CAPE DOOR SYSTEMS

AUTOMATIC DOORS · CAPE TOWN



TECHNICAL BROCHURE

CDS-BS50

Automatic telescopic sliding door operator

2 × 150 kg
per leaf, single open

4 600 mm
max clear width, double open

BLDC
brushless 24 V, 100 W motor

Darwin Industrial Park, Unit 5
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01 PRODUCT FEATURES

Intelligent control
All parameters can be flexibly adjusted from the controller.

Self-learning start-up
Adjusts automatically to the actual door width and weight. Manual adjustment when needed.

Brushless DC motor
Less friction and a longer service life.

Smooth and quiet
Opens and closes smoothly with low noise.

Electric lock and interlock
Safe, reliable lock function with double-door interlocking. Supports a variety of access control systems.

Backup power
Can be fitted with a backup supply to keep the door open or closed when power is cut.

Stays closed
Door remains closed once fully closed.

Easy installation
Surface mounted, with a simple belt and hanger system.

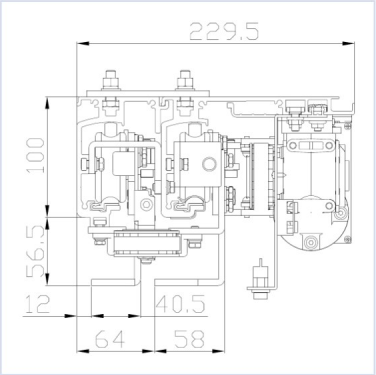


Three leaves each side, telescoping on a twin-rail track.

02 TECHNICAL PARAMETERS

Door type	Single open	Double open
Door leaf weight	Max 2 × 150 kg	Max 4 × 150 kg
Clear passing width	1 100 – 2 300 mm	2 200 – 4 600 mm
Installation mode	Surface mounting	
Power supply	AC 220 V, 50 Hz	
Opening speed	15 – 50 cm/s, adjustable	
Closing speed	15 – 50 cm/s, adjustable	
Hold-open time	1 – 20 seconds	
Motor	DC 24 V, 100 W, brushless	
Operating temperature	–20 °C to +50 °C	

03 GUIDE RAIL SECTION



229.5
Overall width, mm

100
Rail height, mm

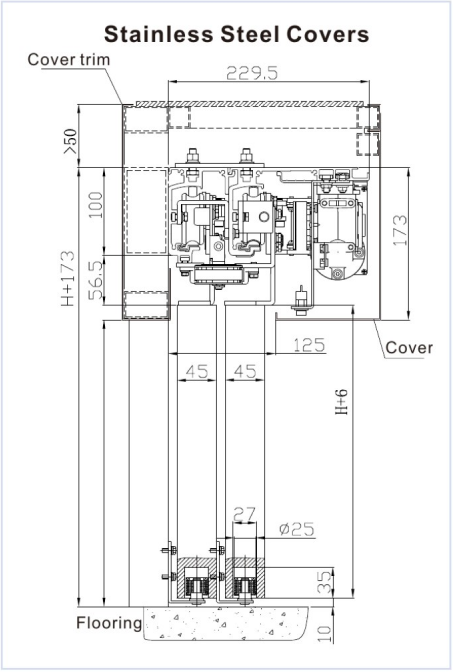
Compact twin-rail section carries the main and secondary hangers, with the motor and controller on the same profile.

04 UNIT INSTALLATION

H is the clear passing height of the door opening.

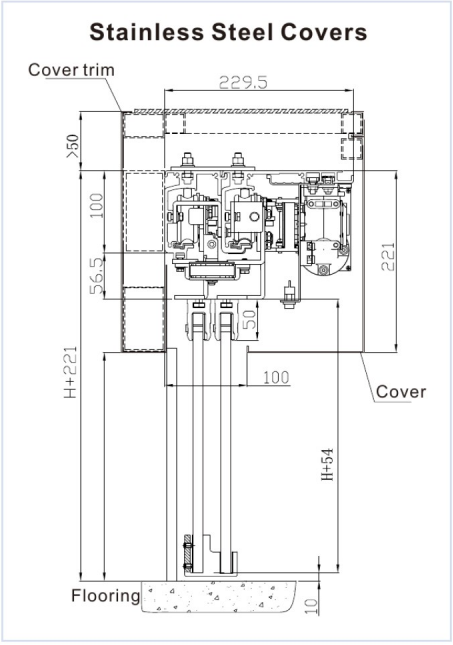
Frame door unit

Guide rail top surface at **H + 173** from the ground



Frameless door unit

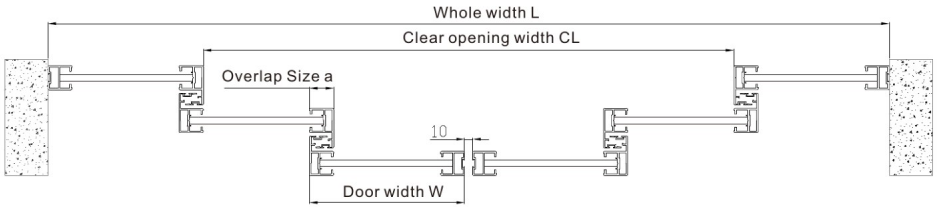
Guide rail top surface at **H + 221** from the ground



