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HOSPITAL ELEVATOR





HOSPITAL ELEVATOR UN-BED

UN-BED series bed lift, fully considering of the environmental particularly in hospitals and sanatoriums, designed the elevator in the views of transporting patients, and adopted VVVF control technology and car displacement absolute memory, make sure that the lift will start and stop steadily, run smoothly for the patients' comfort; the soft and caring interior decoration, which gives the passenger a feeling of meticulous humanized care; and the design with the enhancement of safety performance, which could reduce failure probability for the safe access of disabled patients. UN0BED gearless bed lift is the ideal choice of hospitals and sanatoriums.

The main configuration

Capacity	1350-1600 Kg
Speed	1.0~1.75m/s
Machine	Vito
Controller	U-Con
Door operator	Jarless-con
COP	U-CF1200
Door protection	Light curtain

CLOSET DESIGN



Closest Design, Completely Optimized Car Structure

Hospital elevator takes full consideration of the special nature, designed specifically for medical institutions. Through superior quality and advanced technology, putting themselves in patients and medical staff's position, considering their needs, in every possible way to interpret corporate philosophy.



Maximum Opening Of The Door Satisfies The Need Of Freely Access Of Bed

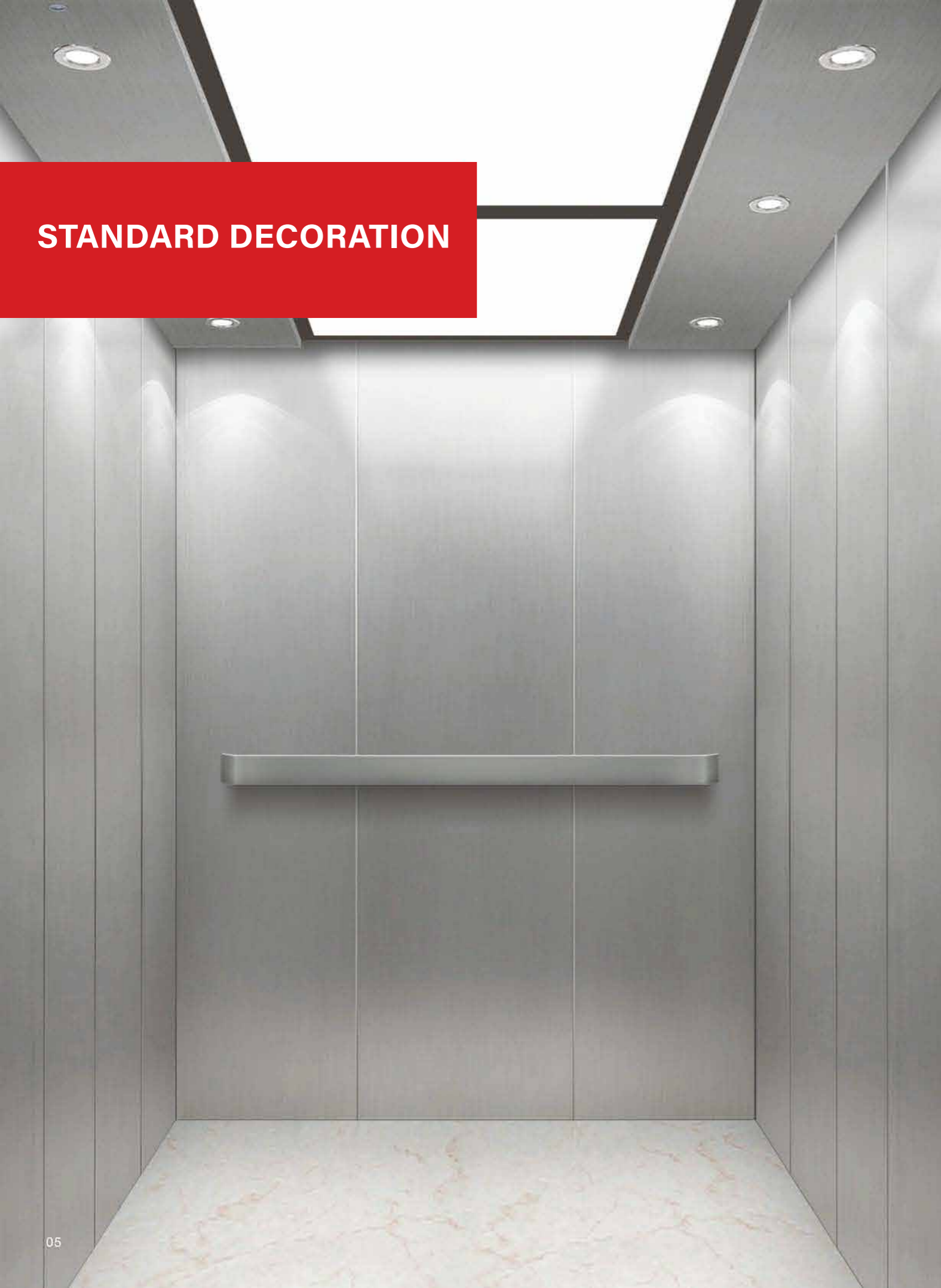
Two panel side-opening sliding doors, the deep design of car depth, make the opening of door to the maximum, more convenient for the free access of bed. Two panel side-opening sliding doors, the deep design of car depth, make the opening of door to the maximum, more convenient for the free access of bed.



