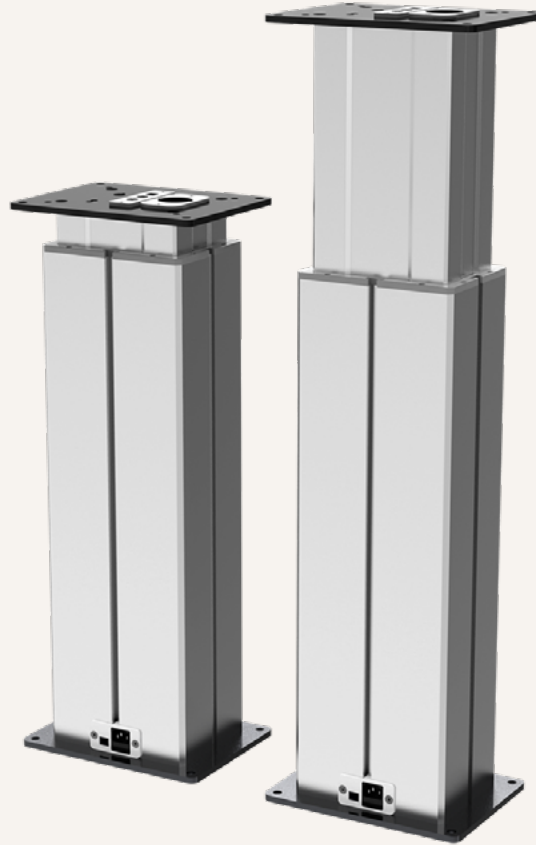


# TL18AC

series



## Product Segments

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

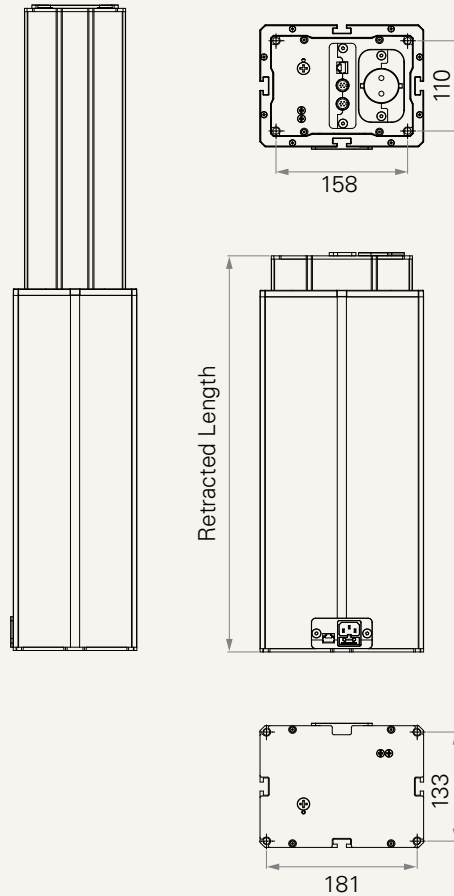
TiMOTION's TL18AC electric lifting column is designed for industrial and medical applications such as height adjustable workstations, screen and lifting tables. The TL18AC features an extruded aluminum rectangular appearance. It is equipped with AC plug to connect the computers, TV or other device directly.

### General Features

Maximum load & self- locking force	4,500N in push
Maximum dynamic bending moment	250Nm
Maximum static bending moment	500Nm
Maximum speed at full load	28mm/s (with 500N in a push condition)
Minimum installation dimension	Stroke+183mm
Stroke	200~700mm
Operational temperature range	+5°C~+45°C
Options	AC cable exit from top end, top side; Ethernet socket

**Drawing**

Standard Dimensions  
(mm)



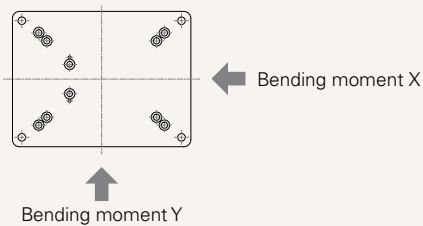
**Load and Speed**

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
<b>Motor Speed (3800RPM)</b>								
<b>U</b>	4500	250	500	4500	2.5	4.9	11.4	6.6
<b>Z</b>	3000	250	500	3000	2.5	5.5	17.1	9.5
<b>W</b>	2000	250	500	2000	2.5	4.8	22.9	13.1
<b>S</b>	1500	250	500	1500	2.5	4.7	30.0	18.9
<b>V</b>	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:

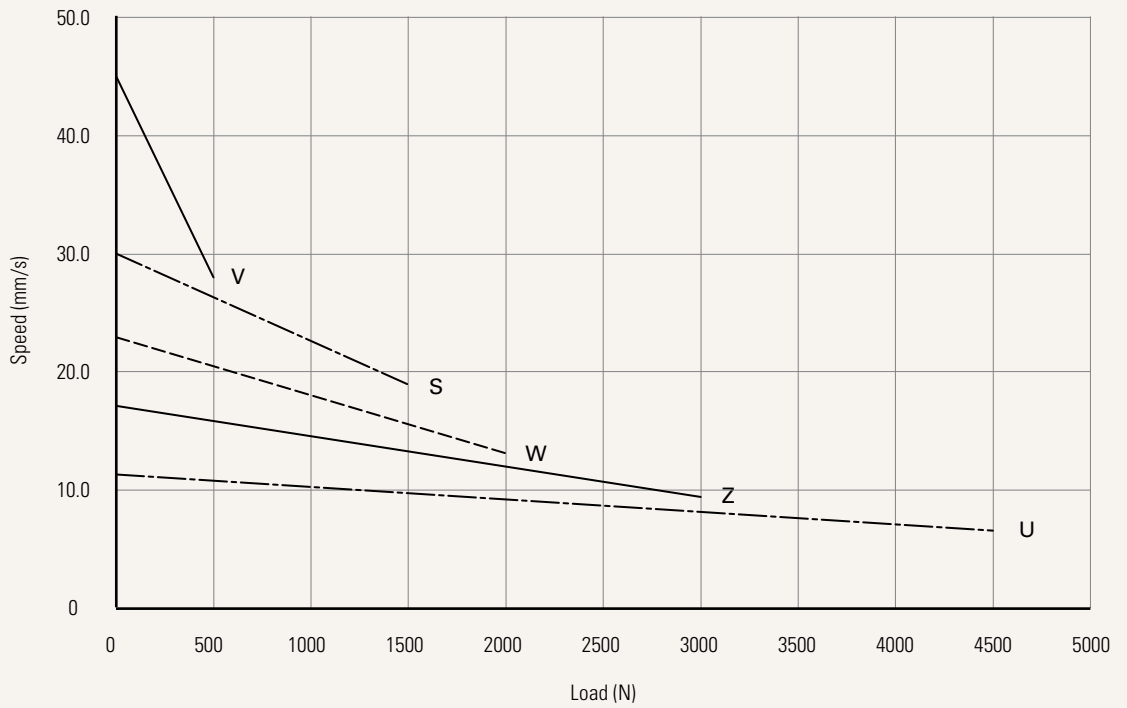
Direction	Value
<b>X</b>	As table
<b>Y</b>	= X*0.8



