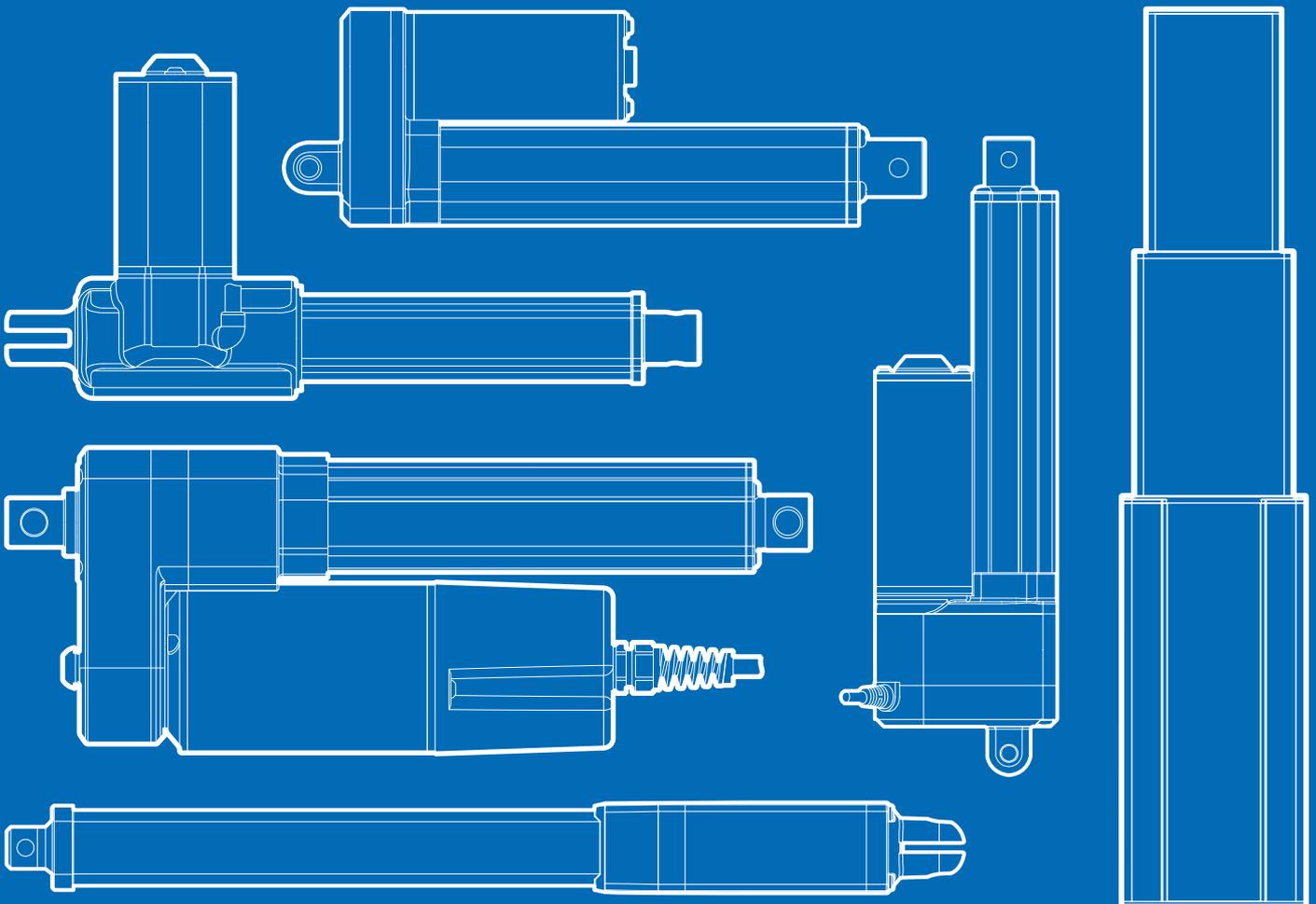


TiMOTION CARES ABOUT WHAT YOU NEED

Choose TiMOTION, for Customized,
High Quality, Long Life, and
Economical Actuators



99%

of TiMOTION's customer application requirements can be solved by our experienced personnel providing highly customized solutions.