VVVF Control Makes The Lift Run More Stable And Quiet

The control system uses the VVVF Variable frequency technology so that the lift starts and stops more steadily. The machine uses the global famous Heidenhain encoder which accurately controls the speed of machine, creating a quiet, warm space for the patients.

STANDARD DECORATION



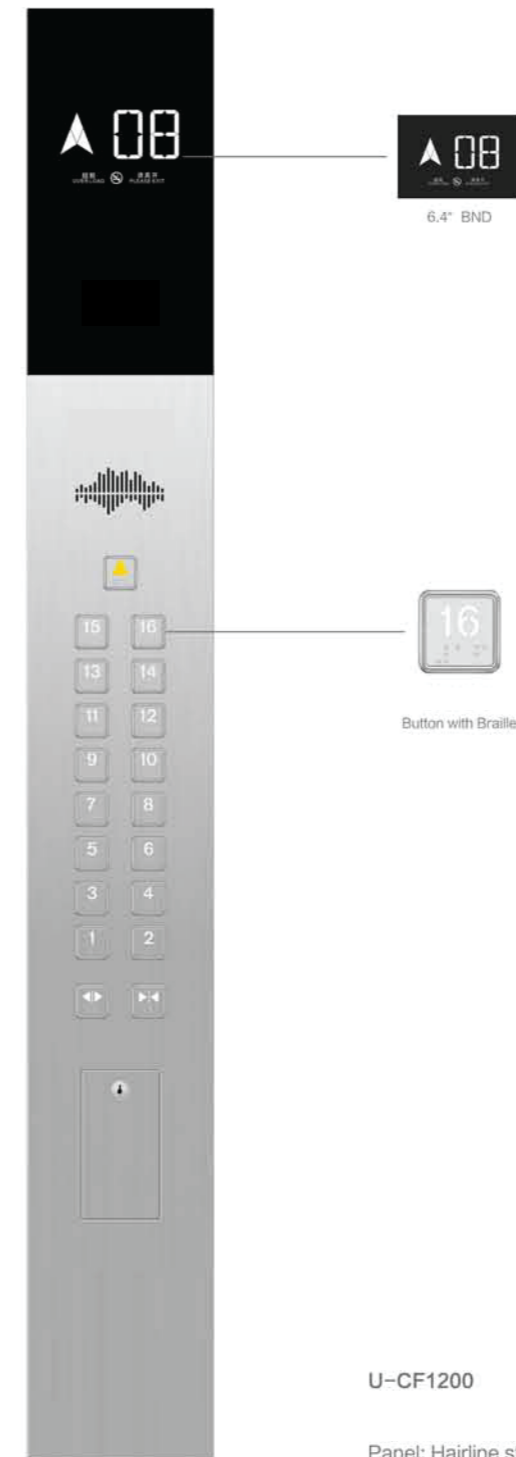
U-CR089

Cabin wall: Hairline stainless steel
 Ceiling: Hairline stainless steel+painting steel(black)+
 acrylic+Canister light
 Handrail: Hairline stainless steel
 Floor: PVC

