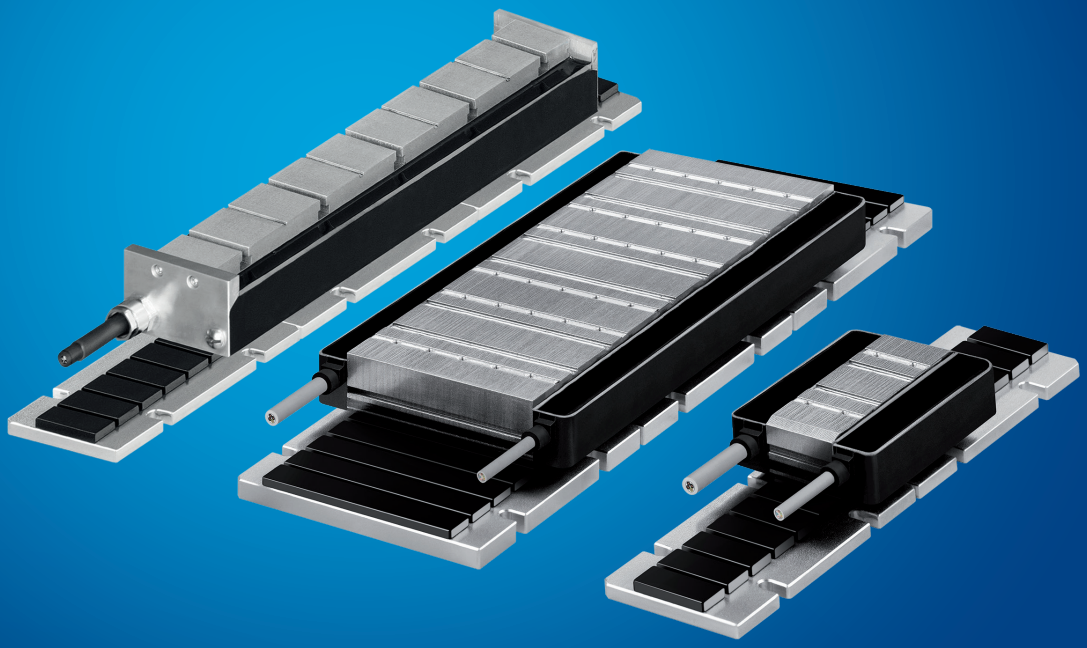

Linear Motors

LMG DATA SHEETS

ETEL

IRONCORE LINEAR MOTOR LMG05-030/MWD+

		Winding codes	3QA			
MOTOR PERFORMANCE		UNIT	FREE AIR COOLING			
Fp	Peak force	N	321			
Fc	Continuous force	N	73.7			
Fs	Standstill force	N	55.8			
Ip	Peak current	Arms	17.4			
Ic	Continuous current	Arms	2.50			
Is	Standstill current	Arms	1.90			
vs	Rated low speed	mm/s	0.20			
Pc	Power dissipation @ Ic	W	46.9			
Fd	Max. detent force (average to peak)	N	9.0			
Fa	Attraction force	N	767			

MOTOR SETTING		UNIT				
Kt	Force constant	N/Arms	30.5			
Ku	Back EMF constant (*)	Vrms/(m/s)	18.5			
Km	Motor constant	N/√W	13.3			
R20	Electrical resistance at 20°C (*)	Ohm	3.50			
L	Electrical inductance (*)	mH	14.6			
τth	Thermal time constant	s	1570			
Rth	Thermal resistance	K/W	2.32			
2τp	Magnetic period	mm	32			
mw	Magnetic way mass	kg/m	3.51			
mm	Motor mass	kg	0.586			

MOTOR ENVIRONMENT		UNIT				
Udc	Nominal DC bus voltage	VDC	600			
Gm	Mechanical gap	mm	0.90			
Ss	Stator exchange surface	m²	0.01			
x	Assumed stroke	m	0.29			
θamb	Ambient temperature	°C	20			
θmax	Maximum coil temperature	°C	130			

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

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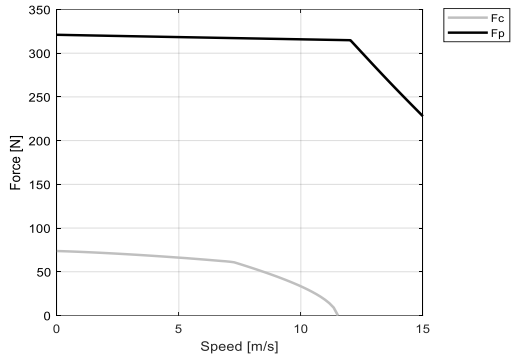
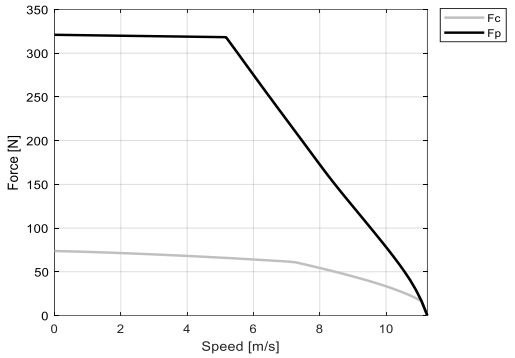
3QA - FREE AIR COOLING - 600V



3QA - FREE AIR COOLING - 300V



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IRONCORE LINEAR MOTOR LMG05-050/MWD+

		Winding codes	3QA			
MOTOR PERFORMANCE		UNIT	FREE AIR COOLING			
Fp	Peak force	N	559			
Fc	Continuous force	N	117			
Fs	Standstill force	N	88.4			
Ip	Peak current	Arms	17.4			
Ic	Continuous current	Arms	2.38			
Is	Standstill current	Arms	1.80			
vs	Rated low speed	mm/s	0.18			
Pc	Power dissipation @ Ic	W	58.2			
Fd	Max. detent force (average to peak)	N	15			
Fa	Attraction force	N	1300			

MOTOR SETTING		UNIT				
Kt	Force constant	N/Arms	51.0			
Ku	Back EMF constant (*)	Vrms/(m/s)	30.8			
Km	Motor constant	N/√W	19.0			
R20	Electrical resistance at 20°C (*)	Ohm	4.80			
L	Electrical inductance (*)	mH	26.8			
τth	Thermal time constant	s	1800			
Rth	Thermal resistance	K/W	1.87			
2τp	Magnetic period	mm	32			
mw	Magnetic way mass	kg/m	6.19			
mm	Motor mass	kg	0.876			

