



Actuator LA20 In-line Data sheet

LA20 Inline

The LA20 Inline is a small and compact inline actuator with up to 2500 N in push.

The actuator is equipped with a socket for exchangeable cables and is to be used with an angled Microfit 30 Deg plug.

Some of the benefits that LA20 Inline offers you:

- Compact and slim design
- Strong lifting load
- Exchangeable cable
- Feedback options for positioning

LA20 is a small inline actuator with a robust design, high efficiency, relatively high load at 2500 N, feedback signals for positioning and electrical end-stop. It withstands harsh environments within the medical industry.

The LA20 Inline can be used in various applications where space is limited or where size is important.



Features and options

- Load in push: 2500 N
- Static load in pull: 900 N
- Housing colour: Black (RAL 9005) or Light grey (RAL 7035)
- Protection class: IPX4, IPX6
- Motor: 24VDC, Standard motor
- Stroke length: 20 - 300 mm (in steps of 5 mm)
(Stroke from 201 - 300 mm will add 20 mm extension)
- Built-in dimensions: 170 mm + stroke length (minimum 220 mm)
- Flammability rating: UL94-V0
- Mechanical spline: Yes, as option (will add 20 mm to BID)
- Static load factor: 2.5 in push and 5.0 in pull
- Noise level: Max 58 dB(A) (at nominal voltage and with no load, according to EN ISO 3743-1)
- Exchangeable cable: Yes, LA20 connection plug (Microfit 30 Deg) (Always use cable lock)
- Back fixture material: Solid composite (plastic bushings inside)
- Nut: Guided
- Safety nut: Yes. In pull only for 6 mm spindle pitch
- Feedback options: Dual Hall or Hall potentiometer
- Piston rod eye: Steel Ø22 mm +/- 0,25 mm.

Usage

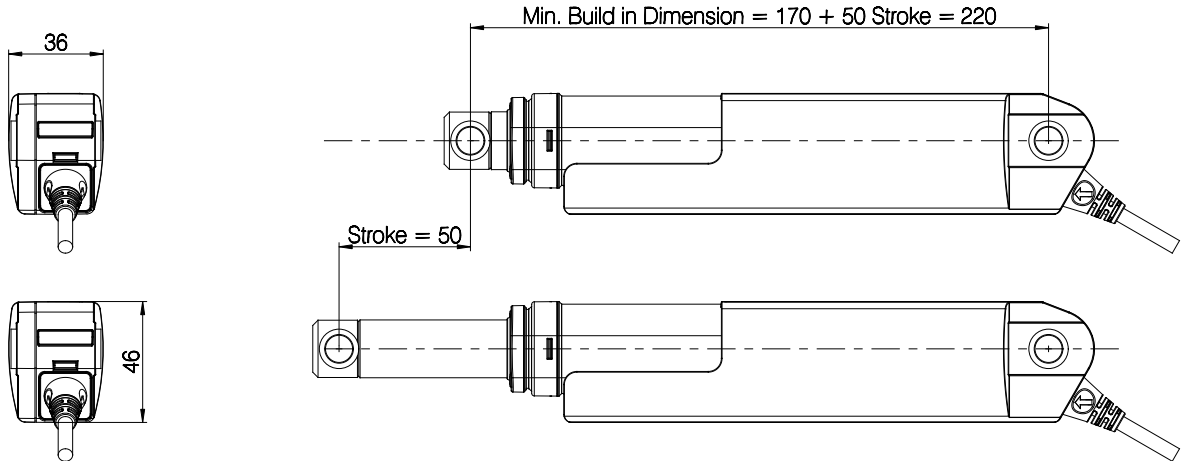
- Duty cycle: Max. 10%, 2 minutes continuous use followed by 18 minutes not in use
- Usage temperature: +5 °C to +45 °C normal operating temp. -27 °C to +50 °C (according to test conditions ISO 7176-9)
- Storage temperature: -40 °C to +70 °C (according to ISO 7176-9)
- Relative humidity: 20% to 80% at +30 °C
- Approvals: IEC60601-1, IEC60601-1-6, ANSI/AAMI ES60601-1, CAN/CSA-C22.2 No. 60601-1 In compliance with ISO 7176-8
- Approvals pending: IEC60601-1, IEC60601-2
- Atmospheric pressure: 800 to 1060 hPa
- Cycles: The LA20 Life cycle test (10.000 cycles) has been performed with a stabilised power supply (10% duty cycle) on a 120 mm stroke actuator at max. load for the following number of cycles (at ambient temperature)

