www.nipponelevator.com

NIPPON
ELEVATOR

ELEVATORS

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Drive System

All kinds of products of NIPPON adopt the advanced magnetic synchronized traction machine, The traction machine has advantages of environmental protection, energy- saving, free-maintenance, safe reliability and high efficiency, it has low vibration, low noise and perfect ride comfort. The traction machine can save 30%-60% of power consumption compared to classical gear machine.

Control system

e-com control system is an epochal product of NIPPON.It represents advanced technology by adopting innovative design. It is a real GREEN product; more than 100 protection design and precaution measurement guarantee ultimate SAFETY;compared with usual control system, e-com has lots of advantages;

ALL-IN-ONE design of highly integrated motor driving and logic control unit, not separated inverter and control board, reduces the middle control tache, multi CPUs share software and hardware which brings higher speed; multi CPUs monitor each other to make control more safe and reliable;

e-com MRA/MMR control system

E-com offers multiple controllers to match different constructions, such as: wall-mounted controller for MRA; controller inside of hoistway for MRL; closet controller for high speed elevator;

Energy generated during braking is feed back to the power supply by the use of energy regeneration device. Compared with usual method of braking resistor, e-com saves 20~40% of power consumption;

Automatically hibernation will reduce power consumption prominently during elevator standby. Compared with elevator without this function, auto wakeup elevator saves 90% power consumption during standby;

With comprehensive EMC design scheme, e-com fully complies with EN12015, EN12016 standards, it is 'GREEN' electrical product with limit and acceptable electromagnetic pollution and strong electromagnetic susceptibility;

N-curve algorithm adopts distance control, it automatically calculates out possible maximum speed according to different floor distance, makes landing directly without creeping. Compared with usual control system, e-com improves 5~30% service efficiency, reduces time of waiting and riding elevator;

Brand-new pin board design can avoid mis-plug. Also the connection way of pin and plug guarantees a reliable and convenient junction;

Special technology of synchronous starting without load weighing compensation is adopted. By the using of sincos encoder, there is no need to adjust the load weighing compensation;

E-com adopts advanced earthquake monitoring detector which real-time detects P wave or S wave shaking acceleration, guarantees passengers evacuation before L wave coming which has the maximal demolition;

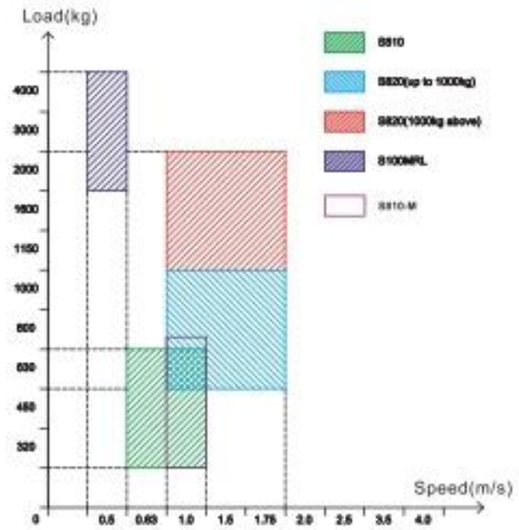
Surge protection will keep your equipments away from kinds of interferences caused by the energy from power wiring.

e-com MRL control system

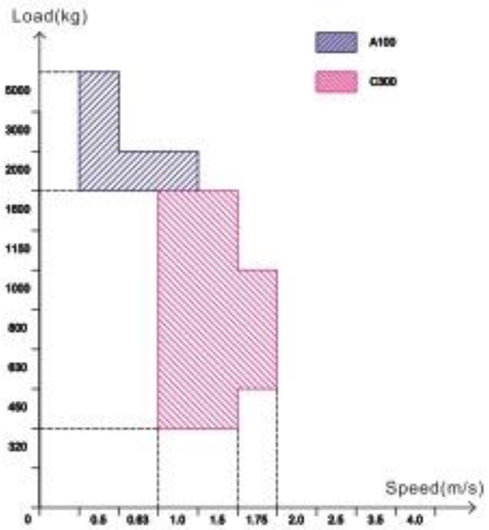
e-com control system
(Extruded)

Complete Solutions

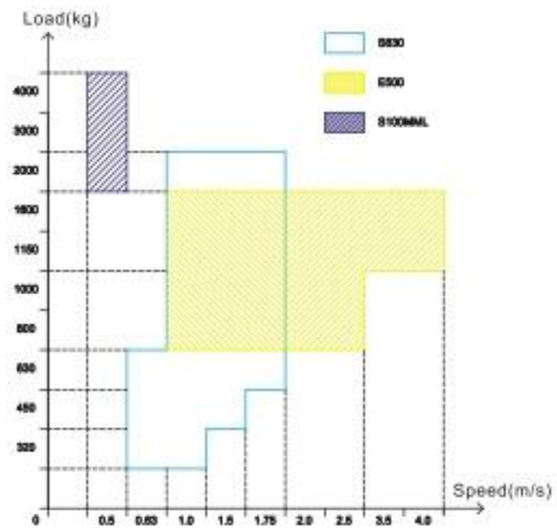
Machine Room-less (Gearless)



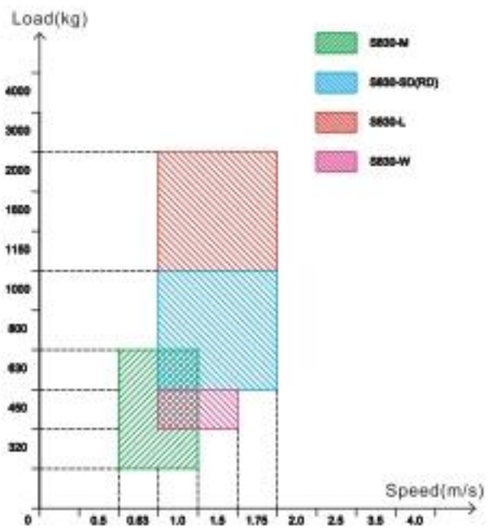
Machine Room Above (Geared)



Machine Room Above Gearless



Machine Room Above (S830)



Landing Door Style

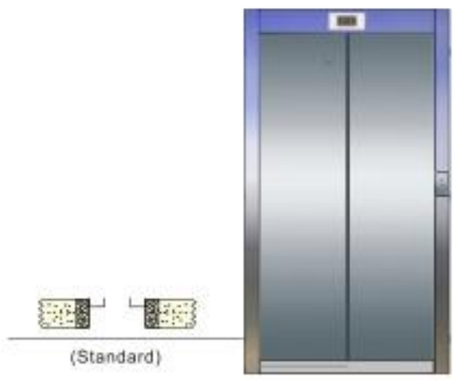
In order to make the environment more beautiful, the decoration of the door and jamb is according to the building's style.

Narrow Door Jamb(Standard)

Splayed vertical door jamb
(Optional)

Splayed inclined door jamb
(Optional)

Square door jamb (standard for S810 & S830-M)



(Standard)

(Optional)

Car Style

Ceiling:Hairline ST/ST+Painted steel
+arcrylic resin panel, TH-105(standard)
Wall:painted steel(standard)
Floor:PVC(TCD314)

Ceiling:Hairline ST/ST+arcrylic resin
panel, TH-103(standard)
Wall::Hailine ST/ST(optional)
Floor:PVC(TCD315)

JC-201
Ceiling: painted ST/ST+ acrylic lighting
Car wall: titanium mirror & etched ST/ST
+ titanium mirror ST/ST
Handrail: PVD Coated, mirror flat rail.
Floor: artistic ceramic

JC-204
Ceiling: mirror ST/ST+glass + transparency,
Car wall: mirror & etched ST/ST+painted ST/ST
+ painted glass
Handrail: mirror single round rail
Floor: artistic ceramic

N02
Ceiling: Hairline ST/ST + acrylic lighting
+ Vaulted
Car wall: hairline & etched ST/ST
Handrail: ST/ST

Spring
Ceiling: Spring (optional)
Car wall: Etched ST/ST+ Painted Safety
Steel + Glass
Floor: Artistic Ceramic (FL-301)