MOTOR ENVIRONMENT		UNIT				
Udc	Nominal DC bus voltage	VDC	600			
Gm	Mechanical gap	mm	0.90			
Ss	Stator exchange surface	m²	0.01			
x	Assumed stroke	m	0.29			
θamb	Ambient temperature	°C	20			
θmax	Maximum coil temperature	°C	130			

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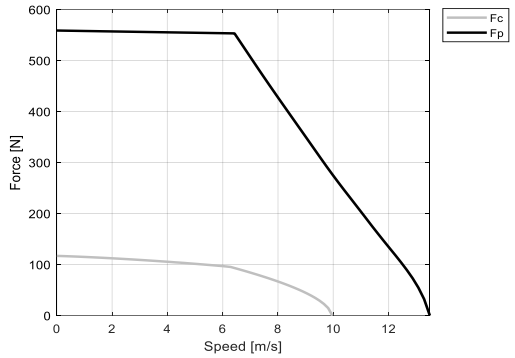
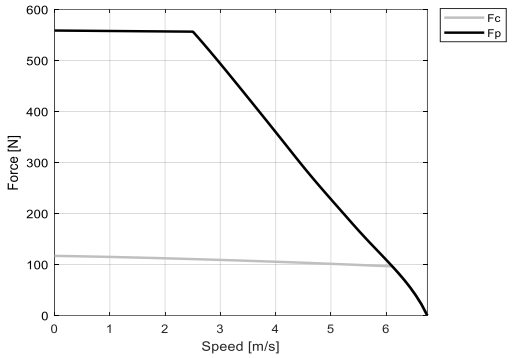
3QA - FREE AIR COOLING - 600V



3QA - FREE AIR COOLING - 300V



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		Winding codes	3QA			
MOTOR PERFORMANCE		UNIT	FREE AIR COOLING			
Fp	Peak force	N	795			
Fc	Continuous force	N	155			
Fs	Standstill force	N	117			
Ip	Peak current	Arms	17.4			
Ic	Continuous current	Arms	2.27			
Is	Standstill current	Arms	1.72			
vs	Rated low speed	mm/s	0.16			
Pc	Power dissipation @ Ic	W	68.0			
Fd	Max. detent force (average to peak)	N	21			
Fa	Attraction force	N	1720			

MOTOR SETTING		UNIT				
Kt	Force constant	N/Arms	71.2			
Ku	Back EMF constant (*)	Vrms/(m/s)	43.1			
Km	Motor constant	N/√W	23.4			
R20	Electrical resistance at 20°C (*)	Ohm	6.17			
L	Electrical inductance (*)	mH	35.1			
τth	Thermal time constant	s	1970			
Rth	Thermal resistance	K/W	1.60			
2τp	Magnetic period	mm	32			
mw	Magnetic way mass	kg/m	7.96			
mm	Motor mass	kg	1.17			

MOTOR ENVIRONMENT		UNIT				
Udc	Nominal DC bus voltage	VDC	600			
Gm	Mechanical gap	mm	0.90			
Ss	Stator exchange surface	m²	0.02			
x	Assumed stroke	m	0.29			
θamb	Ambient temperature	°C	20			
θmax	Maximum coil temperature	°C	130			

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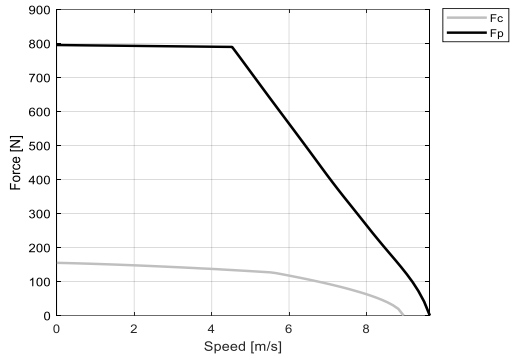
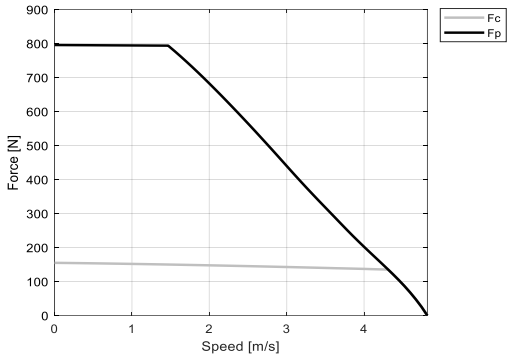
3QA - FREE AIR COOLING - 600V



3QA - FREE AIR COOLING - 300V



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IRONCORE LINEAR MOTOR LMG10-030/MWD+

		Winding codes	3QA	3QB		
MOTOR PERFORMANCE		UNIT	FREE AIR COOLING	FREE AIR COOLING		
Fp	Peak force	N	594	594		
Fc	Continuous force	N	136	136		
Fs	Standstill force	N	103	103		
Ip	Peak current	Arms	15.7	31.3		
Ic	Continuous current	Arms	2.34	4.68		
Is	Standstill current	Arms	1.77	3.55		
vs	Rated low speed	mm/s	0.18	0.18		
Pc	Power dissipation @ Ic	W	82.0	82.0		
Fd	Max. detent force (average to peak)	N	9.5	9.5		
Fa	Attraction force	N	1320	1320		
MOTOR SETTING		UNIT				
Kt	Force constant	N/Arms	60.4	30.2		
Ku	Back EMF constant (*)	Vrms/(m/s)	36.6	18.3		
Km	Motor constant	N/√W	18.7	18.7		
R20	Electrical resistance at 20°C (*)	Ohm	7.00	1.75		
L	Electrical inductance (*)	mH	35.5	8.88		
τth	Thermal time constant	s	1750	1750		
Rth	Thermal resistance	K/W	1.33	1.33		
2τp	Magnetic period	mm	32	32		
mw	Magnetic way mass	kg/m	3.51	3.51		
mm	Motor mass	kg	1.10	1.10		
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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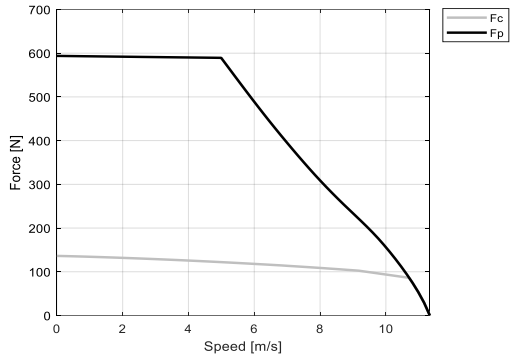
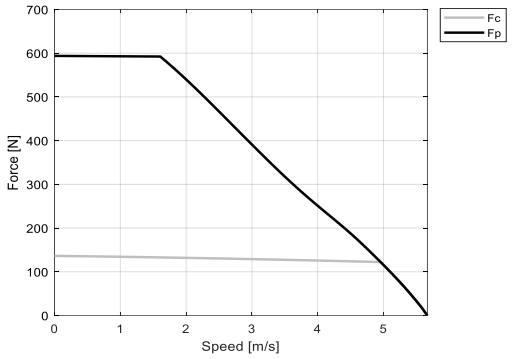
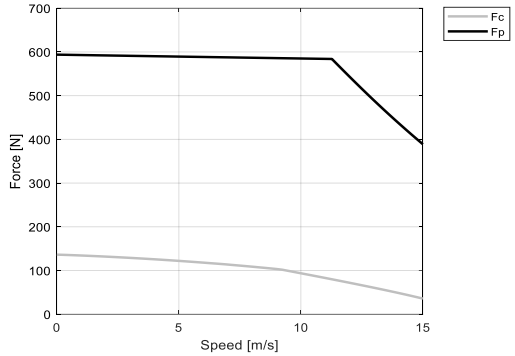
3QA - FREE AIR COOLING - 600V



