

ACTUATOR LA31

Features:

- 12 or 24 V DC permanent magnet motor
- Thrust up to 6000 N in push and up to 4000 N in pull
- Electric chromated steel piston rod eye with slot
- High-strength plastic housing protects motor and gears
- Elegant and compact design with small installation dimensions
- Standard protection class: IP 51
- Colour: black
- 2.25 m straight cable
- Built-in limit switches (not adjustable)
- Scratch and wear-resistant powder painting on outer tube $\varnothing 30$ mm
- Zinc alloy back fixture
- Strong wear and corrosion resistant stainless steel inner tube
- Noise level 48 dB (A); measuring method DSIEN ISO 3746, actuator not loaded.

Options:

- Various back fixture
- Reed switch (8 pulses per spindle revolution) for positioning of memory control
- Hall
- Fast motor
- Mechanical splines (the actuator can only push)
- Protection class IP 54, IP 66.
- Colour: grey
- Safety nut in push

Usage:

- Duty cycle: Max. 10% or 2 minutes continuous use followed by 18 minutes not in use
- Ambient temperature +5°C to +40°C



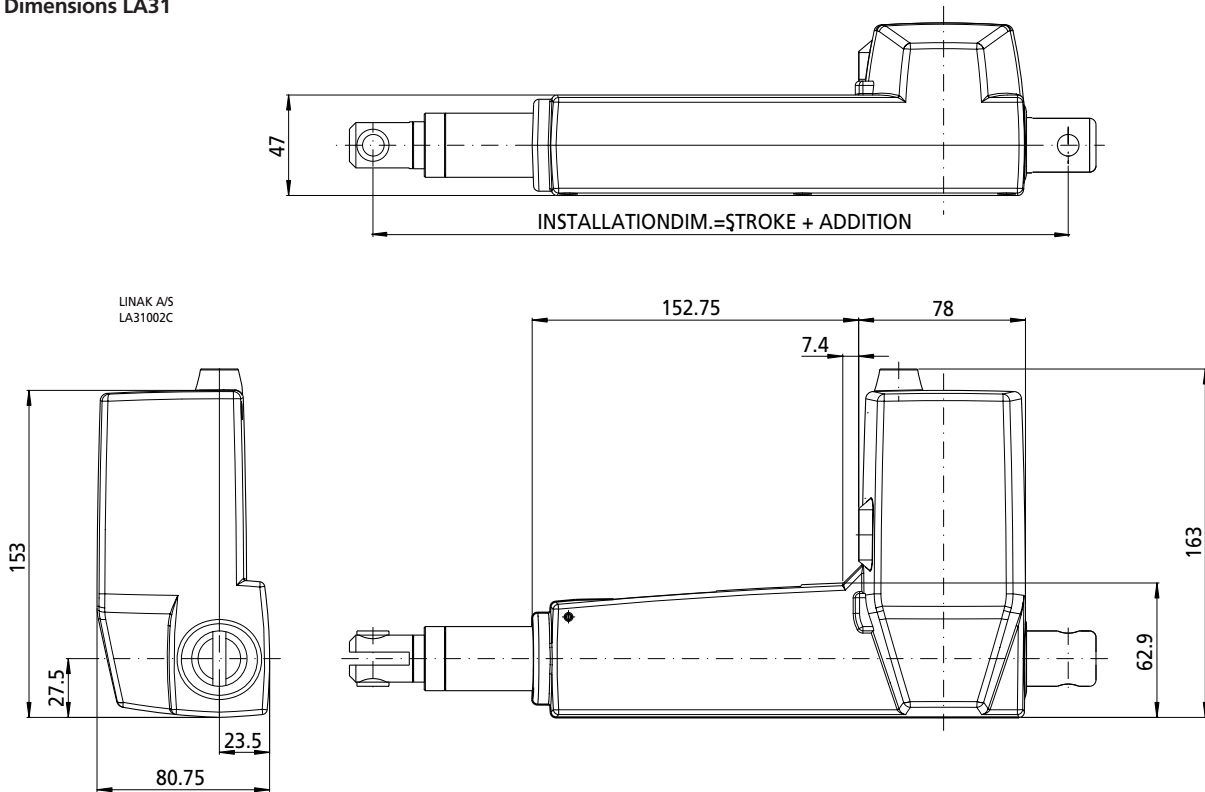
TECHLINE™
IMPROVING FLEXIBILITY

The LA31 actuator is a very quiet and powerful actuator designed for a variety of applications. The standard LA31 actuator is available for both the TECHLINE™, HOMELINE®, CARELINE® and DESKLINE® product range.

