TOSHIBA

Toshiba Freight Elevator

ELCARGO-VF

Safety Cautions

- Observance of relevant laws / regulations are required.
- Read the entire “Instruction Manual” carefully before use, for important information about safety, handling and operation.

TOSHIBA

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Toshiba Freight Elevator

ELCARGO-VF

Product Line-up

Scope of applications

Rated speed (m/s)	1.0	ELCARGO-VF			
	0.5				
	0.25				
Rated Load (kg)		1000	2000	3000	5000

※Note 1 : The above scope complies with GB7588:2003 standard.
※Note 2 : Forklift can be used for capacity 3000kg.(Optional)
※Note 3 : Forklift can be used for capacity 5000kg.(Standard)

Safe & Flexible

Realize high reliability and safety operation applying VVVF speed control system. Easy installation with smart wiring design for hoistway inside and traveling cable by advanced serial communication technology.

Robust & Endurable

Realize smooth operation allowing forklift access with Toshiba robust and endurable car structure design technology.

User-friendly Design

Support various load options up to 5000kg and intelligent operation with user-friendly interface and various optional functions provide safety and convenience experience.

Contents menu

Car Cage Design / Hall Design （Standard type）

Capacity : 1000kg

■ Car cage design

※ Image sample of car cage design (1000kg).
Please contact our local distributor for detail of specification. (If necessary)

Car door type	2S
Car ceiling type	SL-P1
Car ceiling lighting	LED light (1line)
Ventilation	Fan
Car panel	Painted steel panel (4N)
Car door panel	Painted steel panel (4N)
Car transom	Painted steel panel (4N)
Car floor	Steel checker plate
Car sill	Cast iron
Car operation panel	Hairline finish stainless steel
Car position indicator	LCD display

■ Hall design

※ Image sample of hall design (1000kg).
Please contact our local distributor for detail of specification. (If necessary)

Hall door type	2S
Hall door panel	Painted steel panel (4N)
Hall jamb (Narrow type)	Painted steel panel (4N)
Hall sill	Cast iron
Hall operation panel	Hairline finish stainless steel
Car position indicator	LCD display

Note 1 : When adopting the Wide type of Hall jamb are not limited to the material to be selected is optional.

※The actual product colors may vary slightly from those printed colors in this catalog.
※The publication of this page is an example of design. Please contact our local distributor for other designs.

Capacity : 2000kg / 3000kg / 5000kg

■ Car cage design

※ Image sample of car cage design (2000／3000／5000kg).
Please contact our local distributor for detail of specification. (If necessary)

Car door type	2CO
Car ceiling type	SL-P1
Car ceiling lighting	LED light (2line)
Ventilation	Fan
Car panel	Painted steel panel (4N)
Car door panel	Painted steel panel (4N)
Car transom	Painted steel panel (4N)
Car floor	Steel checker plate
Car sill	Cast iron
Car operation panel	Hairline finish stainless steel
Car position indicator	LCD display

Note 1 : Double entrance type specification can be selected depending on the building application and conditions.

■ Hall design

※ Image sample of hall design (2000／3000／5000kg).
Please contact our local distributor for detail of specification. (If necessary)

Car door type	2CO
Hall door panel	Painted steel panel (4N)
Hall jamb (Narrow type)	Painted steel panel (4N)
Hall sill	Cast iron
Hall operation panel	Hairline finish stainless steel
Car position indicator	LCD display

Note 2 : When adopting the Wide type of Hall jamb are not limited to the material to be selected is optional.

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Car Cage Design / Hall Design （Optional type）

Capacity : 1000kg

■ Car cage design

※ Image sample of car cage design (1000kg).
Please contact our local distributor for detail of specification. (If necessary)

Car door type	2S
Car ceiling type	SL-1 Optional
Car ceiling lighting	LED light (Four square shaped light, and round light) Optional
Ventilation	Fan
Car panel	Hairline finish stainless steel (#443) Optional
Car door panel	Hairline finish stainless steel (#443) Optional
Car transom	Hairline finish stainless steel (#443) Optional
Car floor	PVC tile Optional
Car sill	Cast iron
Car operation panel	Hairline finish stainless steel
Car position indicator	LCD display

■ Hall design

※ Image sample of hall design (1000kg).
Please contact our local distributor for detail of specification. (If necessary)

Hall door type	2S
Hall door panel	Hairline finish stainless steel (#443) Optional
Hall jamb (Wide type)	Hairline finish stainless steel (#443) Optional
Hall sill	Cast iron
Hall operation panel	Hairline finish stainless steel
Car position indicator	LCD display

Note 1 : When adopting the Wide type of Hall jamb are not limited to the material to be selected is optional.

