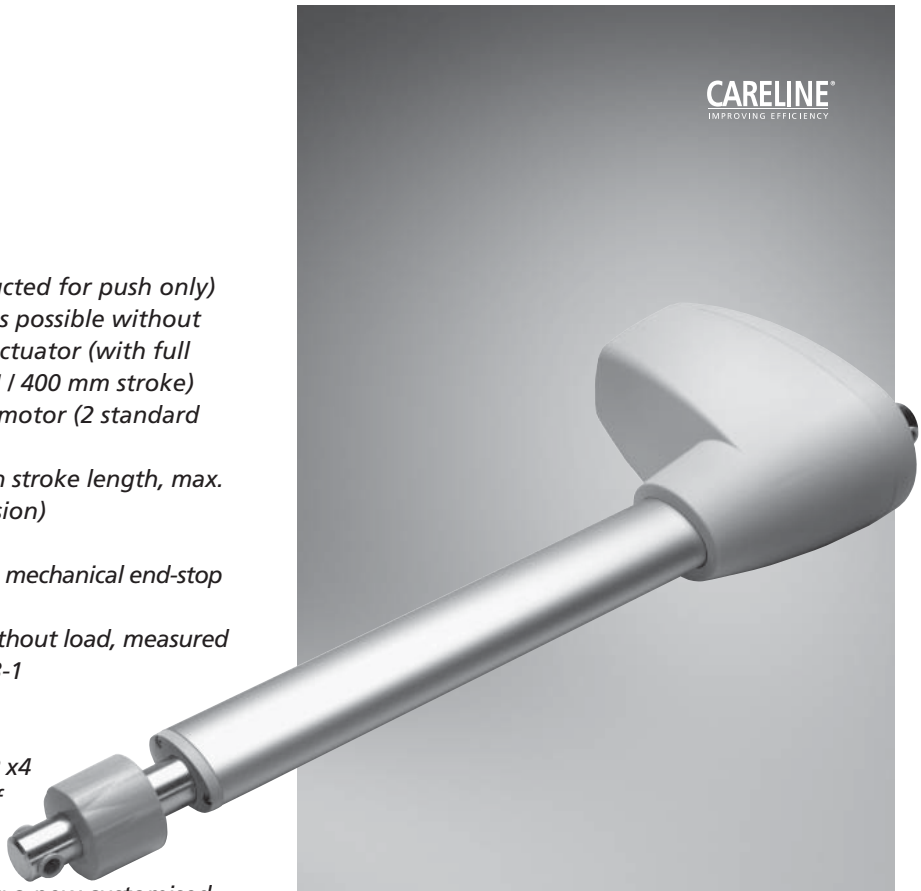
PRODUCT DATA SHEET

ACTUATOR LA44



Features:

- *Max. thrust 12000N (constructed for push only)*
- *Sideways load up to 1000N is possible without breaking or damaging the actuator (with full load and full stroke, 12000N / 400 mm stroke)*
- *24V DC permanent magnet motor (2 standard 24V DC versions)*
- *Safety factor ≥ 2 (depends on stroke length, max. load and installation dimension)*
- *Safety nut in push*
- *Spindle always equipped with mechanical end-stop*
- *Built-in end-stop switches*
- *Noise level below 50dB(A) without load, measured according to DS/EN ISO 3743-1*
- *Colour: grey (RAL7035)*
- *Stroke length: 100-400 mm*
- *Standard protection class: IP x4*
- *Steps in the stroke length of 25 mm are standard. Other stroke lengths are not possible without making a new customised PCB - in such cases contact your LINAK Sales contact person*
- *Installation dim.:*
  Standard load < 10KN = S + 210 mm (S ≤ 300 mm)
  Standard load ≤ 12kN = S + 230 mm (S ≤ 300 mm)
  Long installation = S + 270 mm (S ≤ 300 mm) and S + 290 (S > 300 mm)
- *Extended length of inner tube is standard with manual lowering. This ensures more space between the bottom of the manual lowering handle and the top of the outer tube. The purpose is to prevent squeezing of e.g. fingers*
- *Exchangeable cable; cable type needed is mini-fit to mini-fit plug*
- *Smart cable lock: The cable socket on LA44 has a replaceable lock mounted. Locking it is done by hand, unlocking is only possible by using a tool*
- *The back fixture can be turned 90° by the user. The back cover of the LA44 can be removed without damaging any sealing*
- *Reinforced components for 12000N e.g. outer tube, inner tube and bearing*
- *Connection bolts must be dimensioned so that they have the necessary strength in order to obtain the minimum safety factor according to the requirements of the authorities*
- *Be aware of the distance between brackets in the application*

