Application

Meter socket configurations for services available with Tacoma Power. For enclosed meter pedestals, see Standard C-MR-0020 “Customer Requirements, Enclosed Meter Pedestal”.

General Requirements

**Meter sockets must be:**
- Rated for their intended use
- Installed level, plumb, and rigidly secured to the supporting surface
- Covered when socket is energized
- Readily accessible
- Have level workspace, measuring no less than 3 feet by 3 feet, maintained in front of the meter location at all times
- For multiple occupancy buildings:
  - All meters shall be accurately marked to identify the units they serve
  - Labels must be of sufficient durability to withstand removal from rubbing, fading, or environmental exposure
  - Label characters must be a minimum 1/2 in. tall and of a contrasting color or shade from the surface to which they are affixed so that they are easily readable

**Meter sockets must not be:**
- Of the ringless type
- Placed on a pole owned and maintained by Tacoma Power
- Concealed by materials, structures, or vegetation
- Installed below 36 in. from the front working surface or grade to the mid-point of the socket for commercial multi-metering installed in a vertical configuration
- Installed below 26 in. from the front working surface or grade to the mid-point of the socket for residential multi-metering installed in a vertical configuration

Disconnect

Single family dwelling emergency disconnects shall be installed on the load side of the meter enclosure.

Meter Sockets

Meter sockets are available in five configurations. The services used with each configuration are shown in Figures 1 through 5 on the following pages. Other applicable reference drawings can be found in Electric Utility Service Equipment Requirements Committee (EUSERC) drawings. Contact the Meter Shop if you need further assistance.
## Customer Requirements
### Meter Socket Configurations

#### Figure 1
Self-contained 120/240V and 240/480V 1-Phase, 3-Wire System \(^1\)

<table>
<thead>
<tr>
<th>4 Jaw Socket</th>
<th>Service Type</th>
<th>Service Voltage</th>
<th>Service Size</th>
<th>Meter Height to Center of Meter</th>
<th>Manual Meter Bypass</th>
<th>Safety Socket</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Temporary Power</td>
<td>120 / 240V</td>
<td>60A – 320A</td>
<td>Optional</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Single Family Garage Shop</td>
<td></td>
<td>200A</td>
<td>Optional</td>
<td>REQUIRED</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Duplex</td>
<td></td>
<td>320A</td>
<td>Optional</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Septic System</td>
<td>120 / 240V</td>
<td>30A – 125A</td>
<td>Optional</td>
<td>REQUIRED</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Traffic Control System</td>
<td></td>
<td></td>
<td></td>
<td>REQUIRED</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Street Lights</td>
<td>125 / 320A</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Small Commercial</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Small Industrial</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Pedestal (^2)</td>
<td>240 / 480V</td>
<td>125 / 200A</td>
<td>Optional</td>
<td>REQUIRED</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Dot Only Pedestal (^2)</td>
<td></td>
<td></td>
<td></td>
<td>REQUIRED</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Dot Only Street Lights</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

\(^1\) If 5-jaw socket used for this system, the 5\(^{th}\) jaw shall be removed.

\(^2\) Listed service pedestals and packages containing integral meter sockets, installed according to the manufacturer's instructions, are allowed to be at the height for which they are designed.

**Reference**
- EUSERC meter sockets up to 200A: drawings: 300, 301 and 302
- EUSERC bridge nut or bypass area: drawings: 302B, 311, 312, and 339
Figure 2  Self-contained 5-Jaw Socket 120/208V 2-Phase and Neutral 3-Wire WYE System

<table>
<thead>
<tr>
<th>5 JAW SOCKET</th>
<th>SERVICE TYPE</th>
<th>SERVICE VOLTAGE</th>
<th>SERVICE SIZE</th>
<th>METER HEIGHT TO CENTER OF METER</th>
<th>MANUAL METER BYPASS</th>
<th>SAFETY SOCKET</th>
</tr>
</thead>
<tbody>
<tr>
<td>WYE</td>
<td>TEMPORARY POWER</td>
<td>120/208V</td>
<td>60A – 200A</td>
<td>5’ – 6’</td>
<td>OPTIONAL</td>
<td></td>
</tr>
<tr>
<td></td>
<td>APARTMENT/ CONDOMINIUM</td>
<td>125/216V</td>
<td>100/200A</td>
<td>6’ max. 26’ min.</td>
<td>NOT REQUIRED</td>
<td></td>
</tr>
<tr>
<td></td>
<td>SMALL COMMERCIAL</td>
<td>(Downtown Network)</td>
<td>60A – 200A</td>
<td>5’ – 6’</td>
<td>REQUIRED</td>
<td></td>
</tr>
<tr>
<td></td>
<td>SMALL INDUSTRIAL</td>
<td></td>
<td>60A – 200A</td>
<td>3’ – 5’</td>
<td>OPTIONAL</td>
<td></td>
</tr>
<tr>
<td></td>
<td>PEDESTAL[1]</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

[1] Listed service pedestals and packages containing integral meter sockets, installed according to the manufacturer’s instructions, are allowed to be at the height for which they are designed.

