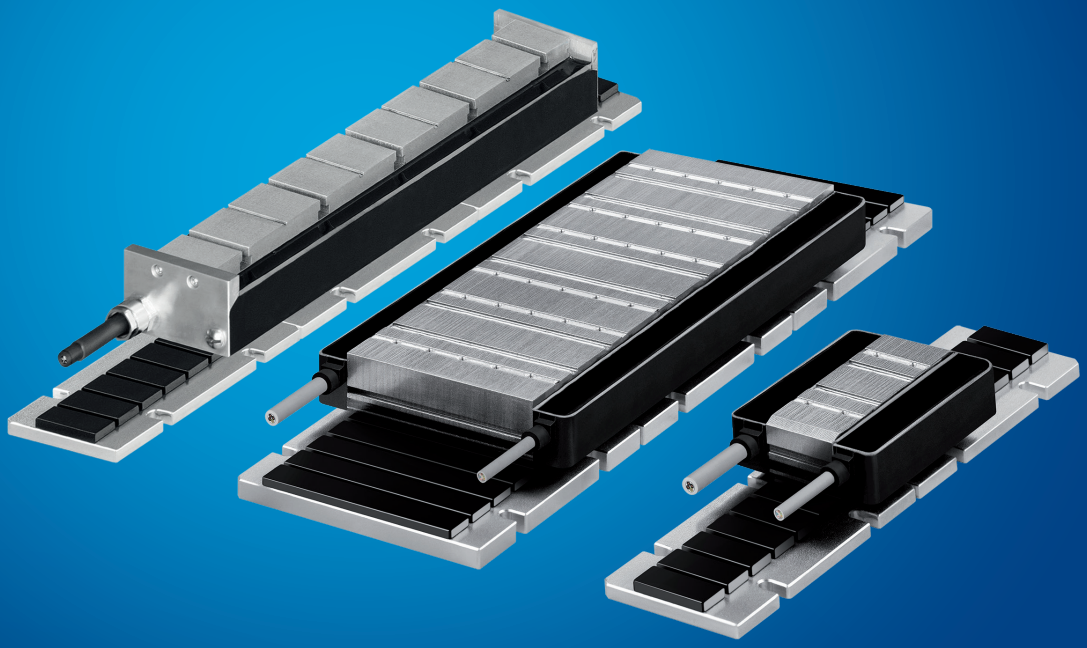

Linear Motors

LMS DATA SHEETS

ETEL

IRONCORE LINEAR MOTOR LMS05-030/MWD+

		Winding codes	3QA	3TA		
MOTOR PERFORMANCE		UNIT	FREE AIR COOLING	FREE AIR COOLING		
Fp	Peak force	N	312	312		
Fc	Continuous force	N	93.4	95.3		
Fs	Standstill force	N	72.6	74.2		
Ip	Peak current	Arms	16.3	30.6		
Ic	Continuous current	Arms	2.13	4.10		
Is	Standstill current	Arms	1.61	3.10		
vs	Rated low speed	mm/s	0.18	0.18		
Pc	Power dissipation @ Ic	W	51.4	51.8		
Fd	Max. detent force (average to peak)	N	9.9	9.9		
Fa	Attraction force	N	768	768		
MOTOR SETTING		UNIT				
Kt	Force constant	N/Arms	47.6	25.3		
Ku	Back EMF constant (*)	Vrms/(m/s)	28.7	15.3		
Km	Motor constant	N/√W	16.9	17.3		
R20	Electrical resistance at 20°C (*)	Ohm	5.29	1.44		
L	Electrical inductance (*)	mH	43.8	12.3		
τth	Thermal time constant	s	1770	1790		
Rth	Thermal resistance	K/W	2.13	2.11		
2τp	Magnetic period	mm	32	32		
mw	Magnetic way mass	kg/m	3.51	3.51		
mm	Motor mass	kg	0.793	0.810		
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.

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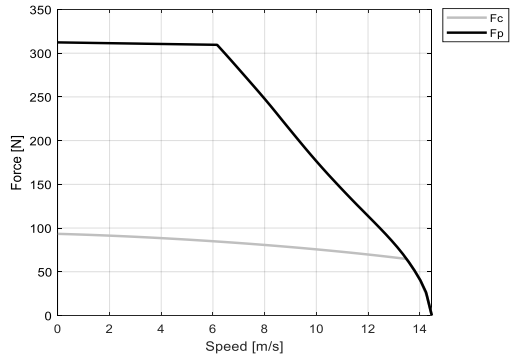
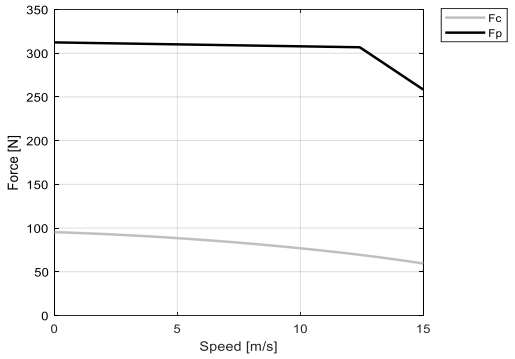
3QA - FREE AIR COOLING - 600V



