

TECHNICAL SPECIFICATIONS

ELECTRIC LIFTS

QHe

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1. General description

1.1. Application

Permanently installed goods and passenger lift with electric traction drive, serving defined landing levels, with a large car, for the following uses:

Goods lift

Vertical transport of heavy goods accompanied by passengers in industrial environments, warehouses, factories, etc.

Car lift

Vertical transport of vehicles with their occupants in car parks of residential buildings, offices, hotels, etc.

Passenger lift (commercial sector)

Vertical transport of passengers accompanied by loads in buildings for public use, such as shopping centres, department stores (furniture, DIY, electrical appliances, etc.), supermarkets, airports, etc.

1.2. Regulations

The lift is compliant with the 2014/33/EC Lifts Directive and may, therefore, be marketed in any country of the European Union. Conformity by way of compliance with harmonised standard EN 81-20.

Different solutions to those of the standard are applied for some options. It has EU Design Examination certificates issued by AENOR for its conformity with the Directive. Any deviations from the standards of reference are indicated in the corresponding sections of the document.

1.3. Features

Rated load (Q)

2000, 2500, 3000, 3500, 4000, 4500, 5000, 6000 kg.

For goods lifts, the weight of the loading means is included in the rated load. The maximum permissible load at the entrance during loading and unloading operations shall not exceed 85% of the rated load.

Rated speed (v)

1 m/s.

Possibility of speed below 0.5 m/s for cases in which the electrical power is limited and no higher speed is required.

Floors

Up to 10 stops. Enquire with regard to a larger number of stops.

Travel (R)

Up to 30 metres. Enquire with regard to longer travel.

Electrical specifications

It features two independent circuits: one main circuit and another one for both car and shaft lighting. Each of these circuits requires a separate connection with the features described below.

Main circuit: maximum full-load currents depend on the lift measurements and load and may reach the values listed below:

Three-phase power supply 400 V \pm 5% 50/60 Hz.

Q (kg)	Max. rated current	
	v = 0.5 m/s	v = 1 m/s
2000	15	26
2500	18	33
3000	22	39
3500	26	46
4000	30	52
4500	33	59
5000	37	65
6000	44	78

2. Detailed description

2.1. Drive and guiding

Electric traction drive with counterweight and suspension with a 2:1 ratio for 2000 and 2500 kg loads and 4:1 ratio for loads between 3000 and 6000 kg and with 7, 8, 9 or 10 cables, depending on the load or the car size and options. The cables are 9 or 10 mm in diameter, in a 8x19W-IWRC composition, and with wires resisting 1570 N/mm².

Tandem-type frame with guide shoes and guided by two facing calibrated lift guide rails. Depending on the rated load and on the car dimensions, these may be T90/B, T125/B, T127-3/B or T140-2/B.

The counterweight is located on one side of the shaft behind one of the car guide rails, guided by two T70/A calibrated lift guide rails for loads between 2000 and 4500 kg or T90/B for loads between 5000 and 6000 kg.

2.2. Installation

The guides are supplied as standard in 5-metre sections and optionally in 2.5-metre sections and are intended to be attached to the shaft using brackets every 1500 mm maximum.

Standard assembly includes attaching of both the car and counterweight guides to one of the walls of the lift shaft. All the material required to attach the guide rails using brackets and mechanical anchors and suitable for concrete is supplied. Enquire about the possibility of another type of anchorage or attachment to another type of support.

Installation conditions

This is a machine room-less solution and without the need for prior preparation of specific structural elements for installation beyond the construction of the shaft, ensuring resistance at the points where reactions occur.

The shaft shall be used exclusively by the lift and shall meet the following requirements:

- It shall be fully enclosed with imperforate walls, floor and ceiling. The finish shall be smooth, with no protrusions and with vertical alignments of less than 1:1000.
- The walls of the shaft to which the guide rails are attached shall be made of structural concrete (minimum C20/C25) for mechanical anchors to be used.
- It shall be permanently ventilated at the top, with a minimum cross-section area of the shaft of 2.5%.
- The pit shall be impervious to infiltration of water and its bottom shall be levelled and smooth.

A hook or beam shall be provided in the shaft ceiling that withstands at least 1000 kg and placed within the vertical projection of the guide rails to handle the different parts during assembly. This hook shall be marked with its maximum working load.

2.3. Machinery

It is designed for machine room-less installation, with the installation of the machine and the main parts of the control system foreseen as described below.

Machine

Gearless machine, mounted on a bedplate located at the top of the shaft and attached to the counterweight guide rails and to one of the car guide rails. The load cells for the overload detection system and buffer elements to reduce the transfer of vibrations from the motor to the shaft are fitted between the machine and the bedplate.

These are machines with a permanent magnet synchronous motor, a fan, disc brakes and pulleys that may be 320 mm in diameter for up to 10 cables measuring 9 mm in diameter for loads up to 4500 kg and 400 mm in diameter for up to 10 cables measuring 10 mm in diameter for loads over 4500 kg. In cases where the cable diameter is 9 mm, the ratio between the pulley and cable diameter does not meet the requirements of harmonised Standard EN 81-20. Special, highly flexible cables that have been tested by the manufacturers are used to ensure an equivalent safety level.

For the 2:1 suspension ratio, the machine is positioned so that the traction pulley is centred with the car, whereas it is positioned towards one side when the suspension ratio is 4:1.

Electrical board

The main elements of the lift control system are distributed in two different boards, both located at the top of the assembly.

The electric landing board is located in a metal cabinet measuring 300 x 800 x 120 mm (width x height x depth), next to the door frame of the last landing and outside the shaft, on a 1100-mm high base. This cabinet includes the main switch, the rescue operation board, the control and frequency inverter consoles as well as the terminals for the electrical connections.

The electrical power board measuring 860 x 760 x 310 mm (width x height x depth) is installed inside the shaft, above the door of the upper landing level. It includes the frequency inverter, the control boards, the contactors as well as the motor and brake connection terminals. The braking resistor is installed near the board. The uninterrupted power supply is installed next to the electrical power board, but also inside the lift shaft.

2.4. Electrical installation

The electrical car and shaft elements are supplied wired and with pluggable terminals to connect to the electric board and to the connection box located on the car ceiling.

Supply of shaft lighting with LED strips optional to order. The LED strips and all the material necessary for their installation and connection to the electrical board are included.

2.5. Car**Frame**

The car structure is formed by two side frames connected by a lower beam assembly that includes the deflection pulleys and an upper beam assembly. Several side and cross beams are bolted to each side of the lower beam assembly to act as support for the floor, braced to the top of the brackets. Different frame models are supplied depending on the drive model, the rated load and the car weight.

Floor

The floor of the car is a welded assembly supplied in two or three parts, depending on the depth of the car, and is formed by a base of 60x40 mm tubes and a threaded plate as the load surface. Standard floor surface with RAL7004 grey epoxy-polyester paint.

