



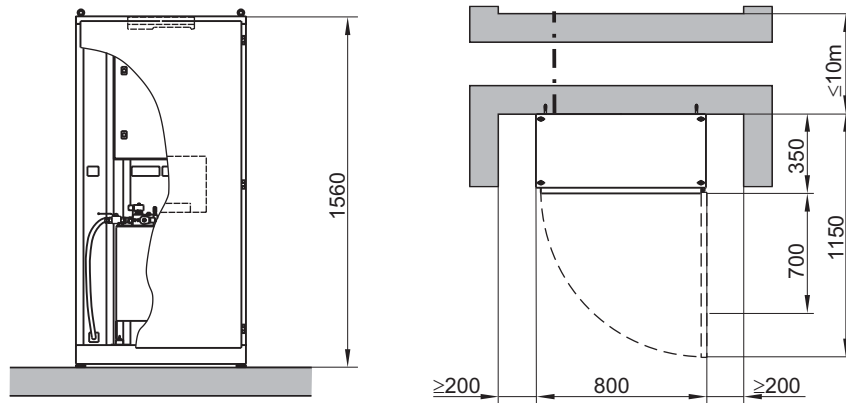
TECHNICAL SPECIFICATIONS

PASSENGER LIFTING PLATFORM

DH

APPLICATION	<p>Lifting platform for the vertical transport of people for operation between defined landing levels in houses, commercial premises and public buildings.</p> <p>It is appropriate for persons with impaired mobility. The range in sizes permits use by an accompanied wheelchair user.</p> <p>The lifting platform is designed for permanent installation in a building, within a space physically separated from the surroundings (enclosed liftway) and with doors on all accesses to the liftway.</p>
REGULATIONS	<p>The lifting platform complies with the 2006/42/EC Machinery Directive and may therefore be commercialized in all countries in the European Union. The model with no car doors complies with the Directive by means of a CE Type Examination issued by Aenor and is in compliance with the european harmonized standard EN81-41.</p>
FEATURES	
<i>RATED LOAD</i>	225, 300 ó 400 kg
<i>SPEED</i>	0.15 m/s
<i>STOPS</i>	2, 3 or 4 stops
<i>TRAVEL</i>	Up to 12 meters, depending on the available pit and headroom. Enquire in case of larger travels.
ELECTRICAL CHARACTERISTICS	<p>230 V \pm 5% single-phase 50/60 Hz</p> <p>Other voltages available as an option.</p> <p>The maximum rated consumption at single-phase 230 V is 10 A.</p>
TYPE OF DRIVE	
<i>1:1 MODEL</i>	<p>Direct action hydraulic type, driven by a 2 or 3 section telescopic side acting cylinder.</p> <p>For travels up to 7 meters (depending on available pit and headroom).</p>
<i>2:1 MODEL</i>	<p>Indirect action hydraulic type, driven by a single cylinder with 2:1 ratio rope suspension.</p> <p>For travels greater than 7 meters (depending on available pit and headroom).</p>
<i>PIPPING</i>	<p>Flexible double metal mesh hydraulic hoses, individually tested for pressure together with the corresponding connectors; the result of the test is marked on the pipe.</p> <p>Oil inlet in the lower part of the cylinder through the rupture valve that acts as protection against the rupture of the pipes.</p>
MACHINE	<p>The lifting platform is of the machine-room less type. The hydraulic unit and the control panel are located inside a cabinet 800x350x1560 mm in size which may be installed at a maximum distance of 10 meters from the lift shaft. Enquire in case of larger distances.</p>
<i>CONTROL BOARD</i>	<p>The main switch is located on the outside of the door of the control board, cuts off power to all circuits except to the lighting circuit and is lockable with a padlock; a switch for the lighting circuit is provided, located on the door of the control board by the main switch.</p>

POWER UNIT Hydraulic power unit with an external motor (1500 r.p.m.), spindle pump (low noise level), valve block with emergency electrovalve, shut-off valve and identification faceplate. An emergency manual push button is included in the power unit for the rescue of the passengers.



**GUIDING AND SHAFT
 INSTALLATION**

1:1 MODEL The guiding structure is a “pre-assembled set” consisting of two T65 lift calibrated guide rails soldered to UF120.50.3 cold-formed sections, braced to each other and with the sling and cylinder already installed.

Depending on the travel, this guiding structure may be supplied in one section (up to 2350 mm), two sections (between 2350 and 1500 mm) on three sections (for travels greater than 4500 mm). The guiding structure is designed to be fixed to the floor of the pit, to the floor slabs of each landing level and to the ceiling of the shaft. Additional intermediate fixations are not required for non-resistant walls (the need for built-in metal profiles is thus avoided).

2:1 MODEL Both the car sling and the pulley head are guided on two T65 lift calibrated guide rails. Guide rails supplied as standard in 5 m long sections and are available in 2.5 m as an option. Fixation of the guides to the wall at least every 1500 mm. The cylinder is also designed to be fixed to the wall independently during installation. The cylinder can be supplied in two sections.

WALL MOUNTING (standard) All the required material is supplied for the fixation of the guide assembly or of the guides and cylinder, depending on the model, to one of the shaft walls, using brackets and anchorages for concrete.

The reaction forces transmitted to the shaft are specified in the assembly instructions.

