



Introducing Our



Gen 3 ELEVATOR

Loc 1: Antelias, Seaside, SSS Bldg,
fifth floor beside AISHTI.

Loc 2: Bchamoun, Behind Louise Wegmann School,
Andalos St. - SSS Bldg.

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Gen 3



BELT MACHINE

- Small size, save more space
- Energy conservation and environmental protection of the rare earth permanent magnet synchronous gearless traction machine technology
- Operational efficiency is as high as 88.7%
- Low brake noise
- Low maintenance expense
- Long life time



COMPOSITE STEEL BELT

Polyurethane coating instead of the traditional wire rope flax core, will rearrange strand wire package, to prevent corrosion and wear. Composite steel belt compared with the traditional steel wire rope, without oil lubrication, solved in 150 years could not avoid the shaft of oil pollution, make the elevator running in the green environment.



DOOR OPERATOR

All new designed door system, comply with GB7588-2003 first amendment design, 3 times previous standard, door operator integrates permanent magnetic, VF control and synchronous transmission belt, operates steady, efficient, quiet. Independent intellectual property, self-design and manufacturing, is identified as international advance by elevator specialist committee.



LED ceiling

- Energy saving reached 80% higher than traditional light
- Green light source, glare, no flicker
- Long life time, save maintenance cost



DOUBLE 32-BIT CONTROL SYSTEM

- SMART controller, global design
- Double 32-bit digital and modular network control
- Lead-free PCB

HOP



COP



BELT MACHINE



INDEPENDENT R&D INDEPENDENT MANUFACTURE ORIGINAL FACTORY ORIGINAL BRAND

BELT MACHINE



MAIN ADVANTAGES

Driving wheel and motor shaft lever integration of design, the machine is small size, light in weight

Brake integration in motor, reduced the brake noise

The disc type brake maintenance free

The close bearing without lubrication

Machine efficiency can reach 95%

Machine wheel not ever wear

COMPOSITE STEEL BELT



MAIN ADVANTAGES

The high-tech, new wear resistant materials

Polymer coating, closed structure, no corrosion and oil leakage

Nearly 20% lighter than the ordinary steel wire rope, handling, installation is convenient

Composite steel belt free maintenance for life

Without oil lubrication

SAFETY DOOR

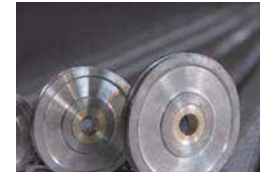


INDEPENDENT R&D INDEPENDENT MANUFACTURE ORIGINAL FACTORY ORIGINAL BRAND



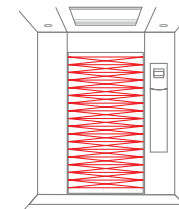
SECURITY UPGRADE

Special anti-drop design for door hanger, deeper door sill groove for door sliding gib clip in.



LANDING DOOR WHEEL SET, STEEL ROPE

Irony wheel set service life≥3 million times, triple industrial standard; door hanger roller is thickened PU covered; steel rope designed as aviation standard, service life≥2 million times, twice industrial standard.



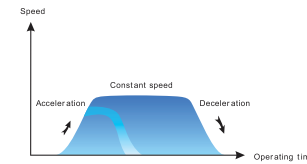
WATERPROOF LIGHT CURTAIN

Light curtain's waterproof class IP65, the beam quantity up to 154 above, strong anti-interference performance, Closing without blind spots, to ensure passenger's safety.

INTELLIGENT CONTROL



INDEPENDENT R&D INDEPENDENT MANUFACTURE ORIGINAL FACTORY ORIGINAL BRAND



PRECISE CONTROL, COMFORT RUNNING

VVVF drive control and dual 32-bit CPU closed-loop vector control technology, automatically generating optimal speed curve according to human physiology, which can make acceleration, deceleration and braking more smoothly, provide a more comfortable running.



SMART UPGRADE

Offline software upgrades, extensive expansion capabilities with onboard operator, convenient debugging, small size, fast heat dissipation.



ACCURATE LEVELING

Intelligent control system can self learning the operation data and shaft parameters, and automatically get ideal operation comfort and efficiency, also ensure the leveling optimum accuracy ± 5 mm.



EFFICIENT OPERATION

Using advanced modular software and serial communication technology, making elevator control more reliable and efficiency, greatly shorten passenger waiting time, effectively reduce the elevator accident by communication fault.

