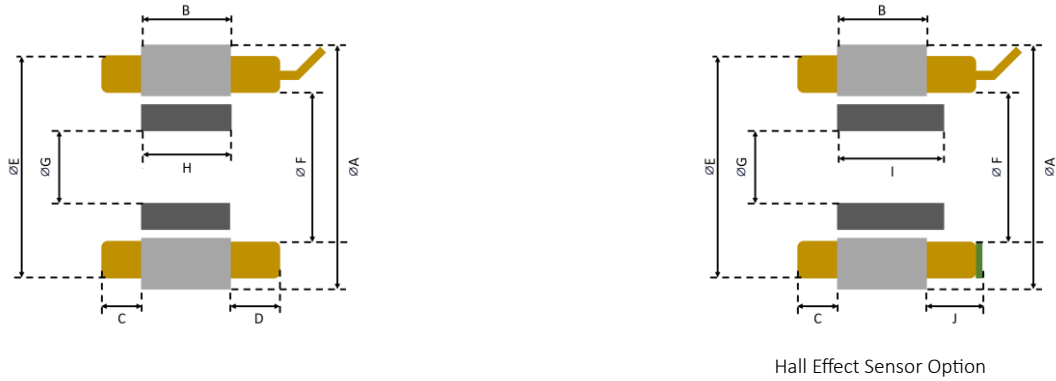


Motor Parameters		Symbols	Units	LFTM-75-025			LFTM-75-050			LFTM-75-100		
PERFORMANCE	DC Bus Voltage	V_{DC}	V	24	48	310	24	48	310	24	48	310
	Rated Torque	T_r	Nm	1.65			3.25			5.22		
	Peak Torque	T_p	Nm	3.05		5.10	6.47		10.51	12.98		21.09
	Rated Speed	N_r	rpm	430	1025	2920	310	750	1410	170	430	1150
	No-Load Speed	$N_{no-load}$	rpm	645	1290	3340	475	950	1670	280	565	1330
	Torque Constant	K_t	Nm/A	0.41		1.03	0.59		2.17	0.99		2.73
	Voltage Constant	K_v	V/rpm	0.035		0.093	0.050		0.186	0.085		0.234
	Max. Cogging Torque	T_{cog}	%	<1								
	Torque Ripple	T_{ripple}	%	<1								
ELECTRICAL	Number of Pole	2p	--	16								
	Rated Current	I_r	A_{rms}	4.0	1.60	5.52	1.50	5.26	1.91			
	Peak Current	I_p	A_{rms}	7.53	4.99	11.03	4.99	13.15	7.96			
	Line Resistance	$R_{LL}@25^{\circ}C$	Ohm	1.35 ($\pm 20\%$)	7.99 ($\pm 20\%$)	1.0 ($\pm 20\%$)	13.2 ($\pm 20\%$)	1.28 ($\pm 20\%$)	9.46 ($\pm 20\%$)			
	Line Inductance	L_{LL}	mH	2.40 ($\pm 30\%$)	17.95 ($\pm 30\%$)	2.48 ($\pm 30\%$)	33.67 ($\pm 30\%$)	3.4 ($\pm 30\%$)	25.74 ($\pm 30\%$)			
MECHANICAL & THERMAL	Stator Weight	W_s	kg	0.5			0.89			1.71		
	Rotor Weight	W_r	kg	0.17			0.35			0.69		
	Total Weight	W_{total}	kg	0.67			1.24			2.41		
	Mech. Time Constant	K_{mech}	ms	0.6	0.58	0.46	0.45	0.42	0.41			
	Thermal Resistance ⁽²⁾	R_{th}	$^{\circ}C/W$	1.47			1.01			0.82		
	Inertia	J	kg.m ²	6.6E-05			1.3E-04			2.6E-04		
	Motor Constant	K_{m}	Nm/ \sqrt{W}	0.19	0.12	0.07	0.32	0.20	0.15	0.54	0.34	0.21
	Rotor ID		mm	30								
	Stator OD		mm	75								