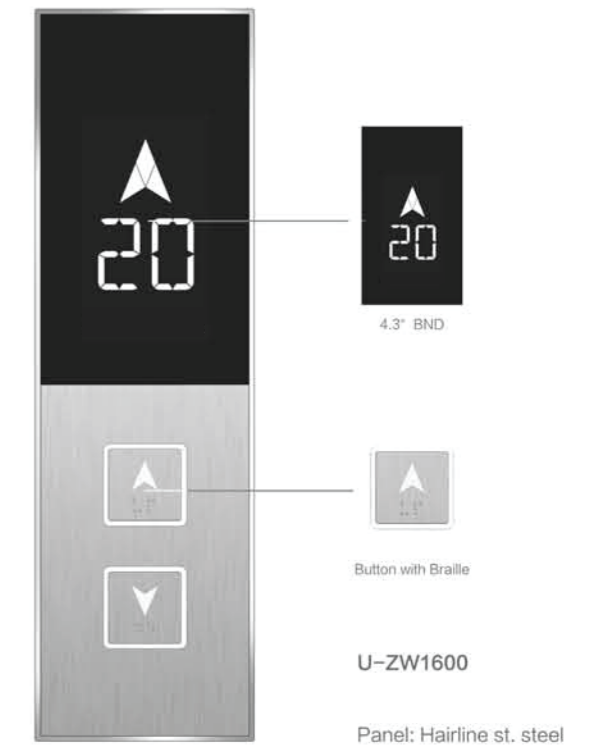
STANDARD CONFIGURATION



COP



HOP



* Above nameplate is for reference only, the specific in kind prevail.

OPTIONAL DECORATION



U-CR090

Cabin wall decoration: Hairline stainless steel
 Ceiling decoration: Painting steel (pearlescent silver)
 Floor decoration: PVC
 Handrail decoration: Hairline stainless steel



U-CR091

Cabin wall: Hairline stainless steel
 Ceiling: Painting steel (pearlescent silver)
 Floor: PVC
 Handrail: Hairline stainless steel



U-CR092

Cabin wall: Hairline stainless steel
 Ceiling: Painting steel (pearlescent silver)
 Floor: PVC
 Handrail: Hairline stainless steel

FUNCTION LIST

Public safety of passenger		
Light Curtain Protection	Light Curtain acts if there is any obstruction between door panels, the door will be reopened. This function will not be available during fireman's operation. Class of light curtain protection: IP65.	●
ANS-Anti-Nuisance Car Call Protection	If there is only one passenger in the car, and an excessive number of call calls is registered, nuisance is detected and all car calls will be cancelled, requiring registration of proper of calls.	●
LNS- Load Non Stop	When a car is loaded to a predetermined percentage of its capacity, it is considered "full". The car will bypass further hall calls. Additional passengers would be unable to enter.	●
LWS-Overload Protection	If the load exceeds the rated load, the sound signal will be given out by speaker, and "OVERLOAD" will be displayed, the car door will not close, the elevator will not start.	●
Button anti-adhesion protection	If adhesion on a button due to mechanical fault, elevator will shield the button and no longer respond the order from this button.	●
Door closing torque protection	Door operator had set the closing torque, in case of jamming over the torque, the door will not close by improving the torque.	●
ELTU-Emergency light	Emergency light in the car will start whenever there is power cut.	●
ALARB-Alarm Bell	An alarm sound signal will be given out to the outside in specific conditions.	●
DTC-Door Time Protection Close	If the car door does not close completely within an adjustable time after the door close command, after three unsuccessfully retries, the elevator will automatically enter protection state. When normal door closing is detected, elevator will recover to normal running.	●
DTO-Door Time Protection Open	If the car door does not open completely within an adjustable time after the door open command, car call and hall call signals will be automatically cancelled, and elevator will stop at the next floor and open its doors.	●
Door panels forced closing upon gravity	If hall door connecting wires fails, gravity will force the main panel and auxiliary panel closed.	●
Mechanical stop for landing door forced opening	The function is to protect the person outside the landing door in case that the wire rope of landing door breaks.	●
NTSD-End Protection	Both upper and lower terminal of elevator are equipped with terminal speed reducing switch and terminal limit switch, if the speed is not slowed to the preset value while the car reach the end floor, a forced deceleration will be carried out by system in order to protect the safety of the car.	●
EFO-Emergency Fireman Operation	Upon recognition of fireman's service, a car shall return non-stop to the designated return landing and park with the doors fully open.	●
Fire feedback	When fireman operation finished, a signal will be feedback to facilitate access to building system.	●
Local leveling	If accidental fault occurs on elevator, current floor will be memorized, so that for recovery it's no need to return to terminal landing, improves running efficiency.	●

