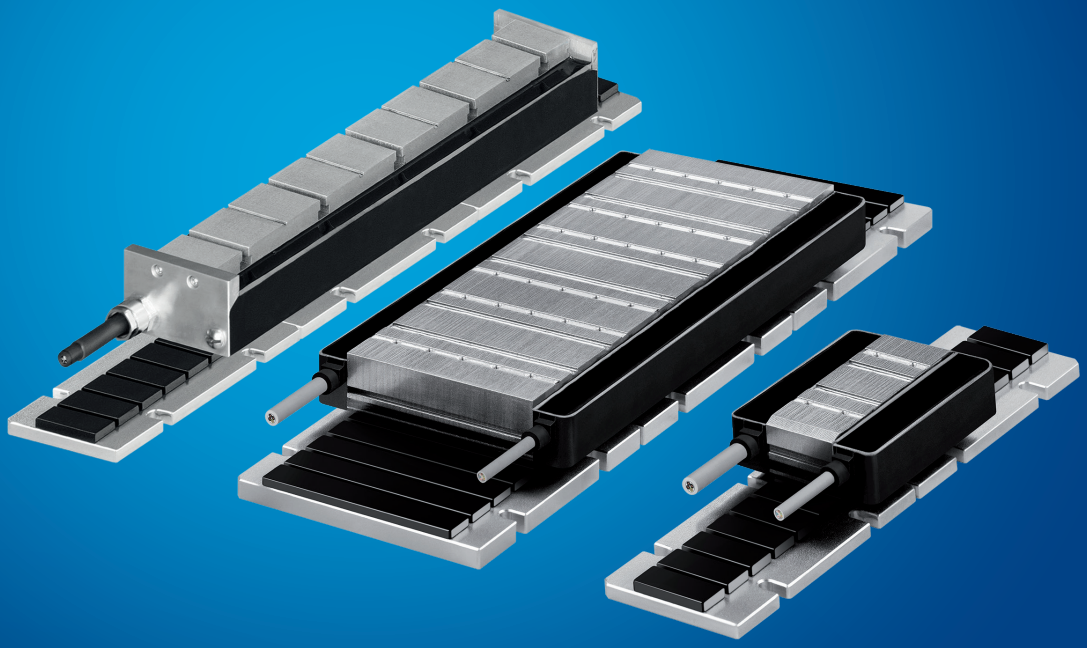

Linear Motors

LMG DATA SHEETS

ETEL

		Winding codes	3QA			
MOTOR PERFORMANCE		UNIT	FREE AIR COOLING			
Fp	Peak force	N	281			
Fc	Continuous force	N	64.5			
Fs	Standstill force	N	48.7			
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	6.7			
Fa	Attraction force	N	580			

MOTOR SETTING		UNIT				
Kt	Force constant	N/Arms	26.6			
Ku	Back EMF constant (*)	Vrms/(m/s)	16.1			
Km	Motor constant	N/√W	11.6			
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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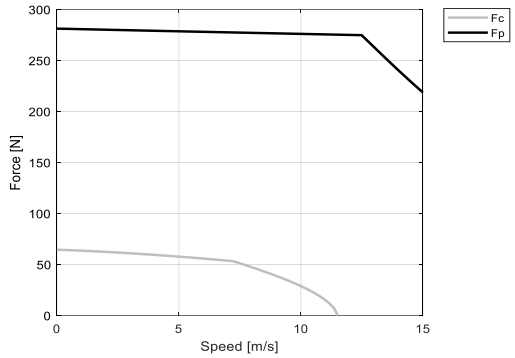
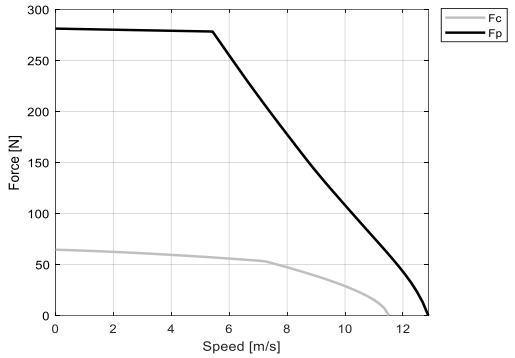
3QA - FREE AIR COOLING - 600V



3QA - FREE AIR COOLING - 300V



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		Winding codes	3QA			
MOTOR PERFORMANCE		UNIT	FREE AIR COOLING			
Fp	Peak force	N	489			
Fc	Continuous force	N	102			
Fs	Standstill force	N	77.0			
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	11			
Fa	Attraction force	N	980			

