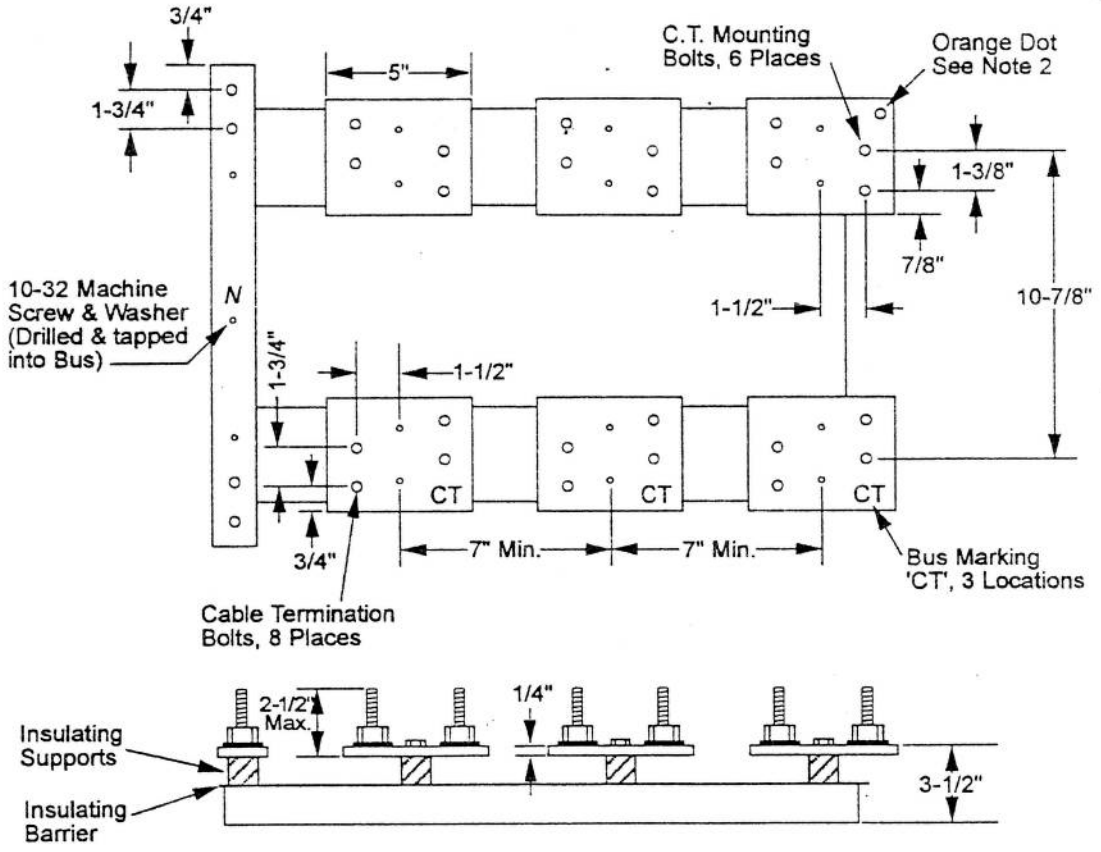
C. High-leg conductor of four wire delta must be marked on right side with *orange color*.

Figure B
Current Transformer Cabinet
EUSERC 316, 200 - 800 Amps

TRANSFORMER MOUNTING BASE FOR INSTALLATION IN CURRENT TRANSFORMER ENCLOSURE

201-800 Amp. 600 Volt for Three-Phase 4 Wire Services

Based on EUSERC 329 A



NOTES:

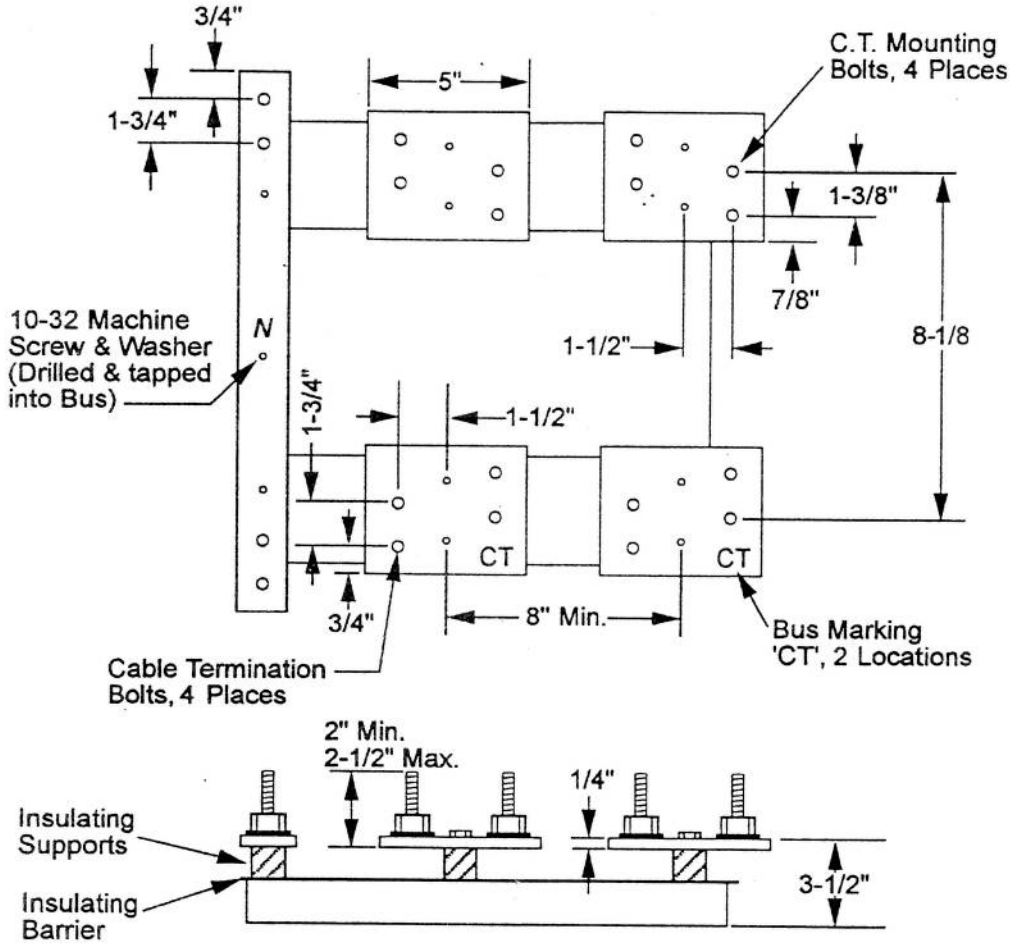
1. On overhead services, the customer shall furnish all lugs and conductors to the line and load terminals of the current transformer mounting base. On underground services, the customer shall connect only the load side.
2. The power leg conductor for a 4-wire delta service shall be effectively identified.
3. Mounting base accepts bar type current transformers only.
4. C.T. mounting base must be rated for 50,000 A.I.C.-Fault Duty.

Figure C

TRANSFORMER MOUNTING BASE FOR INSTALLATION IN CURRENT TRANSFORMER ENCLOSURE

Single Phase, 3 Wire, 800-Amp Max.

Based on EUSERC 328 A



NOTES:

1. On overhead services, the customer shall furnish all lugs and conductors to the line and load terminals of the current transformer mounting base. On underground services, the customer shall connect only the load side.