ARED-Automatic Rescue Device	This device is used for rescue operation in case of power shutdown, it is powered by a rechargeable battery, when a sudden power cut happens, the car will move towards to the near floor, keep the door open to the passengers.	○
Earthquake operation	With this function, in case of earthquake, earthquake detector acts and inputs a contact signal to control system which drives elevator to near floor, open door to release passengers and stop.(Earthquake detector shall be solved by customer)	○
Core closing anti-stall function	When elevator stops, it will start core closing circuit. During current producing for cutting line of magnetic force of permanent magnet, opposite torque is produced to avoid stall due to braking failure.	○
Door opening prohibition outside door zone	For safety, door opening is disabled outside door zone.	●
Light sensor and safety edge protection	Light sensor and mechanical safety edge can be option.	○
Fault self Diagnosis	When control circuit abnormal is detected, automatic stop the elevator to ensure the safe of passenger.	●
ACP-Anti Crime Protection	Anti-Crime Protection forces each car in the group to stop at pre-determined floor and open its door. This allows a security guard at the floor to visually inspect the passenger of the elevator before the car completes its run.	○
EFS-Emergency Fireman's Service	EFS shall automatically place the car on independent service when the pre-set key is started, all calls cancelled, only answer the car call inside to cooperate the fireman, this function need to match with the fire lift.	○
Fire display	There is display inside of the car when the lift enter into fireman operation.	○
Password Floor Service	The special floor can be set the password through the button in car.	○
EPO-Emergency Power Operation	In case that regular power supply shuts down, the power supply of cars turns to Emergency Power, then cars in group except cars in inspection mode run to defined landing(or next landings)one by one. After arrival to rescue position, the cars open doors and let passengers out. It's available to define a part of cars in group for normal service during EPO which is needed by some users. The return to full normal operation is done automatically when regular power supply is reestablished.	○
Elevator basic functions		
Floor Display	There is arrow display in COP and HOP to show the running direction to passenger.	●
FCL-Full Collective Operation	All car and/or hall calls registered are answered in the order in which the landings are reached. Direction of travel will be established by the first car command/hall call registered. All calls on its way will be served, irrespective of the time sequence in which the calls were registered.	●

ATT-Attendant Service	The Attendant Operation feature allows semi-automatic operation with manual control through the switch in COP.	●
Attendant Bypass	In state of attendant operation, if the button NSB in COP is pressed, elevator will not answer to hall call and directly run to destination floor.	●
Reminding for Attendant	When hall call is registered under ATT, corresponding command lamp will flash to remind attendant to learn situation of such registration. The function acts together with ATT.	●
VIP Independent Service	This function is designed for meeting VIP'S special needs. When switched on independent service the elevator will only answer the registered car call, regardless of the hall calls while opening or closing the door by manual control and operating according to VIP's registered signals.	●
CBC-Cancel Error Calls	Before the car starts, the registration of a car or operation can be cancelled by double click of this button. After the car starts, registration cancel will not allowed for the sake of passengers safety. The function can be made available by parameter setting.	●
Automatic elimination of reverse command	When the first or last landing is reached and elevator has to reverse, all commands originally registered will be eliminated.	●
Door Re-opening	During normal door closing, when call button that indicates the direction consistent to current running direction is pressed in hall, door will be re-opened.	●
Door opening	When elevator stops in door zone, opening button can be pressed in car to re-open full or partly closed door.	●
DHB-Door Hold Button	Can adjust the door open time through the DHB on the COP when need to hold the door opening.	○
Locking at main landing	When locking switch is set, elevator back to main landing, stop using.	●
Braille Button	Push button with braille, convenient for the blind.	●
Voice Announcement	With the function, voice announcer announces floor to be reached on each landing, and forecast subsequent running direction before each door closing.	○
IC card system	IC card management implements right management for specific floor through car and hall card reading system, intelligent manage the passengers. The function is only effective for elevator and can't be integrated with other IC card management system in building.	○
RLEV-Releveling Operation	Stopping error between the car sill and landing sill exceeds a limit due to load changing of passenger shall be corrected by automatically releveling.	○
ADO-Advanced Door Opening	In order to accelerate traffic, automatic door opening starts while the elevator car approaches a landing.	○
Door opening for standby at main landing	With the function, when elevator is not used, it will wait with door opened at main landing.	○
Visit	The function is to open elevator for visitor. (The function acts together with building system and intelligent IC System)	○
Hall Arrival Gong	Up/Down arrival gong will be provided in hall on each landing to inform passenger of arriving of elevator with this optional function.	○
Car Arrival Gong	During speed reduction and leveling, arrival gong on car top sounds to inform passengers and waiters of leveling and arriving.	●

