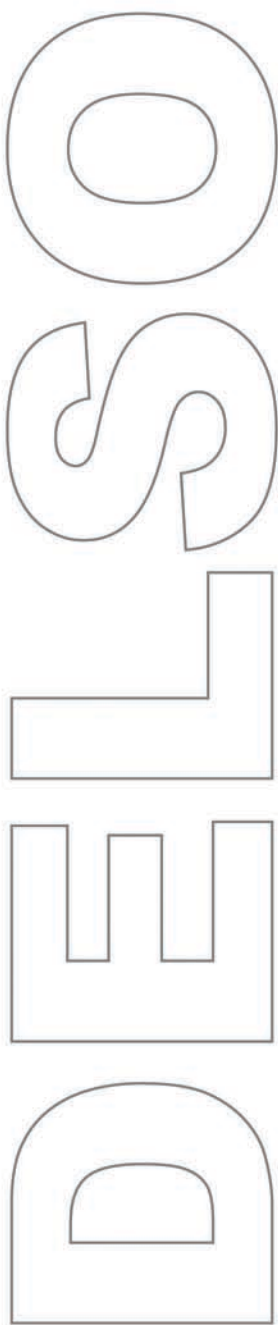


DEL|SO

MAHDIS ASANBAR CO., LTD

Escalator & Passenger Conveyor
Passenger Elevator & Residential Elevator



DEL SO

Escalator and Passenger Conveyor

Escalator

DEL F series escalators: DELC (commercial type), DELS (slim-line type), DELH (heavy-duty type) utilize the most advanced control technology and have the perfect function and reliable stabilization. They are convenient for maintenance and the graceful and easy figure can be applicable to various structure styles.



DEL^{SO}

Escalator and Passenger Conveyor

Passenger Conveyor

DELP series passenger conveyors: DELHP (horizontal type), DELPI (inclined type) and DELPC (compact type) utilize the most advanced control technology and have the perfect function and reliable stabilization. They are convenient for maintenance. Standing on them make you enjoy shopping, traveling, etc.



Part Functions

Auxiliary brake

Under the strict execution of the newest EN-115 standard, we designed and developed the new auxiliary brake which is more safe and reliable than the traditional.



Handrail enter

The novel, fashionable and innovative streamline round and smooth handrail enter and outlet design model appears more elegant, deluxe, noble and magnificent to the outer appearance of the escalator. As a result, it is richly endowed with the intelligence and popularity. It displays more of the distinguished and imposing manner of the construction.

Handrail color

Handrail Belt Colors Available



Light-brown



Red



Orange color



Black(Standard color)