The LA44 actuator is a technological state-of-the-art actuator with a refreshing new design, that due to its innovative construction can push up to 12000N at a speed of 5 mm/sec. (24V DC).

Its compact design and outstanding performance makes the LA44 actuator the right choice for patient lifts and a variety of medical and industrial applications.

The LA44 actuator complies with the increased requirements (e.g. load and no. of cycles) of the latest revision of EN ISO 10535:2006.

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Options:

- *Manual lowering (adds + 78mm to the installation dim.), length includes extended inner tube. Manual lowering makes it possible to turn down the inner tube by hand, in case of emergency, and if the electrical power is not available.*
  Manual lowering requires a non-guided nut. Combination with mechanical spline or feedback options are therefore not possible
- *Mechanical spline (same installation dim. as standard); (cannot be combined with manual lowering)*
- *Electrical spline; can be combined with manual lowering. The El-spline switch is mounted inside the LA44. It activates on a pulling movement of the slightly moveable back fixture. The pull force required to release the electrical spline is approx. the weight of the actuator + max. 100 N*
- *Manual lowering device RAL3020*
- *Protection class IP x6*
- *Double Hall positioning with guided-nut (for use with OPENBUS™ CB's)*
- *Potentiometer, only with stroke lengths:*
  - *Max. 175 mm (LA44 with 8 mm pitch)*
  - *Max. 275 mm (LA44 with 12 mm pitch)*

Usage:

- *Duty cycle: 2/18 – 2 minutes continuous use followed by 18 minutes not in use*
- *Ambient temperature +5° to +40° C*
- *Released for compatibility with CBJ1, CBJ2 and CBJ Home, CB6S, CB16S and CB20*
- *Approvals pending for all except for CBJHome (is approved)*

Technical specifications LA44 with standard and fast motor:

Power supply	Spindle pitch (mm)	Trust max. Push (kN)	Motor type	Speed at 0/full load (m/sec.)	Stroke length (mm)	Current at full load (Amp.)
24VDC	8	12	Standard	6,2 / 4,2	100 - 400	6,1
CBJ1/2	8	12	Standard	6 / 3,3	100 - 400	6
CB6/CB16 +35% trafo	8	12	Standard	7,9 / 4,4	100 - 400	6,1
CB20 280W trafo	8	12	Standard	7,8 / 5,1	100 - 400	6,2
24VDC	8	12	Fast	6,9 / 5	100 - 400	7,3
CBJ1/2	8	12	Fast	7,3 / 4,3	100 - 400	7,3
CB6/CB16 +35% trafo	8	12	Fast	8,9 / 4,9	100 - 400	7,4
CB20 280W trafo	8	12	Fast	8,6 / 5,7	100 - 400	7
24VDC	12	10	Standard	11 / 7,6	100 - 400	7,4
CBJ1/2	12	10	Standard	10,4 / 6	100 - 400	7,5
CB6/CB16 +35% trafo	12	10	Standard	13,5 / 6,8	100 - 400	7,6
CB20 280W trafo	12	10	Standard	13,8 / 8,3	100 - 400	7,5
24VDC	12	10	Fast	11,8 / 7,7	100 - 400	8,2
CBJ1/2	12	10	Fast	11,1 / 6,4	100 - 400	7,8
CB6/CB16 +35% trafo	12	10	Fast	14 / 6,8	100 - 400	8
CB20 280W trafo	12	10	Fast	14 / 8,3	100 - 400	8