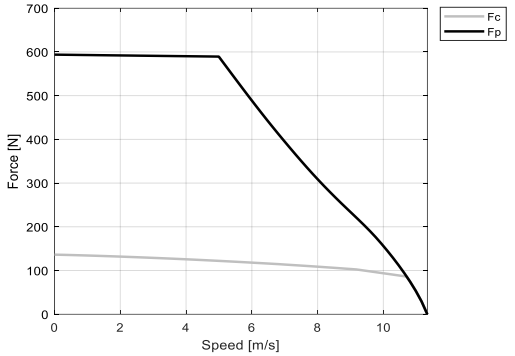
3QA - FREE AIR COOLING - 300V



3QB - FREE AIR COOLING - 600V



3QB - FREE AIR COOLING - 300V



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IRONCORE LINEAR MOTOR LMG10-050/MWD+

		Winding codes	3QA	3QB		
MOTOR PERFORMANCE		UNIT	FREE AIR COOLING	FREE AIR COOLING		
Fp	Peak force	N	1030	1030		
Fc	Continuous force	N	214	214		
Fs	Standstill force	N	162	162		
Ip	Peak current	Arms	15.7	31.3		
Ic	Continuous current	Arms	2.20	4.41		
Is	Standstill current	Arms	1.67	3.34		
vs	Rated low speed	mm/s	0.16	0.16		
Pc	Power dissipation @ Ic	W	99.8	99.8		
Fd	Max. detent force (average to peak)	N	16	16		
Fa	Attraction force	N	2380	2380		
MOTOR SETTING		UNIT				
Kt	Force constant	N/Arms	101	50.7		
Ku	Back EMF constant (*)	Vrms/(m/s)	61.3	30.6		
Km	Motor constant	N/√W	26.7	26.7		
R20	Electrical resistance at 20°C (*)	Ohm	9.60	2.40		
L	Electrical inductance (*)	mH	53.1	13.3		
τth	Thermal time constant	s	2030	2030		
Rth	Thermal resistance	K/W	1.09	1.09		
2τp	Magnetic period	mm	32	32		
mw	Magnetic way mass	kg/m	6.19	6.19		
mm	Motor mass	kg	1.64	1.64		
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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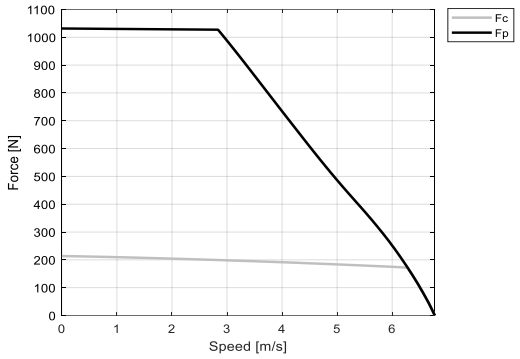
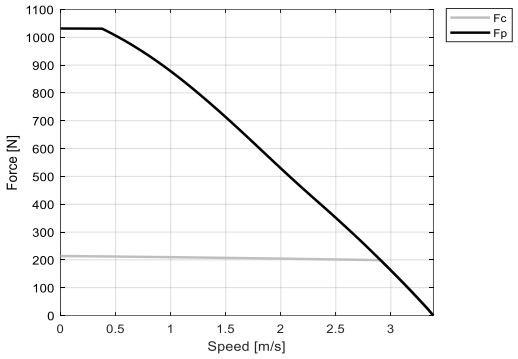
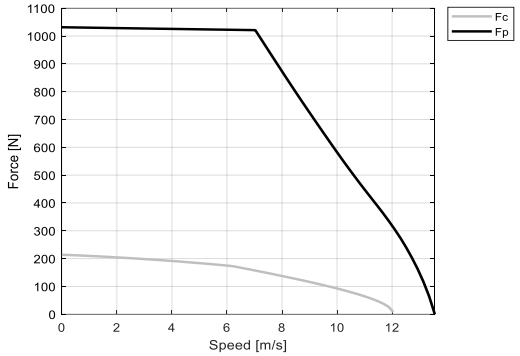
3QA - FREE AIR COOLING - 600V



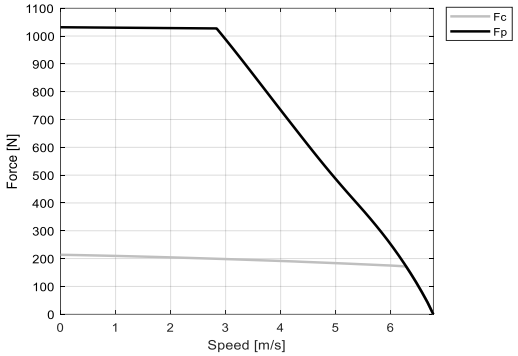
3QA - FREE AIR COOLING - 300V



3QB - FREE AIR COOLING - 600V



3QB - FREE AIR COOLING - 300V



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IRONCORE LINEAR MOTOR LMG10-070/MWD+

		Winding codes	3QA	3QB		
MOTOR PERFORMANCE		UNIT	FREE AIR COOLING	FREE AIR COOLING		
Fp	Peak force	N	1460	1460		
Fc	Continuous force	N	292	292		
Fs	Standstill force	N	221	221		
Ip	Peak current	Arms	15.7	31.3		
Ic	Continuous current	Arms	2.15	4.30		
Is	Standstill current	Arms	1.63	3.26		
vs	Rated low speed	mm/s	0.15	0.15		
Pc	Power dissipation @ Ic	W	122	122		
Fd	Max. detent force (average to peak)	N	22	22		
Fa	Attraction force	N	3310	3310		
MOTOR SETTING		UNIT				
Kt	Force constant	N/Arms	142	71.2		
Ku	Back EMF constant (*)	Vrms/(m/s)	85.8	42.9		
Km	Motor constant	N/√W	33.1	33.1		
R20	Electrical resistance at 20°C (*)	Ohm	12.3	3.08		
L	Electrical inductance (*)	mH	77.9	19.5		
τth	Thermal time constant	s	2190	2190		
Rth	Thermal resistance	K/W	0.891	0.891		
2τp	Magnetic period	mm	32	32		
mw	Magnetic way mass	kg/m	7.96	7.96		
mm	Motor mass	kg	2.18	2.18		
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.