Ordering example
LA20 Inline

	LA			
Actuator type:	20			
Spindel pitch:	060	025 = 2.5 mm (2500N) 050 = 5 mm (800N)	030 = 3 mm (2200N) 060 = 6 mm (600N)	040 = 4 mm (1300N)
Stroke length:	050	xxx = mm (Valid from 20mm to 300mm)		
Safety:	00	00 = No safety options 0C = Mech. Spline without Safety nut	0A = Safety nut for Push 0D = Mech. Spline with Safety nut	0P = Safety nut for Pull
Feedback:	00	00 = None (F1)	0A = Hall Potentiometer (F7)	0H = Dual Hall (Digital) (F2) 0M = Dual Hall (Encoded) (F3)
Platform:	0	0 = None		
Motor type:	B	B = 24 VDC (V2) G = 24 VDC (V3)	Running mainly with battery (e.g. CBJ1, CBJ2, CBJH, CBJC, CB8A, customer supplied CB) Running mainly on LINAK CB platforms e.g (CO61, CO71, CO41, CA30/40)	
Endstop:	0	0 = Powerswitch (E1)	1 = Signal Switch (E2)	2 = Encoded (E3)
IP degree:	6	4 = IPx4	6 = IPx6	
Colour:	-	- = Black RAL9005	+ = Light Grey RAL7035	
Back fixture:	0	0 = Ø10.2mm with plastic bushings	1 = Ø12.3mm without plastic bushings	
Piston rod eye:	0	0 = Steel solid, Ø10.2mm with plastic bushings 1 = Steel solid, Ø12.3mm without plastic bushings 2 = Steel with 6.1mm slot, Ø10.2mm with plastic bushings (+6,5 BiD)	3 = Steel with 6.1mm slot, Ø10.2mm without plastic bushings (+6,5 BiD)	4 = Steel with 6.1mm slot, Ø12.3mm without plastic bushings (+6,5 BiD)
Gear Option:	3	3 = 3 Stage gear, ratio - 1 : 56		
Not Used:	0	0 =		
Safety Factor:	2	1 = 1.5	2 = 2.5	
Not Used:	0	0 =		
Load Direction:	0	0 = Push	P = Pull	
Not Used:	000	000 =		
Installation dimension:	220	xxx = mm (Min installation 220mm) (Extension from 6mm to 220mm)		