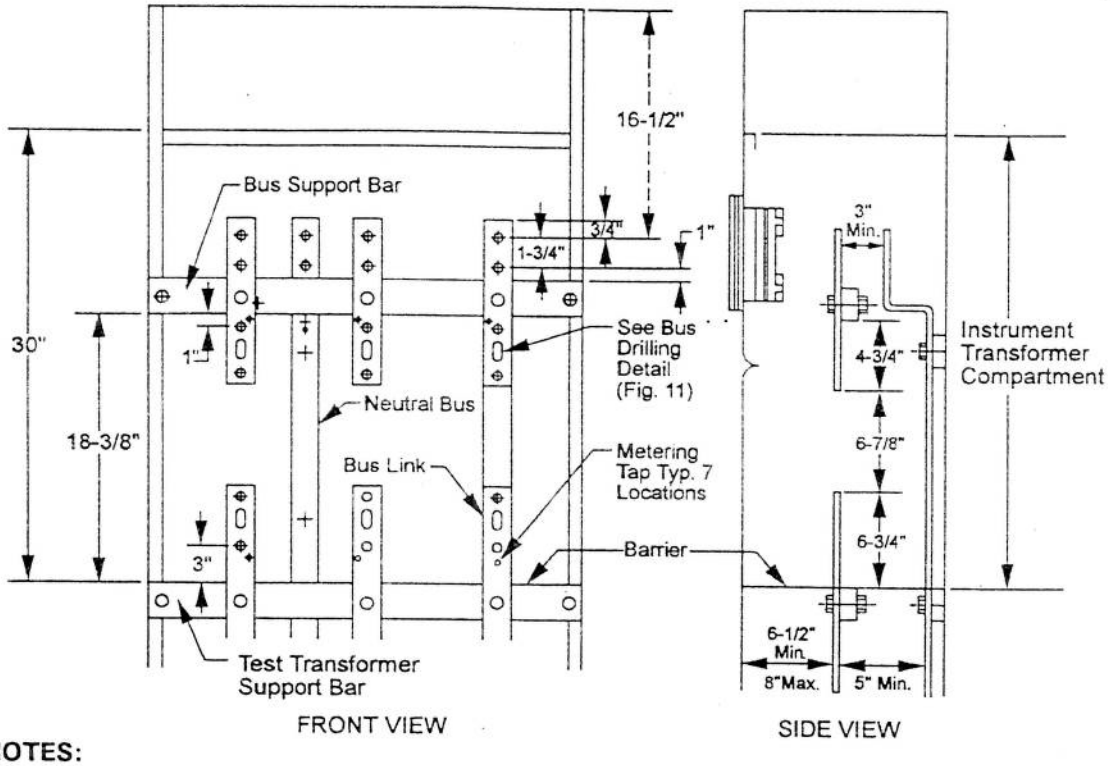
2. Mounting base accepts bar-type current transformers only.