3TA - FREE AIR COOLING - 600V



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		Winding codes	3QA	3TA		
MOTOR PERFORMANCE		UNIT	FREE AIR COOLING	FREE AIR COOLING		
Fp	Peak force	N	552	552		
Fc	Continuous force	N	149	153		
Fs	Standstill force	N	114	117		
Ip	Peak current	Arms	16.3	30.6		
Ic	Continuous current	Arms	2.00	3.87		
Is	Standstill current	Arms	1.52	2.93		
vs	Rated low speed	mm/s	0.16	0.16		
Pc	Power dissipation @ Ic	W	63.6	63.9		
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	42.5		
Ku	Back EMF constant (*)	Vrms/(m/s)	47.9	25.5		
Km	Motor constant	N/√W	23.9	24.6		
R20	Electrical resistance at 20°C (*)	Ohm	7.41	1.99		
L	Electrical inductance (*)	mH	68.4	19.3		
τth	Thermal time constant	s	2020	2040		
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	1.20		
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.
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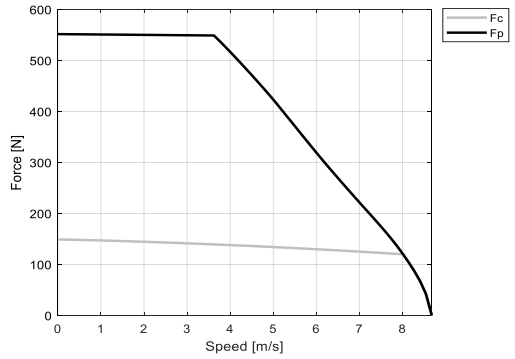
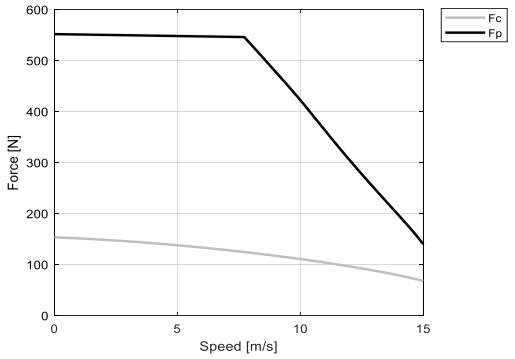
3QA - FREE AIR COOLING - 600V



3TA - FREE AIR COOLING - 600V



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		Winding codes	3QA	3TA		
MOTOR PERFORMANCE		UNIT	FREE AIR COOLING	FREE AIR COOLING		
Fp	Peak force	N	793	793		
Fc	Continuous force	N	202	208		
Fs	Standstill force	N	153	158		
Ip	Peak current	Arms	16.3	30.6		
Ic	Continuous current	Arms	1.92	3.73		
Is	Standstill current	Arms	1.46	2.83		
vs	Rated low speed	mm/s	0.15	0.14		
Pc	Power dissipation @ Ic	W	75.6	75.9		
Fd	Max. detent force (average to peak)	N	23	23		
Fa	Attraction force	N	1720	1720		
MOTOR SETTING		UNIT				
Kt	Force constant	N/Arms	112	59.7		
Ku	Back EMF constant (*)	Vrms/(m/s)	67.3	35.8		
Km	Motor constant	N/√W	29.7	30.6		
R20	Electrical resistance at 20°C (*)	Ohm	9.53	2.54		
L	Electrical inductance (*)	mH	96.2	27.1		
τth	Thermal time constant	s	2190	2210		
Rth	Thermal resistance	K/W	1.44	1.44		
2τp	Magnetic period	mm	32	32		
mw	Magnetic way mass	kg/m	7.96	7.96		
mm	Motor mass	kg	1.56	1.59		
MOTOR ENVIRONMENT		UNIT				
Udc	Nominal DC bus voltage	VDC	600	600		
Gm	Mechanical gap	mm	0.90	0.90		
Ss	Stator exchange surface	m²	0.02	0.02		
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.
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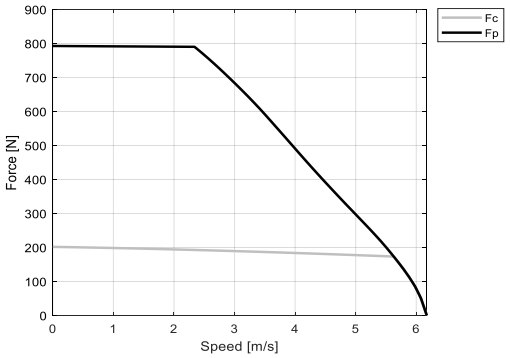
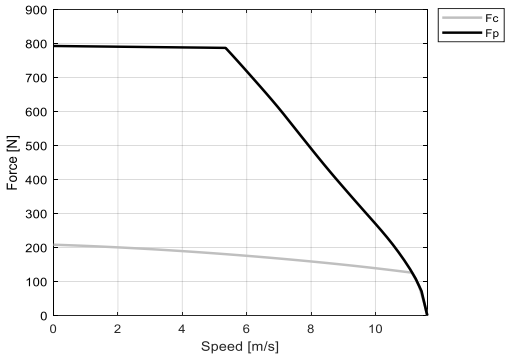
3QA - FREE AIR COOLING - 600V



