IRONCORE LINEAR MOTOR LMS05-050/MWD+

		Winding codes	3QA	3TA		
MOTOR PERFORMANCE		UNIT	FREE AIR COOLING	FREE AIR COOLING		
Fp	Peak force	N	552	552		
Fc	Continuous force	N	149	150		
Fs	Standstill force	N	114	115		
Ip	Peak current	Arms	16.3	31.9		
Ic	Continuous current	Arms	2.00	3.94		
Is	Standstill current	Arms	1.52	2.99		
vs	Rated low speed	mm/s	0.16	0.16		
Pc	Power dissipation @ Ic	W	63.6	63.8		
Fd	Max. detent force (average to peak)	N	16	16		
Fa	Attraction force	N	1290	1290		
MOTOR SETTING		UNIT				
Kt	Force constant	N/Arms	79.8	40.8		
Ku	Back EMF constant (*)	Vrms/(m/s)	47.9	24.5		
Km	Motor constant	N/√W	23.9	24.1		
R20	Electrical resistance at 20°C (*)	Ohm	7.41	1.92		
L	Electrical inductance (*)	mH	68.4	17.9		
τth	Thermal time constant	s	2020	2030		
Rth	Thermal resistance	K/W	1.72	1.71		
2τp	Magnetic period	mm	32	32		
mw	Magnetic way mass	kg/m	6.19	6.19		
mm	Motor mass	kg	1.18	1.19		
MOTOR ENVIRONMENT		UNIT				
Udc	Nominal DC bus voltage	VDC	600	600		
Gm	Mechanical gap	mm	0.90	0.90		
Ss	Stator exchange surface	m²	0.01	0.01		
x	Assumed stroke	m	0.29	0.29		
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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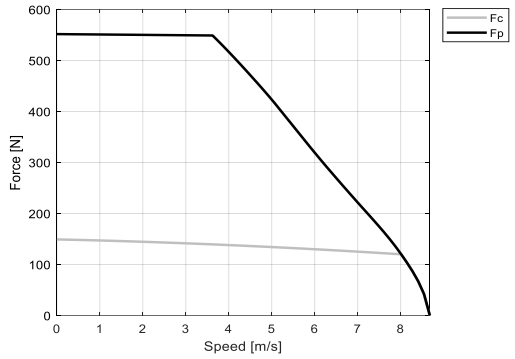
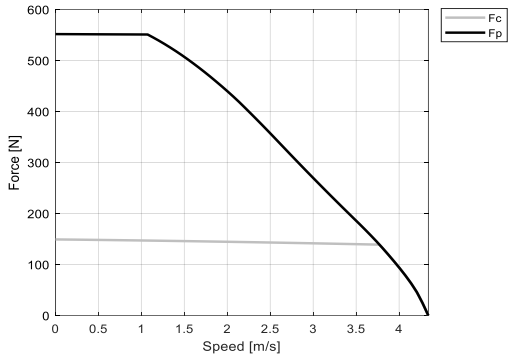
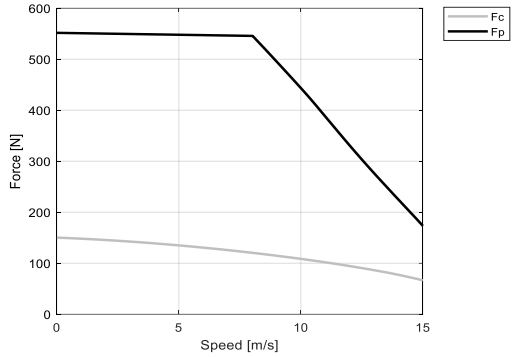
3QA - FREE AIR COOLING - 600V



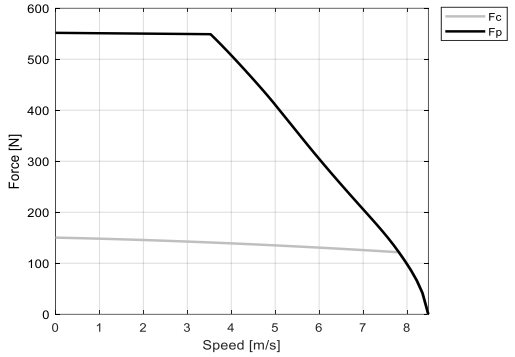
3QA - FREE AIR COOLING - 300V



3TA - FREE AIR COOLING - 600V



3TA - FREE AIR COOLING - 300V



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