MOTOR SETTING		UNIT				
Kt	Force constant	N/Arms	44.4			
Ku	Back EMF constant (*)	Vrms/(m/s)	26.9			
Km	Motor constant	N/√W	16.5			
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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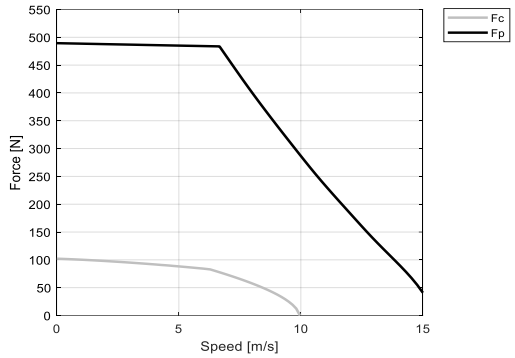
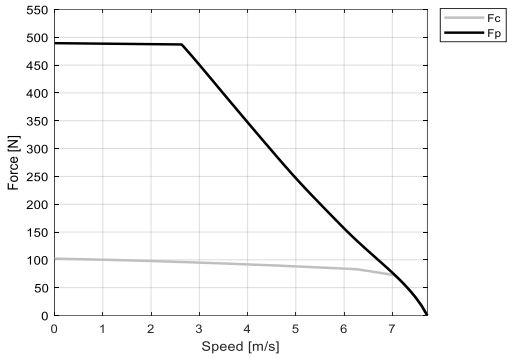
3QA - FREE AIR COOLING - 600V



3QA - FREE AIR COOLING - 300V



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		Winding codes	3QA			
MOTOR PERFORMANCE		UNIT	FREE AIR COOLING			
Fp	Peak force	N	697			
Fc	Continuous force	N	135			
Fs	Standstill force	N	102			
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	16			
Fa	Attraction force	N	1300			

MOTOR SETTING		UNIT				
Kt	Force constant	N/Arms	62.0			
Ku	Back EMF constant (*)	Vrms/(m/s)	37.6			
Km	Motor constant	N/√W	20.4			
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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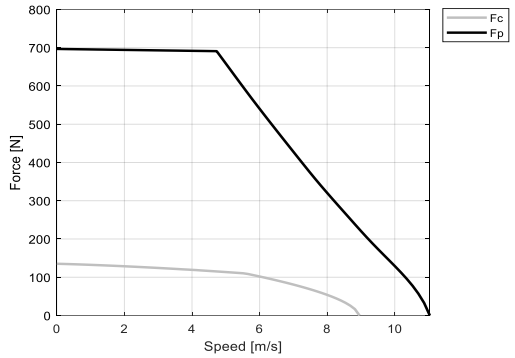
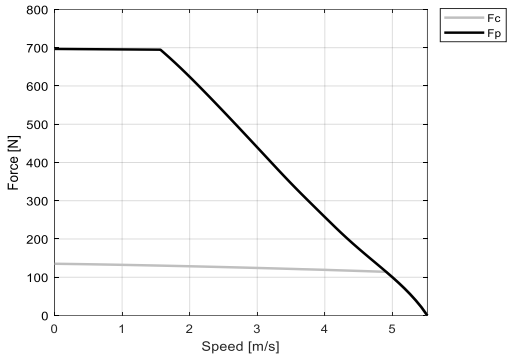
3QA - FREE AIR COOLING - 600V



3QA - FREE AIR COOLING - 300V



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		Winding codes	3QA	3QB		
MOTOR PERFORMANCE		UNIT	FREE AIR COOLING	FREE AIR COOLING		
Fp	Peak force	N	521	521		
Fc	Continuous force	N	119	119		
Fs	Standstill force	N	89.9	89.9		
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	7.1	7.1		
Fa	Attraction force	N	1000	1000		
MOTOR SETTING		UNIT				
Kt	Force constant	N/Arms	52.7	26.4		
Ku	Back EMF constant (*)	Vrms/(m/s)	32.0	16.0		
Km	Motor constant	N/√W	16.3	16.3		
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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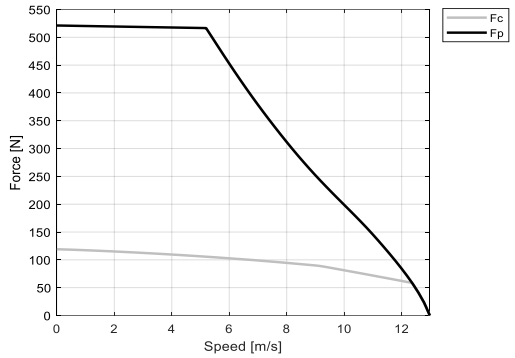
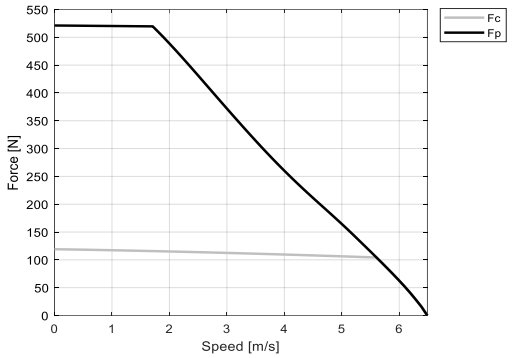
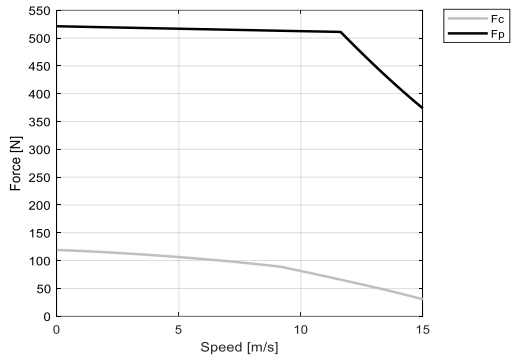
3QA - FREE AIR COOLING - 600V



