

HCA

High Speed Passenger Elevator Planning Guide

The information in this catalogue is subject to change without notice. The information and diagram in this catalogue reflect the technical features and configuration of the elevator model at press time (refer to the version number). In line with the principle of continuous development of products, our company reserves the right to change the selection of product technical parameters and colour at any time. The existing image technology cannot accurately reproduce the elevator component structure and decoration colour. Therefore, this catalogue only provides general information, not as a contract document. The specific configuration parameters are subject to the formal agreement.

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Contents

Elevator Specification

02	Elevator Specification	Rated Load (kg)	Number Of Passengers	Rated Speed (m/min)	Maximum Number Of Stops	Maximum Travel (m)	Maximum Travel With Fireman Operation (m)	Minimum Floo Height (mm)
03	Layout	825	11					
04	FI System	900	12	-				
07	Elevator Function	1050	14					
09	Overhead Height and Pit Depth	1150	15	180/210/240	64	200	180m/min:160 210m/min:185	
10	Hoistway and Machine Room	1350	18				240m/min:200	
		1600	21					0000
15	Entrance Design	1800	24					2800
17	Electrical Information	2000	26					
18	Electrical Data	1050	14					
19	Civil Works Matters	1150	15	300	64	250	250	
		1350	18	300	04			

Note: ① Passenger numbers calculated at 75Kg per person. ② The above information are based on GB7588-2003 standards.



- Maximum in-line arrangement is 4 elevators.
- · Elevators not in the same group should not be set in the same line.
- Avoid placing the elevators entrance near pillars.

<FI Series> Implements Group Control in Response to Different Requirements of Different Buildings.

A group control system groups multiple elevators for achieving a well-balanced operation by taking waiting times into account. Such a system requires flexibility so that it can be used in various types and sizes of buildings and be responsive to changing traffic demand.

Please select the most suitable elevator system for the building you are planning.

FI Series

FI-600 / FI-700	FI-100	FI-10
(3-8 Cars)②	(3-6 Cars)	(3-4 Cars)
Allows a flexible control for elevator car allocation and the required number of cars according "Human Flow Prediction" and "Future Reference-Trajectory Control" for shortening the average waiting times.	Elevator cars are allocated at equal time intervals according to "Reference-Trajectory Control" for shortening the average waiting times and reducing the probability of a long wait.	Provides a ring control to allocate the elevator car closest to the floor where a new hall call is registered.

	Instantaneous reservation and service forecasting		
	Intelligent Function		
	Human flow prediction		
	Generation of new traffic flow modes		
	Generation of optimum operation programs		
	Congested floor recognition		
	Energy-saving preference control		
	Learning Function		
Basic Specification	Collection of usage data Recognition of traffic	flow mode • Search for optimum	
	(40/2 mode	es) operation program	
	Arrival notice indication (Hall lan		
	Bunching Preventio		
	+	Reference-trajectory control	Ring control
	Future reference-trajectory control		
	Forecasting dynamic allocation control	Zone distribution control	Fixed floor distribution control
System Name	FI-600 / FI-700	FI-100	FI-10 (Simplified Group Control)
Recommend Number of Cars in a Group	3~8 Cars ②	3~6 Cars	3~4 Cars
Type of Building	Large office building	Small office building Department store, hotel, hospital	Buildings with small traffic demand
	VIP service		
Optional Specification	Service floor selec	ction	
	Destination floor reservation system (DFRS)		
	Centralised control for special floors		
	Zoning express service		

• Elevators in the same group with face-to-face arrangement, the distance of facing elevators (L) should be 3.5~4.5m.

• Elevators not in the same group with face-to-face arrangement, the distance of facing elevators (L) should be more than 6m.





- Elevators in the same group is recommended to have the same service floors.
- Elevators in the same group is recommended to have one base floor instead of having multiple access floors.

Note

① Bunching Prevention: Using the "Future reference-trajectory control" or the "Reference-trajectory control" in the FI-600 / FI-700 or FI-100,

elevator cars are operated at equal time intervals to prevent local bunching.