1. All performance and electrical specifications are obtained at 25°C ambient and may change $\pm 5\%$. 2. Housed version of motor mounted to 160 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-75 Outline Drawing



Model	A	B	C	D	E	F	G	H	I	J
	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)
LFTM-75-025	75	25	9	10	71	50	30	25.1	30.1	13
LFTM-75-050	75	50	9	10	71	50	30	50.2	55.2	13
LFTM-75-100	75	100	9	10	71	50	30	100.4	105.4	13

Notes:

MOTOR LEADS:

#18 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

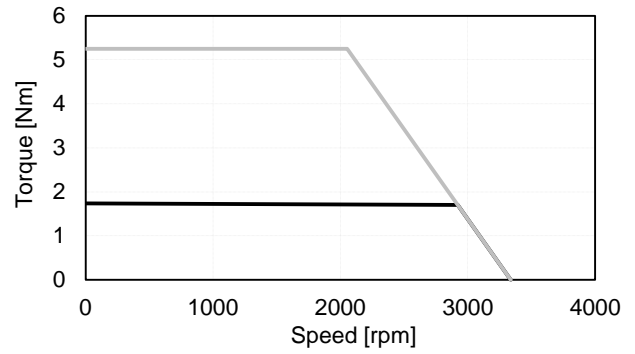
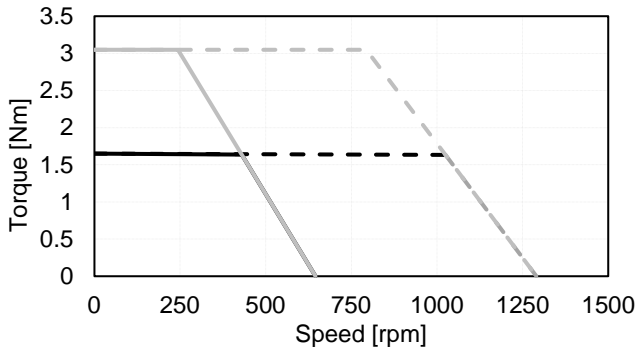
LFTM-75 Torque-Speed Curves

Tr: Rated Torque
Tp: Peak Torque

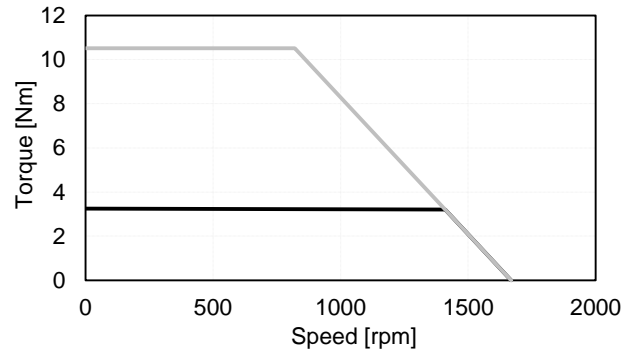
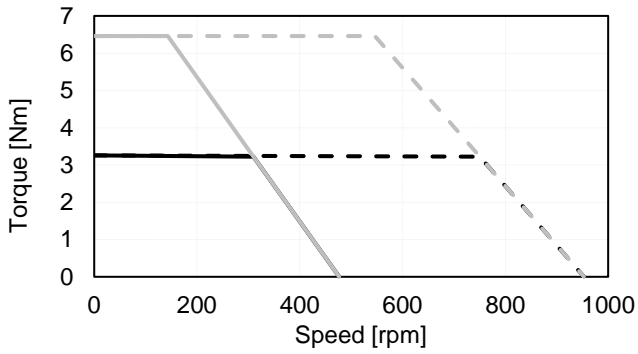
— @Tr 24V - - - @Tr 48V
— @Tp 24V - - - @Tp 48V

— @Tr 310V
— @Tp 310V

LFTM-75-025



LFTM-75-050



LFTM-75-100