JC-211
Ceiling: Mirror ST/ST + Glass + Transparency,
Car wall: Painted ST/ST+ Painted Glass
Handrail: Mirror Flat Rail.
Floor: Artistic Marble

N16
Ceiling: hairline ST/ST + Mirror ST/ST
+ acrylic decoration
Car wall: mirror ST/ST + hairline ST/ST
Handrail: stainless steel

Car Ceiling/Handrail/Indication system

TH-105 (standard):
Mirror ST/ST + Black painted steel + Acrylic resin panel

TH105B (optional):
Aluminium-filled plastic + Black painted steel
+ Acrylic resin panel

TH-103 (optional):
Hairline ST/ST + Acrylic resin panel

TH-401
(Optional:Hairline OR mirror ST/ST + Acrylic resin panel)

TH-402
(Optional:Hairline OR mirror ST/ST + Acrylic resin panel)

TH-403
(Optional:Hairline OR mirror ST/ST + Acrylic resin panel)

TH-404
(Optional:Hairline OR mirror ST/ST + Acrylic resin panel)

Type		Material	Specification (mm)
HC-001 (Optional)		Stainless steel, single round	Ø 38
HC-002 (Optional)		Stainless steel, double round	Ø22
HC-003 (Optional)		ST/ST. flat	80×6
HC-102 (Optional)		ST/ST +Wood	Ø 38
HC-104 (Optional)		ST/ST. round	Ø 38

Car Wall & Floor

Car Wall Materials

Standard(painted steel)

RAL5010 RAL5015 RAL6034 RAL7035 RAL1015

Optional

HS-001 Hairline ST/ST
HS-002 Mirror ST/ST
ES-002 Etched ST/ST
ES-003 Etched ST/ST
ES-004 Etched ST/ST
ES-005 Etched ST/ST

Floor

Standard(PVC tile)

TCD304 TCD305 TCD308 TCD314 TCD315 TCD316

TCD317 TCD318

Optional

ES-2 B-308 B-358 B-638 SG3501

Rubber floor (black)
Rubber floor (gray)
Checked Alu
Checked ST.

Indication system

■ COB

Landing hall button and operationpanel button is comfortable to feel. Dot-matrix dispaly shows various kinds of operationinformation.

Standard

FOB310 COB310

Optional

FOB310 Hairline strist
COB310E Hairline strist
FOB410 Hairline + mirror strist
COB410 Hairline + mirror strist
FOB710 (Extruded) Aluminium Hairline
COB710 (Extruded) Aluminium Hairline

Display & Button

■ INDICATOR

For car

Dot-matrix LED (standard)

Blue Segment LCD

Blue Dot-matrix LCD

Access control manager

TFT colored LCD(8 inch/10 inch)

For landing

Dot-matrix LED(V) (standard)

Dot-matrix LED(H) (standard)

Segment LCD (V)

Segment LCD (H)

■ BUTTON

RH-1 (Standard)

RH-2/RH-3 (Optional)

SH-1 (Optional)

SH-2/SH-3 (Optional)

■ HALL LANTERN

DZD-2

DZD-3

ELEVATOR Features and Functions Instruction

STANDARD PROTECTION

- Over voltage protection(Device name :MCU)
  Once power sauce voltage exceeds 120%, the motor will be protected against damages.
- Phase monitoring protection(Device name :MCU)
  Once power supply is short of any phase, the motor will be protected against damages.
- Motor over current protection(Device name :MCU)
  Once current output to motor is over a set value, the motor will be protected against damages.
- Motor overheat protection(Device name :Thermal resistance)
  Once motor winding temperature is over a set value, the motor will be protected against damages.
- Encoder fault protection(Device name :MCU)
  Once encoder has fault, the motor will stop running immediately.
- Contact adhere monitoring protection(Device name :MCU)
  System will monitor the contacts of contactors, if abnormal, the next running will not be allowed until the problem is resolved.
- Over speed protection (UP & DN)(Device name :MCU)
  Once lift is running under over speed, lift will be stopped by electrical control system immediately.
- Anti-reversal protection(Device name :MCU)
  Once the running direction monitored by encoder is not same as actual running direction, lift will stop running immediately.
- Over running time protection(Device name :MCU)
  Once one trip running time exceeds a set time (running time for one trip form lowest floor to top floor), motor power will be cut to prevent motor working under abnormal situation.
- Terminal switch protection(Device name :Limit switches)
  Prevent the elevator from traveling beyond a terminal landing.
- Car overload protection(Device name :Weighting sensor)
  When car load exceeds rated load, lift will hold stop with door open at the floor and the buzzer alarms and overload lighting illuminated.

STANDARD FUNCTION

- Auto-parking
  If no call during a set time, car will return to nominated main floor and wait for new calls.
- Full load no stop
  When car load exceeds 80% (adjustable) of rated load, it ignores all hall calls to avoid useless stop and increase the efficiency of transportation. These ignored calls will be registered but responded in next trip (simplex) or other lift (group control)
- Door open & close time adjustment
  Door open and close times are automatically adjusted depending on whether the call cause the door open and close is a car call or hall car or door call.
- Jammed hall button detection
  If a hall button is jammed mechanically, this hall call will be automatically bypassed after being served once, until the problem is resolved.
- Next landing
  When lift arrives at a floor but the doors can't be fully opened, the lift will go to the nearest floor and open the door.
- Safe landing
  When lift stops at the locking door zone by fault, lift will go to the nearest floor under lower speed and open the door.
- Car emergency lighting
  When normal lighting power supply fails, car emergency lighting on COP will be illuminated by emergency power source.
- Emergency Alarm button
  When passenger trapped in car, press the button, the buzzer will alarm.
- Intercom system
  This system allows the intercommunication between car, car top and pit to machine room (controller) or supervisor's room.
- Fault record
  Controller will record latest 11 faults information include fault code, time and floor, and it will record the details of last fault.
- Car fan shut Down control automatically
  Car fan will be shut down automatically if no more calls are registered after a set time.
- Car fan switch on COP
  Car ventilation fan could be put into or out of service by this key switch on COP. It will be cancelled when "COP Window"optional function is selected.
- Floor number setting
  Each floor display number could be set by 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, A, B, G, H, L, M, P, R.

ALTERNATIVE FEATURE

- Selective collective operation
  Standard: Full collective (UP & DN hall call buttons on FOB)
  Option: Down collective (DN hall call button on FOB)
- Car group control
  Standard: Simplex
  Option: a. Duplex, b. Triplex, c. Quadruplex
- Door safety device
  Standard: 2D light curtain
  Option: a. 3D light curtain, b. 2D light curtain with safety edges, c.3D light curtain with safety edges
- Hall indicator
  Standard: Dot matrix LED
  Option: a. Segment LCD, b. without indicator
- Hall indicator position
  Standard: mixed with call buttons
  Option: above door, separately (standard when EN81-70 required)
- Car indicator
  Standard: Dot matrix LED indicator
  Option: a. Segment LCD, b. Blue LCD (5 inch), c. Colored LCD (8 inch), d. Colored LCD (10 inch).