3. Verify that the mounting base for C.T.s meets ratings for available fault current. (50,000 amp minimum)

4. Line and load-side terminations on C.T. landing pads require two bolts per connector.

Figure D

THREE PHASE FOUR WIRE



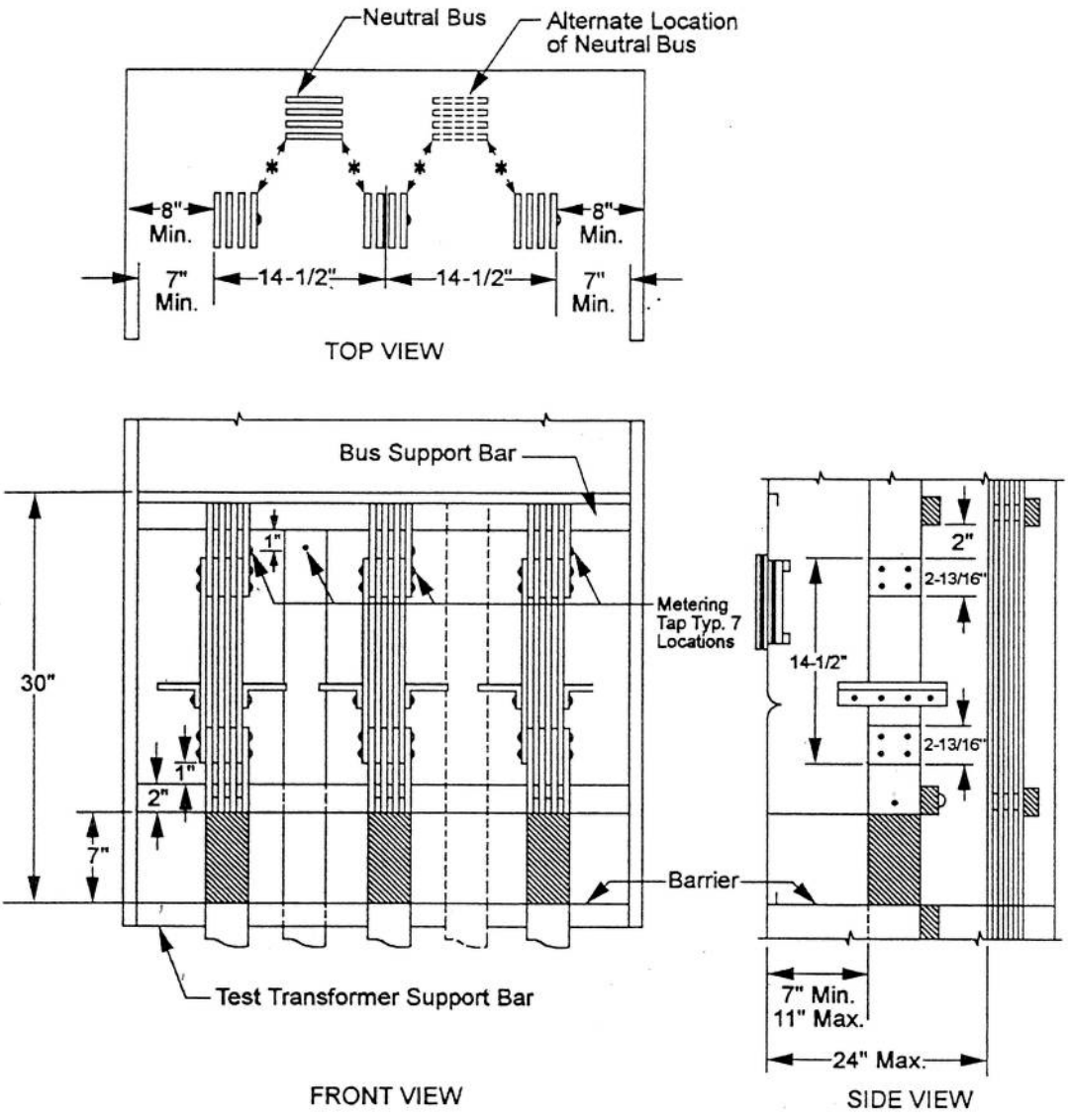
NOTES:

1. Bus arrangements and supports are required as shown above, except the neutral bus may be located on the side wall or at either side. .
2. Compartment shall be on the supply side of the service section main switch or breaker.
3. Direction of feed may be from top or bottom. No other conductors shall pass through this compartment. A neutral bus bar extension shall be provided in the instrument transformer compartment above the lower C.T. bus support when the service section phase buses are supplied from horizontal cross busing.
4. Clearance to side of compartment shall be increased by the amount by which the corner angle exceeds 1".
5. Return flanges for lower and upper meter panel support shall not project more than 3/4" up or down from adjacent switchboard panels.
6. Each bus shall have a connector that will accept stranded conductors having the ampere capacity of the service section main switch or breaker. When main switch is over 200 amperes, and for all underground services.
7. When laminated bus is used, there shall be no space between laminations in the compartment.
8. Bus dimensions: maximum - 3/4" x 2"; minimum - 1/4" x 2"

Per EUSERC Standards Section # 300

Figure E
Standard Switchboard Current Transformer Compartment 0-1,000 Amperes, 3-Phase, 3-and 4-Wire Services

