

## Metering Guidelines

Latest Update to all specs can be found at [Bluebonnetelectric.coop](http://Bluebonnetelectric.coop)

**For the member's safety, wiring installation and material shall conform to the requirements of the NEC, TDLR and NESC. All Wiring Installations must also meet local guidelines, if applicable, set forth but the city, county, or other governing entity in the event these requirements are more stringent than Bluebonnet specifications.**

### General Notes

Applicable to All Specs

1. Weatherproof fittings are required for all connections.
2. The main electrical disconnect for each electrical service, if not mounted on a Bluebonnet pole or on an approved rack, shall be unenclosed and installed on the exterior of the building or approved structure in a location approved by Bluebonnet Electric Cooperative
3. Meter assembly must remain unenclosed on the exterior of a structure.
4. Meter assembly cannot be mounted on a mobile home.
5. Any part of a meter rack or equipment rack shall be a minimum of six feet from Bluebonnet poles or equipment, and shall not impede access for maintenance to Bluebonnet's poles or equipment.
6. Bluebonnet poles must remain free of structures and private attachments other than the meter loop/meter loop riser assembly.
7. Meter loops or risers shall be installed on pole by Bluebonnet.
8. All secondary connections are to be made by Bluebonnet.
9. Neutral(s) must be insulated and may only be reduced two sizes on residential applications. No reduction of the neutral(s) is allowed on commercial applications.
10. Each phase must be sized to accommodate the total main fuses or breakers installed
11. Electric service to fire pumps shall be served through a CT-metered service.
12. Where three-phase is used to provide single-phase service to individual occupants, the load must be balanced between all three phases as equally as possible. This applies whether the single phase services are individually metered or not.
13. For all jobs requiring excavation, including rack or underground, the individual or contractor performing the work shall call TEXAS811 for locating jobs before digging to Bluebonnet equipment. No private utilities will be located.
14. Mobile Home Feeder Cables may not be used from Transformer or UJB to Meter unless the fourth (Green or Bare) Ground wire can be and is removed before installing.
15. If Communication lines are present, 43" of clearance must be maintained between the lowest energized equipment and communication line. Equipment includes but is not limited to drip loops, neutral, transformers, etc.

## CT Metering Notes

**Applies to:** MS-112B1, MS-112B3, MS-113B1, MS-113B3, MS-114A1, MS-114B3, MS-115-1, MS-115-3, MS-202A1, MS-202B3, MS-204B1, MS-204B2, MS-204B3, MS-207B, MS-301B, MS-301C, MS-406A, MS-533-1, MS-533-3, MS-554-1, MS-554-3

1. CT Enclosures may be purchased from Techline **(512-332-2978)** and Installed by Member:  
Minimum Size 1 Phase: Main Enclosure 30" x 30" x 12"  
Backup Enclosure 24" x 30" x 13"  
Minimum Size 3 Phase: Main Enclosure 42" x 30" x 13"  
Backup Enclosure 24" x 30" x 13"
2. CT enclosures may be purchased at any supplier as long as it meets the minimum dimensions and is able to accommodate a Bluebonnet pad lock.
3. Bluebonnet to provide CTs.
4. The electrical contractor will notify Bluebonnet 72 hours in advance to schedule Bluebonnet personnel to deliver the CT's. The electrician shall install the CT's on the rack with the correct polarity before the conductor is brought through the CT enclosure. Call **(800-842-7708)** to schedule a connect.
5. Electric service to fire pumps shall be served through a CT-metered service.

## Standby Generator Notes

**Applies to:** MS-400, MS-401, MS-401A, MS-402, MS-402A, MS-403, MS-404, MS-405, MS-406, MS-406A, MS-407, MS-408, MS-412

1. Generators shall be placed a minimum of 15' away from Bluebonnet's pole(s) and/or equipment and outside of Bluebonnet's easement.
2. Transfer switches may be on Bluebonnet pole, only if they are in place of a main panel. They may not be in addition to a panel.
3. Any transfer switch that serves as a main (first device past meter) must be service rated
4. Generators must be connected with a dedicated transfer switch. Breaker interlocks are not acceptable.
5. Portable generators may be connected to an inlet through a transfer switch.
6. Transfer switches that plug into the meter base are not acceptable.