Possibility of other floor finishes and plate types, depending on the use of the lift: aluminium diamond plate, stainless steel diamond plate, black checker stud rubber, vinyl flooring or preparation for stone flooring.

Walls

Steel plate panels painted with RAL7035 grey epoxy polyester paint as standard.

Possibility of other colours or materials, depending on the use of the lift: brushed stainless steel, pattern stainless steel, laminate or glazed walls.

Ventilation through apertures at the top and bottom of the side panels in goods lifts or car lifts. Passenger lifts (commercial sector) are fitted with folded steel plate skirting with the same finish as the walls, with ventilation apertures at the top and bottom of the car.

Ceiling

Steel plate modules with the same finish as the walls as standard.

Possibility of painted steel plate false ceiling painted with RAL7035 grey epoxy polyester paint or brushed stainless steel, associated with some of the lighting options in passenger lifts (commercial sector).

Lighting

LED downlight lamps built into the ceiling as standard.

Emergency LED lighting built into the ceiling and backlighting on the button panel. This comes on automatically in the event of a fault in the electricity supply and has a battery to provide 1 hour of lighting.

Possibility of false ceiling in passenger lifts (commercial sector) with the following lighting options: translucent glass with fluorescent tubes, LED panels or LED spotlights.

Emergency lighting in car ceiling with surface-mounted LED light. This comes on automatically in the event of a fault in the electricity supply and has a battery to provide 1 hour of lighting.

Protections

Possibility of impact protection on the sides of the car. There are different types available, depending on the use of the lift: wooden, folded steel plate with the same finish as the walls, plastic crash rails or high-resistance tubular steel.

Handrails

Possibility of the supply of handrails in passenger lifts (commercial sector). 40-mm diameter stainless steel tube with straight or curved ends as optional.

Push button panel

The car has one or two button panels. There are two different types available, depending on the use of the lift:

Brushed stainless steel plate button panel screwed to one of the side panels of the car in goods lifts or car lifts.

Button panel on a stainless steel plate column built into one of the side panels of the car in passenger lifts (commercial sector).

Other options

Trap door in the car roof for passenger rescue that can be opened from inside using a triangular key and mechanical lock with electrical control.

Smoke extractor in goods lifts or car lifts.

Forced ventilation in passenger lifts (commercial sector).

Air conditioning in passenger lifts (commercial sector).

Dimensions

Drive	Load kg	Width (A) mm	Depth (B) mm	Height (H) mm
2:1	2000	1500 ÷ 3600	2100 ÷ 4400	2000 ÷ 2850
	2500		2400 ÷ 5750	
4:1	3000 ÷ 4500	1500 ÷ 4500	2500 ÷ 7000	
	5000 ÷ 6000		2500 ÷ 7000	

The dimensions indicated are measured from the constructive elements of the car without considering decorative options.

The floor area of the car results in a minimum rated load determined by Table 7 of Standard EN 81-20, when it is to be used for passengers and goods, as is often the case for this product. A higher rated load can be selected, if necessary, for use of the lift or to meet the requirements of Table 6 of Standard EN 81-20, when it is to be used for passengers only:

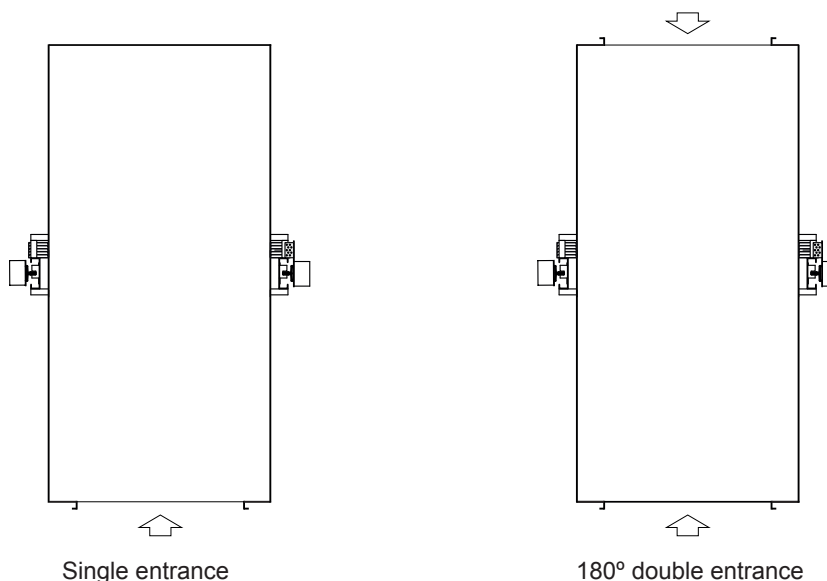
A · B (m ²)	Qmin (kg)	
	Table 7 ⁽¹⁾	Table 6 ⁽²⁾
2.6 ÷ 4.2	-	2000
4.3 ÷ 5.0	2000	2500
5.1 ÷ 5.8		3000
5.9 ÷ 6.6		3500
6.7 ÷ 7.4	2500	4000
7.5 ÷ 8.2		4500
8.3 ÷ 8.6		5000
8.7 ÷ 9.0	3000	6000
9.1 ÷ 10.6		6000
10.7 ÷ 12.6	3500	-
12.7 ÷ 14.6	4000	-
14.7 ÷ 15.8	4300	-
15.9 ÷ 16.6	4500	-
16.7 ÷ 18.6	5000	-
18.7 ÷ 22.6	6000	-

⁽¹⁾ Minimum rated load according to Table 7 of Standard EN 81-20 (for goods and passenger lifts).

⁽²⁾ Minimum rated load according to Table 6 of Standard EN 81-20 (for passengers only).

Entrances

1 or 2 at 180°.

**2.6. Car doors****Types**

Automatic telescopic bi-parting doors with 4, 6 or 8 leaves.

Finish

Steel plate painted with RAL7035 grey epoxy paint as standard. Possibility of other colours and finish covered with brushed or patterned stainless steel plate, depending on the use of the lift.

In goods lifts or car lifts, the finish on the car doors is the same as that of the car walls.

In passenger lifts (commercial sector), the finish on the car doors is independent to that of the car walls, except the side of the door (entrances and lintel), the finish of which will be the same as that of the door (normally stainless steel).

Dimensions

Type	HL (mm) ⁽¹⁾	PL (mm) ⁽¹⁾
C4H	2000 ÷ 2800	1000 ÷ 3100
C6H		1200 ÷ 3100
C8H		1400 ÷ 3000

⁽¹⁾ Door dimensions in 100 mm increments.

2.7. Landing doors**Types**

Automatic telescopic bi-parting doors with 4, 6 or 8 leaves, operating at the same time as those of the car.

Finish

Steel plate painted with RAL7032 grey epoxy paint as standard. Possibility of other colours and finish covered with brushed stainless steel plate.

Dimensions

The same as the car door.

