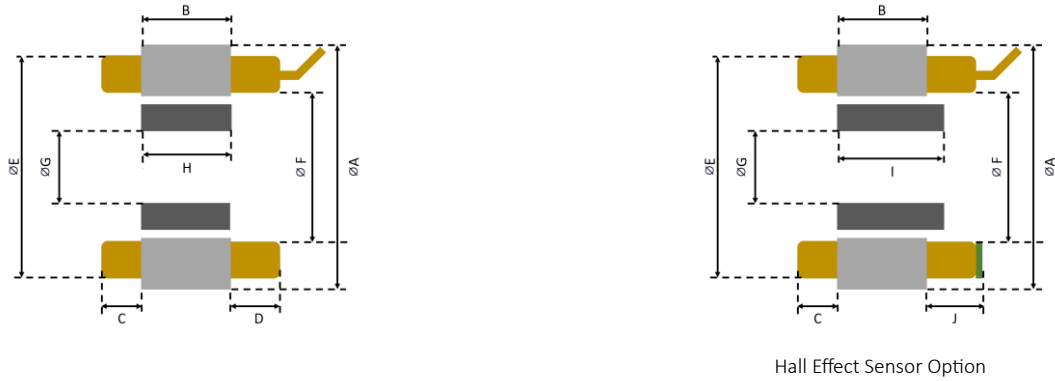


Motor Parameters		Symbols	Units	LFTM-110-025			LFTM-110-050			LFTM-110-100		
PERFORMANCE	DC Bus Voltage	$V_{DC}$	V	24	48	310	24	48	310	24	48	310
	Rated Torque	$T_r$	Nm	4.05			7.17			12.43		12.52
	Peak Torque	$T_p$	Nm	7.5		12.5	15		25.0	29.8		50.0
	Rated Speed	$N_r$	rpm	210	540	985	160	400	885	110	270	695
	No-Load Speed	$N_{no-load}$	rpm	380	760	1285	265	535	1085	180	360	830
	Torque Constant	$K_t$	Nm/A	0.73		2.81	1.05		3.33	1.55		4.35
	Voltage Constant	$K_v$	V/rpm	0.063		0.241	0.09		0.286	0.133		0.373
	Max. Cogging Torque	$T_{cog}$	%	<1								
	Torque Ripple	$T_{ripple}$	%	<1								
ELECTRICAL	Number of Pole	2p	--	16								
	Rated Current	$I_r$	$A_{rms}$	5.51		1.44	6.87		2.15	8.0		2.88
	Peak Current	$I_p$	$A_{rms}$	10.6		5.55	14.93		9.35	20.0		14.4
	Line Resistance	$R_{LL}@25^{\circ}C$	Ohm	1.28 ( $\pm 20\%$ )		16.4 ( $\pm 20\%$ )	0.92 ( $\pm 20\%$ )		9.6 ( $\pm 20\%$ )	0.8 ( $\pm 20\%$ )		6.48 ( $\pm 20\%$ )
Line Inductance	$L_{LL}$	mH	5.42 ( $\pm 30\%$ )		95.0 ( $\pm 30\%$ )	5.3 ( $\pm 30\%$ )		53.7 ( $\pm 30\%$ )	5.72 ( $\pm 30\%$ )		44.8 ( $\pm 30\%$ )	
MECHANICAL & THERMAL	Stator Weight	$W_s$	kg	1.52			2.49			4.44		
	Rotor Weight	$W_r$	kg	0.32			0.63			1.26		
	Total Weight	$W_{total}$	kg	1.84			3.12			5.7		
	Mech. Time Constant	$K_{mech}$	ms	0.63		0.56	0.44		0.46	0.35		0.36
	Thermal Resistance <sup>(2)</sup>	$R_{th}$	$^{\circ}C/W$	0.99			0.79			0.63		
	Inertia	J	$kg.m^2$	2.2E-04			4.3E-04			8.6E-04		
	Motor Constant	$K_m$	$Nm/\sqrt{W}$	0.43	0.27	0.20	0.65	0.41	0.28	1.04	0.66	0.41
	Rotor ID		mm	40								
Stator OD		mm	110									

1. All performance and electrical specifications are obtained at 25°C ambient and may change  $\pm 5\%$ . 2. Housed version of motor mounted to 180 mm sq. x 15 mm aluminum heat sink (maximum winding temperature is 110°C). 3. Higher torque and speed values as well as dimensions on request.