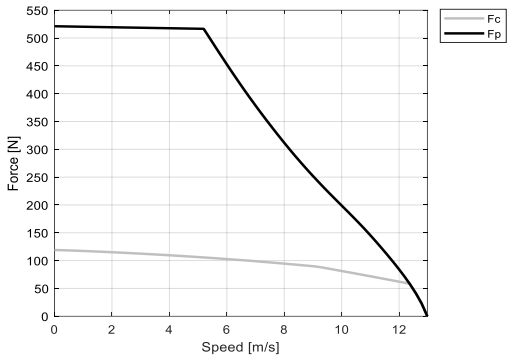
3QA - FREE AIR COOLING - 300V



3QB - FREE AIR COOLING - 600V



3QB - FREE AIR COOLING - 300V



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		Winding codes	3QA	3QB		
MOTOR PERFORMANCE		UNIT	FREE AIR COOLING	FREE AIR COOLING		
Fp	Peak force	N	905	905		
Fc	Continuous force	N	187	187		
Fs	Standstill force	N	141	141		
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	12	12		
Fa	Attraction force	N	1800	1800		
MOTOR SETTING		UNIT				
Kt	Force constant	N/Arms	88.3	44.2		
Ku	Back EMF constant (*)	Vrms/(m/s)	53.5	26.7		
Km	Motor constant	N/√W	23.3	23.3		
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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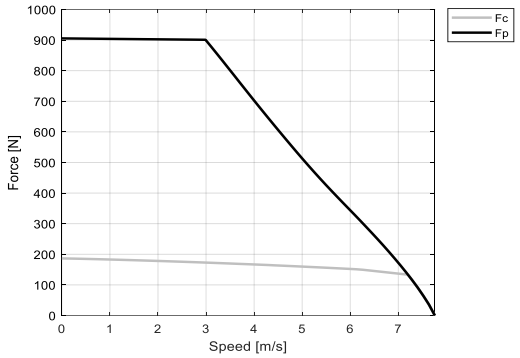
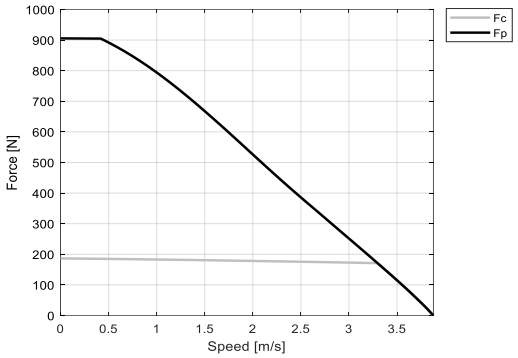
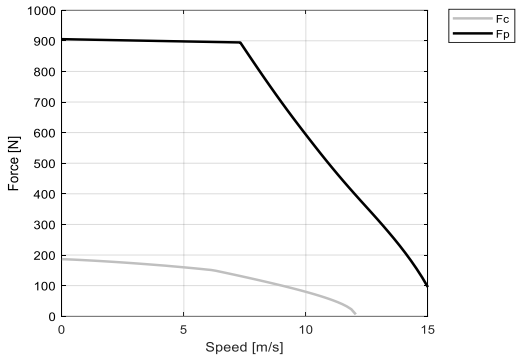
3QA - FREE AIR COOLING - 600V



