Standard

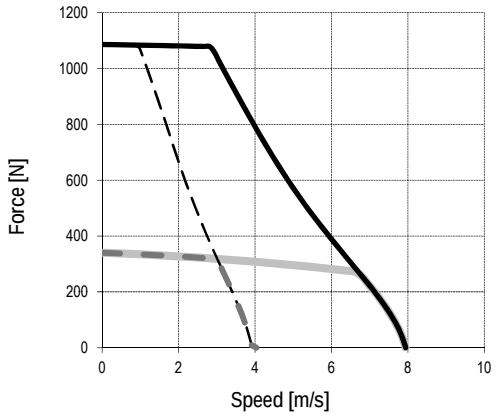
IRONCORE LINEAR MOTOR LMA22-030

		Winding codes	3TA	3TB
PERFORMANCE		UNIT	FREE AIR CONVECTION	FREE AIR CONVECTION
Fp	Peak force	N	1100	1100
Fc	Continuous force	N	336	336
Fs	Stall force	N	256	256
Kt	Force constant	N/Arms	90.1	45.1
Ku	Back EMF constant (*)	Vrms/(m/s)	52.1	26.0
Km	Motor constant	N/√W	32.5	32.5
R20	Electrical resistance at 20°C (*)	Ohm	5.12	1.28
L1	Electrical inductance (*)	mH	48.0	12.0
Ip	Peak current	Arms	20.2	40.5
Ic	Continuous current	Arms	3.85	7.70
Is	Stall current	Arms	2.92	5.83
Pc	Max. continuous power dissipation	W	163	163

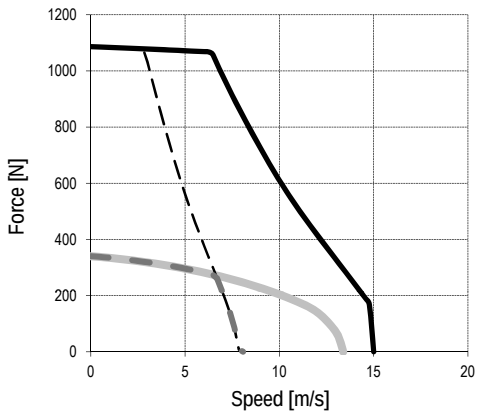
SPECIFICATIONS		UNIT		
Udc	Nominal input voltage	VDC	600	600
τth	Thermal time constant	s	1270	1270
Rth	Thermal resistance	K/W	0.676	0.676
2τp	Magnetic period	mm	32	32
Mw	Magnetic way mass	kg/m	3.61	3.61
Mm	Motor mass (magnetic way excluded)	kg	4.13	4.13
Fa	Attraction force	N	2400	2400
Fd	Max. detent force (average to peak)	N	8.1	8.1
vs	Stall speed	mm/s	0.25	0.25
Gm	Mechanical gap	mm	0.80	0.80

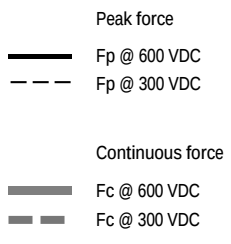
Notes: (*) terminal to terminal. Ambient temperature = 20 °C. Max. coil temperature = 130 °C.
Hypothesis and tolerances are in ETEL's Handbook. Carriage's dissipation area is 0.11 m² and minimal stroke is 2 times the motor length.
Caution: Any use of the motor beyond speed/force limit could lead to hazardous 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.

Force = f(speed) for 3TA



Force = f(speed) for 3TB





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