## LFTM-110 Outline Drawing



Model	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	G (mm)	H (mm)	I (mm)	J (mm)
LFTM-110-025	110	25	11.5	12.5	106.4	68.8	40	25.1	30.1	15.5
LFTM-110-050	110	50	11.5	12.5	106.4	68.8	40	50.2	55.2	15.5
LFTM-110-100	110	100	11.5	12.5	106.4	68.8	40	100.4	105.4	15.5

### Notes:

#### MOTOR LEADS:

#15 AWG Teflon® insulated, 500 mm (optional) length, 1-Red, 1-White, 1-Black.

#### THERMISTOR LEADS:

#26 AWG Teflon® insulated, 500 mm (optional) length, 2-Brown or Blue

#### SENSOR LEADS:

#26 AWG Teflon® insulated, 500 mm (optional) length, 1-Blue, 1-Green, 1-Brown, 1-White, 1-Yellow

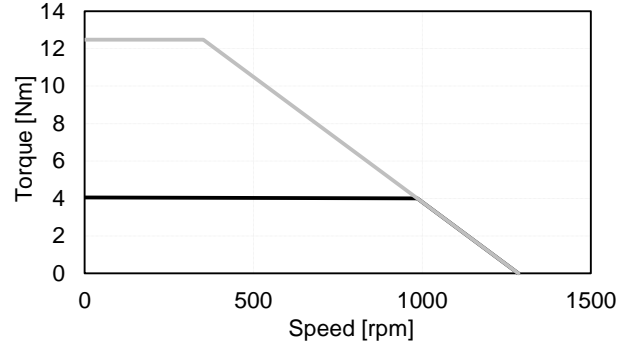
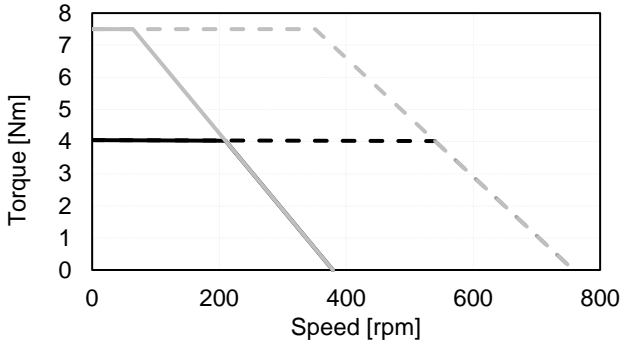
# LFTM-110 Torque-Speed Curves

Tr: Rated Torque  
Tp: Peak Torque

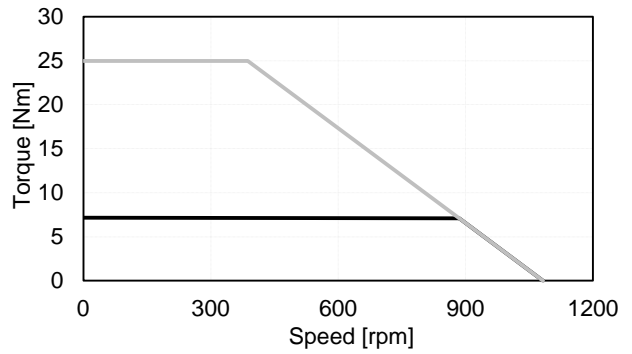
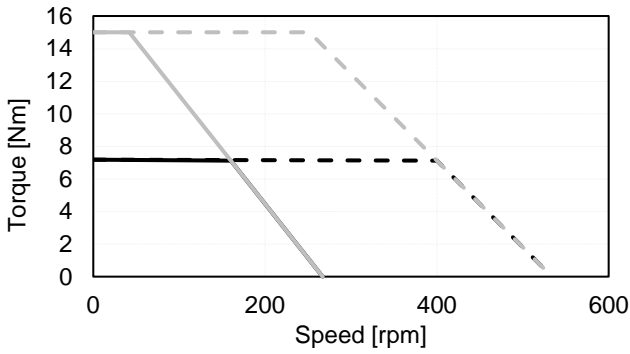
— @Tr 24V    - - - @Tr 48V  
— @Tp 24V    - - - @Tp 48V

— @Tr 310V  
— @Tp 310V

LFTM-110-025



LFTM-110-050



LFTM-110-100