Auxiliary Operation Panel	Auxiliary Operation Panel can be provided in addition to main operation panel, passenger can register and door operation vi auxiliary operation panel.	○
Operation Panel for handicapped	Operation panel for handicapped can be selected for special operation by handicapped.	○
Automatic return to main landing	With this function, when there is no order or calls, after a period of time the elevator will automatic return to the main landing.	●
Insulation and shock absorber	There is sound insulation and shock absorber under the machine bearing, to reduce the noise between cabin and top floor.	○
FLP-Fan and light protection	Elevator will enter energy saving mode under no operation, turn off the car light and fan automatically within present time after door closing, and resume after new command is received.	●
PRK-Parking	Elevator in same group will park on different floors once spare in order to shorten the response time.	○
DOB/DCB-Door Open/Close Button	The door open/close button in car operation panel permits to open/close an automatic door, and to keep it open/close by constant pressure.	●
DOBL/DCBL-Door Open/Close Button Light	Door Open/Close button will be highlighted if the buttons are pressed.	●
CFT-Cafeteria Time	More open time for the cafeteria floor to meet with the requirement of the extra passenger flow.	○
Separate control DHT of car and landing door	The waiting time caused by hall call is longer than car call according to statistics, this function to improve the efficiency through independent adjust the door open holding time.	●
ADC-Advanced Door	When the door is fully open and under the door hold period on normal running, push the door close button can close the door in advance.	●
Torque compensation on starting	To make the elevator more comfortable, system calculate the load in car, optimize it through compensating the torque on starting.	●
Digital Display in Car and Hall	16 digital display to show the position of elevator in COP and HOP.	●
MIT&MOT-Moderate	Aiming at relieving the traffic peak in the building, for example, morning peak or evening peak, all the elevators on service at lobby will be activated once the load reached a predetermined value(generally 50%), and this model will	○
TFT Display	TFT Display can show the video or music ordered by customer.	○
LCD display in car	Car display is LCD.	●
Over Station Warning	Elevator will remind the passenger through buzzer over station, provide special service for blind passenger.	○

Time Setting	Time setting to auto control the elevator.	<input type="radio"/>
Voice Clam	Overtime, overload, and leveling to nearest floor under fault, or open/close the door, automatic voice announcement will be played to clam and guide the passenger.	<input checked="" type="radio"/>

System Safety

Contact detection and protection on safety contactor	The system detects reliable action of safety relay and contact on contactor. If nonconformity of action of contact with driving state of coils found, any work in car will be stopped.	<input checked="" type="radio"/>
Brake Feedback & Detection	Brake relay signal is always monitored. If nonconformity of actual state of brake relay with preset command is found, running will be stopped.	<input checked="" type="radio"/>
Independent dual brake	Dual independent brakes protects machine.	<input checked="" type="radio"/>
Running Time Limiter	If leveling switch doesn't act after continuous running for time specified by running time limiter(max. 45s), any work in car will be stopped.	<input checked="" type="radio"/>
Overspeed Protection	The function is to protect elevator against safety problem caused by running at speed out of control range.	<input checked="" type="radio"/>
Low Speed Protection	The function is to protect elevator against safety problem caused by running at speed lower than control range.	<input checked="" type="radio"/>
OHT-Drive Overheat Protection	Self-protection mode will be achieved if the temp of the motor exceeds the preset value due to the heat made by motor itself or the high temp in the environment. The car stops at the nearest floor, unload and shut down the light and ventilation device; once the temp falls down to normal, the car will recover.	<input checked="" type="radio"/>
Safety circuit fault protection	When safety circuit fault signal is received, elevator will be subject to emergency stop, and prevented from running under fault.	<input checked="" type="radio"/>
Main control CPU WDT protection	WDT protection is provided on main control board. When fault of CPU or program is detected, WDT circuit will forcibly disconnect main controller output point and reset CPU.	<input checked="" type="radio"/>
Grid filter monitoring	If the voltage fluctuate continuously in one period, system will auto alarming.	<input checked="" type="radio"/>
Speed Detection	Once the system detect the actual running speed is unconformity with the preset speed, will shut off the safety circuit automatically and alarming.	<input checked="" type="radio"/>
RIN-Re-initialize	When the power recovered from a cut, position signals cannot be given or the position cannot be detected the car will move to lobby and reinitiate. After that the floor info can be displayed and the elevator backs to normal.	<input checked="" type="radio"/>
Recover Running	Elevator recover from shut off, if it's out of the leveling zone, the system will running to the leveling position under lower speed, and auto open the door to recover.	<input checked="" type="radio"/>

