

JIS

JAPANESE INDUSTRIAL STANDARD

**Size of Car and Hoistway
of Elevators**

JIS A 4301 —1983

Translated and Published

by

Japanese Standards Association

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standard in Japanese is to be evidence

UDC 621.876.078:69.026.6:
621.876-181

JAPANESE INDUSTRIAL STANDARD

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Size of Car and Hoistway of Elevators

A 4301-1983

1. Scope

This Japanese Industrial Standard specifies dimensions of the car and hoistway of elevators to be installed in buildings and structures.

2. Symbols for Elevators

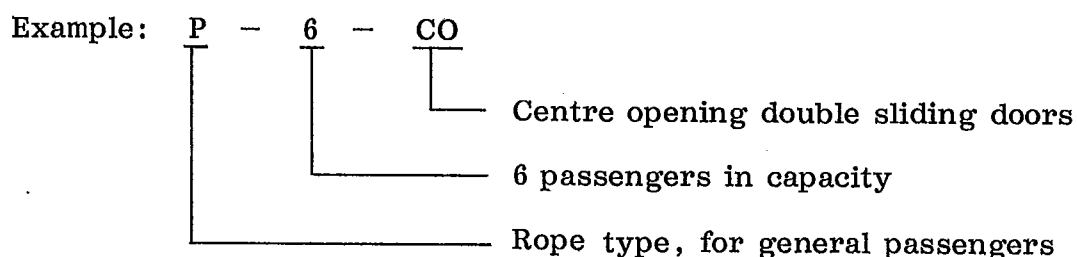
The symbols of the elevators shall be constituted of "symbols indicating type of machine and use" — "numerals indicating allowable number of passengers or carrying load (kg)" — "symbol for door system".

(1) Symbols for type of machine and use shall be as follows:

- P : Rope type, for general passengers
- R : Rope type, for residence
- RT : Rope type, for residence with trunk
- B : Rope type, for bed
- E : Rope type, for emergency
- HP : Oil hydraulic type, for general passengers
- HR : Oil hydraulic type, for residence

(2) Symbols for door system shall be as follows:

- CO : Center opening double sliding doors
- 2S : Single side opening double sliding doors

3. Dimensions

The dimensions for the rope type elevators shall conform to Tables 1 and 2, and Figs. 1 to 4, and those for the oil hydraulic type elevators to Tables 3 and 4, and Figs. 5 to 9.

3.1 Rope Type Elevator

3.1.1 Inside Dimensions for Car, Minimum Dimensions for Hoistway and Effective Entrance Dimensions The inside dimensions for car, minimum dimensions for hoistway and effective entrance dimensions shall be as given in Table 1 and Figs. 1 to 4.