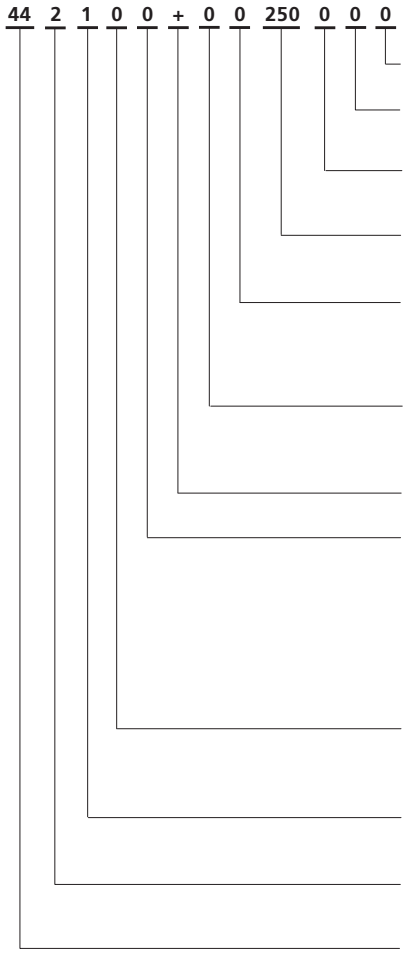
Please note the above measurements are typical values.

Comments to table:

- LINAK control boxes are designed so that they will short-circuit the motor terminals (poles) of the actuator(s), when the actuator(s) are not running. This solution gives the actuator(s) a higher self-locking ability. If the actuator(s) are not connected to a LINAK control box, the terminals of the motor must be short-circuited to achieve the self-locking ability of the actuator.

LA44

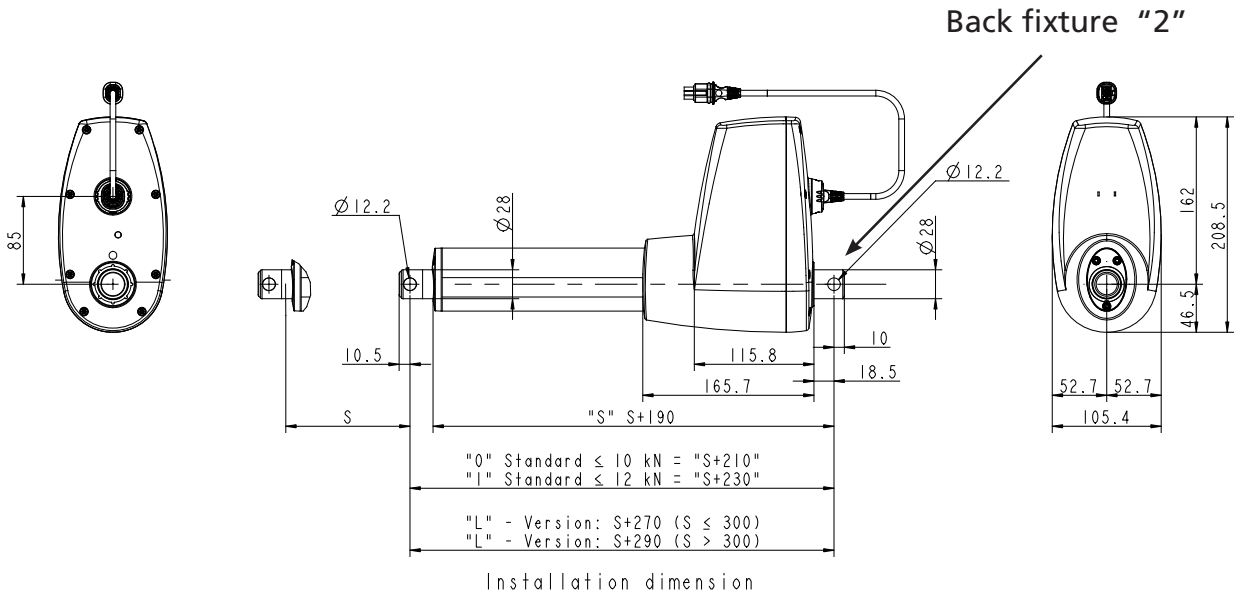
Ordering example:



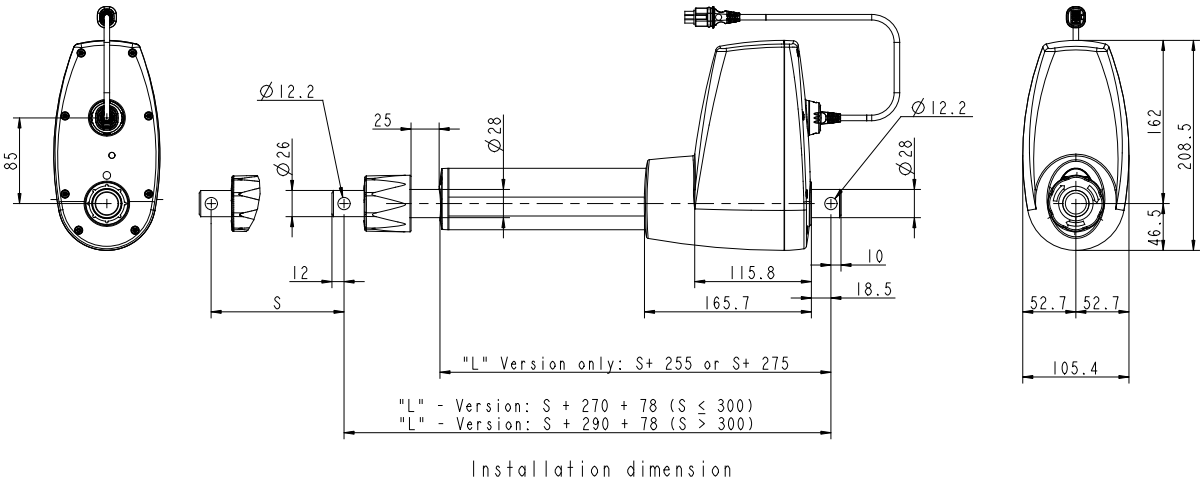
	Free	
Housing	A = IPx4 (V0) B = IPx6 (V0)	
Motor type	0 = Standard 24V 1 = Fast 24V	
Stroke	xxx = mm	Min 100 mm (in steps of 25 mm) Max 400 mm (in steps of 25 mm)
Installation dimension	0 = Standard load ≤ 10 kN 1 = Standard load ≤ 12 kN L = Long installation	S+210 mm (S ≤ 300 mm - Manual Lowerring not allowed) S+230 mm (S ≤ 300 mm - Manual Lowerring not allowed) S+270 mm (S ≤ 300 mm) S+290 mm (S > 300 mm)
Safety option	1 = Safety nut 3 = Mechanical Spline and safety nut (not with Manual Lowering) 5 = Electrical Spline and safety nut	
Colour	+ = Grey RAL7035	
Piston rod	0 = Standard solid with bushing 1 = Standard solid without bushing 2 = Standard with slot and bushing 3 = With slot and without bushing 4 = Manuel Lowerring RAL7035 with bushing 5 = Manuel Lowerring RAL7035 without bushing 6 = Manuel Lowerring RAL3020 with bushing 7 = Manuel Lowerring RAL3020 without bushing	 (Installation + 3,3 mm) (Installation + 3,3 mm) (Installation + 78 mm) (Installation + 78 mm) (Installation + 78 mm) (Installation + 78 mm)
Positioning	0 = None P = Potentiometer H = Hall sensor	
Fixture orientation	1 = Standard 2 = Turned 90 degrees	
Spindle type	2 = 8 mm (12kN) 3 = 12 mm (10kN)	
Actuator type	44 = LA44	

Minimum order size:
Minimum order size with custom stroke lengths is 120 items, with an annual min. quantity of 480 items.