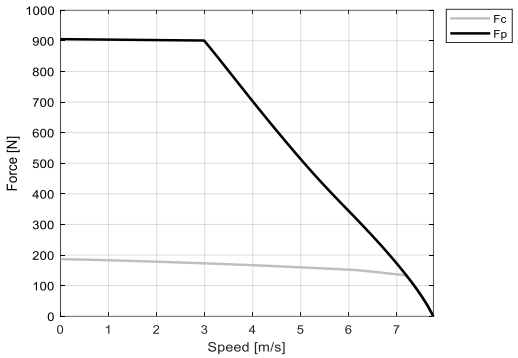
3QA - FREE AIR COOLING - 300V



3QB - FREE AIR COOLING - 600V



3QB - FREE AIR COOLING - 300V



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		Winding codes	3QA	3QB		
MOTOR PERFORMANCE		UNIT	FREE AIR COOLING	FREE AIR COOLING		
Fp	Peak force	N	1280	1280		
Fc	Continuous force	N	255	255		
Fs	Standstill force	N	192	192		
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	17	17		
Fa	Attraction force	N	2500	2500		
MOTOR SETTING		UNIT				
Kt	Force constant	N/Arms	124	61.9		
Ku	Back EMF constant (*)	Vrms/(m/s)	74.9	37.4		
Km	Motor constant	N/√W	28.8	28.8		
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.
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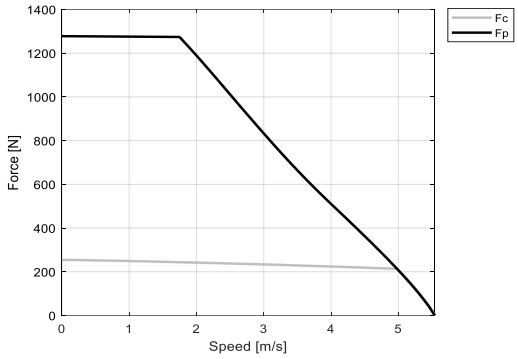
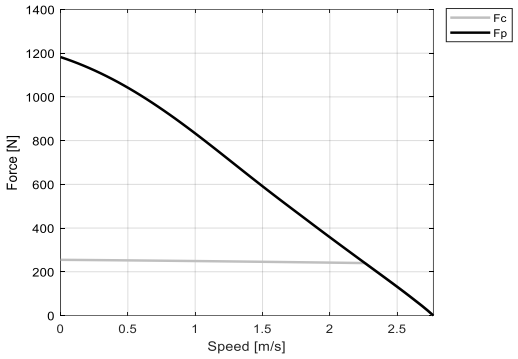
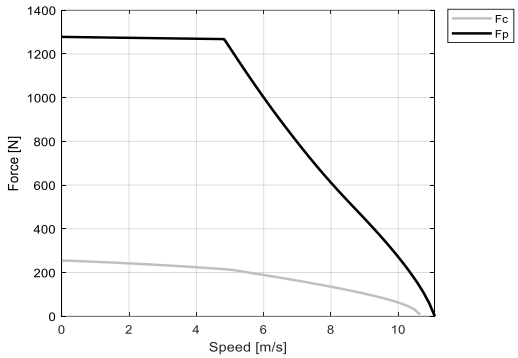
3QA - FREE AIR COOLING - 600V



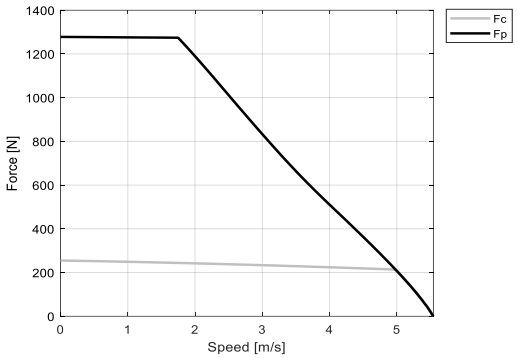
3QA - FREE AIR COOLING - 300V



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	1840			
Fc	Continuous force	N	342			
Fs	Standstill force	N	258			
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	24			
Fa	Attraction force	N	3600			

MOTOR SETTING		UNIT				
Kt	Force constant	N/Arms	89.0			
Ku	Back EMF constant (*)	Vrms/(m/s)	54.1			
Km	Motor constant	N/√W	36.2			
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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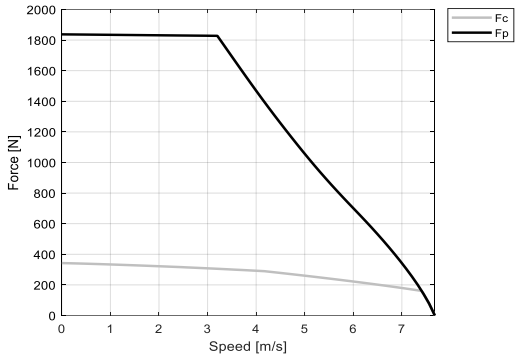
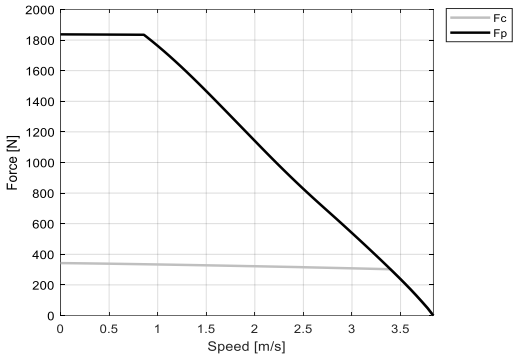
3QB - FREE AIR COOLING - 600V



