# TL45K

series



Product Segments

- **Ergo Motion**

The TL45K is a cost-effective lifting column engineered for ergonomic desks, work tables, and other height-adjustable systems. Designed to integrate seamlessly with TiMOTION's TC series control boxes and TH/TDH hand controls, it ensures reliable performance while supporting ultra-low standby power (<0.1W) for reduced energy consumption. What sets the TL45K apart is its newly developed soft square profile, a modern and elegant alternative to traditional column designs. This refined look gives ergonomic furniture a sleek, contemporary aesthetic – making it a smart choice where affordability meets style.

## Features

- Load and speed per column[1][2]

| Column | Code | Load (N) | Self Locking Force (N) | Current (A) with 24V DC | | Speed (mm/s) with 24V DC | |
|---|---|---|---|---|---|---|---|
| | | | | No Load | With Load | No Load | With Load |
| **TL45K-3S** | D | 600 | 600 | 2.5 | 6.0 | 38.0 | 24.0 |
| **TL45K-3R** | D | 600 | 600 | 2.5 | 6.0 | 38.0 | 24.0 |
| **TL45K-2S** | D | 600 | 600 | 2.2 | 5.0 | 32.0 | 24.0 |

- Outer profile: Overall width/length 70mm, soft square
- Stages: TL45K-3: 3-stage; TL45K-2: 2-stage
- Output signals: Hall sensor * 2
- Voltage: 24V DC
- Color[3]: RAL9005 RAL9006 RAL9016 RAL9022
- Product weight: TL45K-3: 6.56kg /column; TL45K-2: 5.1kg /column

## Note

1 The self locking force, current, and speed performance are tested with TiMOTION control boxes.

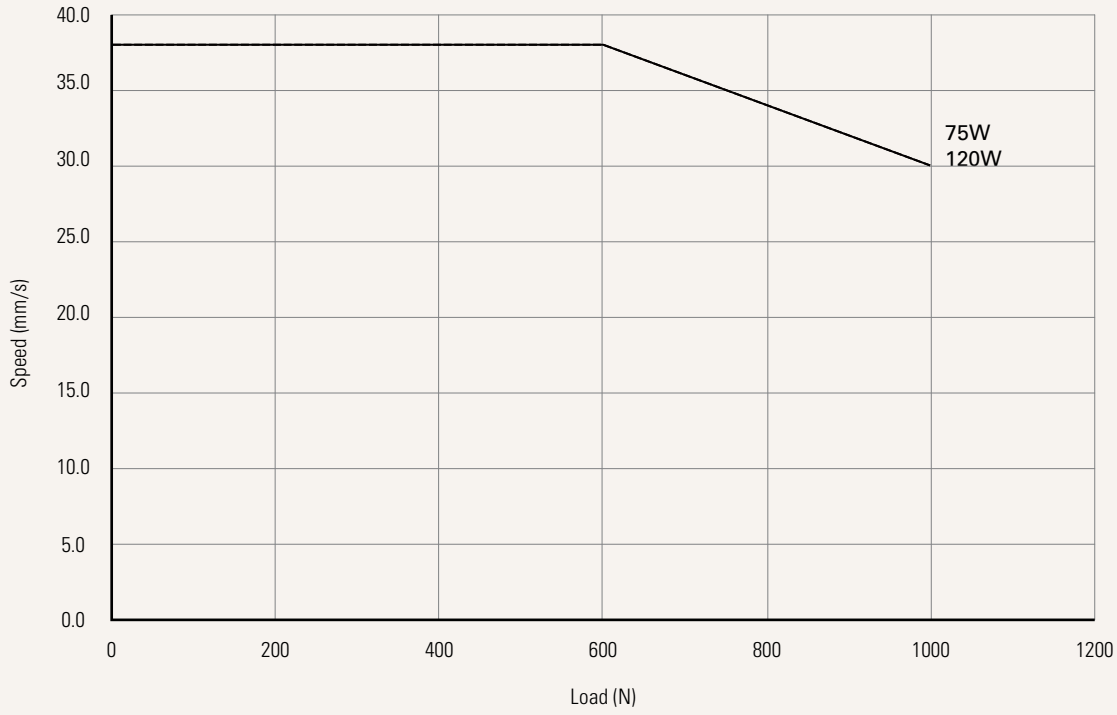
2 The parameters are based on average test values; final specifications are subject to the approval drawings.