Maintenance Function

Five Parties Intercom	If accidental fault occurs on elevator, current floor will be memorized, so that for recovery it's no need to return to terminal landing, improves running efficiency.	<input checked="" type="radio"/>
Floor Height Self-learning	Elevator automatically learns the floor height.	<input checked="" type="radio"/>

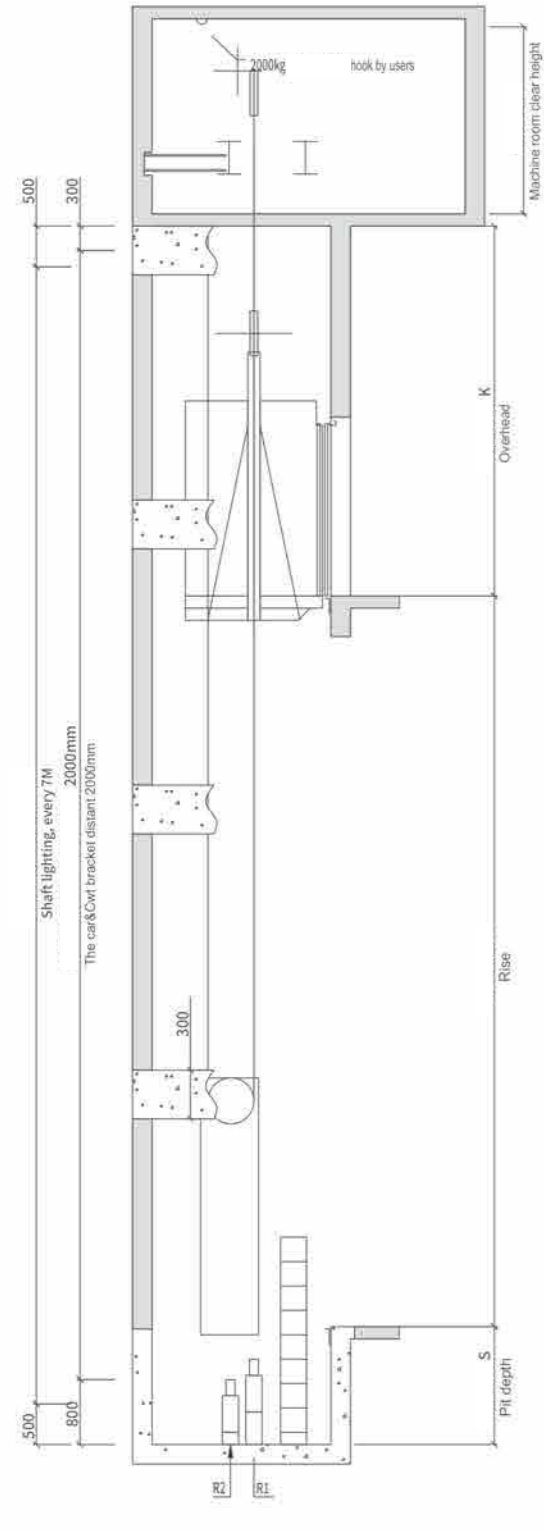
Self positioning of max. Torque	After each power failure recovery, elevator re-establishes the absolute position of max. Torque point to ensure running in high efficiency state.	<input checked="" type="radio"/>
Machine Room Distribution Box	The device controls connection and disconnection of power supply, and supports locking after disconnection of power supply. With the device, maintainer can effectively control elevator and protect elevator against overload and short circuit.	<input checked="" type="radio"/>
Pit Ladder	Ladder is provided in pit for maintainer.	<input checked="" type="radio"/>
Fault Recording/Reference	The latest 20 faults can be recorded, including the fault time, floor and code.	<input checked="" type="radio"/>
TCI-Top of Car Inspection	Inspection box is provided on the top of car, safer and easier for maintain.	<input checked="" type="radio"/>
Inspection in Machine Room	Inspection running can be carried out in machine room.	<input checked="" type="radio"/>
Leveling Adjustment	If there's slightly deflection in elevator leveling, manual intervention can be implemented with the function.	<input checked="" type="radio"/>
Test Running	The function is designed for testing or examining new elevator. Elevator can automatically run after some parameter of AIO is established as state of test running. Total times of automatic running and interval between runs can both be established by parameter setting.	<input checked="" type="radio"/>
Full Shaft Double Control Lighting	Double-control lighting is provided by installing lamps through shaft wall.	<input checked="" type="radio"/>
Force Confirmation of Landing Door Manual Opening	For manual opening, door can only be opened by a seam firstly, and can full open if opening is confirmed.	<input type="radio"/>