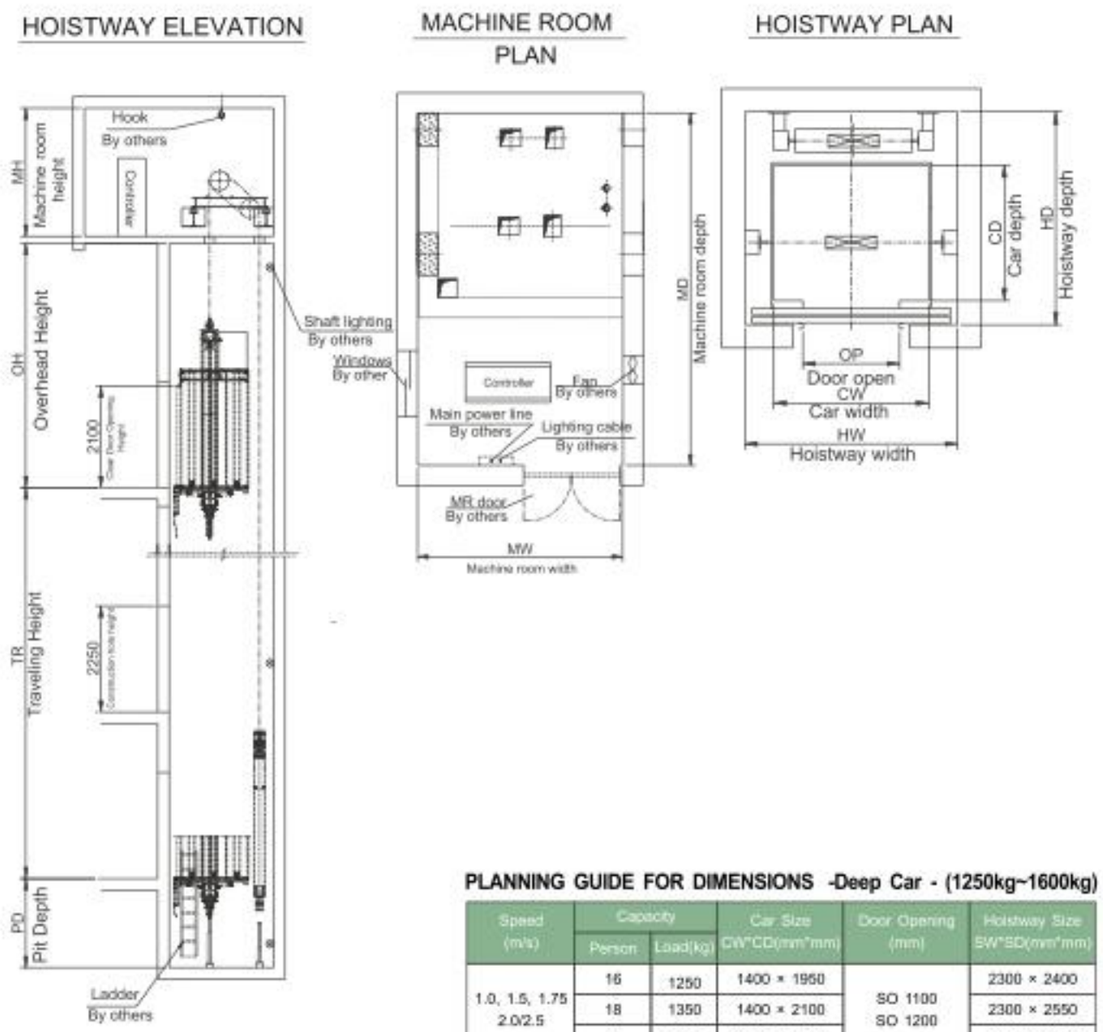
INTERFACE

- Remote control interface-parking shutdown
  Lift could supply an input interface (dry contact) for parking function, and user could use it to park the lift and put it out of service or put it into service.
- Remote monitor interface-4 dry contacts
  System could supply 4 dry contacts to output the basic signals of lift operation include AUTO, INSPECTION, FAULT and PARKING for remote monitoring.
- Video cable in car
  The cable is used for video camera (by others) installed in the car.
- Audio cable in car
  The cable is used for audio broadcaster (by others) installed on car top.
- RS485 interface
  1 RS485 port in control panel, can monitor:
  1) elevator travel direction, current landing,
  2) door status "open", "close",
  3) elevator status "normal", "inspection", "fire return", "trip", "attendant", "over load", "full load", "fire return", "service off", "door lock", "safe loop"
  4)tip code
  SJEC provide a rs485 port and protocol document.
- Remote monitoring system
  Monitoring system based on RS485 interface. Same monitor information as RS485 interface.
  SJEC provide monitoring hardware and monitoring software in PC. Cables between elevator and monitoring room and PC by customer.

Optional Function

- Car emergency exit (trap door in car roof)
  It is used to rescue the trapped passenger in car. It could be opened from outside of car without a key and inside with a triangle key. When this function selected, the car ceiling must be selected from Th40" series.
- Door lock circuit bypass monitoring protection
  Door locks circuit will be monitored, once it is shorted, the lift will not be possible to run under "Normal" mode
- False car call canceling
  False car call could be cancelled by press the same floor button twice continuously.
- Anti-nuisance operation
  Once the registered car calls is more than the passenger numbers weighed by weighting device, all the car calls will be cancelled automatically.
- False hall call canceling
  False hall call could be cancelled by press the same call button twice continuously (in 0.5S).
- ARD (automatic rescue device)
  When power failure, lift will go to the nearest possible floor, open the door and release the passengers automatically.
  This is a standard function for MRL solution.
- Locking door zone alarm
  When lift stops at the locking doors zone by fault and can't operate Safe Landing, the buzzer will alarm.
- Power saving device -Energy feedback
  This device will feedback the energy produced by lift system when running to the power supply. It could save power about 30%~70% depends on different type and capacity of lift.
- COP window
  Six button/switches in this window:
  a.Independent operation switch: When IND switch turns to "ON", the lift ignores all hall calls and only responds to car call, after complete the running required by the last car call, it keeps door fully open on landing.
  b.Door open holding button: The door keeps open for a set time (adjustable, maximum 1000S) after press this button.
  c.Car lighting switch: turn on/off the power supply of car lighting
  d.Car fan switch: turn on/off the power supply of car fan
  e.Attendant operation: the lift will be operated by an attendant.
  f .Non-stop running: Under attendant operation, press this button, lift will ignore hall calls and go to the nearest registered car call floor.
- Auxiliary COP
  Another COP without or with indicator in car.
- Fire return (Phase I)
  When lift receives a fire alarm signal, it will stop running and directly return to nominated floor with door fully opened and out of normal service.
  Fire alarm signal could be sent by the fire return switch on nominated floor or the building fire alarm system.
  System could output a fire alarm signal to building fire alarm system when fire return.
- Fireman operation (Phase II)
  When fire happened, the lift will be operated by fireman(s), operation controls follow EN81-72.
  This operation will be turned on by the triangle switch on nominated main floor.
- Parking shutdown switch
  Two positions switch on FOB of nominated floor. On "STOP" potion, all registered calls will be cancelled and the lift will go to nominated floor with door open after landing. After a set time, it will close the door and out of service. The cancelled calls will be registered on other lift (if group control). On "RUN" position, lift will turn back to service.
- Car arrival gong - on car/halls
  The audible signal informs the waiting passengers of the lift arriving and next running direction (different sound for UP and DN). The gong could be amounted on car or halls.When optional function "Voice synthesizer" is selected, this function is not needed.
- Hall lantern
  It indicates passengers waiting at a floor about the travel direction of arriving car.
- IC card device - car call authorizer
  Only after register by IC card, the car call(s) could be registered. Which means passenger without IC card can't use the lift.
- IC card device - hall call authorizer
  Only after register by IC card, the car call(s) could be registered. Which means passenger without IC card can't call the lift on this floor.
- Voice synthesizer
  The system provides audio information about car operation (arriving floor & running direction) to passengers. English language as standard, if other foreign language required, voice document in MP3 format should be supplied.
  This device includes the function of "arrival gone".
- Features used for handicap lift (comply with EN81-70)
  All features comply with EN81-70, but auto-dialer and intercom system should be supplied by others.
  a.button with tactile, Braille and sound
  b.Push button and indicator position follow EN81-70
  c.Half height mirror (safety glass) on rear side (or by others)
  d.Handrail on rear side
  e.Voice synthesizer
  f.Interface for auto-dialer and intercom
  All features must be selected together
- Features used for Handicap lift (not follow EN81-70)
  a.Half height mirror (normal glass) on rear side
  b.Handrail(s)
  c.button with tactile, Braille and sound
  d.Handrail shape COB
  e.Voice synthesizer
  Each feature could be selected separately.

