This test is on the 150mm dia 8 pole alternator test bed.

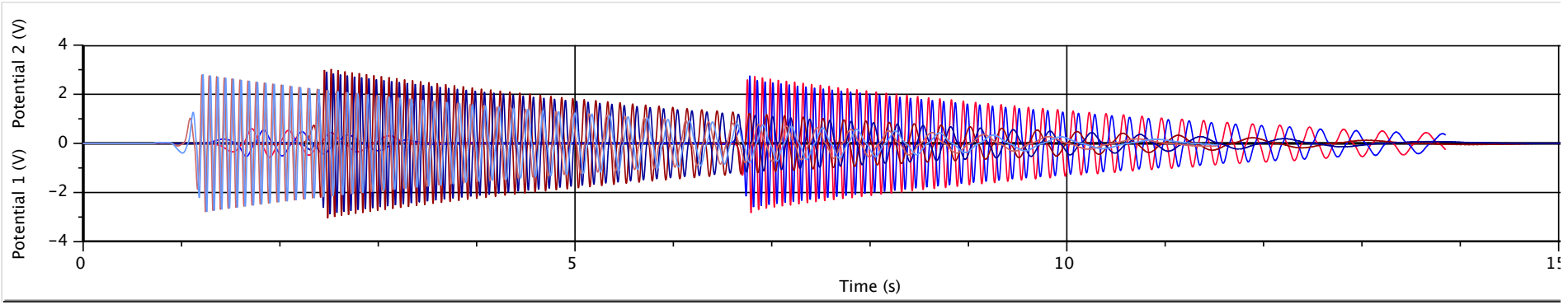
It's understood that the magnet plates are of magnets, who's poles are not coupled laterally. With good lateral coupling, in the same magnetic gap, flux should double, and double th she same gap should produce double the voltage.

The existing coils are 2mm tall (diameter), and have between them space for another set of coils, so existing coils within the same space could double. There is also space above equa been used, so a another double set of coils could be fitted without changing magnet gap.

The measures are taken from single phases, so if the phase were connected star, then voltage would be increased by 1.7 times

Added up with some optimism, the .02kV rating could double with a doubling of the magnetic flux to 0.04kV, and then the winding volume could increase by 4x, which would give 0.

It would require a lot of changes to go beyond 0.16kV.



3 test runs were done with 9 windings in sets of 3, each set in series.

1st Coils A and B Single rotation - might have slipped past 360 a bit then fast spin
2nd Coils A and B fast spin - 180 rpm = 0.022 kV fast 64 rpm 0.012
3rd Coils B and C fast spin - 189 rpm = 0.013 kV fast

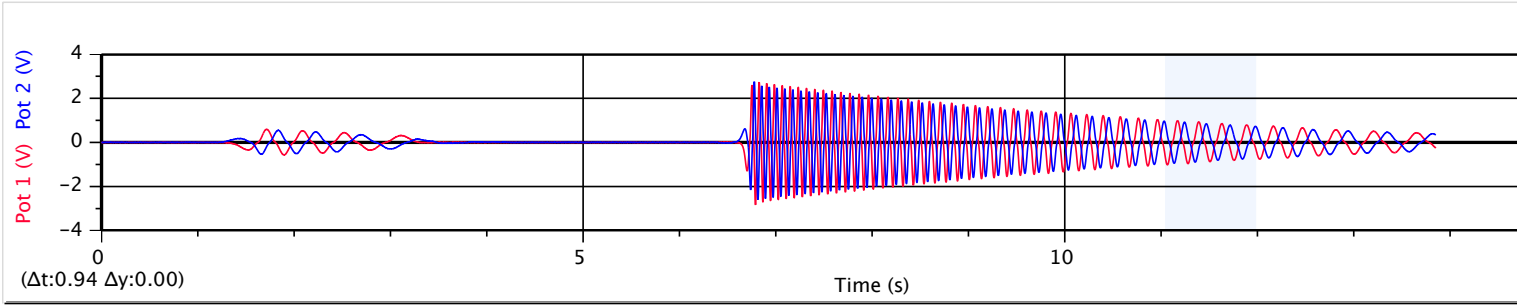
	Latest		Run 1
	Pot 2 (V)	Time (s)	Pot 1 (V)
11026		11.025	-0.166
11027		11.026	-0.184
11028		11.027	-0.203
11029		11.028	-0.228
11030		11.029	-0.250
11031		11.030	-0.278
11032		11.031	-0.306
11033		11.032	-0.328
11034		11.033	-0.365
11035		11.034	-0.384
11036		11.035	-0.409
11037		11.036	-0.437
11038		11.037	-0.468
11039		11.038	-0.496
11040		11.039	-0.528
11041		11.040	-0.559
11042		11.041	-0.593
11043		11.042	-0.615
11044		11.043	-0.646
11045		11.044	-0.671
11046		11.045	-0.702

