



**Warren Electric  
Cooperative, Inc**

**120/240 Single Phase Service Entrance Cable “SE” Style  
100 or 200 Ampere Rated Specifications and Checklist**

**All items furnished by member**

Meters will not be set on manufactured housing units and shall refer to NEC 550 for additional requirements

**GENERAL**

Although the “SE” type of service is still allowed on the WEC system, it is not the recommended service solution for new or replacement services. “SE” style services appear to be an economical solution during building. However, they tend to have higher maintenance and shorter life cycles due to “sealed” ends allowing water to enter the cable and equipment. This moisture problem eventually promotes insulation degradation around the cable (NEC violation), rusting service equipment (NEC violation), and lower service quality.

**LOCATION**

All services must be at least 30ft away from any WEC poles and primary wires. A WEC Staking Engineer will determine the location and any additional requirements during an on-site meeting with the member during the design process.

**SERVICE ENTRANCE CABLE POINT OF ATTACHMENT (NEC230.9)**

Service drop and weather head must be at least 36 inches from doors, windows, ladders, balconies, fire escapes, etc and at least 15 feet above ground, decks, etc

OWNER/ CONTRACTOR IS RESPONSIBLE FOR MARKING AN “X” AT A STRUCTURALLY SOUND LOCATION FOR THE WEC SERVICE ASSEMBLY (HOUSE KNOB)

**WEATHER HEAD**

3 wire rain-tight weather head properly sized and rated will be installed on source end of service entrance cable “Duct Seal” or other approved sealant to achieve rain-tight connection between SE cable and weather head.

**CABLE FASTENERS**

Cable fasteners shall be installed at intervals not exceeding 30 inches

**SERVICE AND GROUND WIRE (NEC 310)**

Customer/Contractor shall extend wires through weather head to reach WEC service assembly location (24” minimum).

| SERVICE SIZE | “HOT LEGS” & “NEUTRAL” | “GROUNDING”   |
|--------------|------------------------|---------------|
| 200 ALUMINUM | 4/0 AWG ALUMINUM       | #4 AWG COPPER |
| 200 COPPER   | 2/0 AWG COPPER         | #4 AWG COPPER |
| 100 ALUMINUM | #2 AWG ALUMINUM        | #6 AWG COPPER |
| 100 COPPER   | #4 AWG COPPER          | #6 AWG COPPER |

**METER BASE**

Meter base shall be located between 5ft and 6ft from ground level.

Meter base shall be a single position, four terminal, and ring-less with a horn or other approved type bypass.

Meter bases equipped with grounding lugs shall be grounded in accordance to NEC or local inspection authority

**DISCONNECT OPTIONS AND OTHER SERVICE EQUIPMENT REQUIREMENTS (NEC 230)**

All sites served by WEC shall have a service disconnecting means (Mains in panel box). Although not required at this time, an outside disconnect switch is also recommended.

Disconnect main (inside or outside) shall be appropriately sized (breaker or K1 fuses rated for 10,000 Amperes)

“Duct Seal” or other approved sealant to achieve rain-tight connection between SE cable and meter base

All equipment (meter base, disconnect, etc) shall have all knock-outs, doors, and covers in place to limit access to energized parts and shall be in good physical and working condition..

**GROUNDING RODS, WIRE, AND CONNECTORS (NEC 250)**

Meter socket shall be grounded in accordance to NEC and local inspection authority requirements

Any service connected to WEC shall have two (2) 5/8 in. x 8ft. copper ground rods located 6ft. apart

Ground rod clamps shall be suitable for direct burial and/or exothermic welding.

Ground wires shall extend unbroken or uncut from grounding lug of meter base (if equipped) or disconnect to each rod.

Ground wires shall be secured to pole and/or protected from damage.

**DIAGRAM**

A diagram is included on the back of this specification sheet.

**EFFECTIVE DATE**

FOR ALL UPGRADES AND NEW CONSTRUCTION **AFTER JUNE 7, 2010**