Due to its high capacity, design and protection class up to IP 66 the TECHLINE™ actuator is ideal for industrial applications.

The various combinations of motor, spindle pitch, back fixture and piston rod eye gives a vast number of solutions, this ensures that many different needs can be covered by the LA31 TECHLINE™ actuator.

Dimensions LA31



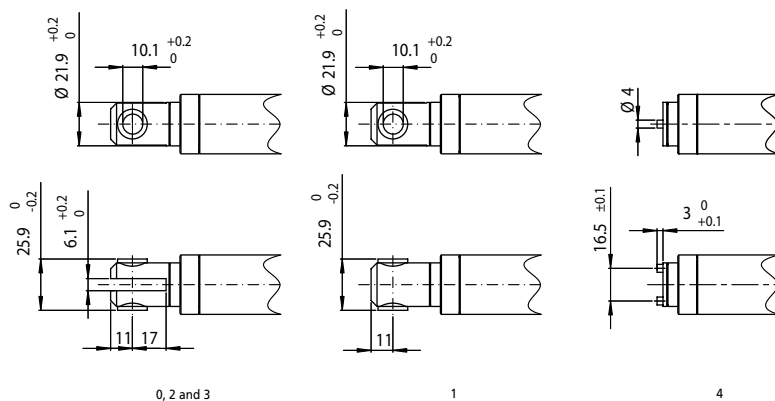
Standard installation dimensions with different combinations of Piston Rod Eyes and back fixtures to LA31.

| Eye | LA31 Standard | | LA31 Splines | |
|---------------|---------------|---------------|---------------|--------------|
| | Stroke | Stroke | Stroke | Stroke |
| | length>115mm | length<115mm | length>100mm | length<100mm |
| 0, 1, 2 and 3 | 0, 1, 2 and 3 | 0, 1, 2 and 3 | 0, 1, 2 and 3 | |

Back Fixture

| | | | | |
|-------------|-----------|-------|-----------|-------|
| 1/2 and 7/8 | S + 173mm | 288mm | S + 189mm | 289mm |
| 5/6 | S + 173mm | 288mm | S + 189mm | 289mm |
| A/B | S + 176mm | 291mm | S + 192mm | 292mm |