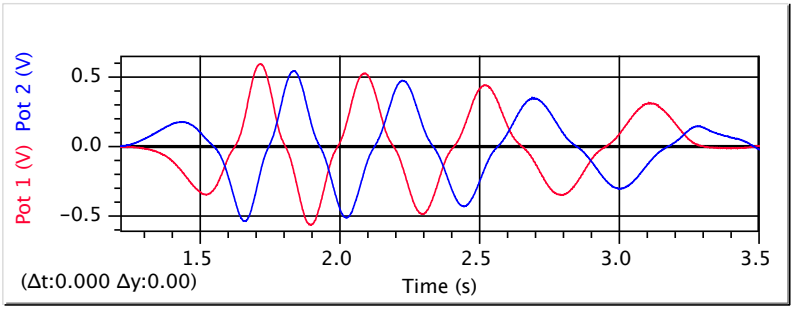
Potential 1

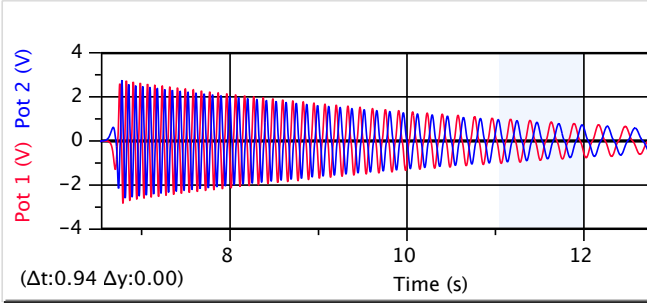
0.002 V

Potential 2

0.000 V



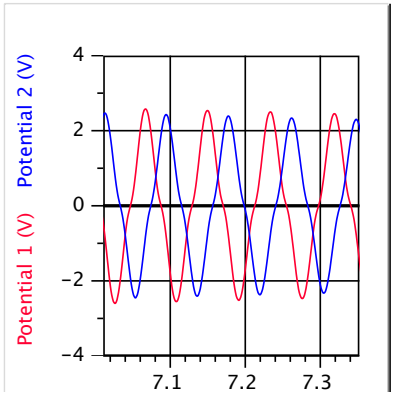


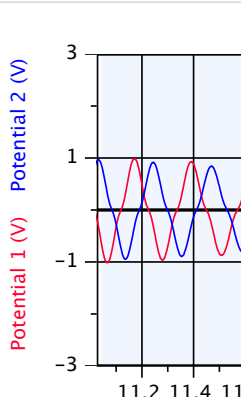


Single revolution, and free spin

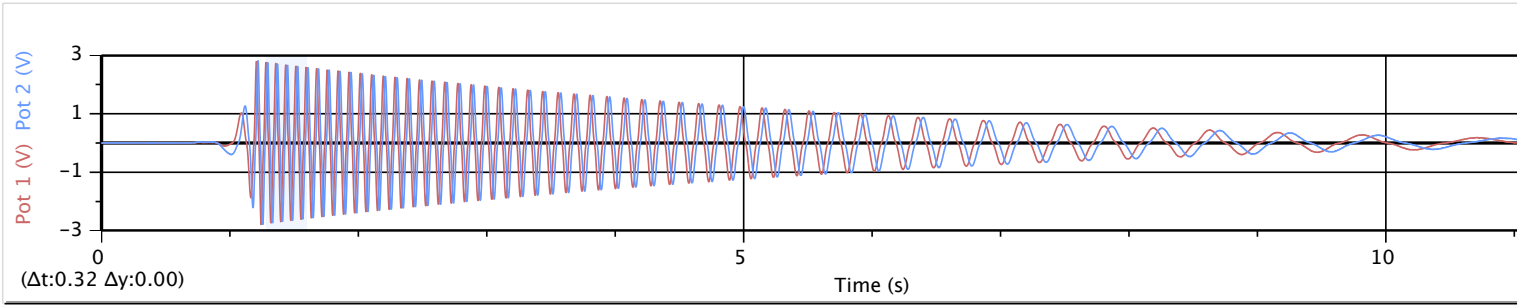
At high speed it took 0.332 seconds per revolution, with a voltage of 2.4
in 60 seconds at a constant speed, it would have traveled 180 revolutions
2.4/180 rpm = 0.022 kV per rev

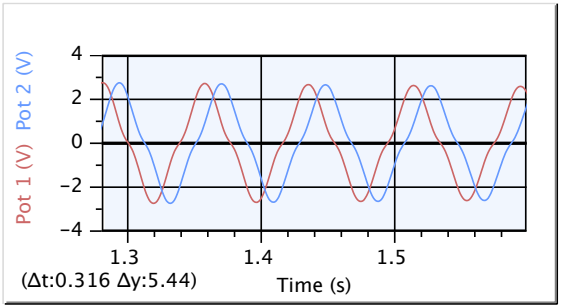
At low speed it took 0.946 seconds per revolution, with a voltage of .8
in 60 seconds it would have traveled 64 revolutions
.8/64 = 0.0125 kV per revolution