2 The FI-700 system supports a maximum of 16 operation control elevators.

FI Series

Basic	Function	• Basic spec.	: Optional sp	bec. —∶N	ot applicabl
No.	Item	Content	FI-600/ FI-700	FI-100	FI-10
1	Instantaneous Reservation and Service Forecasting (FI-IRF)	Upon receipt of a hall call, this function activates an elevator to serve this call, and at the same time the call is acknowledged by the hall lantern and chime.	•		
2	Arrival Notice Indication (FI-ANI)	Four to five seconds prior to the arrival of an elevator, this function will activate the hall lantern flickering and the chime sound.	•	•	
	Basic Call Assignment Control				
3	Future Reference Trajectory Control (FI-FRTC)	Controls the allocation of elevator cars to hall calls according to the future reference trajectory resulting from learning-based daily traffic flows.	•		
	Reference-Trajectory Control (FI-RTC)	Controls the allocation of elevator cars to hall calls based on the theory used in FI-600 / FI-700, and the intelligent-based data containing our know-how accumulated over a long period of time.		•	
	Personalised Control	Through the hall call assignment control of waiting time priority assignment, constantly carry out operation management in accordance waiting time priority.	•	•	
4	Waiting Time Priority Assignment	Prevent long waiting time of passengers by implementation of hall call assignment.	•	•	
4	Riding Time Priority Assignment	Prevent long riding time of passengers by implementation of hall call assignment.			
	Priority Allocation Based on Car Congestion Level	This system reduces the number of elevator cars in service when traffic demand is low.			
	Learning Function				
	Collection of Usage Data (FI-CUD)	Collects the traffic status information by floor and direction for a unit time based on the elevator information such as car positions and the number of passengers getting on and off, and hall call information.	•	•	
5	Recognition of Traffic Flow Mode (FI-RTM)	Extracts characteristics at any given moment, including congested floors, from the collected usage data, and identifies the traffic flow mode at that moment.	(40 modes)	(2 modes)	
	Search for Optimum Operation Program (FI-SOP)	Searches for the optimum operation program of the moment based on the identified traffic mode.	•	•	
6	Congested Floor Recognition (FI-CFR)	Identifies congested floors according to the usage data learned in each traffic flow mode.	•		
7	Service Forecasting for Hall Call Assignment (FI-SFH)	This function assigns elevators cars to hall calls more precisely by forecasting the arrival time and number of passengers in the car according to the learning-based traffic demand.	•		
Q	Generation of New Traffic Flow Modes (FI-GNT)	Extracts new characteristics according to the learning-based usage data, and registers them as a building-specific new traffic flow mode.	•		
0	Generation of Optimum Operation Programs (FI-GOP)	Generates an optimum operation program for a building by simulating the elevator operation according to the usage data learned in each traffic mode and preferential control target.	•		
9	Energy-Saving Preference Control (FI-ESC)	This system reduces the number of elevator cars in service when traffic demand is low.	•		
	Floor Standby Control				
10	Forecasting Dynamic Allocation Control (FI-FDA)	Dynamically allocates elevator cars in response to continuously changing situations in the building by determining the area assigned to each car according to the forecasted number of passengers and car usage.	•		
	Zone Distribution Control (FI-ZD)	Distributes the waiting elevator cars to the pre-assigned zones.		•	
	Fixed Floor Distribution Control (FI-FD)	Distributes the waiting elevator cars to the pre-assigned floors.	(FI-700 only)		•

