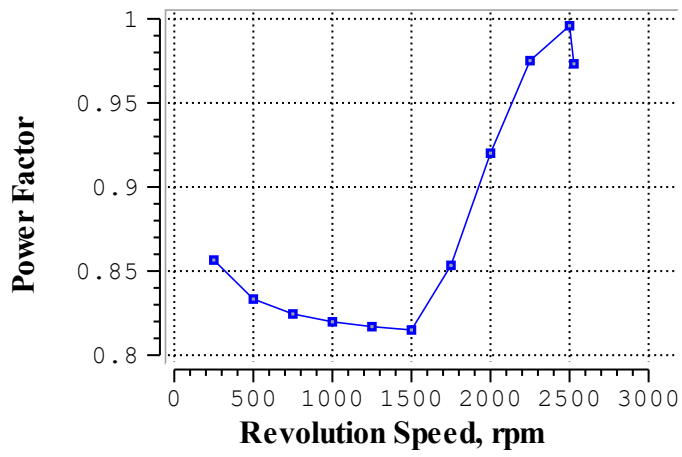
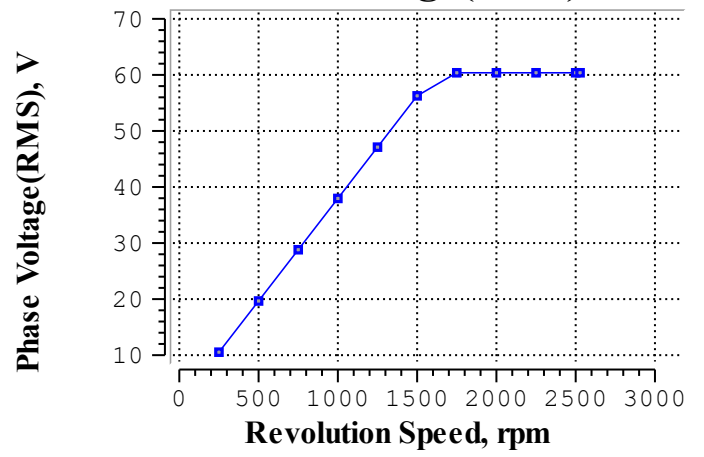


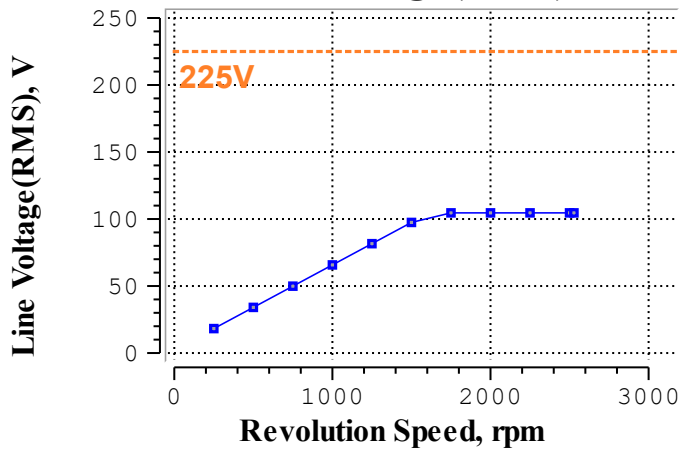
Power Factor



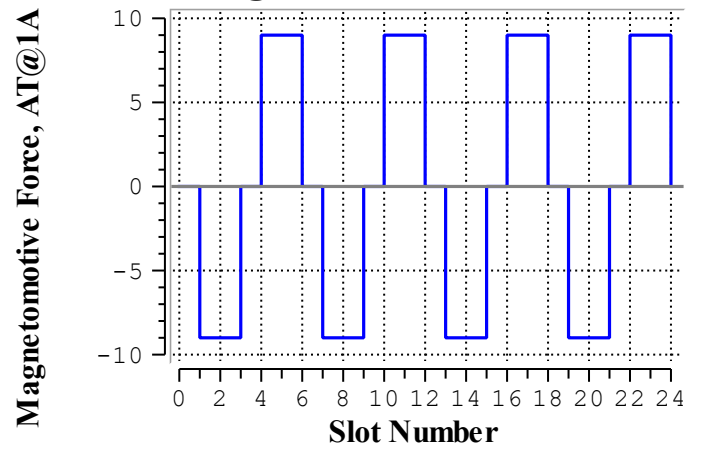
Phase Voltage(RMS)



Line Voltage(RMS)



Magnetomotive Force



Machine Constant		
Revolution Speed	N, rpm	300
Inductance	Ld, H	5.584e-04
	Lq, H	9.294e-04
	Self Inductance, H	4.959e-04
	Mutual Inductance, H	-2.48e-04
Torque Constant	Kt, Nm/A	0.6223
Voltage Constant	Ke, V s/rad	0.7186
Magnetic Circuit	Average Teeth Flux Density, T	0.6751
	Average Back Yoke Flux Density, T	0.6165
	Average Gap Flux Density, T	0.3897
Electric Part	Phase Current(RMS), A	104.6
	Wire Current Density, A/m ²	8.087e+06
Power	Torque, Nm	87.89
	Efficiency, %	82.95
	Power, W	2761
	Power Factor	0.8519
Loss	Copper Loss, W	518.4
	Iron Loss, W	12.67
Electric Circuit	Phase Voltage(RMS), V	12.36
	Line Voltage(RMS), V	21.4

Dimension		
All	Outer Diameter, mm	194
	Gap Length, mm	2
	Stack Height, mm	121.5
stator : so_000	Number of Slots	24
	Outside Diameter, mm	194
	Inside Diameter, mm	134
	Tooth Width, mm	13
	Slot Opening Width, mm	2
	Core Back Width, mm	13
	Tooth Tang Depth, mm	0.5
ipm_rotor : rip_000	Number of Magnet Poles	8
	Outside Diameter, mm	130
	Shaft Diameter, mm	97
	Position of Magnet, mm	55
	Magnet Thickness, mm	6
	Magnet Width, mm	27
	Clearance between Slits, mm	3.05
	Slit Width, mm	3.05
	Slit Depth, mm	1.306

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	19.95
	Total Volume, mm ³	2.501e+06
Stator	Coil - Mass, kg	3.012
	Coil - Volume, mm ³	3.361e+05
	Stator Core - Mass, kg	12.15
	Stator Core - Volume, mm ³	1.547e+06
	Part Weight(so_000)	15.16
Rotor	Rotor Magnet - Mass, kg	1.181
	Rotor Magnet - Volume, mm ³	1.575e+05
	Rotor Core - Mass, kg	3.616
	Rotor Core - Volume, mm ³	4.607e+05
	Part Weight(rip_000)	4.797
Inertia	Rotor Magnet, kg m ²	4.048e-03
	Rotor Core, kg m ²	0.01142
	Total, kg m ²	0.01547

Winding	
Connection Type	Star Connection
Series Number	8
Parallel Number	1
Number of Turns	6
Setting Type	Phase Resistance
Slot-Fill Factor, %	69
Slot Area, mm ²	112.4
Conductor Area, mm ²	38.79
Phase Resistance, ohm	0.0158
Winding	Auto Winding
Number of Layers	2
Coil Pitch	2
Coil Current Density(@1A), A/mm ²	0.1547

Drive	
Mode	Voltage(Sin)
Line Voltage(peak), V	147.9
Current Phase, deg	30
Maximum Line Current(peak), A	147.9
X-axis	Revolution Speed, rpm