

TA21

series



Product Segments

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

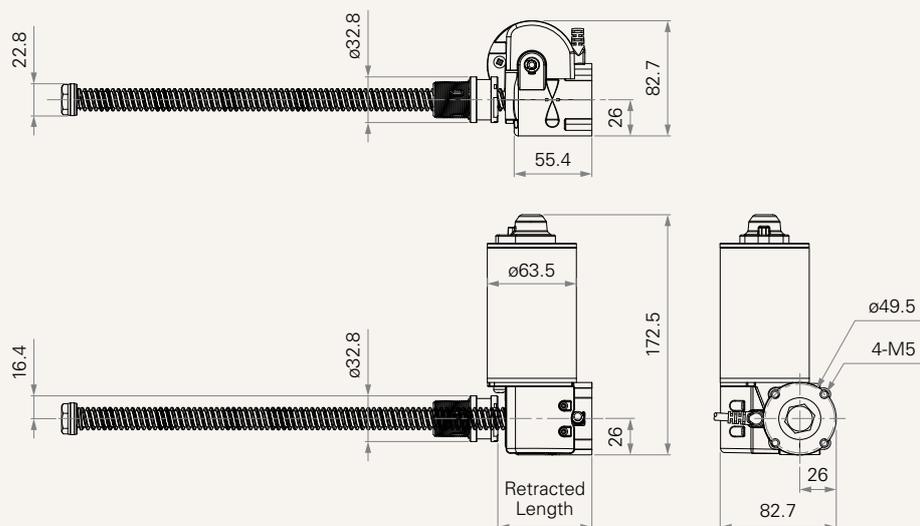
TiMOTION's TA21 electric linear actuator was designed for use in height adjustable medical and industrial workstations. Customers have a high degree of design flexibility with this actuator as it does not include a standard outer tube. This allows manufacturers to decide on the exact aesthetic and ingress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

General Features

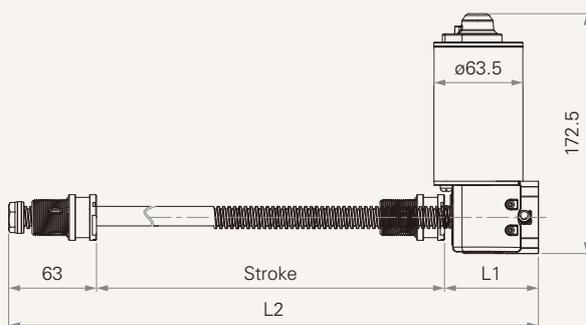
| | |
|-------------------------|-------------------------------|
| Max. load | 10,000N (push); 6,000N (pull) |
| Max. speed at max. load | 6.3mm/s |
| Max. speed at no load | 24.7mm/s |
| Retracted length | ≥ 67mm |
| Certificate | UL962 |
| Stroke | 25~400mm |
| Output signals | Hall sensors, Reed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

Drawing

Standard Dimensions
(mm)



Retracted length L1, Min ≥ 67mm (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 |

