Equivalent Unity Ratio T Networks

For 94, 101, and 120 Type Repeating Coils

Type Coil	Imp. Ratio (±)	Side to Which Network is Referred	Network Arm	Impedance of T-Network Arms																	
				200 Cycles		300 Cycles		500 Cycles		1000 Cycles		1500 Cycles		2000 Cycles		2500 Cycles		3000 Cycles	
94 B 120 GB	1	High or Low	a b c	42 +j 7 30 +j 864 865	86.7	42 +j 11 82 +j 1260 1265	86.2	42 +j 19 126 +j 1880 1884	86.1	42 +j 37 277 +j 3950 3931	85.5	42 +j 56 566 +j 5570 5999	84.2	42 +j 74 1150 +j 8660 8736	82.4	42 +j 98 2650 +j 13,700 13,954	79.1	42 +j 111 8630 +j 24,600 26,065	76.7
94 F 120 DB	1.5	Low	a b c	42 +j 7 30 +j 864 865	86.7	42 +j 11 82 +j 1260 1265	86.2	42 +j 19 132 +j 1890 1895	86.0	42 +j 37 289 +j 3990 3992	85.4	42 +j 56 660 +j 5850 5883	84.0	42 +j 74 1440 +j 9600 9707	81.5	42 +j 98 4200 +j 17,100 17,608	78.2	42 +j 111 84,700 +j 37,200 14,653	24.4
94 H	1	High or Low	a b c	13 +j 4 39 +j 408 408	87.2	13 +j 6 51 +j 579 580	86.9	13 +j 10 92 +j 901 902	86.7	13 +j 20 125 +j 1730 1735	85.9	13 +j 30 840 +j 2695 2706	84.9	13 +j 40 1446 +j 3960 3985	83.6	13 +j 50 6895 +j 5991 5991	81.4	13 +j 60 1590 +j 8430 8599	79.3
94 K	1.5	Low	a b c	16 +j 3 25 +j 333 333	87.2	16 +j 5 42 +j 472 473	86.9	16 +j 8 42 +j 734 735	86.7	16 +j 16 102 +j 1430 1434	85.9	16 +j 25 156 +j 2196 2205	84.9	16 +j 33 348 +j 3227 3248	83.6	16 +j 41 729 +j 4089 4083	81.4	16 +j 49 1896 +j 6854 6976	79.3
101 A 94 E	1	High or Low	a b c	14 +j 2 25 +j 530 531	87.3	14 +j 3 40 +j 765 766	87.0	14 +j 5 80 +j 1210 1213	86.2	14 +j 9 170 +j 2260 2266	85.7	14 +j 14 290 +j 3340 3353	85.0	14 +j 18 445 +j 4400 4422	84.2	14 +j 23 620 +j 5459 5485	83.2	14 +j 27 845 +j 6650 6654	82.1
120 G 120 H	1	High or Low	a b c	14 +j 4 39 +j 1239 1240	88.2	14 +j 7 65 +j 2030 2031	88.1	14 +j 14 175 +j 4410 4410	86.5	14 +j 28 784 +j 8010 8048	84.4	14 +j 41 2430 +j 11,200 11,406	82.3	14 +j 55 12,400 +j 33,700 33,760	80.5	14 +j 69 78,500 +j 87,345 87,345	78.5
120 D 120 J	1.5	Low	a b c	14 +j 4 37 +j 1240 1241	88.2	14 +j 7 68 +j 2060 2061	88.1	14 +j 14 298 +j 4610 4620	86.3	14 +j 28 1020 +j 9100 9157	83.6	14 +j 42 4740 +j 20,600 20,165	76.4	14 +j 55 87,500 +j 19,500 89,647	12.6	14 +j 69 2770 -j 26,200 27,328	77.5
120 M 120 K	1.5	High	a b c	13 +j 4 39 +j 1230 1231	88.2	13 +j 7 67 +j 2000 2021	88.1	13 +j 14 255 +j 4600 4598	86.6	13 +j 21 675 +j 7120 7132	84.6	13 +j 28 1745 +j 12,300 12,225	81.8	13 +j 35 5499 +j 21,700 22,386	72.8	13 +j 42 34,226 +j 46,100 57,416	53.4
120 F 120 L	2.5	Low	a b c	6 +j 2 30 +j 474 474	88.8	6 +j 4 53 +j 698 698	88.2	6 +j 8 93 +j 1180 1181	87.4	6 +j 16 200 +j 2460 2468	85.7	6 +j 24 597 +j 5100 5094	83.4	6 +j 31 2740 +j 11,300 11,822	76.6	6 +j 39 55,100 +j 10,300 54,094	10.6	6 +j 47 4170 -j 15,200 15,748	74.7
120 G	1.5 or 2.5	Low	a b c	Use 120 F values															
120 GB	1.5	High	a b c	42 +j 7 51 +j 866 868	86.6	42 +j 11 83 +j 1260 1269	86.2	42 +j 19 129 +j 1870 1874	86.1	42 +j 37 267 +j 3460 3470	85.6	42 +j 56 521 +j 5390 5415	84.5	42 +j 74 1000 +j 8040 8102	82.9	42 +j 98 2010 +j 12,000 12,167	80.5	42 +j 111 1478 +j 19,000 19,634	75.6
120 FB	2.5	Low	a b c	28 +j 5 36 +j 521 522	86.0	28 +j 7 48 +j 761 763	86.4	28 +j 11 89 +j 1230 1243	85.8	28 +j 23 229 +j 2260 2272	81.2	28 +j 34 499 +j 3460 3447	83.1	28 +j 45 697 +j 5720 5790	81.1	28 +j 57 2340 +j 9680 9901	76.3	28 +j 68 10,300 +j 19,300 21,876	61.9
120 GB	1.5 or 2.5	Low	a b c	Use 120 FB values															