Extension Function

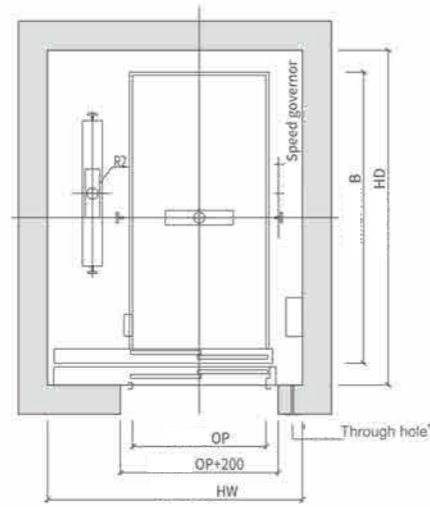
Special Letter Display	Character shown on each floor can be set via manipulator. For example, shown B for Base Floor.	<input type="radio"/>
Group-Control	Used for two or over two elevators, response with the optimize solution, avoid the repeat stopping, save the waiting time of passenger, increase the efficiency.	<input type="radio"/>
BA-Building Monitor Ports	Elevators with BA function can provide scattered elevator status for computed management of the building, such as running directions, floor numbers, safety signals, door signals.	<input type="radio"/>
REM	24 hours Remote elevator monitoring can be implemented through Internet or telephone line. Auto alarming to REM center when elevator faulty.	<input type="radio"/>
AMS-Area Monitoring Screen	It can be installed in the porter's lodge, simply display the condition signals by LED indicators and lock/unlock the elevator.	<input type="radio"/>
Air Condition	Adjust the air in cabin, including temperature, humidity and cleanliness, to make a comfortable environment.	<input type="radio"/>
UV sterilization	UV Sterilization system clean the air into the cabin.	<input type="radio"/>
Negative oxygen ion bactericidal	Add the negative oxygen ion generator to the ventilation system, sterilization and purification of the air in cabin.	<input type="radio"/>

Above functions only apply for std. configuration of UN-BED ● Standard configuration ○ Configuration Options