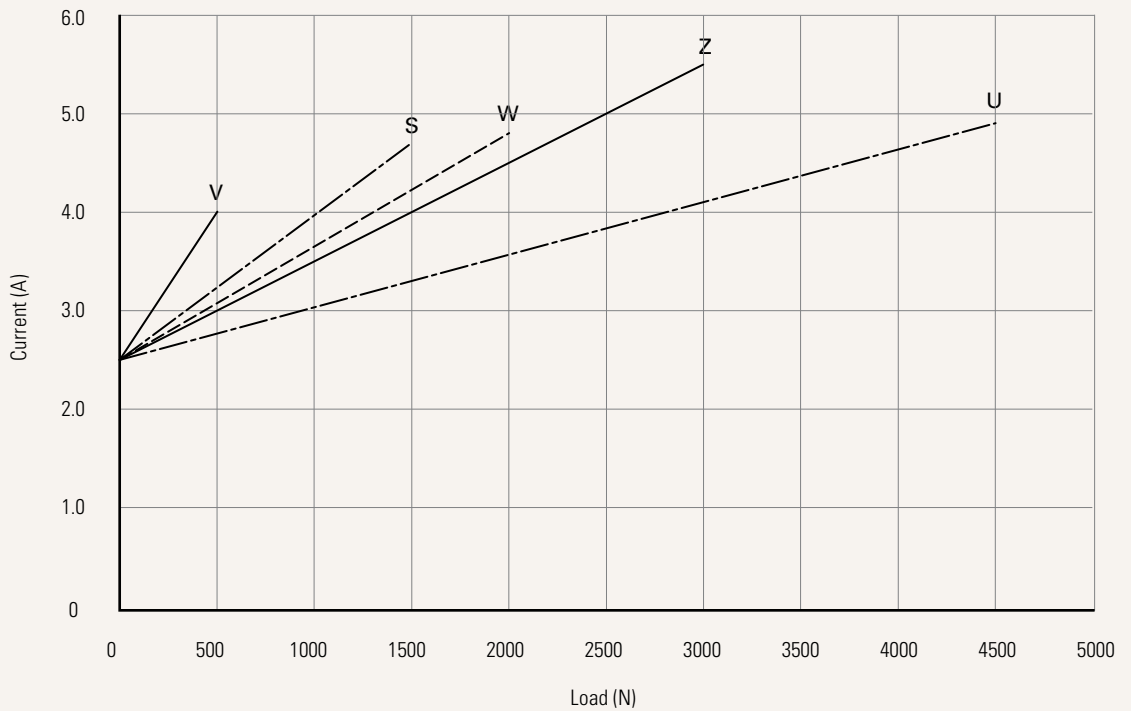
**Performance Data (24V DC Motor)**

Motor Speed (3800RPM)

Speed vs. Load



Current vs. Load



**Note**

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

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

### Note

<sup>1</sup> The TL18AC is designed especially for push applications, not suitable for pull applications.

## Retracted Length (mm)

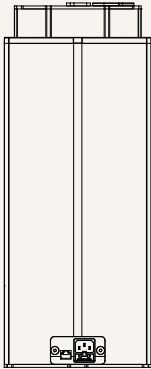
1. Calculate  $A+B = Y$
2. Retracted length needs to  $\geq$  Stroke + Y

A. Top Plate	Bottom Plate	
	1	2
<b>1</b>	+8	+12
<b>2</b>	+12	+16

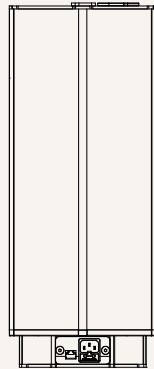
B. AC Output & Socket Position		
AC Output Socket	Top End	Top Side
		B, C
<b>0</b>	+175	+209
<b>1</b>	+175	+229

## Tube & Socket Position

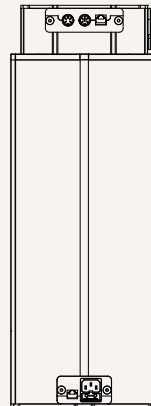
B = Tube: Thinner on top  
Sockets: Top end



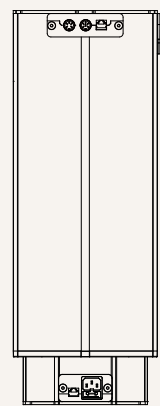
C = Tube: Thicker on top  
Sockets: Top end



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

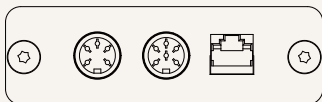


L = 1+1 motor direct cut. Control  
socket - With motor socket. Top  
end or top side - AC output &  
control socket



## Ethernet Socket

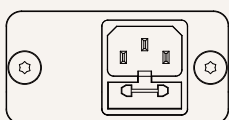
0 = Without Ethernet socket  
Top end or top side- AC output &  
control socket



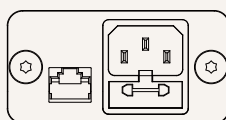
1 = With Ethernet socket  
Top end or top side- AC output &  
control socket



