

	A	B	C	D	E	F	G
1	Generator Coil Analysis						
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3	Coil		Coil Parameter	Back Envelope Estimate	Stacked Model Estimate	Packed Model Estimate	Lab Measured
4	A	T	Coil Turns				
5		x	Wire Diameter (in)				
6		L	Wire Length (ft.)				
7		d	Coil Inner Diameter (mm)				
8		W	Coil Width (mm)				
9		D	Coil Outer Diameter (mm)				
10		m	Coil Weight (g)				
11		R	Coil Resistance (ohms)				
12		A1	Coil Inner Area (m ²)				
13		A2	Coil Outer Area (m ²)				
14		A12	Coil Average Area (m ²)				
15	B	T	Coil Turns				
16		x	Wire Diameter (in)				
17		L	Wire Length (ft.)				
18		d	Coil Inner Diameter (mm)				
19		W	Coil Width (mm)				
20		D	Coil Outer Diameter (mm)				
21		m	Coil Weight (g)				
22		R	Coil Resistance (ohms)				
23		A1	Coil Inner Area (m ²)				
24		A2	Coil Outer Area (m ²)				
25		A12	Coil Average Area (m ²)				
26	C	T	Coil Turns				
27		x	Wire Diameter (in)				
28		L	Wire Length (ft.)				
29		d	Coil Inner Diameter (mm)				
30		W	Coil Width (mm)				
31		D	Coil Outer Diameter (mm)				
32		m	Coil Weight (g)				
33		R	Coil Resistance (ohms)				
34		A1	Coil Inner Area (m ²)				
35		A2	Coil Outer Area (m ²)				
36		A12	Coil Average Area (m ²)				
37	D	T	Coil Turns				
38		x	Wire Diameter (in)				
39		L	Wire Length (ft.)				
40		d	Coil Inner Diameter (mm)				
41		W	Coil Width (mm)				
42		D	Coil Outer Diameter (mm)				
43		m	Coil Weight (g)				
44		R	Coil Resistance (ohms)				

	A	B	C	D	E	F	G
45		A1	Coil Inner Area (m ²)				
46		A2	Coil Outer Area (m ²)				
47		A12	Coil Average Area (m ²)				
48	Average	T	Coil Turns				
49		x	Wire Diameter (in)				
50		L	Wire Length (ft.)				
51		d	Coil Inner Diameter (mm)				
52		W	Coil Width (mm)				
53		D	Coil Outer Diameter (mm)				
54		m	Coil Weight (g)				
55		R	Coil Resistance (ohms)				
56		A1	Coil Inner Area (m ²)				
57		A2	Coil Outer Area (m ²)				
58		A12	Coil Average Area (m ²)				
59	Average	T	Coil Turns				
60	%	x	Wire Diameter (in)				
61	Deviation	L	Wire Length (ft.)				
62	from	d	Coil Inner Diameter (mm)				
63	Measured	W	Coil Width (mm)				
64		D	Coil Outer Diameter (mm)				
65		m	Coil Weight (g)				
66		R	Coil Resistance (ohms)				
67		A1	Coil Inner Area (m ²)				
68		A2	Coil Outer Area (m ²)				
69		A12	Coil Average Area (m ²)				
70	<p>Notes:</p> <p>1. Back-of Envelope-Estimate is determined by using the given inner diameter of 1.25 inches Estimating the thickness of the coil to be 0.375 in. Estimating the average diameter (1.25+ 0.375/2 = 1.4375 in) Calculated the circumference x 200 -Length of wire The data is the same for all coils, A,B, C, D</p> <p>2. Stacked Model worksheet The data is the same for all coils, A,B, C, D</p> <p>3. Packed Model worksheet The data is the same for all coils, A,B, C, D</p> <p>4. Lab measured after coil winding Measure each coil. The data may not be the same for each coils, A,B, C, D</p> <p>5. % Deviation Calculation % Deviation = (Average Calculated - AverageMeasured)/ (AverageMeasured) x 100</p>						
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