

TA21

series



Product Segments

- **Care Motion**
- **Ergo Motion**
- **Industrial Motion**

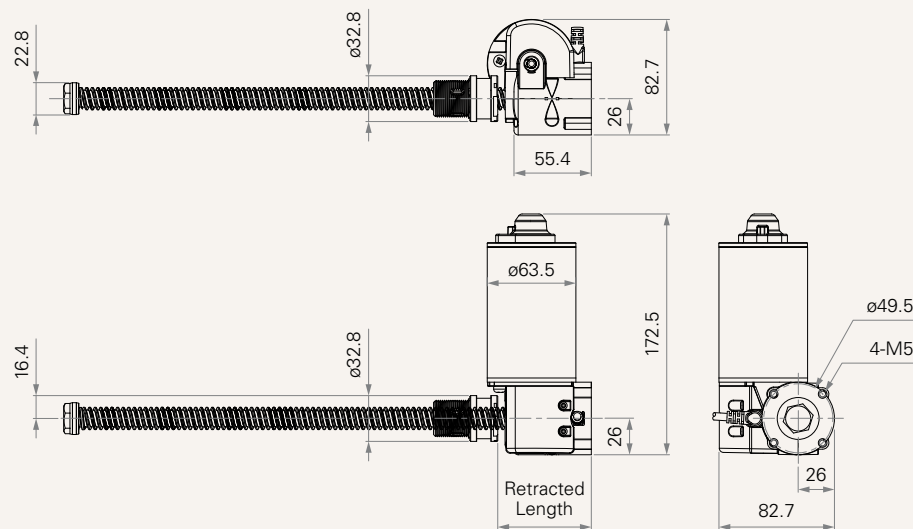
TiMOTION's TA21 electric linear actuator was designed for use in height adjustable medical and industrial workstations. Customers have a high degree of design flexibility with this actuator as it does not include a standard outer tube. This allows manufacturers to decide on the exact aesthetic and ingress specifications for their electric lifting column and overall application.

General Features

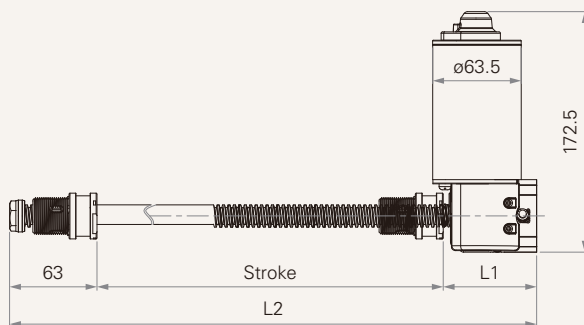
Max. load	10,000N (push); 6,000N (pull)
Max. speed at max. load	6.3mm/s
Max. speed at no load	24.7mm/s
Retracted length	≥ 67mm
Certificate	UL962
Stroke	25~400mm
Output signals	Hall sensor*2, Reed sensor
Voltage	24V DC; 24V DC, thermal protector (UL)
Color	Black, grey
High design flexibility	
Cable cover	

Drawing

Standard Dimensions
(mm)



Retracted length L1, Min $\geq 67\text{mm}$ (NO need to add stroke length)



Load and Speed

CODE	Load (N)		Self Locking Force (N)	Typical Current (A)		Typical Speed (mm/s)	
	Push	Pull		No Load 24V DC	With Load 24V DC	No Load 24V DC	With Load 24V DC
Motor Speed (3800RPM, duty cycle 10%)							
A	10000	6000	10000	2.0	15.0	12.1	6.3
C	7000	6000	6000	2.0	9.0	12.3	8.3
D	4000	4000	3000	2.0	9.5	24.7	16.2

Note

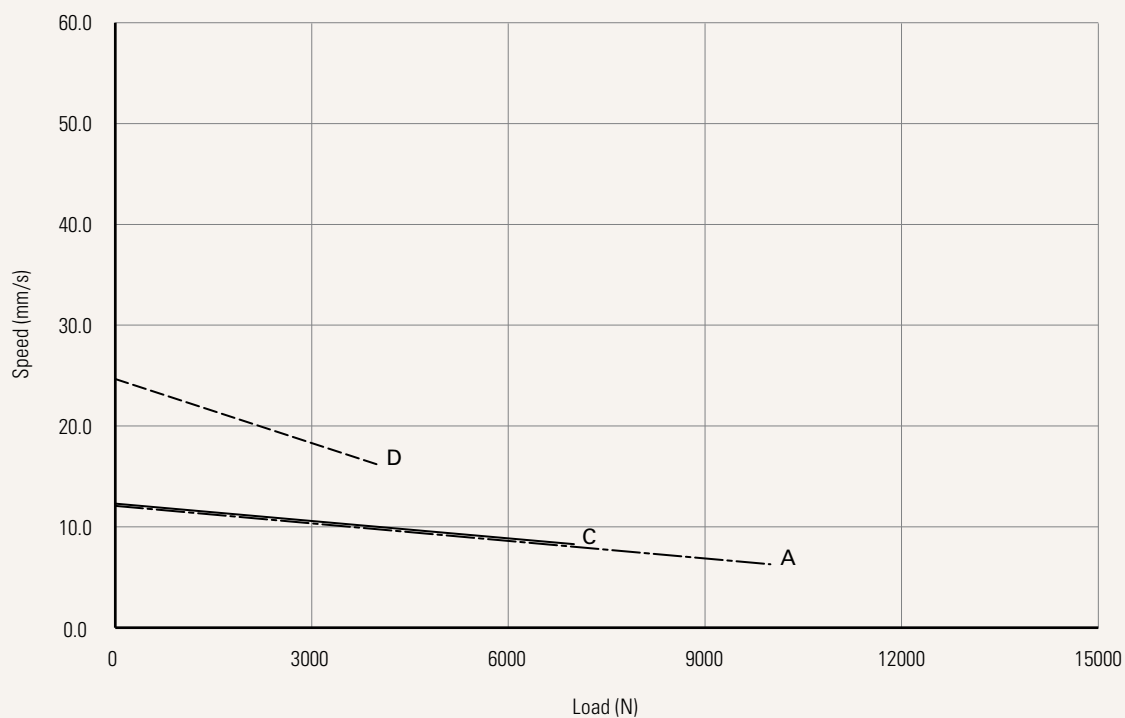
- Please refer to the approved drawing for the final authentic value.
- This self-locking force level is reached only when a short circuit is applied on the terminals of the motor. All the TiMOTION control boxes have this feature built-in.
- Operational temperature range: $+5^{\circ}\text{C} \sim +45^{\circ}\text{C}$
- The current & speed in table are tested when the actuator is extending under push load.
- The current & speed in table and diagram are tested with a stable 24V DC power supply.
- Standard stroke: 25~400mm

