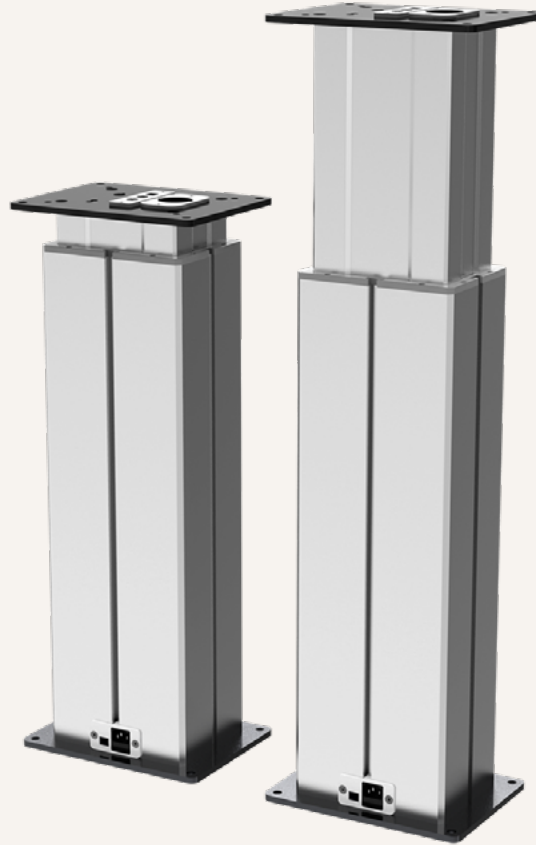


TL18AC

series



Product Segments

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

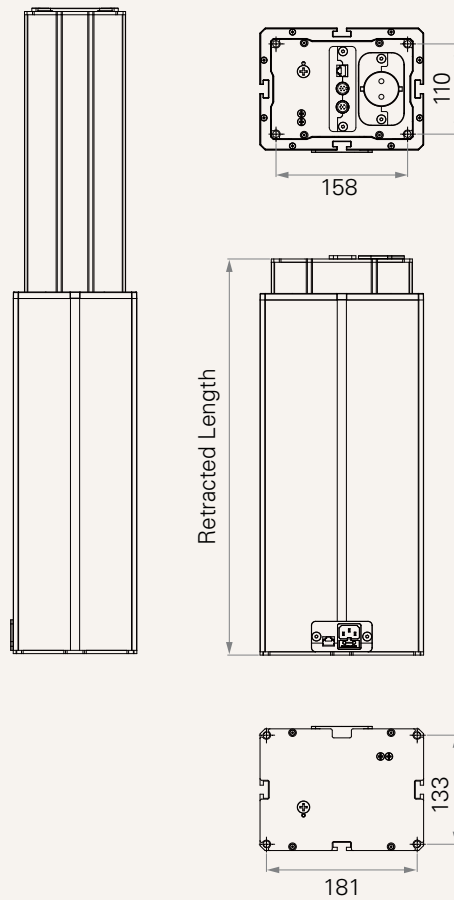
TiMOTION's TL18AC electric lifting column is designed for industrial and medical applications such as height adjustable workstations, screen and lifting tables. The TL18AC features an extruded aluminum rectangular appearance. It is equipped with AC plug to connect the computers, TV or other device directly.

General Features

Max. load & self – locking force	4,500N (push)
Max. dynamic bending moment	250Nm
Max. static bending moment	500Nm
Max. speed at max. load	6.6mm/s
Max. speed at no load	45mm/s
Retracted length	≥ Stroke + 183mm
Dimension of outer tube	2-stage, 196.4*148.4mm rectangular
Stroke	200~700mm
Options	AC cable exit from top end, top side; Ethernet socket
Operational temperature range	+5°C~+45°C

Drawing

Standard Dimensions
(mm)



