

CURRENT CARRYING CAPACITIES AND CONDUIT/NIPPLE SIZE REQUIREMENTS OF STANDARD WIRE SIZES (RHH, RHW, THW, THWN, AND XHHW) THIS GUIDE REFERS TO TABLE 310.15 (B)(7), SINGLE PHASE DWELLINGS SERVICES. REFER TO NEC FOR OTHER CALCULATIONS.

COPPER CONDUCTOR		
Wire Size	Breaker Size	Conduit/Nipple Size
#6	60 Amp	1 1/2" Conduit
#4	100 Amp	1 1/2" Conduit
#2	125 Amp	1 1/2" Conduit
#1	150 Amp	2" Conduit
#2/0	200 Amp	2" Conduit
ALUMINUM CONDUCTOR		
Wire Size	Breaker Size	Conduit/Nipple Size
#4	60 Amp	1 1/2" Conduit
#2	100 Amp	1 1/2" Conduit
#1/0	125 Amp	1 1/2" Conduit
#2/0	150 Amp	2" Conduit
#4/0	200 Amp	2" Conduit

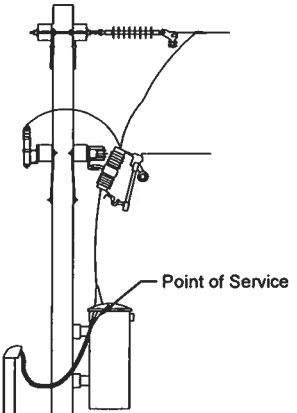
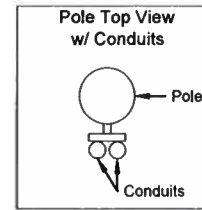
FOR THREE PHASE APPLICATIONS DESCRIPTION: 200amp, 7 terminal, 3-phase, 4-wire will require a lever by-pass meeting ANSI C12.7, UL 414, and NEMA 3R.

Notes:

- Weatherproof fittings required.
- Wire sized to total disconnect size.
- Neutral may only be reduced two sizes on residential application. No reduction of the neutral is allowed on commercial application.
- SBEC pole must remain free of structures and private attachments other than meter loop riser assembly.
- Meter assembly must remain unenclosed on exterior of structure.
- Meter assembly cannot be mounted on a mobile home.
- The main electrical disconnect for each electrical service shall be installed on the exterior of the building in a location approved by SBEC.
- Must use UG style meter can supplied by SBEC.

Ⓐ Riser Length:  
35' Pole = 20' Riser  
40' Pole = 24' Riser

Ⓑ Member's Conduit:  
Member's conduit shall be installed 8" - 12" from pole.



BUILDING OR RESIDENCE

Meter socket and weatherproof main disconnect panel with a single main breaker as defined in the NEC.

2" conduit above finished grade. Only approved electrical conduit (SCH. 80 PVC) allowed. Risers will not exceed 2 risers per pole. Member will provide 10' of conductor tails from top of weatherhead. SBEC to supply Stand-Offs. (SBEC to mount risers to pole)

Minimum 10'  
Maximum 100'

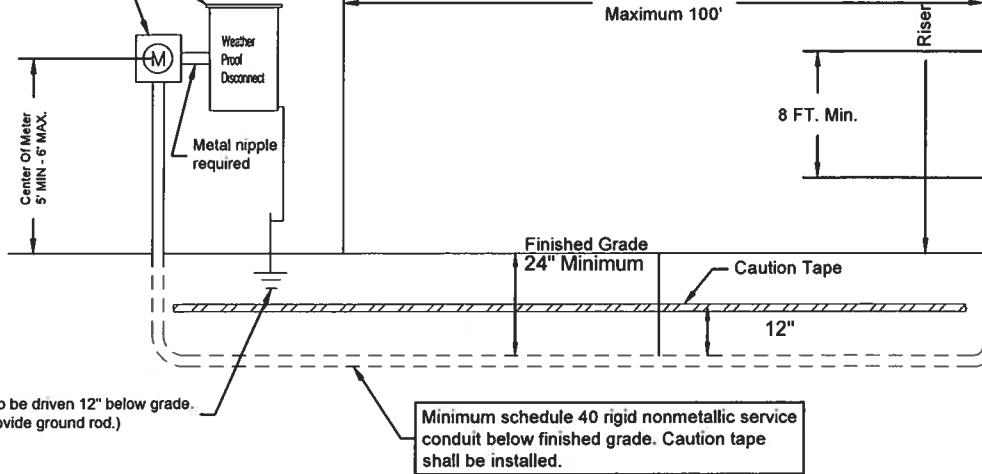
8 FT. Min.