SELF-SUPPORTING STRUCTURE (optional) Steel structure to allow the shaft to be enclosed as required for the operation of the lifting platform without brickwork being necessary. It enables the lifting platform to be installed either attached to the wall of a courtyard or in a staircase.

All the required material is supplied for the fixation of the guide assembly or of the guides and cylinder to the structure.

The self-supporting structure is designed to be fixed to the floor of the pit, to the floor slabs of each landing level and to the ceiling of the shaft.

The structure is of a modular design, made out of folded metal sheet with bolted joints that require no welding. Available enclosure wall finishings are glazed or metal sheet (solid or perforated).

Available structure colours according to RAL colour sheet: 1015, 7001, 7032, 8003, 9002 and 9005.

CAR

Five levels of finishing are available in which different additional options and different materials and colours are combined for walls, floor and ceiling: Standard, Advance, Advance Nature, Elegance and Exclusive.

The description of each of these finishings together with the corresponding graphic information is included in the product catalogue.

WALLS Panels made of steel sheet with plastic lining or stainless steel, depending on the car model. As an option for certain finishings, glazed walls are available.

FLOOR Vinyl flooring or artificial stone, depending on the car model.

CEILING Steel sheet in white epoxi-polystyrene paint or stainless steel sheet, depending on the car model. Trapdoor with electrical locking control in order to allow maintenance operations to be carried out from inside the car with the aid of a step-ladder.

PUSH BUTTON PANEL Integrated in a column made of stainless steel sheet and installed on one of the car walls. Send push buttons installed in a horizontal plane at an appropriate level for use by wheelchair users.
Key switch for restriction of use.
Sound alarm push button.
Stop push button in model with no car doors.
Backlit characteristics plate in the upper part of the column with indication of load, use, logotype and installer reference; emergency lighting and overload indicator are also included in this plate.

LIGHTING One lighting fixture integrated in the upper part of the push button column, plus an additional fixture in the lower part, depending on the car model.
Fluorescent compact and low consumption lamps, with an output power of 2x18W for the upper lighting and 18W for the lower lighting; alternatively LED lighting panels, depending on the car model.

MISCELLANEOUS Telephone or intercom supplied and integrated in the push button panel, depending on the car model.
Stainless steel skirting board.
Stainless steel handrail Ø40 on the side of the push button column, according to the car model.
Half mirror or column type mirror on the bottom wall of the car available as options, according to the car model.

DIMENSIONS Width (A): between 700 and 1100 mm
Depth (B): between 750 and 1400 mm
Height (H): 2100 mm

Minimum dimensions for wheelchair users:

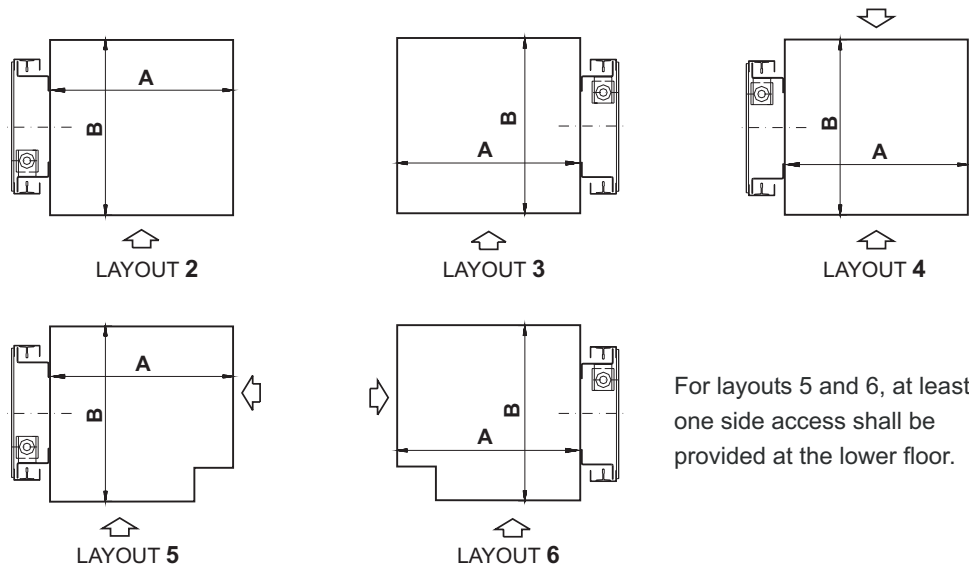
	A (mm)	B (mm)
Wheelchair user	800	1250
Wheelchair user with an attendant	900	1400
Wheelchair user with an attendant and adjacent entrances	1100	1400

Maximum surface according to the rated load (Q):

Q (kg)	A·B (m ²)
225	0.90
300	1.20
450	1.54

See figures 2, 3, 4 and 5.

ACCESSES 1 or 2 car accesses. Includes double 180° access and double 90° access.



DOOR TYPES Car with no doors, with safety light curtains.
 Automatic foldable “BUS” type doors in stainless steel, with vision panel or fully glazed.
 Automatic telescopic 2 or 3 leaf side opening doors, in stainless steel.