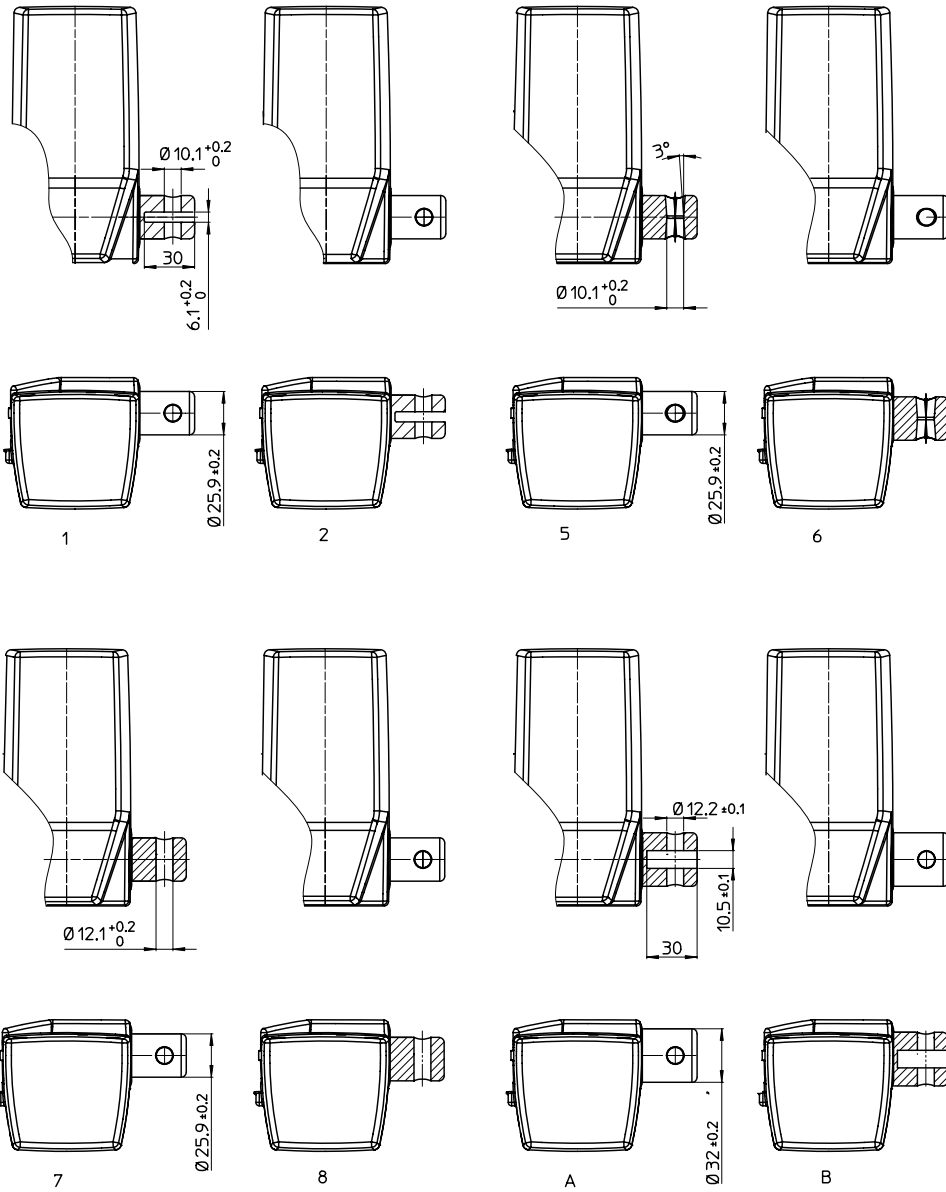
Piston Rod Eyes:



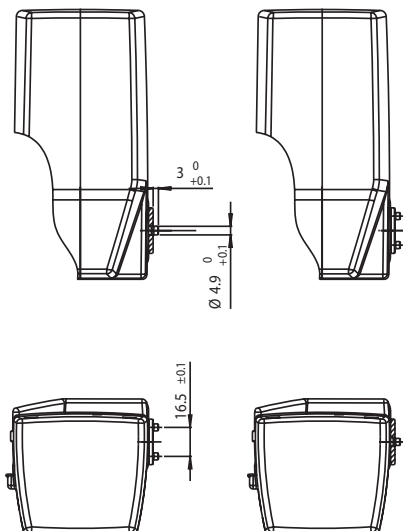


An LA31 brake in a push application brakes actively when the actuator moves in an inward direction. The same applies to an actuator mounted with a brake in a pull direction. It brakes in an outward direction. Under this condition the standard motor uses up to 4 Amp. and the fast motor uses up to 6 Amp.

