

# MONARCH Home Lift

## Overall Solution



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# Brand Introduction



## Inovance

As a promoter of industrial automatic control and drive technologies in China, Inovance was founded in 2003 and headquartered in Shenzhen with a production base in Suzhou to provide products and services covering general automation, robots, new energy, rail transit, and industrial Internet.

## Monarch

Wholly owned by Shenzhen Inovance Technology Co., Ltd., Suzhou MONARCH Control Technology Co., Ltd. was established in December 2003 to leverage Inovance's leading AC drive technologies and a team of professional talents to offer the elevator industry with a great variety of control and drive products. As at the end of April 2018, more than 1.5 million MONARCH integrated controllers had been put into service. In China, 1/4 of the elevators use MONARCH's control system.

# Overall Solution



- ① HONOR series integrated control cabinet
- ② Customized elevator traction machine
- ③ Integrated car top box
- ④ Car operating pane/Touchscreen
- ⑤ Hall call box

# Control Cabinet

## Honor Control Cabinet

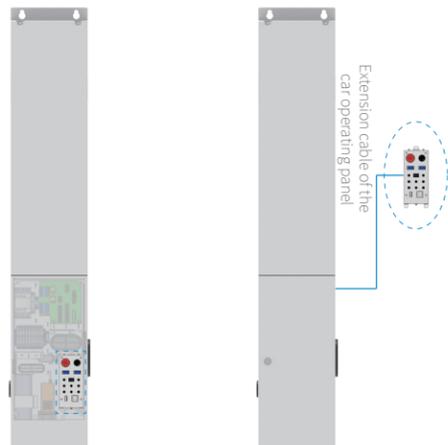
### Product Features

- 01 OPTION** **Exquisite**  
 Slim design, integrated for two purposes, and installed in a hidden place to make the elevator look tidy
- 02 OPTION** **Quiet**  
 TUV certified and SIL3 certified contactor-free control technology to reduce the operation noise to less than 45 dB for a Quiet living environment
- 03 OPTION** **Comfortable**  
 Excellent home elevator-intended drive technology to offer the best comfort
- 04 OPTION** **Safe**  
 Multiple solutions to prevent passenger trap for a relaxed experience



### Two Installation Modes

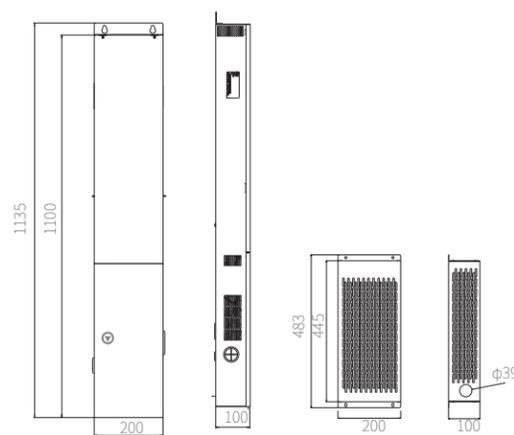
It can be installed inside or outside a shaft.



Integrated: operation box embedded

Distributed: operation box separated

### Product Dimensions



### Configuration Parameters

Control Cabinet Model	Rated Voltage	Rated Power	Rated Current	Internet of Things
NICE9000V-4013-P	AC 380 V	5.5 kw	13 A	No
NICE9000V-4013-P-I	AC 380 V	5.5 kw	13 A	Yes
NICE9000V-2016-P	AC 220 V	3.7 kw	16 A	No
NICE9000V-2016-P-I	AC 220 V	3.7 kw	16 A	Yes

Note: The length and model of the extension cable of the car operating panel are 3 meters and MCTC-KHL-0030 respectively.