3QB - FREE AIR COOLING - 300V



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IRONCORE LINEAR MOTOR

LMG15-030

		Winding codes	3QA	3QC		
MOTOR PERFORMANCE		UNIT	FREE AIR COOLING	FREE AIR COOLING		
Fp	Peak force	N	764	764		
Fc	Continuous force	N	170	170		
Fs	Standstill force	N	128	128		
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	8.8	8.8		
Fa	Attraction force	N	1560	1560		
MOTOR SETTING		UNIT				
Kt	Force constant	N/Arms	79.3	26.4		
Ku	Back EMF constant (*)	Vrms/(m/s)	48.1	16.0		
Km	Motor constant	N/√W	20.0	20.0		
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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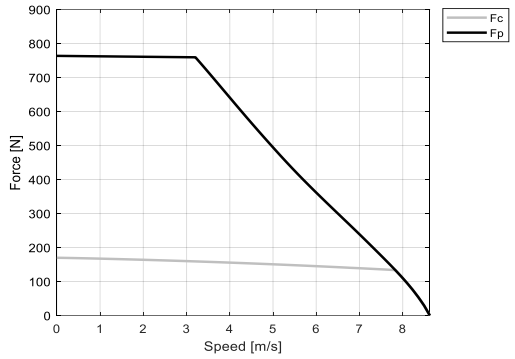
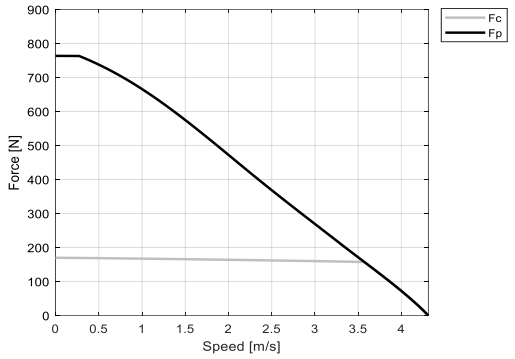
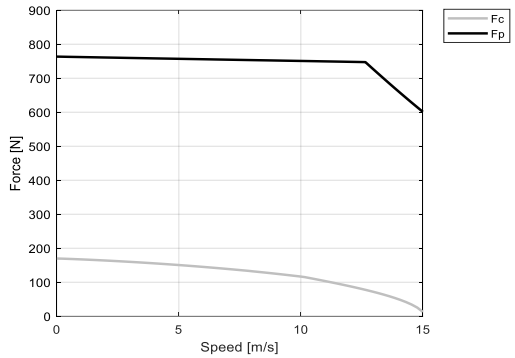
3QA - FREE AIR COOLING - 600V



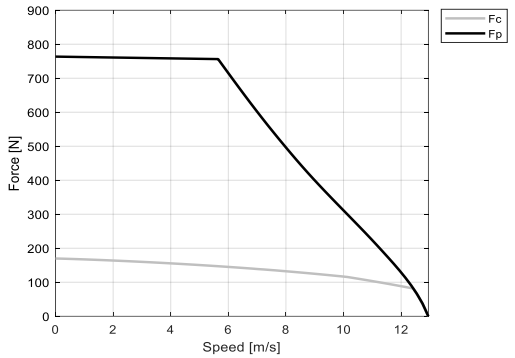
3QA - FREE AIR COOLING - 300V



3QC - FREE AIR COOLING - 600V



3QC - FREE AIR COOLING - 300V



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IRONCORE LINEAR MOTOR

LMG15-050

		Winding codes	3QA	3QC		
MOTOR PERFORMANCE		UNIT	FREE AIR COOLING	FREE AIR COOLING		
Fp	Peak force	N	1320	1320		
Fc	Continuous force	N	271	271		
Fs	Standstill force	N	204	204		
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	15	15		
Fa	Attraction force	N	2600	2600		
MOTOR SETTING		UNIT				
Kt	Force constant	N/Arms	132	44.0		
Ku	Back EMF constant (*)	Vrms/(m/s)	80.1	26.7		
Km	Motor constant	N/√W	28.4	28.4		
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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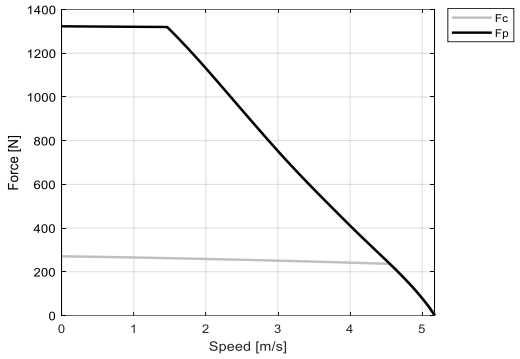
ETEL