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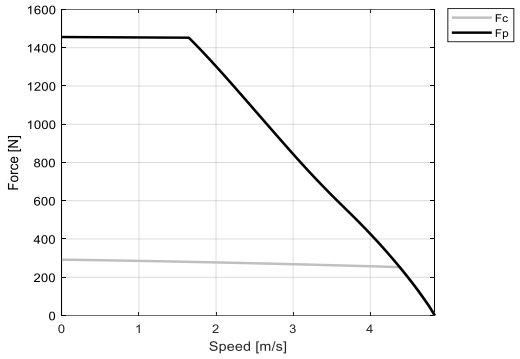
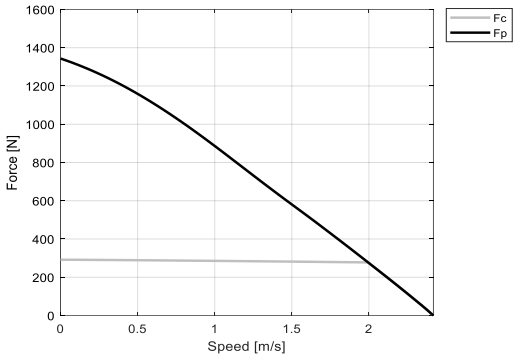
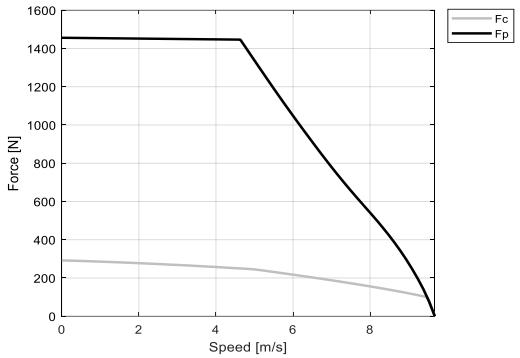
3QA - FREE AIR COOLING - 600V



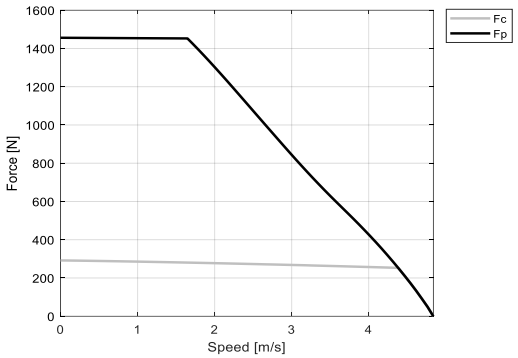
3QA - FREE AIR COOLING - 300V



3QB - FREE AIR COOLING - 600V



3QB - FREE AIR COOLING - 300V



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		Winding codes	3QB			
MOTOR PERFORMANCE		UNIT	FREE AIR COOLING			
Fp	Peak force	N	2090			
Fc	Continuous force	N	393			
Fs	Standstill force	N	297			
Ip	Peak current	Arms	31.0			
Ic	Continuous current	Arms	4.03			
Is	Standstill current	Arms	3.06			
vs	Rated low speed	mm/s	0.13			
Pc	Power dissipation @ Ic	W	140			
Fd	Max. detent force (average to peak)	N	32			
Fa	Attraction force	N	4760			

MOTOR SETTING		UNIT				
Kt	Force constant	N/Arms	102			
Ku	Back EMF constant (*)	Vrms/(m/s)	61.9			
Km	Motor constant	N/√W	41.6			
R20	Electrical resistance at 20°C (*)	Ohm	4.03			
L	Electrical inductance (*)	mH	27.3			
τth	Thermal time constant	s	2450			
Rth	Thermal resistance	K/W	0.775			
2τp	Magnetic period	mm	32			
mw	Magnetic way mass	kg/m	12.6			
mm	Motor mass	kg	3.00			

MOTOR ENVIRONMENT		UNIT				
Udc	Nominal DC bus voltage	VDC	600			
Gm	Mechanical gap	mm	0.90			
Ss	Stator exchange surface	m²	0.04			
x	Assumed stroke	m	0.47			
θamb	Ambient temperature	°C	20			
θmax	Maximum coil temperature	°C	130			

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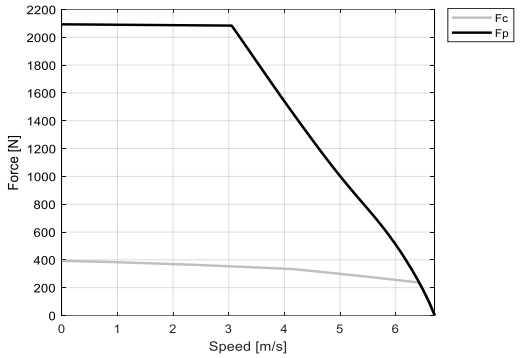
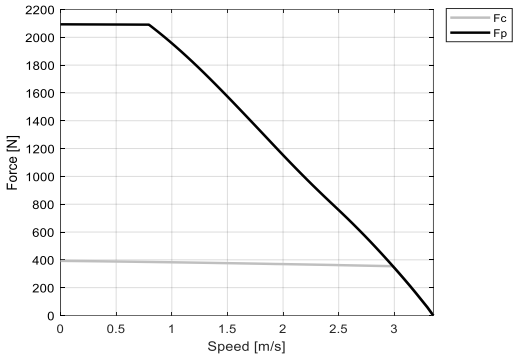
3QB - FREE AIR COOLING - 600V



3QB - FREE AIR COOLING - 300V



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IRONCORE LINEAR MOTOR LMG15-030/MWD+