Back fixtures:



LA31007B



Technical specifications:

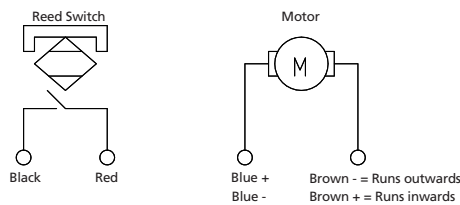
| Spindle type | Spindle pitch (mm) | Max. load Push (N) | Max. load Pull (N) | Typical Amp. (N) | Typical speed 0/Full load (mm/s) | Self-lock Push (N) | Max. Push (N) |
|----------------------------|--------------------|--------------------|--------------------|------------------|----------------------------------|--------------------|---------------|
| Standard 24 V motor | | | | | | | |
| 31.1 | 3 | 6000 | 4000 | 4.0 | 6.2/3.2 | 6000 | 4000 |
| 31.2 | 5 | 4000 | 4000 | 3.1 | 11.2/5.4 | 2000 | 2000 |
| 31.2 With brake | 5 | 4000 | 4000 | 3.3 | 11.2/5.6 | 4000 | 4000 |
| 31.3 With brake | 9 | 1500 | 1500 | 2.5 | 19.4/10.5 | 1500 | 1500 |
| 31.4 With brake | 4 | 6000 | 4000 | 4.1 | 8.2/5.4 | 6000 | 4000 |
| 31.6 With brake | 12 | 1000 | 1000 | 2.4 | 26.6/14.5 | 1000 | 1000 |
| 31.7 With brake | 6 | 2500 | 2500 | 2.5 | 13.2/6.8 | 2500 | 2500 |
| Fast 24V motor | | | | | | | |
| 31.1 | 3 | 6000 | 4000 | 4.2 | 8.2/4.9 | 6000 | 4000 |
| 31.2 | 5 | 4000 | 4000 | 3.7 | 14/6.9 | 2000 | 2000 |
| 31.2 With brake | 5 | 4000 | 4000 | 4.0 | 14/6.4 | 4000 | 4000 |
| 31.3 With brake | 9 | 1500 | 1500 | 2.9 | 26.6/13 | 1500 | 1500 |
| 31.4 With brake | 4 | 6000 | 4000 | 5.0 | 10.7/5.3 | 1000 | 1000 |
| 31.6 With brake | 12 | 1000 | 1000 | 2.8 | 32.6/17.6 | 6000 | 4000 |
| 31.7 With brake | 6 | 2500 | 2500 | 3.1 | 16.7/8.3 | 2500 | 2500 |
| Standard 12V motor | | | | | | | |
| 31.1 | 3 | 6000 | 4000 | 7.2 | 4.5/3.2 | 6000 | 4000 |
| 31.2 | 5 | 4000 | 4000 | 3.9 | 7.4/6.4 | 2000 | 2000 |
| 31.2 With brake | 5 | 4000 | 4000 | 6.5 | 7.5/5.7 | 4000 | 4000 |
| 31.3 With brake | 9 | 1500 | 1500 | 4.7 | 13/10.9 | 1500 | 1500 |
| 31.6 With brake | 12 | 1000 | 1000 | 4.1 | 18/15.9 | 1000 | 1000 |
| 31.4 With brake | 4 | 6000 | 4000 | 9.0 | 6/3.7 | 6000 | 4000 |
| 31.7 With brake | 6 | 2500 | 2500 | 5.2 | 9.1/7.7 | 2500 | 2500 |

Comments to table:

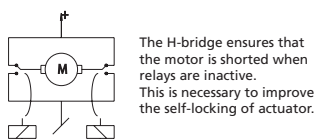
- * LINAK control boxes are designed so that they will short-circuit the motor terminals (poles) of the actuator(s), when the actuator(s) are not running. This solution gives the actuator(s) a higher self-locking ability. If the actuator(s) are not connected to a LINAK control box, the terminals of the motor must be short-circuited to achieve the self-locking ability of the actuator.
- ** When the load in push is above 4000 N (max. 6000 N), the max. stroke length is 250 mm.