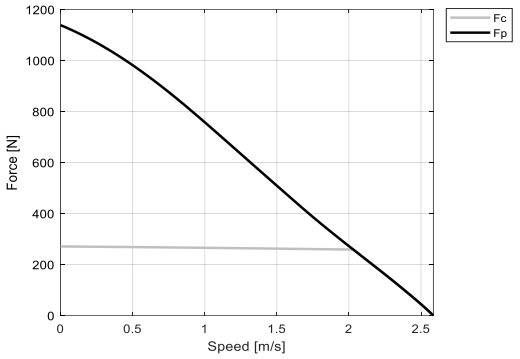
IRONCORE LINEAR MOTOR

LMG15-050

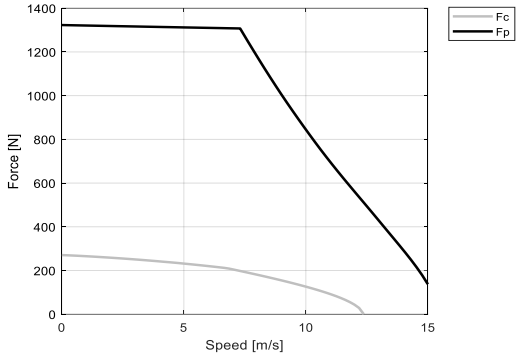
3QA - FREE AIR COOLING - 600V



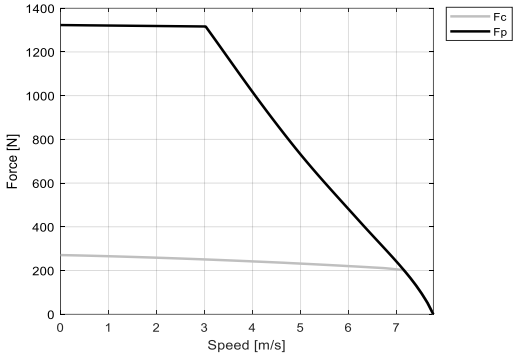
3QA - FREE AIR COOLING - 300V



3QC - FREE AIR COOLING - 600V



3QC - FREE AIR COOLING - 300V



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IRONCORE LINEAR MOTOR

LMG15-070

		Winding codes	3QC			
MOTOR PERFORMANCE		UNIT	FREE AIR COOLING			
Fp	Peak force	N	1870			
Fc	Continuous force	N	366			
Fs	Standstill force	N	276			
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	21			
Fa	Attraction force	N	3600			

MOTOR SETTING		UNIT				
Kt	Force constant	N/Arms	61.6			
Ku	Back EMF constant (*)	Vrms/(m/s)	37.4			
Km	Motor constant	N/√W	35.1			
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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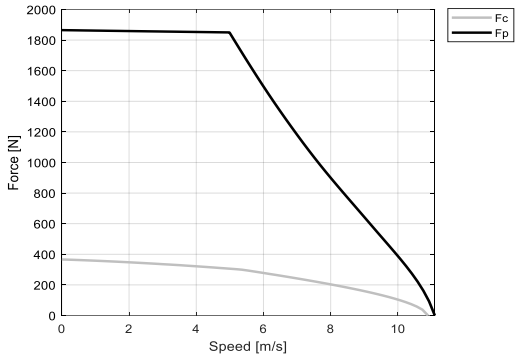
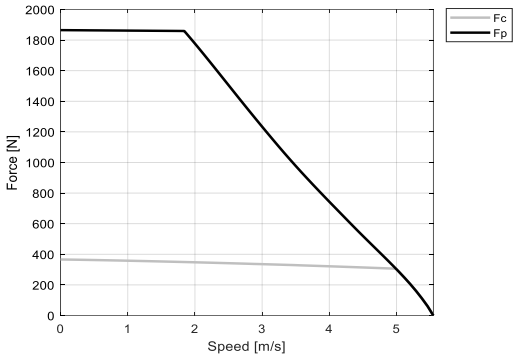
3QC - FREE AIR COOLING - 600V



3QC - FREE AIR COOLING - 300V



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		Winding codes	3QC			
MOTOR PERFORMANCE		UNIT	FREE AIR COOLING			
Fp	Peak force	N	2700			
Fc	Continuous force	N	506			
Fs	Standstill force	N	381			
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	29			
Fa	Attraction force	N	5200			

MOTOR SETTING		UNIT				
Kt	Force constant	N/Arms	89.1			
Ku	Back EMF constant (*)	Vrms/(m/s)	54.0			
Km	Motor constant	N/√W	44.3			
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			

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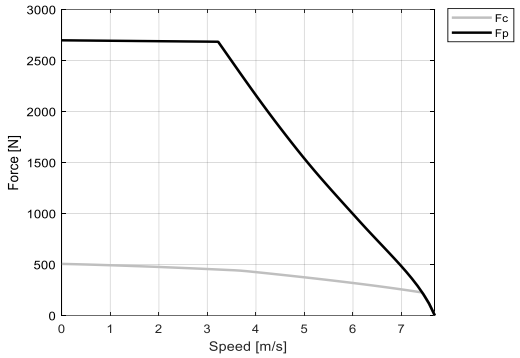
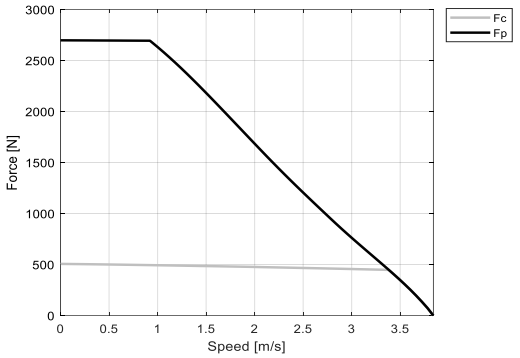
3QC - FREE AIR COOLING - 600V



