

Turn ratio
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Shunt Resistor on secondary winding (ohm)	Net Loading Impedance after paralleling 47K and added 120 ohm series resistance of secondary winding (ohm)		Turn ratio		
			1:5	1:10	1:20
			<b>0.04</b>	<b>0.01</b>	<b>0</b>
2000	2,038	0.04	81.5	20.4	5.1
3000	2,940	0.04	117.6	29.4	7.4
4000	3,806	0.04	152.3	38.1	9.5
5000	4,639	0.04	185.6	46.4	11.6
6000	5,441	0.04	217.6	54.4	13.6
7000	6,213	0.04	248.5	62.1	15.5
8000	6,956	0.04	278.3	69.6	17.4
9000	7,674	0.04	306.9	76.7	19.2
10000	8,366	0.04	334.6	83.7	20.9
11000	9,034	0.04	361.4	90.3	22.6
11500	9,359	0.04	374.4	93.6	23.4
12000	9,679	0.04	387.2	96.8	24.2
13000	10,303	0.04	412.1	103.0	25.8
14000	10,907	0.04	436.3	109.1	27.3
15000	11,491	0.04	459.6	114.9	28.7
16000	12,057	0.04	482.3	120.6	30.1
17000	12,604	0.04	504.2	126.0	31.5
18000	13,135	0.04	525.4	131.4	32.8
19000	13,650	0.04	546.0	136.5	34.1
20000	14,150	0.04	566.0	141.5	35.4
21000	14,635	0.04	585.4	146.3	36.6
22000	15,106	0.04	604.2	151.1	37.8
23000	15,563	0.04	622.5	155.6	38.9
24000	16,007	0.04	640.3	160.1	40.0
25000	16,439	0.04	657.6	164.4	41.1
26000	16,860	0.04	674.4	168.6	42.1
27000	17,269	0.04	690.7	172.7	43.2
28000	17,667	0.04	706.7	176.7	44.2
29000	18,054	0.04	722.2	180.5	45.1
30000	18,432	0.04	737.3	184.3	46.1
31000	18,799	0.04	752.0	188.0	47.0
32000	19,158	0.04	766.3	191.6	47.9
33000	19,508	0.04	780.3	195.1	48.8
34000	19,848	0.04	793.9	198.5	49.6
35000	20,181	0.04	807.2	201.8	50.5
36000	20,506	0.04	820.2	205.1	51.3
37000	20,822	0.04	832.9	208.2	52.1
38000	21,132	0.04	845.3	211.3	52.8
39000	21,434	0.04	857.4	214.3	53.6

40000	21,729	0.04	869.2	217.3	54.3
41000	22,018	0.04	880.7	220.2	55.0
42000	22,300	0.04	892.0	223.0	55.7
43000	22,576	0.04	903.0	225.8	56.4
44000	22,845	0.04	913.8	228.5	57.1
45000	23,109	0.04	924.4	231.1	57.8
46000	23,367	0.04	934.7	233.7	58.4
47000	23,620	0.04	944.8	236.2	59.1
48000	23,867	0.04	954.7	238.7	59.7
49000	24,110	0.04	964.4	241.1	60.3
50000	24,347	0.04	973.9	243.5	60.9
51000	24,579	0.04	983.2	245.8	61.4
52000	24,807	0.04	992.3	248.1	62.0
53000	25,030	0.04	1001.2	250.3	62.6
54000	25,249	0.04	1009.9	252.5	63.1
55000	25,463	0.04	1018.5	254.6	63.7
56000	25,673	0.04	1026.9	256.7	64.2
57000	25,880	0.04	1035.2	258.8	64.7
58000	26,082	0.04	1043.3	260.8	65.2
59000	26,280	0.04	1051.2	262.8	65.7
60000	26,475	0.04	1059.0	264.8	66.2
61000	26,666	0.04	1066.7	266.7	66.7
62000	26,854	0.04	1074.2	268.5	67.1
63000	27,038	0.04	1081.5	270.4	67.6
64000	27,219	0.04	1088.8	272.2	68.0
65000	27,397	0.04	1095.9	274.0	68.5
66000	27,571	0.04	1102.9	275.7	68.9
67000	27,743	0.04	1109.7	277.4	69.4
68000	27,911	0.04	1116.5	279.1	69.8
69000	28,077	0.04	1123.1	280.8	70.2
70000	28,240	0.04	1129.6	282.4	70.6
71000	28,400	0.04	1136.0	284.0	71.0
72000	28,557	0.04	1142.3	285.6	71.4
73000	28,712	0.04	1148.5	287.1	71.8
74000	28,864	0.04	1154.6	288.6	72.2
75000	29,013	0.04	1160.5	290.1	72.5
76000	29,161	0.04	1166.4	291.6	72.9
77000	29,305	0.04	1172.2	293.1	73.3
78000	29,448	0.04	1177.9	294.5	73.6
79000	29,588	0.04	1183.5	295.9	74.0
80000	29,726	0.04	1189.1	297.3	74.3
81000	29,862	0.04	1194.5	298.6	74.7
82000	29,996	0.04	1199.8	300.0	75.0
83000	30,128	0.04	1205.1	301.3	75.3
84000	30,257	0.04	1210.3	302.6	75.6
85000	30,385	0.04	1215.4	303.9	76.0
86000	30,511	0.04	1220.4	305.1	76.3
87000	30,635	0.04	1225.4	306.3	76.6
88000	30,757	0.04	1230.3	307.6	76.9
89000	30,877	0.04	1235.1	308.8	77.2

90000	30,996	0.04	1239.8	310.0	77.5
91000	31,113	0.04	1244.5	311.1	77.8
92000	31,228	0.04	1249.1	312.3	78.1
93000	31,341	0.04	1253.7	313.4	78.4
94000	31,453	0.04	1258.1	314.5	78.6
95000	31,564	0.04	1262.5	315.6	78.9
96000	31,672	0.04	1266.9	316.7	79.2
97000	31,780	0.04	1271.2	317.8	79.4
98000	31,886	0.04	1275.4	318.9	79.7
99000	31,990	0.04	1279.6	319.9	80.0
100000	32,093	0.04	1283.7	320.9	80.2
Non	47,120	0.04	1884.8	471.2	117.8

Transformer Impedance and Load calculation

Total Primary Turn	20	Turn	Total turn ratio = 1:
Total Secondary Turn	200	Turn	
effective Primary load	100	ohm	
Secondary Load Resistor	10000	ohm	

**Arbitrary number of turn for MC-220		
Primary 1	10	Turn
Primary 2	10	Turn
Secondary 1	100	Turn
Secondary 2	100	Turn

**Do not change wording in this color**

**Output of calculation, do not input any value**

**Input box of value for your calculation**

10X

**Standard SILK Supermalloy MC-Step-up Transformer**

Transformer Ratio	Transformer Input Impedance (ohm)				
	10	25	50	100	150
1:5	X	X	X	X	X
1:10	X	X	MC-250	MC-220	MC-1150
1:20	X	MC-220	MC-250	MC-2100	X
1:40	MC-310	X	X	X	X

\*\* We also design and wind custom made MC-step Up transformer to any loa  
Pls inquire

200
MC-250
MC-250
X
X

ding impedance and turn ratio