Table 1

Unit: mm

Applica- tion	Symbol	Carry- ing load (kg)	Maximum number of pas- sengers (person)	Inside dimension for car			Minimum dimen- sions for hoistway		Effective entrance dimensions		Appli- cable dia- gram	Reference speed (m/min)
				A (Width)	B (Depth)	C (Height)	X (Width)	Y (Depth)	W (Width)	H (Height)		
For general passengers	P-6-CO	450	6		850		1 800 ⁽¹⁾	1 500 ⁽¹⁾				45, 60
	P-9-CO	600	9	1 400	1 100		1 800 ⁽²⁾	1 750 ⁽²⁾	800			45 to 105
	P-11-CO	750	11					2 000 ⁽²⁾				
	P-13-CO	900	13	1 600	1 350		2 150 ⁽³⁾	2 150 ⁽³⁾	900			
	P-15-CO	1 000	15	1 600	1 500	2 300	2 150 ⁽³⁾	2 300 ⁽³⁾	900	2 100	Fig. 1	45 to 180
				1 800	1 300		2 350 ⁽³⁾	2 100 ⁽³⁾	1 000			
	P-17-CO	1 150	17	1 800	1 500		2 350 ⁽³⁾	2 300 ⁽³⁾	1 000			
				2 000	1 350		2 550 ⁽³⁾	2 150 ⁽³⁾	1 100			
	P-20-CO	1 350	20	1 800	1 700		2 350 ⁽³⁾	2 550 ⁽³⁾	1 000			105 to 300
For residences				2 000	1 500		2 550 ⁽³⁾	2 350 ⁽³⁾	1 100			
	P-24-CO	1 600	24	2 000	1 750		2 550 ⁽³⁾	2 600 ⁽³⁾				
				2 150	1 600		2 700 ⁽³⁾	2 450 ⁽³⁾	1 100			
For residences	R-6-2S	450	6		1 150		1 550 ⁽¹⁾	1 700 ⁽¹⁾			Fig. 3	45, 60
	R-9-2S	600	9	1 050	1 520	2 200	1 550 ⁽²⁾	2 100 ⁽²⁾	800	2 000		45 to 90
	RT-9-2S	600	9		1 520 +480			2 350 ⁽²⁾			Fig. 4	
For beds	B-750-2S	750	11	1 300	2 300	2 300	2 050	2 900	1 100		Fig. 2	30 to 60
	B-1000-2S	1 000	15	1 500	2 500		2 300	3 100	1 200	2 100		
For emer- gency	E-13-CO	900	13	1 600	1 350	2 200	2 250 ⁽³⁾	2 250 ⁽³⁾	900	2 100 ⁽⁴⁾	Fig. 1	60 min.
	E-17-CO ⁽⁵⁾	1 150	17	1 800	1 500	2 300	2 400 ⁽³⁾	2 400 ⁽³⁾	1 000	2 100		

Notes ⁽¹⁾ In the case of a building of flexible construction, a value to which 50 mm is added shall be applied.

⁽²⁾ In the case of a rated speed of 90 m/min or over, up to 105 m/min incl. and in the case of a building of flexible construction, a value to which 50 mm each is added shall be applied.

⁽³⁾ In the case of a rated speed exceeding 105 m/min up to 300 m/min incl. and of a building of flexible construction, a value to which 100 mm each is added shall be applied.

⁽⁴⁾ In the case where an elevator is to be installed in a building for public residence, it may be established as 2000.

⁽⁵⁾ This is the minimum value for an emergency elevator to be installed compulsory.

Remarks 1. The minimum dimensions of hoistway given in the table above indicate those for the rigid construction.

2. The width dimension of a hoistway in which two sets or more of elevators are arranged shall be in accordance with the following equation:

$$\text{Width dimension of hoistway (mm)} = nX + (n-1) \times 150$$

where n : number of sets of elevators being arranged

X : the minimum dimension (mm) of width of the hoistway for one set of elevator, which is in accordance with the table above.

Fig. 1

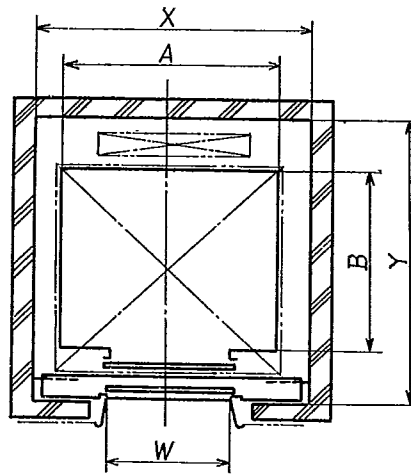


Fig. 2

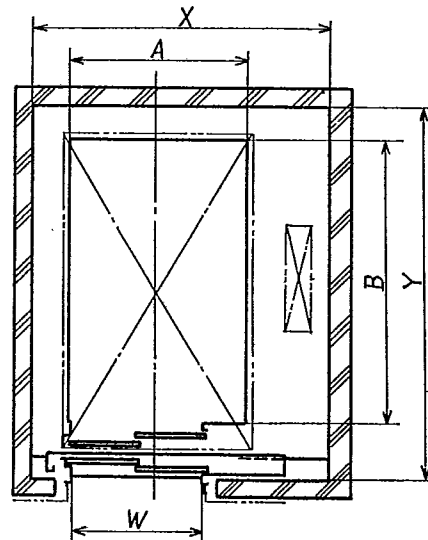


Fig. 3