Connections LA31:

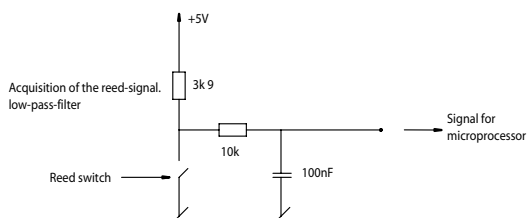
Block diagram



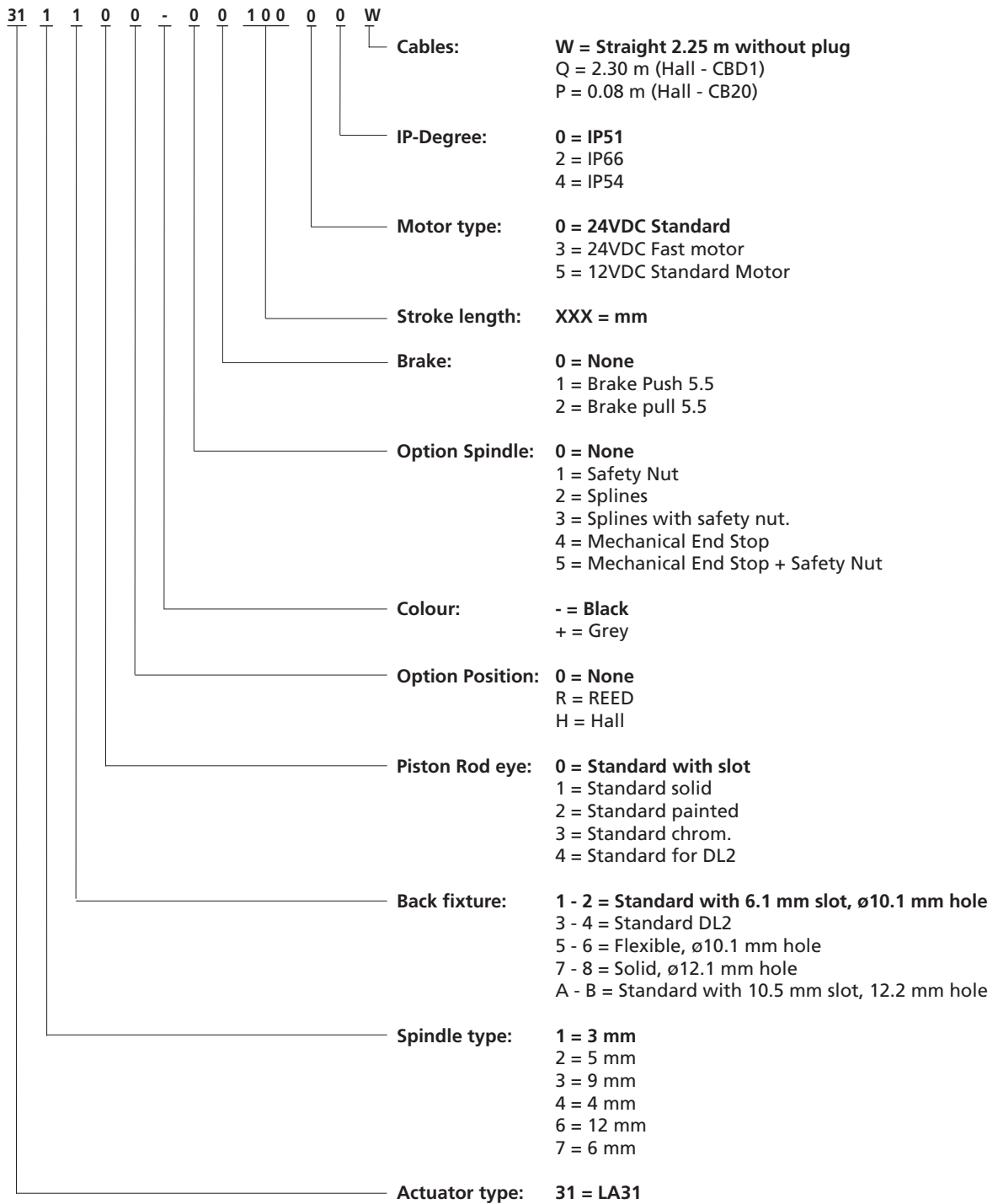
Improved self locking ability



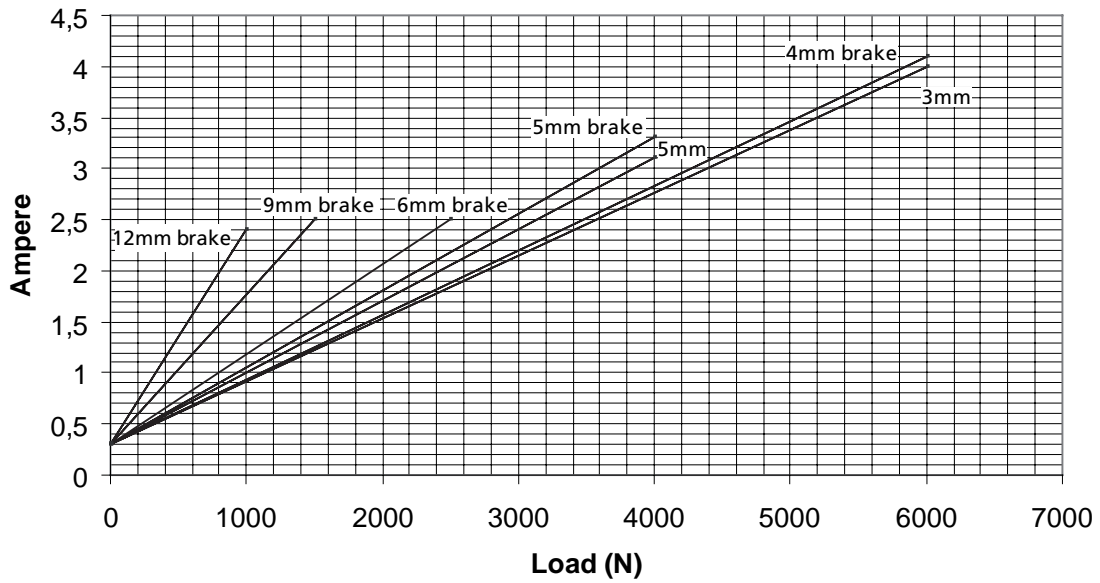
Conditioning of reed signal



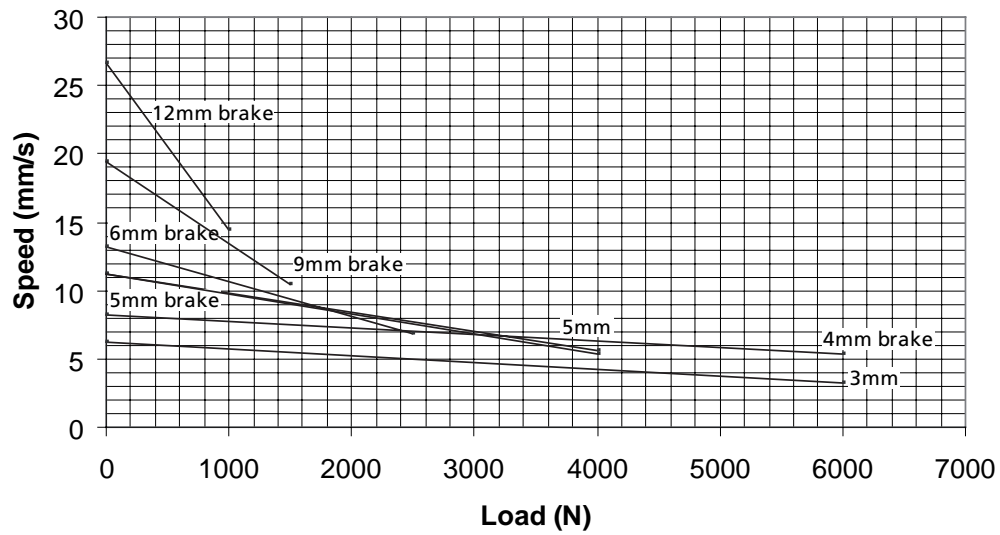