Dimension: LA44 Standard



Dimension: LA44 with manual lowering



N.B. Tolerance information
± 2 mm - Installation dimension
± 2 mm - Stroke length

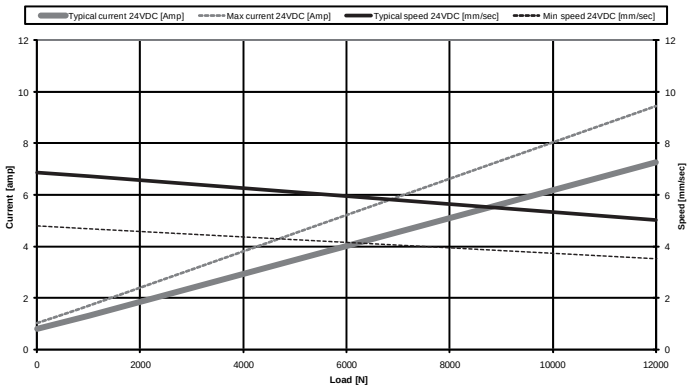
Manual lowering:
The following pictures illustrate
a) The manual lowering procedure and
b) How to fit and remove the plug connection using the "Smart cable lock"

Fig 1.

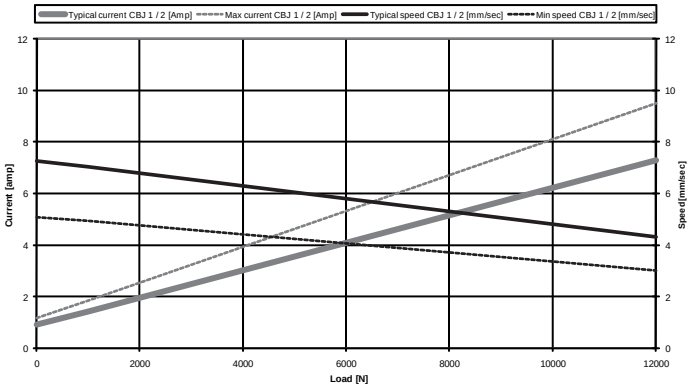
Manual Lowering
In case of a power failure it is possible to mechanically lower a patient placed in a patient hoist.
When turning the manual lowering handle clockwise the actuator can be moved fully inwards.

Speed and current graphs.

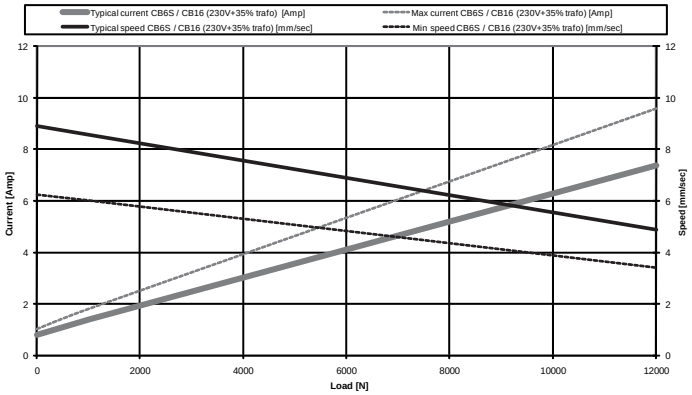
LA44 with fast motor and 8 mm spindle pitch



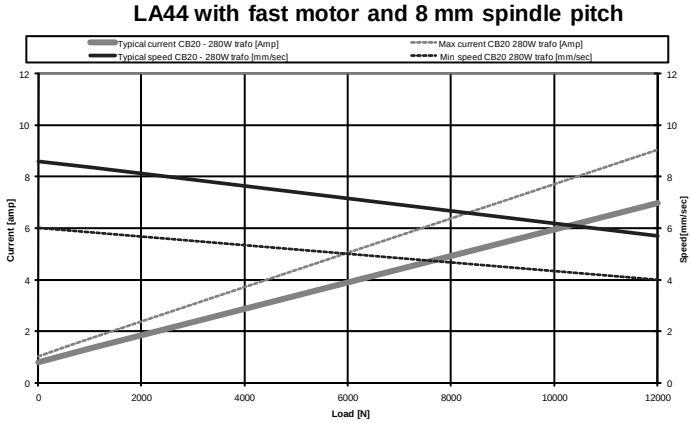
LA44 with fast motor and 8 mm spindle pitch