		Winding codes	3QA	3QC		
MOTOR PERFORMANCE		UNIT	FREE AIR COOLING	FREE AIR COOLING		
Fp	Peak force	N	869	869		
Fc	Continuous force	N	194	194		
Fs	Standstill force	N	147	147		
Ip	Peak current	Arms	15.1	45.2		
Ic	Continuous current	Arms	2.23	6.68		
Is	Standstill current	Arms	1.69	5.06		
vs	Rated low speed	mm/s	0.17	0.17		
Pc	Power dissipation @ Ic	W	111	111		
Fd	Max. detent force (average to peak)	N	12	12		
Fa	Attraction force	N	2060	2060		
MOTOR SETTING		UNIT				
Kt	Force constant	N/Arms	91.1	30.4		
Ku	Back EMF constant (*)	Vrms/(m/s)	55.1	18.4		
Km	Motor constant	N/√W	23.0	23.0		
R20	Electrical resistance at 20°C (*)	Ohm	10.5	1.17		
L	Electrical inductance (*)	mH	48.7	5.42		
τth	Thermal time constant	s	1850	1850		
Rth	Thermal resistance	K/W	0.982	0.982		
2τp	Magnetic period	mm	32	32		
mw	Magnetic way mass	kg/m	3.51	3.51		
mm	Motor mass	kg	1.61	1.61		
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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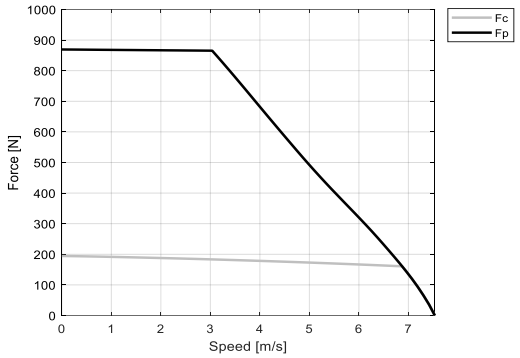
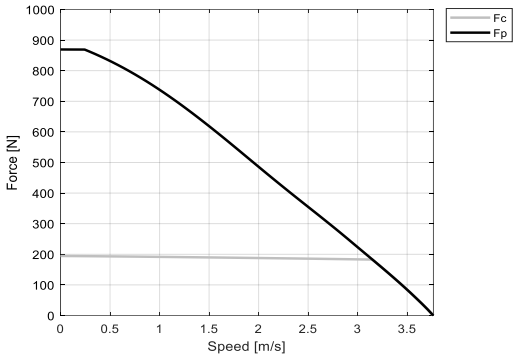
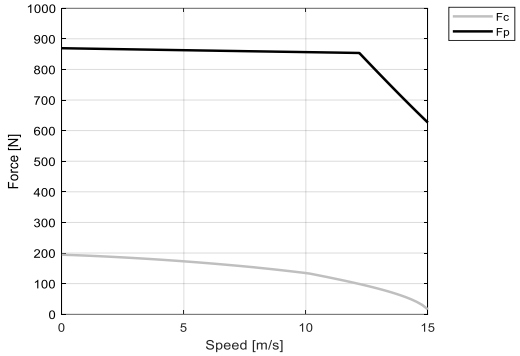
3QA - FREE AIR COOLING - 600V



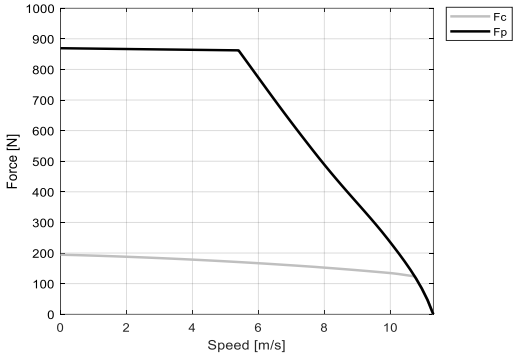
3QA - FREE AIR COOLING - 300V



3QC - FREE AIR COOLING - 600V



3QC - FREE AIR COOLING - 300V



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IRONCORE LINEAR MOTOR LMG15-050/MWD+

		Winding codes	3QA	3QC		
MOTOR PERFORMANCE		UNIT	FREE AIR COOLING	FREE AIR COOLING		
Fp	Peak force	N	1510	1510		
Fc	Continuous force	N	310	310		
Fs	Standstill force	N	235	235		
Ip	Peak current	Arms	15.1	45.2		
Ic	Continuous current	Arms	2.16	6.49		
Is	Standstill current	Arms	1.64	4.91		
vs	Rated low speed	mm/s	0.15	0.15		
Pc	Power dissipation @ Ic	W	144	144		
Fd	Max. detent force (average to peak)	N	20	20		
Fa	Attraction force	N	3440	3440		
MOTOR SETTING		UNIT				
Kt	Force constant	N/Arms	152	50.6		
Ku	Back EMF constant (*)	Vrms/(m/s)	91.8	30.6		
Km	Motor constant	N/√W	32.7	32.7		
R20	Electrical resistance at 20°C (*)	Ohm	14.4	1.60		
L	Electrical inductance (*)	mH	81.3	9.04		
τth	Thermal time constant	s	2110	2110		
Rth	Thermal resistance	K/W	0.757	0.757		
2τp	Magnetic period	mm	32	32		
mw	Magnetic way mass	kg/m	6.19	6.19		
mm	Motor mass	kg	2.41	2.41		
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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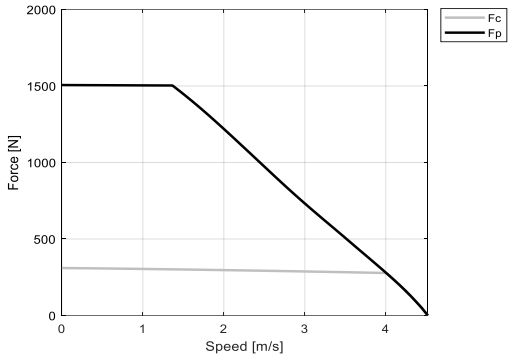
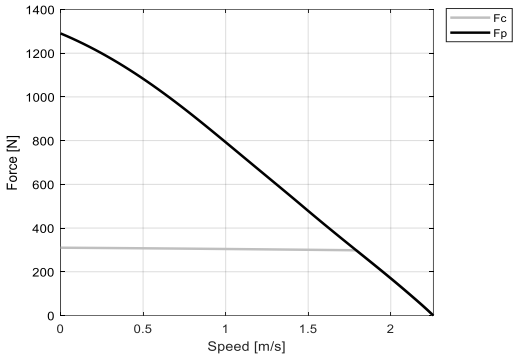
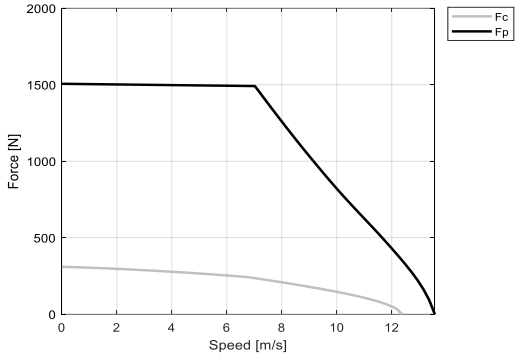
3QA - FREE AIR COOLING - 600V