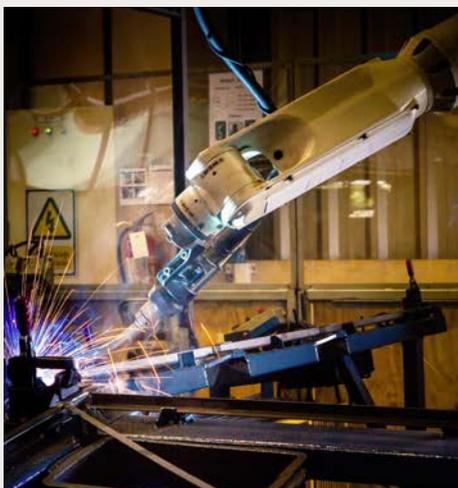
101%

TiMOTION guarantees complete customer satisfaction by providing a competitive packaged actuator solution coupled with a wide range of high quality products, global service networks and "on demand" R&D resources.

The benefits of TiMOTION linear actuators

- 5 year warranty
- Aluminum and steel construction
- Acme and ball screw drive
- Customization
- Clutch or internal limit switches
- Economical
- Easy installation
- Excellent engineering support
- IP66 protection available
- Long life
- Low maintenance
- Wide speed range





Industrial Linear Actuator Applications

- Agriculture
 - Aviation Equipment
 - Commercial cooking equipment
 - Damper actuation
 - Drilling machinery
 - Garden tractors
 - Health and Fitness Equipment
 - Locking devices
 - Marine industry
 - Material Handling
 - Packaging
 - Paper Machinery
 - Plastics industry
 - Railroad Equipment
 - Recreational Vehicles
 - Road Construction Equipment.
 - Robotics
 - Security Equipment
 - Valve operators
 - Water treatment facilities
-

Linear Actuator

TA2 SERIES

Maximum load

1,000N in push/pull

Maximum speed at no load

64.0mm/s

Maximum speed at full load

47.0mm/s

Minimum installation dimension

stroke+105mm (without output signals)

Minimum installation dimension

stroke+135mm (with output signals)

Certificate

EMC, RoHS, and IEC60601-1 compliant

Compact size for limited space



Load and Speed

CODE	Rated Load		Self Locking N (PUSH)	Typical Current at Rated Load (A)	Typical Speed	
	PUSH N	PULL N			No Load (24V DC) mm/s	Rated Load (24V DC) mm/s
Motor Speed (4200RPM)						
A	120	120	120	1.2	44.0	32.0
B	240	240	240	1.2	22.0	16.0
C	500	500	500	1.0	11.0	8.8
D	750	750	750	1.0	7.5	6.2
E	1000	1000	1000	1.0	5.5	4.5
Motor Speed (6000RPM)						
F	120	120	120	1.8	64.0	47.0
G	240	240	240	1.8	32.0	23.6
H	500	500	500	1.5	16.0	13.0
K	750	750	750	1.5	10.0	9.0
L	1000	1000	1000	1.5	8.0	6.5

Note

- 1 The above are the speed and current figures under pushing condition.
- 2 Speed would be the same if with 12V motor, but with double current consumption comparing 24V motor.
- 3 The self locking force above needs to work with TiMOTION control system.