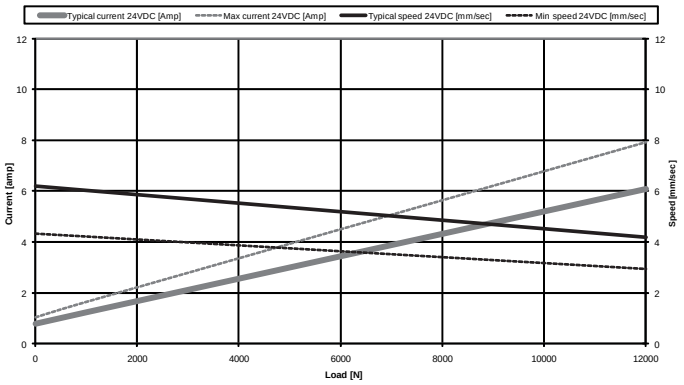
LA44 with fast motor and 8 mm spindle pitch



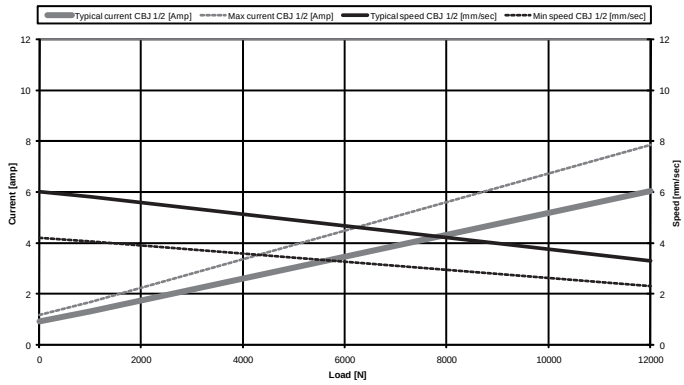
LA44 with fast motor and 8 mm spindle pitch



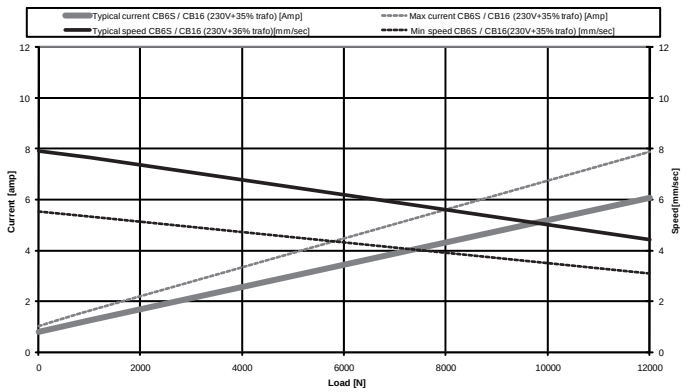
LA44 with standard motor and 8 mm spindle pitch



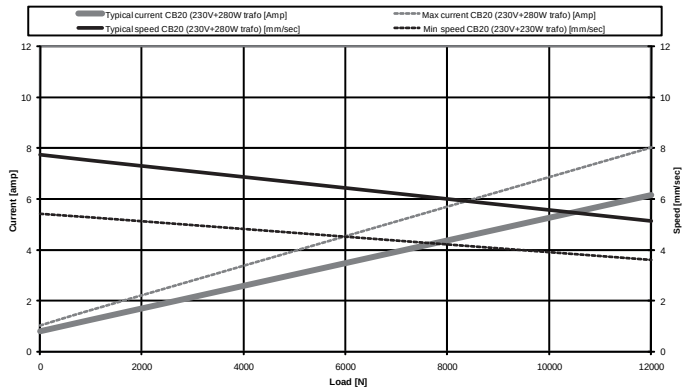
LA44 with standard motor and 8 mm spindle pitch



