

150mm magnet array 8 pole Axial Flux PMA

Stator is 6 serpentine windings in 3 groups of 2. Groups labeled White, Blue, Red

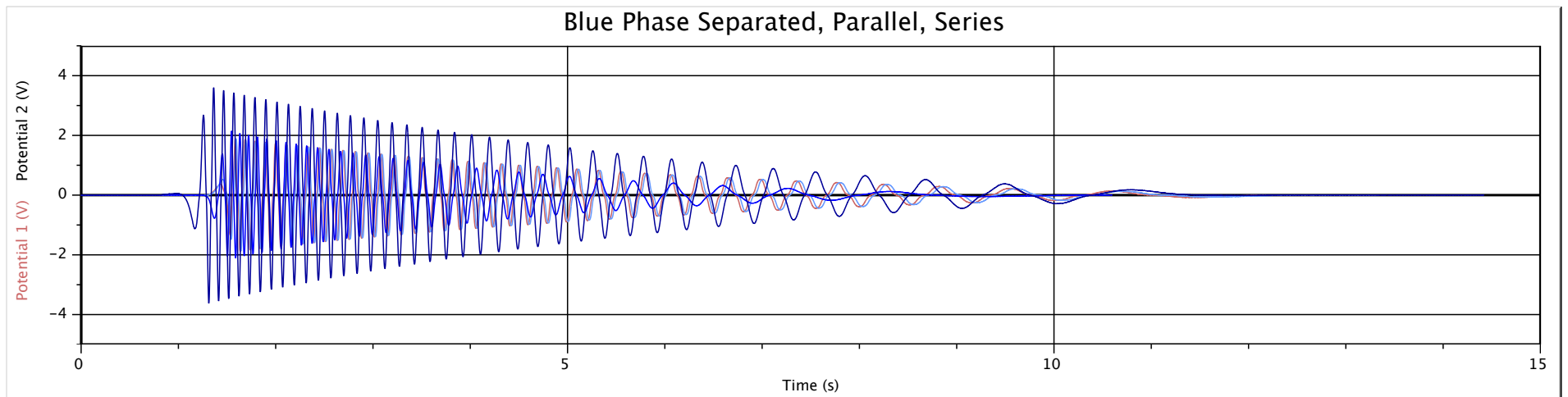
Test of 2 serpentine coils as White phase

terminal +7,-8 and -11,+12

separated pg 2

parallel pg 3

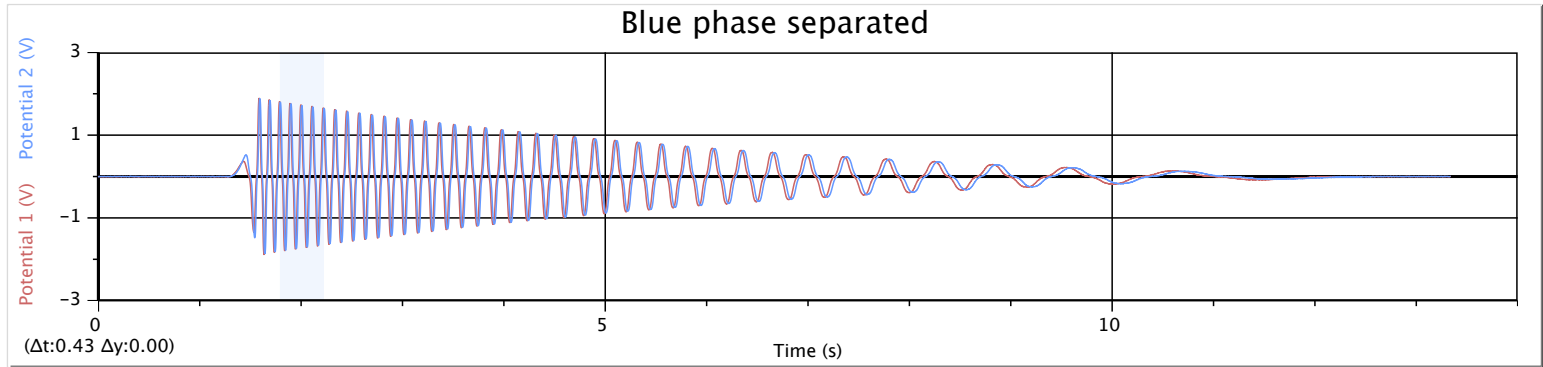
series pg 4



	Latest		Time (s)
	Pot 1 (V)	Pot 2 (V)	
1775			1.774
1776			1.775
1777			1.776
1778			1.777
1779			1.778
1780			1.779
1781			1.780
1782			1.781
1783			1.782
1784			1.783
1785			1.784
1786			1.785
1787			1.786
1788			1.787
1789			1.788
1790			1.789
1791			1.790
1792			1.791
1793			1.792
1794			1.793

