

# TOMBIGBEE ELECTRIC COOPERATIVE

## Service Entrance Conductor Sizes

Table is for Type RHH, RHW, RHW-2, THHN, THHW, THW, THW-2, THWN, THWN-2 XHHW, XHHW-2, SE, USE, USE-2, Insulated Conductors Rated at 75°C

	COPPER CONDUCTORS	ALUMINUM CONDUCTORS	
Size Entrance Switch	Recommended Conductor Size	Recommended Conductor Size	Conduit Size
<b>SINGLE PHASE SERVICE ENTRANCE CABLE 2 CONDUCTORS, 1 NEUTRAL(RESIDENTAL)</b>			
100	#2	#1/0	
200	#2/0	#4/0	
<b>SINGLE PHASE SERVICE IN CONDUIT 2 CONDUCTORS, 1 NEUTRAL(RESIDENTAL)</b>			
100	#2	#1/0	2"
200	#2/0	#4/0	2"
400	500 MCM	750 MCM	4"
600	2 runs 350 MCM	2 runs 500 MCM	2@4"
<b>THREE PHASE SERVICE IN CONDUIT 3 CONDUCTORS, 1 NEUTRAL</b>			
100	#2	#1/0	2"
200	#3/0	#250 MCM	2"(2-1/2" w/Aluminum)
400	500 MCM	750 MCM	4"
600	2 runs 350 MCM	2 runs 500 MCM	2@4"

## GROUNDING ELECTRODE CONDUCTOR SIZES

Size Entrance Switch	Size Of Grounding Electrode Conductor
	<b>COPPER</b>
100 Amp	#6
200 Amp	#4
400 Amp	#1/0
600 Amp	#2/0

**NOTES:**

1. ALUMINUM GROUNDING ELECTRODE CONDUCTORS SHALL NOT BE USED WHERE IN DIRECT CONTACT WITH MASONRY OR THE EARTH OR WHERE SUBJECT TO CORROSIVE CONDITIONS. ALUMINUM GROUNDING CONDUCTORS SHALL NOT BE INSTALLED WITHIN 18" OF THE EARTH.
2. ROD-TYPE ELECTRODES OF STAINLESS STEEL AND COPPER, OR ZINC COATED STEEL SHALL BE AT LEAST 5/8" IN DIAMETER. RODS SHALL BE NOT LESS THAN 8' IN LENGTH.
3. IT IS RECOMMENDED THAT THE GROUNDING ELECTRODE CONDUCTOR BE RUN TO THE SERVICE NEUTRAL.
4. GROUND CLAMPS SHALL BE LISTED FOR THE MATERIALS OF THE GROUNDING ELECTRODE AND THE GROUNDING ELECTRODE CONDUCTOR, AND SHALL ALSO BE LISTED FOR DIRECT SOIL BURIED OR CONCRETE ENCASEMENT.
5. IF A SINGLE ROD ELECTRODE HAS A RESISTANCE OF LESS THAN 25 OHMS, SECOND ROD IS REQUIRED NOT LESS THAN 6' APART. BOTH RODS SHALL BE BONDED TO CREATE A SINGLE POINT OF GROUNDING.

**4/22/2013**