FI Series

Basic Function		Function	● : Basic spec. 🔺 : Optional spec. — : Not applicable				
	No.	Item	Content	FI-600/ FI-700	FI-100	FI-10	
	11	Human Flow Prediction (FI-HEP)	The next number of users is predicted from the elevator operation status. This is used to increase the predictive accuracy for congested time slots and improve service efficiency.	•			
	12	Learning-Based Concentrated Service (FI-LCS)	Centralises the service to the learning-based congested floors during peak times including morning, lunch time and evening peaks while taking the service for other floors into account.				
	13	Rush-Hour Schedule Operation (RHSO)	All the elevators will automatically return to the start base floor, after serving the last call during the preset rush-hour timing.	•			
	14	Destination Floor Priority Control	The allocation will be priority when the destination floor and hall call floor is the same floor.	•	•		
	15	Full Car Forecasting Control	Control the new allocation according to the number of passengers in car and the times of new calls.	•	•		
	16	Full Car Control	Stop new allocation or re-allocate the car when full load.				
	17	Long Waiting Time Allocation Control	Re-allocate the cars when long waiting time situation is forecasted.	•	•		
	18	Notice Function	Keep the service elevator car door open with hall lantern flickering to guide the passengers.		•		
	19	Automatic Door Open Time Control (FI-ADT)	This function automatically controls the duration of the door open time according to the floor and the kind of call (hall call or car call) as well as the elevator condition.	•	•		

Optional Function

No.	Item	Content	FI-600/ FI-700	FI-100	FI-10
1	Centralised Control for Special Floors (FI-CCF)	This function preferentially assigns an elevator to the special floor (e.g the director's room).			
2	Service Floor Selection (FI-SFS)	Allows the operator to select the service and non-service floors using, for example, the switches on the control panel.			
3	VIP Service (FI-VIP)	When welcoming or sending off important guests, this function permits an elevator to be summoned directly to the desired car call floor by operating a specially provided switch.			
4	Destination Floor Reservation System (DFRS)	Each passenger registers their destination floor on the registration device located at the landing hall and knows in advance the designated elevator to take. System assigned one elevator for the passengers with the same destination floor. This helps to reduce congestion in the elevator lobby and improve efficiency.			
5	Zoning Express Services (FI-EZS)	Starts a divided express service when the peak traffic demand takes place in the preset time zones.			

Man-Machine Function

No.	Item	Content	FI-600/ FI-700	FI-100	FI-10
1	Mischievous Call Cancellation	When large numbers of calls are registered by small number of passengers, the calls are determined to be mischievous and will be automatically cancelled.	•	•	
2	Hall Indicator	Inform passengers at the lobby the position of the elevator.			