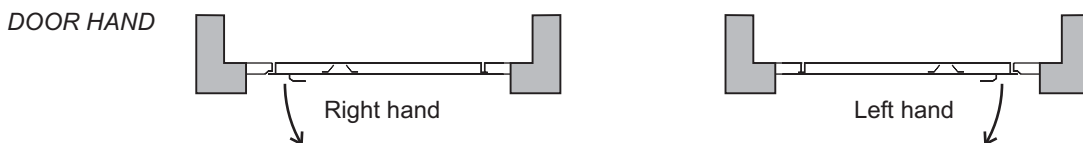
LANDING DOORS

TYPES Semiautomatic lift swing doors with vision panel or fully glazed, with an electric lock for the model with no car doors, and with cam actuated locks for the model with “bus” type car doors.
 Telescopic 2 or 3 leaf side opening doors; actuation of landing doors is simultaneous with car doors.

OPTIONS Operator for automatic door mechanism for swing doors

FINISH Painted in epoxy colour RAL 7032 as standard finishing

DIMENSIONS Clear height (HL): 2000 mm
 Clear opening (PL): 700, 800 (minimum for wheelchair users) or 900 mm



PUSH BUTTON PANEL Stainless steel plate for installation in door frame.
 Call push button with outer illuminated ring indicating “car occupied”.
 Light “car present” indicator for non automatic landing doors (swing doors with no automatic operator option).
 Key switch for restriction of use.

SHAFT DIMENSIONS

PIT, HEADROOM According to travel.
 See figure 1.

WIDTH, DEPTH According to car dimensions, entrance layout and door type.
 See figures 2, 3, 4 and 5.

CONTROL

Control with programmable logic controller.
Movement control from the car push button panel with maintained actuation in the model with no car doors, and automatic (non maintained actuation) with car doors.
Calls from landing push button panels are automatic (maintained actuation not required).
Landing detection with magnetic switches.
Re-levelling with open doors.
Car light timing with automatic turn-off for energy consumption reduction.

ELECTRICAL INSTALLATION

Both car and shaft electrical installations are supplied pre-wired and with plug-in terminals to connect to the electric board and to the connection box located on the car ceiling.
The shaft lighting - optional on request - is supplied with the lights and the pit switch pre-wired and with a plug-in connector for connection with the electric board.

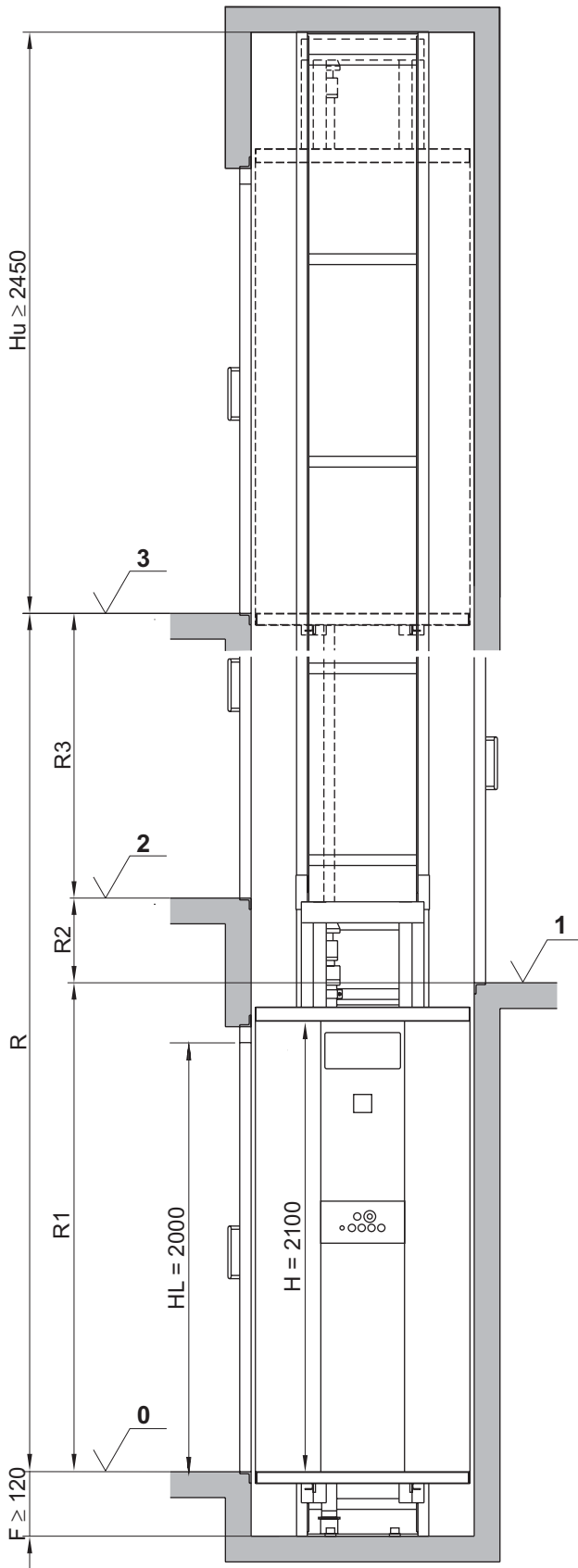
SAFETY ELEMENTS

Doors with electric control of the closed position.
Landing doors with electric control of the locking of the lock.
Rupture valve as a safety measure against free fall due to rupture of piping.
Safety gear actuated by safety rope for the 2:1 model as a safety measure against free fall due to breakage in the suspension elements.
Re-levelling with open doors as a safety measure against creeping.
Upper final limit switch.
Control of the maximum motor and electrovalve electric supply time.
Stop push button in car for the model with no car doors.
Light curtain as a safety measure against trapping hazards in the loading area for the model with no car doors.
Overload control.
Alarm push button in car.
Telephone or intercom in car.
Descent operation to the lower floor controlled from the car in case of loss of power supply.
Manual descent push button in the hydraulic power unit.
Manual opening of the doors with safety key.
Circuit breakers in the control panel, one for protection of the control and power circuits and another for the lighting and power supply circuits.
Stop push button in pit.
Blocking device in pit for maintenance operations.
Acoustic warning in case of access to the pit until the blocking device is in the active position.
Trapdoor in car ceiling for maintenance operations, with electric control of the closed position.