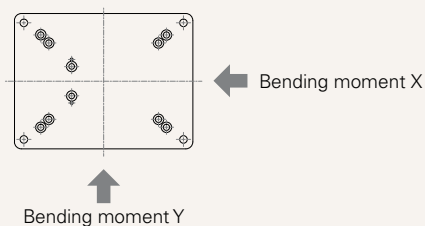
Load and Speed

CODE	Push (N)	Bending Moment (Nm)		Self Locking Force (N)	Typical Current (A)		Typical Speed (mm/s)	
		Dynamic	Static		No Load 32V DC	With Load 24V DC	No Load 32V DC	With Load 24V DC
Motor Speed (3800RPM)								
U	4500	250	500	4500	2.5	4.9	11.4	6.6
Z	3000	250	500	3000	2.5	5.5	17.1	9.5
W	2000	250	500	2000	2.5	4.8	22.9	13.1
S	1500	250	500	1500	2.5	4.7	30.0	18.9
V	500	250	500	500	2.5	4.0	45.0	28.0

Note

- Parameters above are from tested average, please refer to approval drawing for final value.
- With a 12V motor, the current is approximately twice the current measured in 24V; speed will be similar for both voltages.
- Direction of bending moment:

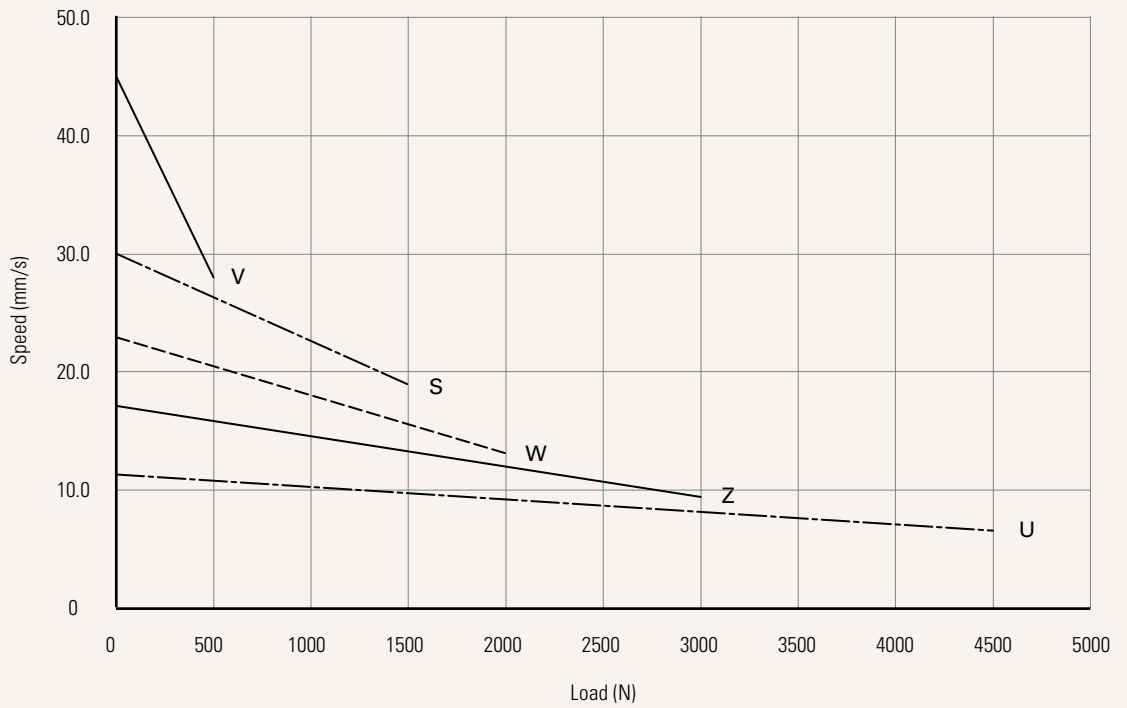
Direction	Value
X	As table
Y	= X*0.8



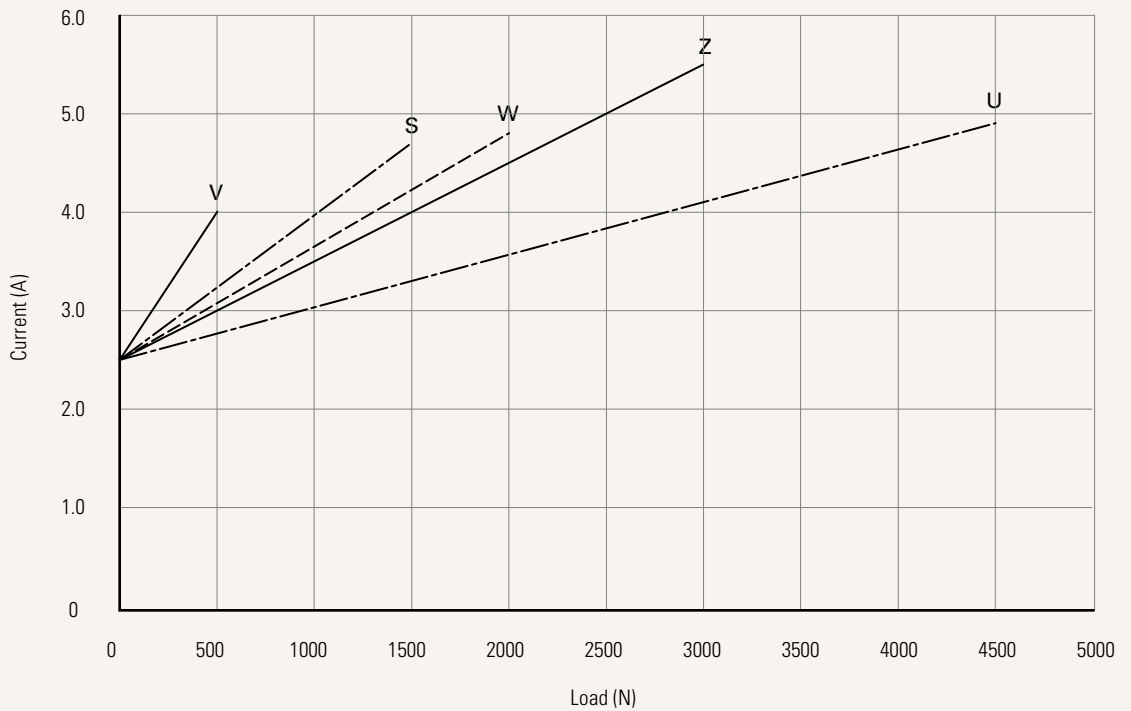
Performance Data (24V DC Motor)

Motor Speed (3800RPM)

Speed vs. Load



Current vs. Load



Note

1 The performance data in the curve charts shows theoretical value.

Voltage	U = 100-240VAC, SMPS			
Load and Speed	See page 2			
Stroke (mm)	200-700			
Retracted Length (mm)	See page 5			
Special Functions for Spindle Sub-Assembly	0 = Without (standard)	1 = Safety nut		
Color	1 = Black	2 = Matte silver		
Tubes & Sockets Position	See page 6			
Top Plate	1 = Small plate	2 = Big plate		
Bottom Plate	1 = Small plate	2 = Big plate		
AC Input Plug & Output Socket	5 = EU	6 = US	7 = AU	8 = UK
AC Cable Length (mm)	5 = Straight, 1500			
AC Output Socket	0 = Without	1 = With		
Direct Cut	K = 1 motor direct cut system		L = 1+1 motor direct cut system	
Internet Socket	0 = Without	1 = With		

Note

¹ The TL18AC is designed especially for push applications, not suitable for pull applications.