L1	Retracted length	needs to $\geq 67\text{mm}$	*Not relative to stroke
L2	Gearbox to spindle ends	$= 63 + \text{stroke} + \text{L1}$	

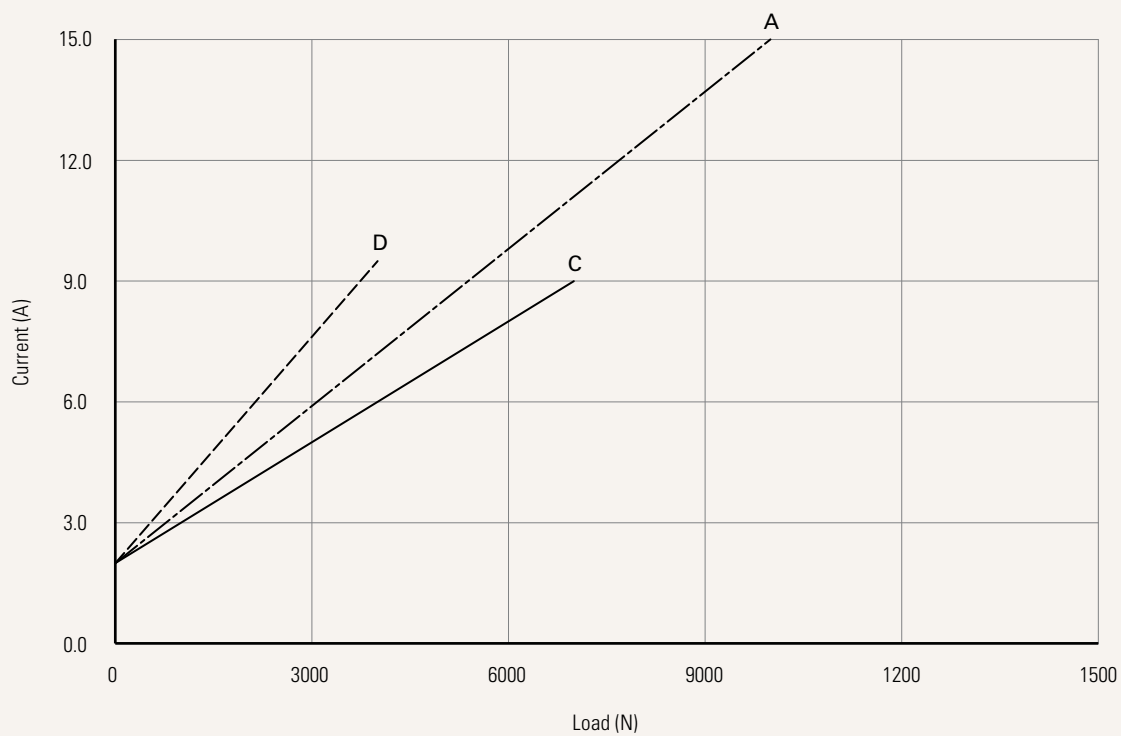
Performance Data (24V DC Motor)

Motor Speed (3800RPM, Duty Cycle 10%)

Speed vs. Load



Current vs. Load



TA21 Ordering Key

TA21

Version: 20260715-M

Voltage	2 = 24V DC		5 = 24V DC, thermal protector (UL)	
Load and Speed	See page 2			
Stroke (mm)	See page 2			
Retracted Length (mm)	See page 2			
Motor Cable Color	1 = Black	2 = Pantone 428C		
Special Functions for Spindle Sub-Assembly	1 = Safety nut			
Signal Output	0 = Without	2 = Hall sensors*2	3 = Reed Sensor	
Connector	1 = DIN 6P, 90° plug 2 = Tinned leads F = DIN 6P, 180° plug		Q = Molex 6P, 90° plug U = Molex 6P 3.0 pitch, 180° plug	
Cable Length (mm)	1 = Straight, 500 2 = Straight, 750	3 = Straight, 1000 4 = Straight, 1250	5 = Straight, 1500 6 = Straight, 2000	7 = Curly, 200 8 = Curly, 400
Cable Cover	0 = Without (cable board) 1 = Without (cable board + limit switch)		2 = With	

Terms of Use

The user is responsible for determining the suitability of TiMOTION products for a specific application. TiMOTION products are subject to change without prior notice.