LAYOUT - E500 MRA(800-1600kg)



PLANNING GUIDE FOR DIMENSIONS - Min. OH and PIT

Speed (m/s)	OH (mm)	PIT (mm)	Car Clear Height(mm)	Door height (mm)
1.0	4300	1600	2200 with false ceiling	2100
1.5	4400	1600		
1.75	4500	1700		
2.0/2.5	5100	1900	2300 with false ceiling	
3.0	6450	3500		
3.5	6750	3550		
4.0	7150	4600		

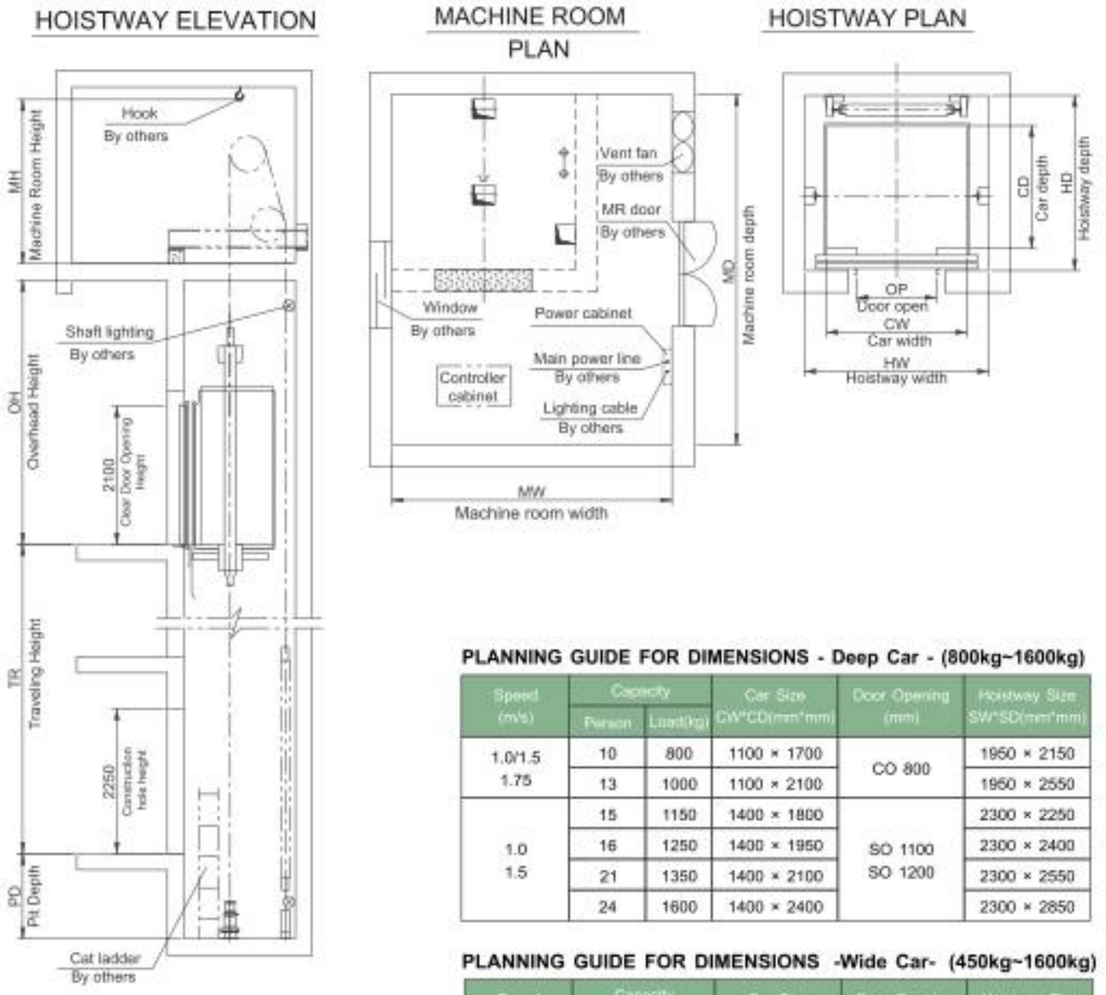
PLANNING GUIDE FOR DIMENSIONS -Deep Car - (1250kg~1600kg)

Speed (m/s)	Capacity		Car Size CW*CD(mm*mm)	Door Opening (mm)	Hoistway Size SW*SD(mm*mm)
	Person	Load(kg)			
1.0, 1.5, 1.75 2.0/2.5	16	1250	1400 × 1950	SO 1100 SO 1200	2300 × 2400
	18	1350	1400 × 2100		2300 × 2550
	21	1600	1400 × 2400		2300 × 2850

PLANNING GUIDE FOR DIMENSIONS - Wide Car - (800kg~1600kg)

Speed (m/s)	Capacity		Car Size CW*CD(mm*mm)	Door Opening (mm)	Hoistway Size SW*SD(mm*mm)
	Person	Load(kg)			
1.0/1.5/1.75 2.0/2.5	10	800	1400 × 1350	CO 900	2000 × 2150
	13	1000	1600 × 1400	CO 1000	2200 × 2200
1.0/1.5/1.75 2.0/2.5 3.0/3.5/4.0	15	1150	1800 × 1400	CO 1100	2400 × 2200
	16	1250	1950 × 1400		2550 × 2200
	18	1350	1950 × 1500		2550 × 2300
	21	1600	1950 × 1700		2550 × 2500

LAYOUT - C300 MRA(450-1600kg)



PLANNING GUIDE FOR DIMENSIONS - Min. OH and PIT

Capacity (kg)	Speed (m/s)	OH (mm)	PIT (mm)	Car Clear Height(mm)	Door height (mm)
450-1000kg	1.0	4300	1300	2200 with false ceiling	2100
	1.5	4400	1400		
630-1000kg	1.75	4500	1500		
1150-1600kg	1.0	4400	1500		
	1.5	4500	1600		

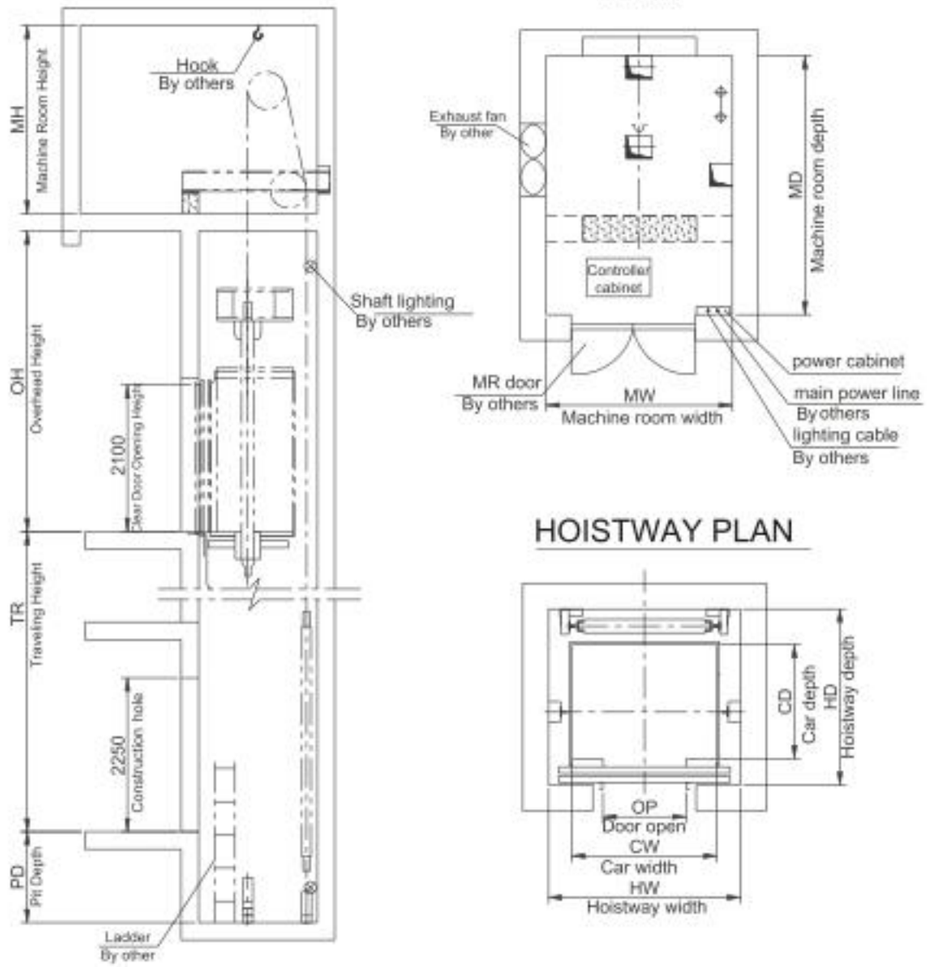
PLANNING GUIDE FOR DIMENSIONS - Deep Car - (800kg~1600kg)