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※The publication of this page is an example of design. Please contact our local distributor for other designs.

Capacity : 2000kg / 3000kg / 5000kg

■ Car cage design

※ Image sample of car cage design (2000／3000／5000kg).
Please contact our local distributor for detail of specification. (If necessary)

Car door type	2CO
Car ceiling type	SL-1 Optional
Car ceiling lighting	LED light (Eight square shaped light, and round light) Optional
Ventilation	Fan
Car panel	Hairline finish stainless steel (#443) Optional
Car door panel	Hairline finish stainless steel (#443) Optional
Car transom	Hairline finish stainless steel (#443) Optional
Car floor	Steel checker plate
Car sill	Cast iron
Car operation panel	Hairline finish stainless steel
Car position indicator	LCD display

Note 1 : Double entrance type specification can be selected depending on the building application and conditions.

■ Hall design

※ Image sample of hall design (2000／3000／5000kg).
Please contact our local distributor for detail of specification. (If necessary)

Car door type	2CO
Hall door panel	Hairline finish stainless steel (#443) Optional
Hall jamb (Wide type)	Hairline finish stainless steel (#443) Optional
Hall sill	Cast iron
Hall operation panel	Hairline finish stainless steel
Car position indicator	LCD display

Note 2 : When adopting the Wide type of Hall jamb are not limited to the material to be selected is optional.

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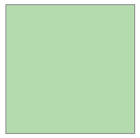
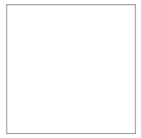
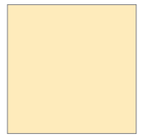
Ceiling Design

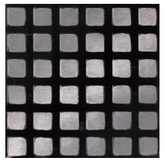
	Standard type	Optional type
1000kg	 SL-P1 type: LED light (1line)	 SL-1 type: LED light (Four square shaped light, and round light)
2000kg 3000kg 5000kg	 SL-P1 type: LED light (2line)	 SL-1 type: LED light (Eight square shaped light, and round light)

Color & Material Variations

■ Paint color for steel panels (Car cage & Door / Hall Jamb & Door)

Standard	Optional				
 4N	 87GY	 91GY	 1N	 59Y	 SUS-HL #443 / #304

■ Car floor

Standard	Optional	
 Steel checker plate	 Checkered pattern SUS	 PVC tile

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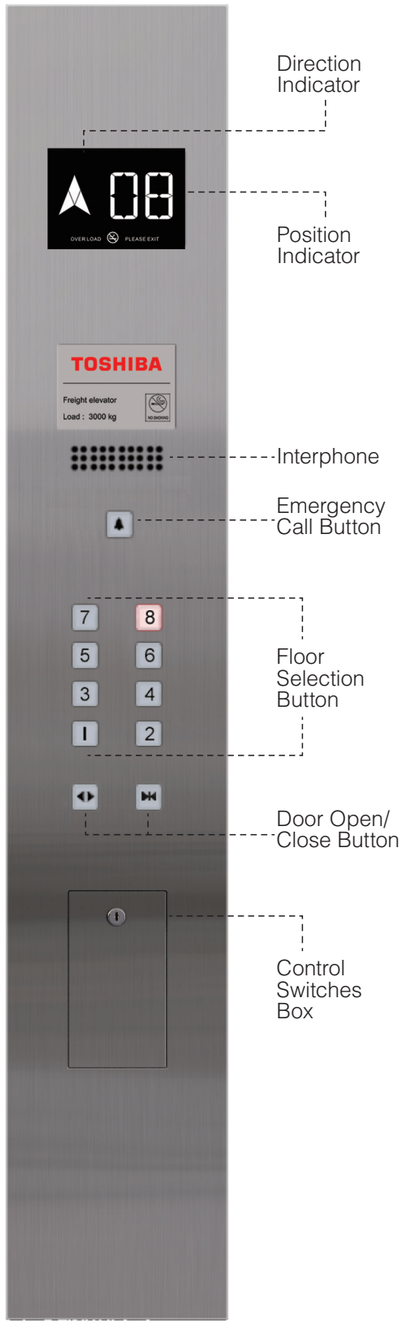
※The publication of this page is an example of design. Please contact our local distributor for other designs.