Blue

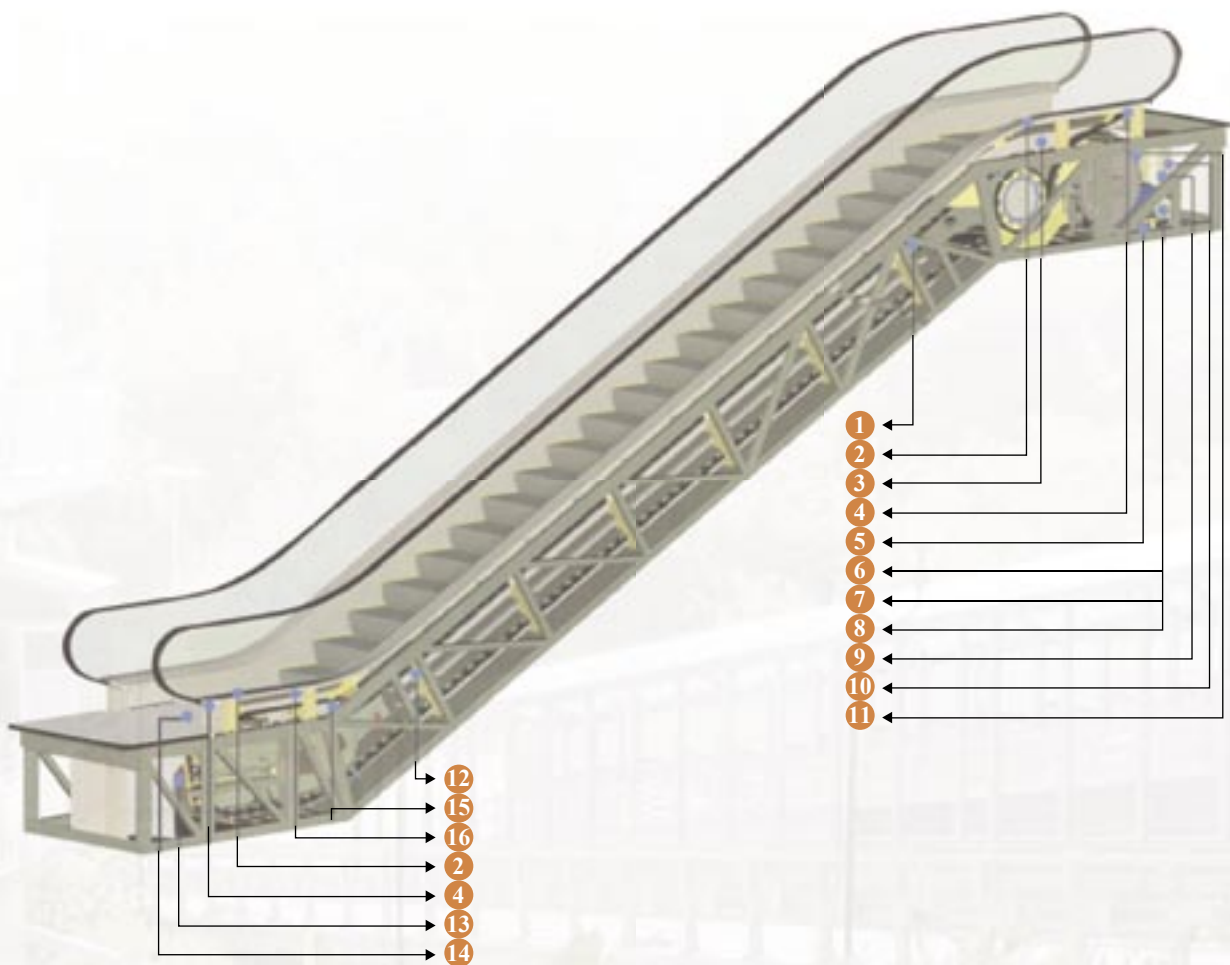


Greenish blue



Deep gray

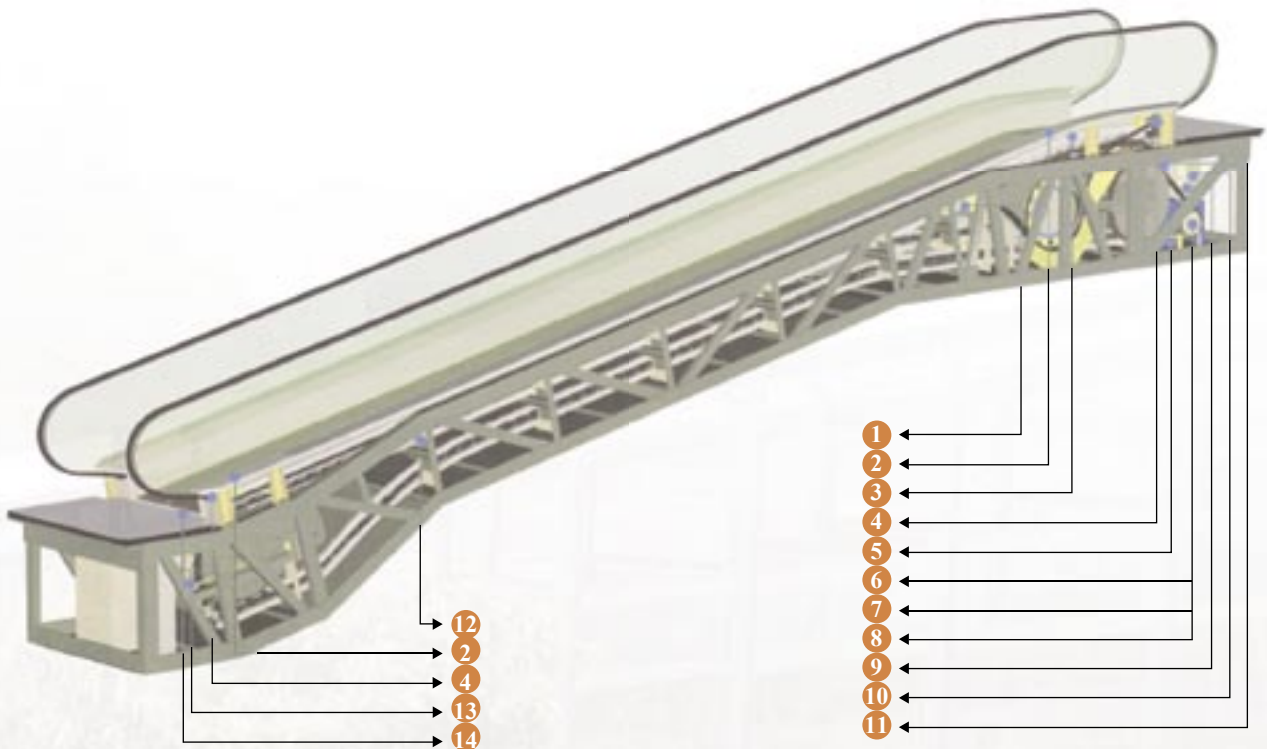
Standard and Optional Function



No.	Safety Function	Description
1	Static contact:	Eliminates static electricity created from running of the steps(pallets).
2	Emergency stop button:	Push the emergency stop button to stop the escalator/passenger conveyor rapidly.
3	Skirting contacts:	The contacts will be actuated by resultant pressure on the skirting panel and the escalator should be stopped to avoid the risk caused by the foreign bodies between the step and the skirting panel.
4	Finger protect device:	Protect against the risk of foreign bodies being jammed into handrail entry.
5	Main drive-chain contact:	Protect against the risk of drive chains breaking or elongation.
6	Over speed monitor:	Protect against the risk of the escalator being over speed.
7	Under speed monitor:	Protect against the risk of the escalator being under speed.
8	Reversal protection:	Protect against the reversal of the direction of travel.
9	Phase monitor:	Protect against the risk of phase failure.
10	Short circuit contact:	Protect against the risk of short circuit.