3QC - 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	1790	1790		
Fc	Continuous force	N	369	369		
Fs	Standstill force	N	279	279		
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	20	20		
Fa	Attraction force	N	3410	3410		
MOTOR SETTING		UNIT				
Kt	Force constant	N/Arms	88.4	44.2		
Ku	Back EMF constant (*)	Vrms/(m/s)	53.5	26.8		
Km	Motor constant	N/√W	32.9	32.9		
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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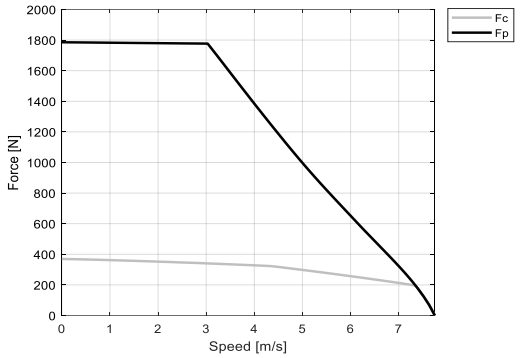
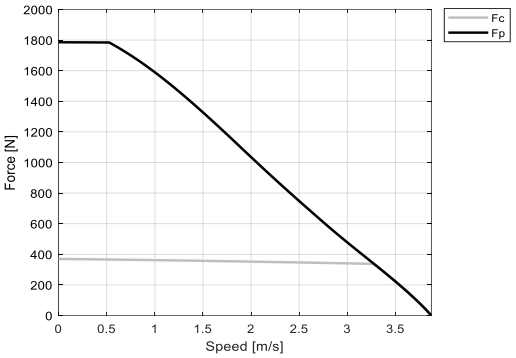
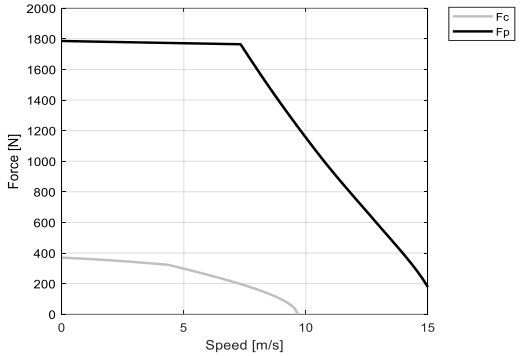
3QB - FREE AIR COOLING - 600V



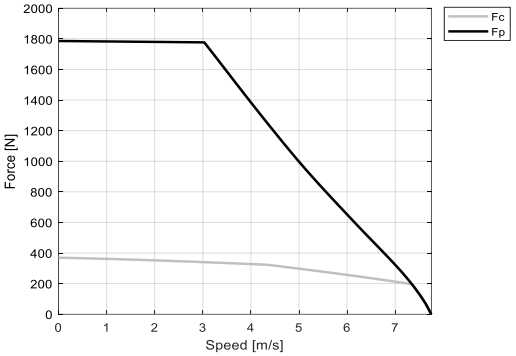
3QB - FREE AIR COOLING - 300V



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	2520	2520		
Fc	Continuous force	N	502	502		
Fs	Standstill force	N	379	379		
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	28	28		
Fa	Attraction force	N	4770	4770		
MOTOR SETTING		UNIT				
Kt	Force constant	N/Arms	124	61.9		
Ku	Back EMF constant (*)	Vrms/(m/s)	75.0	37.5		
Km	Motor constant	N/√W	40.7	40.7		
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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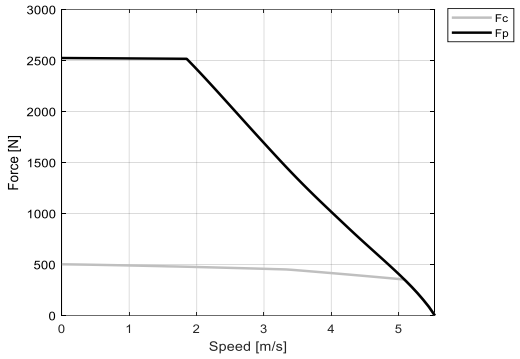
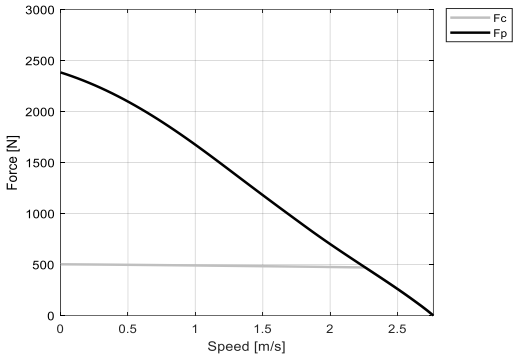
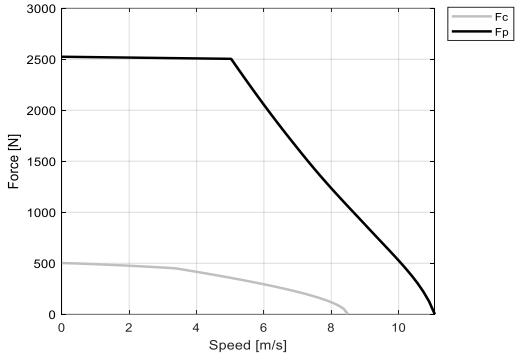
3QB - FREE AIR COOLING - 600V