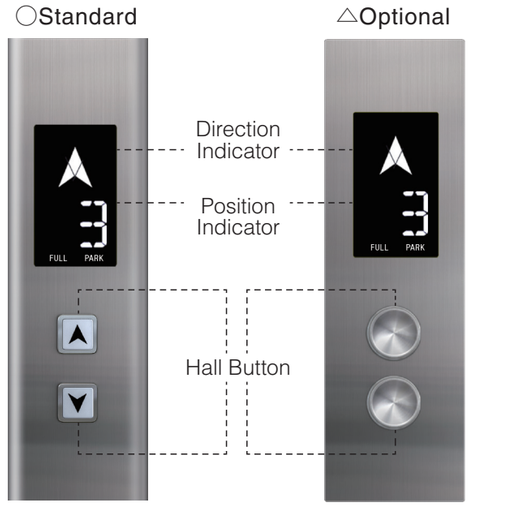
Operation Panel Design

■ Car operation panel / Hall indicator button



COP-XCP4-A

Large LCD display for easy reading.
The size, height, layout, and shape of the control panel, reflect ergonomic design.
Easy-push microswitch buttons make operation safe, convenient and fast.



HIB-XHB3-A
Wall Mounted
Micro stroke push button

HIB-XHB4-A
Box Type
Micro stroke push button

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※The publication of this page is an example of design. Please contact our local distributor for other designs.

Functions

○Standard △Optional

Category	Content		Category	Content	
Operations	Simplex selective collective fully automatic operation	○	Service functions	Service floor cut-off selection	△
	Duplex selective collective fully automatic operation	△		Full car bypass	○
	3 cars group supervisory control system	△		Car call cancellation	○
	Independent operation	△		Nuisance call cancellation (Note 1)	△
	Attendant operation	△		Repeated door opening	○
Safety functions	Automatic landing function when system fails	○		Adjustable door opening time	○
	Automatic withdrawn from group control	○		Door open extension button	△
	Car inspection operation (INS)	○		Car chime	△
	Overload protection	○		Hall chime	△
	Fire emergency operation	○		Car full load indicator	○
	Fireman's operation	△		Hall lantern	△
	Emergency operation indication at COP	○		Sub-car operating panel	△
	Power failure emergency operation	△		Out of service indicator at hall	○
	Automatic landing during power failure	△		Parking operation (manual)	○
	In-car emergency lamp (self-charging)	○		Car lighting automatic cut-off	○
	Emergency call button	○		Ventilation automatic cut-off	○
	Multi beam door safety sensor	○		Nuisance call cancellation at reversal	○
	2-in 1 door safety (Multi beam door safety + mechanical door safety)	△		Multi-channel intercom	○
	Automatic releveling	△	Interface contact	Access cable for IC card system (Note 2)	△
	Adjustable door opening time	△		Auto announce feature	△
	Home landing	○	Expandable functions	Camera cable for CCTV	△

Note 1 : When 3 or more car calls are registered but car weight is less than 75kg, those car call are automatically cancelled.
Note 2 : IC card reader unit and IC card are provided by others.

■ Basic Specification

○Standard △Optional

Functions		1000kg	2000kg	3000kg	5000kg
Control system	VVVF control system	○	○	○	○
Power supply	For powers: Three phase AC 380V-50hz	○	○	○	○
	For powers: Three phase AC 400V-50hz	△	△	△	△
	For powers: Three phase AC 415V-50hz	△	△	△	△
	For lightings: Single phase AC 220V-50hz	○	○	○	○
	For lightings: Single phase AC 230V-50hz	△	△	△	△
	For lightings: Single phase AC 240V-50hz	△	△	△	△
Entrance	Single entrance	○	○	○	○
	Double entrance (Note 3)	△	○	○	○
Forklift used				△	○

Note 3 : Double entrance type specification can be selected depending on the building application and conditions.
Double entrance car doors cannot be operated of open／close at the same time.