* Is optional function

Standard and Optional Function



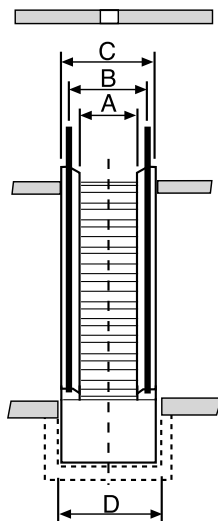
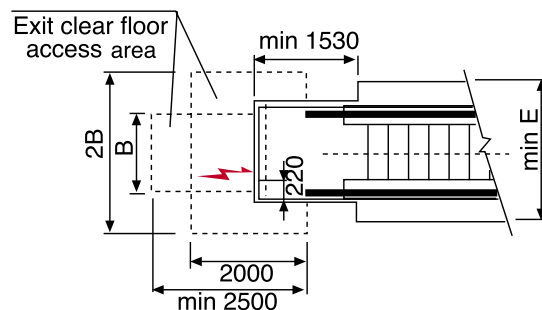
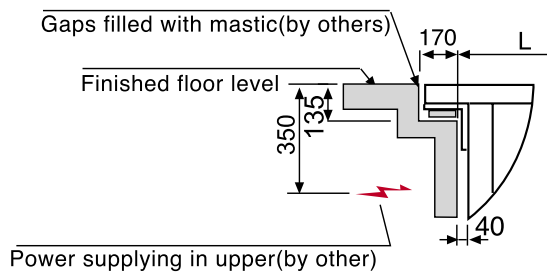
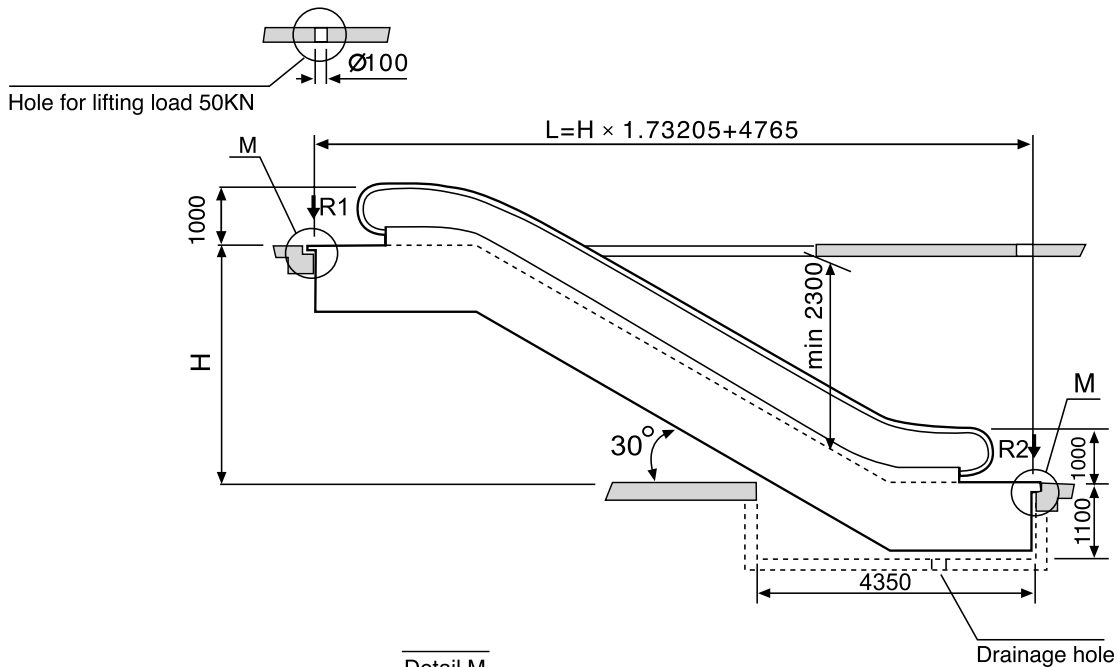
11	Motor over load and overheat contact:	Act when the motor current is over 120%, escalator will stop moving automatically.
12	Step(pallet)sagging contact:	Protect against the risk of steps breaking and sagging.
13	Broken step-chain (pallet-chain) contact:	Protect against the risk of step-chains breaking or undue elongation.
14	Comb contact:	Protect against the risk of foreign bodies being trapped at the point where the step enters the comb.
15	Step gap lighting:	To show the top and bottom of the escalator.
16	Fault display:	Can diagnose fault automatically, has the function of memory for maintenance personnel, to improve work efficiency.
17	*Fault Diagnosis:	Call up the faults memories on LCD screen of console and makes the analysis of the faults possible.
18	*BES Energy Saving System:	By sensing motor load and controlling current & voltage, it not only can save 30%-40% energy, but also provides with soft start function, to avoid the mechanical & electrical wear.
19	*Auto-start by photocell sensors:	With the use of photocell sensors and directional indicators the escalator would be switched On and Off automatically.
20	*Auto-start by contact mats:	With the use of contact mats and directional indicators, the escalator would be switched On and Off automatically.
21	*Comb Heating System:	Heating system is used to avoid comb freezing due to the low temperature.
22	*Truss Heating System:	It is used to avoid the service steps freezing due to the low temperature.
23	*Automatic Lubrication System:	The system is used to provide adequate labrication for all chains automatically.
24	*Skirting Brush:	It is used to avoid possible risk caused by the gap between steps/pellets and spirting pand.

* Is optional function

Escalator and Passenger Conveyor

DELC/S 230

[Commercial / Slimline Escalator Layout Drawing]



