

# SLEMCO

## Specifications for Residential Overhead Meter Pole Requirements

Applicable to residential and small noncommercial services receiving single-phase power at 120/240 volts through a 200 Amp meter base attached to a meter pole. The meter base service conductors enter through a weather head from an overhead source. In the event the customer requires larger than a 200 Amp service or two 200 Amp services, special applications will be necessary and they are specified within these requirements.

The *Point of Connection* is the point of demarcation between SLEMCO and the customer. It shall be the customer's responsibility for compliance with the National Electrical Code (*NEC*) and any Governing Authority for all equipment beyond the *Point of Connection*. The customer is advised to use the services of a qualified electrician to assure compliance with all codes and regulations. According to National Electric Safety Code (*NESC*) Table 232-1, Item 5., Note 8(d), the lowest point of the service conductor (*drip loop*) must be at least 10' above final grade. A sufficient drip loop shall be present to prevent water ingress.

*It should be noted that electrical pipe is the gray pipe and white water pipe is not acceptable. Therefore, schedule 40 or 80 electrical pipe discussed in this section is approved electrical conduit.*

Items marked with ⑥ ⑦ are indicated on the following drawings:

⑥ Drawing No.6 – *Single-Phase Overhead Meter Pole Requirements*

⑦ Drawing No.7 – *Meter Pole Guying*

A. Descriptions:

**Permanent** - Mobile homes, camps, water wells, and any other connection not considered temporary.

**Temporary** - Construction, special events, etc.

B. The meter poles are furnished and installed by customer. Specifications shown on the drawing and described here shall be considered minimum requirements.

C. **Permanent:** meter poles must be a minimum of 15' above final grade and installed at least 5' below finished grade. The lowest point of the service conductor (*drip loop*) will be at least 10' above final grade (*NESC Table 232-1, Item 5., Note 8(d)*) and the point of attachment is 6" below top of pole. A sufficient drip loop shall be present to prevent water ingress. A permanent meter pole must be a pressure treated round pole with a minimum top diameter of 5" or a pressure treated 6" x 6" pole. ⑥ A permanent meter pole with service conductors length of 75' or greater will require guying. ⑦

It will be the responsibility of the customer to secure the pole in a vertical position. If the ground is not adequate to support the pole, a guy will have to be installed by the customer. ⑦

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Items marked with ⑥ are indicated on Drawing No.6 – *Single-Phase Overhead Meter Pole Requirements*.

- D. **Temporary:** meter poles must be long enough such that once complete the lowest point of the service conductor (*drip loop*) will be at least 10' above final grade (*NESC Table 232-1, Item 5., Note 8(d)*), the point of the attachment is at least 12' above final grade (*NESC Table 232-1, Item 5*), and the meter pole can be installed 4' below finished grade. A sufficient drip loop shall be present to prevent water ingress. A temporary meter pole must be a treated pole with a minimum size of 4" x 6". A temporary meter pole with service conductors of length of 75' or greater must be braced with at least two (2) pieces of 2" x 4" pressure treated lumber. ⑥
- E. The conduit shall be securely mounted with a minimum of three (3) conduit straps with a maximum of 30" (*NEC 230.51A*) apart. One (1) strap will be required installed no more than 12" (*NEC 230.51A*) from the weather head. The Service Mast conduit shall be galvanized metal rigid conduit or electrical schedule 40 pipe. If elbows are required, then PVC elbows shall be used. LB elbows and flex conduit cannot be used. ⑥
- F. Service entrance conductors from the weather head (*Point of Connection*) to the meter base are furnished and installed by customer. Service entrance conductors shall be sized according to the service load size (*ampacity*) and **Residential-Overhead Service Entrance Conductor Table**. Termination of conductors at the weather head (*Point of Connection*) performed by SLEMCO. ⑥

All service entrance conductors into and out of a self-contained meter base shall be single conductors. Parallel conductors are not allowed. An extension of at least 18" of service entrance conductors is required at the weather head. ⑥

The neutral of the service entrance conductors shall be identified with gray or white tape at the weather head and in the meter base.

- G. The main disconnect (*service panel*) and customer conductors (*from load side of the meter base to the main disconnect*) are furnished and installed by customer. If the service is 200 Amps, then the main disconnect within the service panel shall be sized for 200 amps. If the service is less than 200 Amps (*60/100 Amp*) and will serve loads such as service gates, campers, pond aerators, water sprinkler systems, etc., then a main disconnect will not be required within the service panel. The customer conductors shall be sized for 60/100/200 Amps of load, as required by the NEC or Governing Authority. The service panel must be of weatherproof and watertight design. ⑥
- H. The meter base is furnished and installed by customer. The meter base shall be mounted such that the center of the meter socket window is between 5' and 6' above finished grade. ⑥ The meter base shall conform to SLEMCO's standards and shall be compatible with SLEMCO metering and include a weatherproof hub. The meter base shall be rated for 200 Amps.

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Items marked with ⑥ ⑦ are indicated on the following drawings:

- ⑥ Drawing No.6 – *Single-Phase Overhead Meter Pole Requirements*
- ⑦ Drawing No.7 – *Meter Pole Guying*

In the event the customer requires larger than a 200 Amp service, this will require a current transformer (CT) metering installation. The equipment (*CT enclosure, disconnect switch, etc.*) necessary for CT metering will require an adjacent standalone structure or rack with suitable bracing for installation. Please refer to the section entitled, *Residential Current Transformer Metering Schemes*, for typical equipment configuration details.

If the customer requires larger than a 200 Amp service or two 200 Amp services on same pole, the meter pole will require guying. ⑦

The K10C service holder is furnished and installed by customer and shall conform to SLEMCO's standards. The K10C shall be mounted 6" from the top of the meter pole in the direction of the SLEMCO service conductor. Pre-drilling a pilot hole for the K10C is recommended. ⑥

- I. The customer will be responsible to furnish the meter base ground wire (*minimum #6 soft drawn copper*) and install this wire on the meter pole from the meter base to the ground rod. The meter base ground wire shall be connected in the ground wire lug, where provided, and not in the service neutral lug. The meter base ground wire must be stapled every 6". ⑥
- J. The customer will be responsible to furnish the pole grounding conductor (*minimum #6 soft drawn copper*) and install this conductor on the meter pole. The pole grounding conductor will extend from 6" above the top of the meter pole to the ground rod. It is installed at least 90° (*degrees*) around the pole from the service entrance conduit (*See Section A-A*). The pole grounding conductor must be stapled, starting from the top of the pole at 2' intervals until a point 6' above finished grade is reached, then stapled every 6". ⑥
- K. Ground rod, minimum 5/8" x 8' copperweld or 1/2" x 8' copper, furnished and installed by customer. Ground rod is to be set 1" below finished grade. ⑥ This is the minimum required by SLEMCO. Additional grounding may be required by the NEC or Governing Authority.

Temporary meter pole ground rods can be set 4" above finished grade. ⑥

In the event the customer requires larger than a 200 Amp service, this will require a CT metering installation. This will now require one ground rod per every 200 Amps of service. Please refer to the section entitled, *Residential Current Transformer Metering Schemes*, for details on typical installation.

- L. All unused or open holes in the meter base, main disconnect shall be plugged with watertight plugs.
- M. If a Governing Authority requires inspection, inspection tag must be in place and marked approved before SLEMCO will connect service. ⑥
- N. Important: the meter pole must be installed such that it is extremely sturdy before SLEMCO will connect service.