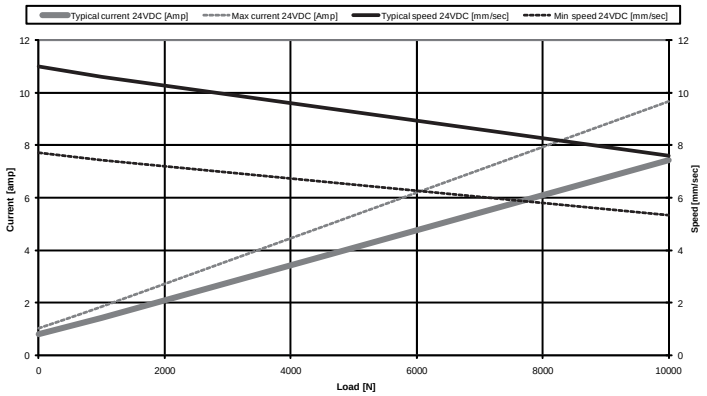
LA44 with standard motor and 8 mm spindle pitch



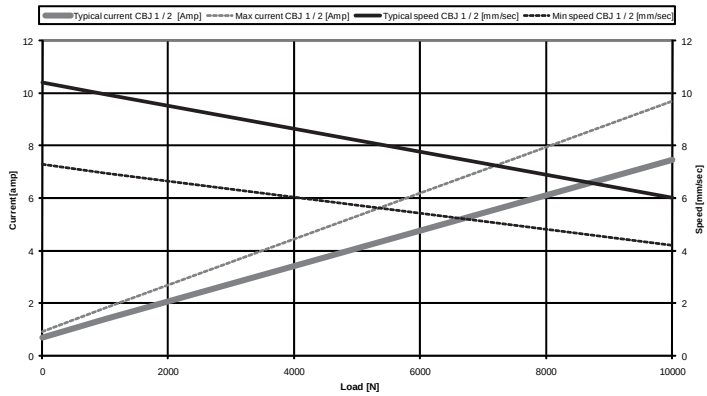
LA44 with standard motor and 8 mm spindle pitch



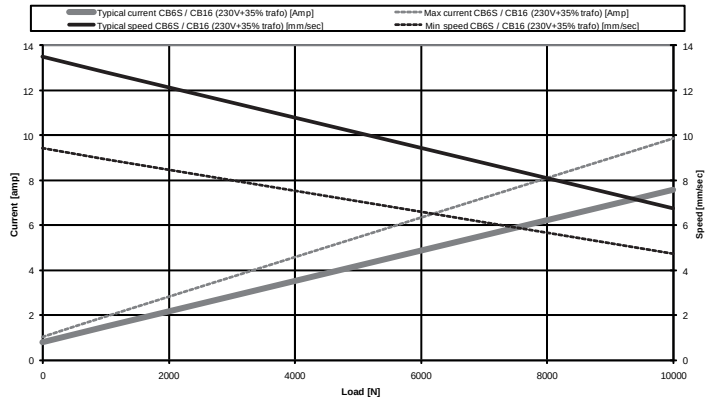
LA44 with standard motor and 12 mm spindle pitch



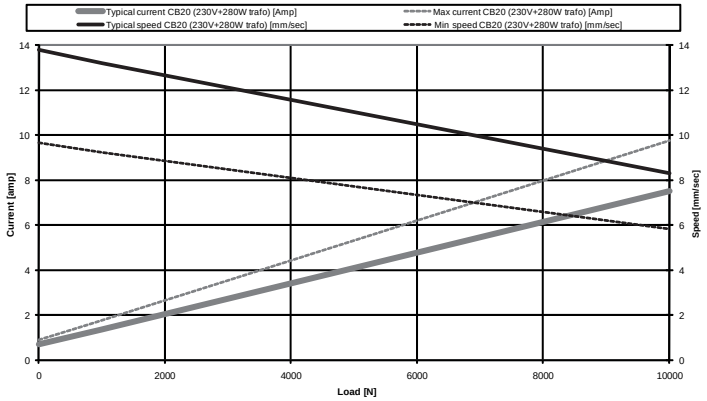
LA44 with standard motor and 12 mm spindle pitch