## Renewable Energy Connection Notes

**Applies to:** MS-501, MS-502, MS-507T, MS-553-1, MS-553-3, MS-554-1, MS-554-3, MS-41115, MS-41119

1. The solar and/or battery disconnect(s), if not mounted on an approved rack, shall be installed on the exterior of the building or approved structure in a location approved by Bluebonnet Electric Cooperative.
2. DG disconnect must be clearly labeled and identified.
3. Bluebonnet poles must remain free of structures and private attachments other than the meter loop assembly or riser.
4. Inspection may be required by local jurisdiction if applicable.
5. DG meter or equipment rack (If Applicable) shall be a minimum of 6' away from Bluebonnet's poles and/or equipment.
6. Any installation with Batteries are required to have an accessible disconnect or method of shutdown to disable batteries.

# FOR THREE PHASE APPLICATIONS

## DESCRIPTION:

200amp, 7 terminal, 3-phase, 4-wire will require a lever by-pass meeting ANSI C12.7, UL 414, and NEMA 3R. Meter cans are available for purchase through Techline or any other electrical supplier provided it meets all Bluebonnet Electric Cooperative specifications.

## Notes:

1. Bluebonnet's pole must remain free of structures and private attachments other than meter loop.
2. This meter loop specification is good for the following voltages: 120/240, 120/208, 277/480, 240/480 (Single phase only). Please use MS-301 for straight 480 Delta applications.
3. Bluebonnet Electric will supply ground rod.
4. On steel poles use a  $\frac{3}{8}$ " x  $1\frac{1}{2}$ " self tapping screw.
5. For your safety, only Bluebonnet personnel are authorized to install meter loops or other BEC equipment on a Bluebonnet pole. Members shall have loop assembled and available for installation by Bluebonnet.
6. See "Metering Guidelines" for all other applicable notes.

## FOR SINGLE PHASE TRAFFIC CONTROL DEVICES:

200amp, 4 terminal, 1-phase, will require a lever by-pass meeting ANSI C12.7, UL 414, and NEMA 3R rating. Lever by-pass is only required for meter installations serving traffic control devices, including railroad, that need to remain functional at all times.

#6 solid, bare ground wire and clamp attached to Bluebonnet's pole ground.

Point of Service

15' riser of 35' pole  
Three 2 hole staps needed  
19' riser of 40' pole  
Four 2 hole staps needed

MIN. 5'-0"  
MAX. 6'-0"

Single phase 7' of conductor tails.

Three phase 10' of conductor tails.

Riser length (Weatherhead to top of Meter Can)  
Member to provide 3 two hole straps.

Galvanized electrical metal conduit.

NEMA approved meter socket.

Galvanized steel conduit with (1) locknut and insulating bushing inside meter can and (1) locknut under meter can. Maintain 3"-6" distance. A straight or offset nipple is acceptable.

Transfer switch with single main breaker as defined in the NEC.

Schedule 80 PVC pipe shall be used above ground.

Finished Grade

24" Minimum

To Load →  
From Generator ←

Service to load cable enclosed in minimum schedule 40 Gray PVC nonmetallic conduit.

## CURRENT CARRYING CAPACITIES AND CONDUIT/NIPPLE SIZE REQUIREMENTS OF STANDARD WIRE SIZES

(RHH, RHW, THW, THWN, AND XHHW)  
REFER TO NEC FOR OTHER CALCULATIONS.

| COPPER CONDUCTOR |              |                           | ALUMINUM CONDUCTOR |              |                           |
|------------------|--------------|---------------------------|--------------------|--------------|---------------------------|
| Wire Size        | Breaker Size | Conduit/Nipple Size       | Wire Size          | Breaker Size | Conduit/Nipple Size       |
| #6               | 60 Amp       | 1 $\frac{1}{4}$ " Conduit | #4                 | 60 Amp       | 1 $\frac{1}{4}$ " Conduit |
| #4               | 100 Amp      | 1 $\frac{1}{4}$ " Conduit | #2                 | 100 Amp      | 1 $\frac{1}{4}$ " Conduit |
| #2               | 125 Amp      | 1 $\frac{1}{2}$ " Conduit | #1/0               | 125 Amp      | 1 $\frac{1}{2}$ " Conduit |
| #1               | 150 Amp      | 2" Conduit                | #2/0               | 150 Amp      | 2" Conduit                |
| #2/0             | 200 Amp      | 2" Conduit                | #4/0               | 200 Amp      | 2" Conduit                |

1Ø OR 3Ø 60-200 AMP METER LOOP WITH TRANSFER SWITCH ON TRANSFORMER POLE



| DATE | REVISIONS | Drawn By : | Checked By : | Approved By : |
|------|-----------|------------|--------------|---------------|
|      |           | JB         | STANDARDS    | STANDARDS     |
|      |           | Scale :    | Date:        |               |
|      |           | NONE       | 03-29-2022   | MS-412        |