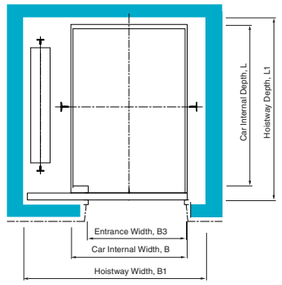
■ Car cage design

Materials	Side panel	Transom	Door	Return panel	Sill	Floor	Ceiling panel
Painted steel panel	○	○	○	○			○
Hairline finish stainless steel	△	△	△	△			△
Steel checker plate						○	
Checkered pattern SUS						△	
PVC tile						△	
Cast iron					○		

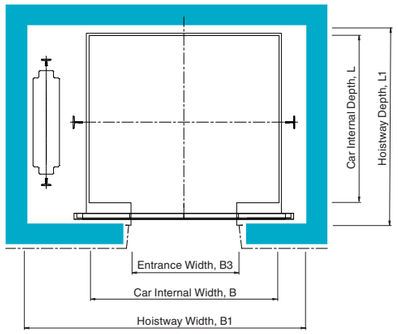
■ Hall design

Materials	Jamb (Narrow type)	Jamb (Wide type)	Door	Sill
Painted steel panel	○	△	○	
Hairline finish stainless steel	△	△	△	
Cast iron				○

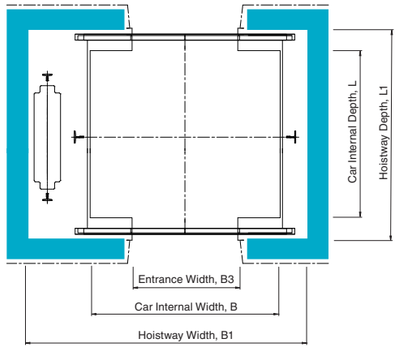
Hoistway Layout



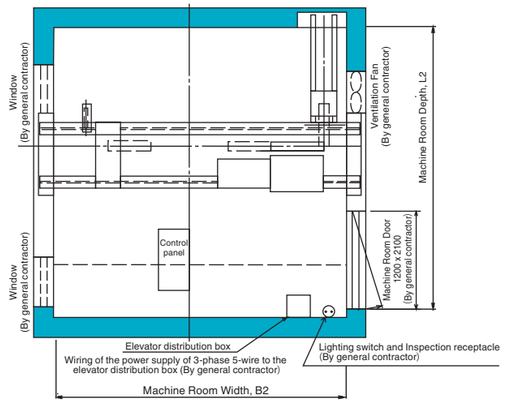
Hoistway plan
(2S type)



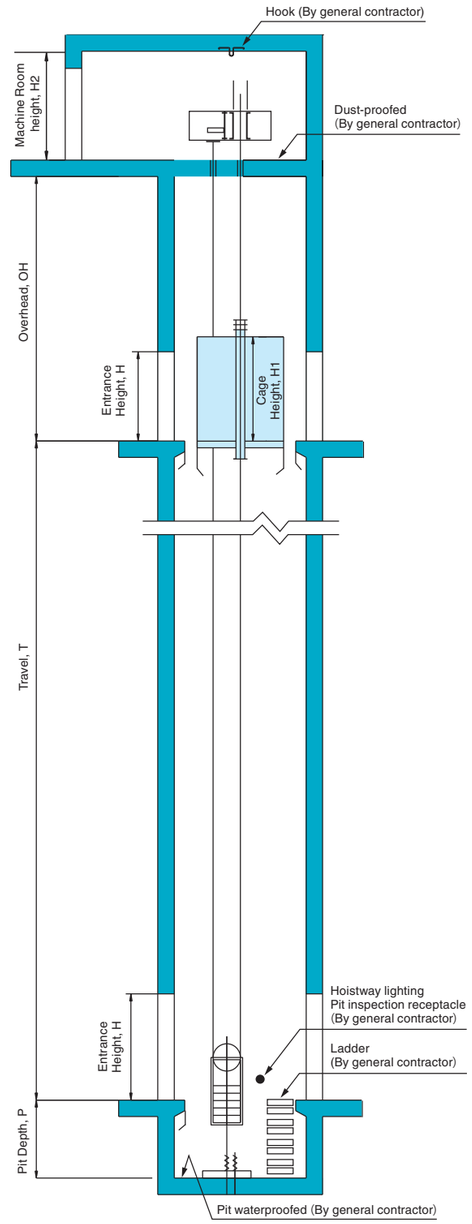
Hoistway plan
(2CO type)



Hoistway plan
(2CO · Double entrance type)



Machine room plan



Hoistway section

*Please consult with us regarding the portion of general contractor.

