

Results:

LCR bridge measurements showing individual winding inductance, and Q, versus frequency.
Fully assembled motor/spindle:

Frequency (Hz)	Black - White		Black – Red		Red-White	
	Inductance (uH)	Q	Inductance (uH)	Q	Inductance (uH)	Q
100	157.9 uH	0.101	152.6 uH	0.0968	154.2 uH	0.0972
1K	156.40	0.980	151.39	0.936	153.21	0.942
10K	139.27	3.950	134.57	3.839	136.47	3.879
100K	109.33	4.714	105.58	4.696	107.3	4.715

(Note: some portion of the variation in inductance is expected due to rotor position)

Bare winding (no rotor):

Frequency (Hz)	Black - White		Black – Red		Red-White	
	Inductance (uH)	Q	Inductance (uH)	Q	Inductance (uH)	Q
100	142.4	0.092	143.3	0.092	141.2	0.092
1K	142.35	0.920	143.31	0.923	141.10	0.917
10K	141.96	7.652	142.95	7.690	140.74	7.638
100K	130.12	6.367	131.15	6.400	129.0	6.351

DC resistance measurements: (4 wire ohms):

	Black - White	Black – Red	Red-White
Fully assembled Motor/spindle	0.9630 ohms	0.9775 ohms	0.9828 ohms
Bare winding	0.9585	0.9632	0.9544

Winding capacitance: 84pF

Winding to spindle casing capacitance (capacitance to “ground”): 28pF

MOTOR SPECIFICATIONS, NON-COGGING 3 PHASE BRUSHLESS D.C., 8 POLE		
TORQUE CONSTANT	2.80	OZ-IN/AMP
VOLTAGE CONSTANT	2.00	V/KRPM
MOTOR CONSTANT	1.80	OZ-IN/√W
ELECTRICAL TIME CONSTANT	0.15	MSEC
PEAK TORQUE	95.0	OZ-IN
PEAK CURRENT	35	AMPS
TERMINAL RESISTANCE	0.97	OHMS
TERMINAL INDUCTANCE	0.145	MH
PERFORMANCE @ 20° C		
APPLIED VOLTAGE	65.0	VOLTS
CONTINUOUS OUTPUT POWER	260	WATTS
TORQUE	7.0	OZ-IN
SPEED	35,750	RPM
CURRENT/PHASE	4	AMPS
EFFICIENCY	70.0	%

Speed & Currrent vs Torque @ 65V

