

TA21

series



Product Segments

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

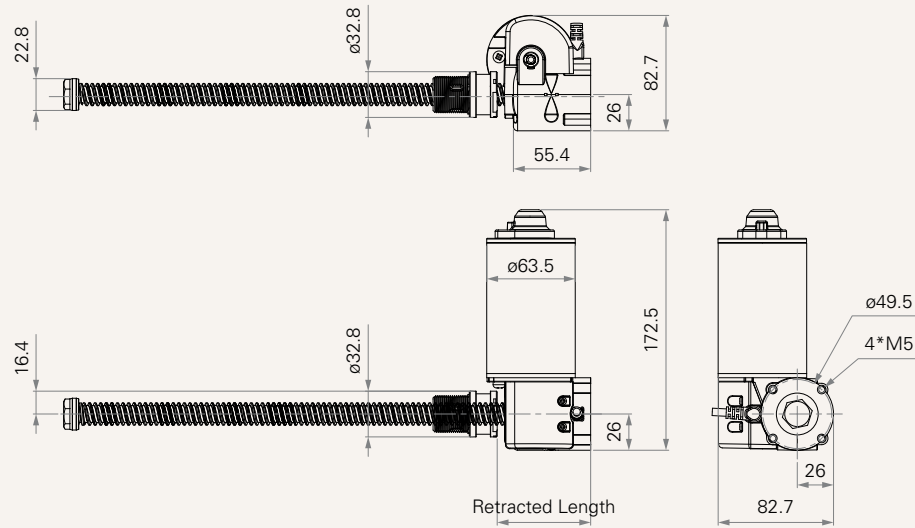
TiMOTION's TA21 electric linear actuator was designed for use in height adjustable medical and industrial workstations. Customers have a high degree of design flexibility with this actuator as it does not include a standard outer tube. This allows manufacturers to decide on the exact aesthetic and ingress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

General Features

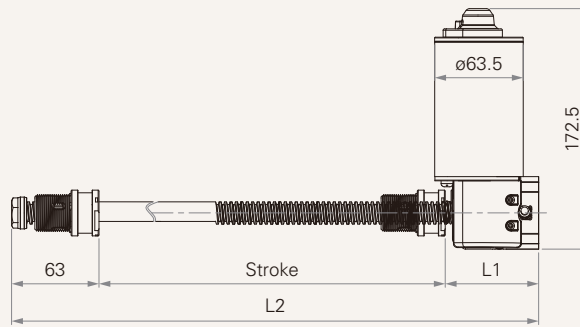
| | |
|-------------------------|-------------------------------|
| Max. load | 10,000N (push); 6,000N (pull) |
| Max. speed at max. load | 6.3mm/s |
| Max. speed at no load | 24.7mm/s |
| Retracted length | ≥ 67mm |
| Certificate | UL962 |
| Stroke | 25~400mm |
| Output signals | Hall sensors, Reed 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 |