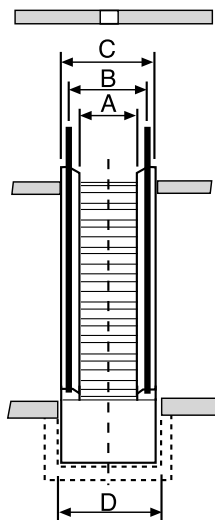
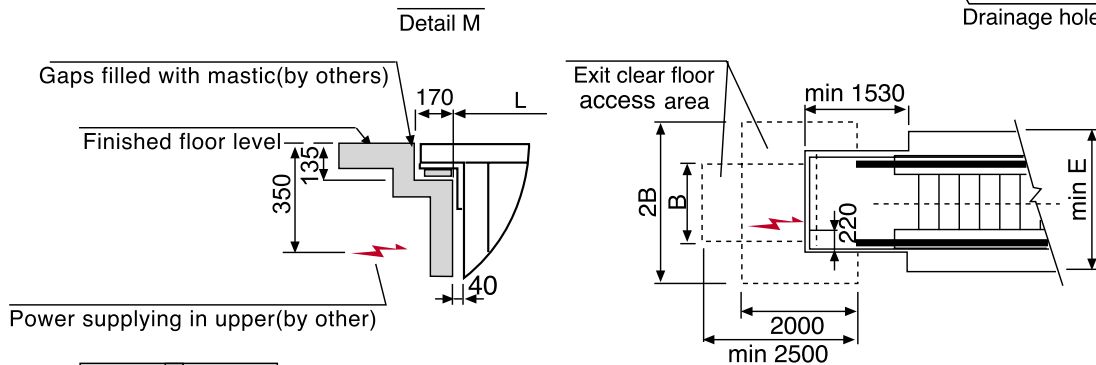
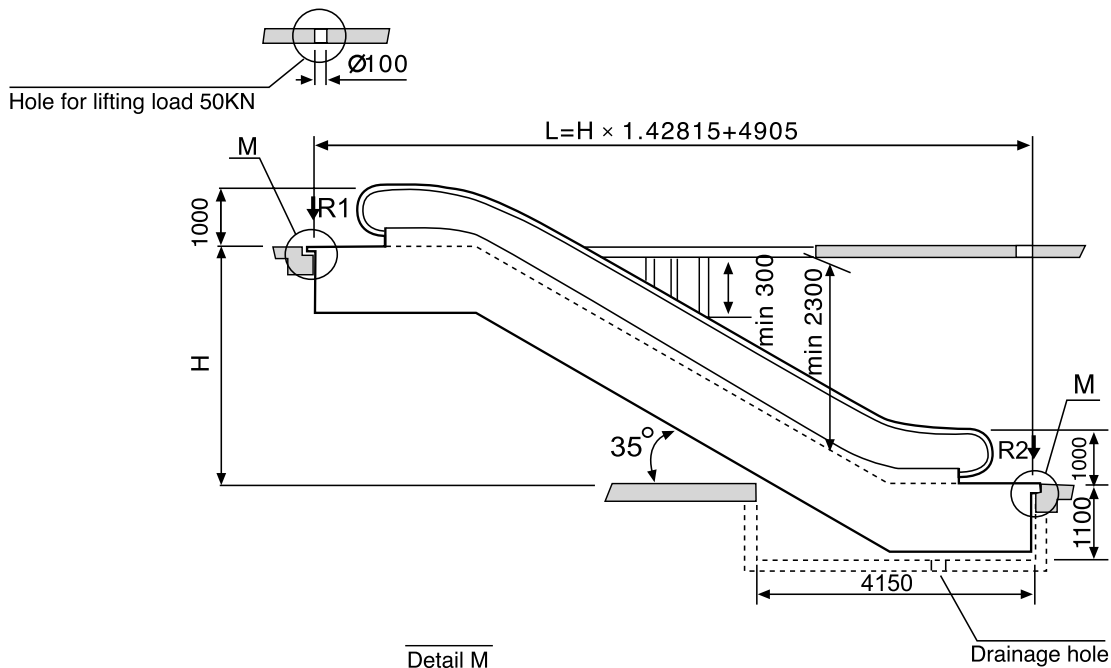
Type	A	B	C	D	E	Speed
DELC/S230-600 4500 p/h	600	910/838	1200	1260	1910	V=0.5m/s
DELC/S230-800 6750 p/h	800	1110/1038	1400	1460	2110	
DELC/S230-1000 9000 p/h	1000	1310/1238	1600	1660	2310	

- All dimensions in (mm).
- When the width of step A=600mm, the truss must be extended by 443mm.
- If add horizontal step, it must add the horizontal length correspondingly.

Escalator and Passenger Conveyor

DELC/S 235

[Commercial / Slimline Escalator Layout Drawing]



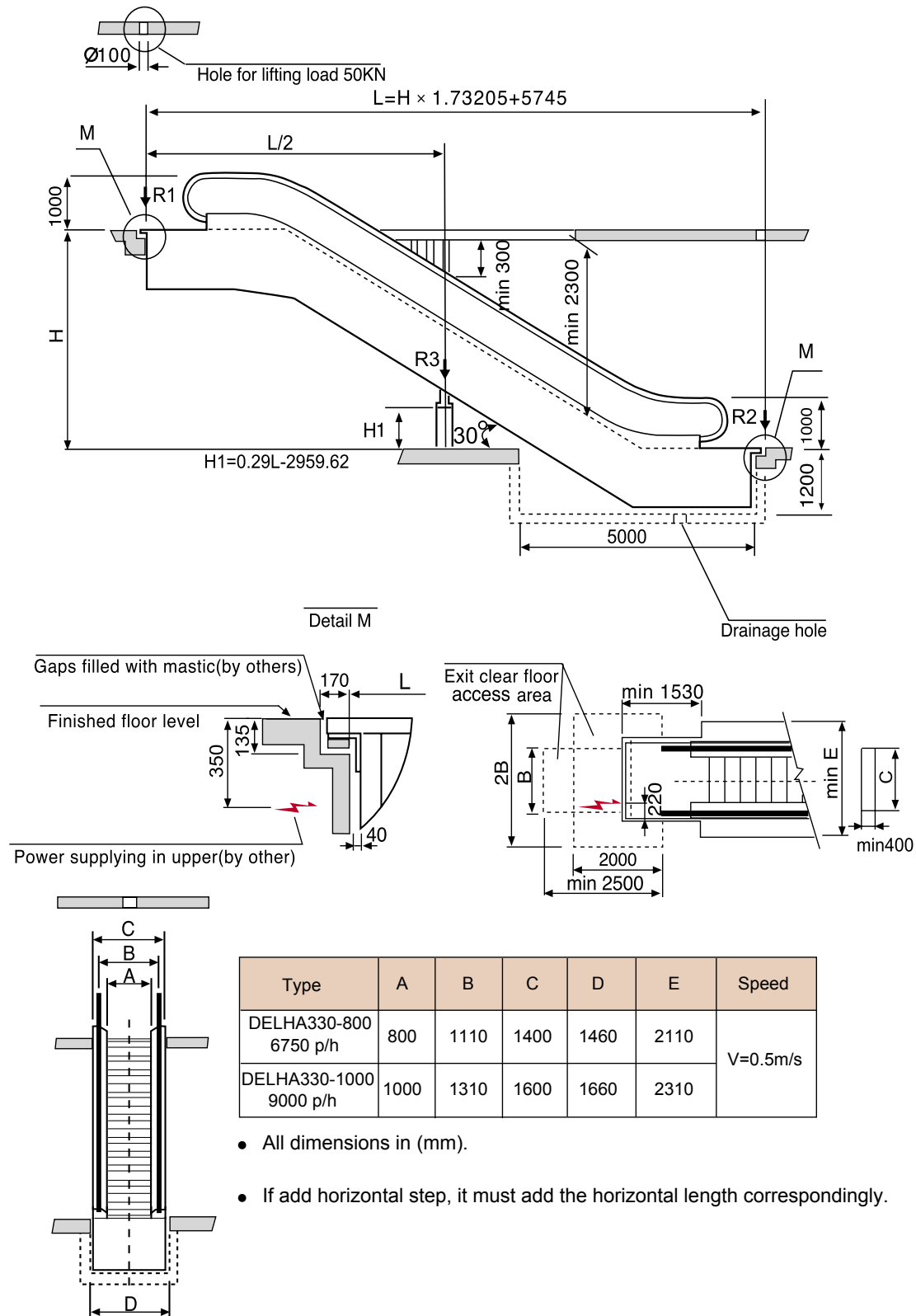
Type	A	B	C	D	E	Speed
DELC/S235-600 4500 p/h	600	910/838	1200	1260	1910	V=0.5m/s
DELC/S235-800 6750 p/h	800	1110/1038	1400	1460	2110	
DELC/S235-1000 9000 p/h	1000	1310/1238	1600	1660	2310	