LA31 TECHLINE
Ordering example



LA31 24V Standard motor current v's load

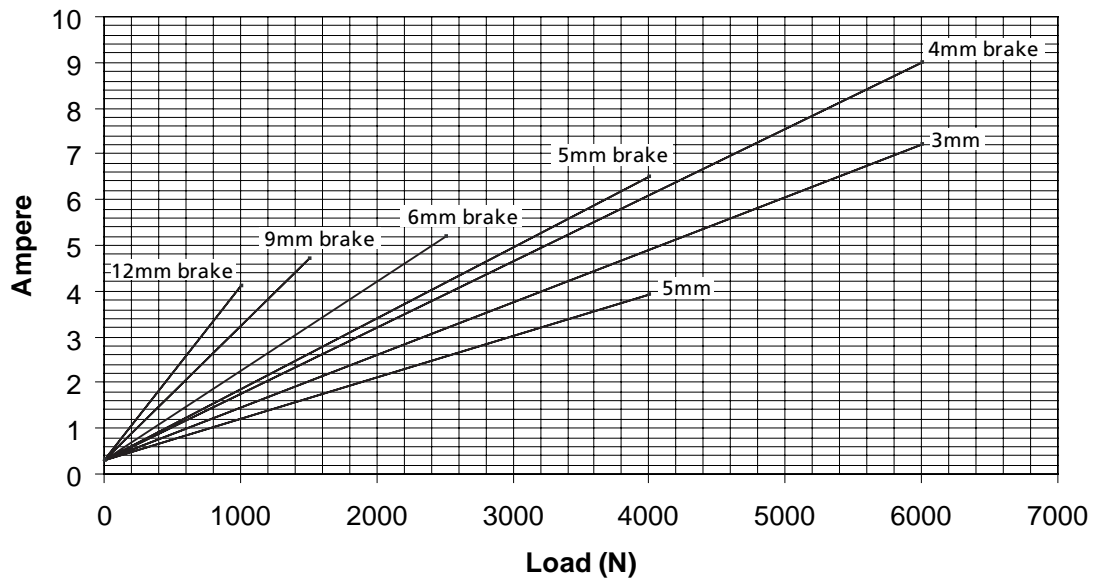


LA31 24V Standard motor speed v's load

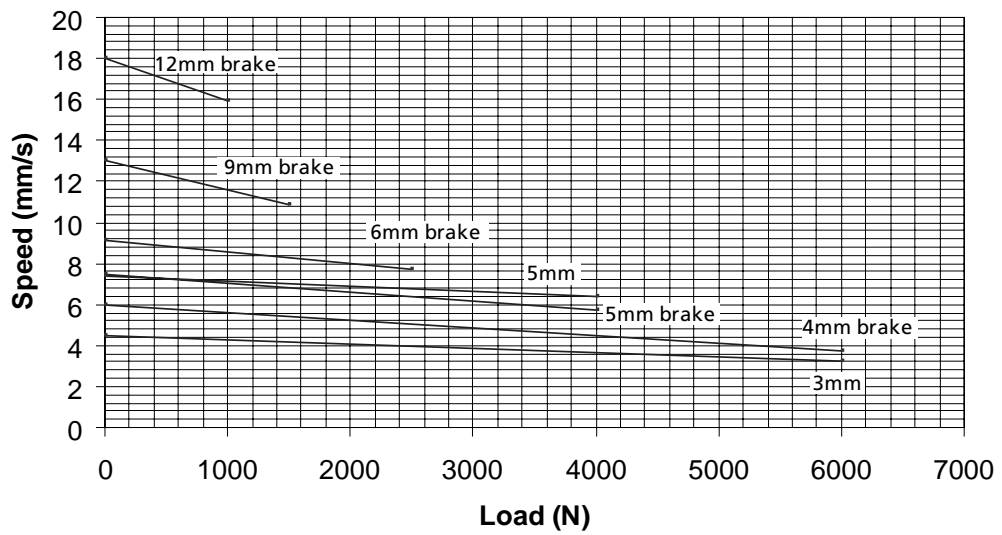


Graphs: 12V Motor

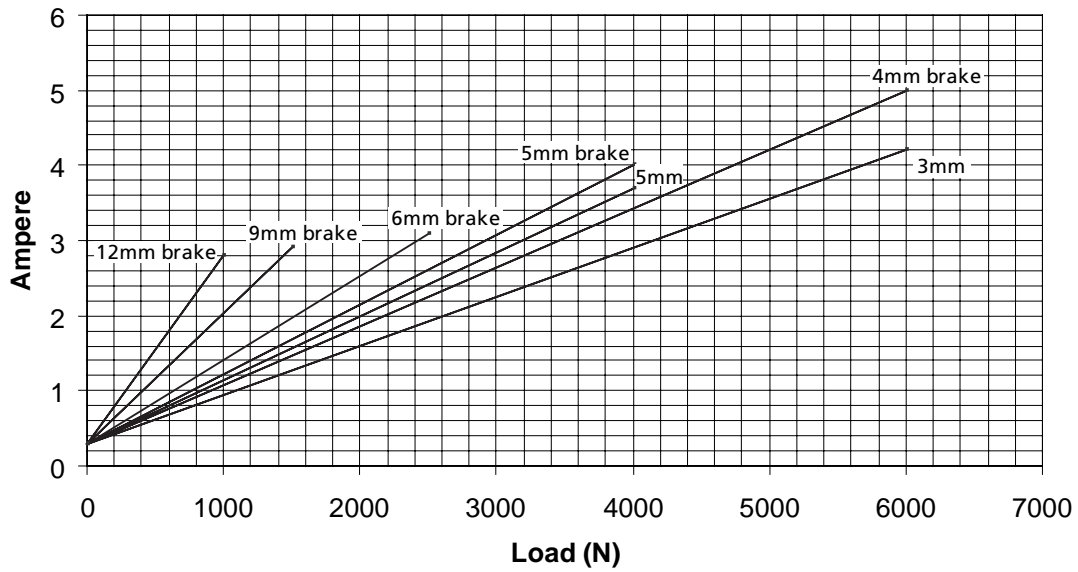
