

JP6

series



Product Segments

- **Industrial Motion**

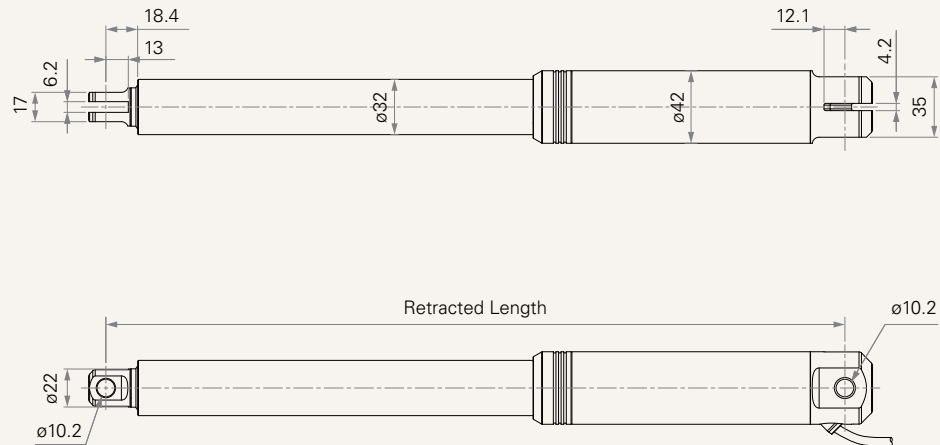
TiMOTION's JP6 series in-line linear actuator shares the same design concept as the JP5 and JP7. Specifically designed for use in industrial applications with moderate loads, it's capable of withstanding loads up to 3,000N. It is also suitable for product applications that require a compact installation space. Also, with an optional IP69K rating, it is designed to withstand high temperature, high pressure water jets, as well as the ingress of dust and other solid contaminants.

General Features

| | |
|---|---|
| Max. load | 3,000N (push/pull) |
| Max. speed at max. load | 3.5mm/s |
| Max. speed at no load | 8.5mm/s |
| Retracted length | ≥ Stroke + 227mm |
| IP rating | IP69K |
| Stroke | 25~1000mm |
| Output signals | NPN Hall sensors |
| Voltage | 12/24V DC; 12/24V DC (PTC) |
| Operational temperature range | -10/-30°C~+70°C (with/without overcurrent protection PCBA) |
| Operational temperature range at full performance | +5°C~+45°C |
| Storage temperature range | -40°C~+85°C |

Drawing

Standard Dimensions
(mm)



Load and Speed

| CODE | Load (N) | | Self-Locking Force (N) | Duty Cycle | Typical Current (A) | | Typical Speed (mm/s) | | Typical Current (A) | | Typical Speed (mm/s) | |
|------------------------------|----------|------|------------------------|------------|---------------------|-----------|----------------------|-----------|---------------------|-----------|----------------------|-----------|
| | Push | Pull | | | No Load | With Load | No Load | With Load | No Load | With Load | No Load | With Load |
| | | | | | 24V DC | 24V DC | 24V DC | 24V DC | 12V DC | 12V DC | 12V DC | 12V DC |
| Motor Speed (5600RPM) | | | | | | | | | | | | |
| B | 1000 | 1000 | 1000 | 10% | 1.0 | 1.5 | 8.5 | 7.5 | 2.0 | 3.0 | 8.5 | 7.5 |
| C | 2000 | 2000 | 2000 | 10% | 1.0 | 2.1 | 6.0 | 5.0 | 2.0 | 4.2 | 6.0 | 5.0 |
| D | 3000 | 3000 | 3000 | 10% | 1.0 | 2.5 | 5.5 | 3.5 | 2.0 | 5.0 | 5.5 | 3.5 |