- All dimensions in (mm).
- When the width of step A=600mm, the truss must be extended by 443mm.
- If add horizontal step, it must add the horizontal length correspondingly.

Escalator and Passenger Conveyor

DELH 330

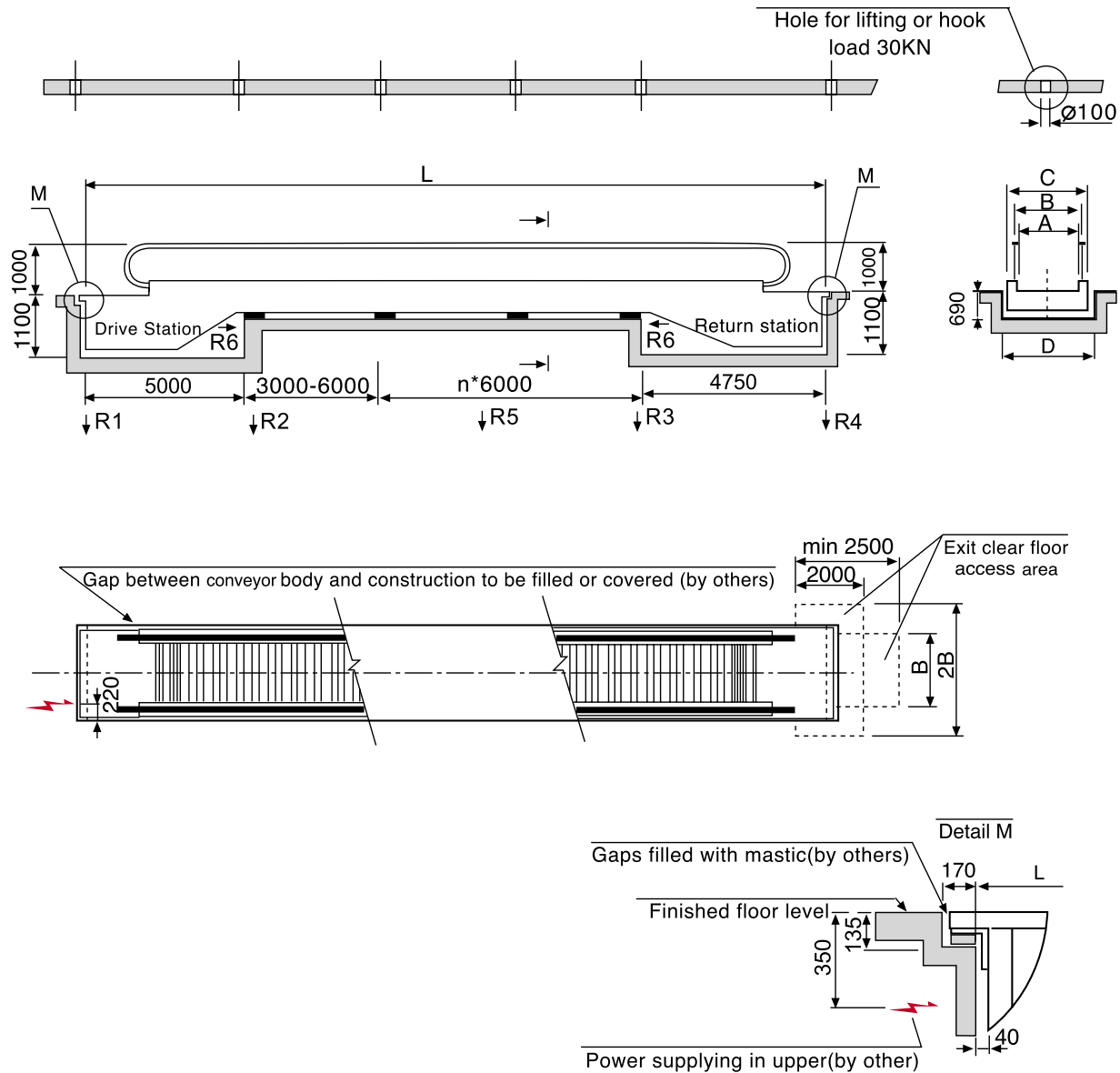
[Heavy Duty Escalator Layout Drawing]



Escalator and Passenger Conveyor

DELPH 0°-6°

[Horizontal Passenger-Conveyor Layout Drawing]