Specifications

Type	Capacity (kg)	Speed (m/s)	Cage Size Internal (mm)			Entrance Size (mm)		Door Type	Machine Room Size (mm)			Hoistway Size (mm)				Motor Capacity (kw)	Max Travel(m)	Max service stop
			B	L	H1	B3	H		B2	L2	H2	B1	L1	OH	P		T	
F1000-2S30	1000	0.5	1400	1500	2200	1200	2100	2S	2368	3778	2300	2368	2138	4500	1350	7.5	30	8
F1000-2S60	1000	1	1400	1500	2200	1200	2100	2S	2368	3778	2300	2368	2138	4500	1350	11	50	16
F2000-2CO30	2000	0.5	1700	2250	2200	1500	2100	2CO	2784	4428	2300	2784	2788	4500	1350	11	30	8
F2000-2CO30G	2000	0.5	1700	2250	2200	1500	2100	2CO	2784	4598	2300	2784	2958	4500	1350	11	30	16
F2000-2CO60	2000	1	1700	2250	2200	1500	2100	2CO	2784	4428	2300	2784	2788	4500	1350	22	50	16
F2000-2CO60G	2000	1	1700	2250	2200	1500	2100	2CO	2784	4598	2300	2784	2958	4500	1350	22	50	32
F3000-2CO30	3000	0.5	2250	2350	2200	2000	2100	2CO	3575	3544	2500	3575	2904	4650	1350	15	30	8
F3000-2CO30G	3000	0.5	2250	2350	2200	2000	2100	2CO	3575	3698	2500	3575	3058	4650	1350	15	30	16
F3000-2CO60	3000	1	2250	2350	2200	2000	2100	2CO	3575	3544	2500	3575	2904	4650	1350	30	50	16
F3000-2CO60G	3000	1	2250	2350	2200	2000	2100	2CO	3575	3698	2500	3575	3058	4650	1350	30	50	32
F3000-2CO30 (Note 7)	3000	0.5	2000	2800	2500	2000	2400	2CO	3475	3909	2500	3475	3269	4800	1350	15	30	8
F3000-2CO30G (Note 7)	3000	0.5	2000	2800	2500	2000	2400	2CO	3475	3978	2500	3475	3338	4800	1350	15	30	16
F3000-2CO60 (Note 7)	3000	1	2000	2800	2500	2000	2400	2CO	3475	3909	2500	3475	3269	5000	1350	30	50	16
F3000-2CO60G (Note 7)	3000	1	2000	2800	2500	2000	2400	2CO	3475	3978	2500	3475	3338	5000	1350	30	50	32
F5000-2CO15 (Note 8)	5000	0.25	2600	3200	2500	2400	2400	2CO	4050	3908	2500	4050	3908	4800	1350	15	16	4
F5000-2CO15G (Note 8)	5000	0.25	2600	3200	2500	2400	2400	2CO	4050	3908	2500	4050	3908	4800	1350	15	16	8
F5000-2CO30 (Note 8)	5000	0.5	2600	3200	2500	2400	2400	2CO	4050	3908	2500	4050	3908	4800	1350	26	30	8
F5000-2CO30G (Note 8)	5000	0.5	2600	3200	2500	2400	2400	2CO	4050	3908	2500	4050	3908	4800	1350	26	30	16

※Door type: 2S: 2panels side opening. 2CO: 4panels center opening.
※Model type: Adopted "G" mark is applicable specification of double entrance type.