3TA - FREE AIR COOLING - 600V



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		Winding codes	3RA	3TA		
MOTOR PERFORMANCE		UNIT	FREE AIR COOLING	FREE AIR COOLING		
Fp	Peak force	N	585	585		
Fc	Continuous force	N	176	177		
Fs	Standstill force	N	137	138		
Ip	Peak current	Arms	18.6	28.5		
Ic	Continuous current	Arms	2.48	3.82		
Is	Standstill current	Arms	1.88	2.89		
vs	Rated low speed	mm/s	0.16	0.16		
Pc	Power dissipation @ Ic	W	89.9	90.0		
Fd	Max. detent force (average to peak)	N	11	11		
Fa	Attraction force	N	1320	1320		
MOTOR SETTING		UNIT				
Kt	Force constant	N/Arms	76.7	50.1		
Ku	Back EMF constant (*)	Vrms/(m/s)	45.7	29.9		
Km	Motor constant	N/√W	24.0	24.1		
R20	Electrical resistance at 20°C (*)	Ohm	6.81	2.88		
L	Electrical inductance (*)	mH	58.6	24.9		
τth	Thermal time constant	s	1990	2000		
Rth	Thermal resistance	K/W	1.22	1.22		
2τp	Magnetic period	mm	32	32		
mw	Magnetic way mass	kg/m	3.51	3.51		
mm	Motor mass	kg	1.50	1.52		
MOTOR ENVIRONMENT		UNIT				
Udc	Nominal DC bus voltage	VDC	600	600		
Gm	Mechanical gap	mm	0.90	0.90		
Ss	Stator exchange surface	m²	0.02	0.02		
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.
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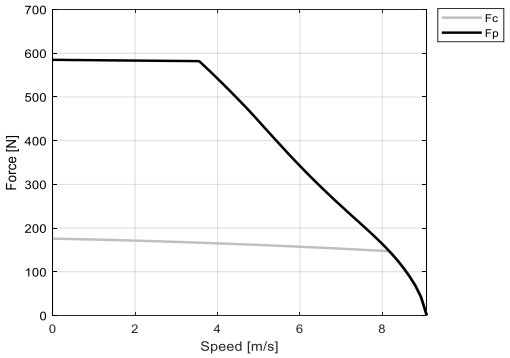
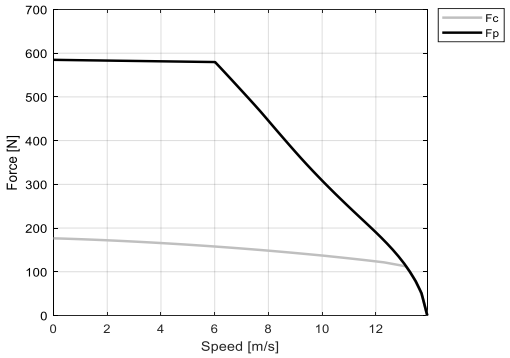
3RA - FREE AIR COOLING - 600V



3TA - FREE AIR COOLING - 600V



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IRONCORE LINEAR MOTOR LMS10-050/MWD+

		Winding codes	3RA	3TA		
MOTOR PERFORMANCE		UNIT	FREE AIR COOLING	FREE AIR COOLING		
Fp	Peak force	N	1030	1030		
Fc	Continuous force	N	277	280		
Fs	Standstill force	N	212	214		
Ip	Peak current	Arms	18.6	28.5		
Ic	Continuous current	Arms	2.30	3.56		
Is	Standstill current	Arms	1.74	2.69		
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	18	18		
Fa	Attraction force	N	2380	2380		
MOTOR SETTING		UNIT				
Kt	Force constant	N/Arms	128	83.6		
Ku	Back EMF constant (*)	Vrms/(m/s)	76.6	50.0		
Km	Motor constant	N/√W	33.9	34.2		
R20	Electrical resistance at 20°C (*)	Ohm	9.54	3.98		
L	Electrical inductance (*)	mH	91.6	39.0		
τth	Thermal time constant	s	2300	2310		
Rth	Thermal resistance	K/W	1.02	1.01		
2τp	Magnetic period	mm	32	32		
mw	Magnetic way mass	kg/m	6.19	6.19		
mm	Motor mass	kg	2.22	2.25		
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.
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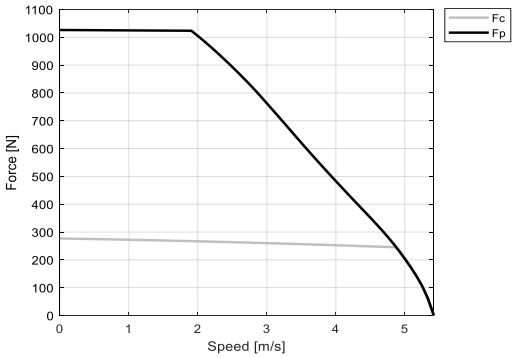
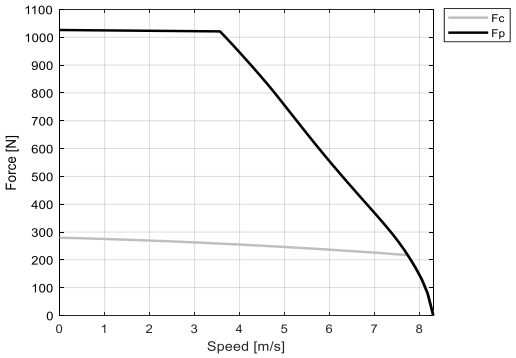
3RA - FREE AIR COOLING - 600V



