

LC3000 - Specifications



Standard Features and Benefits

- For medical and ergonomic automation applications
- Self-supporting column in extruded anodized aluminum
- Low weight and quiet operation
- Smooth-operating ballscrew drive
- High load torque capability
- Short retracted length
- Maintenance free
- Load holding brake
- Integrated end-of-stroke limit switches

General Specifications

Parameter	LC3000
Screw type	ball screw
Internally restrained	yes
Manual override	no
Dynamic braking	no ⁽¹⁾
Holding brake	yes
End-of-stroke protection	end-of-stroke limit switches
Mid-stroke protection	no ⁽¹⁾
Motor protection	no ⁽¹⁾
Motor connection	cable
Motor connector	Molex 8-pin plug
Certificates	CE
Options	encoder position feedback
Compatible controls ⁽²⁾	DCG-180 DCG-280
	operation of single unit synchronous operation of two units

(1) Dynamic braking, mid-stroke protection and motor protection are provided when used with DCG control.

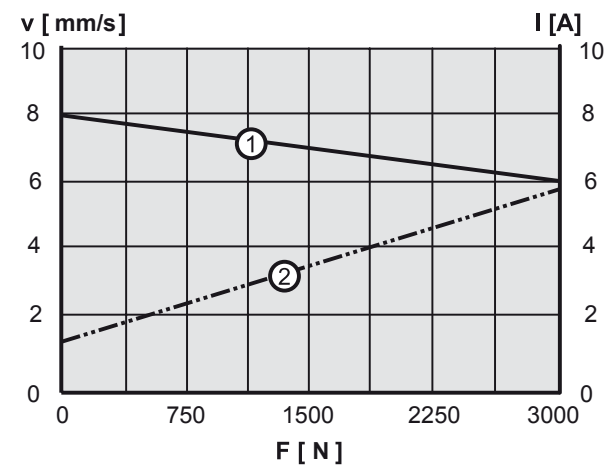
(2) See page 14 for more information.

Performance Specifications

Parameter	LC3000
Maximum load [N]	3000
Maximum load torque, dynamic / static [Nm]	400 / 500
Speed, at no load / at maximum load [mm/s]	8 / 6
Available input voltages [VDC]	24
Minimum ordering stroke (S) [mm]	200
Maximum ordering stroke (S) [mm]	400
Operating temperature limits [°C]	0 to +40
Full load duty cycle @ 20°C [%]	10
Maximum on time [s]	60
Lead cross section [mm ²]	1.5
Standard cable length [mm]	1900
Protection class	IP44

Performance Diagram

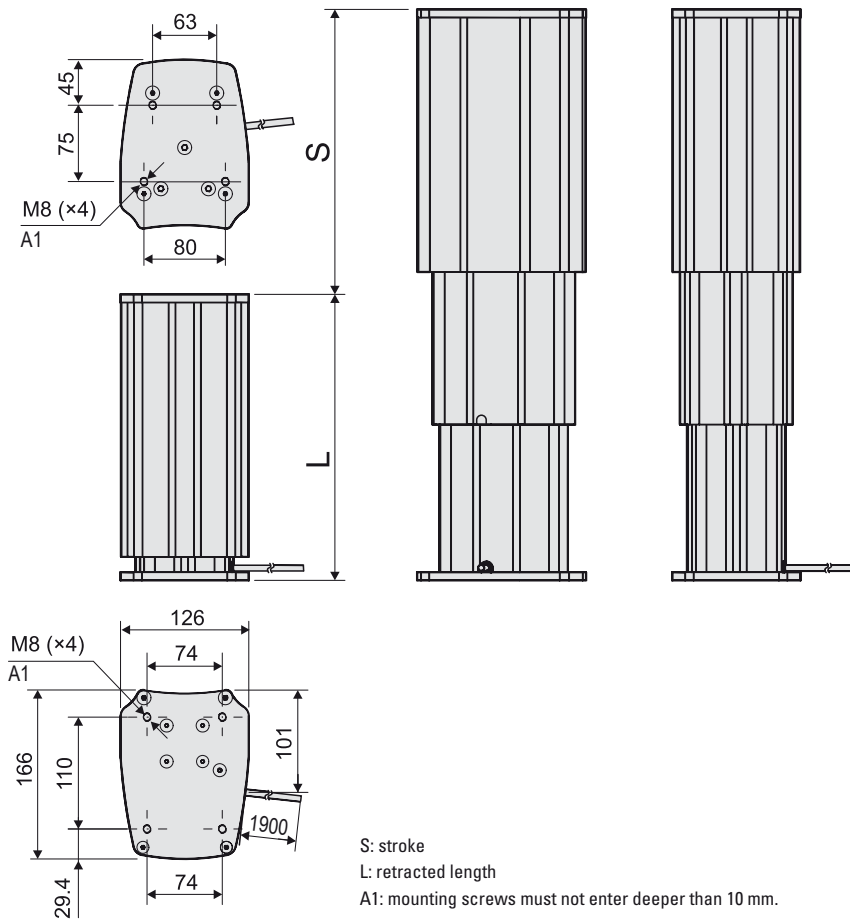
Speed and Current vs. Load



V: speed I: current F: load
1: speed
2: current

LC3000 - Dimensions and Performance

Dimensions	Projection
METRIC	



Ordering Stroke, Retracted Length and Weight

The desired stroke (S) will determine the minimum retracted length (L min) and the weight of the unit. Units can be built with a retracted length (L) between the calculated L min value and maximum retracted length.

Stroke, retracted length and weight relationship			
		Minimum	Maximum
Stroke (S)	[mm]	200	400
Retracted length (L)	[mm]	330 or L min	530
Min. retracted length (L min) based on stroke (S)	[mm]	$L \text{ min} = S + 130$	
Weight of unit based on stroke (S)	[kg]	$\text{Weight} = 4.065 + ((0.01774 \times L \text{ [mm]}) - 0.6031) + (S \text{ [mm]} + 70) \times 0.0012$	

The table below provides examples of stroke lengths and their corresponding minimum retracted length (L min) values.

Examples of strokes and the resulting minimum retracted length and weight						
Stroke (S)	[mm]	200	250	300	350	400
Minimum retracted length (L min)	[mm]	330	380	430	480	530
Weight	[kg]	9.7	10.6	11.6	12.5	13.5