METER SOCKET SPECIFICATIONS - GENERAL

Transformer-Rated Metering:

VEC shall supply all the necessary meter mounting devices for transformer-rated metering. Transformer-rated metering shall be used only when VEC determines that self-contained metering is impractical, (see below). In all cases, VEC shall specify the type of metering to be installed.

Self-Contained Metering:

Self-contained metering is standard where the service rating is not more than 200 amperes, and where on grounded systems, the line to ground voltage does not exceed 300 volts. In all cases, VEC shall specify the type of metering that is to be installed. Class 320 ampere sockets are allowed.

The member shall furnish and install a meter socket, which meets the appropriate section(s) of this standard. For multiple socket installations, VEC must be consulted to determine its requirements for these types of installations.

A. Type of Services:

1. **Overhead single phase, three wire 120/240 volt services**

   A. Residential: The member shall supply a socket meeting part B of this standard, "General Socket Specifications". Manual bypasses are required for 320 amp sockets and must meet Section C of this standard, "Manual Bypasses".

   B. Commercial and Industrial: The member shall supply a socket with a manual bypass, and terminal shields. The socket shall meet Sections B and C of this standard, "General Socket Specifications" and "Manual Bypasses".

2. **Overhead Single Phase Three Wire 120/208 Volt (Network) Services**

   A. Residential: The member shall supply a meter socket with a fifth terminal. It shall meet Section B of this standard, "General Socket Specifications". Manual bypasses are required for 320 amp sockets and must meet part C of this standard, "Manual Bypasses".

   B. Commercial and Industrial: The member shall supply a meter socket with a fifth terminal, a manual bypass, and terminal shields. The socket shall meet sections B and C of this standard, "General Socket Specifications" and "Manual Bypasses".

3. **Underground Single Phase, Three Wire Services**

   A. Residential: The member shall supply a minimum of a 100 ampere rated socket. The minimum dimensions shall be 14" high by 12" wide by 4 3/8" deep with knockouts for a minimum of 2 ½ inch conduit. If 350 MCM cable or larger is used, a meter socket with a side wired buss bar with appropriately sized lug connectors will be required. The socket shall meet Section B of this standard, "General Socket Specifications". Manual bypasses are required for 320 amp sockets and must meet Section C of this

standard, “Manual Bypasses”.

B. Commercial and Industrial: The member shall supply a minimum of a 200 ampere rated socket. The minimum dimensions shall be 14 inches high by 12 inches wide by 4 3/8 inches deep with knockouts for a minimum of 2 ½ inch conduit. The requirements for 350 MCM are the same as residential in Section 3a. The socket shall have a manual bypass, shields, and shall meet Sections B and C of this standard, “General Socket Specifications” and “Manual Bypasses”.

4. Underground Single Phase, Three Wire, 120/208 (Network) Services

A. Residential: The member shall supply a minimum of a 100 amp rated socket. The minimum dimensions shall be 14 inches high by 12 inches wide by 4 3/8 inches deep with knockouts for a minimum of 2 ½ inch conduit. If 350 MCM cable or larger is used, a meter socket with a side wired buss bar with appropriately sized lug connectors will be required. The socket shall have a fifth terminal at the 9 o’clock position. The socket shall also meet part B of this standard, “General Socket Specifications”. Manual bypasses are required for 320 amp sockets and must meet Section C of this standard, “Manual Bypasses”.

B. Commercial and Industrial: The member shall supply a minimum of a 200 ampere rated socket. The minimum dimensions shall be 14 inches high by 12 inches wide by 4 3/8 inches deep with knockouts for a minimum of 2 ½ inch conduit. The requirements for 350 MCM are the same as residential in Section 4a. The socket shall have a fifth terminal at the 9 o’clock position, with a manual bypass and terminal shields. It shall comply with both Sections B and C of this standard, “General Socket Specifications” and “Manual Bypasses”.

5. Overhead Three Phase Services

A. All Members: The member shall supply a 7-terminal meter socket for 3 phase 4 wire services, and a 5-terminal meter socket for 3 phase 3 wire services. The socket shall have a manual bypass and comply with Sections B and C of this standard, “General Socket Specifications” and “Manual Bypasses”. For multiple socket installations, the Utility must be consulted to determine the special requirements for this type of installation.

6. Underground Three Phase 3 and 4 Wire Services Only

A. All Members: The member shall supply a minimum of a 200 ampere rated socket. The line and load lugs shall be capable of accepting 350 MCM cu/al. The socket shall have a manual bypass and meet both Sections B and C of this standard, “General Socket Specifications” and “Manual Bypasses”.

B. General Socket Specifications:

1. Sockets shall be Listed and Approved for their location and use.
2. Sockets shall be of the rectangular sheet-metal type. Round-type sockets or castmetal

sockets are not permitted.

3. The socket rating shall equal or exceed the capacity of the service entrance equipment and conductors.
4. The socket lugs shall be sized appropriately to fit the required service conductor size. The socket lugs shall be of the Lay-in type. A grounding electrode conductor connector, connected to the neutral bus, shall be included in sockets intended for use in residential applications.
5. Sockets may be the ring type or ringless. Sealing rings, if required, shall be supplied by the member.
6. Automatic bypasses are not permitted under any circumstances.
7. There shall normally, not be more than 3 vertical positions at any multiple-socket installations.
8. All sockets, at the time of installation, must be equipped with the number of terminals required by the type of service to be metered.
9. All four terminal sockets shall have the capability of adding a fifth terminal in the (6 or 9 o'clock positions), without removing the terminal blocks. When an existing installation is changed to accommodate a different type of service or rate requiring additional terminals, the additional terminals must be furnished and installed by the member at the time of the change or the socket replaced with a socket containing the proper number of terminals.
10. Cover plates shall be the approved clear plastic type. The Utility will supply them. They will be used after the wiring is completed to protect the interior until a meter is set.
11. Note carefully that on 120/240 volt, three phase, four wire, Delta services, the conductor that measures 208 volts-to-ground must be connected to the right hand terminals of the sockets.
12. On commercial and industrial services all meter sockets shall be equipped with manual by-passes and shields for meter jaws. See Drawings 602 and 603.

C. Manual Bypasses:

Manual by-passes are required on certain services in order to permit meter exchange without interruption of service to the member, and as an additional safety feature for the meter person. By-passes are not designed for and must not be used as load making or breaking devices.

To be approved for system use, sockets with a manual by-pass must meet the following requirements:

1) Automatic bypasses are prohibited.
2) Bypass shall have a single, independent, Bypass handle-operated mechanism.
3) The non-bypassed, in service position of the operating mechanism must be visible when the meter is installed without the socket cover for test purposes.
4) It must not be possible to replace the socket cover when the operating mechanism handle is in the bypassed position.
5) By-passes which require auxiliary equipment, such as straps, jumpers, etc., shall not be allowed. All three phase sockets with bypasses must have a mechanism which locks the meter blades in the socket jaws when in the non-bypassed (in service) position, and which will release the blades in the bypassed position