3TA - FREE AIR COOLING - 600V



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IRONCORE LINEAR MOTOR LMS10-070/MWD+

		Winding codes	3TA	3VA		
MOTOR PERFORMANCE		UNIT	FREE AIR COOLING	FREE AIR COOLING		
Fp	Peak force	N	1470	1470		
Fc	Continuous force	N	394	379		
Fs	Standstill force	N	300	288		
Ip	Peak current	Arms	28.5	49.1		
Ic	Continuous current	Arms	3.55	5.88		
Is	Standstill current	Arms	2.69	4.46		
vs	Rated low speed	mm/s	0.13	0.13		
Pc	Power dissipation @ Ic	W	138	137		
Fd	Max. detent force (average to peak)	N	25	25		
Fa	Attraction force	N	3300	3300		
MOTOR SETTING		UNIT				
Kt	Force constant	N/Arms	118	68.4		
Ku	Back EMF constant (*)	Vrms/(m/s)	70.4	40.9		
Km	Motor constant	N/√W	42.7	41.0		
R20	Electrical resistance at 20°C (*)	Ohm	5.08	1.85		
L	Electrical inductance (*)	mH	54.6	18.5		
τth	Thermal time constant	s	2430	2410		
Rth	Thermal resistance	K/W	0.794	0.796		
2τp	Magnetic period	mm	32	32		
mw	Magnetic way mass	kg/m	7.96	7.96		
mm	Motor mass	kg	2.98	2.91		
MOTOR ENVIRONMENT		UNIT				
Udc	Nominal DC bus voltage	VDC	600	600		
Gm	Mechanical gap	mm	0.90	0.90		
Ss	Stator exchange surface	m²	0.04	0.04		
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.

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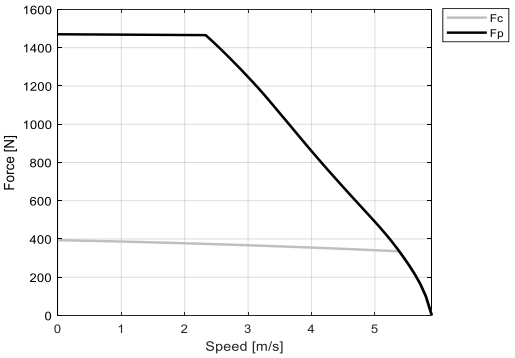
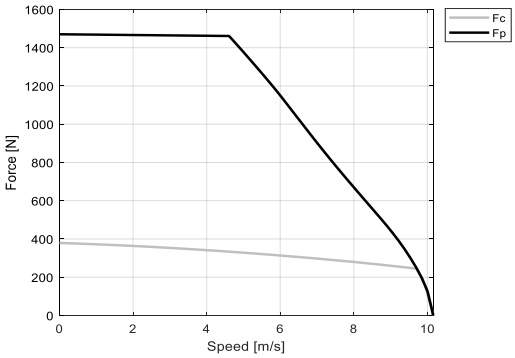
3TA - FREE AIR COOLING - 600V



3VA - FREE AIR COOLING - 600V



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		Winding codes	3TA	3VA		
MOTOR PERFORMANCE		UNIT	FREE AIR COOLING	FREE AIR COOLING		
Fp	Peak force	N	2130	2130		
Fc	Continuous force	N	519	498		
Fs	Standstill force	N	394	378		
Ip	Peak current	Arms	28.5	49.1		
Ic	Continuous current	Arms	3.28	5.41		
Is	Standstill current	Arms	2.48	4.10		
vs	Rated low speed	mm/s	0.12	0.12		
Pc	Power dissipation @ Ic	W	155	155		
Fd	Max. detent force (average to peak)	N	35	35		
Fa	Attraction force	N	4760	4760		
MOTOR SETTING		UNIT				
Kt	Force constant	N/Arms	169	98.2		
Ku	Back EMF constant (*)	Vrms/(m/s)	101	58.7		
Km	Motor constant	N/√W	53.2	51.0		
R20	Electrical resistance at 20°C (*)	Ohm	6.74	2.47		
L	Electrical inductance (*)	mH	78.7	26.7		
τth	Thermal time constant	s	2760	2740		
Rth	Thermal resistance	K/W	0.704	0.705		
2τp	Magnetic period	mm	32	32		
mw	Magnetic way mass	kg/m	12.6	12.6		
mm	Motor mass	kg	4.08	3.98		
MOTOR ENVIRONMENT		UNIT				
Udc	Nominal DC bus voltage	VDC	600	600		
Gm	Mechanical gap	mm	0.90	0.90		
Ss	Stator exchange surface	m²	0.04	0.04		
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.
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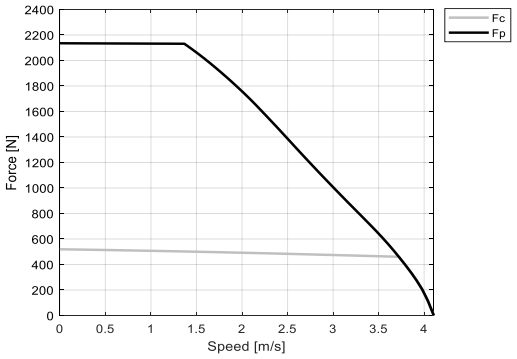
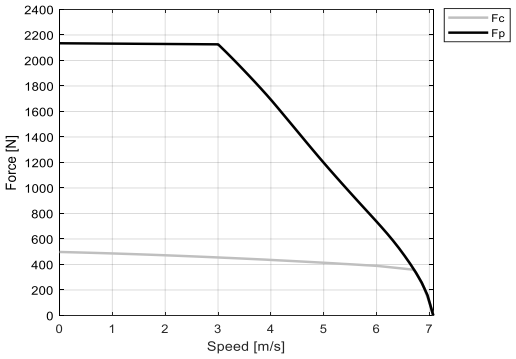
3TA - FREE AIR COOLING - 600V