3 For more color options, please consult your sales representative.

## Performance Data with Control Box

The following is the performance data of one column driven by an Ergo Motion control box TC15S. The load is evenly distributed on the work surface.[4]

• TL45K-3, one column driven by TC15S




| Column | TC15S Spec | Load (N) | Constant speed (mm/s) with TC15S |
|---|---|---|---|
| **TL45K-3S** | 75W | 1000 | 38 |
| **TL45K-3S** | 120W | 1000 | 38 |
| **TL45K-3R** | 75W | 1000 | 38 |
| **TL45K-3R** | 120W | 1000 | 38 |

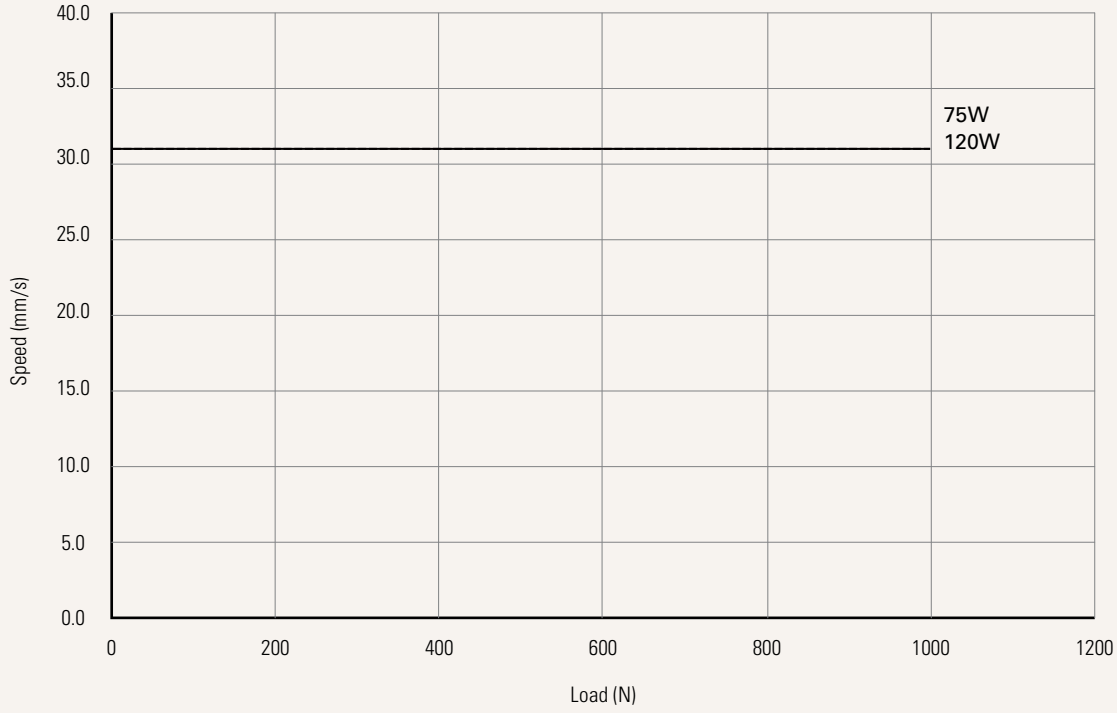
### Note

4 The corresponding control box software is required.

## Performance Data with Control Box

The following is the performance data of one column driven by an Ergo Motion control box TC15S. The load is evenly distributed on the work surface.[4]