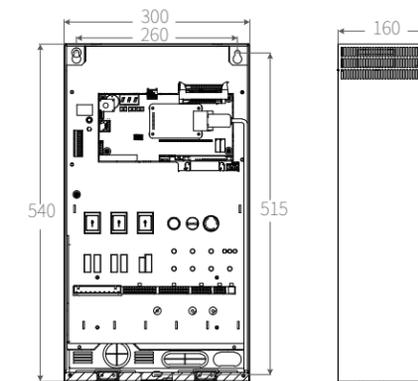
## Mini Integrated Control Cabinet

### Product Features

- A deep integration design to downsize to 30% of a traditional control cabinet; fine and slim form factor for flexible installation and fitting into various construction and interior styles.
- Free of contactors and fans to reduce the noise level to lower than 40 dB.
- High performance driving platform and innovative algorithms to ensure riding comfort at startup and running of the elevator.
- TUV-certified and Sil3-certified; 5S safety philosophy (Small, Silence, Save, Safe, and Smart) that combines smart automatic emergency evacuation, automatic emergency evacuation upon power failures, and one-key evacuation.



### Product Dimensions



### Configuration Parameters

Control Cabinet Model	Rated Voltage	Rated Power	Rated Current	Internet of Things
NICE9000-V-2010-W	AC 220 V	1.1 kw	10 A	Yes
NICE9000-V-2010-W2	AC 220 V	1.1 kw	10 A	No

# Component - Traction Machine

## Product Features

- Perfectly adaptive to an integrated machine
- Tuning-free, riding comfort without commissioning



## Product Code

IVM 400 - 200 - 3 A

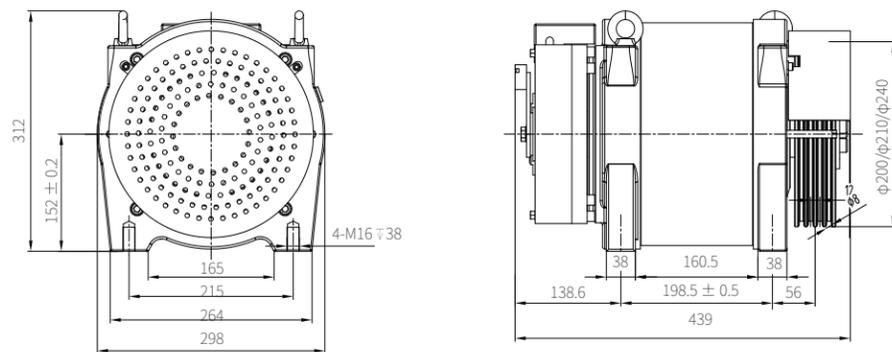
Mark	Carrying Capacity	Mark	Traction Sheave Diameter	Mark	Number of Grooves	Mark	Encoder Cable Length
320	Carrying Capacity 320 kg	200	200 mm	3	3	A	10 m
400	Carrying Capacity 400 kg	210	210 mm	4	4	B	20 m
450	Carrying Capacity 450 kg	240	240 mm				

## Configuration Parameters

Product Model	Elevator Parameter				Traction Sheave Specifications			
	Carrying Capacity (kg)	Speed (m/s)	Recommended Height (m)	Torque (Nm)	Traction Sheave Diameter (mm)	Steel Wire Rope Diameter (mm)	Number of Grooves	Groove Spacing
IVM320-200-4	320	0.40	≤ 25	105	200	8	4	12
IVM400-200-4	400			134				
IVM450-200-4	450			152				
IVM320-210-4	320			110	210			
IVM400-210-4	400			140				
IVM450-210-4	450			160				
IVM320-240-4	320			128	240			
IVM400-240-4	400			160				
IVM450-240-4	450			180				

Note: The parameters of a 3-groove traction machine are the same as those of a 4-groove traction machine if the traction machines have the same carrying capacity and traction sheave diameter.  
An AC220 traction machine and an AC380 traction machine have the same parameters.

