This is the motor model that I am trying to reproduce in ANSYS Electronics:

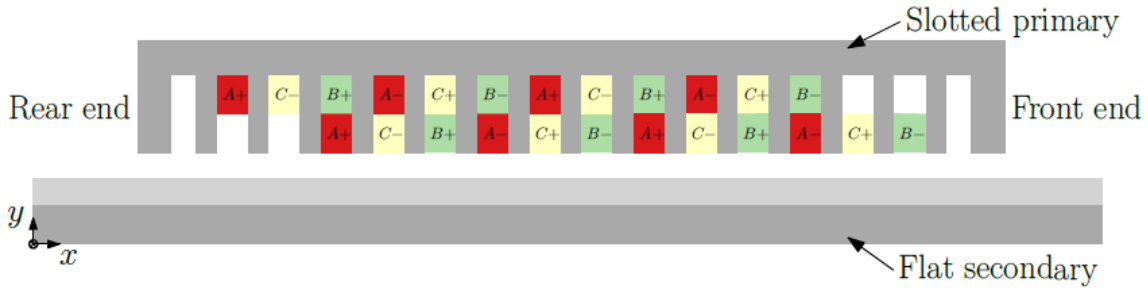


Figure 1. Analyzed linear induction motor (LIM) topology.

Table 1. Parameters of the double-layer single-sided LIM.

Parameter	Symbol	Value	Unit
Number of phases	N_p	3	-
Number of poles	$2p$	6	-
Number of slots	z_1	16	-
Number of turns per coil	N_t	57	-
Stack width	L_s	50	mm
Fundamental pitch of the primary	τ_1	12	mm
Primary tooth width	w_t	6	mm
Primary slot width	w_s	10	mm
Primary slot height	h_s	20	mm
Primary yoke height	h_y	6.5	mm
Air gap length	h_g	2.7	mm
Thickness of the aluminum plate	h_{Al}	2	mm
Thickness of the back-iron plate	h_{bi}	8	mm
Conductivity of aluminum	σ_{Al}	17×10^6	Sm^{-1}
Conductivity of iron	σ_{Fe}	4.5×10^6	Sm^{-1}
Relative permeability iron	μ_r	1000	mm

Additional Parameters	Value	Unit
Motor Length	**270**	**mm**
Airbuffer on each side of motor	**127.5**	**mm**

Expected results in ANSYS:

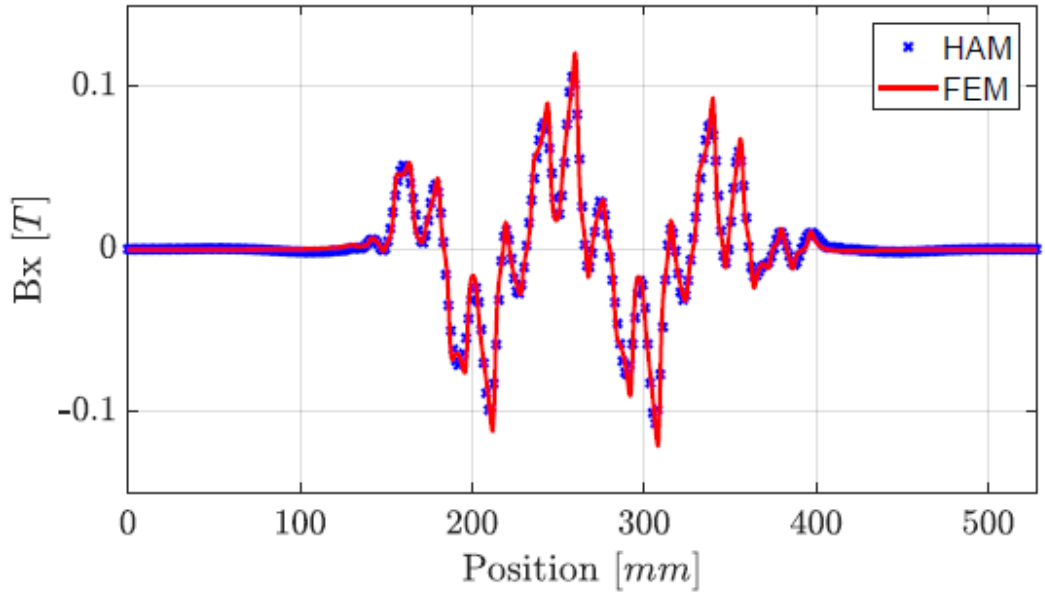


Figure 6. Magnetic flux density in normal direction in the middle of the air gap ($I_p = 10$ A, $v = 0$ m/s, $f = 100$ Hz).