OTHER OPTIONS

Step-ladder for maintenance operations from pit and car, for fixation inside the shaft and accessible from the landing door in the lower landing level.

Figure 1. Minimum shaft dimensions in elevation



1:1 Model (direct action):

Travel up to 7000 mm

Minimum pit 120 mm

Minimum headroom 2450 mm

For travels greater than 5300 mm fulfill this condition:

$$F+Hu \geq (R+1939)/2.829 \text{ (see table)}$$

2:1 Model (indirect action):

Travel greater than 7000 mm

Minimum pit 200 mm

Minimum headroom 2550 mm

		Minimum headroom			
		Available pit			
	Travel	120	200	500	
1:1	≤5300	2450	2450	2450	
	5400	2470			
	5500	2510			
	5600	2540	2460		
	5700	2580	2500		
	5800	2620	2540		
	5900	2650	2570		
	6000	2690	2610		
	6100	2720	2640		
	6200	2760	2680		
	6300	2790	2710		
	6400	2830	2750		
	6500	2860	2780		2480
	6600	2900	2820		2520
6700	2930	2850	2550		
6800	2970	2890	2590		
6900	3000	2920	2620		
7000	3040	2960	2660		
2:1	8000	-	2550		
	12000	-	2550		

With the option of 3 leaf telescopic doors:

Minimum headroom 2700 mm

R Travel

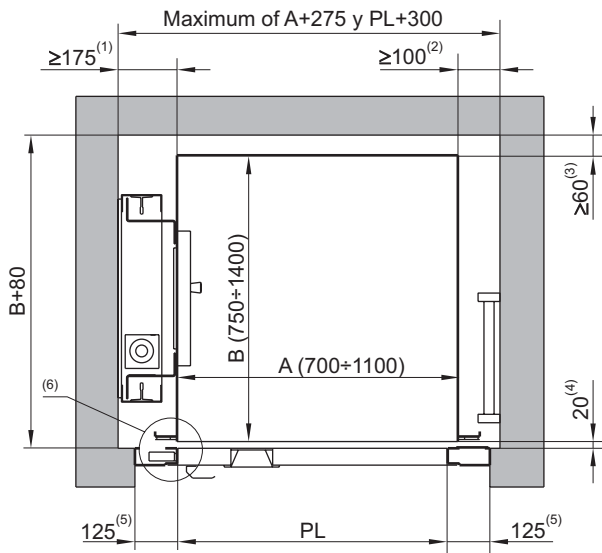
F Pit

Hu Headroom

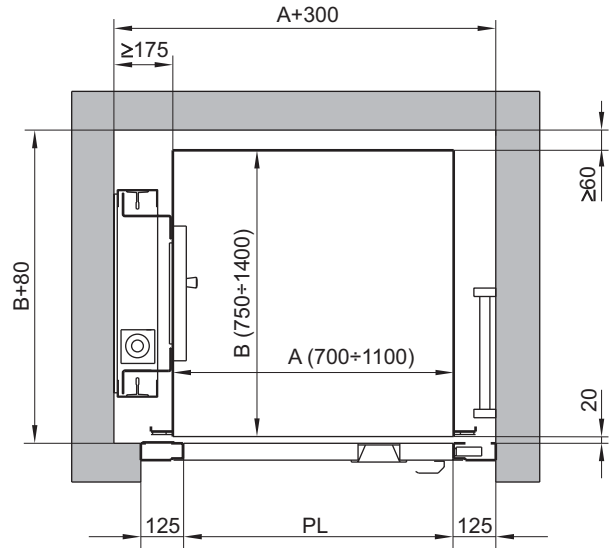
H Car clear height

HL Door clear height

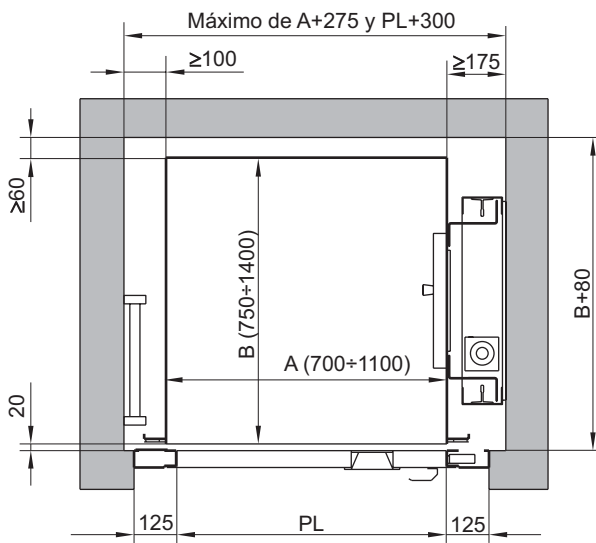
Figure 2. Minimum shaft dimensions with no car door