Linear Actuator

TA2P SERIES

Maximum load

2,000N in pull/push

Maximum speed at no load

55.0mm/s

Maximum speed at full load

46.0mm/s

Minimum installation dimension

stroke+108mm (With Hall sensor(s) or without output signals)

Minimum installation dimension

stroke+138mm (With POT, Optical, or Reed signals)

Certificate

IEC/ES60601-1 compliant



Load and Speed

CODE	Rated Load		Self Locking N (PUSH)	Typical Current at Rated Load (A)	Typical Speed	
	PUSH N	PULL N			No Load (24V DC) mm/s	Rated Load (24V DC) mm/s
Motor Speed (5200RPM)						
A	250	250	250	2.2	43.0	36.0
B	500	500	500	2.2	28.0	24.0
C	1000	1000	1000	2.2	14.0	12.0
D	1500	1500	1500	2.2	9.3	8.0
E	2000	2000	2000	2.2	7.0	6.0
Motor Speed (6600RPM)						
F	250	250	250	2.8	55.0	46.0
G	500	500	500	2.8	35.0	30.0
H	1000	1000	1000	2.8	18.0	15.0
K	1500	1500	1500	2.8	12.0	10.3
L	2000	2000	2000	2.8	9.0	7.5

Note

- 1 The above are the speed and current figures under pushing condition.
- 2 Speed would be the same if with 12V motor, but with double current consumption comparing 24V motor.
- 3 The self locking force above needs to work with TiMOTION control system.

Linear Actuator

TA3 SERIES

Maximum load

4,500N in pull/push

Maximum speed at no load

58.5mm/s

Maximum speed at full load

48.0mm/s

Minimum installation dimension

stroke+160mm (without POT)

Minimum installation dimension

stroke+196mm (with POT)

Spindle options

ACME or Ball screw

Brake options

mechanical or electromagnetic

Other options

Overload clutch, Hall sensor(s),
potentiometer, manual crank function



Load and Speed

CODE	Gear Ratio	LOAD (N)	Current at Rated Load (A)		Speed at No Load (mm/s)		Speed at Rated Load (mm/s)	
			12V DC	24V DC	12V DC	24V DC	12V DC	24V DC
ACME Screw, DC Motor (12V DC/24V DC/36V DC)								
B	10:1	1500	15.4	7.7	29.5	29.5	27.0	27.0
C	20:1	2500	14.0	7.0	15.8	15.8	14.3	14.3
Ball Screw, DC Motor (12V DC/24V DC/36V DC)								
A	5:1	2500	25.0	12.5	58.5	58.5	48.0	48.0
B	10:1	3500	18.0	9.0	29.8	29.8	25.5	25.5
C	20:1	4500	13.0	6.5	16.0	16.0	14.0	14.0

Load and Speed

CODE	Gear Ratio	LOAD (N)	Current at Rated Load (A)		Speed at No Load (mm/s)		Speed at Rated Load (mm/s)	
			115V AC	230V AC	115V AC	230V AC	115V AC	230V AC
ACME Screw, AC Motor (110V AC 60HZ/230V AC 50HZ)								
B	10:1	1500	2.0	1.0	26.1	22.5	23.0	21.0
C	20:1	2500	2.0	1.0	14.1	12.0	12.8	11.2
Ball Screw, AC Motor (110V AC 60HZ/230V AC 50HZ)								
A	5:1	2500	2.5	1.3	53.0	46.0	38.5	40.0
B	10:1	3500	2.1	1.1	27.0	23.5	22.5	21.5
C	20:1	4500	2.0	1.0	14.5	12.0	13.0	11.5

Note

- 1 Please contact TiMOTION before making an order.
- 2 Push = Pull.
- 3 Rated load = self locking force, if choose mechanical brake.