Fire resistance	<p>Exx class fire-resistant doors according to Standard EN 81-58 as standard.</p> <p>Elxx class insulation according to EN 81-58 as optional.</p> <p>The integrity and insulation time depends on the dimensions and the type of door.</p>
Sill	<p>Aluminium profile sills as standard, suitable for car wheels or for entering light loads.</p> <p>Possibility for the supply of reinforced aluminium sills suitable for rubber wheels with a diameter of over 300 mm with a maximum of 800 kg per wheel.</p> <p>Possibility for the supply of steel sills of different types for loading using pallet trucks, with wheels that are less than 300 mm in diameter and loads of between 800 kg and 2000 kg, or fork-lift truck.</p>
Other options	<p>Joint cover. This consists of pieces that cover the space between the door and the wall, avoiding having to resort to brickwork to close off these gaps, once the door has been installed.</p> <p>Sill complement (for aluminium sills only). This consists of an aluminium profile that is installed in front of the sill in the space of the door frame, avoiding having to resort to brickwork to fill in this gap, once the door has been installed.</p> <p>Wide frames. The frame covers the entire space taken up by the open door, avoiding having to resort to brickwork to close off the gap in this area.</p> <p>Reinforced sill fixation brackets.</p>
2.8. Control	
Landing push button panel	<p>The lift has a control button panel on each floor level and one or two button panels inside the car.</p> <p>Possibility to supply the lift with no control or button panels.</p> <p>Button panels to be built into the wall or into the door frame on each floor level. These are flush-mounted push button panels with control elements assembled on a stainless steel plate.</p> <p>The following elements are included in the push button panels:</p> <ul style="list-style-type: none">- Call push button with call confirmation indicator on outer lit ring. For the selective control in ascent and descent option, two buttons are included on the button panels of the intermediate floors, one to go up and another to go down.- Call push button with key as option.- Call confirmation buzzer for the button panel option for people with disabilities, according to EN 81-70 in passenger lifts (commercial sector).- Light indicating use of lift forbidden for the fire operations option, according to EN 81-73. <p>Possibility for the supply of vandal-proof button panels according to EN 81-71 (Class 2) as optional for passenger lifts (commercial sector).</p> <p>Possibility for the supply of remote controls to make the call from one landing or from all (each user will only have access to two of them) as option for goods lifts or car lifts.</p>

Possibility for the supply of position and/or direction indicators on floor for installation on the wall or on the landing door frame, of different types, depending on the use of the lift.

Possibility of the supply of traffic lights in car lifts. Just one traffic light can be installed on the floor accessed from the street or on all floors. The light remains green in cases where the car is not loaded, stopped at the floor of the traffic light, or travelling to it, and red in all other cases.

Car push button panel

One button panel is supplied as standard for cars with one entrance and two button panels for cars with two entrances. Two button panels are included as standard in car lifts.

The button panel in goods lifts or car lifts is a brushed stainless steel plate and is screwed to one of the panels on the side of the car, with recessed control elements.

The button panel in passenger lifts (commercial sector) is on a stainless steel plate column built into one of the panels on the side of the car, with recessed control elements at a suitable height for use by people in wheelchairs.

The push button panel includes the following elements:

- Buttons for each floor, with call confirmation indicator on outer lit ring.
- Buttons with key as optional.
- Open doors push button.
- Close doors button (on passenger lifts for the commercial sector only).
- Push button to trigger the alarm and the emergency alarm device at the same time.
- Emergency telephone or intercom (optional).
- Position indicator.
- Direction indicator as optional (included in passenger lifts for the commercial sector).
- Backlit data plate indicating load, passengers, marking, logo and reference. This plate also includes the overload indicator and a lit field that switches on in the event of a power cut.
- Car priority key switch as optional.
- Call confirmation buzzer for the button panel option for people with disabilities, according to EN 81-70 in passenger lifts (commercial sector).
- Building exit button highlighted by a green ring for the option of button panels for people with disabilities, according to EN 81-70, in passenger lifts (commercial sector).
- Indicators for vehicle centring as optional in car lifts.
- Arrival gong or voice synthesiser, according to EN 81-70, as optional in passenger lifts (commercial sector).
- Possibility for the supply of vandal-proof button panels according to EN 81-71 (Class 2) as optional for passenger lifts (commercial sector).

Main operating features

- Electronic control with microprocessor.
- Configuration console for selecting the type of operation and setting other parameters, such as times and functions. Fault signalling by means of a display on the console and storage of the recent fault history.
- Detection of stops and speed changes by means of magnetic detectors.
- Photoelectric barrier to detect obstacles in the doors.
- Automatic timed switching off of car lighting to save energy.
- Motor control by means of frequency converter.

Operating options

- Duplex or triplex operations to operate two or three lifts parallel to each other. Floor calls for lifts are managed jointly, sending the nearest car that is free.
- Selective control in ascent and descent in passenger lifts (commercial sector). A button is installed on intermediate landings to go down and another to go up. The lift serves intermediate floor calls, if it is moving in the selected direction.
- Operation with different double entrance. On floors with double access, one door or another can be selected independently for the destination, as if they were on different floors. A button for each access is supplied on the car button panel. At least one of the buttons often includes a key switch.
- Fire operation according to EN 81-73. In the event of a fire, the lift travels automatically to the main evacuation floor and remains with the doors open.
- Operation with car priority key switch. When this key is turned, only the car button panel can be used to move the lift and no floor calls are served.
- Operation with door pre-opening on passenger lifts (commercial sector).
- Operation for electric generator set. Only rescue operations are permitted when the input detecting that the power is coming from an electric generator set is triggered.
- Door opening in the event of a power cut. This enables the doors to open automatically on the ground floor in the event of a power cut.
- I/O with potential-free contacts. These must be specified by the client.
- 3D photoelectric barrier to detect obstacles in the doors instead of the standard barrier.
- Presence sensors on landing to detect obstacles or passengers on the corresponding floor.
- Electrical installation ready for surveillance camera in passenger lifts (commercial sector).
- Remote lift control and maintenance via web platform.

2.9. Safety devices

Among all the safety measures included in the lift, the following must be highlighted:

General

- Progressive roller safety gear with tandem operations as a safety measure against the car's free fall due to breakage of the suspension cables and against overspeed of the car on descent, acting through an overspeed governor. For certain load cases, the safety gear is also used as a safety measure against overspeed on ascent.
- Overspeed protection on ascent through the machine brake, activated upon detection of excess ascent speed through a contact in the overspeed governor for cases where the safety gear is not used.
- Doors with electric control of both closure and the lock interlocking.
- Car doors with electric closure control.
- Pre-actuation stop system by blocking the overspeed governor as a safety measure against descending movement due to overload and loss of traction. This is required because the rated load for use by passengers and load may be less than the minimum load for use by passengers.
- Upper and lower limit switches.
- Maximum motor operating time control.
- Temperature relay as a safety measure against overheating of control board components.
- Thermistors as a means of protection against motor overheating.
- Phase absence or reversal detection on the power supply.