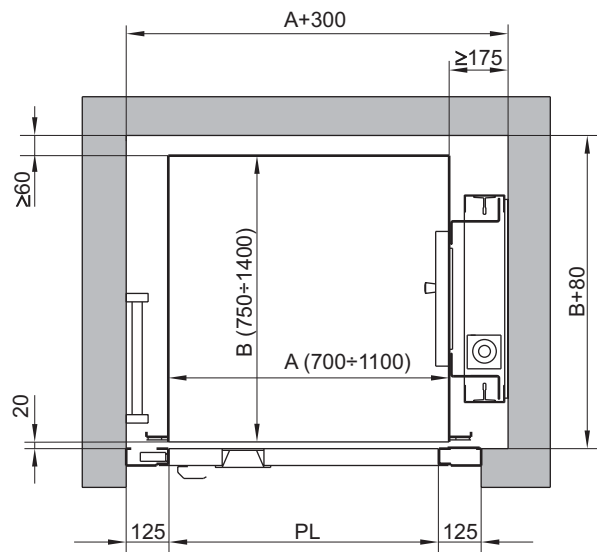
Layout 2, right hand door



Layout 2, left hand door

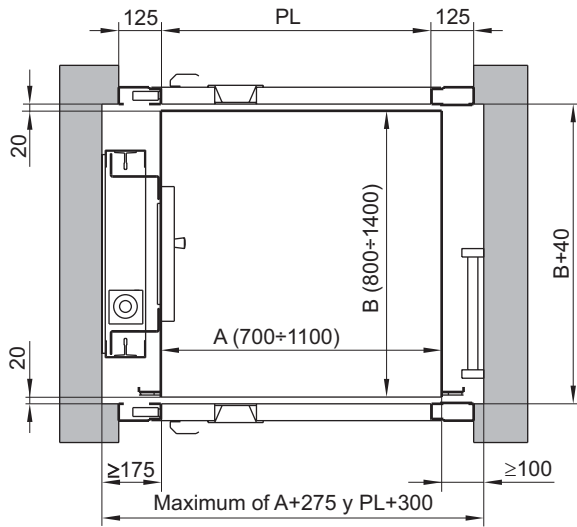


Layout 3, left hand door

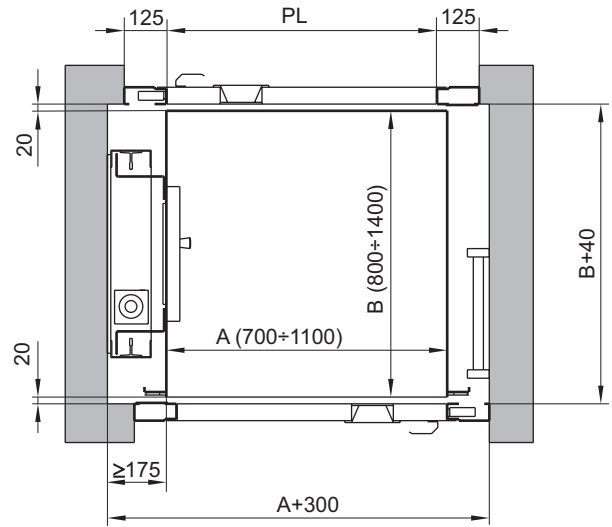


Layout 3, right hand door

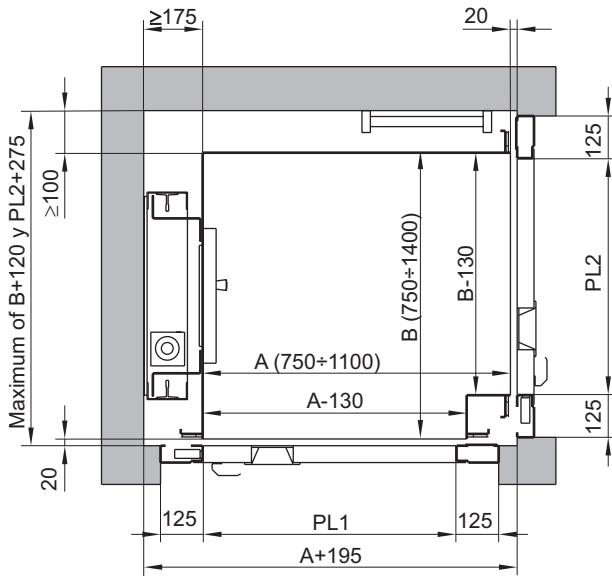
- A Car width
- B Car depth
- PL Clear opening (maximum equals the car width)
- (1) Minimum distance for guide installation (max 240 mm)
- (2) Minimum car-wall distance for wall adjacent to the entrance
- (3) Minimum car-wall distance
- (4) Distance between entrance and car
- (5) Frame width of the semiautomatic swing door
- (6) Lock side always flush with the car



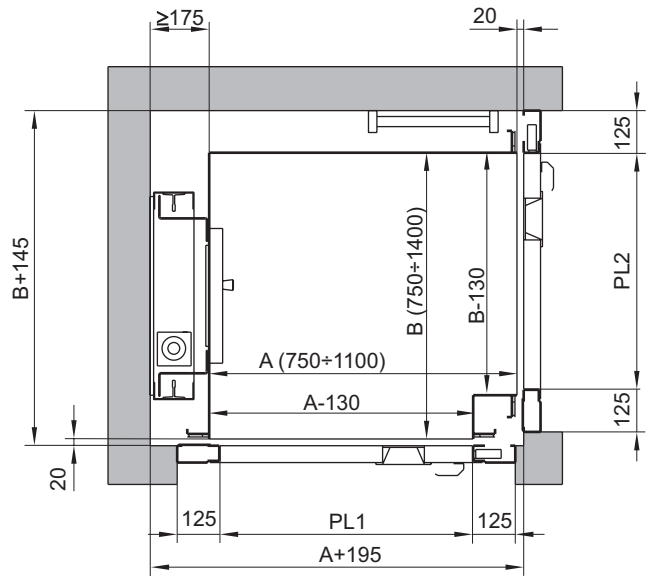
Layout 4, locking side of both doors on the guide side.