NOTE:
Install 5th jaw in 9 o'clock position as shown and attach jumper wire between 5th jaw and neutral.

Reference  EUSERC multi meter panel drawings: 300 II (H, I and M), 301, 342, 347, and 353
Figure 3

Self-contained, 7-Jaw Socket 120/208V, 277/480V 3-Phase 4-Wire WYE Systems and 120/240V, 240/480V 3-Phase 4-Wire DELTA System with Safety or Bypass Socket

Reference

- EUSERC bypass area drawings: 300 II (I), 306
- EUSERC safety socket drawings: 200F, 305, 305A, 311, 312
### Customer Requirements
#### Meter Socket Configurations

**Figure 4** 6-Jaw Socket for 120/240V 1-Phase, 3-Wire Bar-Type System with CT (Current Transformer) Enclosure

<table>
<thead>
<tr>
<th>6 JAW SOCKET</th>
<th>SERVICE TYPE</th>
<th>SERVICE VOLTAGE</th>
<th>SERVICE SIZE</th>
<th>METER HEIGHT TO CENTER OF METER</th>
<th>SPACE FOR TEST SWITCH</th>
<th>CT CAN HEIGHT</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>TEMP POWER, COMMERCIAL, INDUSTRIAL</td>
<td>120/240V</td>
<td>400A – 800A</td>
<td>5’ – 6’</td>
<td>REQUIRED</td>
<td>5’ – 7’ to top of cabinet</td>
</tr>
<tr>
<td></td>
<td>Over 800A</td>
<td>Requires Switchboard</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**NOTES:**
- CT bracket must be rated for 50K AIC.
- 1-1/4” rigid, IMC or EMT nipple between 6 point meter socket and CT enclosure. PVC may be used if cans are bonded together/grounded per NEC.
- Meter and CT’s shall be within 2 ft. and in line of sight.
- Bonding shall be installed per NEC.
- Customer installs CT bracket, terminal lugs, conduit, cabinets and enclosures, meter sockets, grounding and protection equipment.
- The customer is responsible to torque the nuts that secure the CT’s to the customer equipment. The T&D Meter Department will inspect to ensure the nuts are torqued to the manufacturer’s specification.
- Any CT can or switchgear CT cover over 6 ft. in height at the top requires a hinged cover.

**Reference**
- EUSERC CT bus drawings: 328A and 328B
- EUSERC CT enclosure drawings: 315 – 319, 325, 326, and 354

*Tacoma Power's largest CT is 6" in diameter.*

*If service conductors enter CT cabinet from underground, a minimum of 4" of clearance must be maintained from this side of CT bracket.*
### Customer Requirements

**Meter Socket Configurations**

**May 3, 2023**

**C-MR-0005**

#### Figure 5

13-Jaw Socket for 3-phase 120/208V, 277/480V 4-wire WYE and 120/240V or 240/480V 4-wire DELTA System with CT (Current Transformer) Enclosure

<table>
<thead>
<tr>
<th>13 JAW SOCKET</th>
<th>SERVICE TYPE</th>
<th>SERVICE VOLTAGE</th>
<th>SERVICE SIZE</th>
<th>METER HEIGHT TO CENTER OF METER</th>
<th>SPACE FOR TEST SWITCH</th>
<th>CT CAN HEIGHT</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>TEMP POWER, COMMERCIAL, INDUSTRIAL</td>
<td>120/208V or 277/480V WYE, 120/240V or 240/480V(^{[1]})</td>
<td>400A – 800A</td>
<td>5’ – 6’ REQUIRED</td>
<td></td>
<td>5’ – 7’ to top of cabinet</td>
</tr>
<tr>
<td></td>
<td>36” X 48” HINGED CT ENCLOSURE</td>
<td>Over 800A</td>
<td>Requires Switchboard</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

\(^{[1]}\) For Maintenance of existing, obsolete services only.

**NOTES:**
- CT bracket must be rated for 50k AIC.
- 1-1/4” rigid, IMC or EMT nipple between 13 point meter socket and CT enclosure. PVC may be used if cans are bonded together/grounded per NEC.
- Meter and CT’s shall be within 2 ft. and in line of sight.
- Bonding shall be installed per NEC.
- Customer installs CT bracket, terminal lugs, conduit, cabinets and enclosures, meter sockets, grounding and protection equipment.
- Customer is responsible to torque the nuts that secure the CT’s to the customer equipment. The T&D Meter Department will inspect to ensure the nuts are torqued to the manufacturer’s specification.
- Any CT can or switchgear CT cover over 6 ft. in height at the top requires a hinged cover.

**Standard Switchboard Service Section**

If service conductors enter CT cabinet from underground, a minimum of 4” of clearance must be maintained from this side of CT bracket. Tacoma Power’s largest CT is 6” in diameter.

#### Reference
- EUSERC CT enclosure drawings: 315 – 319, 325, 326, and 354
- EUSERC switchboard drawings: 315, 320, 321