## Product Dimensions



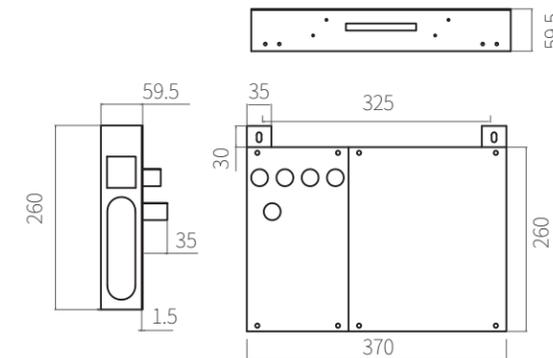
# Component - Car Top Box

## Product Features

- Model: MCTC-CTW-A9
- Compact and slim form factor to better fit home lift
- Supports both automatic doors and manual doors



## Product Dimensions



## Performance Advantages

### Compact

- Compact design with a width of as small as 60 mm to better fit into the scant car top space of a home lift.

### Multifunctional Safety Light

- Car top light strip working under a safe voltage.
- Safe independent light in working areas in the cabinet.

### Independent Control of the Car Light and Fan

- The light and fan are controlled using independent electric relays. You can use the buttons in the operating panel to start or stop the light and fan of the car, so that mechanical light and fan switches can be removed from the operating panel to make the car look nicer.

### Manual Door Functions Included in Standard Configuration

- Manual door control function.
- Intermediate relay adaptable with various manual door power devices.

# Component - Car operating panel

## COP-R/R01

### Product Features

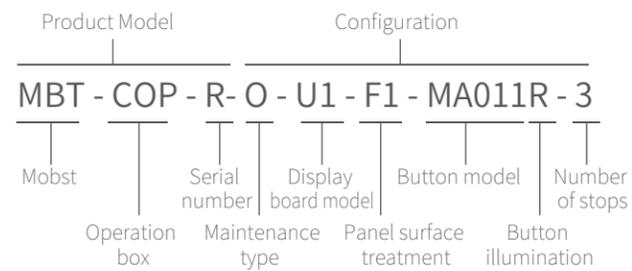
- Panel: cut stainless steel
- Hairline finish, mirror finish, titanium mirror finish, or titanium hairline finish
- Lock maintenance
- Fixed with circlip



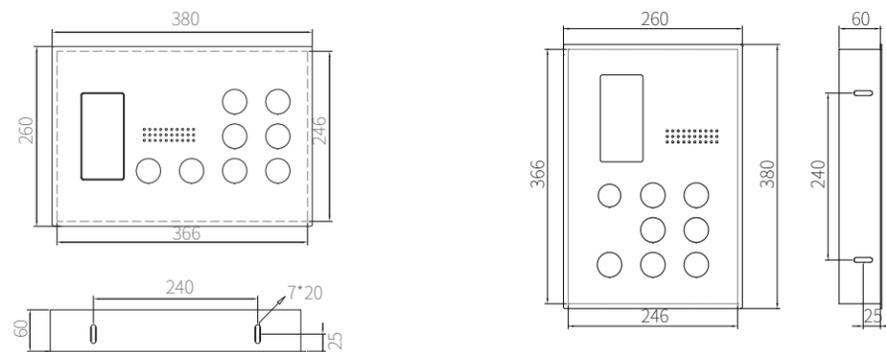
COP-R

COP-R01

### Product Code



### Product Dimensions



### Configuration Parameters

Maintenance Type	Display Module Model	Panel Surface Treatment	Button Model	Button Illumination
0: no maintenance	Dot-matrix: MCTC-HCB-H Segmented display: MCTC-HCB-D5A Segmented LCD: MCTC-HCB-U1 True color LCD: MCTC-HCB-T1	F1: hairline J1: mirror TJ1: titanium mirror TF1: titanium hairline TJ2: titanium black mirror	MA011 MA012 (with braille) MA023 MA024 (with braille)	R: red G: green O: orange B: blue Y: yellow W: white