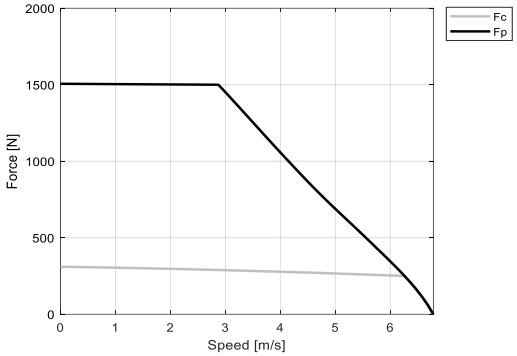
3QA - FREE AIR COOLING - 300V



3QC - FREE AIR COOLING - 600V



3QC - FREE AIR COOLING - 300V



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		Winding codes	3QC			
MOTOR PERFORMANCE		UNIT	FREE AIR COOLING			
Fp	Peak force	N	2120			
Fc	Continuous force	N	420			
Fs	Standstill force	N	317			
Ip	Peak current	Arms	45.2			
Ic	Continuous current	Arms	6.30			
Is	Standstill current	Arms	4.77			
vs	Rated low speed	mm/s	0.14			
Pc	Power dissipation @ Ic	W	175			
Fd	Max. detent force (average to peak)	N	28			
Fa	Attraction force	N	4760			

MOTOR SETTING		UNIT				
Kt	Force constant	N/Arms	70.8			
Ku	Back EMF constant (*)	Vrms/(m/s)	42.8			
Km	Motor constant	N/√W	40.3			
R20	Electrical resistance at 20°C (*)	Ohm	2.06			
L	Electrical inductance (*)	mH	12.7			
τth	Thermal time constant	s	2290			
Rth	Thermal resistance	K/W	0.623			
2τp	Magnetic period	mm	32			
mw	Magnetic way mass	kg/m	7.96			
mm	Motor mass	kg	3.20			

MOTOR ENVIRONMENT		UNIT				
Udc	Nominal DC bus voltage	VDC	600			
Gm	Mechanical gap	mm	0.90			
Ss	Stator exchange surface	m²	0.05			
x	Assumed stroke	m	0.51			
θamb	Ambient temperature	°C	20			
θmax	Maximum coil temperature	°C	130			

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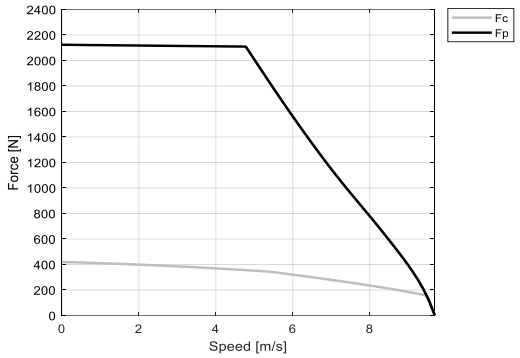
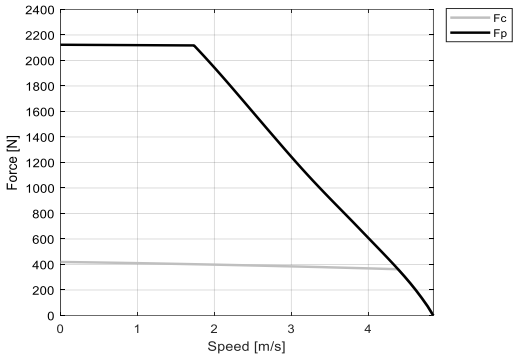
3QC - FREE AIR COOLING - 600V



3QC - FREE AIR COOLING - 300V



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		Winding codes	3QC			
MOTOR PERFORMANCE		UNIT	FREE AIR COOLING			
Fp	Peak force	N	3070			
Fc	Continuous force	N	580			
Fs	Standstill force	N	438			
Ip	Peak current	Arms	44.7			
Ic	Continuous current	Arms	6.00			
Is	Standstill current	Arms	4.55			
vs	Rated low speed	mm/s	0.13			
Pc	Power dissipation @ Ic	W	207			
Fd	Max. detent force (average to peak)	N	39			
Fa	Attraction force	N	6880			

MOTOR SETTING		UNIT				
Kt	Force constant	N/Arms	102			
Ku	Back EMF constant (*)	Vrms/(m/s)	61.9			
Km	Motor constant	N/√W	50.9			
R20	Electrical resistance at 20°C (*)	Ohm	2.69			
L	Electrical inductance (*)	mH	18.5			
τth	Thermal time constant	s	2540			
Rth	Thermal resistance	K/W	0.525			
2τp	Magnetic period	mm	32			
mw	Magnetic way mass	kg/m	12.6			
mm	Motor mass	kg	4.40			

MOTOR ENVIRONMENT		UNIT				
Udc	Nominal DC bus voltage	VDC	600			
Gm	Mechanical gap	mm	0.90			
Ss	Stator exchange surface	m²	0.06			
x	Assumed stroke	m	0.51			
θamb	Ambient temperature	°C	20			
θmax	Maximum coil temperature	°C	130			

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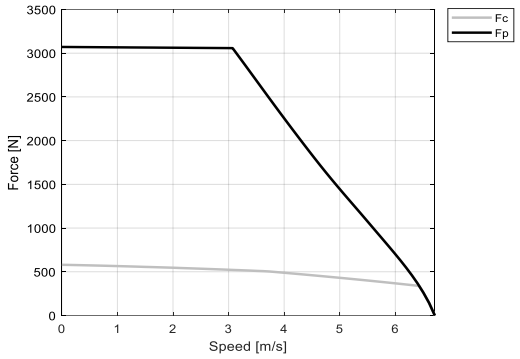
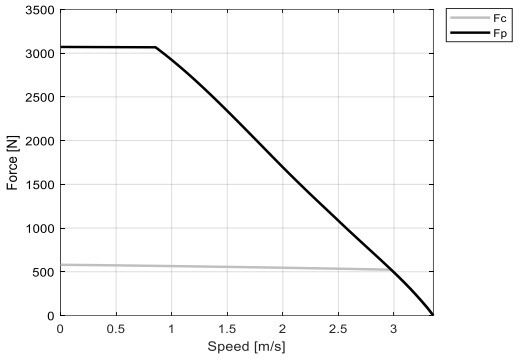
3QC - FREE AIR COOLING - 600V