• TL45K-2, one column driven by TC15S



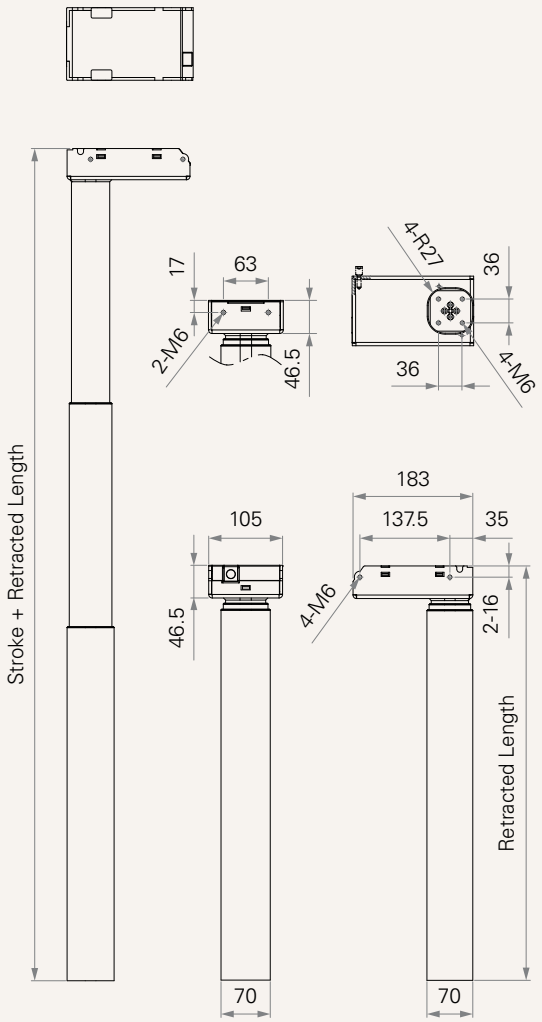

| Column | TC15S Spec | Load (N) | Constant speed (mm/s) with TC15S |
|---|---|---|---|
| **TL45K-2S** | 75W | 1000 | 31 |
| **TL45K-2S** | 120W | 1000 | 31 |

### Note

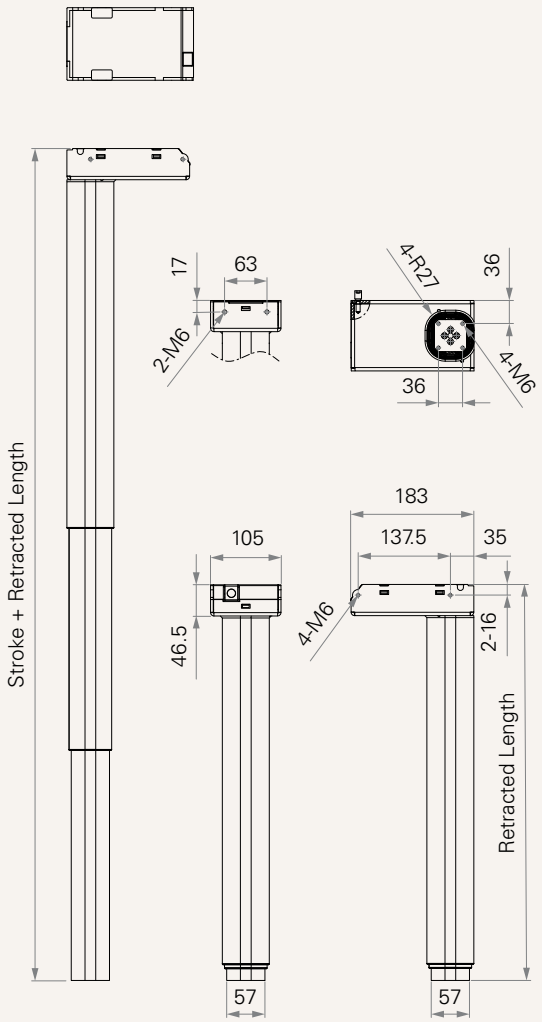
4 The corresponding control box software is required.

## Drawing

Standard Dimensions
(mm)




