

SECTION 26 24 14 - MULTIPLE METERING CENTERS**PART 1 GENERAL****1.01 DESCRIPTION**

- A. Provide, where indicated, as specified herein and as shown on the contract drawings.

1.02 QUALITY ASSURANCE

- A. Underwriters Laboratories, Inc., listing/approval.
- B. UL Standard 891.
- C. National Electrical Code with local amendments.
- D. NEMA Standard PB-2.

1.03 SUBMITTAL AND RECORD DOCUMENTATION

- A. Shop drawings shall indicate the following:
 - 1. Front and side enclosure elevations with overall dimensions shown.
 - 2. Floor plan and top view, indicating conduit entry locations and requirements.
 - 3. Nameplate legends.
 - 4. Size and number of horizontal bus bars per phase.
 - 5. One-line diagrams, including neutral and ground.
 - 6. Component list.
 - 7. Assembly ratings including:
 - a. Short-circuit rating.
 - b. Voltage.
 - c. Continuous current.
 - 8. Major component ratings including:
 - a. Voltage.
 - b. Continuous current.
 - c. Interrupting ratings.
 - 9. Cable terminal sizes.
- B. Where applicable, the following additional information shall be submitted.
 - 1. Busway connection.
 - 2. Connection details between close-coupled assemblies.
 - 3. Composite floor plan of close-coupled assemblies.
- C. Product data sheets for components.
- D. Record documentation shall include:
 - 1. Final as-built drawings and information for items listed above.
 - 2. Wiring diagrams.
 - 3. Certified production test reports.
 - 4. Installation and maintenance information.
 - 5. Seismic certification and equipment anchorage details.

1.04 QUALIFICATIONS

- A. The manufacturer of the assembly shall be the manufacturer of the switches or circuit breakers within the assembly.

- B. The meter center shall be suitable for and certified to meet all applicable requirements of the Uniform Building Code for seismic zone application. Guidelines for the installation consistent with these requirements shall be provided by the meter center manufacturer and be based upon testing of representative equipment.

PART 2 PRODUCTS

2.01 ACCEPTABLE MANUFACTURERS

- A. Siemens, Square D, Cutler-Hammer/Westinghouse, and GE.

2.02 RATINGS

- A. The assembly shall be rated to withstand mechanical forces exerted during short-circuit conditions when connected directly to a power source having available fault current of 65,000 amperes symmetrical at rated voltage.
- B. Meter center shall be tested, listed, and marked for use with a UL witnessed and recognized breaker combination.

2.03 CONSTRUCTION

- A. The entire assembly shall be front accessible and shall consist of main lugs or main device as shown on the Drawings.
- B. All metering shall be in accordance with the serving utility requirements.
- C. Tenant disconnects shall be wired for hot sequence and shall be molded case breakers as shown on the Drawings.
- D. The meter sockets and associated branch protective devices shall be completely prewired and shipped ready for installation of the meters. Meter sockets shall include covers with sealing provisions.
- E. Feeder devices, shall be panel mounted type construction.

2.04 BUS

- A. All bus bars shall be tin-plated aluminum. Main horizontal bus bars shall be mounted with all three phases arranged in the same vertical plane. Bus sizing shall be based on NEMA standard temperature rise criteria of 65 deg. C over a 40 deg. C ambient (outside the enclosure).
- B. Provide a full capacity neutral bus.
- C. A ground bus (minimum 1/4" x 2") shall be furnished firmly secured to each vertical section structure and shall extend the entire length of the switchboard.
- D. All hardware used on conductors shall be high-tensile strength and zinc-plated. All bus joints shall be provided with conical spring-type washers.
- E. All unused space shall be bussed and left ready for future use.

2.05 WIRING/TERMINATION

- A. Mechanical-type terminals shall be provided for all line and load terminations suitable for copper or aluminum cable rated for 75 deg. C of the size as indicated on the Drawings.
- B. Lugs shall be provided in the incoming line section for connection of the main grounding conductor. Additional lugs for connection of other grounding conductors shall be provided as indicated on the Drawings.

2.06 CIRCUIT PROTECTIVE DEVICES

- A. Provide molded case breakers or fusible switches as indicated on the Drawings. See Section 26 28 00.

2.07 TENANT UTILITY METERING

- A. For EUSERC serviced areas, these switchboards shall incorporate metering sections with tenant feeder circuits, using ring-type meter sockets to meet local utility or customer requirements.
- B. The self-contained meter sockets shall include a test bypass/disconnect block per EUSERC requirements and be arranged, typically, for hot sequence metering.

2.08 ENCLOSURES

- A. The paint finish shall be two coats gray enamel over a rust-inhibiting phosphate primer.

2.09 NAMEPLATES

- A. Provide engraved nameplates under the provisions of Section 26 05 53, Identification for Electrical Systems.

PART 3 EXECUTION**3.01 FACTORY TESTING**

- A. The following standard factory tests shall be performed on the equipment provided under this section. All tests shall be in accordance with the latest version of ANSI and NEMA standards.
 - 1. The meter centers shall be completely assembled, wired, adjusted, and tested at the factory. After assembly, the complete meter center will be tested for operation under simulated service conditions to assure the accuracy of the wiring and the functioning of all equipment. The main circuits shall be given a dielectric test of 2,200 volts for one minute between live parts and ground and between opposite polarities. The wiring and control circuits shall be given a dielectric test of 1,500 volts for one minute between live parts and ground.
- B. The manufacturer shall provide three certified copies of factory test reports.

3.02 INSTALLATION

- A. The contractor shall install all equipment per the manufacturer's recommendations and the contract drawings.
- B. The assembly shall be provided with adequate lifting means and shall be capable of being moved into installation position and bolted directly to the concrete housekeeping pad without the use of floor sills. All necessary hardware to secure the assembly in place shall be provided by the contractor.
- C. Install level and plumb, parallel with structural building lines. Metergear panels and all electrical enclosures shall fit neatly without gaps, openings, or distortion.

END OF SECTION