TECH-CONVENIENCE



VOICE CALM

Auto playing a voice when elevator emergency stop by fault, let the passenger calm down and waiting for rescue. Extra voice reminding during the running, guide the passenger safety loading.



VIP PRIVATE SERVICE (OPTIONAL)

Intelligent VIP information system, keep private and safety service for VIP.



UCMP

When the elevator is in leveling and the door is open, elevator detects unexpected move, UCMP security device immediately start protection, stop the elevator.

STANDARD DECORATION



U-CR126-1

Ceiling integrated with car top: Hairline Stainless steel+Acrylic+LED downlight
 Car Wall: Hairline Stainless steel
 Floor: PVC

* With separate ceiling, std. Cabin clear height is 2300mm
 * With integrated ceiling, std. Cabin clear height is 2400mm



U-CL046-1



U-FL012



Std. option - Decoration



U-CR142

Ceiling: Painting st. steel + Acrylic
 Back panel: Decorative film + Mirror st. steel
 Side panel: Painting st. steel + Mirror st. steel
 Floor: PVC
 Front panel: Painting st. steel

Std. Option - Decoration Film Steel Plate



TA-07



FM-094



W-039

STANDARD DECORATION

COP



U-CF1200
6.4" LED
Hairline st. steel

U-CY100
6.4" LED
Hairline st. steel

COP BUTTON



Standard
BS34D(B)
Hairline st. steel



Optional
BR34C(B)
Hairline st. steel

HOP



U-ZW1600
4.3" LED
Hairline st. steel

HOP BUTTON



Standard
BS34F(B)
Hairline st. steel



Optional
BR34D(B)
Hairline st. steel

OPTIONAL DECORATION

COP



U-CF200
6.4" BND
Hairline st. steel

COP BUTTON



Standard
ER34C
Hairline st. steel

HOP



U-ZW1500
4.3" BND
Hairline st. steel

HOP BUTTON



Standard
ER34C
Hairline st. steel

OPTIONAL DECORATION

Optional Ceiling



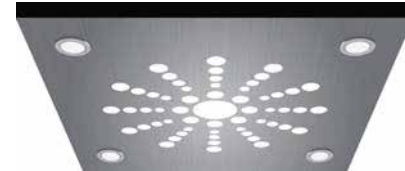
U-CL047
Grey painting steel + Arcylic



U-CL048
Hairline st. steel + Arcylic + spotlight



U-CL049
Hairline st. steel + Arcylic + spotlight

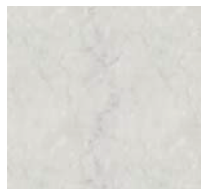


CL050
Hairline st. steel+Arcylic+spotlight

Optional Floor



U-FL001
PVC



U-FL031
PVC



U-FL032
Marble

Optional Display

Wind dancing



7\"/>



4.3\"/>

Red block



7\"/>



4.3\"/>

Phantom of the red



7\"/>



4.3\"/>

Coffee ball



7\"/>



4.3\"/>

Optional Handrail



U-HR001
Round stainless steel



U-HR003
Round mirror stainless steel



U-HR004
Flat stainless steel

OPTIONAL DECORATION



U-CR137

Ceiling: Painting steel+Acrylic+spotlight
 Back panel: Painting steel+Mirror st. steel
 Side panel: Painting steel+Mirror st. steel
 Floor: PVC
 Front panel: Painting steel



U-CR138

Ceiling: Painting steel+Acrylic
 Back panel: Painting steel+Mirror st. steel
 Side panel: Painting steel+Mirror st. steel
 Floor: PVC
 Front panel: Painting steel



U-CR139

Ceiling: Painting steel+Acrylic
 Back panel: Painting steel+Mirror st. steel
 Side panel: Painting steel+Mirror st. steel
 Floor: PVC
 Front panel: Painting steel



U-CR140

Ceiling: Mirror st. steel+Acrylic
 Back panel: Hairline st. steel+Mirror st. steel
 Side panel: Hairline st. steel
 Floor: PVC
 Front panel: Hairline st. steel