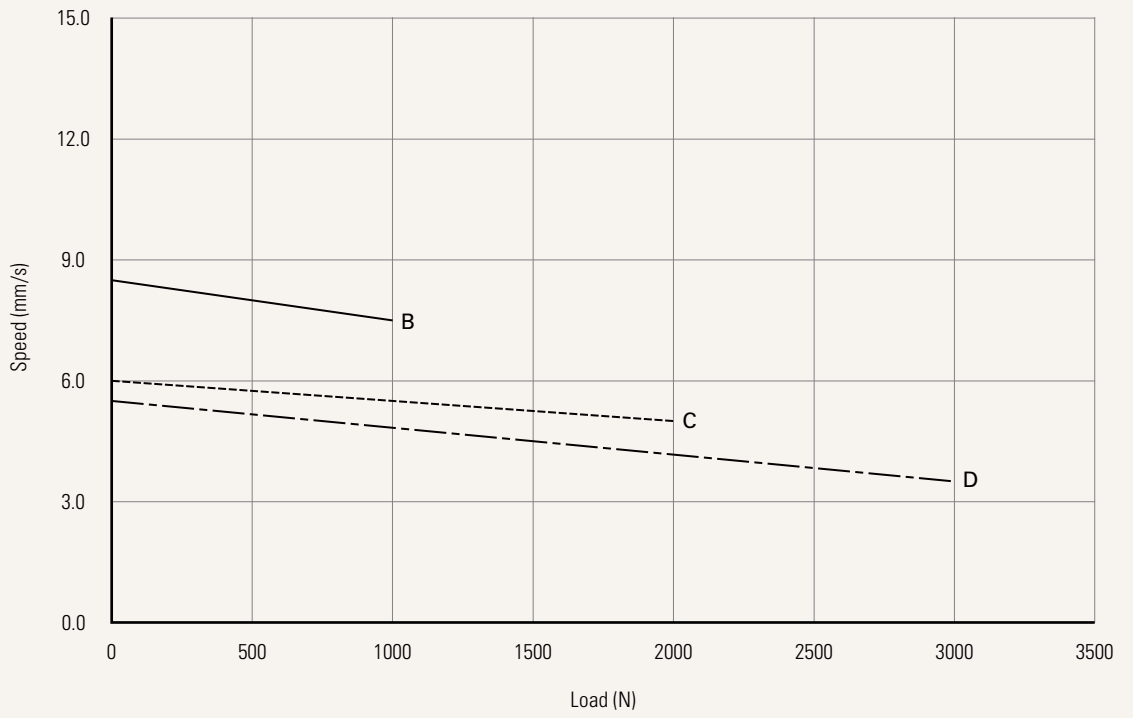
Note

- 1 Please refer to the approved drawing for the final authentic value.
- 2 The current & speed in table are tested with 24V DC motor. With a 12V DC motor, the current is approximately twice the current measured in 24V DC. With a 36V DC motor, the current is approximately two-thirds the current measured in 24V DC. Speed will be similar for all the voltages.
- 3 The current & speed in table are tested when the actuator is extending under push load.
- 4 The current & speed in table and diagram are tested with a stable 24V DC power supply.
- 5 Without load, noise level ≤ 70 dB(A) (by TIMOTION test standard, ambient noise level ≤ 36 dB(A)).
- 6 Standard stroke: 25~1000 mm.