Retracted Length (mm)

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

	A. Top Plate	Bottom Plate	
		1	2
Small	1	+8	+12
Big	2	+12	+16

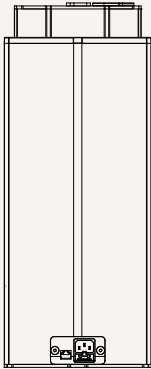
B. AC Output & Socket Position			
AC Output Socket		Top End	Top Side
		B, C	D, E
Without	0	+175	+209
With	1	+175	+229

C. Retracted Length : Minium Length Requirements

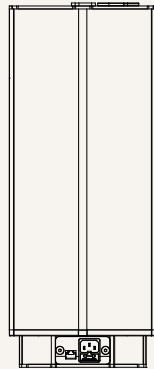
	AC output socket	Tubes & sockets position		
		B,C	D,E	D,E
Top&Bottom Plate		with, without	with	without
	Top small Bottom small	≥ 383	≥ 437	≥ 417
	Top big Bottom big	≥ 391	≥ 445	≥ 425
	Top big Bottom small or Top small Bottom big	≥ 387	≥ 441	≥ 421

Tube & Socket Position

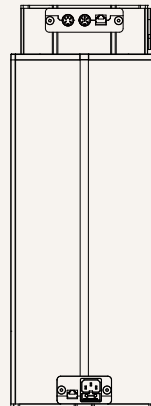
B = Tube: Thinner on top
Sockets: Top end



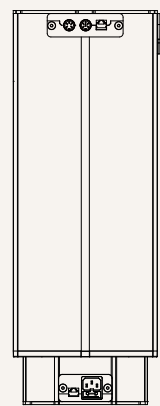
C = Tube: Thicker on top
Sockets: Top end



D = Tube: Thinner on top
Sockets: Top side



E = Tube: Thicker on top
Sockets: Top side



Direct Cut

K = 1 Motor direct cut. Control socket -
Without motor socket. Top end or
top side - AC output & control
socket



L = 1+1 motor direct cut. Control
socket - With motor socket. Top
end or top side - AC output &
control socket



Ethernet Socket

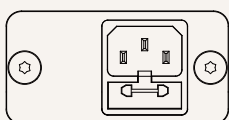
0 = Without Ethernet socket
Top end or top side- AC output &
control socket



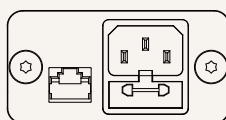
1 = With Ethernet socket
Top end or top side- AC output &
control socket