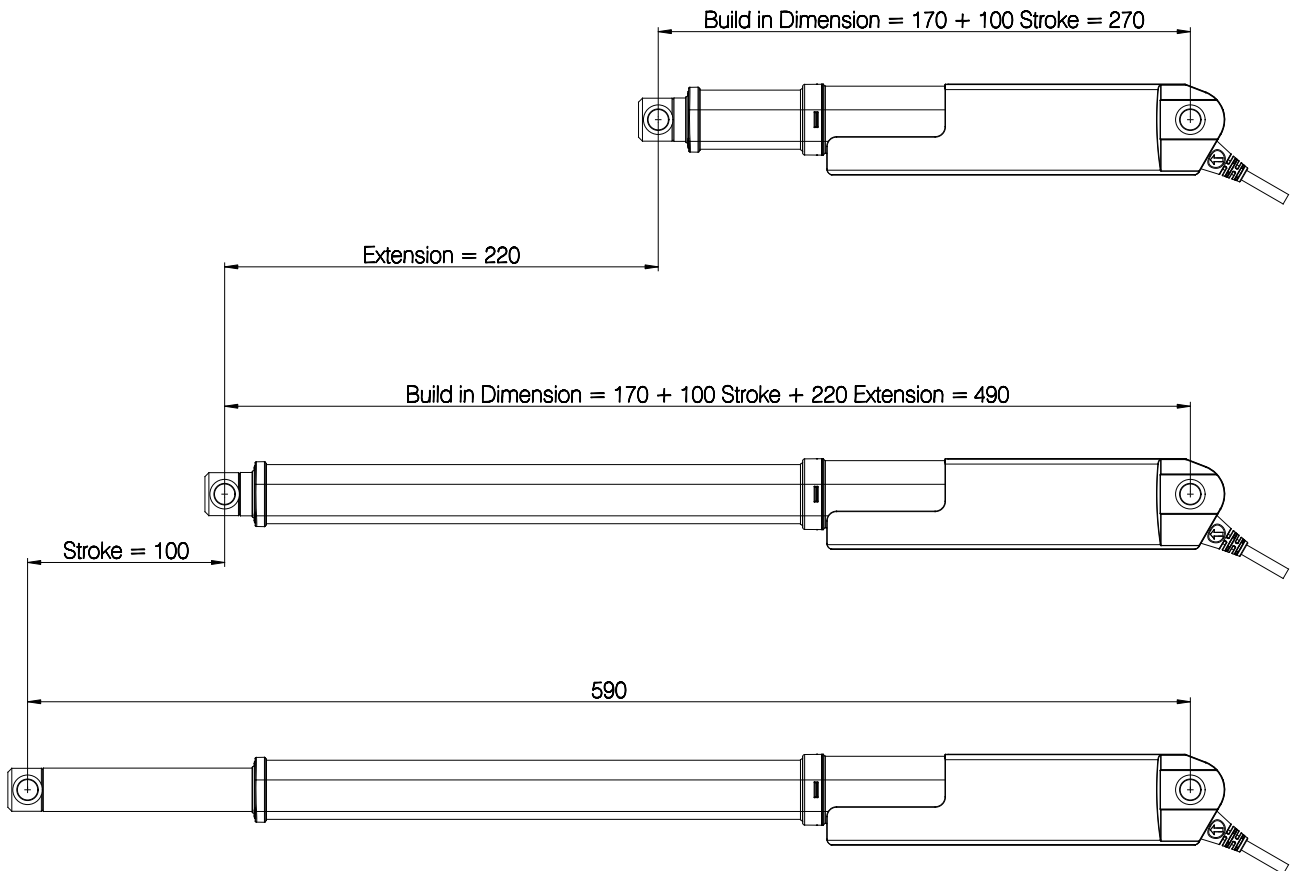
Chosen item number: 2006005000000B06-0030200000220

Dimensions:
LA20



Dimension drawings with extended BID:

(100 mm stroke without extension and addition of 220 mm extension)