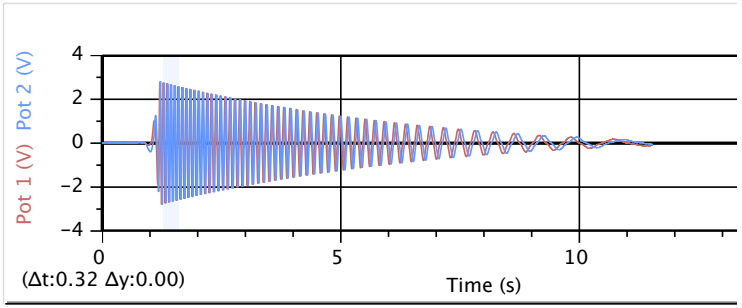




	Run 2		
	Pot 1 (V)	Pot 2 (V)	Time (s)
1266	-0.010	0.000	1.265
1267	-0.010	0.003	1.266
1268	-0.007	0.003	1.267
1269	-0.010	0.000	1.268
1270	-0.010	0.006	1.269
1271	-0.007	0.006	1.270
1272	-0.010	0.006	1.271
1273	-0.007	0.006	1.272
1274	-0.010	0.003	1.273
1275	-0.013	0.006	1.274
1276	-0.010	0.006	1.275
1277	-0.010	0.006	1.276
1278	-0.010	0.006	1.277
1279	-0.010	0.003	1.278
1280	-0.010	0.006	1.279
1281	-0.007	0.003	1.280
1282	-0.010	0.000	1.281
1283	-0.010	0.003	1.282
1284	-0.010	0.006	1.283
1285	-0.013	0.003	1.284
1286	-0.013	0.006	1.285







one revolution in .316 sec is 189 Rpm
189 rpm / 2.6 V = 0.013 kV

Potential 1

0.002 V

Potential 2

0.000 V