LA31 12V motor current v's load



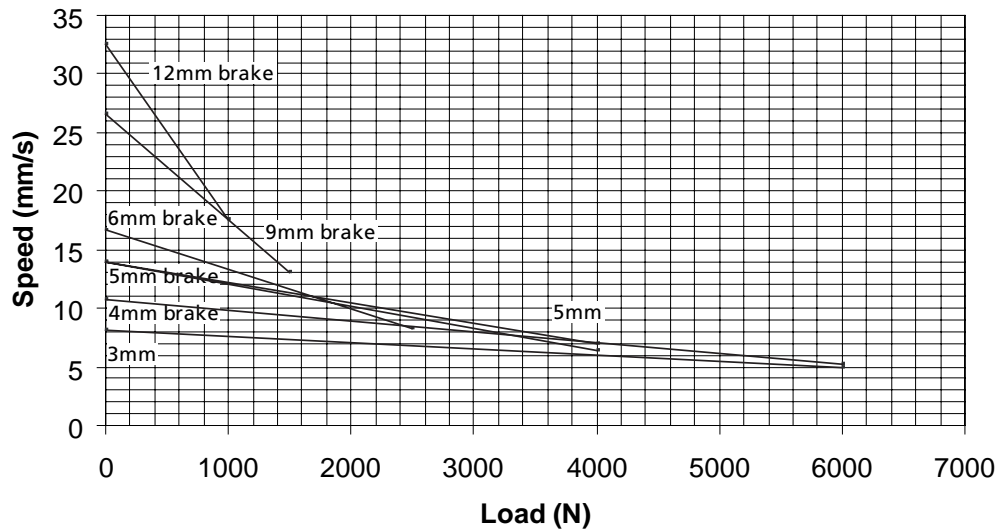
LA31 12V motor speed v's load



LA31 24V Fast motor current v's load



LA31 24V Fast motor speed v's load



Specifications subject to change without prior notice.
 It is the responsibility of the product user to determine the suitability of LINAK A/S products for a specific application. LINAK will at point of delivery replace/repair defective products covered by the warranty if promptly returned to the factory. No liability is assumed beyond such replacement/repair.