

# EE568 Project 3: PM Motor Comparison Analysis

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## 1 Q1- Magnetic Loading

number of phases	$m$	3	
number of poles	$p$	4	
motor axial length [mm]	$l$	100	
air-gap clearance [mm]	$\delta_g$	1	
magnet to pole pitch ratio		0.8	
magnet type		NdFeB N42 grade ( $\mu_r=1.05$ ), radial shaped	
rotor diameter [mm]	$D_r$	100	
magnet radial thickness [mm]	$t_m$	4	

1.1 a

1.2 b

1.3 c

## 2 Q2- Electrical Loading & Machine Sizing

2.1 a

2.2 b

2.3 c

2.4 d

2.5 e

2.6 f

## 3 Q3- Comparison & Optimization

3.1 a

3.2 b

3.3 c