U-CR141

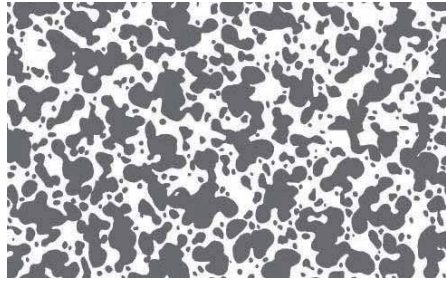
Ceiling: Painting st. steel+Acrylic+spotlight
 Back panel: Hairline st. steel+Mirror etched st. steel
 Side panel: Hairline st. steel+ Mirror etched st. steel
 Floor: PVC
 Front panel: Hairline st. steel



U-CR050

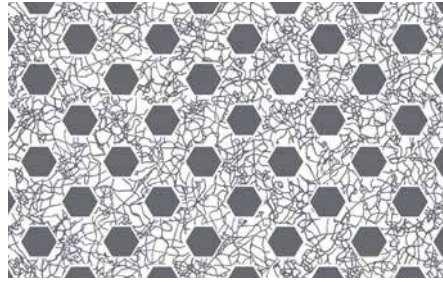
Ceiling: Power-painting steel plate, acrylic
 Car wall decoration: hairline stainless steel + etching stainless steel + mirror stainless steel
 Floor: PVC

OPTIONAL ETCHING



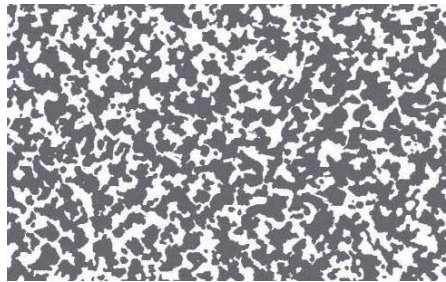
■ Convex □ Concave

XIZI - 04



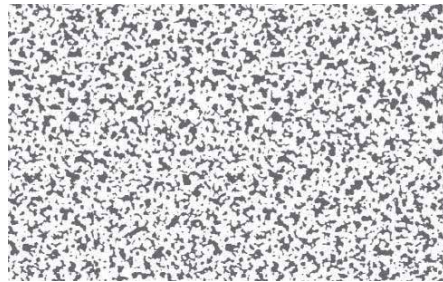
■ Convex □ Concave

XIZI - 10



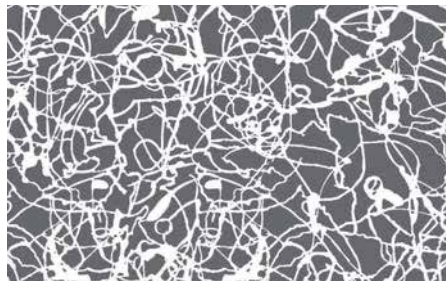
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XIZI - 37



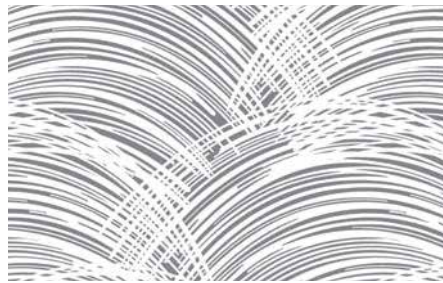
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XIZI - 40



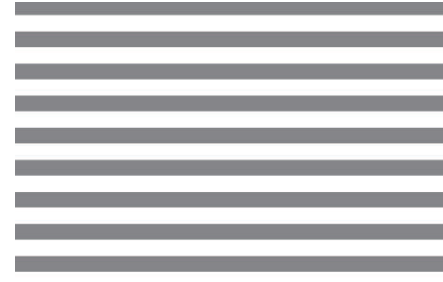
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XIZI - 75



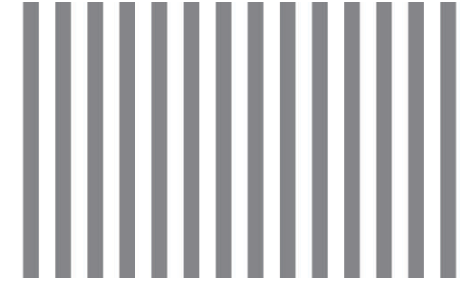
■ Convex □ Concave

XIZI - 76



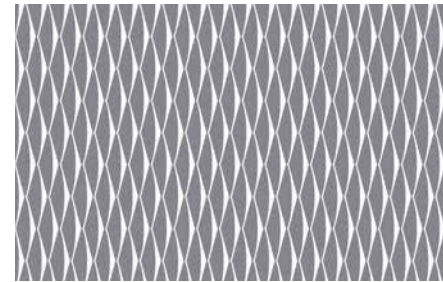
■ Convex □ Concave

XIZI - 81 (Horizontal)