Linear Actuator

TA4 SERIES

Maximum load

3,500N in push

Maximum load

2,000N in pull

Maximum speed at no load

30.0mm/s

Maximum speed at full load

17.0mm/s

Minimum installation dimension

stroke+140mm

Protection class

up to IP66

Certificate

IEC/ES60601-1 and RoHS compliant



Load and Speed

CODE	Rated Load		Self Locking N (PUSH)	Typical Current at Rated Load (A)	Typical Speed	
	PUSH N	PULL N			No Load (24V DC) mm/s	Rated Load (24V DC) mm/s
Motor Speed (4100RPM)						
A	2000	2000	1500	2.8	7.5	4.8
B	1500	1500	800	2.8	10.5	6.0
C	1000	1000	300	3.2	20.3	11.0
D	800	800	200	3.2	30.0	17.0
E	3500	2000	3500	3.2	4.9	3.0
Motor Speed (3800RPM)						
G	2500	2000	2500	2.8	7.0	5.2
H	2000	2000	1000	3.0	9.9	6.9
I	1500	1500	500	4.0	19.8	10.8
J	3500	2000	3500	3.2	4.4	2.8
Motor Speed (3300RPM)						
M	1500	1500	1500	1.8	5.9	3.8
N	1000	1000	800	1.8	8.4	6.1
O	500	500	300	1.8	17.3	14.5
Motor Speed (3300RPM)						
R	1500	1500	1000	1.5	5.9	3.7
S	1000	1000	500	1.5	11.4	6.6
T	800	800	200	1.7	16.1	9.2

Note

- 1 The above are the speed and current figures under pushing condition.
- 2 Speed would be the same if with 12V motor, but with double current consumption.
- 3 The self locking force above need to work with TiMOTION control system.

Linear Actuator

TA16 SERIES

Maximum load

2,500N in push

Maximum speed at no load

14.4mm/s

Maximum speed at full load

10.7mm/s

Minimum installation dimension

stroke+112mm
(without output signals)

Protection class

up to IP66

Certificate

IEC/ES60601-1 and EN61000
compliant

Low-noise, small size
for easy installation



Load and Speed

CODE	Rated Load	Typical Current at Rated Load (A)	Typical Speed	
	PUSH N		No Load (24V DC) mm/s	Rated Load (24V DC) mm/s
Motor Speed (3800RPM)				
A	2500	2.8	4.5	3.3
B	2000	3.0	7.2	5.1
C	1500	2.8	10.1	7.5
D	1000	2.8	14.4	10.7

Note

1 The self locking force above need to work with TiMOTION control system.

Linear Actuator

TA17 SERIES

Maximum load

2,000N in push and pull

Maximum speed at no load

18.8mm/s

Maximum speed at no load

15.5mm/s

Minimum installation dimension

stroke+217mm

Protection class

up to IP66

Certificate

IEC/ES60601-1 and RoHS compliant

An in-line actuator design with compact installation dimension



Load and Speed

CODE	Rated Load		Self Locking N (PUSH)	Typical Current at Rated Load (A)	Typical Speed	
	PUSH N	PULL N			No Load (24V DC) mm/s	Rated Load (24V DC) mm/s
Motor Speed (6000RPM)						
B	2000	2000	2000	2.0	6.3	4.5
C	1500	1500	1000	2.0	8.6	6.5
D	1000	1000	500	2.0	12.0	9.0
E	500	500	500	2.0	18.8	15.5

Note

- 1 The above are the speed and current figures under pushing condition.
- 2 Speed would be the same if with 12V motor, but with double current consumption comparing 24V motor.
- 3 The self locking force above needs to work with TiMOTION control system.

Linear Actuator

TA18 SERIES

Maximum load

4,500N in push

Maximum load

3,000N in pull

Maximum speed no load

28.7mm/s

Maximum speed full load

24.0mm/s

Minimum installation dimension

stroke+289mm

An in-line actuator design with compact installation dimension



Load and Speed

CODE	Rated Load		Self Locking N (PUSH) with brake	Self Locking N (PUSH) without brake	Typical Current at Rated Load (A)	Typical Speed	
	PUSH N	PULL N				No Load (24V DC) mm/s	Rated Load (24V DC) mm/s
Motor Speed (3800RPM)							
B	4500	3000	4500	4500	3.5	5.1	3.2
C	3500	3000	3000	2500	3.2	7.3	4.8
D	2500	2500	2000	1500	3.2	10.0	6.2
E	1500	1500	1000	700	2.2	13.1	10.3
F	1000	1000	700	400	2.2	19.2	15.5
G	500	500	500	200	2.0	28.7	24.0

Note

- 1 The above are the speed and current figures under pushing condition.
- 2 Speed would be the same if with 12V motor, but with double current consumption comparing 24V motor.
- 3 The self locking force above needs to work with TiMOTION control system.