Use

- Overload control system through a load cell located under the machine.
- Photoelectric barrier to detect obstacles in the doors.
- Restricted door closing strength and door reopening in the event of obstacles.
- Alarm triggered by the alarm push button on the car push button panel to call for external assistance, if trapped in the car due to a fault.
- Remote emergency alarm device, according to Standard EN 81-28, to ensure two-way voice communications in permanent contact with a rescue service via a telephone line or GSM mobile network, triggered using the alarm push button on the car push button panel. As option, an intercom can be supplied instead for own line, so that the car can communicate with a fixed point (solution not compliant with 2014/33/EU Lifts Directive).
- System for communication with the machinery area via a conventional telephone.
- Non-linear energy accumulation-type car buffers.
- Electrical emergency control system for levelling the car for rescue operations. The control system works by load decompensation and features movement speed control.

- Possibility of automatic car movement system to the nearest landing level, with door opening in case of power failure. Movement by load decompensation and with uninterrupted power supply system.
- Automatic door opening on the ground floor in the event of a power cut (optional).
- Manual door opening using a triangular safety key for rescue in the event of failure.
- Car doors with between-floors mechanical lock mechanism. The car door may only be opened in the unlocking area of each landing level.
- Signalling of the door unlocking area and of the car movement speed and direction for the rescue operation.

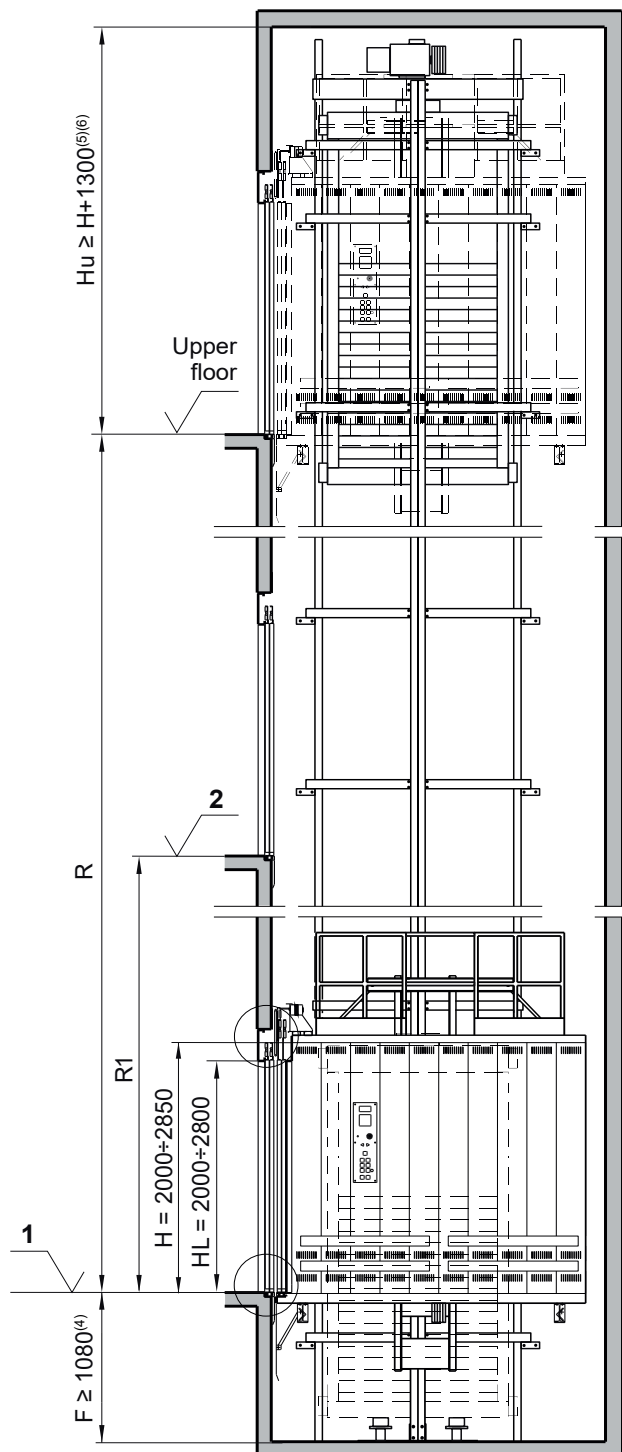
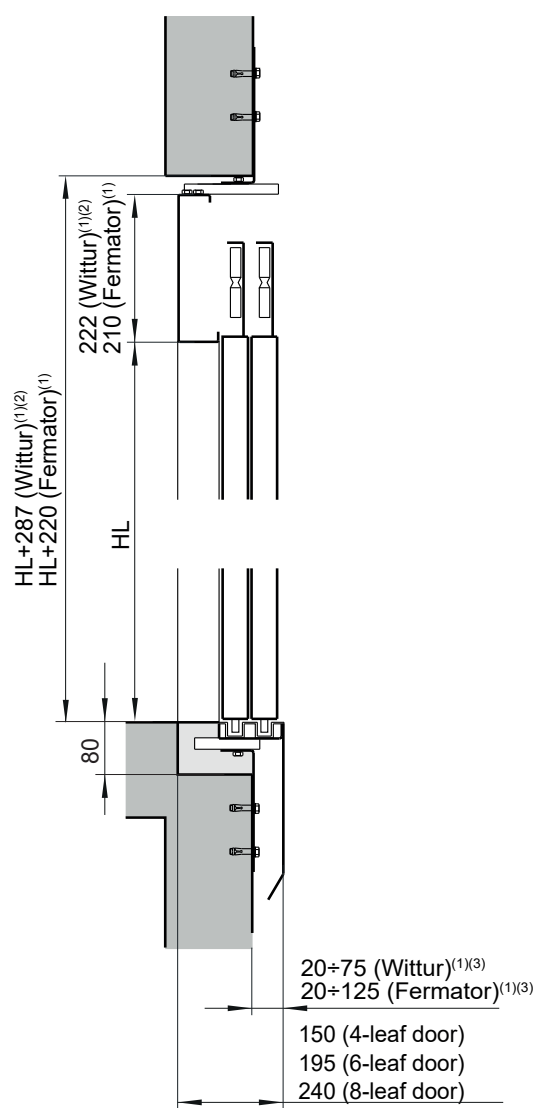
Maintenance

- Emergency stop push button in pit and on ceiling.
- Possibility for the supply of a pit access ladder for maintenance work.
- Buttons under car and on car roof to trigger the alarm bell and the emergency alarm device as a safety measure in the event of being trapped in the pit or on the car roof.
- Handrails on the sides of the lift guide rails on the car roof. Possibility for the supply of a handrail at the rear of the roof for cars with one entrance for distances to the wall of over 300 mm.
- Folding handrails on the car roof as optional for cases of small spaces at the top of the shaft.