3VA - FREE AIR COOLING - 600V



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IRONCORE LINEAR MOTOR LMS15-030/MWD+

		Winding codes	3RA	3TA		
MOTOR PERFORMANCE		UNIT	FREE AIR COOLING	FREE AIR COOLING		
Fp	Peak force	N	857	857		
Fc	Continuous force	N	249	250		
Fs	Standstill force	N	194	195		
Ip	Peak current	Arms	17.7	27.1		
Ic	Continuous current	Arms	2.34	3.61		
Is	Standstill current	Arms	1.77	2.73		
vs	Rated low speed	mm/s	0.15	0.15		
Pc	Power dissipation @ Ic	W	120	120		
Fd	Max. detent force (average to peak)	N	13	13		
Fa	Attraction force	N	2110	2110		
MOTOR SETTING		UNIT				
Kt	Force constant	N/Arms	115	74.9		
Ku	Back EMF constant (*)	Vrms/(m/s)	68.5	44.7		
Km	Motor constant	N/√W	29.3	29.4		
R20	Electrical resistance at 20°C (*)	Ohm	10.2	4.31		
L	Electrical inductance (*)	mH	83.4	35.5		
τth	Thermal time constant	s	2130	2140		
Rth	Thermal resistance	K/W	0.913	0.912		
2τp	Magnetic period	mm	32	32		
mw	Magnetic way mass	kg/m	3.51	3.51		
mm	Motor mass	kg	2.19	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	0.51	0.51		
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.

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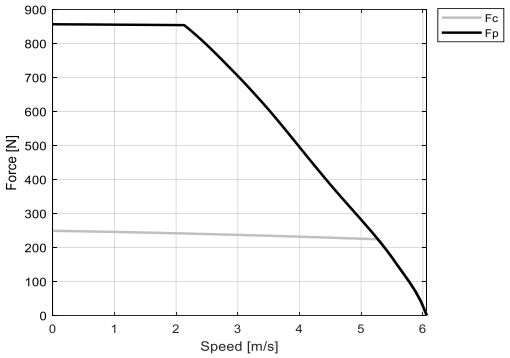
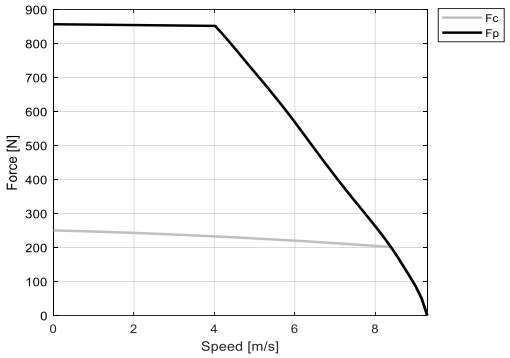
3RA - FREE AIR COOLING - 600V



3TA - FREE AIR COOLING - 600V



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IRONCORE LINEAR MOTOR LMS15-050/MWD+

		Winding codes	3RA	3TA		
MOTOR PERFORMANCE		UNIT	FREE AIR COOLING	FREE AIR COOLING		
Fp	Peak force	N	1500	1500		
Fc	Continuous force	N	404	408		
Fs	Standstill force	N	309	312		
Ip	Peak current	Arms	17.7	27.1		
Ic	Continuous current	Arms	2.24	3.47		
Is	Standstill current	Arms	1.69	2.63		
vs	Rated low speed	mm/s	0.13	0.13		
Pc	Power dissipation @ Ic	W	154	154		
Fd	Max. detent force (average to peak)	N	22	22		
Fa	Attraction force	N	3440	3440		
MOTOR SETTING		UNIT				
Kt	Force constant	N/Arms	194	126		
Ku	Back EMF constant (*)	Vrms/(m/s)	115	75.2		
Km	Motor constant	N/√W	41.8	42.2		
R20	Electrical resistance at 20°C (*)	Ohm	14.3	5.97		
L	Electrical inductance (*)	mH	140	59.4		
τth	Thermal time constant	s	2420	2440		
Rth	Thermal resistance	K/W	0.713	0.712		
2τp	Magnetic period	mm	32	32		
mw	Magnetic way mass	kg/m	6.19	6.19		
mm	Motor mass	kg	3.25	3.30		
MOTOR ENVIRONMENT		UNIT				
Udc	Nominal DC bus voltage	VDC	600	600		
Gm	Mechanical gap	mm	0.90	0.90		
Ss	Stator exchange surface	m²	0.04	0.04		
x	Assumed stroke	m	0.51	0.51		
θamb	Ambient temperature	°C	20	20		
θmax	Maximum coil temperature	°C	130	130		