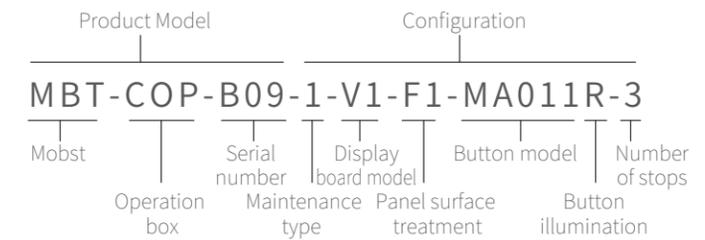
## COP-B09

### Product Features

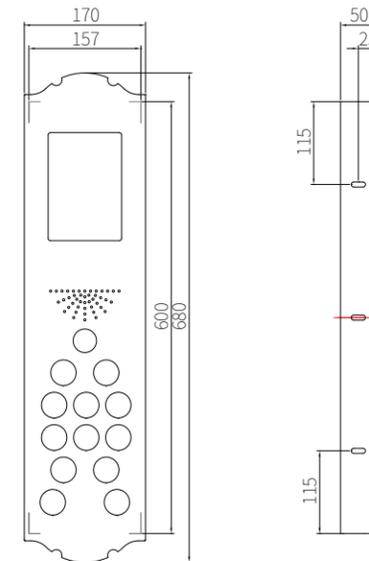
- Panel: cut stainless steel
- Hairline finish, mirror finish, titanium mirror finish, or titanium hairline finish
- Lock maintenance
- Fixed with circlip



### Product Code



### Product Dimensions



### Button Model



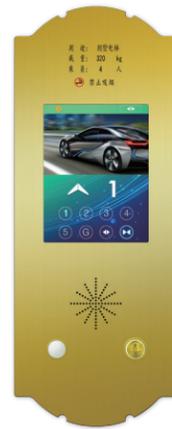
### Configuration Parameters

Maintenance	Display Module Model	Panel Surface Treatment	Button Model	Button Illumination
Lock maintenance	Dot-matrix: MCTC-HCB-H MCTC-HCB-R1/R2 Segmented LCD: MCTC-HCB-V1/V4 MCTC-HCB-U1/U2 TFT true color LCD MCTC-HCB-T2 vertical/T5 vertical	F1: hairline J1: mirror TJ1: titanium mirror TF1: titanium hairline TJ2: titanium black mirror	MA011 MA012 (with braille) MA023 MA024 (with braille)	R: red G: green O: orange B: blue Y: yellow W: white

# COP-T

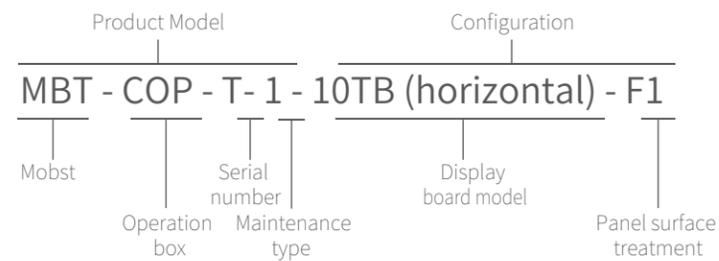
## Product Features

- Panel: cut stainless steel and fixed with circlip
- Floor selection, door, light, and fan control
- Display of family photo and customer logo
- Number of floors; landscape and portrait display mode

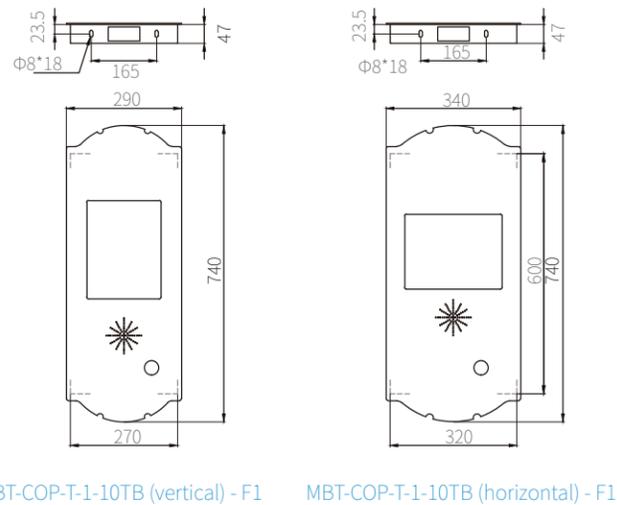


Panel thickness: 3 mm

## Product Code



## Product Dimensions



## Configuration Parameters

Maintenance Type	Display Module Model	Panel Surface Treatment
1: lock maintenance	True color LCD: MCTC-DCB-10TB	F1: hairline    TJ1: titanium mirror J1: mirror    TF1: titanium hairline TJ2: titanium black mirror