TL45K-3S




TL45K-3R

**TL45K-3S / TL45K-3R**

**Stroke & Retracted Length**

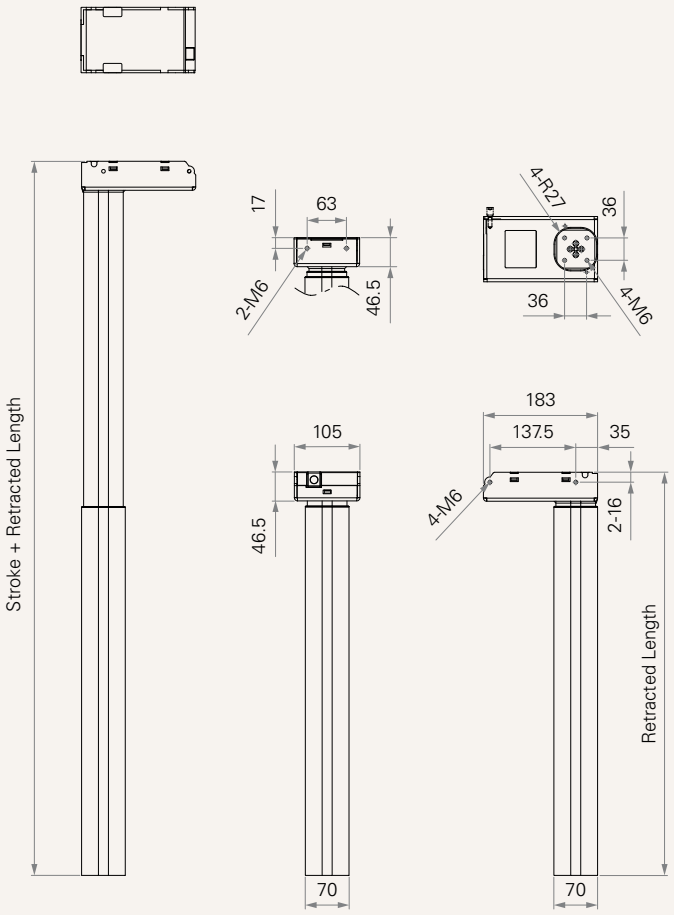
| | Options | Stroke (mm) | Retracted Length (mm) |
|---|---|---|---|
| **Standard Outer Tube** | Standard | 650 | 590 |
| | M | 660 | 560 |
| | S | 660 | 520 |
| **Extended Outer Tube** | Standard | 650 | 610 |
| | M | 660 | 580 |
| | S | 660 | 540 |

## Note

1 Only specific TEK could be with the shoes, please refer to TEK speccode.

## Drawing

Standard Dimensions
(mm)




TL45K-2S

| TL45K-2S | | | |
|---|---|---|---|
| **Stroke & Retracted Length** | | | |
| | **Options** | **Stroke (mm)** | **Retracted Length (mm)** |
| **Standard Outer Tube** | Standard | 500 | 645 |
| **Extended Outer Tube** | Standard | 500 | 645 |

### Note

1 Only specific TEK could be with the shoes, please refer to TEK speccode.

# **TL45K-3S** Ordering Key

TL45K

Version: 20260915-E

| | | | | |
|---|---|---|---|---|
| **Column Stage** | 3 = 3-stage | | | |
| **Column Direction** | S = Standard (narrow top, wide bottom) | | | |
| **Appearance of Motor House** See page 11 | C = TiMOTION standard | | | |
| **Voltage** | 2 = 24V DC | | | |
| **Load and Speed** | See page 2 | | | |
| **Stroke & Retracted Length (mm)** | 650 590 = Standard<br>* Please refer to See page 5 for others. | | | |
| **Color** | 1 = Black, RAL 9005 | 2 = White, RAL 9016 | 3 = Grey, RAL 9006 | 4 = Special grey, RAL 9022 |
| **Wiper Color** | 1 = Black | 2 = White | 3 = Grey | |
| **Bracket** See page 10 | 0 = Without | 5 = Left, triangle bracket | 6 = Right, triangle bracket | |
| **Bottom Plate Type (mm)** See page 11 | 2 = M6, 36*36, TiMOTION standard | | | |
| **Bottom Plate Height** | 1 = Standard | | 2 = Extended outer tube for shoe | |
| **Output Signals** | 2 = Hall sensor * 2 | | | |
| **Connector** | 1 = DIN 6P, 90° plug<br>E = Molex 8P, 180° plug | | F = Molex 8P, 90° plug, without anti-clip, for TC22/TC23<br>G = Molex 6P, 180° plug for TCH series | |
| **Cable Length (mm)** | 1 = Straight, 500 | 3 = Straight, 1000 | 4 = Straight, 1500 | |