Bottom side - AC input



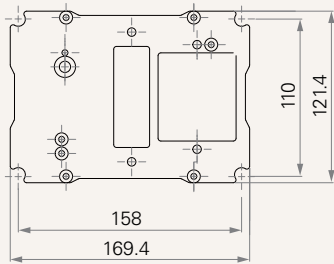
Bottom side - AC input



Top Plate

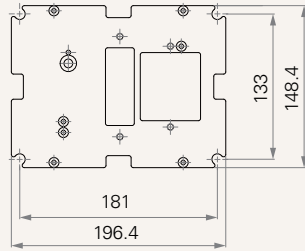
Tubes & socket position B

1 = Small plate



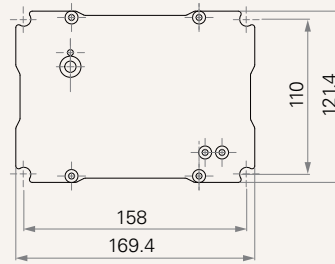
Tubes & socket position C

1 = Small plate



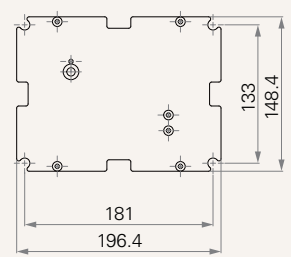
Tubes & socket position D

1 = Small plate

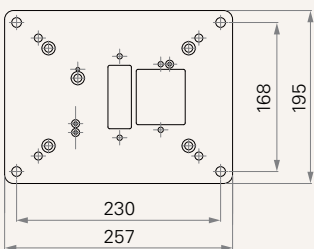


Tubes & socket position E

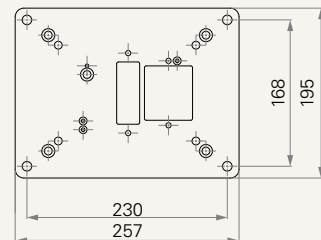
1 = Small plate



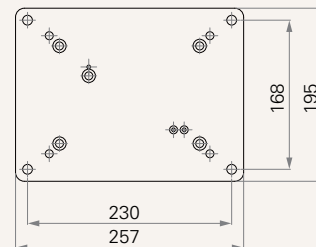
2 = Big plate



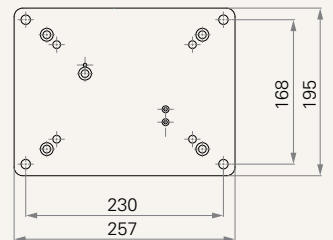
2 = Big plate



2 = Big plate



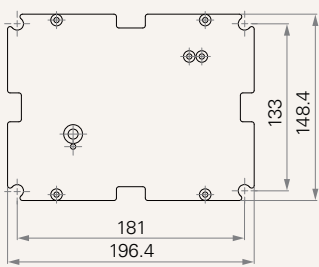
2 = Big plate



Bottom Plate

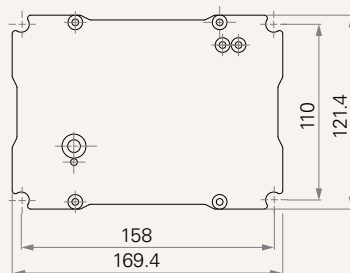
Tubes & socket position B

1 = Small plate



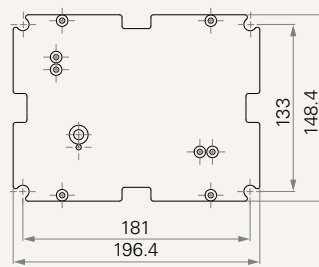
Tubes & socket position C

1 = Small plate



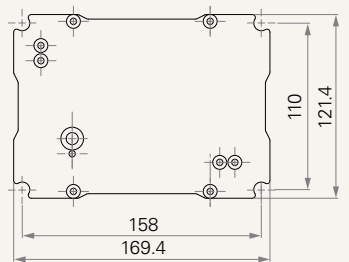
Tubes & socket position D

1 = Small plate

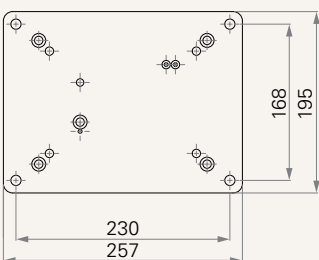


Tubes & socket position E

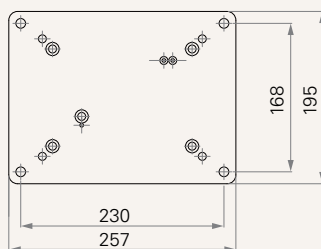
1 = Small plate



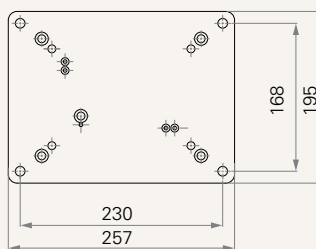
2 = Big plate



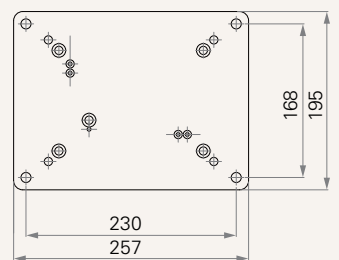
2 = Big plate



2 = Big plate



2 = Big plate



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.