Speed (m/s)	Capacity		Car Size CW*CD(mm*mm)	Door Opening (mm)	Hoistway Size SW*SD(mm*mm)
	Person	Load(kg)			
1.0/1.5 1.75	10	800	1100 × 1700	CO 800	1950 × 2150
	13	1000	1100 × 2100		1950 × 2550
1.0 1.5	15	1150	1400 × 1800	SO 1100 SO 1200	2300 × 2250
	16	1250	1400 × 1950		2300 × 2400
	21	1350	1400 × 2100		2300 × 2550
	24	1600	1400 × 2400		2300 × 2850

PLANNING GUIDE FOR DIMENSIONS -Wide Car- (450kg~1600kg)

Speed (m/s)	Capacity		Car Size CW*CD(mm*mm)	Door Opening (mm)	Hoistway Size SW*SD(mm*mm)
	Person	Load(kg)			
1.0 1.5	6	450	1100 × 1100	CO 700	1550 × 1700
	6		1400 × 850	CO 800	1850 × 1450
1.0 1.5 1.75	8	630	1400 × 1100	CO 800	1850 × 1700
	10	800	1400 × 1350	CO 800	1850 × 1950
				CO 900	2000 × 1950
	13	1000	1600 × 1400	CO 900	2050 × 2000
				CO 1000	2200 × 2000
1.0 1.5	15	1150	1800 × 1400	CO 1100	2400 × 2100
	16	1250	1950 × 1400		2550 × 2100
	18	1350	1950 × 1500		2550 × 2200
	21	1600	1950 × 1700		2550 × 2400

LAYOUT - S830-W MMR(450-630kg)



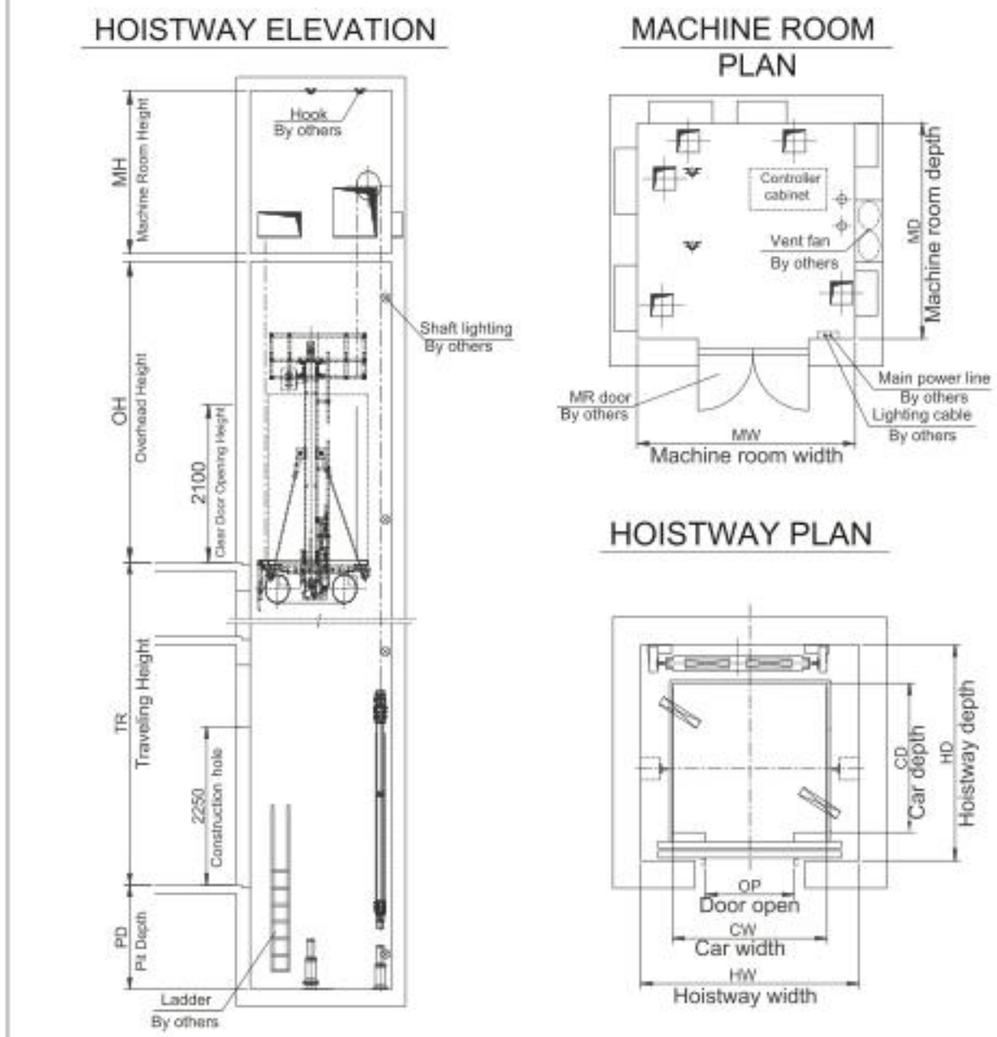
PLANNING GUIDE FOR DIMENSIONS - Wide Car- (450kg~630kg)

Speed (m/s)	Capacity		Car Size CW*CD(mm*mm)	Door Opening(mm)	Hoistway Size HW*HD(mm*mm)
	Person	Load(kg)			
1.0 1.5	6	450	1400 × 850	CO 800	1850 × 1450
			1100 × 1100	CO 700	1550 × 1700
	8	630	1400 × 1100	CO 800	1850 × 1700

PLANNING GUIDE FOR DIMENSIONS - Min. OH and PIT

Speed (m/s)	OH (mm)	PIT (mm)	Car Clear Height (mm)	Door height (mm)
1.0	4300	1300	2200 with false ceiling	2100
1.5	4400	1400		

LAYOUT - S830-RD MMR(630-1000kg)