Elevator Function

Standard Function

Con	trol System		
SA1	Selective Collective Control	SA2	Floor Height Self Measurement
SA3	On-Cage (Car Top) Maintenance Operation	SA4	In-Cage Slow Speed Operation
SA5	Machine Room Debugging Operation		
Syst	tem Protection		
SB1	Overspeed Electrical Protection	SB2	Overspeed Mechanical Protection
SB3	Rope Slipping Running Protection	SB4	Motor Overload (Thermal) Protection
SB5	Automatic Fault Detection	SB6	Automatic Fault Recording
SB7	Standby Regular Auto-Check	SB8	Double Brake-Safety Check Operation
SB9	Synchronous Motor Magnetic Pole Test	SB10	Lift-Position Abnormity Auto-Correction Function
SB11	Nearest Landing Operation	SB12	Anti-Electromagnetic Interference
SB13	Unintended Car Movement Protection, UCMP Function	SB14	Ascending Car Overspeed Protection, ACOP Function
SB15	Intelligent Auxiliary Brake Function		
Safe	e Communication		
SC1	Car Intercom Communication	SC2	Car Top Intercom Communication
SC3	Pit Intercom Communication		
Safe	Riding		
SD1	Alarm System	SD2	Door Safety Return System
SD3	Full Load Bypass Operation	SD4	Overload Detection System
SD5	Overload Alarm	SD6	Door Opening/Closing Time Abnormity Protection
SD7	Next Drive (Door Open Abnormity)	SD8	Automatic Door Dwell Time Control
SD9	Automatic Door Dwell Time Adjustment	SD10	Number Of Runs Indicator
SD11	Intelligent Multi-Beam Protection ①	SD12	Current Floor Push-Button Reopening Function
SD13	Maintenance Indication At Hall Indicator ${\rm l}{\rm l}$	SD14	Overload Indicator (In Car)
SD15	Emergency Terminal Stopping Device, ETSD (For rated speed 300m/min)		
Eme	ergency Solution		
SE1	Out Of Door-Open Zone Alarm	SE2	Car Emergency Lighting
SE3	Fire Emergency Operation (Automatic)	SE4	Emergency Electric Operation
Des	ign for Comfort		
SF1	Parking Operation	SF2	Automatic Return Function
SF3	Start Torque Auto-Adjustment	SF4	Door-Stop Function (Maintenance)
SF5	Micro Levelling (Travel ≥ 45m)	SF6	Advance Door Opening
SF7	Mischievous Call Cancellation (Applicable for Simplex, Duplex, FI-100, FI-600 and FI-700 only)	SF8	Opposite Direction Car Call Cancellation
SF9	Car Light Auto Turn-Off	SF10	Car Fan Auto Turn-Off
SF11	Abnormal Duration Hall Call Detection (Applicable for Simplex, Duplex and FI-10 only)	SF12	Car Floor Button Flashing
SF11 SF13	Abnormal Duration Hall Call Detection (Applicable for Simplex, Duplex and FI-10 only) Car Call Deselect Function	SF12 SF14	Car Floor Button Flashing Step-Less Speed Control
SF11 SF13 SF15	Abnormal Duration Hall Call Detection (Applicable for Simplex, Duplex and FI-10 only) Car Call Deselect Function Regenerative System Function	SF12 SF14 SF16	Car Floor Button Flashing Step-Less Speed Control Door Bypass Detection
SF11 SF13 SF15 SF17	Abnormal Duration Hall Call Detection (Applicable for Simplex, Duplex and FI-10 only) Car Call Deselect Function Regenerative System Function Overloading Hall Call Recovery Function ① (Applicable for Simplex, Duplex and FI-10 only)	SF12 SF14 SF16 SF18	Car Floor Button Flashing Step-Less Speed Control Door Bypass Detection Manual Setting For Start Base Floor Function (Applicable for Simplex only)
SF11 SF13 SF15 SF17 SF19	Abnormal Duration Hall Call Detection (Applicable for Simplex, Duplex and FI-10 only) Car Call Deselect Function Regenerative System Function Overloading Hall Call Recovery Function ① (Applicable for Simplex, Duplex and FI-10 only) Limit Illumination Of Registered Car Calls	SF12 SF14 SF16 SF18 SF20	Car Floor Button Flashing Step-Less Speed Control Door Bypass Detection Manual Setting For Start Base Floor Function (Applicable for Simplex only) Elevator Sleep Function

Note: ① For details, please contact us.

Elevator Function

Optional Function

Con	Control System						
OA1	Down Collective Control	OA2	Duplex Collective Control				
OA3	FI-10 Group Control System ①	OA4	FI-100 Group Control System ①				
OA5	FI-600 Group Control System ①	OA6	FI-700 Group Control System ①				
OA7	Independent Automatic Operation ① (For Duplex and Group Control)	OA8	VIP Service (For Duplex and Group Control)				
OA9	Rush Hour Schedule Operation (Applicable for FI-10, FI-600 and FI-700 only)	OA10	Call Dedicated Elevator Operation ① (For Duplex and Group Control)				
Safe	e Communication						
OB1	Interphone System (5 Ways) (5 Ways: Monitoring Center, Machine Room, In Car, Car Top & Pit)						
Safe	Riding						
OC1	IC Card Security System (In Car) (Not applicable with OC2, OC4, OC5 or OE5)	OC2	IC Card Security System (Hall) (Not applicable with OC1, OC4, OC5 or OE5)				
OC3	Multi-Beam + Safety Edge Protection	OC4	Hitachi Smart Security [ITM] Interface (Not applicable with OC1, OC2, OC5 or OE5)				
OC5	Intercom Linkage Interface For Elevator Access (Not applicable with OC1, OC2, OC4 or OE5)	OC6	Contact At Control Panel (RS485)				
OC7	Contact At Control Panel (Dry Contacts) (Not applicable with OC8)	OC8	Supervisory Panel (Dry Contact Type) (Not applicable with OC7)				
OC9	Elevator Monitoring System (Computer Type)	OC10	Twisted Pair Cable (1 Pair) For CCTV Interface				
OC11	Twisted Pair Cable (1 Pair) For BGM Interface	OC12	Emergency Terminal Stopping Device, ETSD (For rated speed 180~240m/min)				
Eme	ergency Solution						
OD1	Fireman Operation	OD2	Automatic Rescue Device (ARD) (Maximum travel distance between landings ≤ 30m)				
OD3	Emergency Operation For Power Failure (Manual)	OD4	Emergency Operation For Power Failure (Auto)				
OD5	Earthquake Emergency Operation	OD6	Pit Flood Operation				
Des	ign for Comfort						
OE1	Attendant Operation	OE2	Independent Operation				
OE3	Voice Synthesizer	OE4	Arrival Chime (Car Top And Bottom)				
OE5	Floor Lockout Operation (Not applicable with OC1, OC2, OC4 or OC5)	OE6	Door Opening Prolong Button				
OE7	Nighttime Protective Operation ①	OE8	Sub Car Operating Panel				
OE9	Double Opening Function	OE10	Electromagnetic Compatibility (EMC) Function				
OE11	Horizontal Car Operating Panel	OE12	Braille Button				
OE13	Hall Lantern With Arrival Chime Interface ①	OE14	Operation Status Indication At Hall Indicator				
OE15	Destination Floor Reservation System, DFRS ① (Under FI-600 or FI-700)	OE16	Ultraviolet, UV Sterilisation Function ①				
OE17	Hall Call Deselect Function ① (Applicable for Simplex, Duplex or FI-10 only)	OE18	Quick Door Closing Function (In Car)				
OE19	Hall Lantern With Arrival Chime ①						