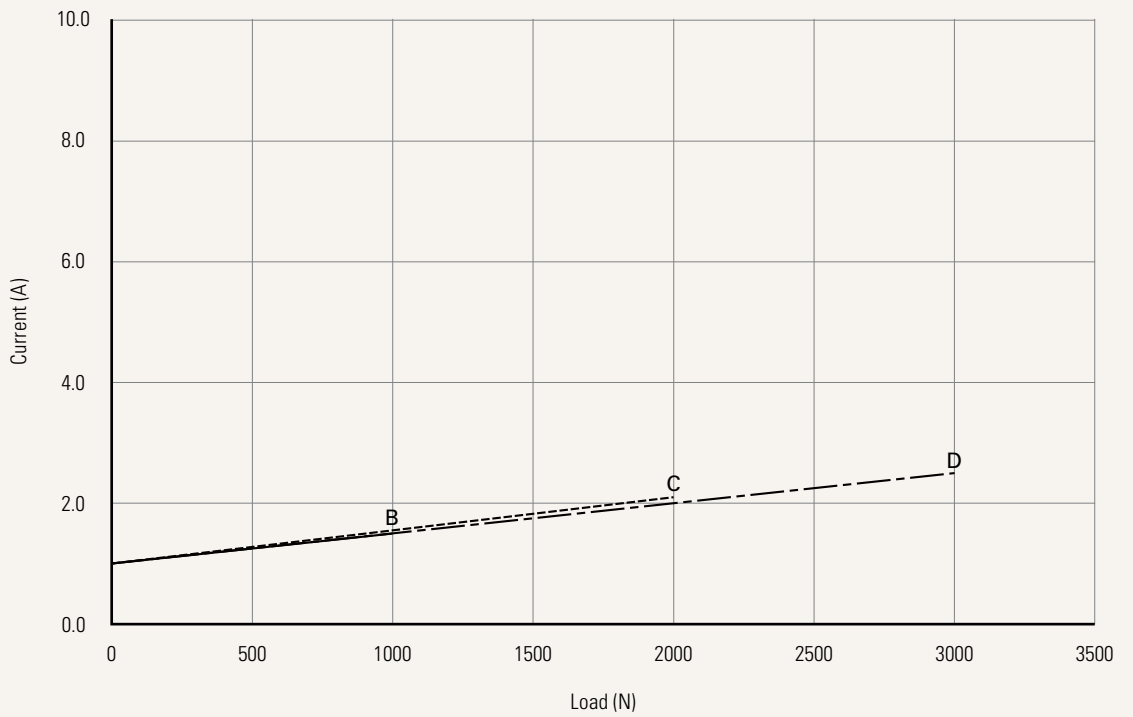
Performance Data (24V DC Motor)

Motor Speed (5600RPM)