Notes: (*) terminal to terminal.
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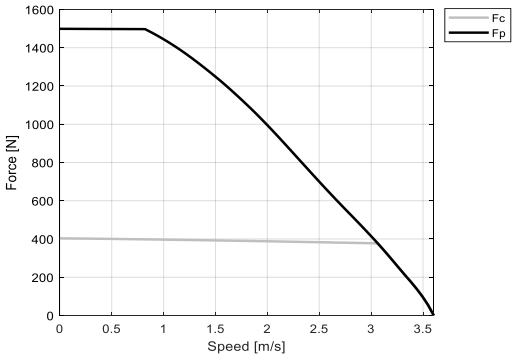
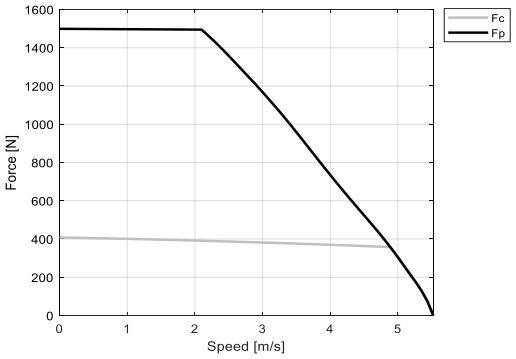
3RA - FREE AIR COOLING - 600V



3TA - FREE AIR COOLING - 600V



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IRONCORE LINEAR MOTOR LMS15-070/MWD+

		Winding codes	3TA	3VA		
MOTOR PERFORMANCE		UNIT	FREE AIR COOLING	FREE AIR COOLING		
Fp	Peak force	N	2140	2140		
Fc	Continuous force	N	564	543		
Fs	Standstill force	N	429	412		
Ip	Peak current	Arms	27.1	46.7		
Ic	Continuous current	Arms	3.38	5.60		
Is	Standstill current	Arms	2.56	4.24		
vs	Rated low speed	mm/s	0.12	0.12		
Pc	Power dissipation @ Ic	W	187	187		
Fd	Max. detent force (average to peak)	N	31	31		
Fa	Attraction force	N	4760	4760		
MOTOR SETTING		UNIT				
Kt	Force constant	N/Arms	178	104		
Ku	Back EMF constant (*)	Vrms/(m/s)	106	61.5		
Km	Motor constant	N/√W	52.7	50.7		
R20	Electrical resistance at 20°C (*)	Ohm	7.63	2.78		
L	Electrical inductance (*)	mH	83.4	28.2		
τth	Thermal time constant	s	2590	2570		
Rth	Thermal resistance	K/W	0.584	0.585		
2τp	Magnetic period	mm	32	32		
mw	Magnetic way mass	kg/m	7.96	7.96		
mm	Motor mass	kg	4.36	4.26		
MOTOR ENVIRONMENT		UNIT				
Udc	Nominal DC bus voltage	VDC	600	600		
Gm	Mechanical gap	mm	0.90	0.90		
Ss	Stator exchange surface	m²	0.05	0.05		
x	Assumed stroke	m	0.51	0.51		
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.

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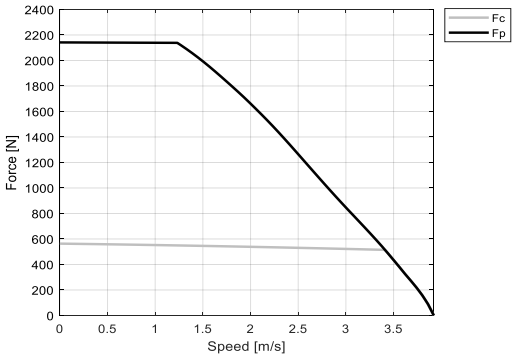
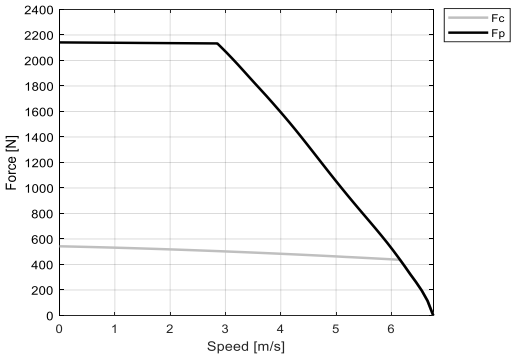
3TA - FREE AIR COOLING - 600V



3VA - FREE AIR COOLING - 600V



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		Winding codes	3TA	3VA		
MOTOR PERFORMANCE		UNIT	FREE AIR COOLING	FREE AIR COOLING		
Fp	Peak force	N	3110	3110		
Fc	Continuous force	N	762	731		
Fs	Standstill force	N	578	555		
Ip	Peak current	Arms	27.1	46.7		
Ic	Continuous current	Arms	3.23	5.33		
Is	Standstill current	Arms	2.44	4.04		
vs	Rated low speed	mm/s	0.11	0.11		
Pc	Power dissipation @ Ic	W	226	225		
Fd	Max. detent force (average to peak)	N	44	44		
Fa	Attraction force	N	6870	6870		
MOTOR SETTING		UNIT				
Kt	Force constant	N/Arms	255	148		
Ku	Back EMF constant (*)	Vrms/(m/s)	151	87.8		
Km	Motor constant	N/√W	65.6	62.9		
R20	Electrical resistance at 20°C (*)	Ohm	10.1	3.70		
L	Electrical inductance (*)	mH	120	40.5		
τth	Thermal time constant	s	2900	2880		
Rth	Thermal resistance	K/W	0.484	0.485		
2τp	Magnetic period	mm	32	32		
mw	Magnetic way mass	kg/m	12.6	12.6		
mm	Motor mass	kg	5.97	5.83		
MOTOR ENVIRONMENT		UNIT				
Udc	Nominal DC bus voltage	VDC	600	600		
Gm	Mechanical gap	mm	0.90	0.90		
Ss	Stator exchange surface	m²	0.06	0.06		
x	Assumed stroke	m	0.51	0.51		
θamb	Ambient temperature	°C	20	20		
θmax	Maximum coil temperature	°C	130	130		