Note:

1 For details, please contact us.

Overhead and Pit Depth

Rated Load	Rated Speed	Overhead Height, OH (mm)	Pit Depth, PIT (mm)				
(kg)	(m/min)		Travel<100m	100m≤Travel≤150m	150m <travel≤200m< th=""></travel≤200m<>		
	180	5500	2890	3170	3170		
825	210	5790	3070	3360	3360		
	240	6190	3920	3920	3920		
	180	5500	2890	3170	3170		
900	210	5790	3070	3360	3360		
	240	6190	3920	3920	3920		
	180	5500	2910	3190	3270		
1050	210	5910	3090	3380	3460		
	240	6190	3920	3920	3970		
	180	5500	2910	3190	3270		
1150	210	5910	3090	3380	3460		
	240	6190	3920	3920	3970		
	180	5500	2940	3220	3300		
1350	210	5790	3120	3410	3490		
	240	6190	3920	3920	3970		
	180	5500	2940	3300	3430		
1600	210	5790	3120	3490	3620		
	240	6190	3970	3970	4120		
	180	5500	2970	3460	3460		
1800	210	5790	3150	3650	3650		
	240	6190	4120	4120	4120		
	180	5500	2970	3460	3460		
2000	210	5790	3150	3650	3650		
	240	6190	4120	4120	4120		

Rated Load	Rated Speed	Overhead (m	Pit Depth, PIT		
(kg)	(m/min)	Travel≤200m	200m <travel≤250m< th=""><th colspan="2">(mm)</th></travel≤250m<>	(mm)	
1050	300	5740	5900	3580	
1150	300	5740	5900	3580	
1350	300	5740	5900	3580	
1600	300	5600		3730	

Note:

① The above information are based on GB7588-2003 standards.

② The overhead height, OH is based on bare ceiling height of 2450mm (For rated speed ≤ 240m/min) and 2600mm (For rated speed 300m/min).

3 The pit depth, PIT is based on vinyl tile finish without recess.

④ Configuration is without counterweight safety gear.

⑤ Configuration is based on the following decoration weight provision:

For rated load 825/900kg, decoration weight provision shall be up to 500kg

For rated load 1050/1150kg, decoration weight provision shall be up to 300kg

For rated load 1350~2000kg, decoration weight provision shall be up to 500kg.

The followings shall be furnished by building contractors:



Wall And Floor Finishes

Beam





Hoistway Plan (Applicable for rated speed ≤ 240m/min)



Note:

- ① The above information are based on GB7588-2003 standards.
- ② Items with "*" shall be furnished by building contractors.
- The hoistway construction shall be reinforced concrete ring beam with strength C25 or whole hoistway of reinforce concrete wall. For other situations, please contact us.
 For hoistway and machine room details, please contact us.
- 5 Unit of dimension shall be in mm unless otherwise stated.