INSTRUMENT-TRANSFORMER COMPARTMENT FOR SWITCHBOARDS
3Ø 3-WIRE AND 3Ø 4-WIRE



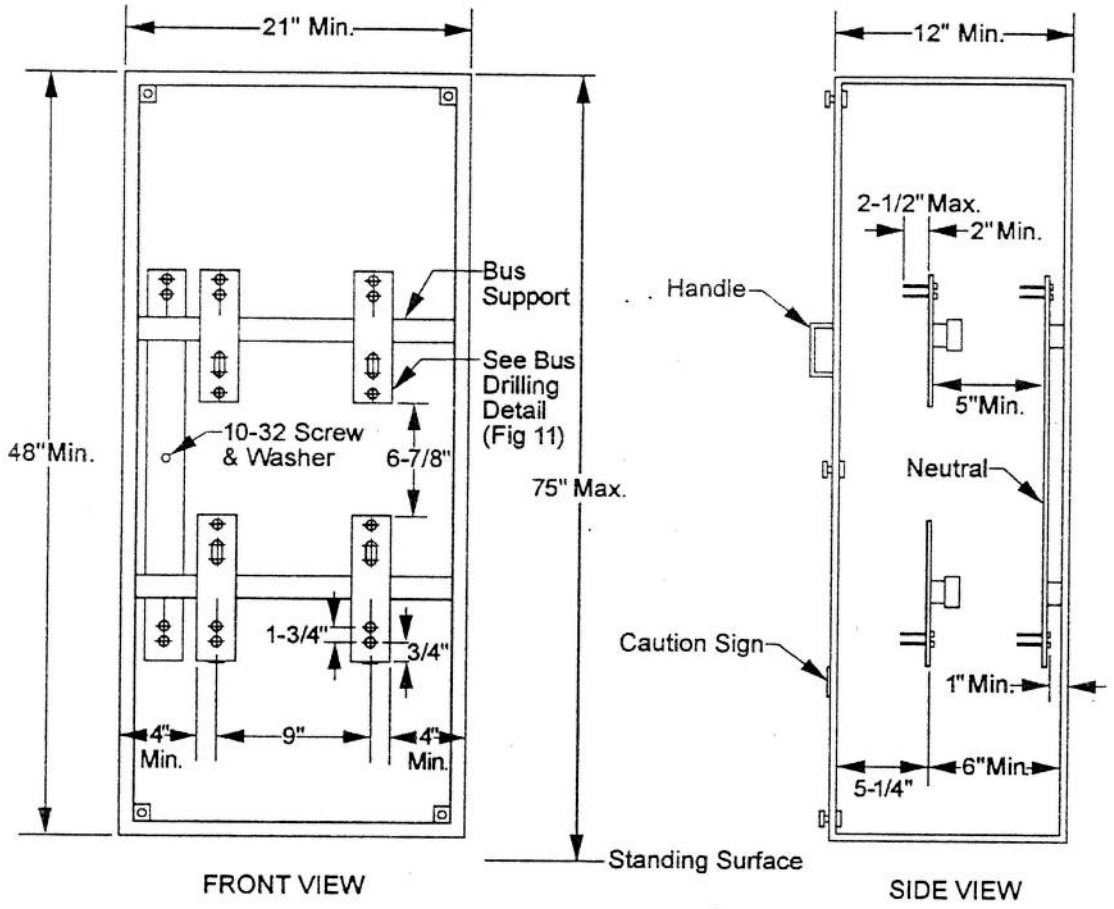
MAXIMUM ALLOWABLE BUS SIZE
Four 1/4 inch bars spaced 1/4 inch
Six 14 inch x 5 inch bars spaced 1/4 inch
Five 3/8 inch x 5 inch bars spaced 3/8 inch

NOTES:

As per EUSERC Standard Dwg. No. 322.
* 1001-3000 AMPS = 5 inches
over 3000 AMPS = 8 inches

Figure F

SINGLE PHASE



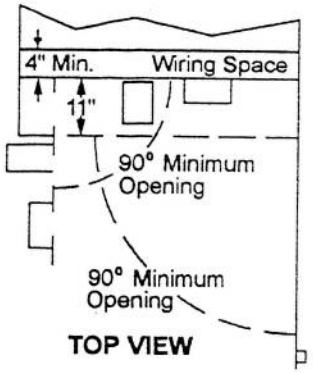
NOTES:

1. The use of a standard switchboard service section in lieu of metering arrangements using this cabinet may prove to be more economical for the customer and should be investigated .
2. Cover shall be hinged and sealable.
3. When exposed to weather, cabinet shall be weatherproof.
4. Grounding lug shall be provided.
5. Neutral or unmetered may be cable or bus bar and may be located on either side of the cabinet.
6. Current transformer cabinet shall not be used as a splicing chamber.
7. This cabinet is not designed for and shall not be used for terminating underground service conductors.