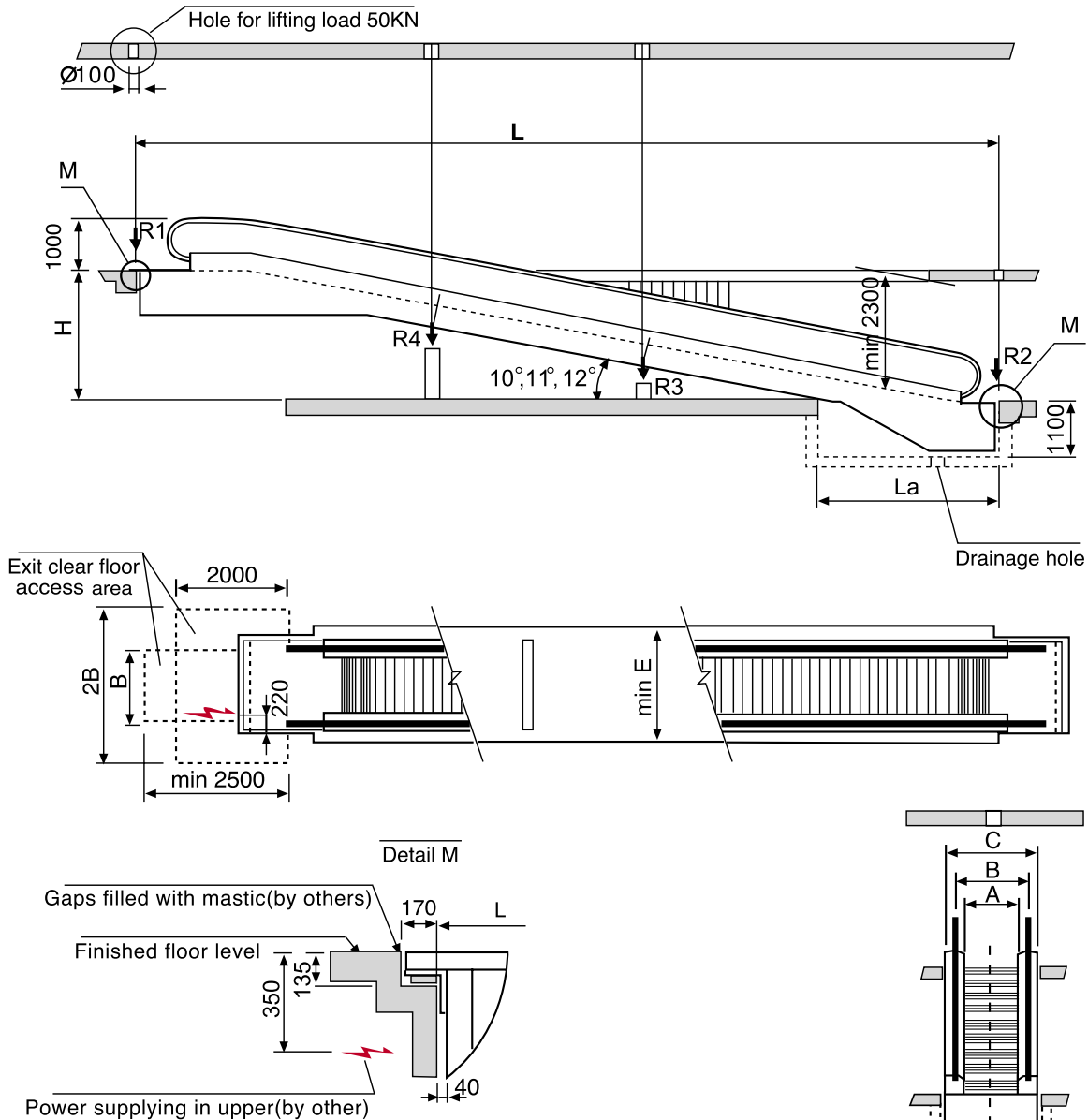
Type	A	B	C	D	Speed
DELPH-800	800	1110	1400	1460	V=0.5m/s
DELPH-1000	1000	1310	1600	1660	

- All dimensions in (mm).

Escalator and Passenger Conveyor

DELPI 10°-12°

[Inclined Passenger-Conveyor Layout Drawing]



Type	A	B	C	D	E	K1	K2	Speed
DELPI-800	800	1110	1400	1460	2110	15000	30000	V=0.5m/s
DELPI-1000	1000	1310	1600	1660	2310	15000	30000	

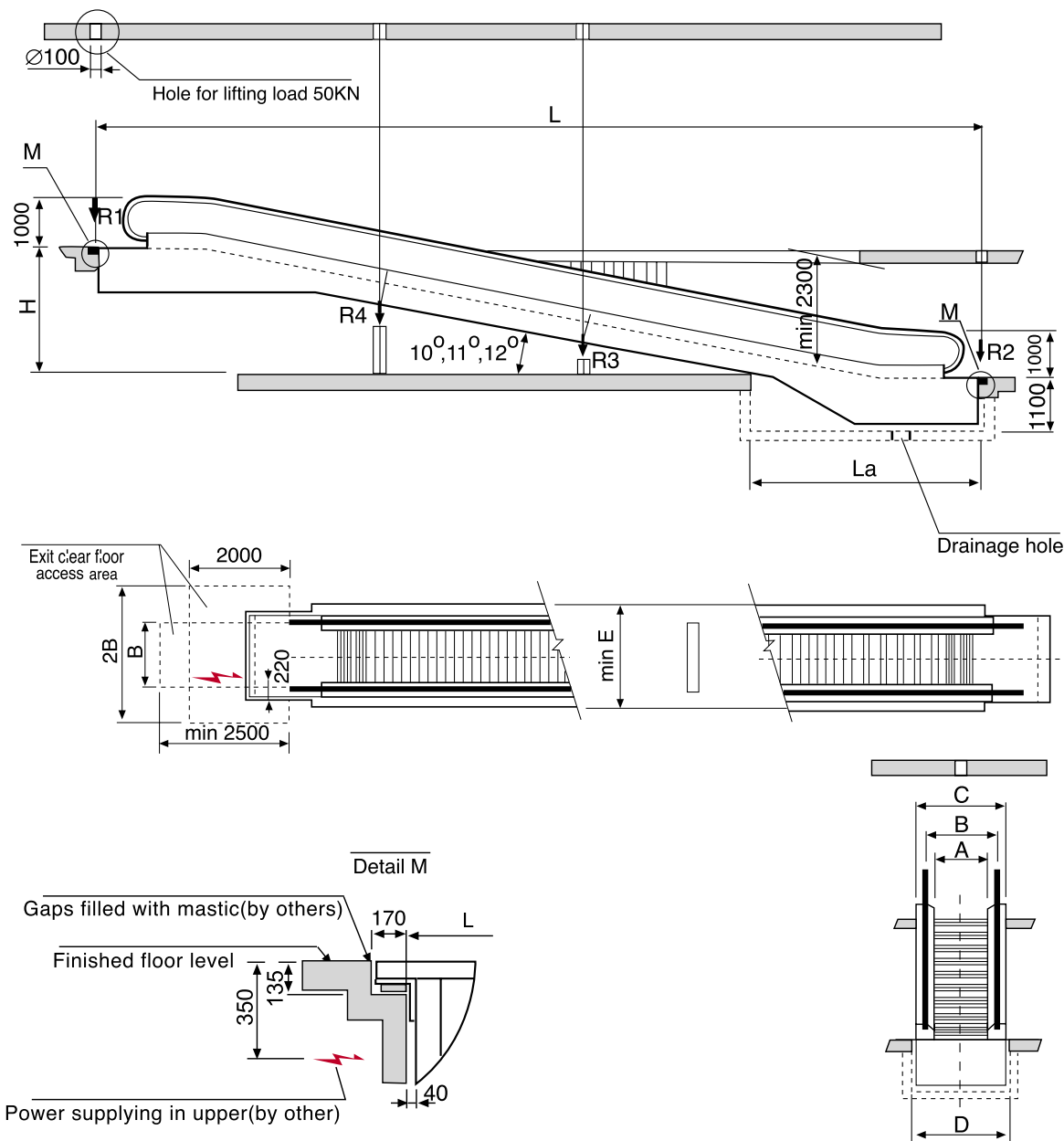
Incline	10	11	12
L	Hx5.6713+2646	Hx5.1446+2550	Hx4.7046+2470
La	4650	4350	4050