3. Installation dimensions

3.1. 2:1 model

Minimum shaft dimensions, front view



R Travel

F Pit (maximum 1800 mm)

Hu Headroom

H Car height

HL Door clear height

⁽¹⁾ 4- and 6-leaf Wittur doors. 8-leaf Fermator doors

⁽²⁾ Can be greater for doors with small clear width

⁽³⁾ Distance from the edge of the sill to the shaft wall with standard brackets; possibility of greater distance with reinforced brackets

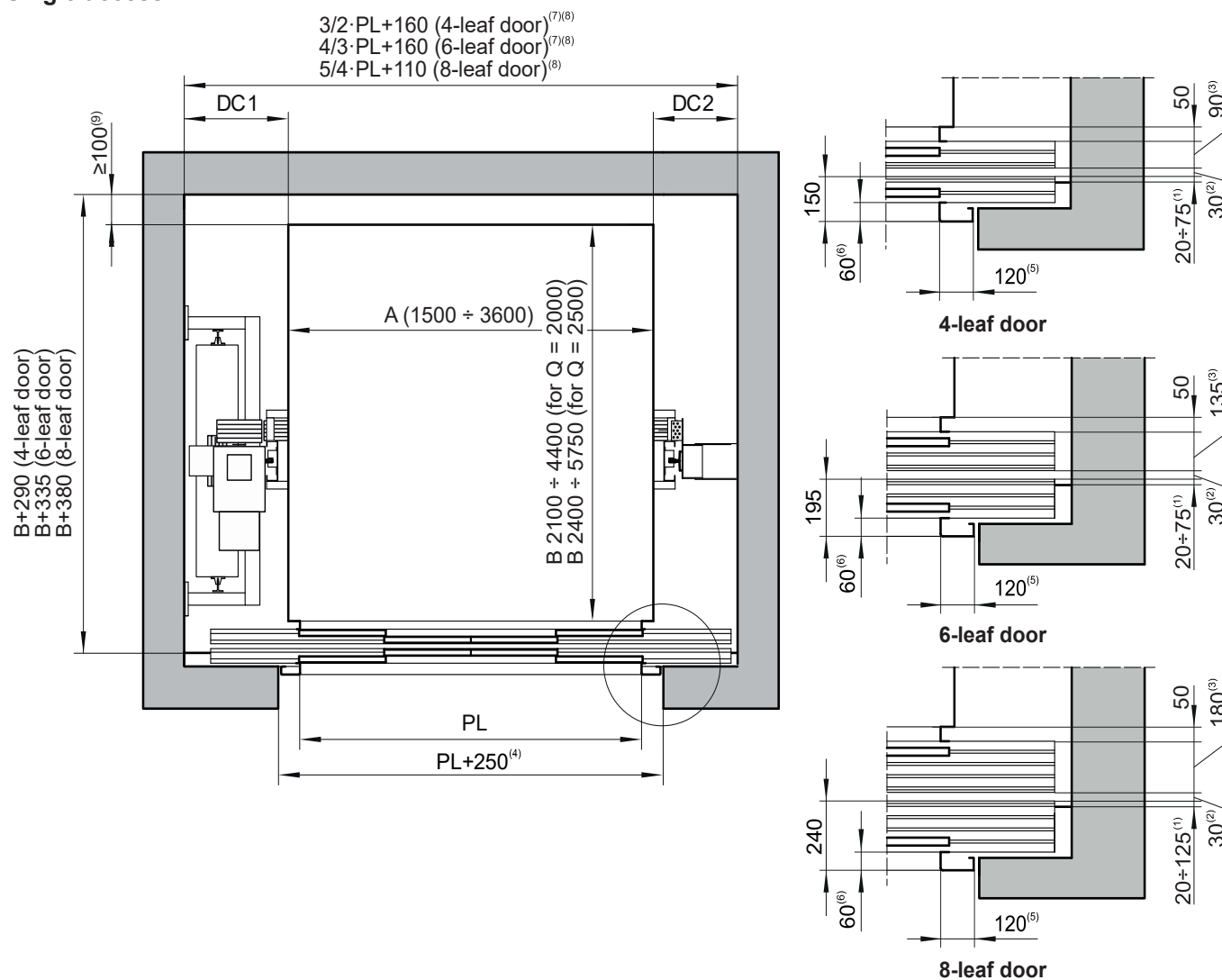
⁽⁴⁾ Increased by 20 mm for the stone floor option

⁽⁵⁾ Increased by 15 mm for $A > 2800$ mm

⁽⁶⁾ Increased by 100 mm for the false car ceiling option

Minimum shaft dimensions, plan view

Single access



A Car width

B Car depth

PL Clear opening

DC1 Distance for guide rail housing, counterweight side

DC2 Distance for guide rail housing, side opposite the counterweight

⁽¹⁾ Distance from the edge of the sill to the shaft wall with standard brackets; possibility of greater distance with reinforced brackets