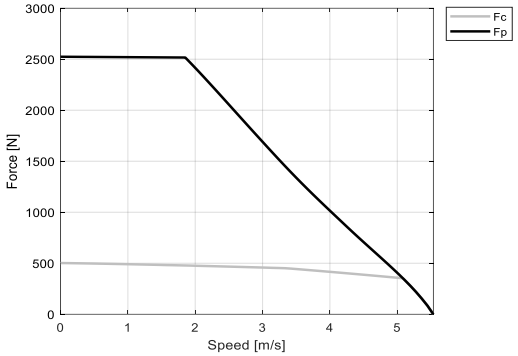
3QB - FREE AIR COOLING - 300V



3QD - FREE AIR COOLING - 600V



3QD - FREE AIR COOLING - 300V



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IRONCORE LINEAR MOTOR

LMG20-100

		Winding codes	3QB	3QD		
MOTOR PERFORMANCE		UNIT	FREE AIR COOLING	FREE AIR COOLING		
Fp	Peak force	N	3630	3630		
Fc	Continuous force	N	689	689		
Fs	Standstill force	N	520	520		
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	40	40		
Fa	Attraction force	N	6820	6820		
MOTOR SETTING		UNIT				
Kt	Force constant	N/Arms	178	89.2		
Ku	Back EMF constant (*)	Vrms/(m/s)	108	54.1		
Km	Motor constant	N/√W	51.3	51.3		
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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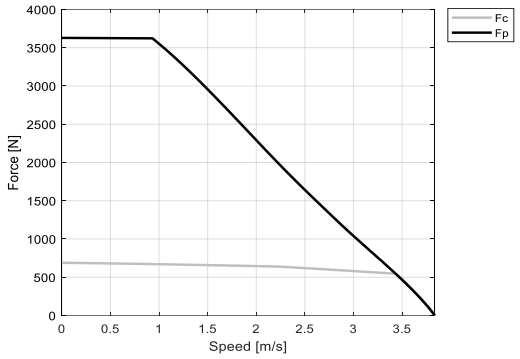
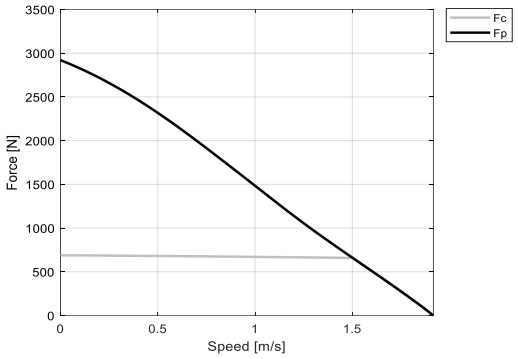
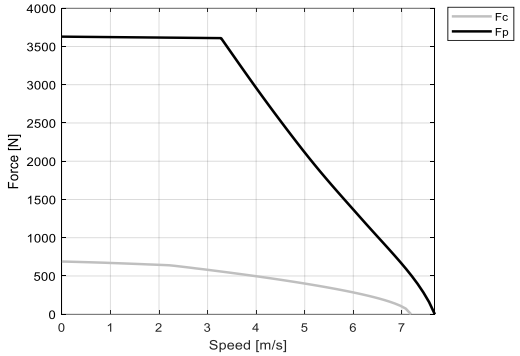
3QB - FREE AIR COOLING - 600V



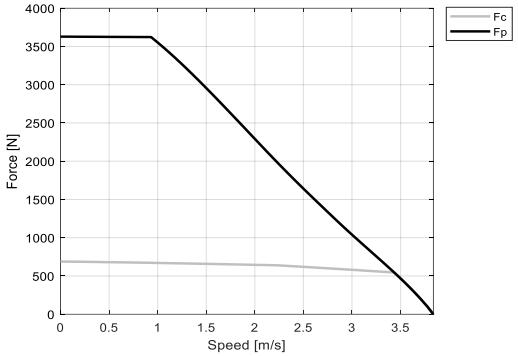
3QB - FREE AIR COOLING - 300V



3QD - FREE AIR COOLING - 600V



3QD - FREE AIR COOLING - 300V



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