■ Convex □ Concave

XIZI - 81 (Vertical)



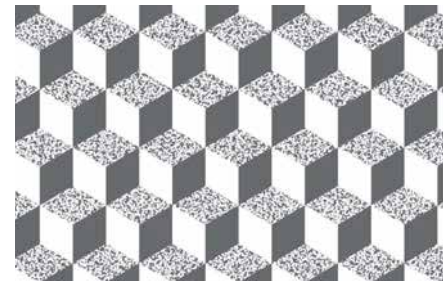
■ Convex □ Concave

XIZI - 89



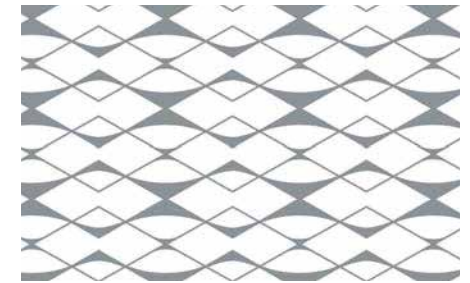
■ Convex □ Concave

XIZI - 90



■ Convex □ Concave

XIZI - 105



■ Convex □ Concave

XIZI - 15

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 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 t 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-Autimatic 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.	○
HSD-hand rescue device	When power failure, can levelling the elevator and release the passenger manually through this device, be sure about the safety.	●

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 via 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.	●
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.	●
OFT-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 Closing	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 Incoming & Outgoing Traffic	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 continue at the predetermined peak times. (this function only available to triplex and group control).	○
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.	○
Controller Sound Insulation	Add the mute box over the contactor or use silence contactor to reduce the noise.	●
Voice Clam	Overtime, overload, fireman operation, and leveling to nearest floor under fault, or open/close the door, automatic voice announcement will be played to clam and guide the passenger.	●

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.	●
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.	●
Independent dual brake	Dual independent brakes protects machine.	●
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.	●
Overspeed Protection	The function is to protect elevator against safety problem caused by running at speed out of control range.	●
Low Speed Protection	The function is to protect elevator against safety problem caused by running at speed lower than control range.	●
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.	●
Safety circuit fault protection	When safety circuit fault signal is received, elevator will be subject to emergency stop, and prevented from running under fault.	●
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.	●
Grid filter monitoring	If the voltage fluctuate continuously in one period, system will auto alarming.	●
Speed Detection	Once the system detect the actual running speed is unconfornity with the preset speed, will shut off the safety circuit automatically and alarming.	●
R/N-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 remitate. After that the floor info can be displayed and the elevator backs to normal.	●
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.	●

MAINTENANCE FUNCTION

Five Parties Intercom	The function is keep contact with machine room and monitoring center via intercom system provided on COP, Car top and pit. Cable from machine room to monitoring center shall be solved by client.	●
Floor Height Self-learning	Elevator automatically learns the floor height.	●

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.	●
Pit Ladder	Ladder is provided in pit for maintainer.	●
Fault Recording/Reference	The latest 20 faults can be recorded, including the fault time, floor and code.	●
TCI-Top of Car Inspection	Inspection box is provided on the top pf car, safer and easier for maintain.	●
Inspection in Machine Room	Inspection running can be carried out in machine room.	●
Leveling Adjustment	If there's slightly deflection in elevator leveling, manual intervention can be implemented with the function.	●
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.	●
Full Shaft Double Control Lighting	Double-control lighting is provided by installing lamps through shaft wall.	●
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.	○
Cabin Locking Device	With this device, can lock the cabin on the guide rail during maintain, easier for installation and maintenance.	●