Notes: (*) terminal to terminal.
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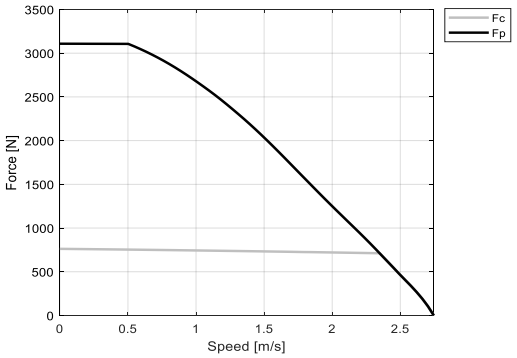
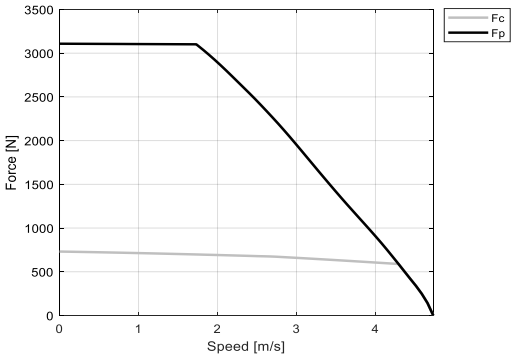
3TA - FREE AIR COOLING - 600V



3VA - FREE AIR COOLING - 600V



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IRONCORE LINEAR MOTOR LMS20-050/MWD+

		Winding codes	3TA	3VA		
MOTOR PERFORMANCE		UNIT	FREE AIR COOLING	FREE AIR COOLING		
Fp	Peak force	N	2040	2040		
Fc	Continuous force	N	549	530		
Fs	Standstill force	N	419	403		
Ip	Peak current	Arms	27.1	46.7		
Ic	Continuous current	Arms	3.51	5.83		
Is	Standstill current	Arms	2.66	4.42		
vs	Rated low speed	mm/s	0.13	0.13		
Pc	Power dissipation @ Ic	W	211	210		
Fd	Max. detent force (average to peak)	N	27	27		
Fa	Attraction force	N	4500	4500		
MOTOR SETTING		UNIT				
Kt	Force constant	N/Arms	168	97.6		
Ku	Back EMF constant (*)	Vrms/(m/s)	101	58.5		
Km	Motor constant	N/√W	48.7	46.9		
R20	Electrical resistance at 20°C (*)	Ohm	7.96	2.89		
L	Electrical inductance (*)	mH	78.4	26.5		
τth	Thermal time constant	s	2450	2430		
Rth	Thermal resistance	K/W	0.519	0.520		
2τp	Magnetic period	mm	32	32		
mw	Magnetic way mass	kg/m	6.19	6.19		
mm	Motor mass	kg	4.35	4.23		
MOTOR ENVIRONMENT		UNIT				
Udc	Nominal DC bus voltage	VDC	600	600		
Gm	Mechanical gap	mm	0.90	0.90		
Ss	Stator exchange surface	m²	0.06	0.06		
x	Assumed stroke	m	0.69	0.69		
θamb	Ambient temperature	°C	20	20		
θmax	Maximum coil temperature	°C	130	130		

Notes: (*) terminal to terminal.
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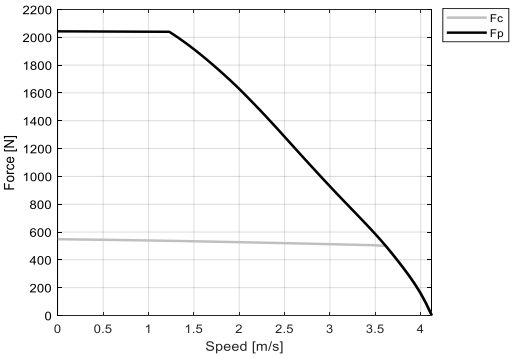
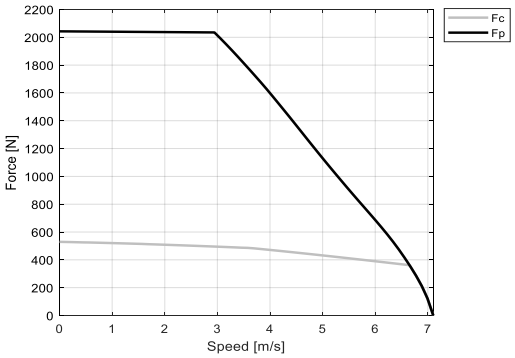
3TA - FREE AIR COOLING - 600V



