IRONCORE LINEAR MOTOR

LMS10-050

		Winding codes	3RA	3TA		
MOTOR PERFORMANCE		UNIT	FREE AIR COOLING	FREE AIR COOLING		
Fp	Peak force	N	896	896		
Fc	Continuous force	N	244	242		
Fs	Standstill force	N	186	184		
Ip	Peak current	Arms	18.6	29.6		
Ic	Continuous current	Arms	2.30	3.62		
Is	Standstill current	Arms	1.74	2.74		
vs	Rated low speed	mm/s	0.14	0.14		
Pc	Power dissipation @ Ic	W	108	108		
Fd	Max. detent force (average to peak)	N	13	13		
Fa	Attraction force	N	1800	1800		
MOTOR SETTING		UNIT				
Kt	Force constant	N/Arms	112	70.4		
Ku	Back EMF constant (*)	Vrms/(m/s)	67.1	42.1		
Km	Motor constant	N/√W	29.7	29.4		
R20	Electrical resistance at 20°C (*)	Ohm	9.54	3.83		
L	Electrical inductance (*)	mH	91.6	36.1		
τth	Thermal time constant	s	2300	2300		
Rth	Thermal resistance	K/W	1.02	1.02		
2τp	Magnetic period	mm	32	32		
mw	Magnetic way mass	kg/m	6.19	6.19		
mm	Motor mass	kg	2.22	2.23		
MOTOR ENVIRONMENT		UNIT				
Udc	Nominal DC bus voltage	VDC	600	600		
Gm	Mechanical gap	mm	0.90	0.90		
Ss	Stator exchange surface	m²	0.03	0.03		
x	Assumed stroke	m	0.47	0.47		
θamb	Ambient temperature	°C	20	20		
θmax	Maximum coil temperature	°C	130	130		

Notes: (*) terminal to terminal.
Hypotheses and tolerances are in ETEL Integration Manual.

Caution: Any use of the motor beyond speed/force limit could lead to hazardous voltage and serious injuries. Customer is responsible for setting safeties/limitations that will keep the motor in its safe operating area. ETEL cannot be held responsible if the motor is used in an improper way.

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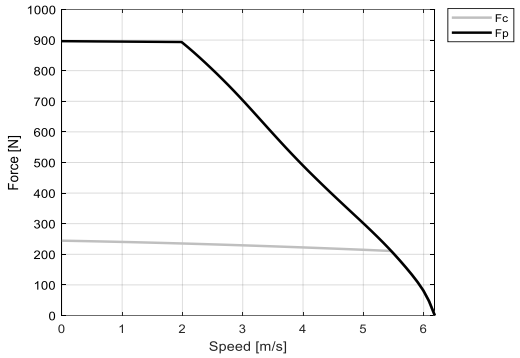
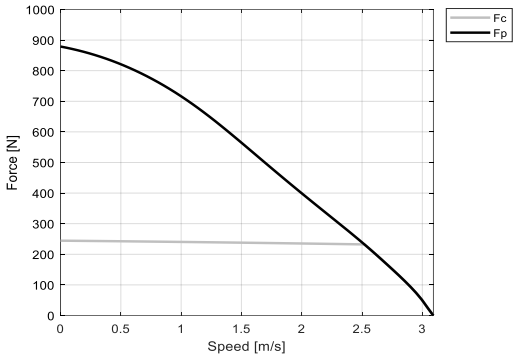
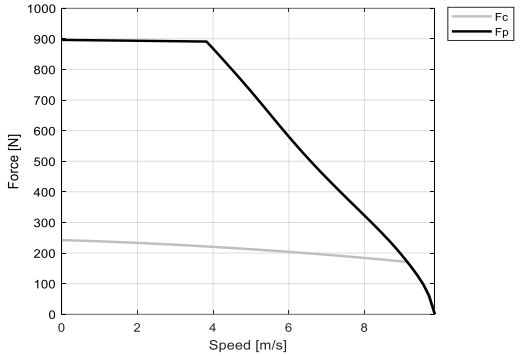
3RA - FREE AIR COOLING - 600V



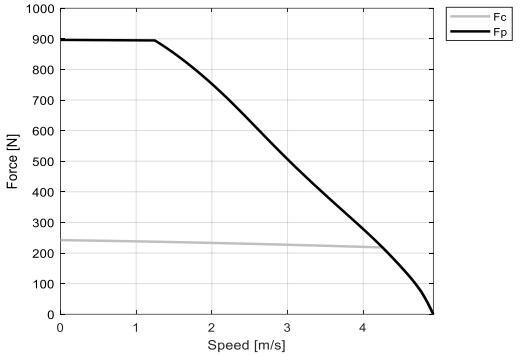
3RA - FREE AIR COOLING - 300V



3TA - FREE AIR COOLING - 600V



3TA - FREE AIR COOLING - 300V



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