6 The suspension hooks capacity shall be as follows:

Rated Load (kg)	Rated Speed (m/min)	Machine Room Clear Height (mm)	Suspension Hook Capacity (Tons)
825/900/1050/1150/ 1350/1600/1800/2000	180/210/240	2500	4
1050/1150/1350/1600	300	2500	4

Hoistway and Machine Room

The followings shall be furnished by building contractors:

Building Structure



Hoistway Plan



Note:

- $(\underline{0})$ The above information are based on GB7588-2003 standards.
- 2 Items with "*" shall be furnished by building contractors.
- 3 The hoistway construction shall be reinforced concrete ring beam with strength C25 or

whole hoistway of reinforce concrete wall. For other situations, please contact us.

4 For hoistway and machine room details, please contact us.

5 Unit of dimension shall be in mm unless otherwise stated.

Rated	Rated	Rated (mm)		Door O (m	pening m)	Arrangement (mm)		Size (mm)		Reactio (K	n Force N)		Force	action e (KN	1)		
(ka)	Speed (m/min)	Car Inside	Car Outside	в Туре	Width OP	L1	L2	X	Υ	S×T		D4		D 2	D4	DE	
(′ (a×b)	(A×B)					1 Unit	2 Units ④	1 Unit	2 Units ④	R1	R2	R3	R4	R5	R6
005	180	4400-4050	4470.4540	00.00		475	475	4050-0450	4050-0450	0400-0450	1050-0450	455	405	050	0.05	110	10
825	210	1400×1350	1470×1540	2P-CO	800	475	4/5	1950×2150	4050×2150 2	2400×3450 4950×3450	155	105	250	225	110	40	
	240																
	180									2500×3450 5150×3450							
900	210	1600×1350	50 1670×1540	2P-CO	900	525	525	2150×2150	4450×2150		5150×3450	160	105	260	240	110	40
	240																
	180			2P-CO	900	525	525	2150×2300	4450×2300		2500×3600 5150×3600					115	40
1050	210	1600×1500	1600×1500 1670×1690							2500×3600		160	110	270	250		
	240																
	180																
1150	210	1800×1500	0×1500 1870×1690	2P-CO	1000	575	575	2350×2300	4850×2300	2600×3600 53	5350×3600	170	115	280	260	130	40
	240																
	180	2000×1500	000×1500 2070×1690	2P-CO	1100	625	625		5250×2300	2690×3600 5530			125	300	275	135	6 40
1350	210							2550×2300			5530×3600	180					
	240																
	180	2000×1700 2070×18	00 2070×1890 2P-C				625	2550×2500	5250×2500	2690×3800 5530		190 125			280	135	
1600	210			2P-CO	1100	625					5530×3800		125	310			40
	240																
	180																
1800	210	2200×1700	2200×1700 2270×1890 2P-CO 1200 6	675	675	2750×2500	5650×2500	2800×3800	5750×3800	210	135	335	300	135	40		
	240																
	180																
2000	210	2200×1850 2270×2040 2P-0	2P-CO	CO 1200	675	675	2750×2650	5650×2650	2800×3950	5750×3950 21	210	140	335	300	135	40	
	240																

Note:

 $(\widehat{)}$ The above information are based on GB7588-2003 standards.

(2) Configuration is without counterweight safety gear.

③ The above information and configuration are based on rear counterweight layout.

 $(\!4)$ Common hoistway size for 2 units of elevators are based on 150mm width separator beam.

The followings shall be furnished by building contractors:

Building Structure



Hoistway Plan



Note:

- $(\underline{0})$ The above information are based on GB7588-2003 standards.
- ② Items with "*" shall be furnished by building contractors.
- ③ The hoistway construction shall be reinforced concrete ring beam with strength C25 or

whole hoistway of reinforce concrete wall. For other situations, please contact us.