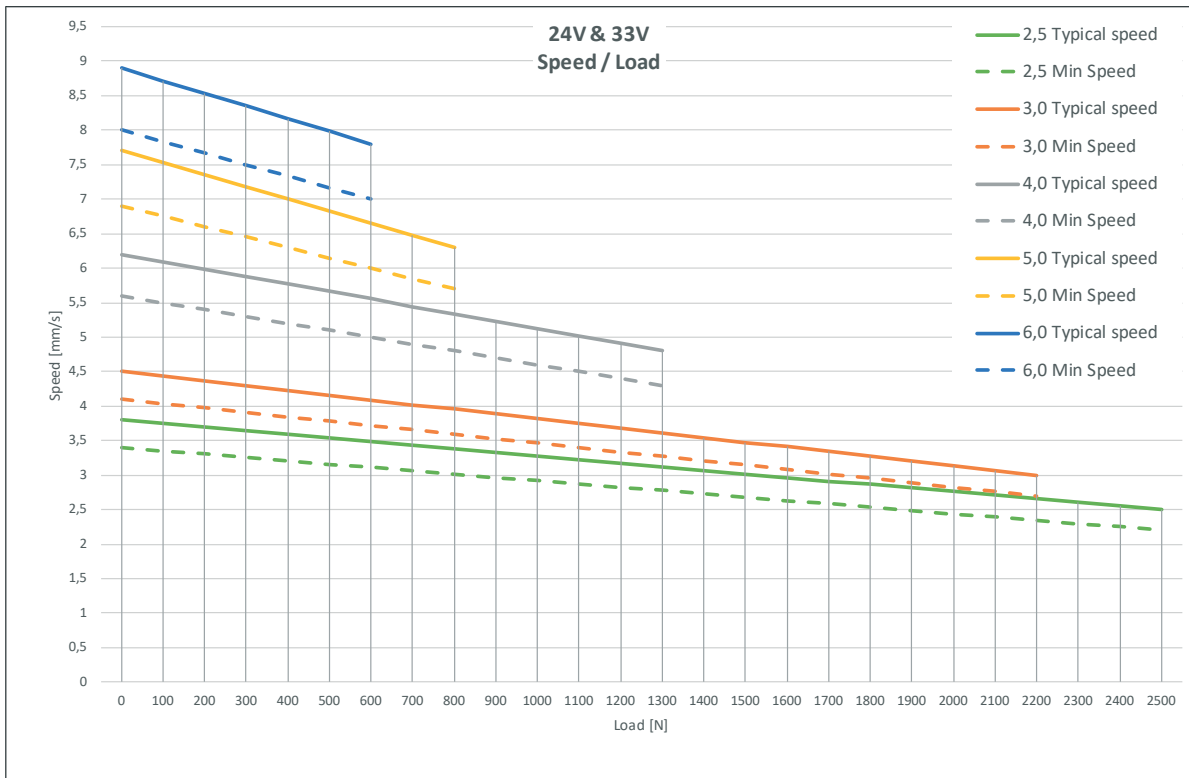
Tolerances: For Built-In Dimensions and stroke ± 2 mm.