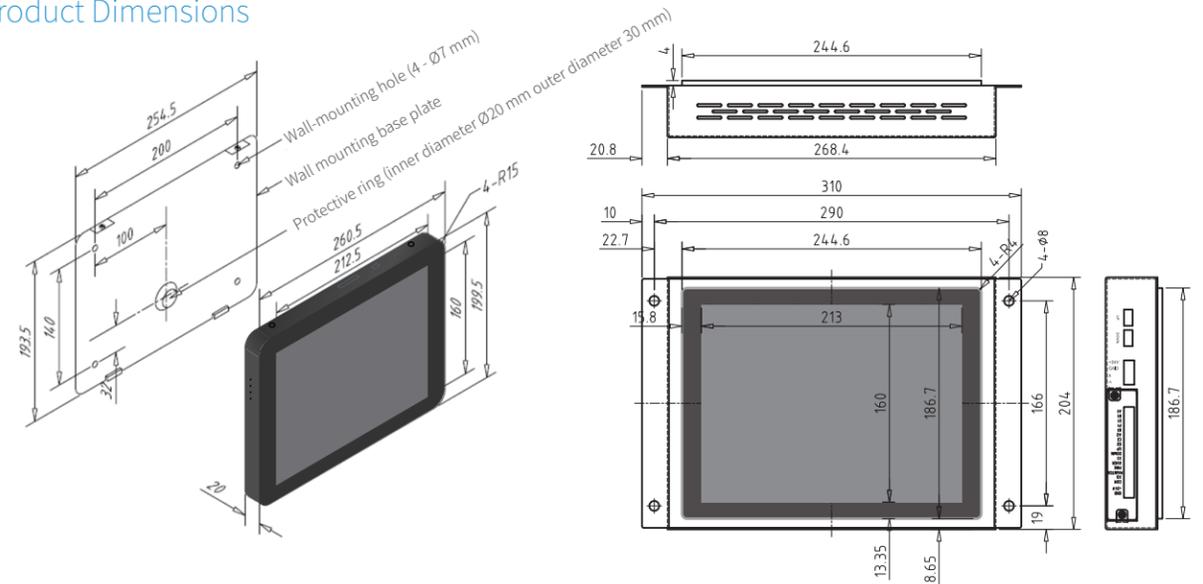
# Touchscreen

## Product Features

- Floor selection, door, light, and fan control
- Display of family photo and customer logo
- Number of floors; landscape and portrait display mode



## Product Dimensions



MCTC-DCB -10TA (externally mounted)

MCTC-DCB -10TB (embedded)

## Configuration Parameters

Model	MCTC - DCB -10TA	MCTC - DCB - 10TB
Installation mode	Externally mounted	Embedded
Valid display area (mm)	161 (W) × 214 (H) mm	160 (W) × 213 (H)
Resolution (dot)	800 (W) × 600 (H)	800 (W) × 600 (H)
Angle of view (CR > 10)	Horizontal: -70° to 70° Vertical: -70° to 40°	Horizontal: -80° to 80° Vertical: -80° to 80°
Operating temperature	Temperature: -20°C to 55°C; humidity: 10 % to 90%, non-condensing	
Brightness (cd/m <sup>2</sup> )	400	
Contrast (CR)	700:1	