## Note

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

# **TL45K-3R** Ordering Key

TL45K

Version: 20260915-E

| | | | | |
|---|---|---|---|---|
| **Column Stage** | 3 = 3-stage | | | |
| **Column Direction** | R = Reversed (wide top, narrow bottom) | | | |
| **Appearance of Motor House** See page 11 | C = TiMOTION standard | | | |
| **Voltage** | 2 = 24V DC | | | |
| **Load and Speed** | See page 2 | | | |
| **Stroke & Retracted Length (mm)** | 650 590 = Standard<br>* Please refer to See page 5 for others. | | | |
| **Color** | 1 = Black, RAL 9005 | 2 = White, RAL 9016 | 3 = Grey, RAL 9006 | 4 = Special grey, RAL 9022 |
| **Wiper Color** | 1 = Black | 2 = White | 3 = Grey | |
| **Bracket** See page 10 | 0 = Without | | | |
| **Bottom Plate Type (mm)** See page 11 | 2 = M6, 36*36, TiMOTION standard | | | |
| **Bottom Plate Height** | 1 = Standard | | 2 = Extended outer tube for shoe | |
| **Output Signals** | 2 = Hall sensor * 2 | | | |
| **Connector** | 1 = DIN 6P, 90° plug<br>E = Molex 8P, 180° plug | | F = Molex 8P, 90° plug, without anti-clip, for TC22/TC23<br>G = Molex 6P, 180° plug for TCH series | |
| **Cable Length (mm)** | 1 = Straight, 500 | 3 = Straight, 1000 | 4 = Straight, 1500 | |

## Note

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

# **TL45K-2S** Ordering Key

TL45K

Version: 20260915-E

| | | | | |
|---|---|---|---|---|
| **Column Stage** | 2 = 2-stage | | | |
| **Column Direction** | S = Standard (narrow top, wide bottom) | | | |
| **Appearance of Motor House** See page 11 | C = TiMOTION standard | | | |
| **Voltage** | 2 = 24V DC | | | |
| **Load and Speed** | See page 2 | | | |
| **Stroke & Retracted Length (mm)** | 500 645 = Standard<br>* Please refer to See page 6 for others. | | | |
| **Color** | 1 = Black, RAL 9005 | 2 = White, RAL 9016 | 3 = Grey, RAL 9006 | 4 = Special grey, RAL 9022 |
| **Wiper Color** | 1 = Black | 2 = White | 3 = Grey | |
| **Bracket** See page 10 | 0 = Without | 5 = Left, triangle bracket | 6 = Right, triangle bracket | |
| **Bottom Plate Type (mm)** See page 11 | 2 = M6, 36*36, TiMOTION standard | | | |
| **Bottom Plate Height** | 1 = Standard | | 2 = Extended outer tube for shoe | |
| **Output Signals** | 2 = Hall sensor * 2 | | | |
| **Connector** | 1 = DIN 6P, 90° plug<br>E = Molex 8P, 180° plug | | F = Molex 8P, 90° plug, without anti-clip, for TC22/TC23<br>G = Molex 6P, 180° plug for TCH series | |
| **Cable Length (mm)** | 1 = Straight, 500 | 3 = Straight, 1000 | 4 = Straight, 1500 | |

## Note

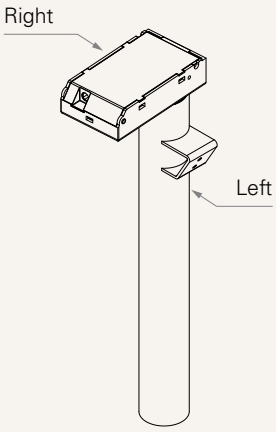
1 The TL is designed especially for push applications, not suitable for pull applications.