⁽²⁾ Distance between landing door and car

⁽³⁾ Sill width

⁽⁴⁾ Gap in wall for door

⁽⁵⁾ Width of door frame

⁽⁶⁾ Depth of door frame

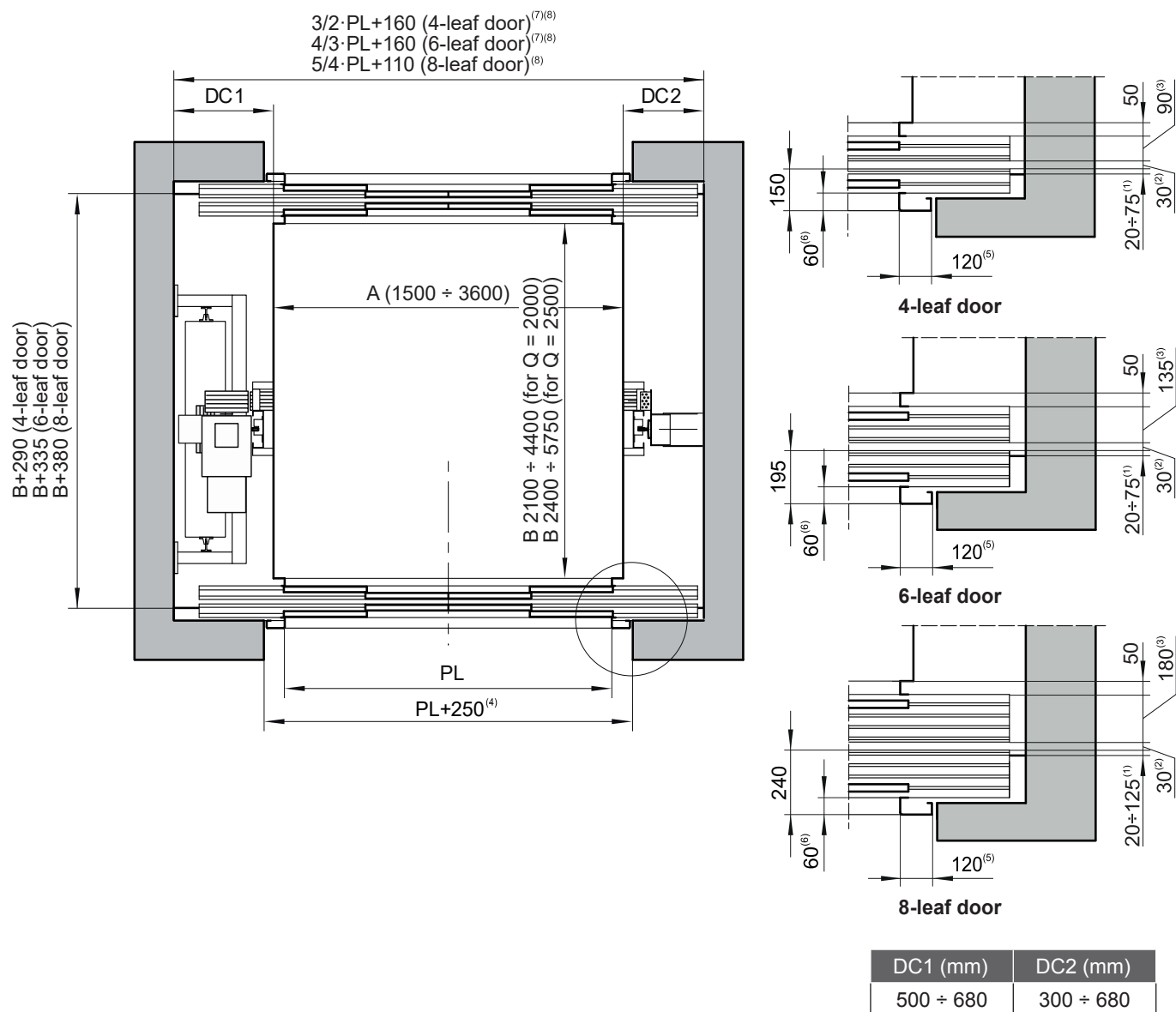
⁽⁷⁾ Can be different, depending on the size and options of the door

⁽⁸⁾ Can be greater to comply with the minimum DC1 and DC2 distance

⁽⁹⁾ Car-wall distance

DC1 (mm)	DC2 (mm)
500 ÷ 680	300 ÷ 680

Double entrance



A Car width

B Car depth

PL Clearance

DC1 Distance for guide rail housing, counterweight side

DC2 Distance for guide rail housing, side opposite the counterweight

(1) Distance from the edge of the sill to the shaft wall with standard brackets; possibility of greater distance with reinforced brackets

(2) Distance between landing door and car

(3) Sill width

(4) Gap in wall for door

(5) Width of door frame

(6) Depth of door frame

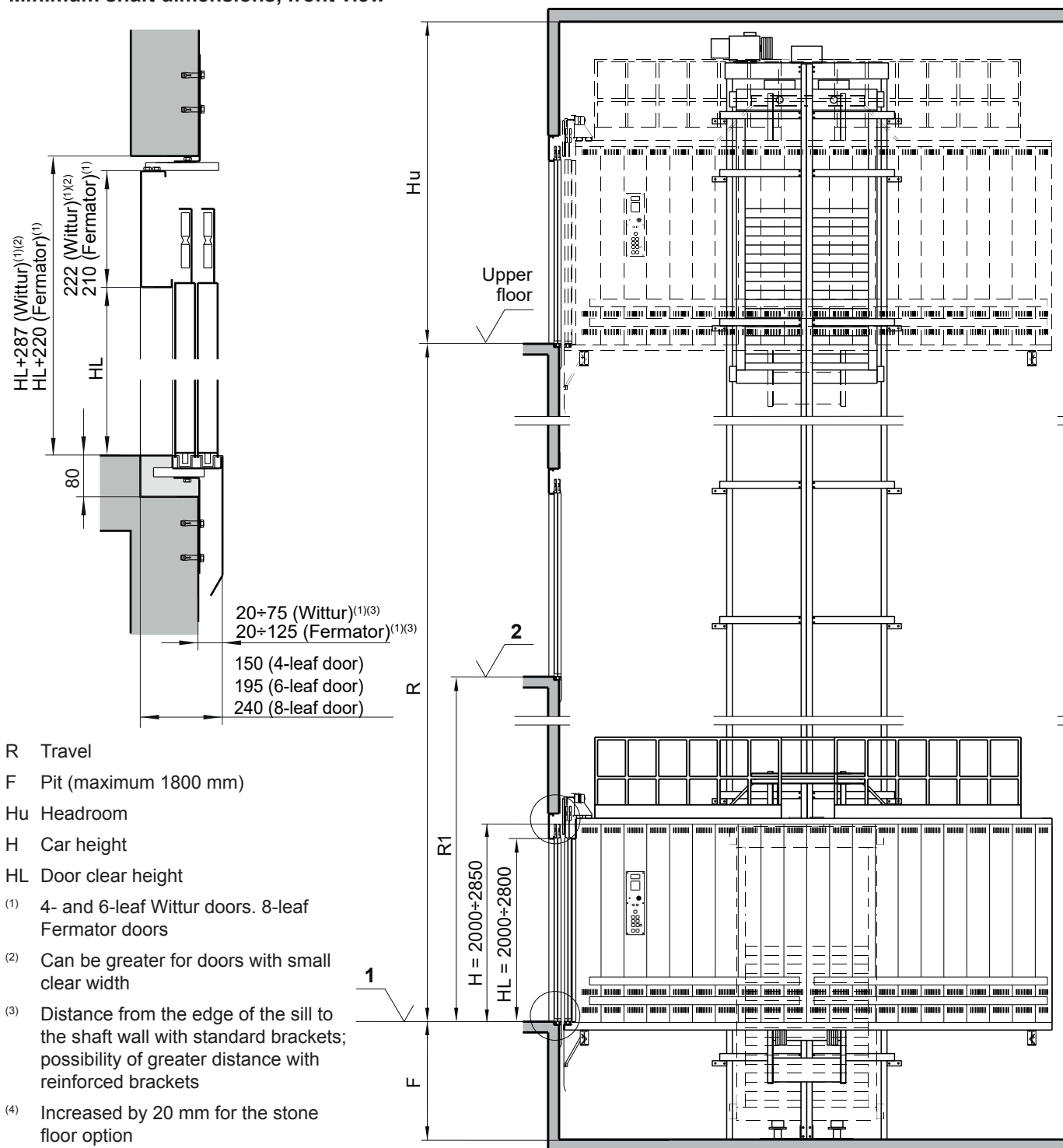
(7) Can be different, depending on the size and options of the door

(8) Can be greater to comply with the minimum DC1 and DC2 distance

(9) Car-wall distance

3.2. 4:1 model

Minimum shaft dimensions, front view



R Travel

F Pit (maximum 1800 mm)