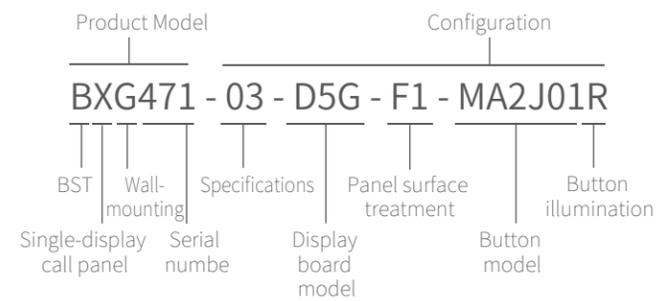
# Component - Hall Call Box

## BXG471

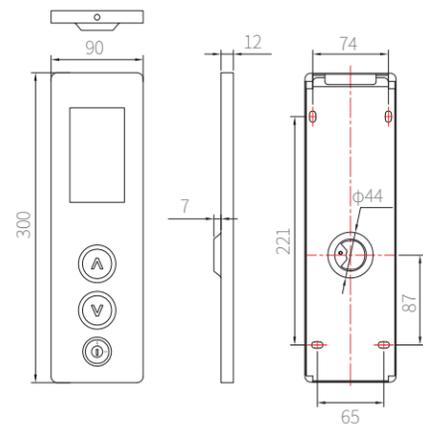
### Product Features

- Panel: stretched stainless steel
- Hairline finish or titanium hairline finish
- Fixed with cross recessed countersunk head screws

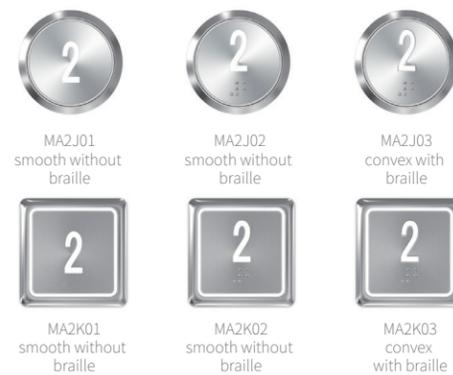
### Product Code



### Product Dimensions



### Button Model



### Configuration Parameters

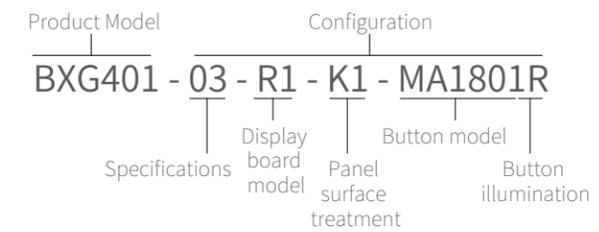
Specifications	Definition and Name	Display Module Model	Panel Surface Treatment	Button Model	Button Illumination
01	Single UP button for bottom floor (-B)	Segmented display: MCTC-HCB-D5G	F1: hairline TF1: titanium	MA2J01 MA2J02 MA2J03 MA2K01 MA2K02 MA2K03	R: red G: green O: orange B: blue Y: yellow W: white
02	Single UP button with lock for bottom floor (-BS)				
03	Double buttons for intermediate floors (-M)				
04	Double buttons with lock for intermediate floors (-MS)				
05	Single DOWN button for top floor (-T)				
06	Single DOWN button with lock for top floor (-TS)				