2 FT. Min.

Schedule 80 PVC pipe shall be stubbed up 8" - 12" above the ground.

FOR THE MEMBER'S SAFETY, WIRING INSTALLATIONS SHALL CONFORM TO THE REQUIREMENTS OF THE NEC, TDLR AND NESC.

\* WIRING INSTALLATIONS MUST MEET LOCAL GUIDELINES, IF APPLICABLE, SET FORTH BY CITY, COUNTY, OR OTHER GOVERNING ENTITY IN THE EVENT THESE REQUIREMENTS ARE MORE STRINGENT THAN SBEC SPECIFICATIONS. \*



Minimum schedule 40 rigid nonmetallic service conduit below finished grade. Caution tape shall be installed.

Latest update can be found at [www.sbec.org/forms-specifications](http://www.sbec.org/forms-specifications)



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SAN BERNARD ELECTRIC COOPERATIVE (SBEC)

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1Ø OR 3Ø 60-200 AMP METER ON BUILDING OR RACK

DATE	REVISIONS	REV NO	REV BY	ISSUE DATE
				2/13/2025
		SCALE	None	TECH SBJ
		PAGE	1 OF 1	DRAWING NO SBEC-106

## **Metering Guidelines**

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

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 SBEC 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 an SBEC 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 San Bernard 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 10 feet from SBEC poles or equipment and shall not impede access for maintenance to SBEC's poles or equipment.
6. SBEC 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 SBEC.
8. All secondary connections are to be made by SBEC.
9. Neutral(s) must be insulated and may only be reduced by 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 underground utilities before digging to SBEC equipment. No private utilities will be located.

## Standby Generator Notes

1. Generators shall be placed at a minimum of 10' away from SBEC's pole(s) and/or equipment and outside of SBEC's easement.
2. Transfer switches may be on SBEC's 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 to 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.
7. Emergency Stop buttons shall be installed at the transfer switch.

If you have questions about installing a generator email or call us at, [generatorquestions@sbec.org](mailto:generatorquestions@sbec.org), 979-865-3171.

**The Member must make arrangements with SBEC for the disconnect. There will be a \$120.00 fee applied to the next monthly bill for the request to disconnect for a generator installation. Any additional trips will be assessed at the same rate.**

SBEC Table (SC1)

### Residential Service Entrance Conductors

All Conductor ratings are based on 75°C (167°F) temperature rating

Main Service Amperage	Current Conductor		Neutral Conductor		Grounded Conductor (Bonding Jumpers)	Grounding Electrode Conductor
	Copper Wire Size/ Amps	Aluminum Wire Size/ Amps	Copper Wire Size/ Amps	Aluminum Wire Size/ Amps	Copper Wire Size/ Amps	Copper
100	4	2	8	3	8	6
125	2	1/0	4	2	8	6
150	1	2/0	3	1	6	6
200	2/0	4/0	1	2/0	4	6
320	350	500	250	350	2	6
*Parallel Runs	2/0	3/0	1	1/0		
400	400	600	300	400	1/0	6
*Parallel Runs	3/0	4/0	1/0	2/0		

Note: Services larger than 200 AMP require a load analysis, Services larger than 400 AMP require a load analysis and one-line diagram.

\* Parallel conductor size is calculated using separate conduits. If single conduit is used the conductor must be derated by 80% and a larger conductor size will be required.

SBEC Table (SC2)

### Commercial Service Entrance Conductors

*This includes large water wells and shops for business use*

All Conductor ratings are based on 75°C (167°F) temperature rating

Main Service Amperage	Current Conductor		Neutral Conductor		Grounded Conductor (Bonding Jumpers)	Grounding Electrode Conductor
	Copper Wire Size/ Amps	Aluminum Wire Size/ Amps	Copper Wire Size/ Amps	Aluminum Wire Size/ Amps	Copper Wire Size/ Amps	Copper
100	2	1/0	2	1/0	8	6
125	1	2/0	1	2/0	6	6
150	1/0	3/0	1/0	3/0	6	6
200	3/0	250	3/0	250	2	6
320	350	500	350	500	2	6
*Parallel Runs	2/0	3/0	2/0	3/0		
400	500	750	500	750	1/0	6
*Parallel Runs	3/0	250	3/0	250		

Note: Services larger than 200 AMP require a load analysis, Services larger than 400 AMP require a load analysis and one-line diagram.

Note: The neutral conductor is not allowed to be downsized in this installation.

\* Parallel conductor size is calculated using separate conduits. If single conduit is used the conductor must be derated by 80% and a larger conductor size will be required.