Speed vs. Load



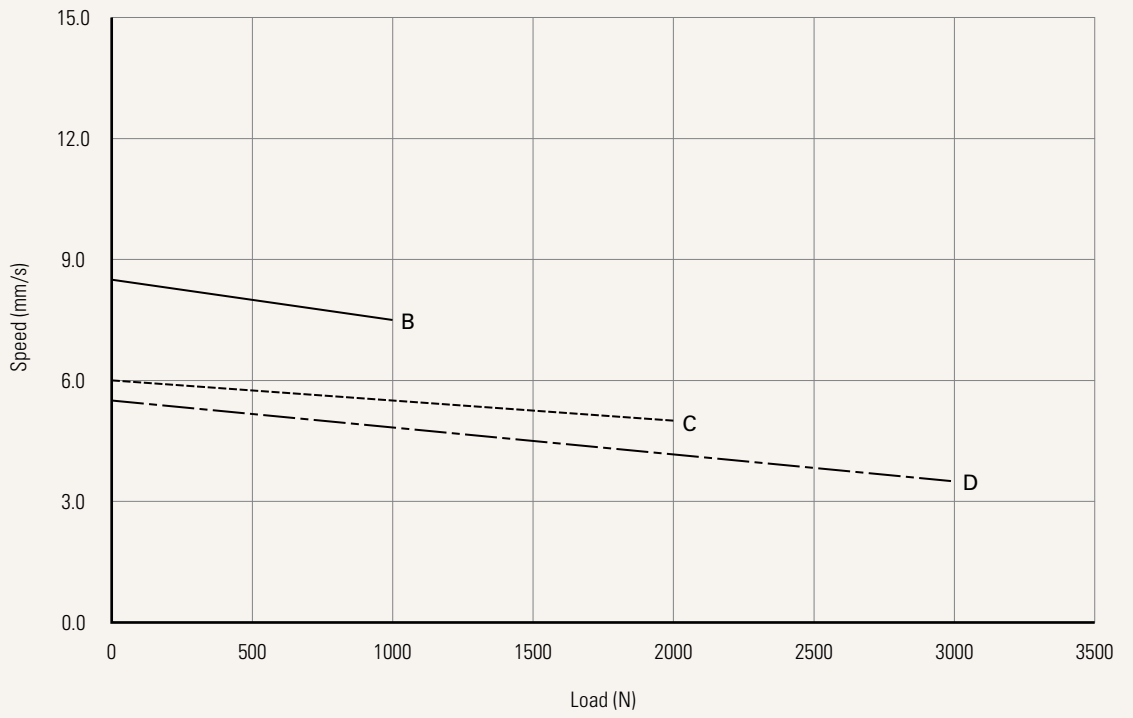
Current vs. Load



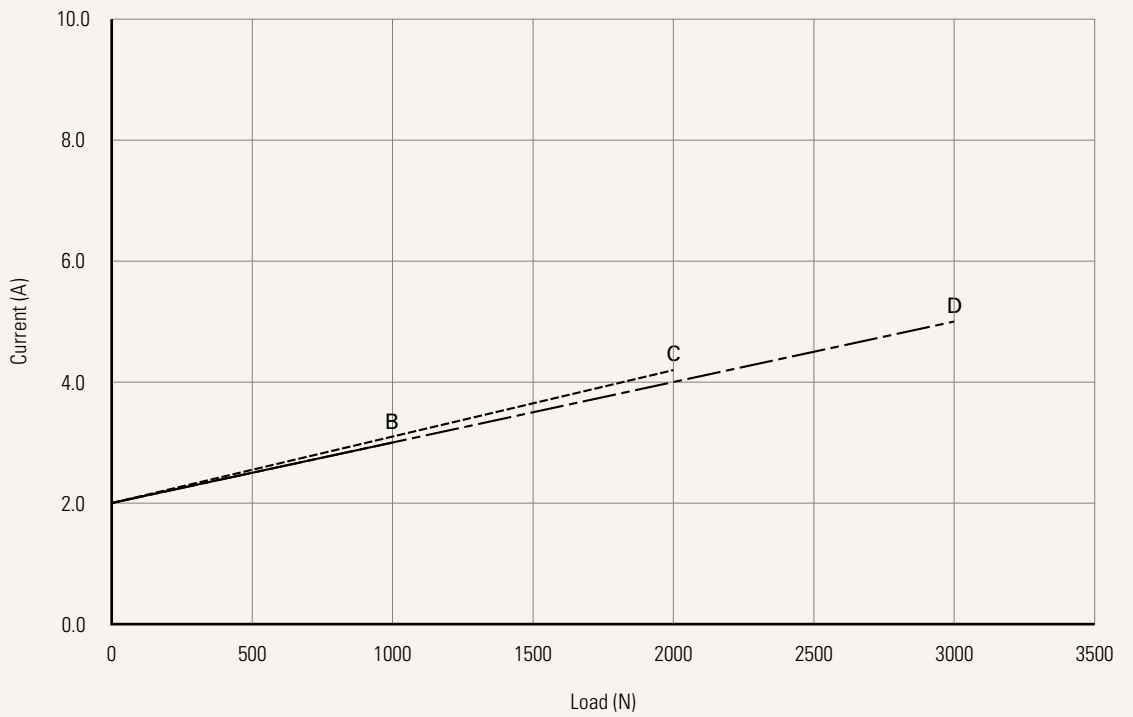
Performance Data (12V DC Motor)

Motor Speed (5600RPM)