3VA - FREE AIR COOLING - 600V



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		Winding codes	3RB	3TB		
MOTOR PERFORMANCE		UNIT	FREE AIR COOLING	FREE AIR COOLING		
Fp	Peak force	N	2930	2930		
Fc	Continuous force	N	744	754		
Fs	Standstill force	N	565	573		
Ip	Peak current	Arms	35.4	54.2		
Ic	Continuous current	Arms	4.43	6.89		
Is	Standstill current	Arms	3.36	5.22		
vs	Rated low speed	mm/s	0.12	0.12		
Pc	Power dissipation @ Ic	W	258	258		
Fd	Max. detent force (average to peak)	N	37	37		
Fa	Attraction force	N	6310	6310		
MOTOR SETTING		UNIT				
Kt	Force constant	N/Arms	182	119		
Ku	Back EMF constant (*)	Vrms/(m/s)	109	70.9		
Km	Motor constant	N/√W	59.9	60.7		
R20	Electrical resistance at 20°C (*)	Ohm	6.13	2.54		
L	Electrical inductance (*)	mH	64.7	27.5		
τth	Thermal time constant	s	2630	2640		
Rth	Thermal resistance	K/W	0.424	0.423		
2τp	Magnetic period	mm	32	32		
mw	Magnetic way mass	kg/m	7.96	7.96		
mm	Motor mass	kg	5.67	5.75		
MOTOR ENVIRONMENT		UNIT				
Udc	Nominal DC bus voltage	VDC	600	600		
Gm	Mechanical gap	mm	0.90	0.90		
Ss	Stator exchange surface	m²	0.08	0.08		
x	Assumed stroke	m	0.69	0.69		
θamb	Ambient temperature	°C	20	20		
θmax	Maximum coil temperature	°C	130	130		

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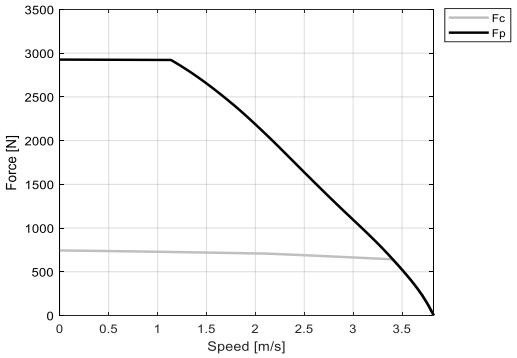
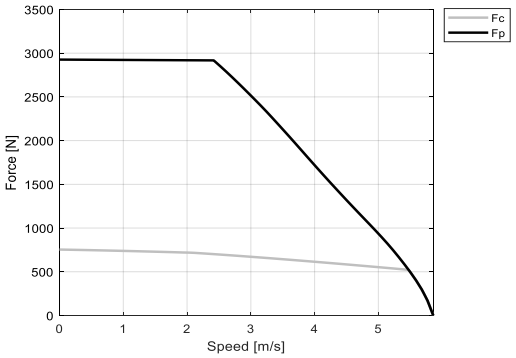
3RB - FREE AIR COOLING - 600V



3TB - FREE AIR COOLING - 600V



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		Winding codes	3TB			
MOTOR PERFORMANCE		UNIT	FREE AIR COOLING			
Fp	Peak force	N	4170			
Fc	Continuous force	N	1030			
Fs	Standstill force	N	782			
Ip	Peak current	Arms	54.2			
Ic	Continuous current	Arms	6.58			
Is	Standstill current	Arms	4.98			
vs	Rated low speed	mm/s	0.11			
Pc	Power dissipation @ Ic	W	312			
Fd	Max. detent force (average to peak)	N	53			
Fa	Attraction force	N	9010			

MOTOR SETTING		UNIT				
Kt	Force constant	N/Arms	169			
Ku	Back EMF constant (*)	Vrms/(m/s)	101			
Km	Motor constant	N/√W	75.3			
R20	Electrical resistance at 20°C (*)	Ohm	3.37			
L	Electrical inductance (*)	mH	39.6			
τth	Thermal time constant	s	2910			
Rth	Thermal resistance	K/W	0.349			
2τp	Magnetic period	mm	32			
mw	Magnetic way mass	kg/m	12.6			
mm	Motor mass	kg	7.86			

MOTOR ENVIRONMENT		UNIT				
Udc	Nominal DC bus voltage	VDC	600			
Gm	Mechanical gap	mm	0.90			
Ss	Stator exchange surface	m²	0.09			
x	Assumed stroke	m	0.69			
θamb	Ambient temperature	°C	20			
θmax	Maximum coil temperature	°C	130			

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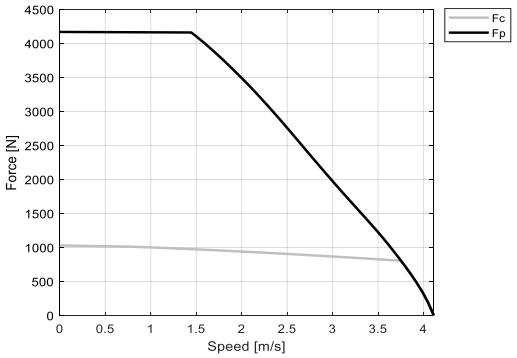
3TB - FREE AIR COOLING - 600V



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