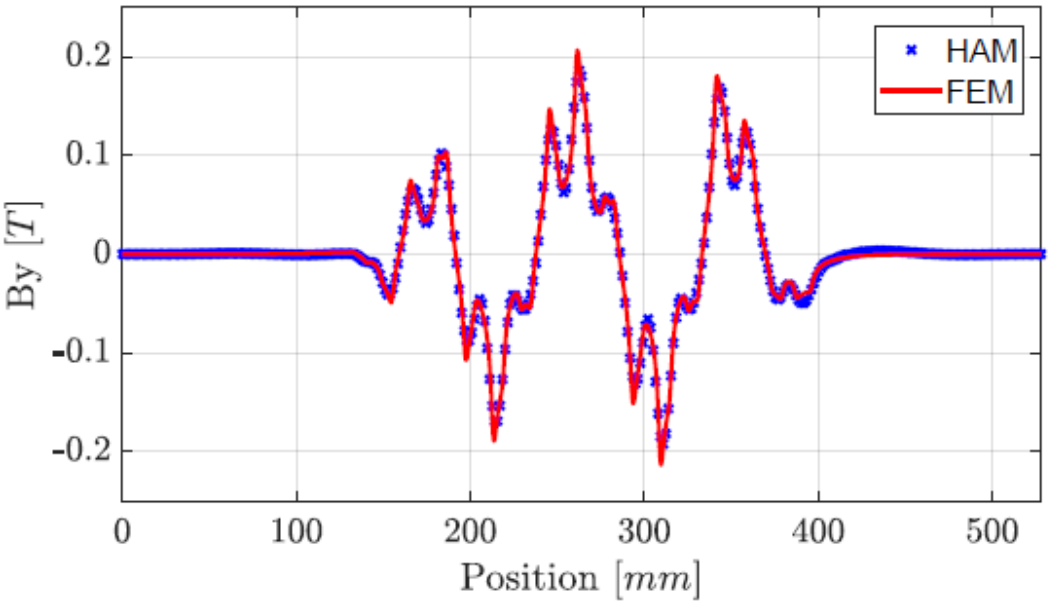


Figure 7. Magnetic flux density in longitudinal direction in the middle of the air gap ($I_p = 10$ A, $v = 0$ m/s, $f = 100$ Hz).