05 CALCULATING DOOR WIDTH

L = whole width · CL = clear opening width · a = overlap size · W = door leaf width, all in mm

Double doors (closed)



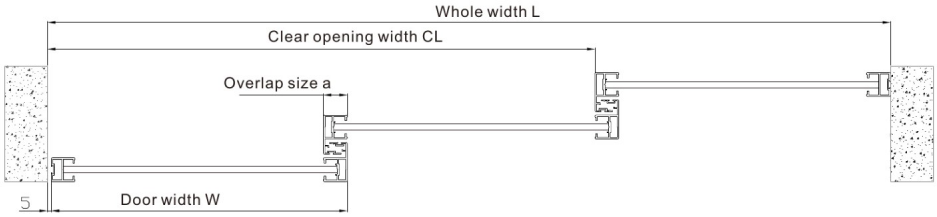
From whole width

W = (L + 4a – 10) ÷ 6

From clear opening

W = (CL + 4a – 10) ÷ 4

Single door (closed)



From whole width

W = (L + 2a – 5) ÷ 3

From clear opening

W = (CL + 2a – 5) ÷ 2

06 BELT LENGTH

Cut the belt to the length for your door width. All sizes in mm.

Single opening

Door width	Belt length
700	5300 – 5350
800	5900 – 5950
900	6500 – 6550
1000	7100 – 7150
1100	7700 – 7750
1200	8300 – 8350

Double opening

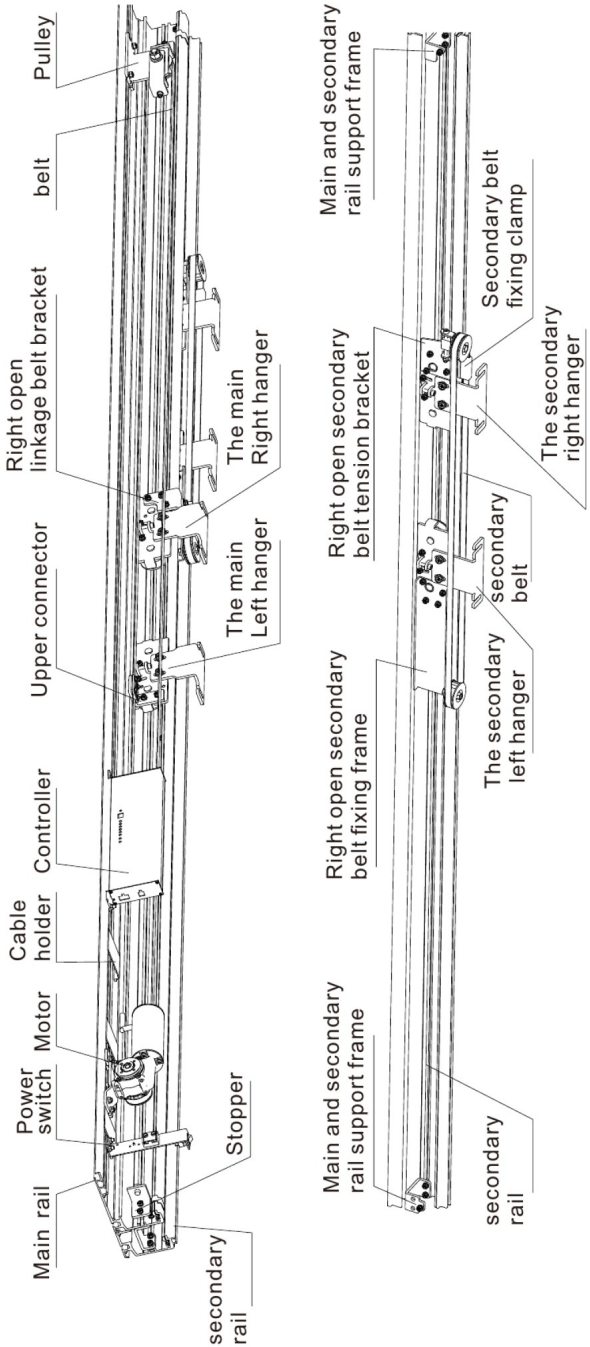
Door width	Belt length
650	9850 – 9900
700	10450 – 10500
750	11050 – 11100
800	11650 – 11700
850	12250 – 12300
900	12850 – 12900
950	13450 – 13500
1000	14050 – 14100
1050	14650 – 14700

Standard guide rail length is 4.2 m and standard belt length is 10.6 m.