# **TL45K** Ordering Key Appendix

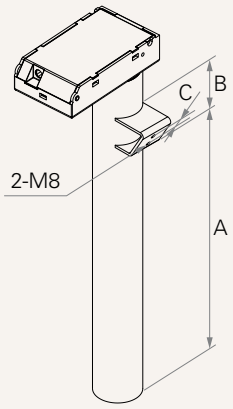
## Bracket

- Triangle bracket

Direction




Dimension




| **TL45K-3** | | | |
|---|---|---|---|
| **Standard Outer Tube** | A (mm) | B (mm) | C (mm) |
| **Standard** | 433.5 | 55 | 20 |
| **M** | 407.5 | 55 | 20 |
| **S** | 367.5 | 55 | 20 |

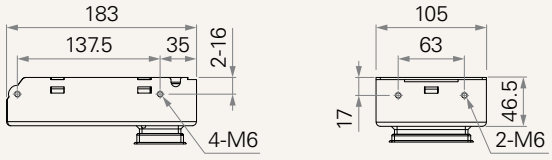
| **TL45K-3** | | | |
|---|---|---|---|
| **Extended Outer Tube** | A (mm) | B (mm) | C (mm) |
| **Standard** | 453.5 | 55 | 20 |
| **M** | 427.5 | 55 | 20 |
| **S** | 387.5 | 55 | 20 |

| **TL45K-2** | | | |
|---|---|---|---|
| **Standard Outer Tube** | A (mm) | B (mm) | C (mm) |
| **Standard** | 433.5 | 55 | 20 |

| **TL45K-2** | | | |
|---|---|---|---|
| **Extended Outer Tube** | A (mm) | B (mm) | C (mm) |
| **Standard** | 453.5 | 55 | 20 |

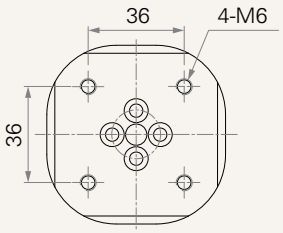
### Appearance of Motor House (mm)

C = TiMOTION standard




### Bottom Plate Type (mm)

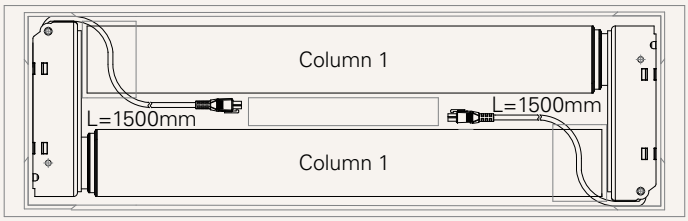
2 = M6, 36*36, TiMOTION standard



# **TL45K** Ordering Key Appendix

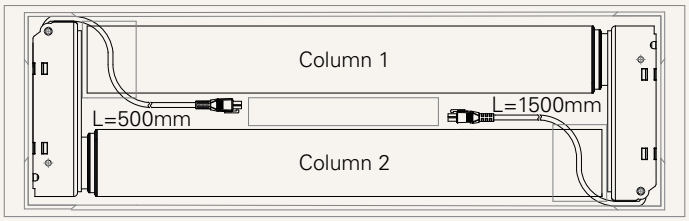
## Package

Package of one TL part number



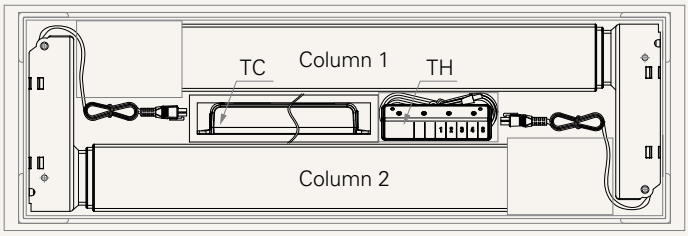

Column: 2pcs TL/box (Same PN & cable length)
Electronic control system: Without
TL45K-3S Weight with package: 16KG
TL45K-3R Weight with package: 16KG
TL45K-2S Weight with package: 14KG

Package of two TL part numbers in pairs




Column: 2pcs TL/box (Different PN, cable length, for pair use)
Electronic control system: Without
TL45K-3S Weight with package: 16KG
TL45K-3R Weight with package: 16KG
TL45K-2S Weight with package: 14KG

Package of MP part number set-TL in pairs + electronic control system




Column: 2pcs TL/box (Different PN, cable length, for pair use)
Electronic control system: TC + TH
TL45K-3S Weight with package: 17KG
TL45K-3R Weight with package: 17KG
TL45K-2S Weight with package: 15KG

## 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.