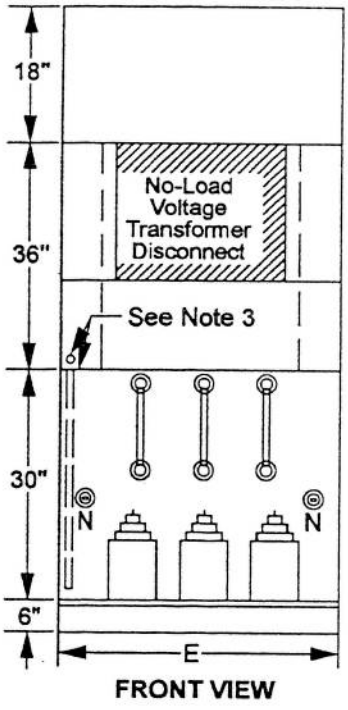
Per EUSERC Standards Section # 300

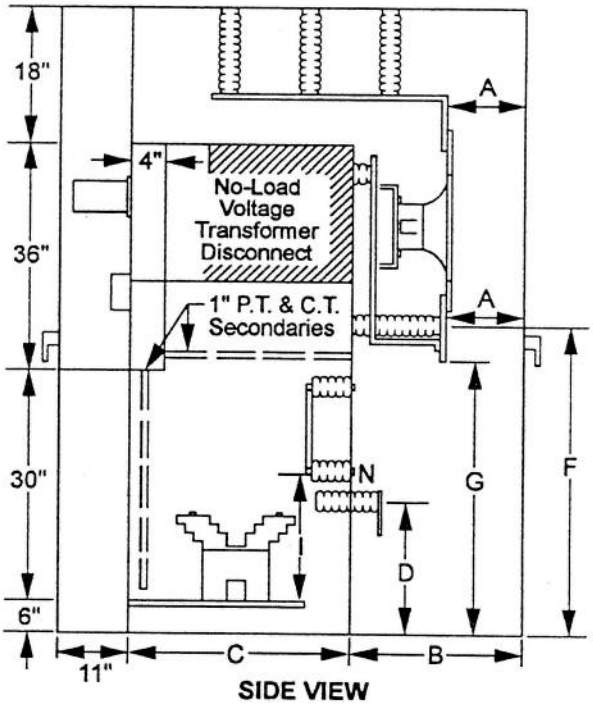
Figure
Bussed Current Transformer Cabinet, 3-Wire Service, 401 - 800 Amperes

TYPICAL ENCLOSURE - 2,400 VOLTS TO 25,000 VOLTS



SPECIFICATIONS	VOLTAGE RATING	
	4160/4800	20800/25000
Dimension A	5" Min. 10" Max	9" Min. 15" Max.
Dimension B	24"	36"
Dimension C	24"	36"
Dimension D	20"	20"
Dimension E	48" Min.	60" Min
Dimension F	42" Min.	56"Min.
Dimension G	36" Min.	48"
Dimension I	15"	Consult Utility