Note: See back of this sheet for method of using networks.

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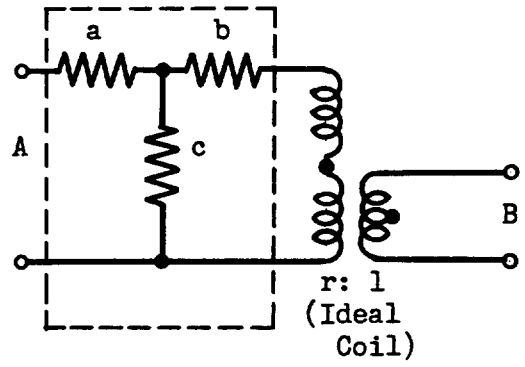
Method of Using 1: 1 T-Networks of Repeating Coils For Impedance Computations

Networks Referred to High Impedance Side



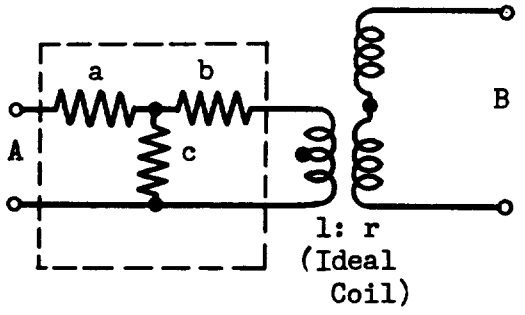
For Impedance at A: Multiply the impedance connected at B by r (the impedance ratio of the coil involved, greater than 1) and combine the resultant with the T-Network.

For Impedance at B: Combine the impedance connected at A with the T-Network and divide the resultant by r.

Note: The T-Network assumes nothing to be connected at the midpoint of the repeating coil windings. If an impedance z is connected at the midpoint of the:

1. High impedance winding, add z (vectorially) in series with arm a.
2. Low impedance winding, add z (vectorially) in series with the impedance connected at B or with that computed at B.

Networks Referred to Low Impedance Side



For Impedance at A: Divide the impedance connected at B by r (the impedance ratio of the coil involved, greater than 1) and combine the resultant with the T-Network.

For Impedance at B: Combine the impedance connected at A with the T-Network and multiply the resultant by r.

Note: The T-Network assumes nothing to be connected at the midpoint of the repeating coil windings. If an impedance z is connected at the midpoint of the:

1. High impedance winding, add z (vectorially) in series with the impedance connected at B, or with that computed at B.
2. Low impedance winding, add z (vectorially) in series with arm a.