Built-in dimensions

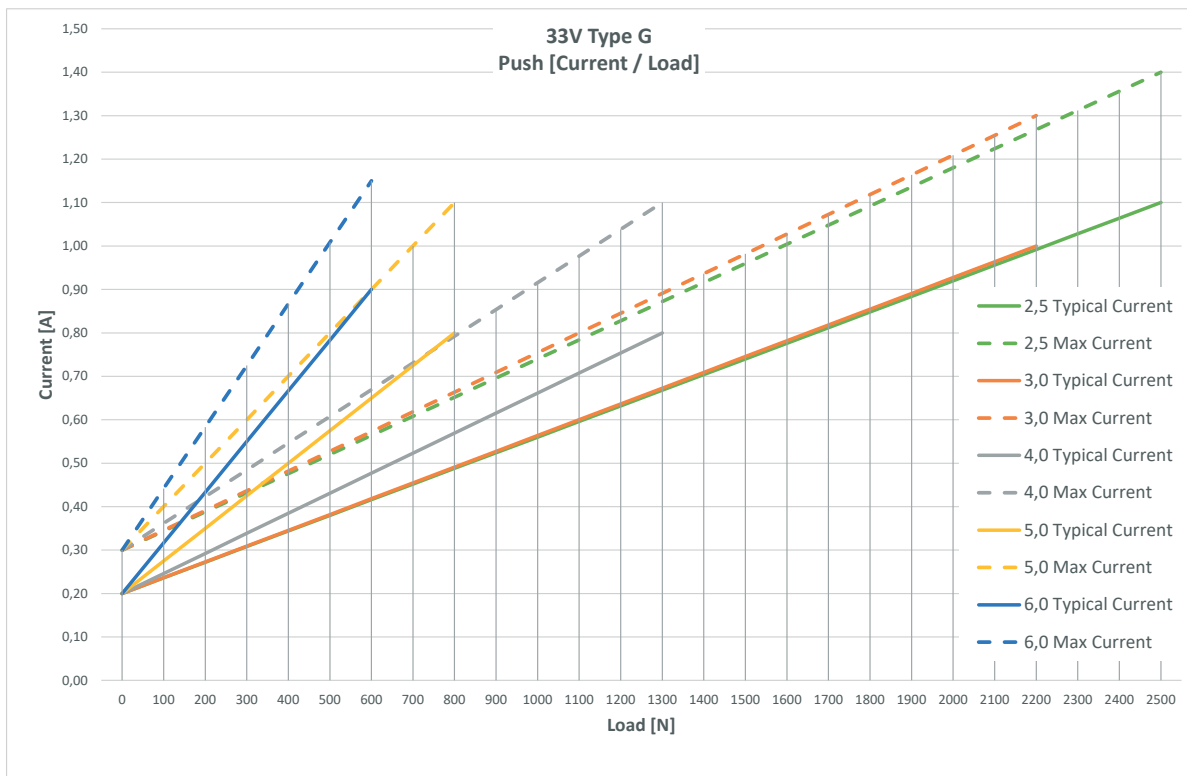
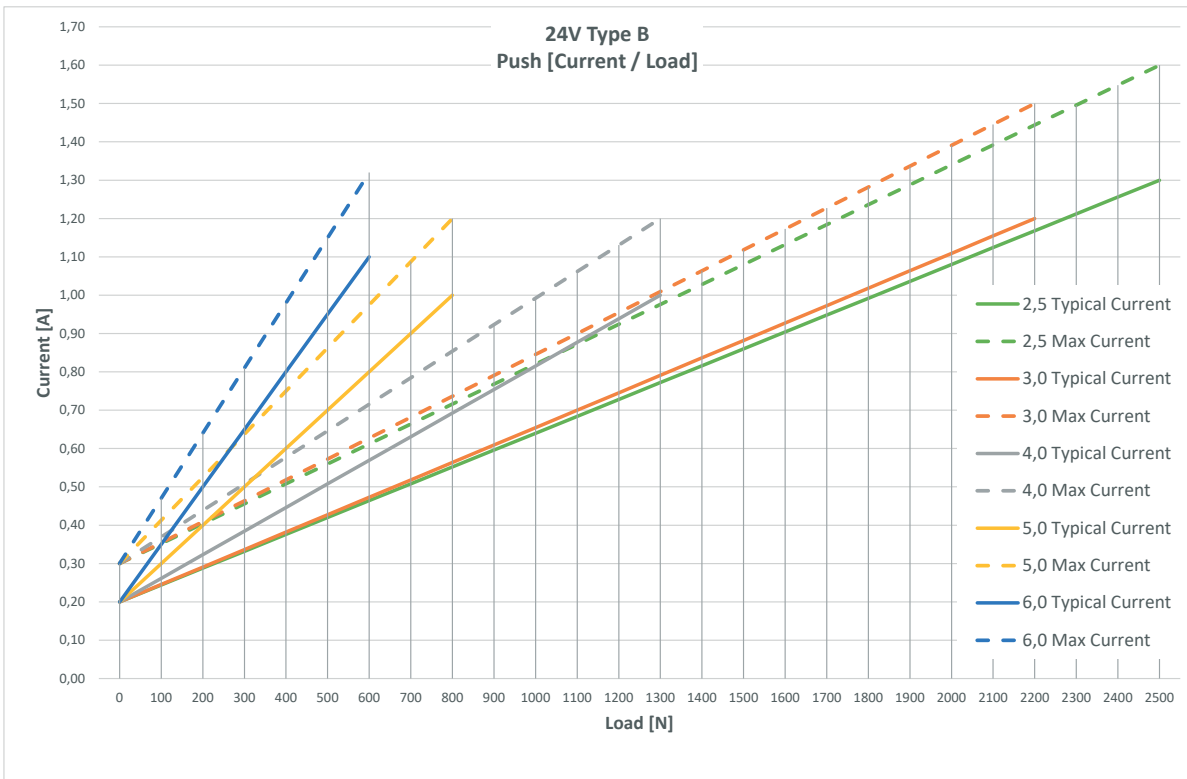
The built-in dimension depends upon the chosen safety nut and stroke length. Please see the table below to decide upon the built-in dimension.