④ For hoistway and machine room details, please contact us.
 ⑤ Unit of dimension shall be in mm unless otherwise stated.

Rated	Rated Speed (m/min)	Car Size (mm)		Door Opening (mm)		Front Wall Arrangement (mm)		Hoistway Size (mm)	Machine Room Size (mm)	Machine Room Reaction Force (KN)		Pit Reaction Force (KN)				
(kg)		Car Inside	Car Outside	Car Outside	Car Outside	Tyne	Width	11	12	X×Y	S×T	P1	P2	D3	P4	P5
		(a×b)	(A×B)		OP		2 Units ④	2 Units ④		112		1.14				
1050	300	1600×1500	1700×1705	2P-CO	900	550	550	4550×2330	5455×3700	245	205	310	280	130	50	
1150	300	1800×1500	1900×1705	2P-CO	1000	600	600	4950×2330	5610×3700	245	205	310	280	130	50	
1350	300	2000×1500	2100×1705	2P-CO	1100	650	650	5350×2330	5850×3700	245	205	310	280	135	50	
1600	300	2000×1700	2100×1905	2P-CO	1100	650	650	5350×2530	5850×3900	245	205	310	280	135	50	

Note:

(1) The above information are based on GB7588-2003 standards.

② Configuration is without counterweight safety gear.

③ The above information and configuration are based on rear counterweight layout.

(4) Common hoistway size for 2 units of elevators are based on 150mm width separator beam.

Hoistway and Machine Room

14

Entrance Design

The followings shall be furnished by building contractors:

Wall And Floor Finishes

Elevation Of Entrance





Structure Opening Of Entrance



For Entrance With Fireman Switch

Туре	AS-1X	SS-1X
W	10	25
D	10	25

Note:

- 0 The above information are based on GB7588-2003 standards.
- 0 Unit of dimension shall be in mm unless otherwise stated.
- 3 Applicable only when fireman operation with switch is located at lift landing.
- ④ Structure opening of entrance shall be furnished by building contractor.

Structure Width

For Entrance Without Fireman Switch

Entrance Design

The followings shall be furnished by building contractors:

Building Structure

Wall And Floor Finishes

Grouting Work

Narrow Jamb (AS-1X)





Wide Jamb (SS-1X)





Note: ① Unit of dimension shall be in mm unless otherwise stated.

Electrical Information

The following shall be furnished by building contractors:



Main Power Supply: AC380V, 50Hz, Three-Phase, Five Wires System
 Lighting Power Supply: AC220V, 50Hz, Single-Phase, Three Wires System

Item	Works to be provided by building contractor							
Main Power Supply	To provide the main power supply switch around the entrance of the machine room. To install facilities to ensure the power supply voltage fluctuation shall be within ±7%.							
Lighting Power Supply	To provide lighting power supply for car lighting, fan and indicator.							
Ventilation Device	To provide mechanical ventilation to the machine room to ensure the temperature in the machine room is maintained at below 40°C.							
Machine Room Lighting And Switch Socket Outlet	To provide single phase AC220V, 10A switch socket outlet and machine room lighting with switch around the entrance of machine room for maintenance purposes.							

	S/No	Rated Load	Rated Speed (m/min)	Supply Voltage	Capacity (A)		Capacity (kVA)		Wire Size (mm ²)		Earth Wire Size (mm²)		
	0/110.	(kg)			1 Unit	2 Units	1 Unit	2 Units	1 Unit	2 Units	1 Unit	2 Units	
			180		75	100	18	30	30	50	16	25	
	1	825	210		75	125	20	34	30	60	16	30	
			240		75	125	23	38	35	80	16	40	
	2		180		75	100	19	33	30	50	16	25	
		900	210		75	125	22	37	35	60	16	30	
			240		75	125	24	41	35	80	16	40	
			180		75	125	22	37	35	60	16	30	
		1050	210	3Ф380V 1Ф220V 50Hz	75	125	25	41	35	80	16	40	
	3		240		75	160	27	46	50	80	25	40	
			300		125	180	33	56	60	125	30	63	
	4		180		75	125	23	39	35	80	16	40	
		1150	210		75	160	26	45	50	80	25	40	
		1150	240		125	160	30	50	50	100	25	50	
			300		125	180	36	60	60	125	30	63	
			180		75	160	27	45	50	80	25	40	
	5	1350	210		125	160	30	51	50	100	25	50	
	5		240		125	180	34	57	60	125	30	63	
			300		125	180	41	69	60	125	30	63	
			180		125	160	31	52	50	100	25	50	
	6	4000	210		125	180	35	59	60	125	30	63	
	0	1000	240		125	180	39	66	80	150	40	75	
			300		160	250	48	81	80	150	40	75	
	7		180		125	180	34	57	60	125	30	63	
		1800	210		125	180	39	65	80	150	40	75	
			240		125	200	43	74	80	200	40	100	
			180		125	180	37	63	80	150	40	75	
	8	2000	210		125	200	42	72	80	200	40	100	
			240		160	250	48	81	100	200	50	100	