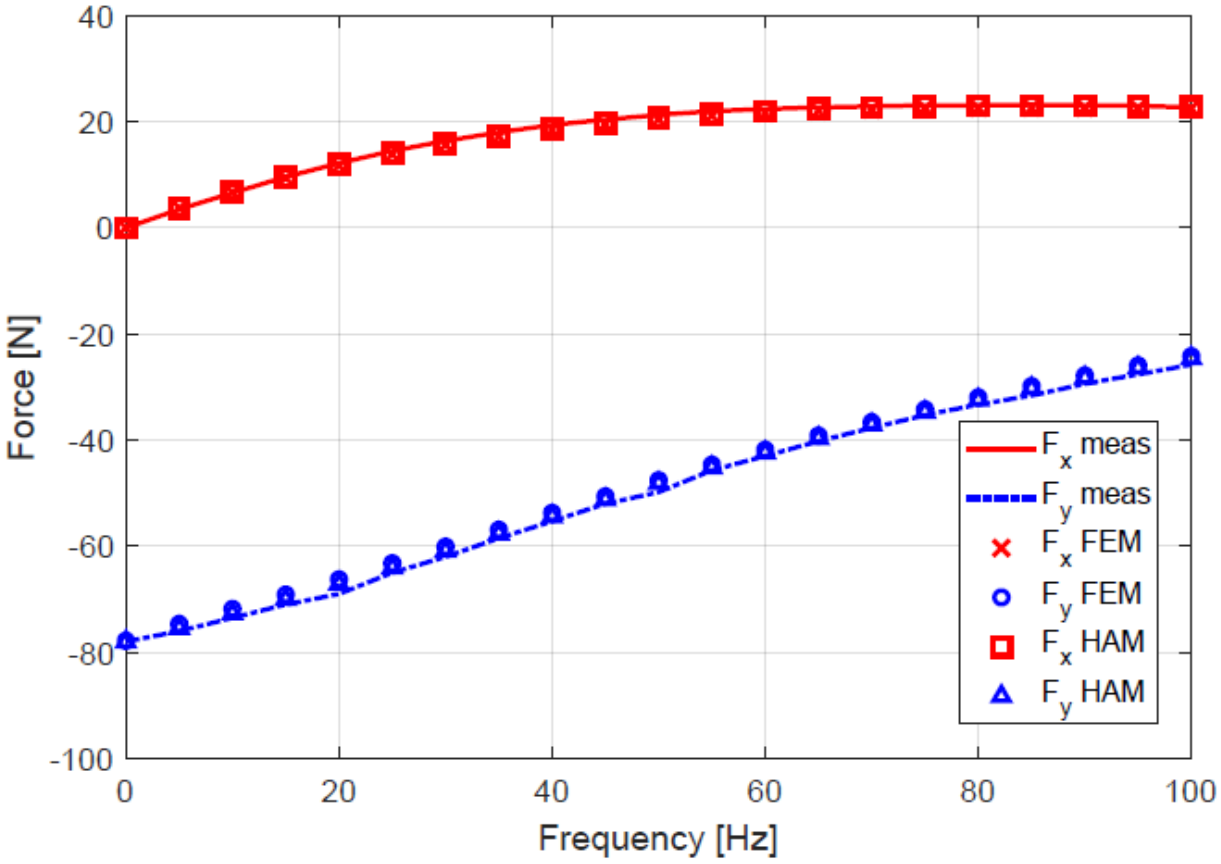
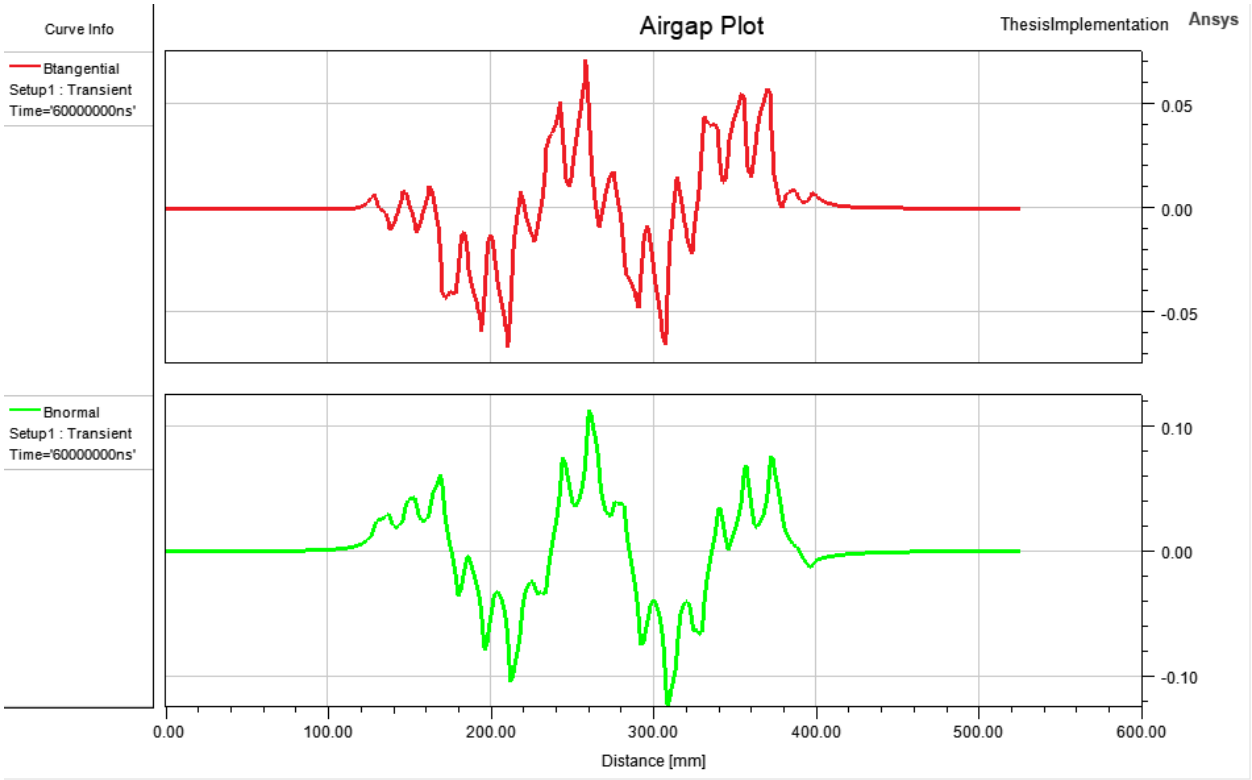
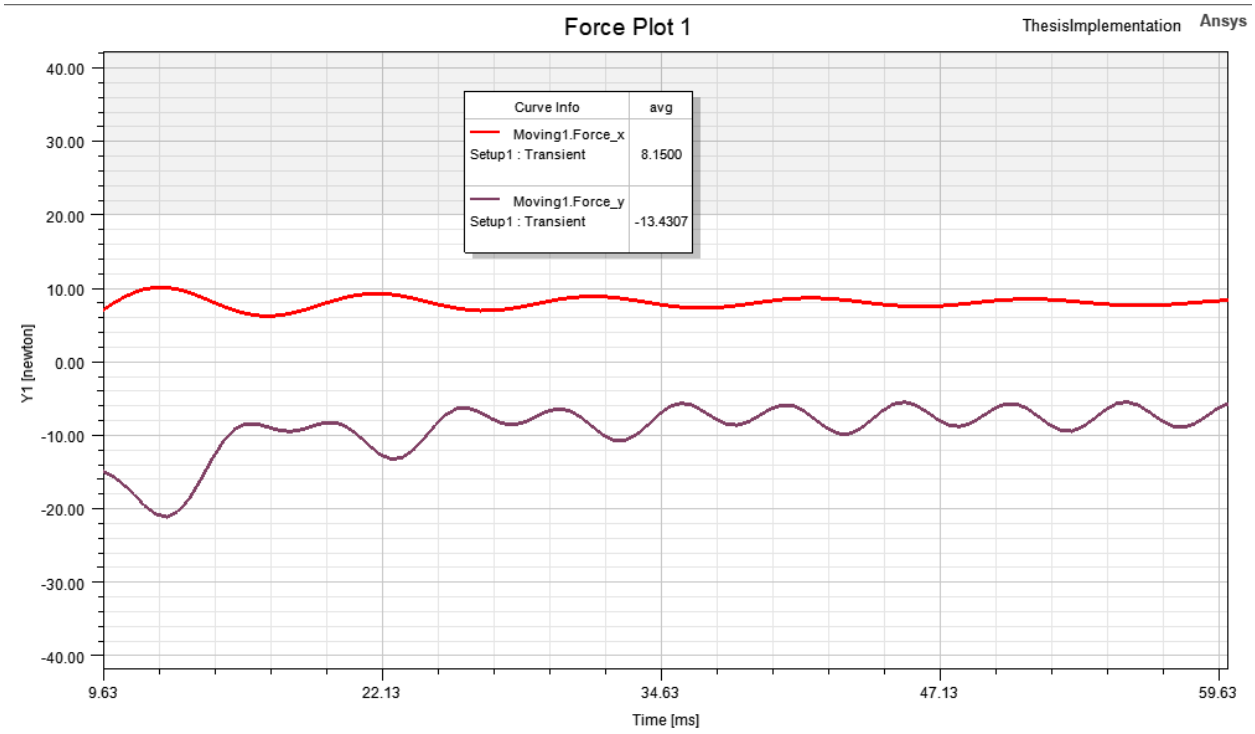


Figure 9. Normal and thrust force for different frequency in comparison with steady-state measurement data ($I_p = 10$ A, $v = 0$ m/s).

Actual results in ANSYS:



B Field Plot @ Center of Airgap



Thrust plot at 100 Hz and 0 m/s