Potential 1 V

Potential 2 V

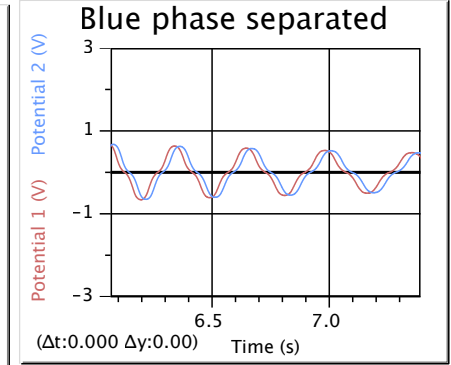
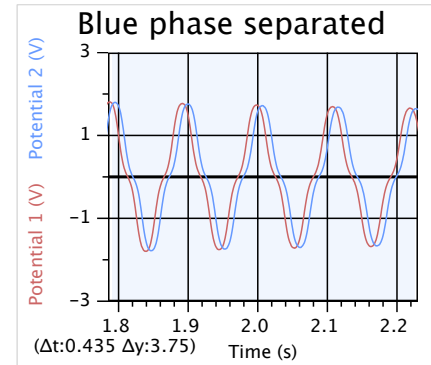


Blue Phase 2 coils separately measured

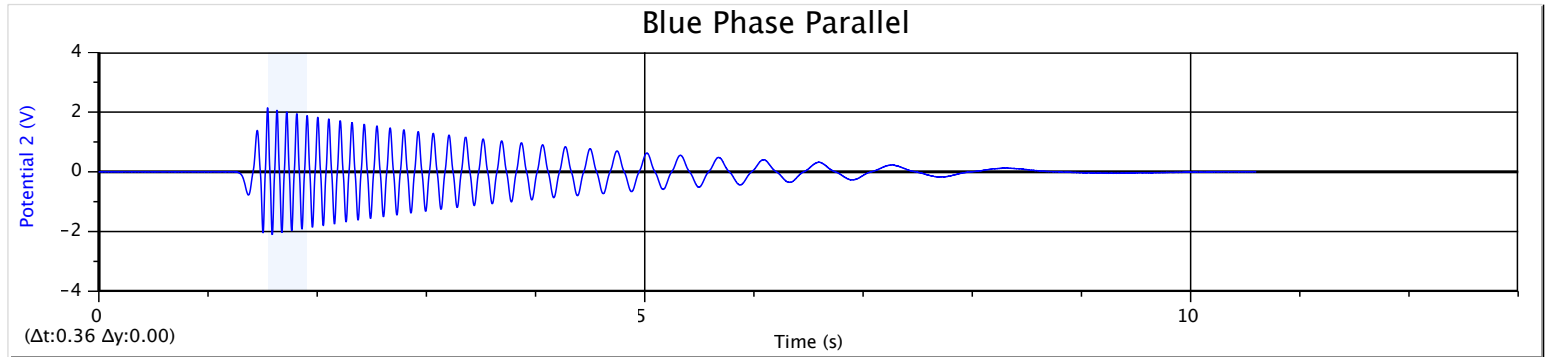
Terminals
7(+) V 8(-)

and
11(-) V 12(+)

in 0.435 seconds per rotations it produced 1.8 V
 $\text{rpm} = 60 / 0.435 = 137 \text{ rpm}$
 $\text{kV} = 1.8 / 137 = 0.013 \text{ kV}$