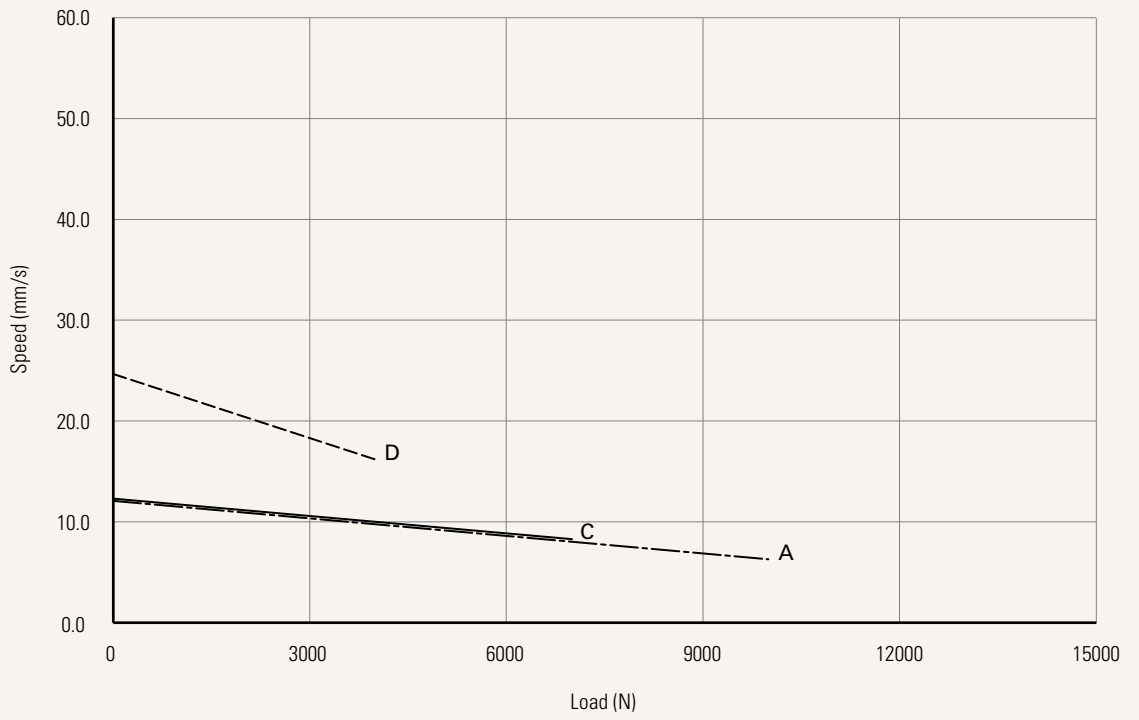
Note

- 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 TiMOTION control boxes, and there will be around 10% tolerance depending on different models of the control box. (Under no load condition, the voltage is around 32V DC. At rated load, the voltage output will be around 24V DC)

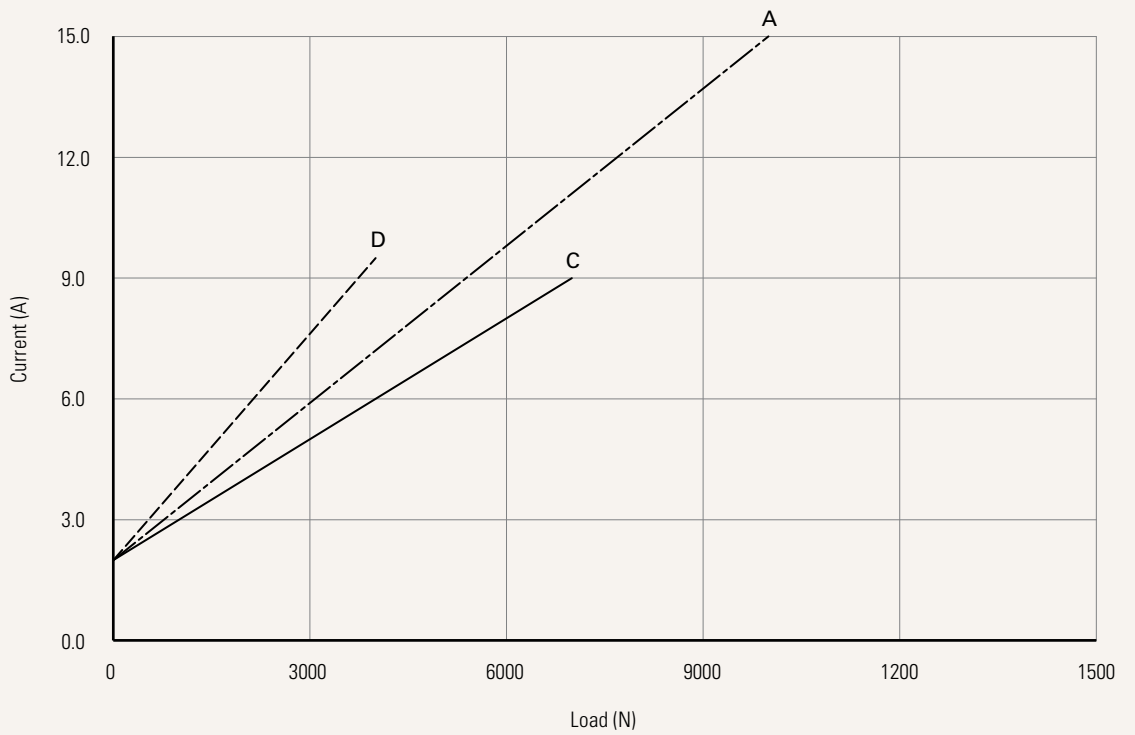
Performance Data (24V DC Motor)

Motor Speed (3800RPM)

Speed vs. Load



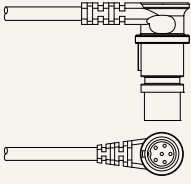
Current vs. Load



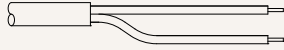
| | | | | |
|---|----------------------------|-------------------------|-----------------------|----------------|
| Voltage | 2 = 24V DC | 5 = 24V DC, UL | | |
| Load and Speed | See page 2 | | | |
| Stroke (mm) | See page 2 | | | |
| Retracted Length (mm) | See page 2 | | | |
| Motor Cable Color | 1 = 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 See page 5 | 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 |

Connector

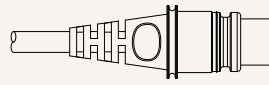
1 = DIN 6P, 90° plug



2 = Tinned leads



F = DIN 6P, 180° plug



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.