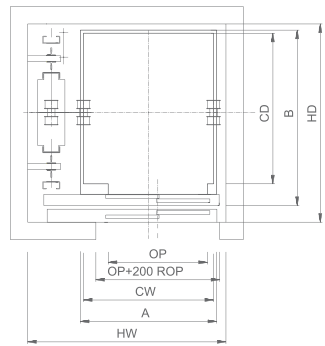
EXTENSION FUNCTION

Special Letter Display	Character shown on each floor can be set via manipulator. For example, shown B for Base Floor.	○
Group Control	Used for two or over two elevators, response with the optimize solution, avoid the repeat stoping, save the waiting time of passenger, increase the efficiency.	○
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.	○
REM	24 hours Remote elevator monitoring can be implemented through Internet or telephone line. Auto alarming to REM center when elevator faulty.	○
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.	○
Air Condition	Adjust the air in cabin, including temperature, humidity and cleanliness, to make a comfortable environment.	○
UV sterilization	UV Sterilization system clean the air into the cabin.	○
Negative oxygen ion bactericidal	Add the negative oxygen ion generator to the ventilation system, sterilization and purification of the air in cabin.	○

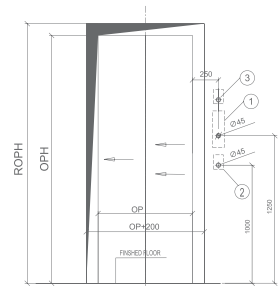
Above functions only apply for std. configuration of Gen 3

● Standard configuration ○ Configuration Options

Gen 3 LAYOUT DRAWING



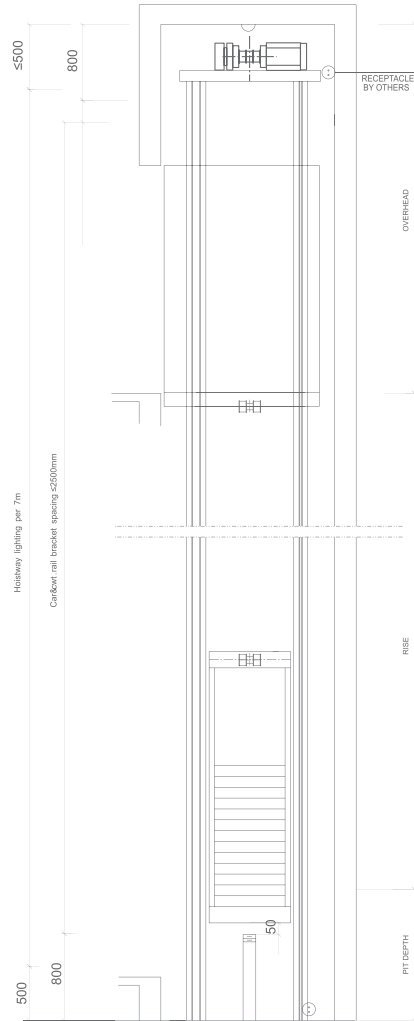
HOISTWAY PLAN



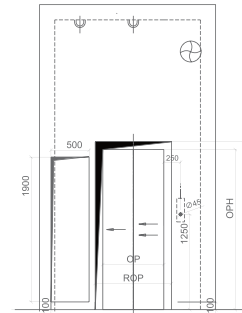
ALL FLOORS

- 1. Button & display
- 2. Base floor box only for base floor
- 3. Fire switch (if with EFO) set on base floor suggest client using PVC tube of inner diameter of 45mm

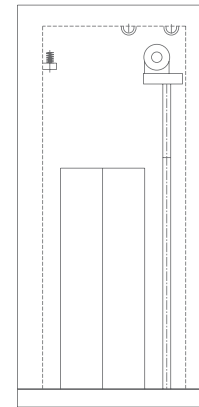
FRONT VIEW



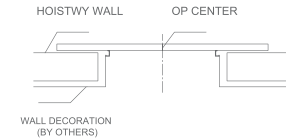
ELEVATION



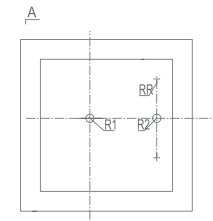
FRONT VIEW



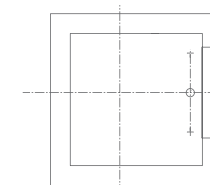
E - ELEVATION



SMALL JAMB SKETCH



HOISTWAY PLAN



HOISTWAY PLAN

Loading Capacity	Speed	Cabin size(net)	Open size	Hoist way size(net)	S(mm)	K(mm)
320	1.0	800x1100	700x2000	1300x1500	1000	3400
450	1.0	1000x1250	800x2000	1500x1650	1000	3400
630	1.0	1100x1400	900x2000	1600x1800	1000	3400

*The pit depth and overhead is calculated under 1.75m/s and buffer distance 150mm.
 *Above drawing is for reference only.