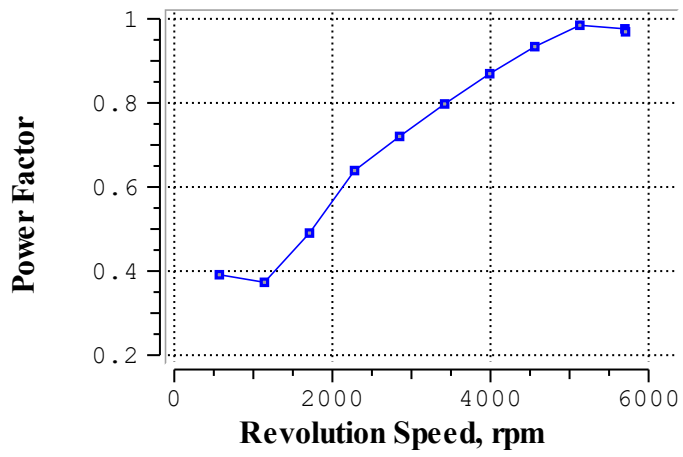
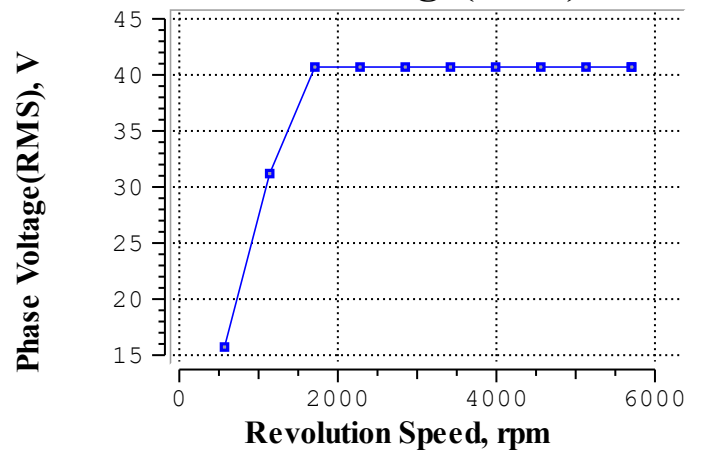


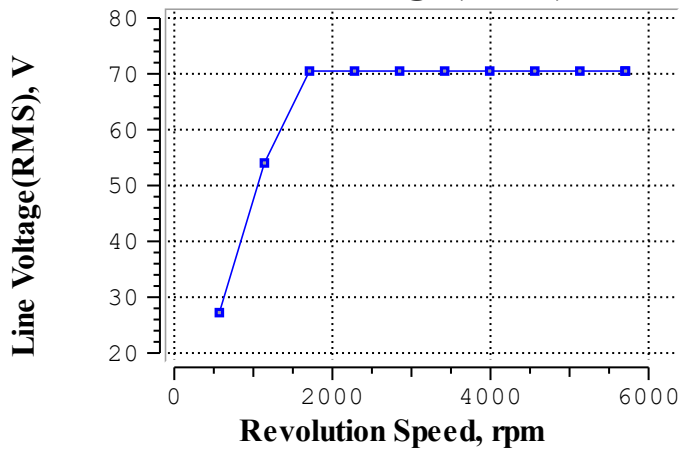
Power Factor



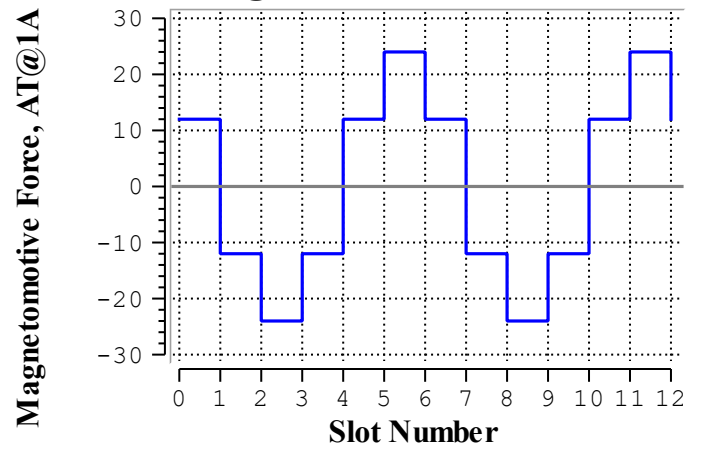
Phase Voltage(RMS)