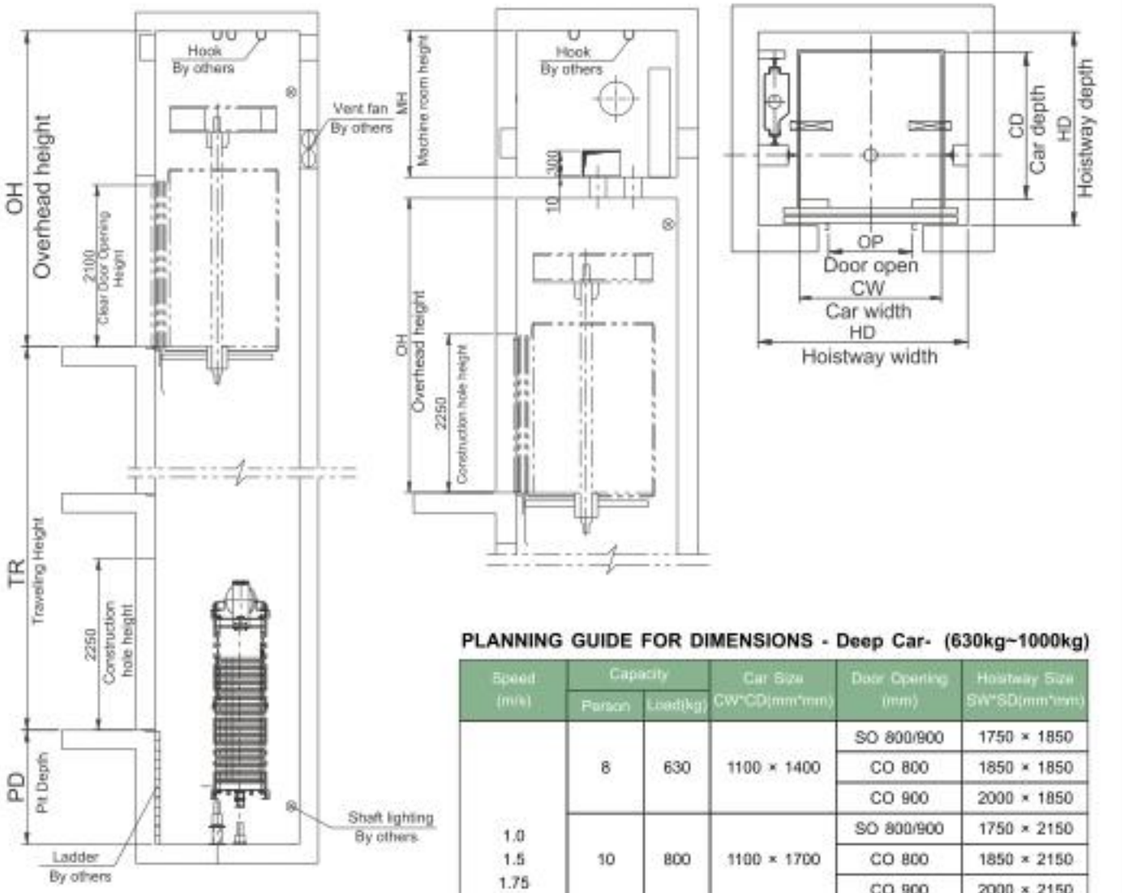
PLANNING GUIDE FOR DIMENSIONS (630kg~1000kg)

Speed (m/s)	Capacity		Car Size CW*CD(mm*mm)	Door Opening(mm)	Hoistway Size HW*HD(mm*mm)
	Person	Load(kg)			
1.0 1.5 1.75	8	630	1200 × 1300	CO 700	1650 × 1900
				CO 800	1800 × 1900
	10	800	1400 × 1350	CO 800	1850 × 1950
				CO 900	2000 × 1950
	13	1000	1600 × 1400	CO 900	2100 × 2000
				CO 1000	2200 × 2000

PLANNING GUIDE FOR DIMENSIONS - Min. OH and PIT

Speed (m/s)	OH (mm)	PIT (mm)	Car Clear Height (mm)	Door height (mm)
1.0	3800	1450	2200 with false ceiling	2100
1.5	3950	1550		
1.75	4050	1600		

LAYOUT - S820(up to 1000kg) MRL & S830-SD MMR (630-1000kg)



PLANNING GUIDE FOR DIMENSIONS - Deep Car- (630kg~1000kg)

Speed (m/s)	Capacity		Car Size CW*CD(mm*mm)	Door Opening (mm)	Hoistway Size SW*SD(mm*mm)
	Person	Load(kg)			
1.0 1.5 1.75	8	630	1100 × 1400	SO 800/900	1750 × 1850
				CO 800	1850 × 1850
				CO 900	2000 × 1850
	10	800	1100 × 1700	SO 800/900	1750 × 2150
				CO 800	1850 × 2150
				CO 900	2000 × 2150
	13	1000	1100 × 2100	SO 800/900	1750 × 2550
				CO 800	1850 × 2550
				CO 900	2000 × 2550

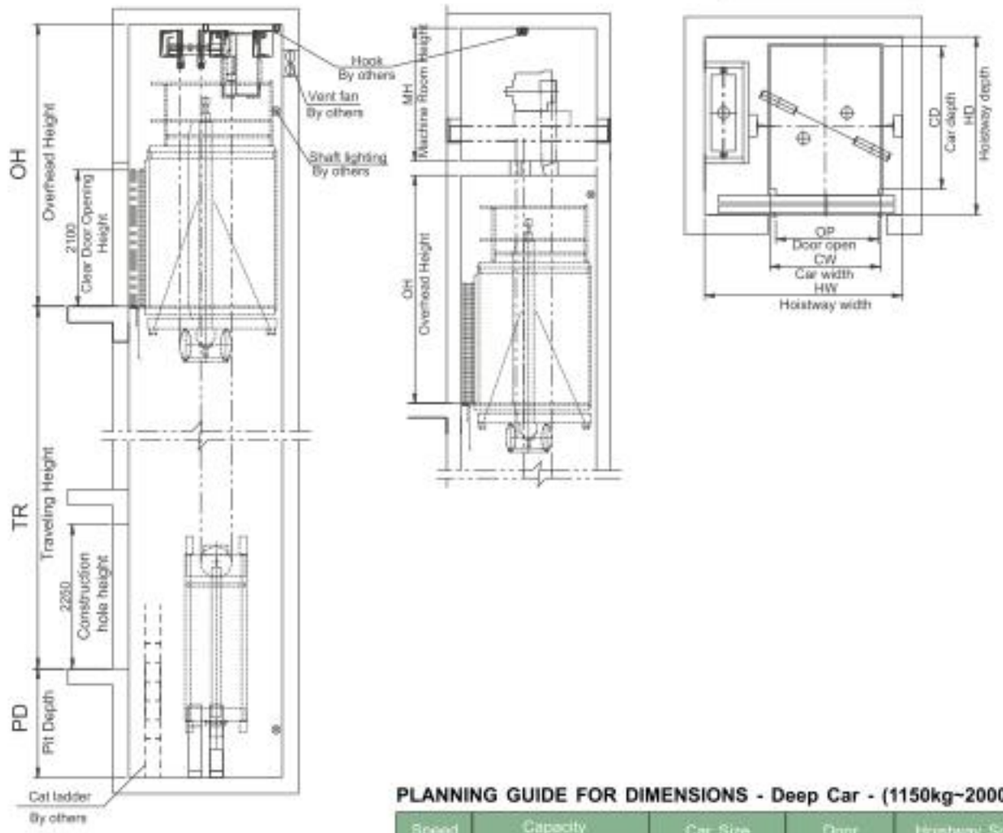
PLANNING GUIDE FOR DIMENSIONS - Wide Car- (630kg~1000kg)

Speed (m/s)	Capacity		Car Size CW*CD(mm*mm)	Door Opening (mm)	Hoistway Size SW*SD(mm*mm)
	Person	Load(kg)			
1.0 1.5 1.75	10	800	1350 × 1400	CO 800	2000 × 1850
				CO 900	2050 × 1850
				CO 1000	2150 × 1850
	13	1000	1600 × 1400	CO 900	2250 × 1850
				CO 1000	2300 × 1850
				CO 1100	2400 × 1850

PLANNING GUIDE FOR DIMENSIONS - Min. OH and PIT

Speed (m/s)	OH (mm)	PIT (mm)	Car Clear Height(mm)	Door height (mm)
1.0	3800	1400	2200 with false ceiling	2100
1.5	3950	1500		
1.75	4050	1550		

LAYOUT - S820(above 1000kg) MRL & S830-L MMR (1150-2000kg)



PLANNING GUIDE FOR DIMENSIONS - Min. OH and PIT for S830-L

Speed (m/s)	OH (mm)	PIT (mm)	Car Clear Height(mm)	Door height (mm)
1.0	3850	1650	2200 with false ceiling	2100
1.5	4000	1750		
1.75	4050	1800		

PLANNING GUIDE FOR DIMENSIONS - Min. OH and PIT for S820

Speed (m/s)	OH (mm)	PIT (mm)	Car Clear Height(mm)	Door height (mm)
1.0	4300	1650	2200 with false ceiling	2100
1.5	4450	1750		
1.75	4500	1800		

NOTE:For 2000kg,Min.OH should increase by 200mm based on the table above.