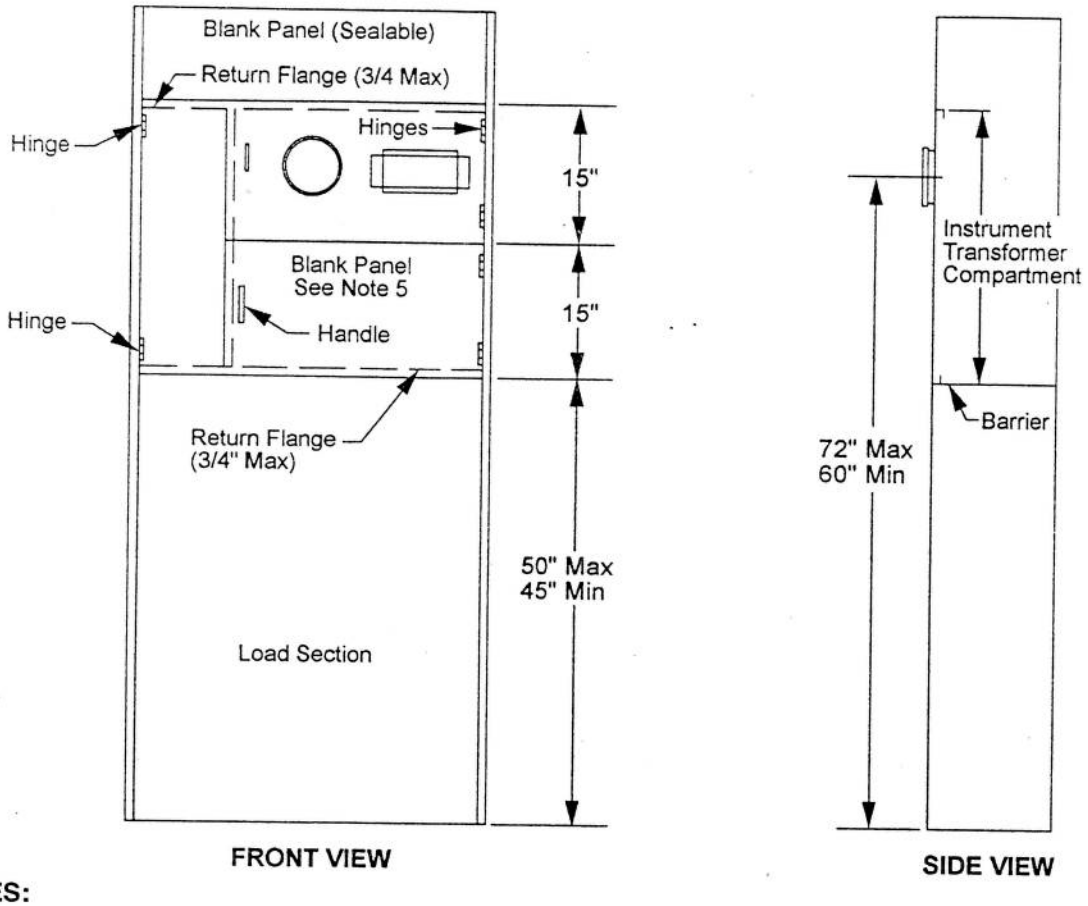
NOTES:

1. The Meter panel hinge shall be installed on the opposite side from the enclosing door hinge of a weatherproof unit so the meter panel can always be opened a full 90 degrees.
2. A gang operated disconnect which, when opened, grounds in a blade-and-jaw method is required. Any fused drawer or fused removable section type of disconnect device is not acceptable.
3. 1" P.T. & C.T. secondary circuits shall be located on the same side as meter panel hinges.

Per EUSERC Standards Sections 300 - 400 .

Figure H
Typical High Voltage Metering Enclosure 2.400 to 25,000 Volt Service

TYPICAL ENCLOSURE



NOTES:

1. Current transformer compartment shall be used with rectangular bus bar.
2. Filler panels shall be used where switchboard width exceeds the allowable meter panel width.
3. The grounding connection shall be made in the main switch or breaker compartment.
4. Meter panels shall be constructed of 12 gauge steel (minimum) and shall be reversible, sealable, hinged, and interchangeable.
5. In a split panel arrangement, the Kwh meter panel shall be mounted in the lower position.
6. Hinges shall be readily interchangeable, right or left, on the job site.
7. Width of meter panels may in some cases require the service section to be wider than the minimum allowable width of the transformer compartment.
8. Meter panels and filler panels shall be equipped with stops to prevent inward swinging beyond the front surface of the switchboard.

Per EUSERC Standards Section # 300

Figure : I

Standard Switchboard Service Section with Current Transformer Compartment