Line Voltage(RMS)



Magnetomotive Force



Machine Constant		
Revolution Speed	N, rpm	1200
Inductance	Ld, H	1.594e-03
	Lq, H	2.827e-03
	Self Inductance, H	1.474e-03
	Mutual Inductance, H	-7.368e-04
Torque Constant	Kt, Nm/A	0.2021
Voltage Constant	Ke, V s/rad	0.2334
Magnetic Circuit	Average Teeth Flux Density, T	1.541
	Average Back Yoke Flux Density, T	1.386
	Average Gap Flux Density, T	0.9327
Electric Part	Phase Current(RMS), A	67.24
	Wire Current Density, A/m ²	1.263e+07
Power	Torque, Nm	18.53
	Efficiency, %	93.49
	Power, W	2293
	Power Factor	0.3856
Loss	Copper Loss, W	129.8
	Iron Loss, W	30.24
Electric Circuit	Phase Voltage(RMS), V	32.2
	Line Voltage(RMS), V	55.77

Dimension		
All	Outer Diameter, mm	74.17
	Gap Length, mm	0.365
	Stack Height, mm	74.17
stator : so_000	Number of Slots	12
	Outside Diameter, mm	74.17
	Inside Diameter, mm	37.83
	Tooth Width, mm	7.17
	Slot Opening Width, mm	1.237
	Core Back Width, mm	7.293
	Tooth Tang Depth, mm	1.236
ipm_rotor : rip_000	Number of Magnet Poles	4
	Outside Diameter, mm	37.1
	Shaft Diameter, mm	10.8
	Position of Magnet, mm	8.74
	Magnet Thickness, mm	1.68
	Magnet Width, mm	14.1
	Clearance between Slits, mm	1.01
	Slit Width, mm	1.68
	Slit Depth, mm	0.338

Materials		
Coil	Category	Copper
	Density, kg/m ³	8960
Stator Core	Category	JSOL - Steel_Sheets
	Type	50A1000
	Density, kg/m ³	7850
Rotor Magnet	Category	JSOL - NdFeB_Magnet
	Type	NdFeB_Br=1.0(T)
	Temperature, degC	20
	Temperature Correction Factor, %/degC	0
	Magnetization Pattern	Parallel
	Density, kg/m ³	7500
Rotor Core	Category	JSOL - Steel_Sheets
	Type	50A1000
	Density, kg/m ³	7850
Common Material Properties	Iron Loss Correction Factor	1

Mass Property		
Total	Total Weight, kg	2.535
	Total Volume, mm ³	3.144e+05
Stator	Coil - Mass, kg	0.5582
	Coil - Volume, mm ³	6.229e+04
	Stator Core - Mass, kg	1.454
	Stator Core - Volume, mm ³	1.853e+05
	Part Weight(so_000)	2.013
Rotor	Rotor Magnet - Mass, kg	0.05271
	Rotor Magnet - Volume, mm ³	7028
	Rotor Core - Mass, kg	0.4694
	Rotor Core - Volume, mm ³	5.98e+04
	Part Weight(rip_000)	0.5221
Inertia	Rotor Magnet, kg m ²	5.723e-06
	Rotor Core, kg m ²	8.986e-05
	Total, kg m ²	9.558e-05

Winding	
Connection Type	Star Connection
Series Number	4
Parallel Number	1
Number of Turns	6
Setting Type	Phase Resistance
Slot-Fill Factor, %	71
Slot Area, mm ²	56.68
Conductor Area, mm ²	20.12
Phase Resistance, ohm	0.01457
Winding	Auto Winding
Number of Layers	2
Coil Pitch	3
Coil Current Density(@1A), A/mm ²	0.2982

Drive	
Mode	Voltage(Sin)
Line Voltage(peak), V	70.5
Current Phase, deg	30
Maximum Line Current(peak), A	70.5
X-axis	Revolution Speed, rpm