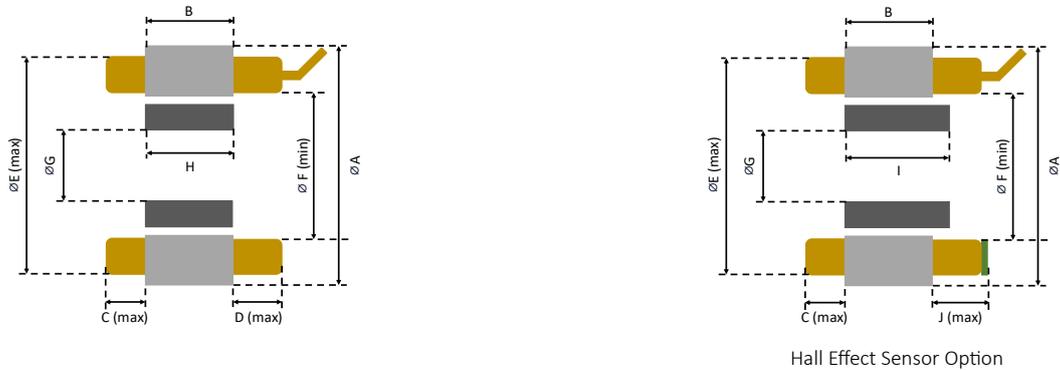


Motor Parameters			Symbols	Units	LFTM-75-025			LFTM-75-050			LFTM-75-100		
PERFORMANCE	DC Bus Voltage	V_{DC}	V	24	48	310	24	48	310	24	48	310	
	Rated Torque	T_r	Nm	1.65			3.25			5.22			
	Peak Torque	T_p	Nm	3.05		5.10	6.46		10.51	11.85		21.09	
	Rated Speed	N_r	rpm	385	960	2635	270	665	1270	145	385	1030	
	No-Load Speed	$N_{no-load}$	rpm	595	1190	2890	410	825	1445	245	490	1150	
	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									
	Number of Pole	$2p$	--	16									
ELECTRICAL	Rated Current	I_r	A_{rms}	4.0		1.60	5.5		1.50	5.26		1.9	
	Peak Current	I_p	A_{rms}	7.53		5.0	11.0		5.0	12.0		7.96	
	Line Resistance	$R_{LL}@25^{\circ}C$	Ohm	1.45 ($\pm 20\%$)		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	2.30 ($\pm 30\%$)		15 ($\pm 30\%$)	2.48 ($\pm 30\%$)		33.6 ($\pm 30\%$)	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}	0.28		0.30	0.48		0.49	0.72		0.73	
	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 120°C). 3. All data referenced to sinusoidal commutation. 4. Higher torque and speed values as well as dimensions on request.

LFTM-75 Outline Drawing



Model	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	G (mm)	H (mm)	I (mm)	J (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, 300 mm (optional) length, 1-Red, 1-White, 1-Black.

THERMISTOR LEADS:

#26 AWG Teflon® insulated, 300 mm (optional) length, 2-Brown or Blue

SENSOR LEADS:

#26 AWG Teflon® insulated, 300 mm (optional) length, 1-Blue, 1-Green, 1-Brown, 1-White, 1-Yellow

(For detailed mounting information, including tolerances, please contact MDS Motor or refer to the MDS Motor mounting document)

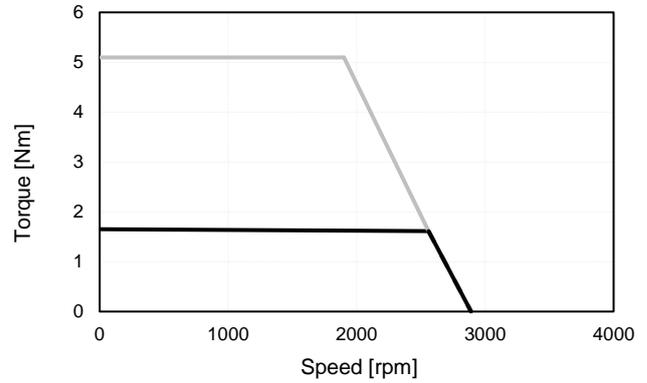
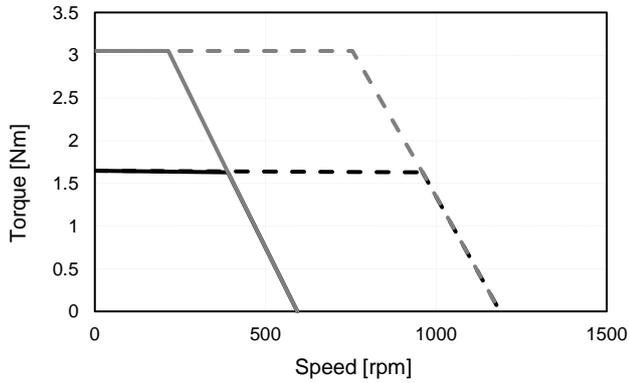
LFTM-75 Torque-Speed Curves

Tr: Rated Torque
Tp: Peak Torque

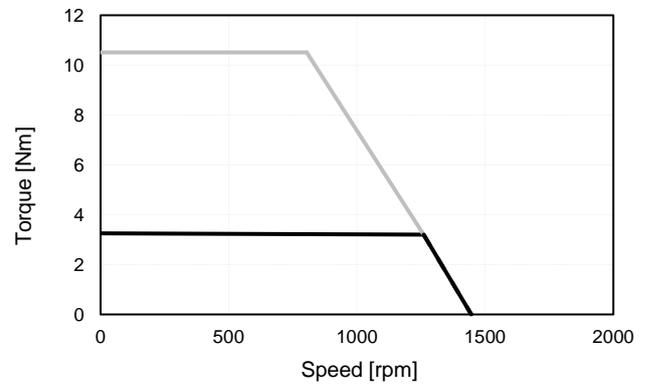
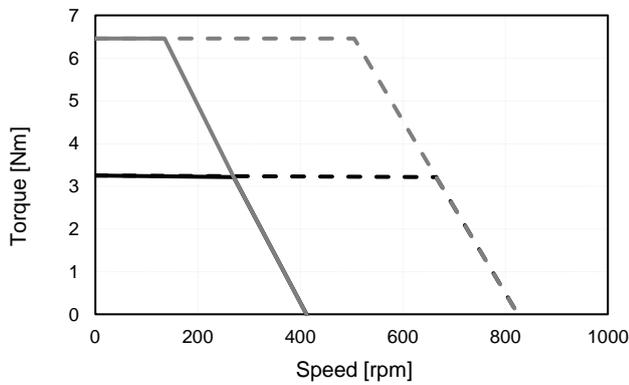
— @Tr 24V - - - @Tr 48V
— @Tp 24V - - - @Tp 48V

— @Tr 310V
— @Tp 310V

LFTM-75-025



LFTM-75-050



LFTM-75-100