Notes:

1) The above information are based on GB7588-2003 standards.

② The above information on the Supply Voltage, Circuit Breaker Capacity (A), Transformer Capacity (kVA), Main Power Wire Size (mm²) and Earth Wire Size (mm²) are the requirements at building side.

③ The main power wire size specified above is applicable for wire length less than 220m. For main power wire length more than 220m, please calculate using the following formula: Main power wire size (mm²) = [Actual wire length/220] × [Wire size in above table]

④ The machine room calorific value (kcal/hr) for one elevator is calculated using the following formula: Machine Room Calorific Value (kcal/hr) = Rated Load (kg) × Rated Speed (m/min) × [1/45]

Electrical Equipment Cable



17

Electrical Data

Working environment of the elevator shall be as follow:

- 1. Machine room ambient temperature shall be between 5°C to 40°C.
- 2. Maximum relative humidity is 90%, and the monthly mean minimum temperature should be below 25°C.
- 3. Supply voltage fluctuation shall be within ±7%.
- 4. Surrounding environment shall be free from explosive, corrosive hazard, anti-insulation and conductive particles atmosphere.

About hoistway and machine room:

- 1. Hoistway and machine room shall not be used for purposes other than those connected with the elevators.
- Hoistway walls (including reinforced concrete ring beams) should be vertical, and the allowable deviation for the hoistway verticality is 0 ~ +30mm.
- 3. Hoistway and machine room walls, floors and roofs should be able to absorb a large amount of elevator operation noise.
- 4. Hoistway and machine room should not be located directly adjacent to bedrooms, classrooms, wards, library or any other places where low noise is required. Where such arrangements need to be imposed, the building contractors must be responsible for taking measures of sound insulation and cushioning.
- 5. Hoistway walls shall be 200mm concrete walls.
- 6. If elevator hoistway is steel structure construction, please contact us.
- 7. Elevator hoistway is preferably not located in the space above accessible area. If the actual situation cannot meet the regulations, please contact us.

Work to be done by Building Contractors:

The preparatory work for elevator installation outlined below should be undertaken by building contractors in accordance with Hitachi drawing and applicable national or local codes and regulation.

- Prepare hoistway with proper framing and enclosure, suitable pit of proper depth with drains and waterproofing if required, properly lighted and ventilated machine room of adequate size with concrete floor, access door, ladder and guards as required.
 Provide and/or cut all necessary holes, chases, and openings and finish after equipment installation.
- 3. Supply and secure all supports, reinforced concrete slabs, etc., necessary for installation of the machinery, doors, buffers, etc.
- 4. Furnish all necessary cement and/or concrete for grouting-in of brackets, bolts, machine beams etc.
- 5. Suspension hook in the machine room with required loading as shown in this catalogue.
- 6. Furnish main for three-phase electric power and single-phase lighting supply to machine room, following the instructions of the elevator contractors on outlet position and wire size.
- 7. Supply electric power for lighting of work area, installation work, elevator testing and spray painting.
- 8. Provide, free of charge, a suitable theft-proof storage area for materials and tools during erection work.
- 9. Prepare and erect suitable scaffolding and protective measures for the works in progress.

Note	Note