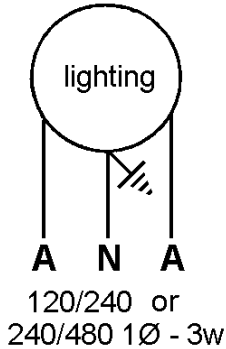
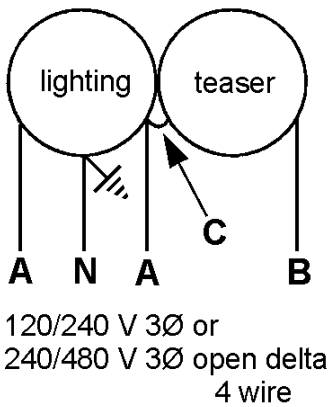


CONSTRUCTION GUIDELINE

COPPER WIRE SIZES FOR DISTRIBUTION TRANSFORMERS SECONDARY CONNECTIONS



kVA	120/240		240/480	
	A	N	A	N
15	4	4	—*	—
25	2	4	4	4
37.5	2/0	2	—*	—
50	4/0	2/0	2	4
75	350	4/0	2/0	2
100	350	4/0	4/0	2/0
167	2-350	350	350	4/0

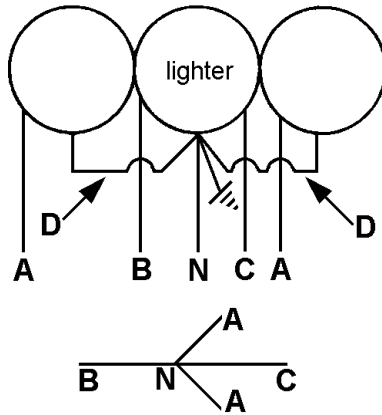
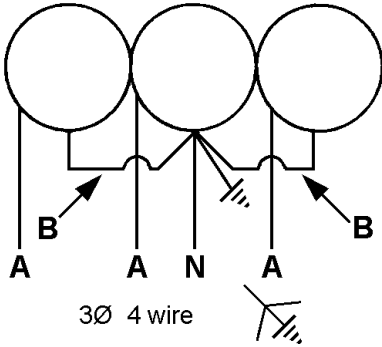


kVA	120/240			240/480*		
	A	B, C	N	A	B, C	N
15-15	4	4	4	—	—	—
25-15	2	4	4	—	—	—
25-25	2	2	4	4	4	4
37-15	2/0	4	2	—	—	—
37.5-25	2/0	2	2	—	—	—
37.5-37.5	2/0	2/0	2	—	—	—
50-15	4/0	4	2/0	—	—	—
50-25	4/0	2	2/0	2	4	2
50-37	4/0	2/0	2/0	—	—	—
50-50	4/0	4/0	2/0	2	2	2
75-15	350	4	4/0	—	—	—
75-25	350	2	4/0	2/0	4	2
75-37.5	350	2/0	4/0	—	—	—
75-50	350	4/0	4/0	2/0	2	2
75-75	350	350	4/0	2/0	2/0	2
100-15	350	4	4/0	—	—	—
100-25	350	2	4/0	4/0	4	2/0
100-37.5	350	2/0	4/0	—	—	—
100-50	350	4/0	4/0	4/0	2	2/0
100-75	350	350	4/0	4/0	2/0	2/0
100-100	350	350	4/0	4/0	4/0	2/0
167-15	2-350	4	350	—	—	—
167-25	2-350	2	350	350	4	4/0
167-37.5	2-350	2/0	350	—	—	—
167-50	2-350	4/0	350	350	2	4/0
167-75	2-350	350	350	350	2/0	4/0
167-100	2-350	350	350	350	4/0	4/0
167-167	2-350	2-350	350	350	350	4/0

* There are 15 and 37.5 kVA transformers only at 120/240 or cut 120 for 208Y/120. There are **NO** 15 or 37.5 kVA transformers at 240/480, 277, 265, 138/277, etc.

ORIGINATOR	STANDARDS COORDINATOR	STANDARDS SUPERVISOR	UNIT DIRECTOR
<i>Jim S. Horn</i>	<i>Charles L. Shaffer</i>	<i>John C. Skinner</i>	<i>Harold J. J.</i>

COPPER WIRE SIZES FOR DISTRIBUTION TRANSFORMERS SECONDARY CONNECTIONS



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kVA	208/120 – 240/138		480/277*		Notes
	A,B	N	A, B	N	
3-15	2	4	–	–	208 $\frac{Y}{\Delta}$ /120
3-25	4/0	2/0	2	4	
3-37.5	350	4/0	–	–	240 $\frac{Y}{\Delta}$ /138
3-50	350	4/0	2/0	2	
3-75	500	350	4/0	2/0	480 $\frac{Y}{\Delta}$ /277
3-100	2-350	350	350	4/0	
3-167	2-500	2-350	500	350	

kVA	A,D	B	C	N	Notes
15-50-15	2	4/0	2	2/0	three phase and single phase for 208 $\frac{Y}{\Delta}$ /120 V 3Ø – 4w & 120/240 V 1Ø-3w
15-75-15	2	350	2/0	4/0	
25-75-25	4/0	350	2	4/0	
15-100-15	2	350	4/0	4/0	
25-100-25	4/0	350	2/0	4/0	
37-100-37	350	350	2	4/0	
15-167-15	2	2-350	500	350	
25-167-25	4/0	2-350	350	350	
37-167-37	350	2-350	350	350	
50-167-50	350	2-350	4/0	350	

REFERENCE TABLE FOR TRANSFORMER SECONDARY CONNECTIONS

Copper Wire Ampacity (Free Air Rating)

Size	Normal Amps	Emergency Amps	Stock No.	Wire Size Substitutions When Others Are Not Available
4	141	178	611442	
2	210	265	613730	
2/0	335	446	613733	2#2 for 2/0
4/0	430	593	613735	2#2 for 4/0
350	635	908	613738	2-2/0 for 350
500	780	1115	613740	2-4/0 for 500
750	986	1410	613743	2-350 for 750

Transformer Full Load Amps

KVA	120/240	240/480*	120 (208/120)	138 (240/138)*	277 (480/277)*
15	63	–	125	–	–
25	104	52	208	181	90
37.5	156	–	312	–	–
50	208	104	416	362	181
75	312	156	625	543	271
100	416	208	833	725	361
167	696	348	1392	1210	603

* There are 15 and 37.5 kVA transformers only at 120/240 or cut 120 for 208Y/120. There are **NO** 15 or 37.5 kVA transformers at 240/480, 277, 265, 138/277, etc.