Hu Headroom

H Car height

HL Door clear height

(1) 4- and 6-leaf Wittur doors. 8-leaf Fermator doors

(2) Can be greater for doors with small clear width

(3) Distance from the edge of the sill to the shaft wall with standard brackets; possibility of greater distance with reinforced brackets

(4) Increased by 20 mm for the stone floor option

(5) Could be 1150 mm for certain car sizes

(6) Could be 1080 mm for certain car sizes

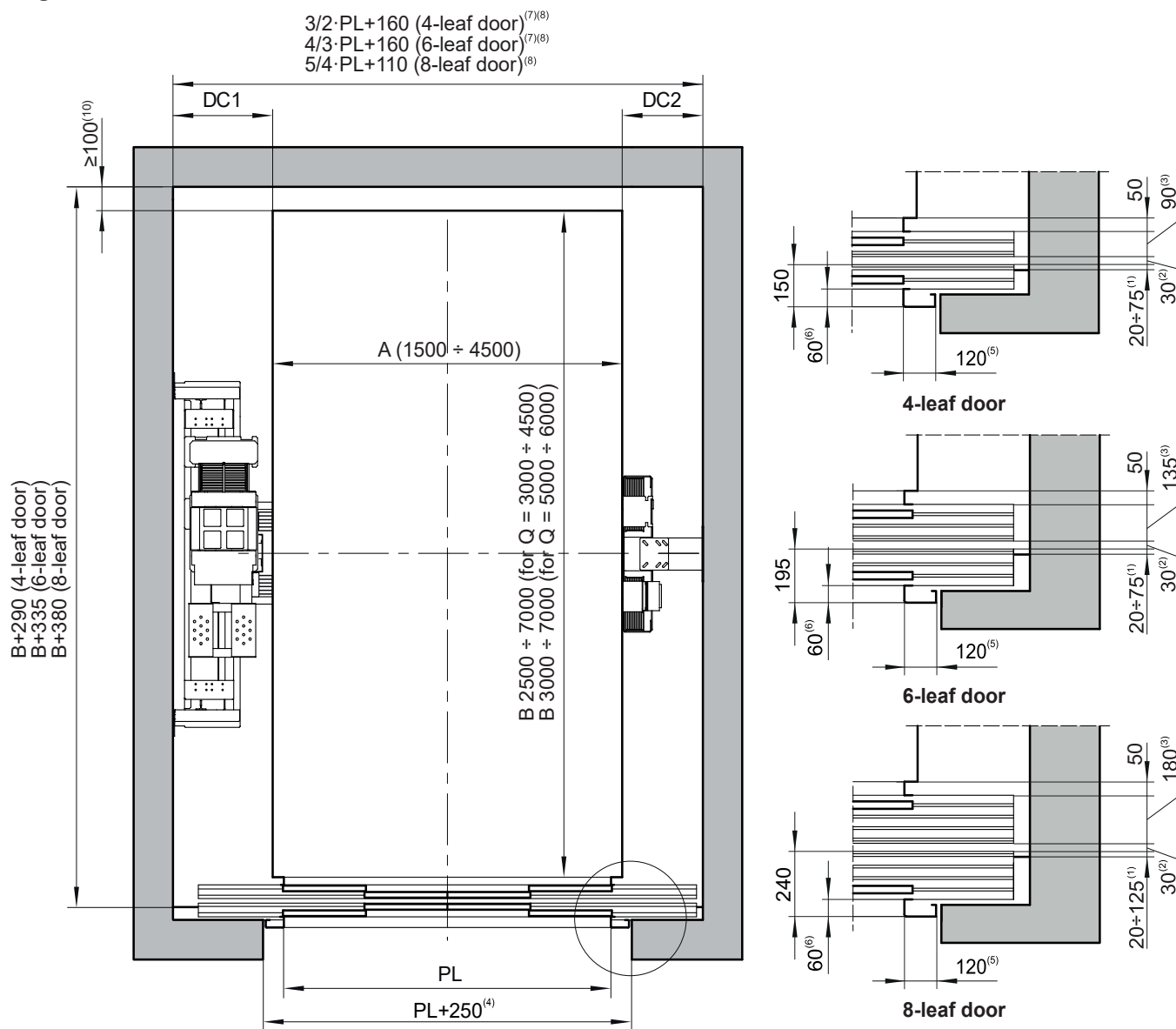
(7) Increased by 15 mm for A>2800 mm

(8) Increased by 100 mm for the false car ceiling option

Load (kg)	F	Hu	
		Standard	Folding handrail
3000 ÷ 3500	1080 ⁽⁴⁾⁽⁵⁾	H+1615 ⁽⁷⁾⁽⁸⁾	H+1330 ⁽⁷⁾⁽⁸⁾
4000 ÷ 4500	1150 ⁽⁴⁾⁽⁶⁾		
5000 ÷ 6000	1250 ⁽⁴⁾		H+1500 ⁽⁷⁾⁽⁸⁾

Minimum shaft dimensions, plan view

Single access



A Car width

B Car depth

PL Clearance

DC1 Distance for guide rail housing, counterweight side

DC2 Distance for guide rail housing, side opposite the counterweight

(1) Distance from the edge of the sill to the shaft wall with standard brackets; possibility of greater distance with reinforced brackets