Safety option	Pitch [mm]	Stroke [mm]	Minimum BID [mm]				
0 = No safety nut in push or pull	2.5,3,4,5 & 6	20-44	220				
	2.5,3,4,5 & 6	45-49	45	46	47	48	49
			221	222	223	224	225
	2.5,3,4,5 & 6	50-200	170 + stroke				
2.5,3,4,5 & 6	201-300	190 + stroke					
1 = Safety nut in push	2.5,3,4,5 & 6	20-44	220				
	2.5,3,4,5 & 6	45-49	45	46	47	48	49
			221	222	223	224	225
	2.5,3,4,5 & 6	50-200	170 + stroke				
2.5,3,4,5 & 6	201-300	190 + stroke					
2 = Safety nut Pull	6	20-32	220				
		33-37	33	34	35	36	37
			221	222	223	224	225
		38-200	182 + stroke				
201-300	202 + stroke						
3 = Mechanical spline	2.5,3,4 & 5	20-21	20	21			
			224	225			
		22-200	198 + stroke				
	201-300	218 + stroke					
	6	20-24	220				
		25-29	25	26	27	28	29
			221	222	223	224	225
		30-200	190 + stroke				
201-300	210 + stroke						
4 = Mechanical spline + safety nut	2.5,3,4 & 5	20-21	20	21			
			224	225			
		22-200	198 + stroke				
	201-300	218 + stroke					
	6	20-24	220				
		25-29	25	26	27	28	29
			221	222	223	224	225
		30-200	190 + stroke				
201-300	220 + stroke						