PLANNING GUIDE FOR DIMENSIONS - Deep Car - (1150kg~2000kg)

Speed (m/s)	Capacity		Car Size CW*CD(mm*mm)	Door Opening(mm)	Hoistway Size HW*HD(mm*mm)
	Person	Load(kg)			
1.0 1.5 1.75	15	1150	1400 × 1800	SO 1100 SO 1200	2500 × 2250
	16	1250	1400 × 1950		2500 × 2400
	18	1350	1400 × 2100		2500 × 2550
	21	1600	1400 × 2400		2500 × 2850
	26	2000	1600 × 2500	SO 1400	2700 × 2950

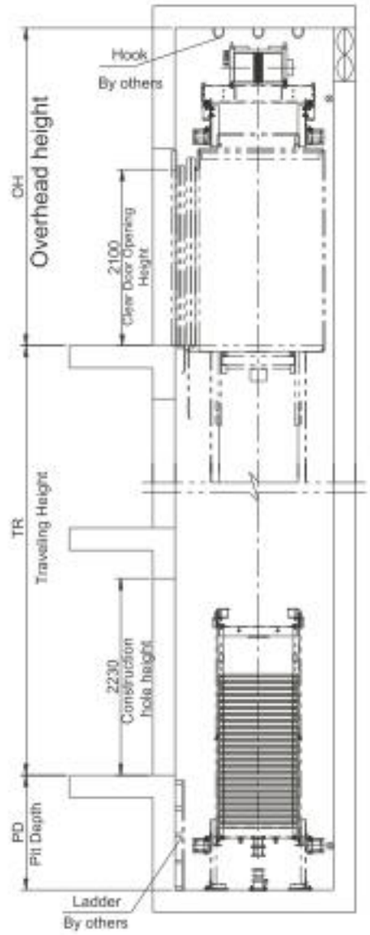
PLANNING GUIDE FOR DIMENSIONS Wide Car (1150kg~2000kg)

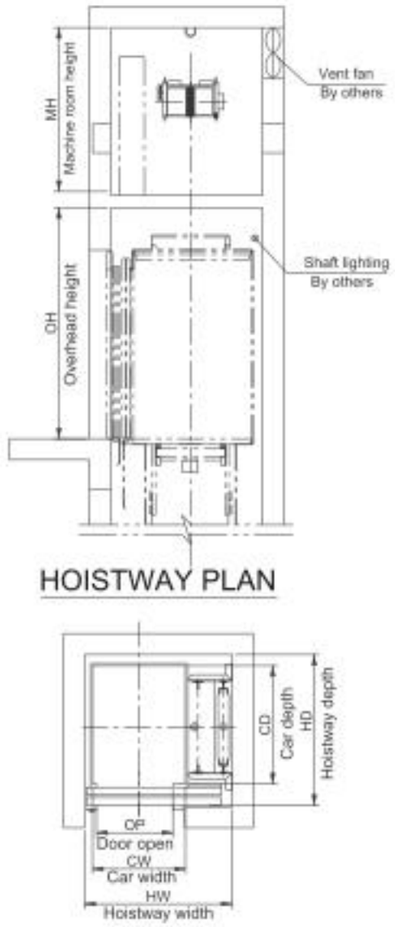
Speed (m/s)	Capacity		Car Size CW*CD(mm*mm)	Door Opening(mm)	Hoistway Size HW*HD(mm*mm)
	Person	Load(kg)			
1.0 1.5 1.75	15	1150	1800 × 1400	CO 1100	2900 × 1850
	16	1250	1950 × 1400		3050 × 1850
	18	1350	1950 × 1500		3050 × 1950
	21	1600	1950 × 1700		3050 × 2150
	26	2000	1950 × 2100		3050 × 2550

NOTE:For S830-L,up to 1350kg,HW is 100mm less than the value in above table.

LAYOUT - S810 MRL & S830-M MMR(320-630kg)

S810 - HOISTWAY ELEVATION - S830-M





HOISTWAY PLAN

PLANNING GUIDE FOR DIMENSIONS - Deep Car - (320kg~630kg)

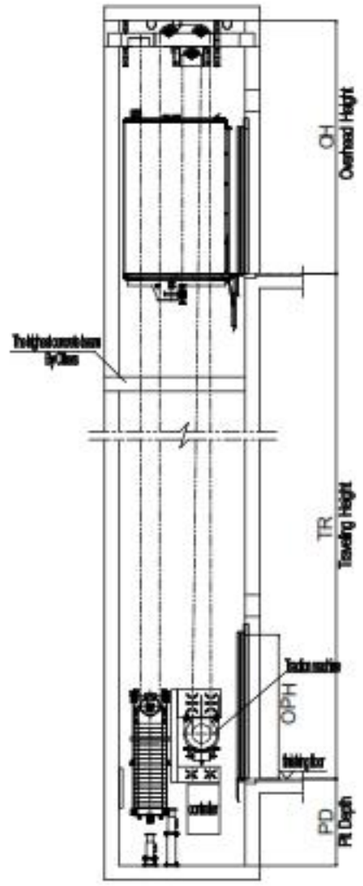
Speed (m/s)	Capacity		Car Size CW*CD(mm*mm)	Door Opening(mm)	Hoistway Size HW*HD(mm*mm)
	Person	Load(kg)			
0.63 1.0	4	320	850 × 1050	SO 800	1500 × 1450
	5	400	850 × 1250		1500 × 1650
	6	450	1000 × 1250	SO 800 SO 900	1650 × 1650
	6	480	1000 × 1300		1650 × 1700
	6	500	1000 × 1350		1650 × 1750
	7	525	1000 × 1400		1650 × 1800
	8	630	1100 × 1400		1750 × 1800

PLANNING GUIDE FOR DIMENSIONS - Min. OH and PIT

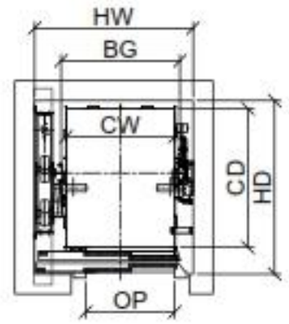
Speed (m/s)	OH (mm)	PIT (mm)	Car Clear Height (mm)	Door height (mm)
0.63/1.0	3500	1300	2100 without false ceiling	2000

LAYOUT - S810-M MRL (450-675kg)

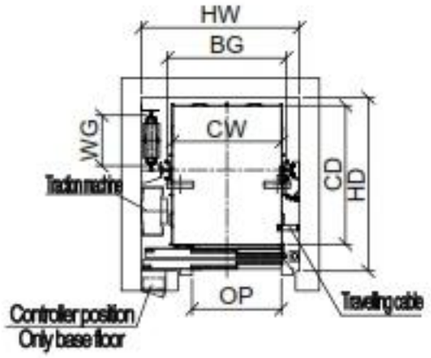
HOISTWAY ELEVATION



HOISTWAY PLAN
(Top landing)



HOISTWAY PLAN
(Other landings)



SINGLE OPENING

Product type	Capacity Load(kg)	Speed (m/s)	Car size (width*depth) (mm*mm)	Min. Shaft (width*depth) (mm*mm)	Max. shaft (width*depth) (mm*mm)	Overhead Height(mm)	Pit Depth(mm)	Max.Pit Depth(mm)	Open width(mm)	Max.Traveling Height(m)
M0450D10S-TL	450	1	1000*1250	1500*1600	1730*1900	3500	1200	1600	800	45
M0450D10S-TR										
M0480D10S-TL	480	1	1000*1300	1500*1650	1730*1950	3500	1200	1600	800	45
M0480D10S-TR										
M0630D10S-TL	630	1	1100*1400	1600*1750	1830*2100	3500	1200	1600	900	45
M0630D10S-TR										