- All dimensions in (mm).
- As $L > K1$, one intermediate support is needed;
- As $L > K2$, two intermediate support is needed.

Escalator and Passenger Conveyor

DELPC 10°-12°

[Commercial Passenger-Conveyor Layout Drawing]



Type	A	B	C	D	E	K1	K2	Speed
DELPC-800	800	1110	1400	1460	2110	15000	30000	V=0.5m/s
DELPC-1000	1000	1310	1600	1660	2310	15000	30000	

Incline	10	11	12
L	Hx5.6713+4000	Hx5.1446+3900	Hx4.7046+3762
La	6000	5750	5400

• All dimensions in (mm).

- As $L > K1$, one intermediate support is needed;
- As $L > K2$, two intermediate support is needed.

Passenger Elevator & Residential Elevator

Car

Car brings you into comfortable space with elegant and graceful car ceiling.



Landing Door

DELSO designs different styles of Chinese, European, classic and modern elevator car doors according to various car styles with elegant model and complete size. Customers can make personalized selects according to their own likes.



DELD010



DELD011



DELD012



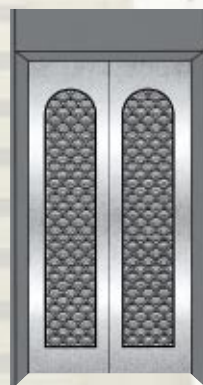
DELD013



DELD014



DELD015



DELD016



DELD017



DELD018

Ceiling

DELSO creat a more graceful car environment.