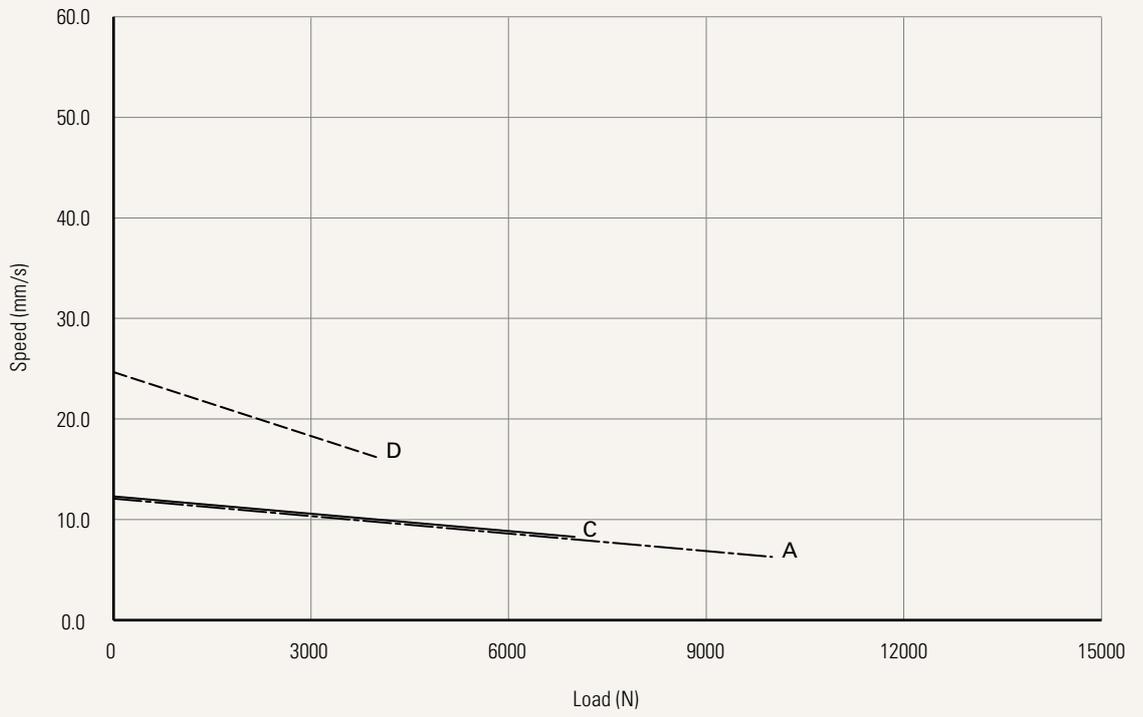
Note

- 1 Please refer to the approved drawing for the final authentic value.
- 2 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.
- 3 Operational temperature range: +5°C~+45°C
- 4 The current & speed in table are tested when the actuator is extending under push load.
- 5 The current & speed in table and diagram are tested with a stable 24V DC power supply.

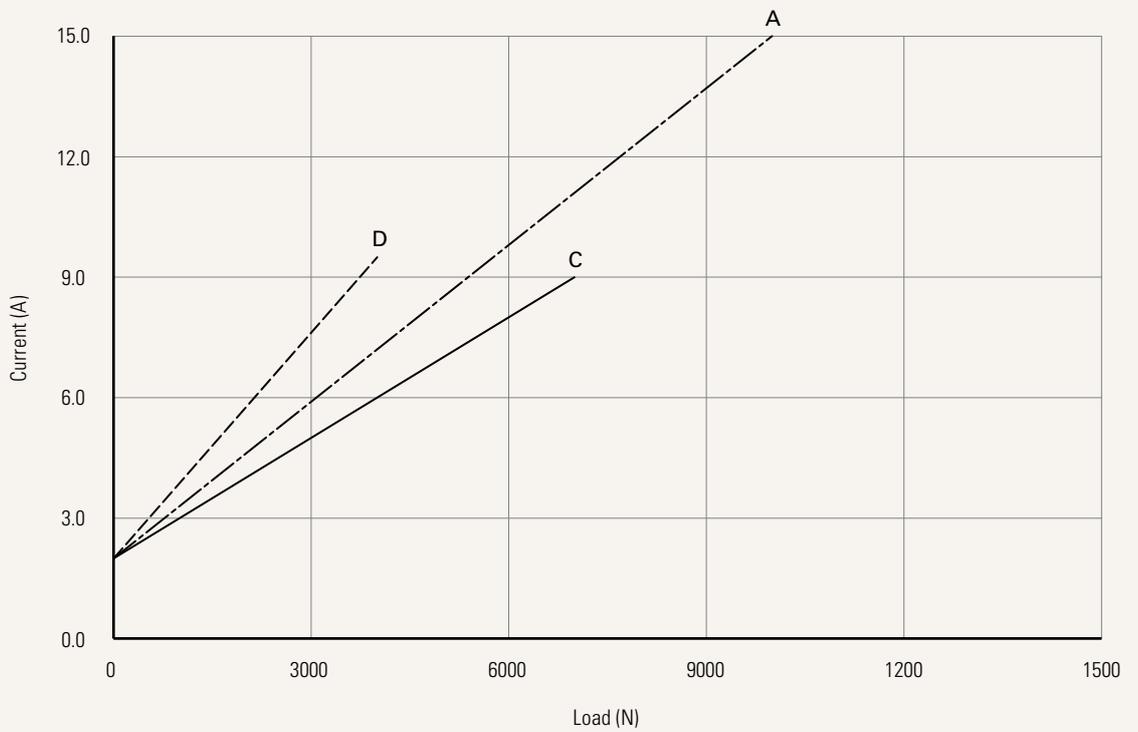
Performance Data (24V DC Motor)

Motor Speed (3800RPM)

Speed vs. Load



Current vs. Load



| | | | | |
|---|----------------------------|-------------------------|-----------------------|----------------|
| Voltage | 2 = 24V DC | 5 = 24V DC, UL | | |
| Load and Speed | See page 2 | | | |
| Stroke (mm) | See page 2 | | | |
| Retracted Length (mm) | See page 2 | | | |
| Motor Cable Color | 1 = Black | 2 = Grey (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 | |
| Cable Length (mm) | 1 = Straight, 500 | 3 = Straight, 1000 | 5 = Straight, 1500 | 7 = Curly, 200 |
| | 2 = Straight, 750 | 4 = Straight, 1250 | 6 = Straight, 2000 | 8 = Curly, 400 |

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.