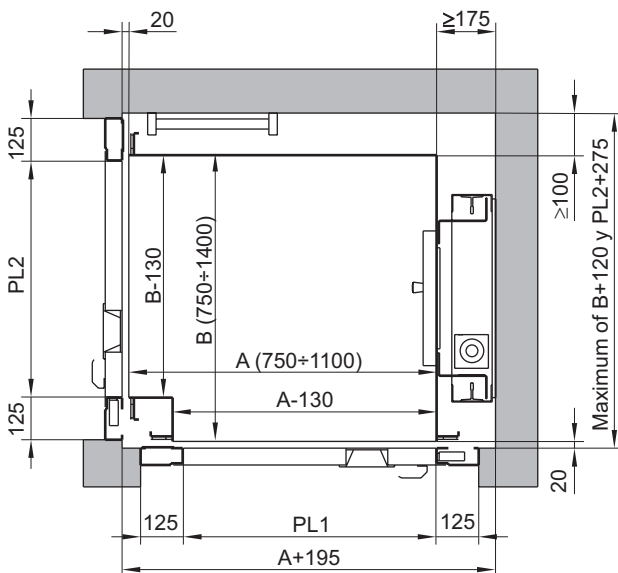
Layout 4, locking side of one of the doors on the opposite side of the guides.