07 UNIT COMPONENTS

Quantities supplied per unit.

Item	Right single open	Left single open	Double open
Motor		1	
Controller		1	
Power switch		1	
Pulley		1	
Stopper		1 set	
Main right hanger	1	1	2
Main left hanger	1	1	2
Secondary right hanger	1	1	2
Secondary left hanger	1	1	2
Secondary belt fixing clamp	1	1	2
Right open linkage belt bracket	1	–	1
Left open linkage belt bracket	–	1	1
Right open secondary belt tension bracket	1	–	1
Right open secondary belt fixing frame	1	–	1
Left open secondary belt tension bracket	–	1	1
Left open secondary belt fixing frame	–	1	1
Upper connector	1	1	1
Lower connector	–	–	1
Main and secondary rail support frame	2	2	3
Track connection plate	5	5	8
Cable holder	6	6	6
Belt	1	1	1
Standard parts and instructions	1	1	1



08
SINGLE OPENING LAYOUT

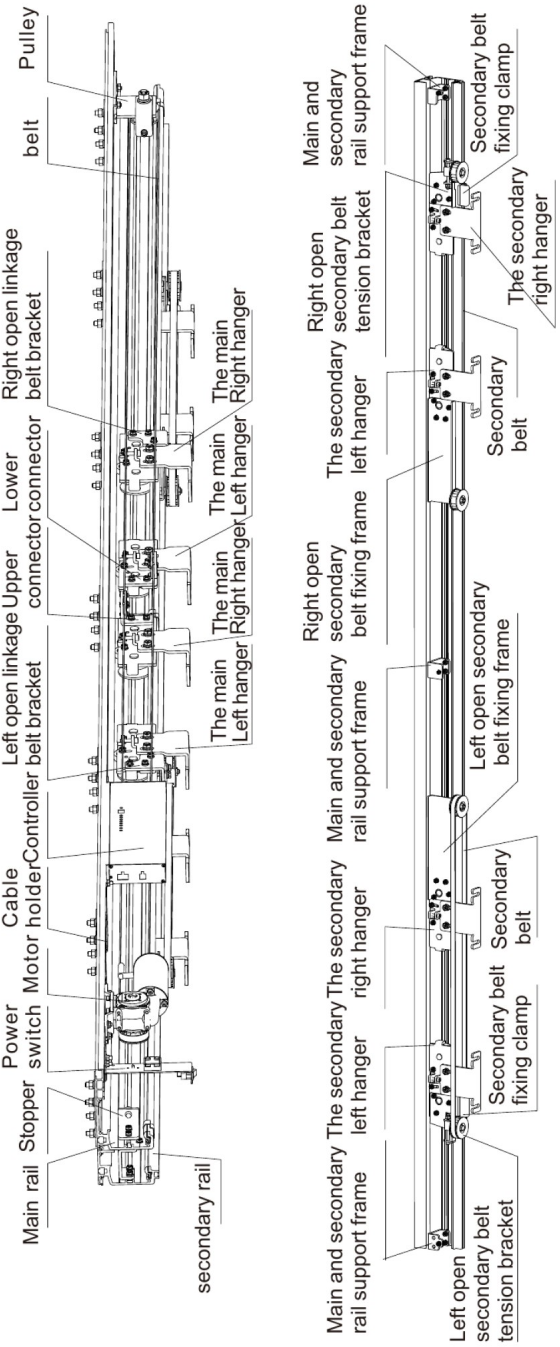
Right single opening shown. Left single opening is the mirror arrangement.

Left drawing
Main track and parts

Right drawing
Secondary guide rail and parts

Fit the secondary rail parts first and set their position against the door leaf, then the main track parts.

Turn page to read



09

DOUBLE OPENING LAYOUT

Closed position shown.

Left drawing

Main and secondary tracks and components

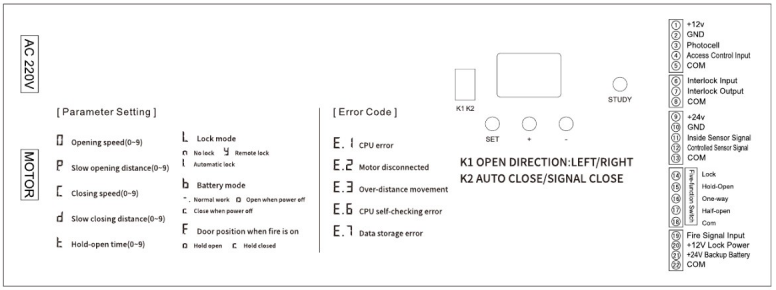
Right drawing

Secondary guide rail and parts

Fit the secondary rail parts first and set their position against the door leaf, then the main track parts.