(2) Distance between landing door and car

(3) Sill width

(4) Gap in wall for door

(5) Width of door frame

(6) Depth of door frame

(7) Can be different, depending on the size and options of the door

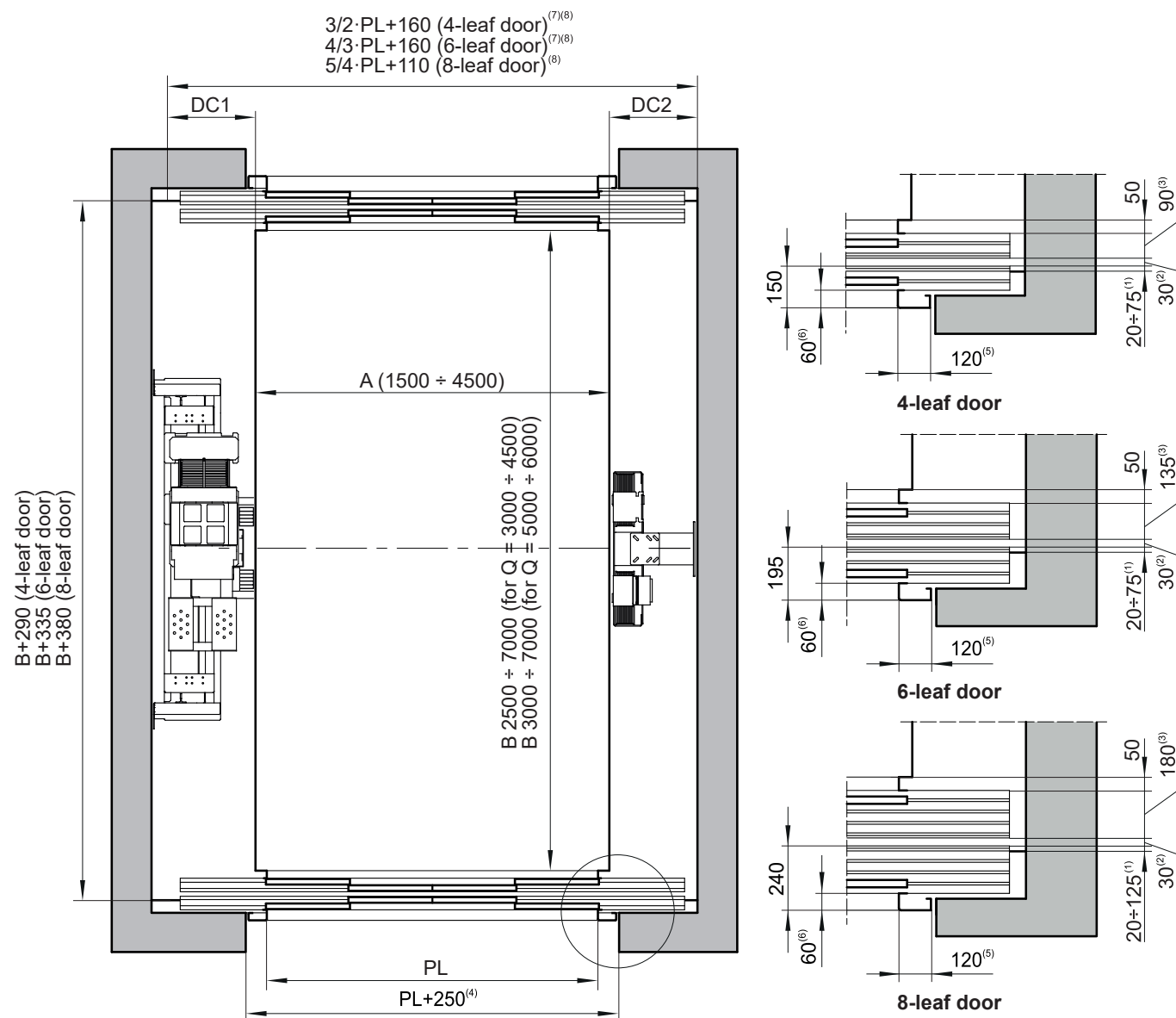
(8) Can be greater to comply with the minimum DC distance

(9) Maximum 710 for T140 guide rails

(10) Car-wall distance

Load (kg)	DC1 (mm)	DC2 (mm)
3000 ÷ 4500	500 ÷ 680	300 ÷ 680
5000 ÷ 6000	600 ÷ 780 ⁽⁹⁾	320 ÷ 700

Double entrance



A Car width

B Car depth

PL Clearance

DC1 Distance for guide rail housing, counterweight side

DC2 Distance for guide rail housing, side opposite the counterweight

⁽¹⁾ Distance from the edge of the sill to the shaft wall with standard brackets; possibility of greater distance with reinforced brackets

⁽²⁾ Distance between landing door and car

⁽³⁾ Sill width

⁽⁴⁾ Gap in wall for door

⁽⁵⁾ Width of door frame

⁽⁶⁾ Depth of door frame

⁽⁷⁾ Can be different, depending on the size and options of the door

⁽⁸⁾ Can be greater to comply with the minimum DC distance

⁽⁹⁾ Maximum 710 for T140 guide rails

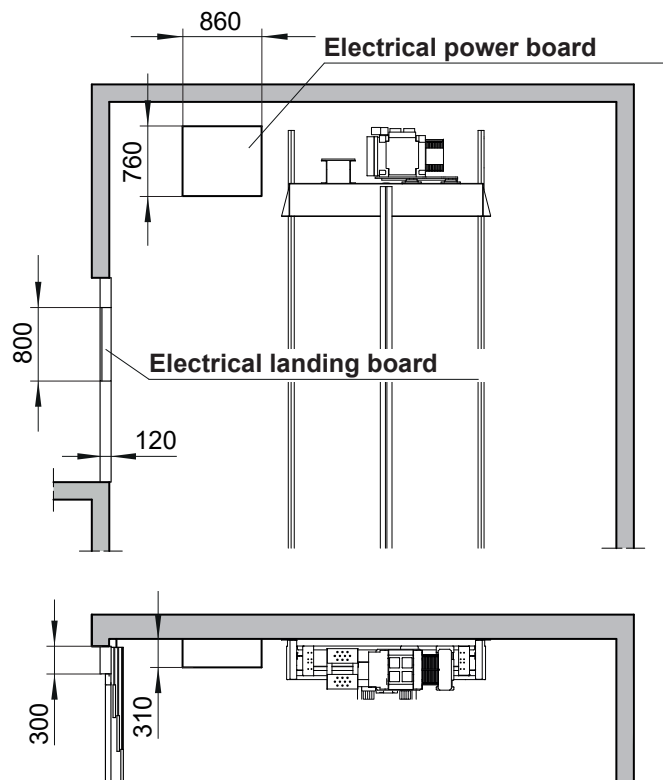
⁽¹⁰⁾ Car-wall distance

Load (kg)	DC1 (mm)	DC2 (mm)
3000 ÷ 4500	500 ÷ 680	300 ÷ 680
5000 ÷ 6000	600 ÷ 780 ⁽⁹⁾	320 ÷ 700

3.3. Machinery location

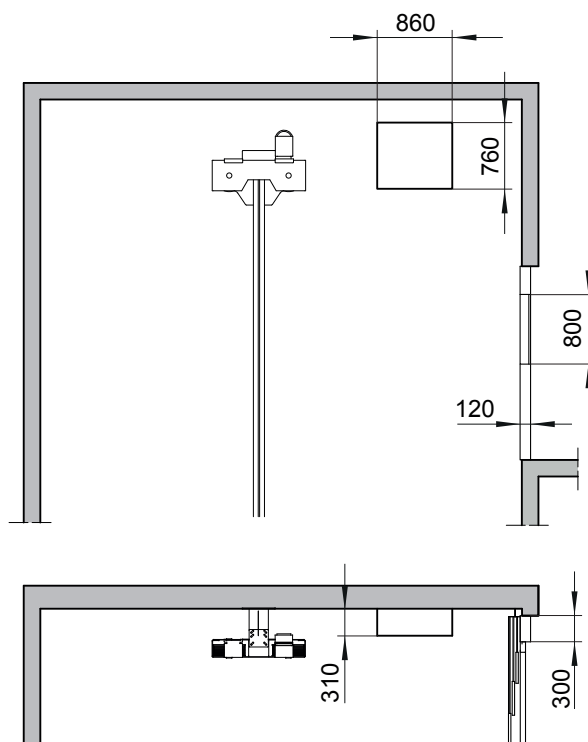
For $B \geq 4000$

Electrical shaft board located on the machine-side wall.



For $B < 4000$

Electrical shaft board located on the wall opposite the machine.





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