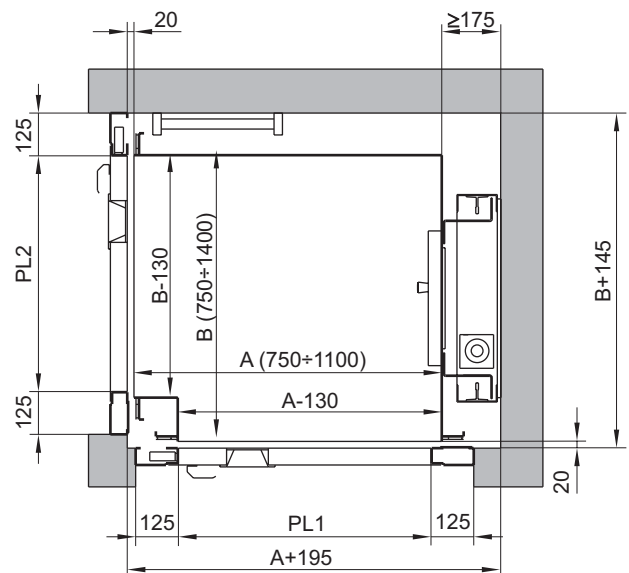
Layout 5, door 2 right hand



Layout 5, door 2 left hand



Layout 6, door 2 left hand



Layout 6, door 2 right hand

Figure 3. Minimum shaft dimensions with "bus" type folding car doors

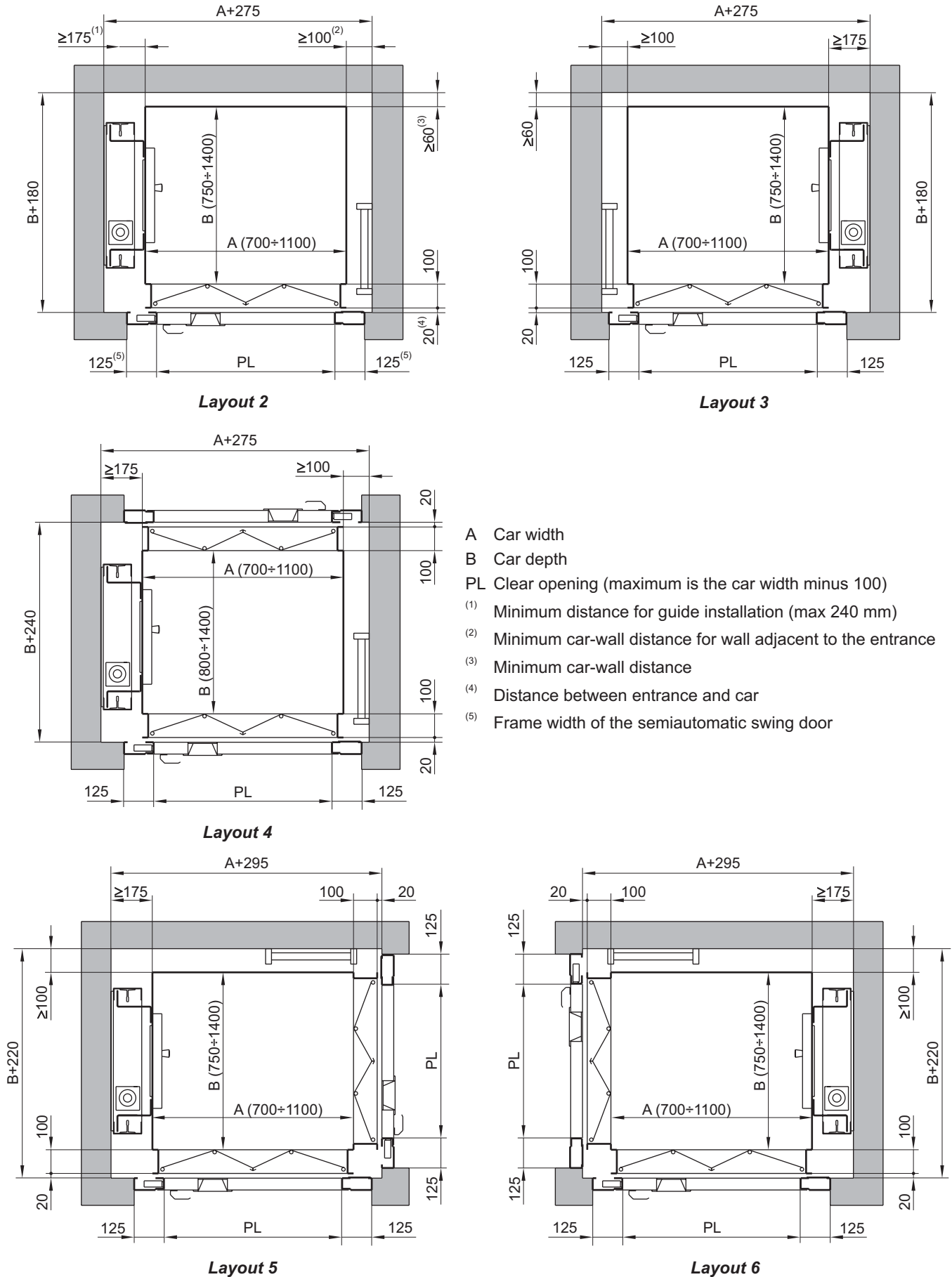
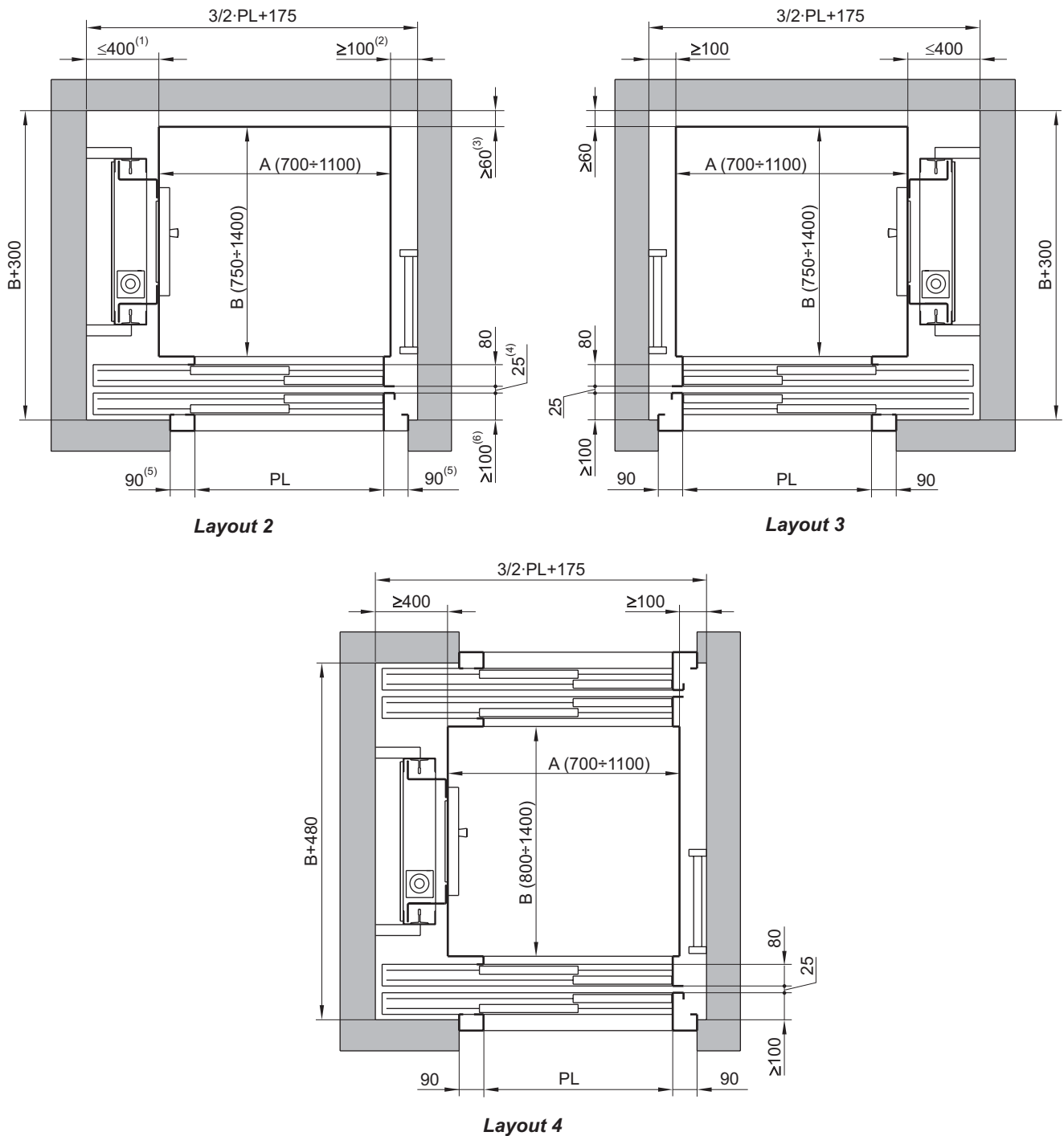