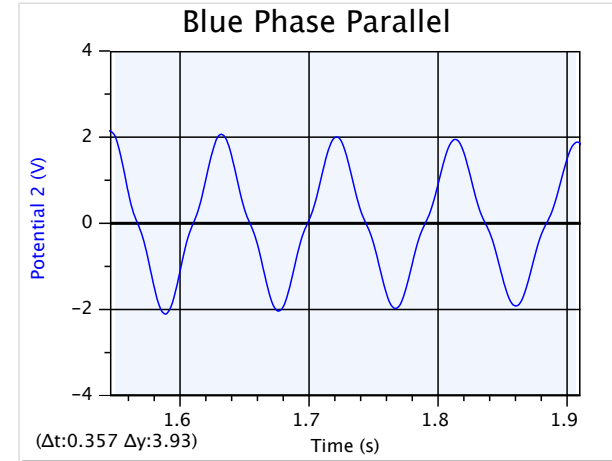
Run 1			
	Pot 1 (V)	Pot 2 (V)	Time (s)
1534	-1.350	-1.273	1.533
1535	-1.344	-1.317	1.534
1536	-1.350	-1.348	1.535
1537	-1.341	-1.379	1.536
1538	-1.322	-1.398	1.537
1539	-1.303	-1.420	1.538
1540	-1.272	-1.438	1.539
1541	-1.238	-1.460	1.540
1542	-1.191	-1.469	1.541
1543	-1.135	-1.476	1.542
1544	-1.066	-1.479	1.543
1545	-0.994	-1.479	1.544
1546	-0.916	-1.469	1.545
1547	-0.829	-1.457	1.546
1548	-0.742	-1.432	1.547
1549	-0.661	-1.404	1.548
1550	-0.576	-1.370	1.549
1551	-0.501	-1.317	1.550
1552	-0.420	-1.245	1.551
1553	-0.346	-1.171	1.552



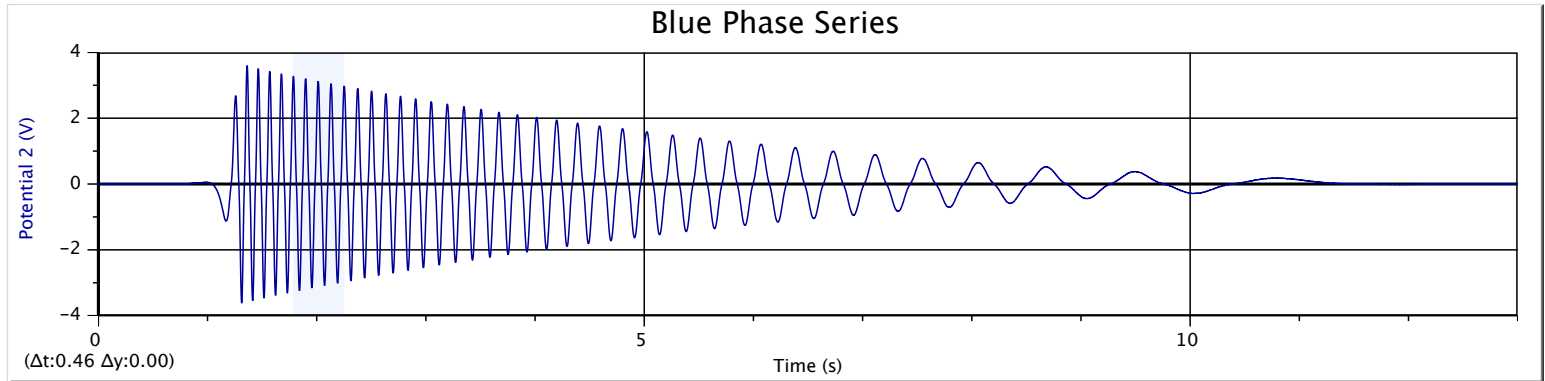
Blue Phase 2 coils parallel open circuit V
measured on terminals

terminals 7 and 12 joined and 8 and 11 joined, then volts measured across paired groups

at .357 seconds per rotation and 1.95V
 $\text{rpm} = 60 / .357 = 168 \text{ rpm}$
 $\text{kV} = 1.95\text{V} / 168 = 0.011 \text{ kV}$



Run 2			
	Pot 1 (V)	Pot 2 (V)	Time (s)
1773	-0.065	-1.796	1.772
1774	-0.021	-1.718	1.773
1775	-0.018	-1.625	1.774
1776	-0.018	-1.529	1.775
1777	-0.027	-1.416	1.776
1778	0.072	-1.304	1.777
1779	0.110	-1.183	1.778
1780	0.097	-1.062	1.779
1781	0.057	-0.940	1.780
1782	0.029	-0.806	1.781
1783	0.051	-0.691	1.782
1784	0.085	-0.576	1.783
1785	0.044	-0.467	1.784
1786	-0.027	-0.371	1.785
1787	-0.105	-0.278	1.786
1788	-0.165	-0.203	1.787
1789	-0.124	-0.131	1.788
1790	-0.043	-0.069	1.789
1791	-0.015	0.000	1.790
1792	0.012	0.050	1.791



Blue Phase Series Connected

measured across terminals 7(-) to 11(+) with 8 jumpered to 12

in .464 seconds per revolution 3.15 V
 rpm = 60 / 0.464 = 129 rpm
 kV = 3.15V / 129 rpm = kV 0.024