Bottom side - AC input



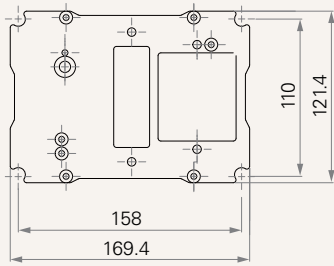
Bottom side - AC input



## Top Plate

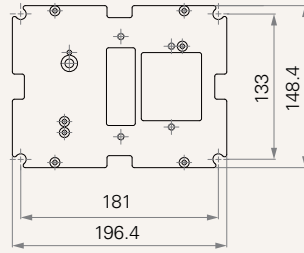
Tubes & socket position B

1 = Small plate



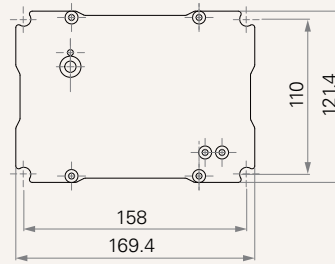
Tubes & socket position C

1 = Small plate



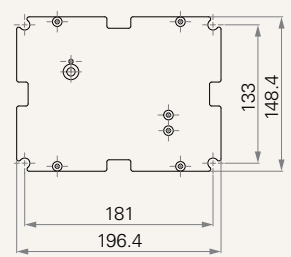
Tubes & socket position D

1 = Small plate

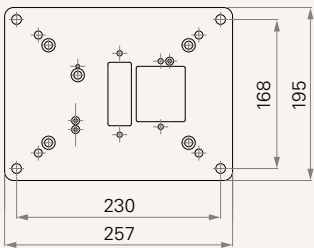


Tubes & socket position E

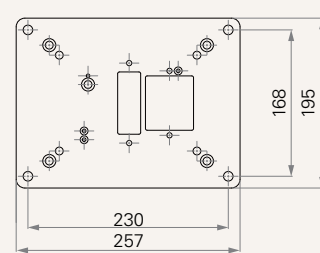
1 = Small plate



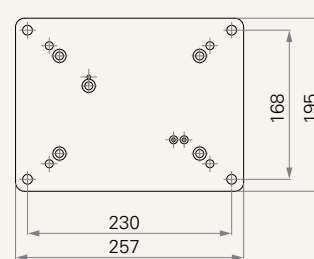
2 = Big plate



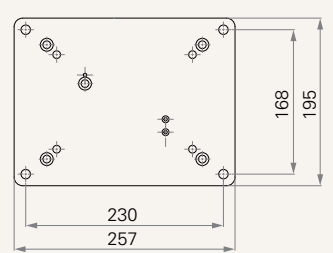
2 = Big plate



2 = Big plate



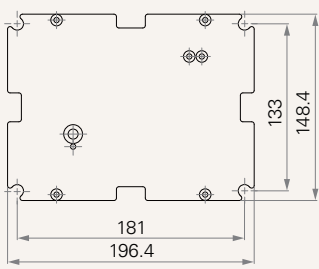
2 = Big plate



## Bottom Plate

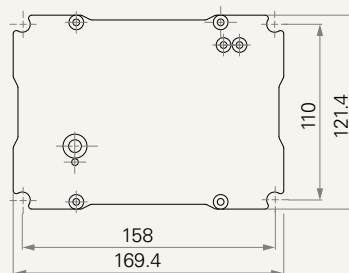
Tubes & socket position B

1 = Small plate



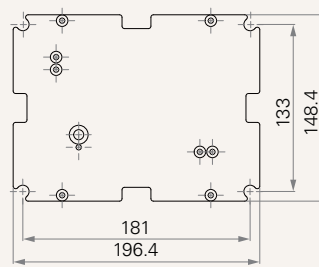
Tubes & socket position C

1 = Small plate



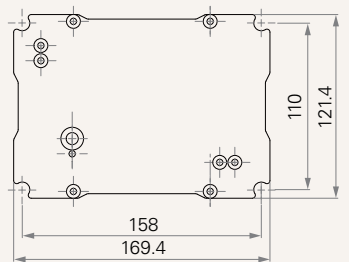
Tubes & socket position D

1 = Small plate

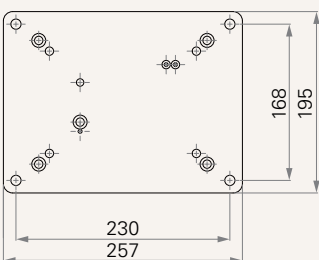


Tubes & socket position E

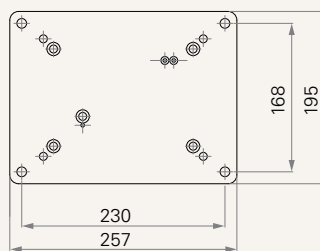
1 = Small plate



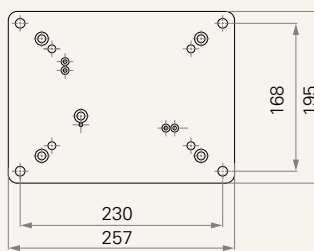
2 = Big plate



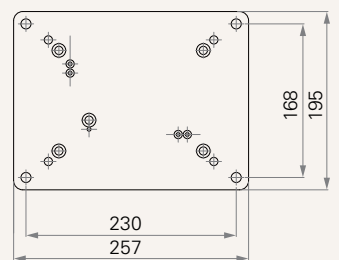
2 = Big plate



2 = Big plate



2 = Big plate



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