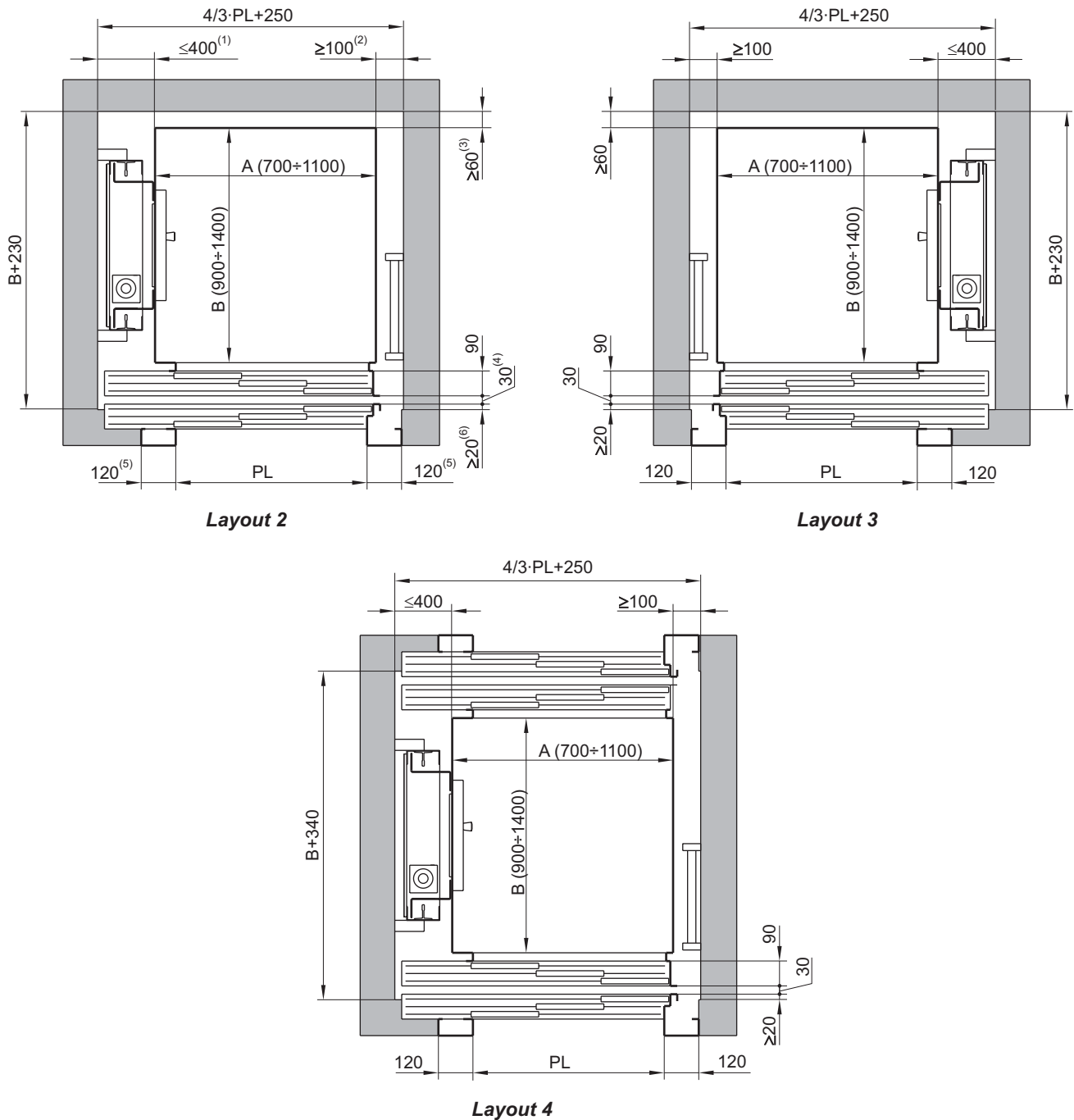
Figure 4. Minimum shaft dimensions with 2 leaf telescopic door



- A Car width
- B Car depth
- PL Clear opening

- (1) Maximum distance in the guide rail space
- (2) Minimum car-wall distance for walls beside the entrance
- (3) Minimum car-wall distance
- (4) Distance between car and landing sills
- (5) Frame width for 2 leaf telescopic doors
- (6) Minimum distance between landing door sill and shaft (maximum 140 mm)

Figure 5. Minimum shaft dimensions with 3 leaf telescopic door



A Car width

B Car depth

PL Clear opening

(1) Maximum distance in the guide rail space

(2) Minimum car-wall distance for wall adjacent to the entrance

(3) Minimum car-wall distance

(4) Distance between car and landing sills

(5) Frame width for 3 leaf telescopic doors

(6) Minimum distance between landing door sill and shaft (maximum 75 mm)

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