## BXG401

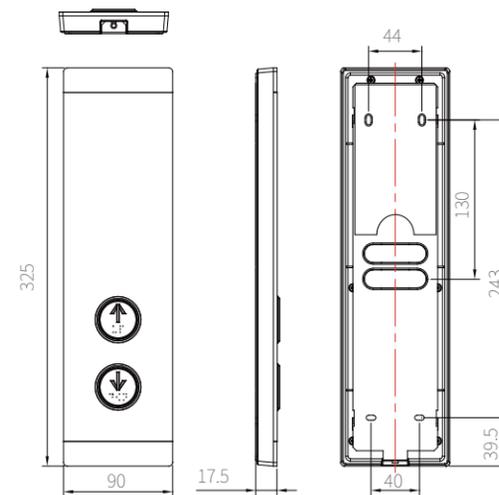
### Product Features

- Panel: stainless steel + toughened glass
- Fixed with socket cap screws

### Product Code



### Product Dimensions



### Button Model



### Configuration Parameters

Specifications	Definition and Name	Display Module Model	Panel Surface Treatment	Button Model	Button Illumination
01	Single UP button for bottom floor (-B)	Segmented display: MCTC-HCB-R1	G1: toughened glass	MA1801 MA1803	R: red G: green O: orange B: blue Y: yellow W: white
02	Single UP button with lock for bottom floor (-BS/-BSS)				
03	Double buttons for intermediate floors (-M)				
04	Double buttons with lock for intermediate floors (-MS/-MSS)				
05	Single DOWN button for top floor (-T)				
06	Single DOWN button with lock for top floor (-TS/-TSS)				



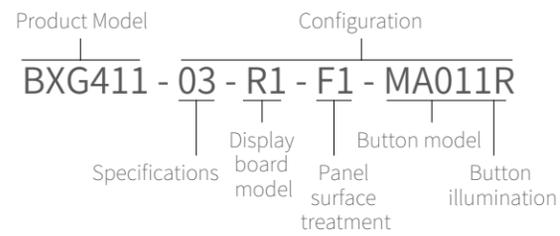
# BXG411

## Product Features

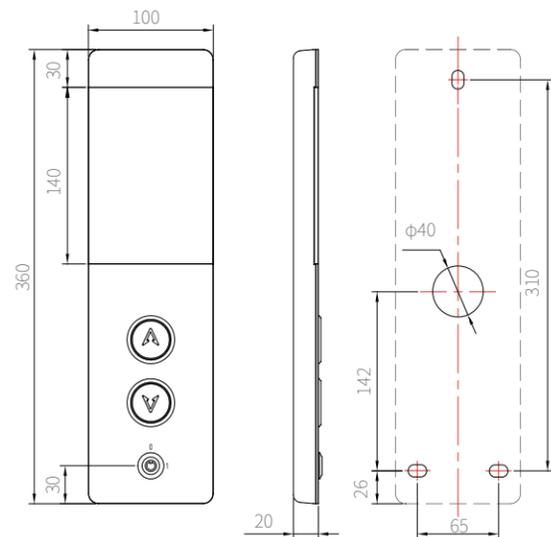
- Panel: stainless steel + toughened glass
- Fixed with socket cap screws



## Product Code



## Product Dimensions



## Button Model



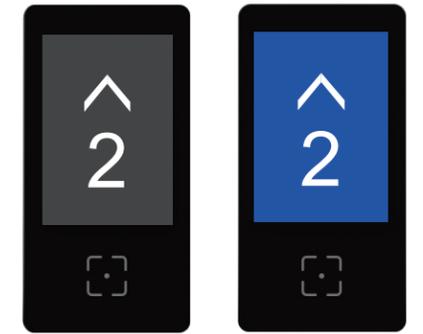
## Configuration Parameters

Specifications	Definition and Name	Display Module Model	Panel Surface Treatment	Button Model	Button Illumination
01	Single UP button for bottom floor (-B)	Dot-matrix: MCTC-HCB-R1 Segmented LCD: MCTC-HCB-U1	F1: hairline J1: mirror TJ1: titanium mirror TF1: titanium hairline	MA003 MA004 MA011 MA012 MA023 MA024 BAS241 BAS242	R: red G: green O: orange B: blue Y: yellow W: white
02	Single UP button with lock for bottom floor (-BS/-BSS)				
03	Double buttons for intermediate floors (-M)				
04	Double buttons with lock for intermediate floors (-MS/-MSS)				
05	Single DOWN button for top floor (-T)				
06	Single DOWN button with lock for top floor (-TS/-TSS)				

# MCTC-DCB-04TA

## Product Features

- Externally mounted 4.2-inch TFT display
- Touch-type elevator calling; touch button illumination
- Real-time display of elevator status, direction, and floor information
- Selection of display modes (white text against blue background or white text against black background) using a DIP switch



Rated Voltage: DC 24 V; Rated Current: 160 mA  
 Precaution: Only for markets that do not require RoHS compliance.

## Product Dimensions