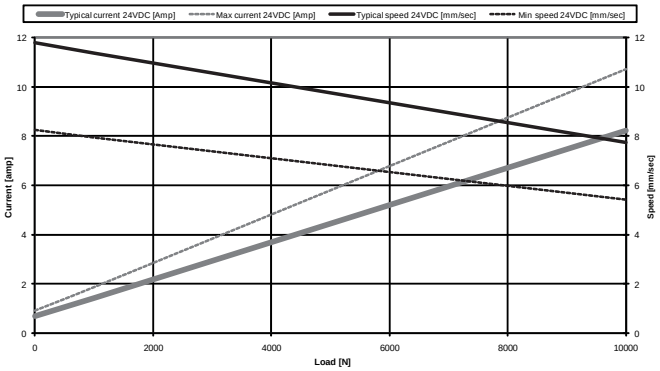
LA44 with standard motor and 12 mm spindle pitch



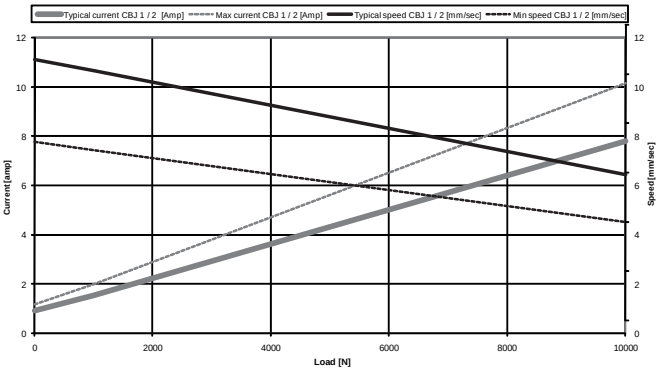
LA44 with standard motor and 12 mm spindle pitch



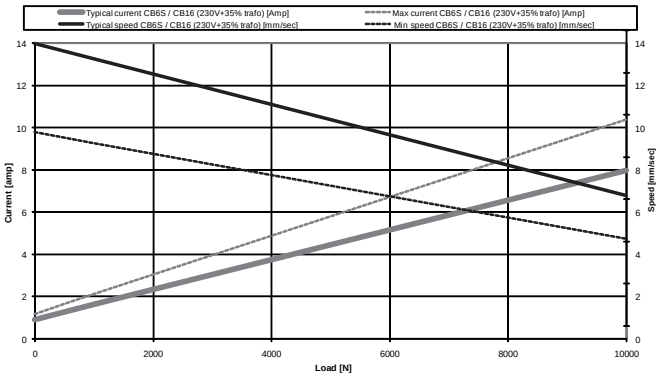
LA44 with fast motor and 12 mm spindle pitch



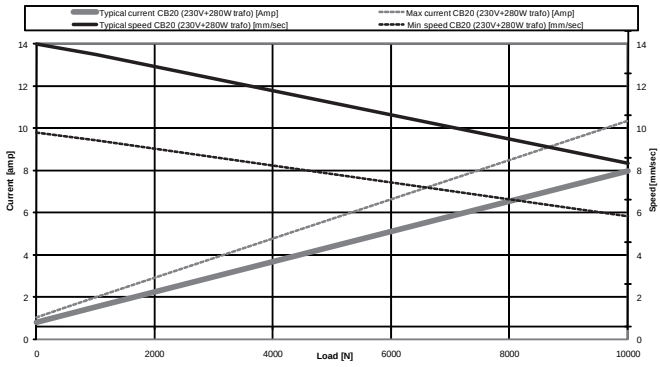
LA44 with fast motor and 12 mm spindle pitch



LA44 with fast motor and 12 mm spindle pitch



LA44 with fast motor and 12 mm spindle pitch



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