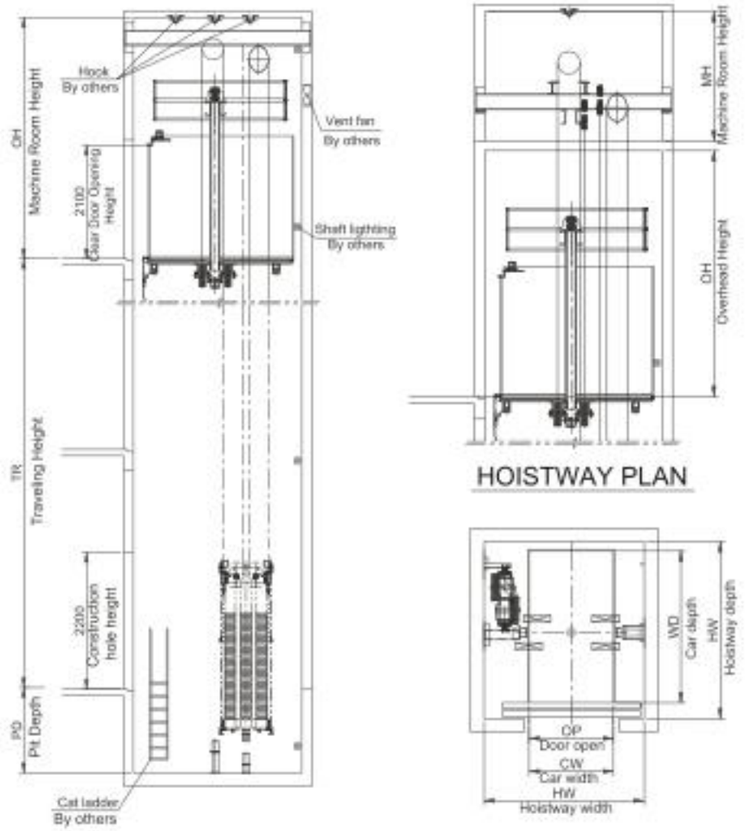
THROUGH OPENING

Product type	Capacity Load(kg)	Speed (m/s)	Car size (width*depth) (mm*mm)	Min. Shaft (width*depth) (mm*mm)	Max. shaft (width*depth) (mm*mm)	Overhead Height(mm)	Pit Depth(mm)	Max.Pit Depth(mm)	Open width(mm)	Max.Traveling Height(m)
M0480D10R-TL	480	1	1000*1250	1500*1790	1730*1790	3600	1200	1600	800	45
M0480D10R-TR										
M0675D10R-TL	675	1	1100*1400	1600*1940	1830*1940	3600	1200	1600	900	45
M0675D10R-TR										

NOTE: the OH is on condition of CH=2100mm.

LAYOUT - S100MRL & S100MMR(2000-4000kg)

S100MRL - HOISTWAY ELEVATION - S100MMR



HOISTWAY PLAN

PLANNING GUIDE FOR DIMENSIONS - (2000kg~4000kg)

Speed (m/s)	Capacity Load(kg)	Car Size CW*CD(mm*mm)	Door Opening (mm)	Hoistway Size HW*HD(mm*mm)
0.5	2000	1500 × 2700	CO1500, 4 panels	2850 × 3270
	3000	1700 × 3300	CO1700, 4 panels	3250 × 3870
	4000	2200 × 3300	CO2200, 4 panels	3850 × 3870

PLANNING GUIDE FOR DIMENSIONS - Min. OH and PIT - S100 MRL

Capacity Load(kg)	OH (mm)	PIT (mm)	Car Clear Height (mm)	Door height (mm)
2000	4500	1700	2200 without false ceiling	2100
3000	4600	1700		
4000	4800	1700		

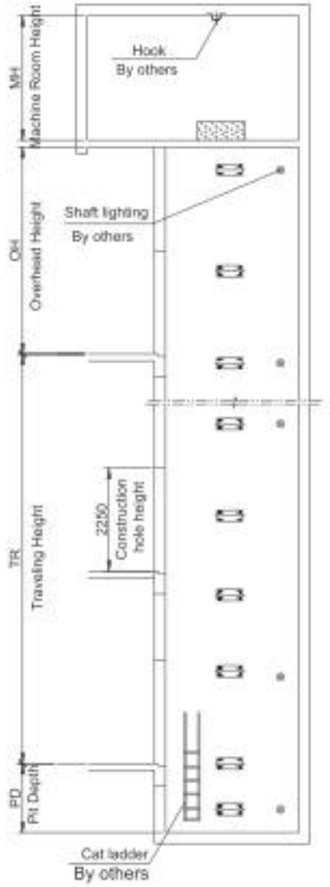
PLANNING GUIDE FOR DIMENSIONS - Min. OH and PIT - S100 MMR

Capacity Load(kg)	OH (mm)	PIT (mm)	Car Clear Height (mm)	Door height (mm)
2000	4400	1700	2200 without false ceiling	2100
3000	4500	1700		
4000	4500	1700		

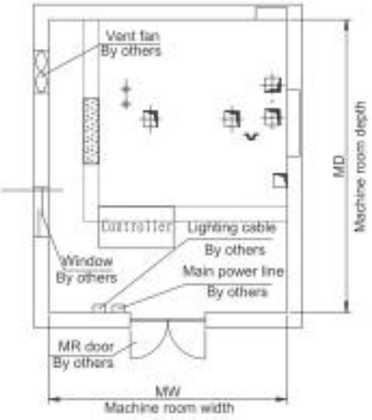
NOTES: 1.Hoistway size keeps same when through opening. 2.Forklift is not allowed to enter into the car.

LAYOUT - A100 MRA(2000-5000kg)

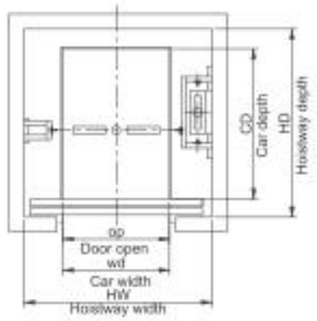
HOISTWAY ELEVATION



MACHINE ROOM PLAN



HOISTWAY PLAN



PLANNING GUIDE FOR DIMENSIONS - (2000kg~5000kg)

Speed (m/s)	Capacity Load (kg)	Car SizeCW*CD (mm*mm)	Door Opening (mm)	Hoistway SizeHW*HD (mm*mm)
0.5/1.0	2000	1700 × 2400	Co1700, 4 panels	3000 × 2970
0.5	3000	2000 × 2800	Co2000, 4 panels	3400 × 3370
	4000	2000 × 3600	Co2000, 4 panels	3400 × 4170
	5000	2400 × 3600	Co2400, 4 panels	4000 × 4170

PLANNING GUIDE FOR DIMENSIONS - Min. OH and PIT

Capacity Load(kg)	OH (mm)	PIT (mm)	Car Clear Height (mm)	Door height (mm)
2000	4500	1400	2200 without false ceiling	2100
3000	4500	1500		
4000	4800	1600		
5000	5000	1600	2400 without false ceiling	2300

NOTES: 1.Hoistway size keeps same when through opening.
2.Only 5000kg design calculation take into account the load of forklift enter into the car for handling the goods.

LV HQ, China.

Audi Center Sydney, Australia.

Victory Park & Shop, Philippines.

Ruihua R&D Building, Xiamen, China.

Longemont Asia Pacific City, Shenyang, China

G Center, Israel.

Suzhou Railway Station, China.

Projects Highlight

Odincovo Shopping Center, Russia

Lous Asdgh, Armenia.

MATZLAWI BUILDING, Israel

Lotus Business Center, India.

Pelican Hill Residence, Turkey.

ZON TEKNOLOGI MKN EMBASSY, Malaysia.

Diamond Plaza, Myanmar

Harris Hotel-Bali, Indonesia

Punkthusene Office building, Danmark

DB City, Bhopal, India

CANADIA BANK PLC.Cambodia,

Golden City, Combodia.

Cocor, Romania.

VEILEIJ Shopping Center, Danmark.

Mall Artha Gading, Indonesia

New Saigon, Vietnam.

Plovdiv Shopping Centre, Bulgaria

AL-SULTAN BUILDINGS, Saudi Arabia.

Saturn Mall, Greece.

Sorya Mall, Combodia.

Caracas Maiquetia airport,Venezuel

Art School, Singapore.

MEKONG CONDO, Combodia

Jakarta CBD Ciledug, Indonesia.

Chennai train station, India

Chennai airport, India

House of Fraser Shopping Mall, England.

UMEA travel center, Sweden.

Krabi Airport , Thailand