DELT-020



DELT-701

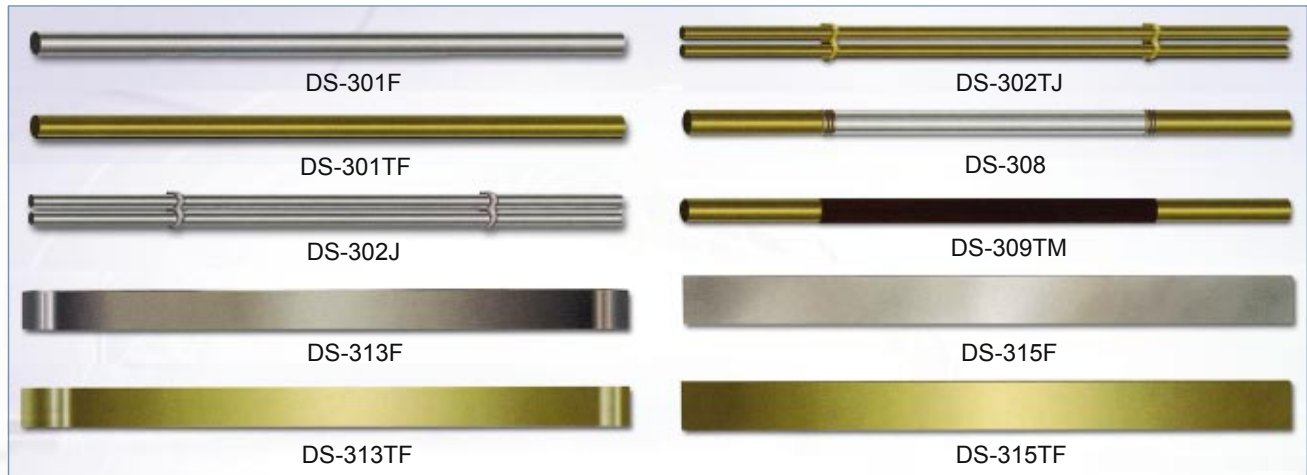


DELT-025



DELT-026

Handrail



Car Operation Panel and Hall Station



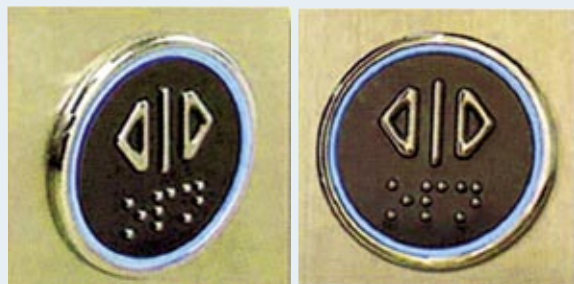
Car Operation Panel and Hall Station



PB-D4033-0-DP-TGP



PBD3025A-LBHLSV



PB-D4033-LB-HL-TBP



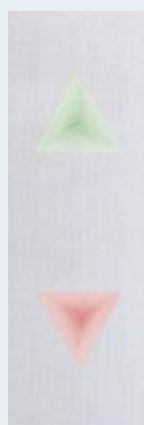
PB D4025C-B-MHTG



PB D403-O



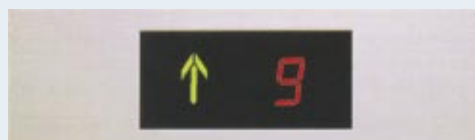
DEL-CP1-7



DEL-CP1-9A



KY-CP1-3



DEL-CP1-4



DEL-COP30

Passenger Elevator & Residential Elevator

Function Description

S: Standard O: Optional ※ Group Control

No.	Function	Function Description	Configuration
1	VVVF drive	Accurately adjust motor speed which makes the speed curve smooth even in accelerating, running and decelerating to obtain more comfort.	S
2	Collective selective control	The elevator responds to calls from any floors when it runs automatically or is controlled by a driver.	S
3	Automatic operation	The elevator runs automatically according to given calls.	S
4	Inspection operation	When entering inspection operation, the car will come into inching operation at 0.3m/s.	S
5	Driver operation	The elevator only remembers given instructions and the driver determines the operation of the elevator.	S
6	Determine direction by a driver	When the elevator is controlled by a driver, the direction of the elevator runs is determined by a driver.	S
7	By pass	The elevator only responds to the calls in the car but remembers the calls from landing floors.	S
8	Fire emergency return	When a key switch at the main floor or on the supervisory panel is turned on, all calls are cancelled, meanwhile, the car is immediately called to the specified rescue floor.	O
9	Car stops and doors open	The doors keep closed until the car finishes the decelerating and the leveling.	S
10	Open the door on landing hall	Push the landing door button to make the door open again.	S
11	Push open door button to open the door	Push the open button in the car to make the door open again.	S
12	Close the door in advance by close door button	The elevator closes the door immediately after close door button is pushed.	S
13	Repeated door closing	If an obstacle prevents the door from closing, the door will open and close repeatedly until the object is removed.	S
14	Overload protection	A buzzer sounds to prevent an overloaded car from leaving.	S
15	Full load protection	When the elevator reaches full load the elevator alarms with sound & light.	S
16	Start protection	If the car does not leave the door zone in the predetermined period, it will stop automatically.	S
17	Reversible operation protection	When the elevator runs in a reverse direction, the elevator will stop running immediately.	S
18	Anti-Slide protection	When traction wire slides from traction wheel, all operation will be forbidden.	S
19	Transformer fault protection	Cut off control power automatically to stop the elevator when something is wrong with the transformer.	S
20	Over speed protection device	When down speed is more than 1.2 times of rated speed, this device will cut down the power automatically to stop the motor and the car; If the car continues at an over speed in down direction, the safety device will be actuated to force the car to stop for safety.	S
21	Car ventilation, light shut off automatically	If there is no call registered within a period of time, the car fan and car light are automatically shut off to save energy.	S
22	Return to the base floor automatically	If there are no calls in a given period the elevator returns to the base floors.	S
23	Set service floor at will	Set stop floor or non-stop floor according to the need.	S
24	Relock the elevator	The elevator can be called back to base floor with a key.	S
25	Self diagnosis of malfunctions	Controller can save the most recent malfunctions and show them quickly on screen for diagnosis.	S
26	Floor and direction indicator in the car	Display the number of the arrival floor and the up/down direction inside the car.	S
27	Floor and direction indicator in landing floor	Display the arrival floor and operation direction in the landing floors.	S
28	Automatic terminal position revision	Compare and revise the position information automatically when the elevator runs to the terminal end.	S
29	Cancel wrong instructions	If the wrong push button is pushed, the wrong registered call can be cancelled by pushing the same button twice.	S
30	Cancel calls due to reverse operation	Cancel all calls in the car when the elevator changes operation direction.	S
31	Safety contact protection	Detect passengers or objects by sensitive mechanical board.	S
32	Car arrival chime	An electronic chime installed on the roof of the car sounds to inform passengers the arrival.	S
33	Emergency car lighting	When power fails, emergency lighting in the car will turn on automatically.	S
34	Alarm	In emergency, if continuously press alarm button in the operation panel, the alarm installed on the car roof would sound.	S
35	Interphone	Through interphone, service personnel in the car and in the machine room are allowed to speak to each other.	S
36	Door opening time extension	By pressing the specific button in the car, the door will remain open for an extended period of time to facilitate loading and unloading.	S
37	Door operator variable frequency drive	Accurately adjust motor speed so that doors open/close more gently and sensitively.	S
38	Fireman running	When the lift is in fire emergency mode and returns to the main floor, the firemen must turn on the fireman-running switch, then the lift only responds to the instructions from the car.	O
39	Voice announcement	Synthesized voice announces which floor will be reached in the normal operation.	O
40	Background music	Voice equipment plays music when the elevator runs normally.	O
41	Intelligent call service	Through the specific intelligent input device, car command or hall calls can be locked off or pushed on.	O
42	Power-off emergency leveling	When normal power fails, a rechargeable battery can provide power to move the car to the nearest floor.	O
43	Power on re-leveling	If power fails, the car may stop between floors. In this case, the car will move to the nearest floor when power is restored.	O
44	Light curtain protection	Multiple infrared-ray beams which cover the full height of the door detect passengers or objects as the doors open or close.	O
45	Pre-load start	Before the elevator starts, load in the car is weighed so as to make start steady and smoothly.	O
46	Open the door ahead	When elevator is in decelerating and entering the door zone, the door is opened automatically to improve moving efficiency.	O
47	Multiparties communication device	Through interphone people in the car can speak to people in the machine room and in the building management center.	O
48	Independent service (for elevator group)	A car can be isolated from the group and only responds to the car call independently.	※
49	Group control loop system (for elevator group)	Elevator group is designed in loop connection. Each one in the loop has group control dispatch function. If one or more has malfunction, the rest can be assured of normal service.	※
50	Up or Down peak service	During the off-hour, elevators are continuously sent to the upper floors to meet the needs of off-hour peak traffic congestion.	※
51	Remote monitoring and control	Through modem and phone, the elevator can be controlled and monitored remotely, which is convenient for manufacturer and service person to find out the condition of each elevator for immediate service.	※

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