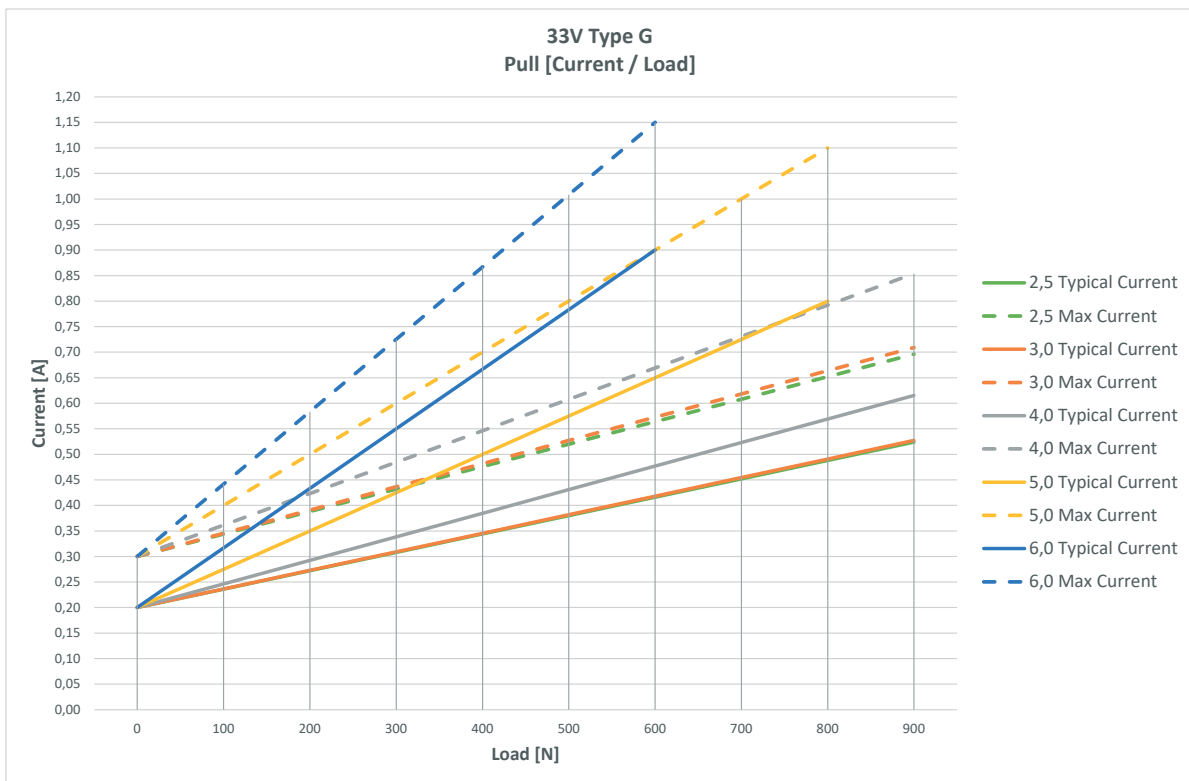
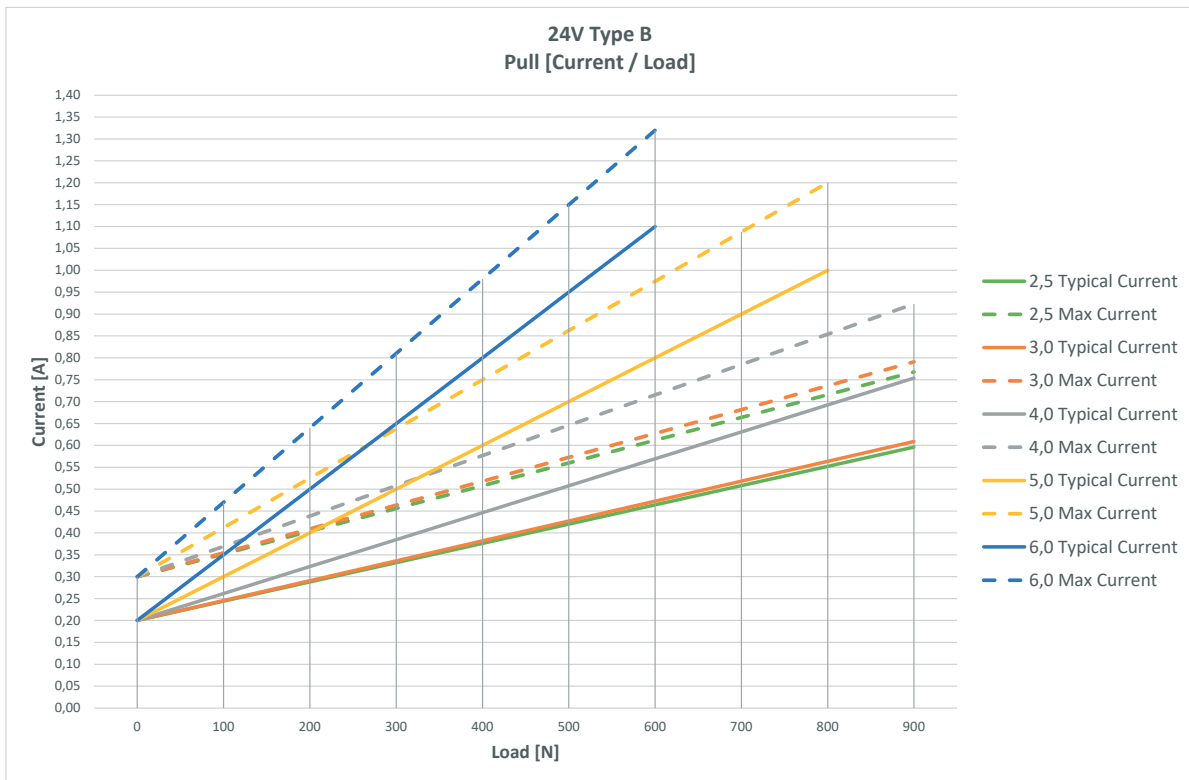
Speed, load and current curves



Speed, load and current curves



Speed, load and current curves



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