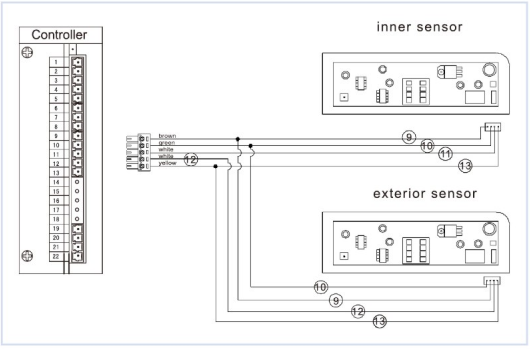
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10 CONTROLLER AND WIRING



22-way terminal block

1	+12 V	12	Exterior sensor input
2	GND	13	COM
3	Safety beam input	14	Lock
4	Access control input	15	Hold-open
5	COM	16	One-way
6	Interlock input	17	Half-open
7	Interlock output	18	COM
8	COM	19	Fire signal input
9	+24 V	20	+12 V lock power output
10	GND	21	+24 V backup power input
11	Inner sensor input	22	COM



Sensor wiring

Inner and exterior sensors connect to terminals 9 to 13. Disconnect power before any wiring.

Also supported: code card reader, two-door interlocking, safety beam, electric lock and 24 V backup power.

Electric lock: under 200 mA working, under 800 mA starting.

Card readers drawing over 2.4 W need their own external 12 V DC supply.

11 OPERATION

On power-up the door opens slowly, closes against the stopper and memorises the stroke. Each cycle then runs as follows.

Sensor action › Fast open › Brake › Slow open › **Stop, fully open**

Sensor stop › Hold-open time › Fast close › Brake › Slow close › **Stop**

12 PARAMETER SETTINGS

O	Opening speed	0 – 9
P	Slow opening distance	0 – 9
C	Closing speed	0 – 9
d	Slow closing distance	0 – 9
t	Hold-open time	0 – 9
L	Lock mode	No lock · remote lock · automatic lock
b	Battery mode	Normal · open when power off · close when power off
F	Door position when fire is on	Hold open · hold closed

K1 sets the opening direction, left or right. Push the moving leaf fully open before switching on. **K2** sets automatic closing after the hold-open time, or closing on a signal only.

13 OPERATING MODES

Function switch

Lock

Automatic

One-way

Half-open

Hold-open

When one-way is selected, the controlled sensor is shielded.

Remote control

A Lock

B Hold-open

C Half-open

D Automatic

One receiver per controller, up to ten transmitters. Pair with the STUDY button.

14 FAULT CODES

Shown on the controller display.

Code	Cause	Action
E1	CPU error	Change the controller
E2	Motor disconnected	Check the motor wire
E3	Over-distance movement	Belt is loose or motor rotates freely
E6	CPU self-checking error	Change the controller
E7	Data storage error	Change the controller

15 TROUBLESHOOTING

Symptoms and fixes

First cut the power and move the door by hand. If it does not slide freely, check the frame, hangers, floor guide and track for debris or contact before looking at the electronics.

Open and close not smooth	Check speed and slow-movement distance settings. Clear debris from the guide rail, fix the lock, refit the floor guide, remove obstacles.
Door leaf over-tight	Decrease the slow movement speed. Increase the slow movement distance.
Door does not work	Check the power switch and breaker, that the door is not locked, the track is clear and the connectors are making good contact. With interlocking, wait for the other door to close.
Door does not open fully	Check it is not in half-open mode. Increase the buffer speed.
Door does not close	Clear moving objects from the sensor area. Clean the safety beam detector and adjust its optical axis. Replace a short-circuited signal wire.
Opens and closes with no stop	Remove movable objects, strong-wave sources and fluorescent lights from the detection area. Change the anti-interference switch if detection areas overlap. Replace a poor sensor.
Door collides hard	Adjust the belt tension. Adjust the slow-down settings if there is no speed reduction when opening or closing.

CAPE DOOR SYSTEMS

GET IN TOUCH

Let's talk about your CDS-BS50 project.

Supply only, or supply and installation. Send us the details below and we will confirm the right configuration and quote.

1. **Send the opening.** Clear width and height, single or double open, frame or frameless.
2. **Tell us the leaf weight.** The CDS-BS50 carries up to 150 kg per leaf.
3. **Receive your quote.** Supply only, or supply and install by our team.

WHATSAPP AND PHONE

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WEBSITE

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VISIT

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Specifications may change without notice. Installation must be carried out by trained, competent installers in line with local electrical codes.