3QC - FREE AIR COOLING - 300V



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IRONCORE LINEAR MOTOR LMG20-050/MWD+

		Winding codes	3QB	3QD		
MOTOR PERFORMANCE		UNIT	FREE AIR COOLING	FREE AIR COOLING		
Fp	Peak force	N	2030	2030		
Fc	Continuous force	N	423	423		
Fs	Standstill force	N	320	320		
Ip	Peak current	Arms	30.1	60.2		
Ic	Continuous current	Arms	4.39	8.78		
Is	Standstill current	Arms	3.33	6.65		
vs	Rated low speed	mm/s	0.15	0.15		
Pc	Power dissipation @ Ic	W	198	198		
Fd	Max. detent force (average to peak)	N	27	27		
Fa	Attraction force	N	4510	4510		
MOTOR SETTING		UNIT				
Kt	Force constant	N/Arms	102	50.8		
Ku	Back EMF constant (*)	Vrms/(m/s)	61.3	30.7		
Km	Motor constant	N/√W	37.9	37.9		
R20	Electrical resistance at 20°C (*)	Ohm	4.80	1.20		
L	Electrical inductance (*)	mH	26.8	6.71		
τth	Thermal time constant	s	2120	2120		
Rth	Thermal resistance	K/W	0.551	0.551		
2τp	Magnetic period	mm	32	32		
mw	Magnetic way mass	kg/m	6.19	6.19		
mm	Motor mass	kg	3.17	3.17		
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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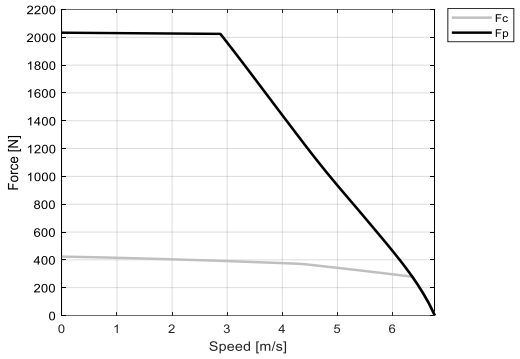
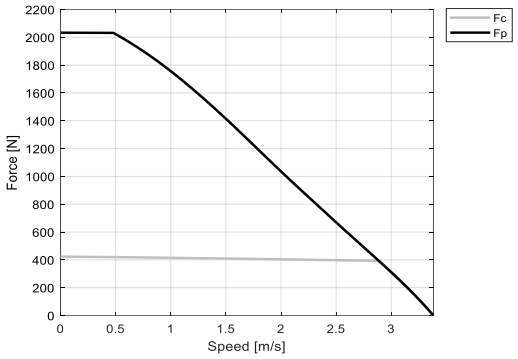
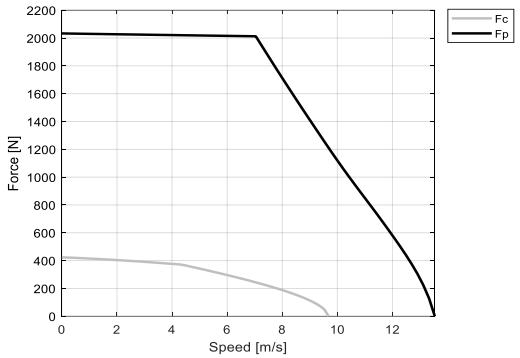
3QB - FREE AIR COOLING - 600V



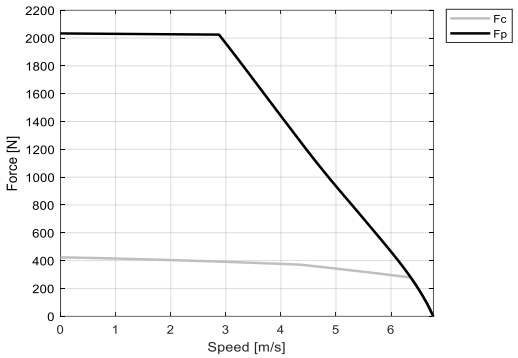
3QB - FREE AIR COOLING - 300V



3QD - FREE AIR COOLING - 600V



3QD - FREE AIR COOLING - 300V



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		Winding codes	3QB	3QD		
MOTOR PERFORMANCE		UNIT	FREE AIR COOLING	FREE AIR COOLING		
Fp	Peak force	N	2870	2870		
Fc	Continuous force	N	575	575		
Fs	Standstill force	N	435	435		
Ip	Peak current	Arms	30.1	60.2		
Ic	Continuous current	Arms	4.28	8.56		
Is	Standstill current	Arms	3.24	6.49		
vs	Rated low speed	mm/s	0.14	0.14		
Pc	Power dissipation @ Ic	W	242	242		
Fd	Max. detent force (average to peak)	N	37	37		
Fa	Attraction force	N	6310	6310		
MOTOR SETTING		UNIT				
Kt	Force constant	N/Arms	142	71.1		
Ku	Back EMF constant (*)	Vrms/(m/s)	85.9	42.9		
Km	Motor constant	N/√W	46.7	46.7		
R20	Electrical resistance at 20°C (*)	Ohm	6.17	1.54		
L	Electrical inductance (*)	mH	37.4	9.34		
τth	Thermal time constant	s	2300	2300		
Rth	Thermal resistance	K/W	0.449	0.449		
2τp	Magnetic period	mm	32	32		
mw	Magnetic way mass	kg/m	7.96	7.96		
mm	Motor mass	kg	4.22	4.22		
MOTOR ENVIRONMENT		UNIT				
Udc	Nominal DC bus voltage	VDC	600	600		
Gm	Mechanical gap	mm	0.90	0.90		
Ss	Stator exchange surface	m²	0.07	0.07		
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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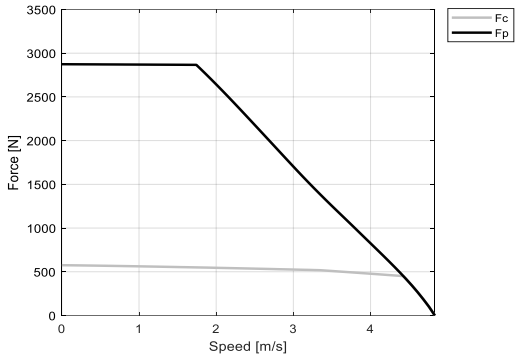
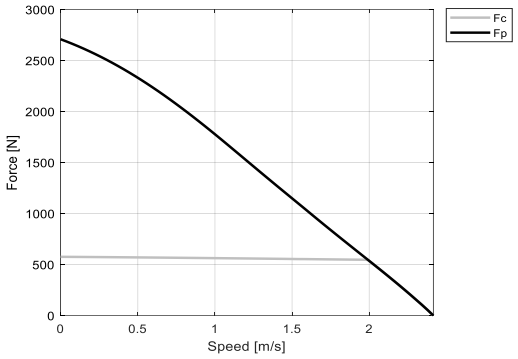
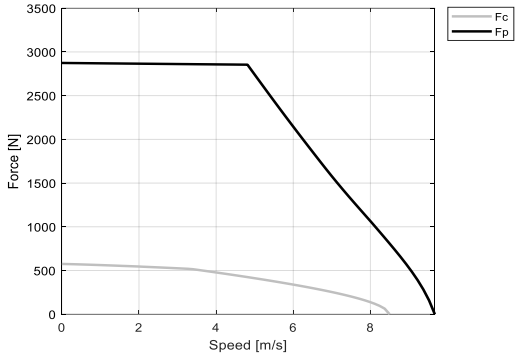
3QB - FREE AIR COOLING - 600V