Note: 1. The above table complies with GB7588:2003 standards. Please contact our local distributor to check for other standards.
2. Hoistway dimensions are the minimum size after the construction work.
3. The hoistway structure wall must be 150mm thick or more.
4. Piping, wiring and cables which is not relevant to elevator are prohibited inside the hoistway.
5. If the size of hoistway is greater than the above table, please consult our local distributor.
6. If the location of Power source panel, Control panel and Electric power supply are changed, please consult our local distributor.
7. Forklift can be used for capacity 3000kg. (Optional type)
8. Forklift can be used for capacity 5000kg. (Standard type)
9. Double entrance type specification can be selected depending on the building application and conditions.
10. Double entrance car doors cannot be operated of open/close at the same time.

Works by Others

Works below are not included in elevator installation works:

►Hoistways

1. Hoistway construction and fire-proofing, and opening for jambs, indicators and push-buttons, etc.
   Please note that chipping or padding work is required according to the necessity, in case the error of the structure is 30 mm or over.
2. Installation of separating beams, intermediate beam, back beam and lateral beams (if necessary).
3. Installation of the base plate for each floor and of bed steel for furnishing the equipment related to landing entrance, in case of hoistways of steel structure of PC structure.
4. Fire-proofing of steel frame material in steel structured hoistways, and fire-proofing around landing entrances (if necessary).
5. Finishing of walls and floors, etc., around entrances, after furnishing equipment related to landing entrances.
6. Furnishing of base steel or others for furnishing rail brackets, especially where the floor height is high (if necessary).
7. Installation of the entrance or the gangway for pit inspection (if necessary).
8. Water-proofing of the pit (including drainage if necessary).
9. Rearrangement of the building body in case that there are some spaces to be used under the pit.
10. Installation of emergency exits for rescue purposes in the event there are floors at which the elevator does not stop and installation of a fascia plate.
11. Shelter equipment from rain at landing entrances directly contacting to the air in the place like roof.
12. Installation of hooks or beams on top of the elevator shaft.
13. Installation of lighting in hoistway (if necessary).
14. Installation of vent opening at the top of shaft (if necessary).
15. Installation of a net or wall to prevent falling into the pit (in cases where the pit level is different.)
16. All related to the building structure other than works above.

►Machine rooms

1. Construction of machine rooms and installation works of their entrances (including soundproofing work if necessary)
2. Fire-proofing for machine rooms and opening work for machine room floors.
3. Installation of machine beam supports and spacers.
4. Cinder concreting and finishing after floor piping in machine rooms.
5. Installation of hooks or beams on ceilings in machine rooms.
6. Installation of stairs leading to machine rooms and stairs in machine rooms (if necessary).
7. Installation of lighting and windows.
8. Dustproofing of floors.

►Works for Equipment

1. Wiring of the power supply for motors and that for lighting equipment, and of grounding to power source panels of elevators in the Elevator shaft.
2. Wiring of the power supply to the supervisory panels.
3. Piping and wiring of intercoms outside hoistway and of others necessary for elevators.
4. Supply and installation of switching devices for emergency power supply in case of power failure and two pairs of relay contacts for normal / emergency power identification, and their piping and wiring (if necessary).
5. Piping and wiring of supervisory panels, alarm panels and inter-communication systems, etc., outside hoistways.
6. Furnishing of receptacles for inspection in pits.

►Temporary Works

It is required to arrange the following matters:

1. To secure the site office for installation work and the stock yard for materials without charge.
2. Enclosure to be used during the installation work.
3. Supply of electric power for installation work and the trial operation for adjustment.
4. Security of enough passage for carrying heavy goods.
5. On use of elevator for the construction work of the building, It is required to make contract with a separate written estimate.

Note

During equipment planning of elevators, please take the following items into consideration:

1. Provide power facility so that voltage regulation of the power supply at the receiving terminals in the hoistway is kept within ±10% for the motor, and ±2% for the lighting equipments.
2. In the hoistways, please prevert the temperature from exceeding 40˚C and humidity from exceeding 90% (monthly mean) and 95% (daily mean).
3. Please do not allow any chemically toxic gas or an excessive amount of dust to enter into the hoistways, as these can corrode the metal or electrical contacts.

When asking for an estimate,
please inform us of the following:

1. Building name and address.
2. Desired type and number of set.
3. Number of stops.
4. Floor height.
5. Voltage and frequency of main power supply.
6. Desired completion date.

Memo