Linear Actuator

TA19 SERIES

Maximum load

1,000N in push

Maximum speed at no load

38.3mm/s

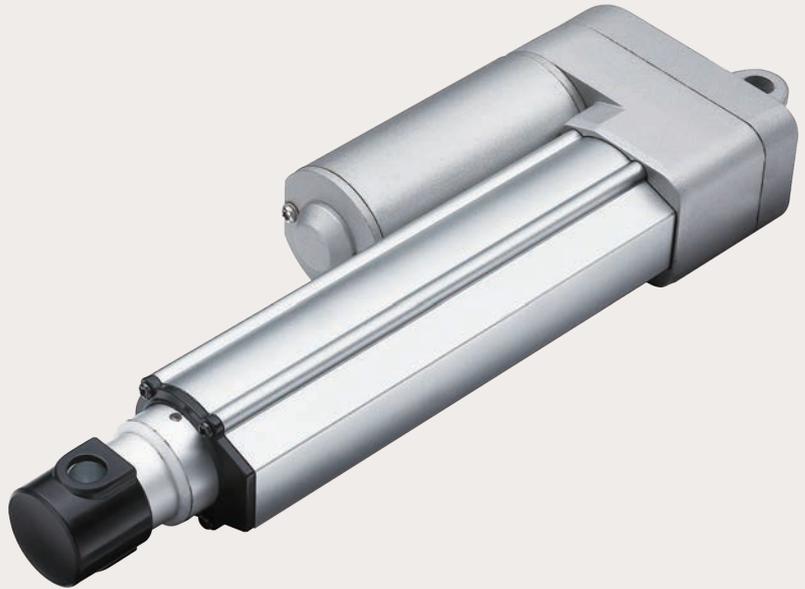
Maximum speed at full load

27.0mm/s

Minimum installation dimension

stroke/2+165mm

With a 3 section tube sets,
providing a relatively high speed



Load and Speed

CODE	Rated Load PUSH N	Self Locking N (PUSH)	Typical Current at Rated Load (A)	Typical Speed	
				No Load (24V DC) mm/s	Rated Load (24V DC) mm/s
Motor speed (3800RPM)					
A	600	1000	3.2	38.3	27.0
B	1000	1000	3.5	18.0	12.0
Motor speed (5200RPM)					
D	1000	1000	5.0	24.0	18.0

Note

1 #A need to work with motor brake to reach the self locking force above. Contact with TiMOTION before making this request.

Column

TL3 SERIES

Maximum load & self-locking

4,000N

Maximum speed at no load

29.3mm/s

Maximum speed at full load

24.0mm/s

Stroke

100~700mm

Dimension of cross section

177.4x150.7mm

Minimum installation dimension

stroke/2+150mm (if max. load=1,000/2,000N)

stroke/2+220mm (if max. load= 4,000N)

2 power cable layout options

from top or bottom

With a high bending load resistance
and low operating current



Load and Speed

CODE	Rated Load		Self Locking N (PUSH)	Typical Current at Rated Load (A)	Typical Speed	
	PUSH N	Dynamic Bending Moment (NM)			No Load (24V DC) mm/s	Rated Load (24V DC) mm/s
Motor Speed (2200RPM)						
B	4000	1000	4000	5.5	10.9	7.6
C	2000	250	2000	3.5	16.5	13.0
D	1000	250	1000	3.1	29.3	24.0
Motor Speed (2800RPM)						
E	4000	1000	4000	7.2	13.9	11.0
F	2000	250	2000	5.3	27.8	23.5

Note

- 1 The figures are the speed and current information under pushing condition.
- 2 Speed would be the same if with 12V motor, but with double current consumption.

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