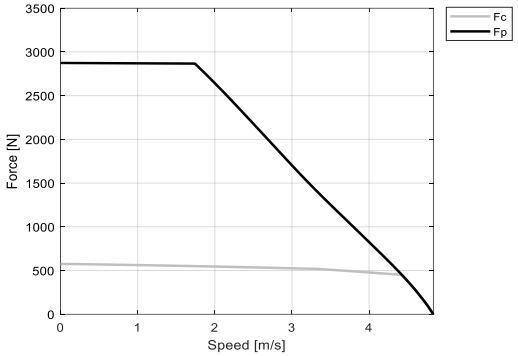
3QB - FREE AIR COOLING - 300V



3QD - FREE AIR COOLING - 600V



3QD - FREE AIR COOLING - 300V



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		Winding codes	3QB	3QD		
MOTOR PERFORMANCE		UNIT	FREE AIR COOLING	FREE AIR COOLING		
Fp	Peak force	N	4130	4130		
Fc	Continuous force	N	790	790		
Fs	Standstill force	N	597	597		
Ip	Peak current	Arms	29.8	59.6		
Ic	Continuous current	Arms	4.08	8.16		
Is	Standstill current	Arms	3.09	6.18		
vs	Rated low speed	mm/s	0.13	0.13		
Pc	Power dissipation @ Ic	W	288	288		
Fd	Max. detent force (average to peak)	N	53	53		
Fa	Attraction force	N	9020	9020		
MOTOR SETTING		UNIT				
Kt	Force constant	N/Arms	205	103		
Ku	Back EMF constant (*)	Vrms/(m/s)	124	61.9		
Km	Motor constant	N/√W	58.9	58.9		
R20	Electrical resistance at 20°C (*)	Ohm	8.07	2.02		
L	Electrical inductance (*)	mH	53.8	13.4		
τth	Thermal time constant	s	2550	2550		
Rth	Thermal resistance	K/W	0.378	0.378		
2τp	Magnetic period	mm	32	32		
mw	Magnetic way mass	kg/m	12.6	12.6		
mm	Motor mass	kg	5.80	5.80		
MOTOR ENVIRONMENT		UNIT				
Udc	Nominal DC bus voltage	VDC	600	600		
Gm	Mechanical gap	mm	0.90	0.90		
Ss	Stator exchange surface	m²	0.09	0.09		
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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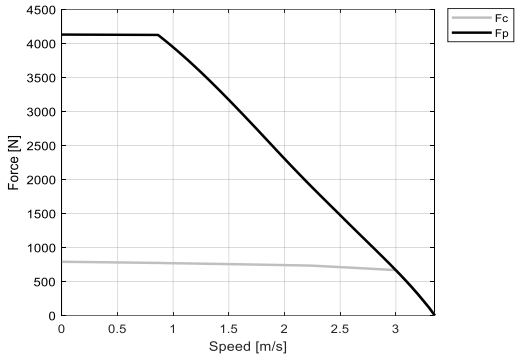
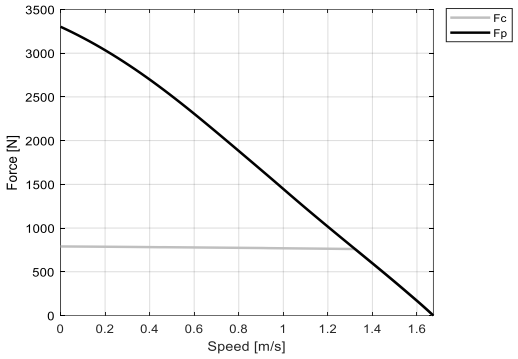
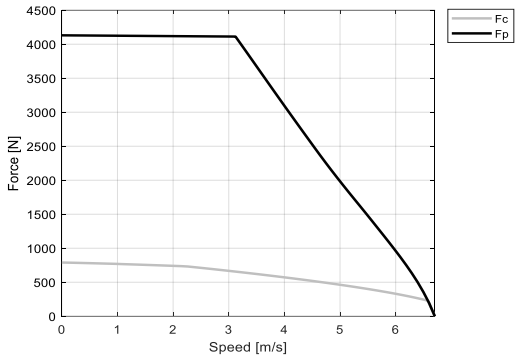
3QB - FREE AIR COOLING - 600V



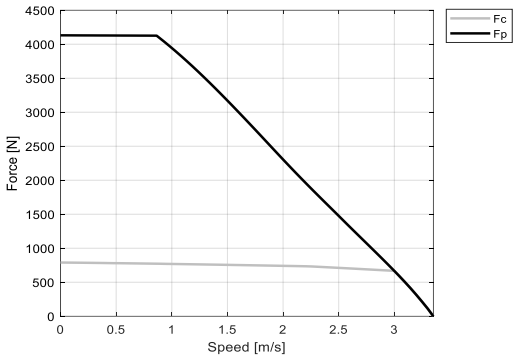
3QB - FREE AIR COOLING - 300V



3QD - FREE AIR COOLING - 600V



3QD - FREE AIR COOLING - 300V



ETEL S.A. Zone Industrielle, CH-2112 Môtiers, Switzerland
T +41 (0)32 862 01 00 • F +41 (0)32 862 01 01 • etel@etel.ch • www.etel.ch