

**FAULT CURRENT FOR 3Ø TRANSFORMERS (12,470 DELTA-WYE),
CALCULATED FOR THE EMERGENCY SPARE TRANSFORMER**

Xfmr (3Ø, kVA)	Volt L-L	Volt L-G	Current (Amp.)	System Imp. (%)	Xfmr Imp. (%)	3Ø Fault (Amps)	L-G Fault (Amps)
75	208	120	208	.026	0.90	27,890	28,223
112.5	208	120	312	.040	1.08	36,752	37,333
150	208	120	416	.053	1.08	53,871	55,129
225	208	120	625	.079	1.08	70,227	72,379
300	208	120	833	.106	1.08	90,933	94,573
500	208	120	1388	.176	1.35	90,933	94,473
750	208	120	2083	.264	5.32	48,933	49,968
1000/1120	208	120	2778	.353	5.32	48,933	49,968
75	480	277	90	.026	.90	12,086	12,230
112.5	480	277	135	.040	1.08	15,926	16,178
150	480	277	180	.053	1.08	23,344	23,889
225	480	277	271	.079	1.08	30,432	31,364
300	480	277	361	.106	1.08	39,404	40,982
500	480	277	601	.176	1.35	39,404	40,982
750	480	277	902	.264	5.32	21,204	21,653
1000	480	277	1203	.353	5.32	30,848	31,806
1500	480	277	1804	.529	5.32	39,927	41,548
2000	480	277	2406	.705	5.32	53,399	56,338
2500/2800	480	277	3368	.987	5.32	53,399	56,338
500	4160	2400	69	.176	1.35	4,547	4,729
750	4160	2400	104	.264	5.32	2,447	2,498
1000	4160	2400	139	.353	5.32	3,559	3,670
1500	4160	2400	208	.529	5.32	4,607	4,794
2000	4160	2400	278	.705	5.32	5,595	5,873
2500/2800	4160	2400	389	0.881	5.32	5,595	5,873

FAULT CURRENT FOR 1Ø TRANSFORMERS CALCULATED FOR THE EMERGENCY SPARE TRANSFORMER

Xfmr (1Ø, kVA)	Volt L-L	Volt L-G	Current (Amp.)	System Imp. (%)	Xfmr Imp. (%)	L-L Fault (Amps)	L-G Fault (Amps)
25	240	120	104	.009	1.3	15,811	24,108
37.5	240	120	156	.013	1.32	23,544	36,482
50	240	120	208	0.018	1.3	23,544	36,482
75	240	120	313	0.026	1.3	30,959	48,989
100	240	120	417	0.035	1.31	39,466	63,059
167	240	120	696	0.059	1.7	39,466	63,059

NOTES:

- The above tables are based on 2 substation transformers (33 MVA) in parallel and being fed at 138kV.
- Fault currents shown are for the worst case between the existing transformer and the next larger (emergency spare) size, where applicable.
- The system impedance values shown above use the transformer kVA as the base.
- The transformer impedance values shown above are based on the lowest values supplied in the past for each kVA size.
- The 12.47kV primary system can provide up to 13kA of fault current.
- Assume an X/R ratio of 10.

				Electric Service Requirements		RE-10
				Fault Current Levels Secondary Terminals		
Drawn:	Eng:	Appr:	Date:			Revision: 2
CD	AM	HW	12/23			Page 1 of 1