Speed vs. Load



Current vs. Load



| | | | | |
|------------------------------------|--|-----------------------|---|-----------------|
| Type | N = Normal | | | |
| Voltage | 1 = 12V DC | 2 = 24V DC | 5 = 24V DC, PTC | 6 = 12V DC, PTC |
| Load and Speed | See page 2 | | | |
| Stroke | See page 2 | | | |
| Retracted Length (mm) | See page 6 | | | |
| Rear Attachment (mm) | 2 = Aluminum, slotless, hole 10.2 | | 4 = Aluminum, U clevis, slot 4.2, depth 12.1, hole 10.2 | |
| | See page 7 | | | |
| Front Attachment (mm) | 2 = Aluminum, slotless, hole 10.2 | | 4 = Aluminum, U clevis, slot 6.2, depth 13.0, hole 10.2 | |
| | See page 7 | | | |
| Overcurrent Protection PCBA | 0 = Without PCBA | P = With PCBA | | |
| Output Signal | 0 = Without | N = NPN Hall sensor*2 | | |
| IP Rating | 6 = IP66M | 7 = IP68 | 8 = IP69K | |
| Load Type | T = Push | P = Pull | | |
| Connector | 01 = Tinned leads | | | |
| | See page 7 | | | |
| Cable Length (mm) | 1000 = 1000 | 2000 = 2000 | 3000 = 3000 | 5000 = 5000 |
| Alternative | N = Normal | | | |
| Packaging (mm²) | 0 = Sample packaging C = Standard package, US fumigated pallet (1219*1016) 1 = Standard package, EU fumigated pallet (1200*800) E = Standard package, US plywood pallet (1219*1016) 5 = Standard package, EU plywood pallet (1200*800) | | | |

Retracted Length (mm)

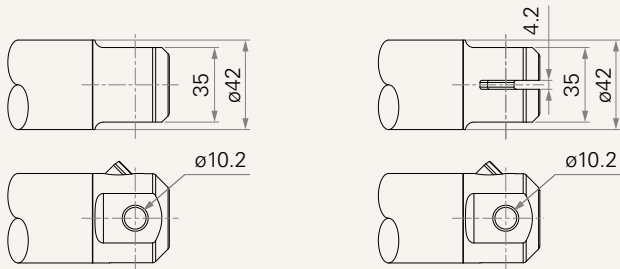
1. Calculate $A+B = Y$
2. Retracted length needs to $\geq \text{Stroke}+Y$

| A. | | B. | |
|---------------|--------------|-------------|-----------------------|
| Front Attach. | Load # | Stroke (mm) | Load & Speed Type (N) |
| | B, C, D | | B, C, D |
| | Rear Attach. | | |
| | 2, 4 | | |
| 2, 4 | +227 | 25~150 | - |
| | | 151~200 | - |
| | | 201~250 | +10 |
| | | 251~300 | +20 |
| | | 301~350 | +30 |
| | | 351~400 | +40 |
| | | 401~450 | +50 |
| | | 451~500 | +60 |
| | | 501~550 | +70 |
| | | 551~600 | +80 |
| | | 601~650 | +90 |
| | | 651~700 | +100 |
| | | 701~750 | +110 |
| | | 751~800 | +120 |
| | | 801~850 | +130 |
| | | 851~900 | +140 |
| | | 901~950 | +150 |
| | | 951~1000 | +160 |

Rear Attachment (mm)

2 = Aluminum, slotless, hole 10.2

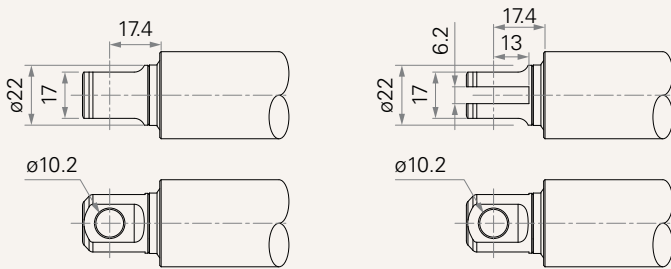
4 = Aluminum, U clevis, slot 4.2, depth 12.1, hole 10.2



Front Attachment (mm)

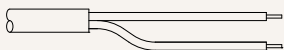
2 = Aluminum, slotless, hole 10.2

4 = Aluminum, U clevis, slot 6.2, depth 13.0, hole 10.2



Connector

01 = Tinned leads



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