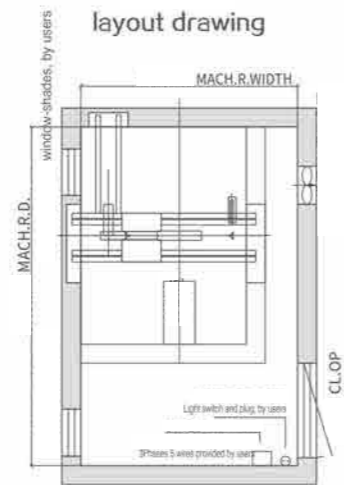
UN-BED LAYOUT OF BED LIFT



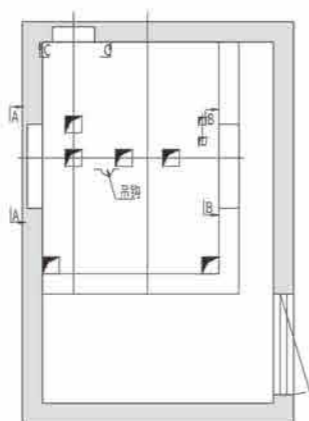
Section Drawing



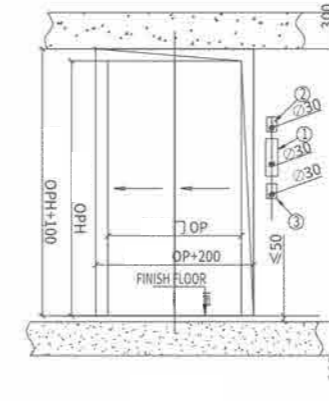
layout drawing



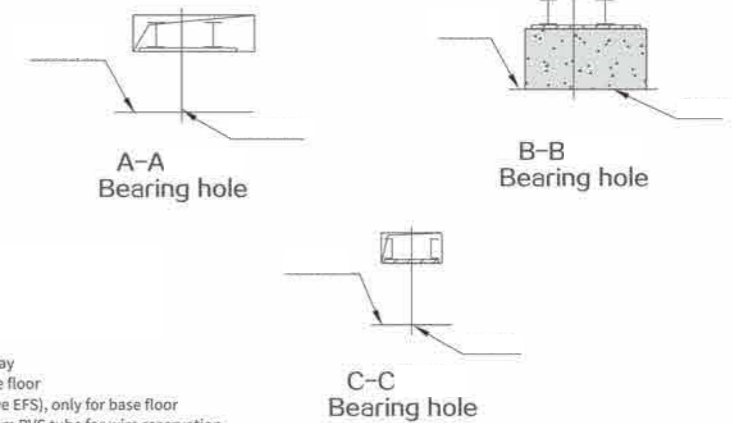
layout drawing



Section Drawing



Front view



1. Button and display
 2. LOP only for base floor
 3. Fire switch (if have EFS), only for base floor
- Suggest to use 30mm PVC tube for wire reservation

Done by the owner & builder

1. Any equipment, power supply or hole not relating to the elevator should not be installed in the hoistway, and all building parts in the hoistway should comply with the fireproof requirements.
2. Hoistway should be vertical enough with tolerance 0~+25mm/0~30m, 0~+30mm/30~60m, 0~+50mm/60m and its min. horizontal size is regarded as the hoistway size marked in the drawing.
3. The counterweight should be installed on a solid base that stands on the strong floor directly or a counterweight safety should be installed if there, under the pit, is a space big enough for access of person.
4. All the hole for landing door must set safety protection barrier, with height no less than 1.2m and enough intensity before installation of elevator.
5. Close hoistway should own ventilating hole (usually at the top or bottom) with protection net and the hole square is no less than 1% of the whole hoistway horizontal square.
6. The reserved hole for landing door, calling display units etc. should be filled in after the installation of elevator.
7. It's better that the hoistway is made of concrete. If it is made of brick, the concrete enclosure of 300mm height should be made in the hoistway wall where the guide brackets will be fixed. Besides, the concrete girder of 300mm height, with the same width as that of hoistway, should be the edges of the hole (up and down edge) that is pre-placed for landing door.
8. A safety door (neither less than 350mm width nor 1800mm height) should be installed and shouldn't be allowed open to the hoistway if the distance between the two adjoining sills is more than 11m. Safety door shall be equipped with the lock that can be opened and closed without key, and even can be opened inside the hoist way when it is locked.
9. The pit should be waterproof and the plash should be placed at the corner of the pit.
10. According to requirement of the technical parameter sheet, the power should be lined to the machine room with protection switch and in lock. The fluctuation of the power should be less than $\pm 7\%$. The N wire and earth wire should be separated and the ground resistance is not more than 4ohm.
11. All reactions marked in the drawing include impact amendment unless it is separately marked force.
12. The matters (Bearing PLATE ect.) prepared by the customers shown in the drawing should be pre-placed.
13. The temperature of the machine room should be kept between 5~40°C. The floor of the machine room should be flat and can bear average load of 7.0KN per square meter.
14. A rescue room and communication line shall be installed by the customer. A six core RVSP (3 x 2 x 0.75mm²) is needed when the distance is less than 500m and a category V is needed when it is more than 500m.

Notice:

1. Technical condition is the important constitute of the layout, must be compiled strictly. For other items not mentioned above, please refer to national code En81;
2. If the layout construction didn't execute according to this drawing and item, the modification should be responsible by the client, and the related after effect be bore by the client;
3. If there are changes of above layout dimension, please inform us in written in time, it can't be changed unless get our confirmation.

(kg) Capacity	(m/s) Speed	(mm) Cabin outer size (A) x (B)	(mm) Opening clear size (OP) x (OPH)	(mm) Shaft clear size (HW) x (HD)	Min. pit depth S (mm)	Min. overhead K (mm)
1350	1	1350 x 2450	1200 x 2100	2300 x 2810	1550	4550
	1.5				1650	4750
	1.75				1750	4850
1600	1	1450 x 2600	1300 x 2100	2400 x 2960	1550	4550
	1.5				1650	4750
	1.75				1750	4850

Note: The above drawing is for reference sample