ISO 9001
Certificate

ISO 14001
Certificate

SIGMA Your Elevator Partner
www.sigmaelevator.com

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iris™ 3

High-rise Gearless

Your Elevator Partner… SIGMA

www.sigmaelevator.com

SIGMA

SIGMA Ride tomorrow, Lift future

Korean Engineered Products

SIGMA products are engineered by highly qualified Korean engineers and ensure customers to receive excellent products with reliable quality.

Aesthetics Design Excellence

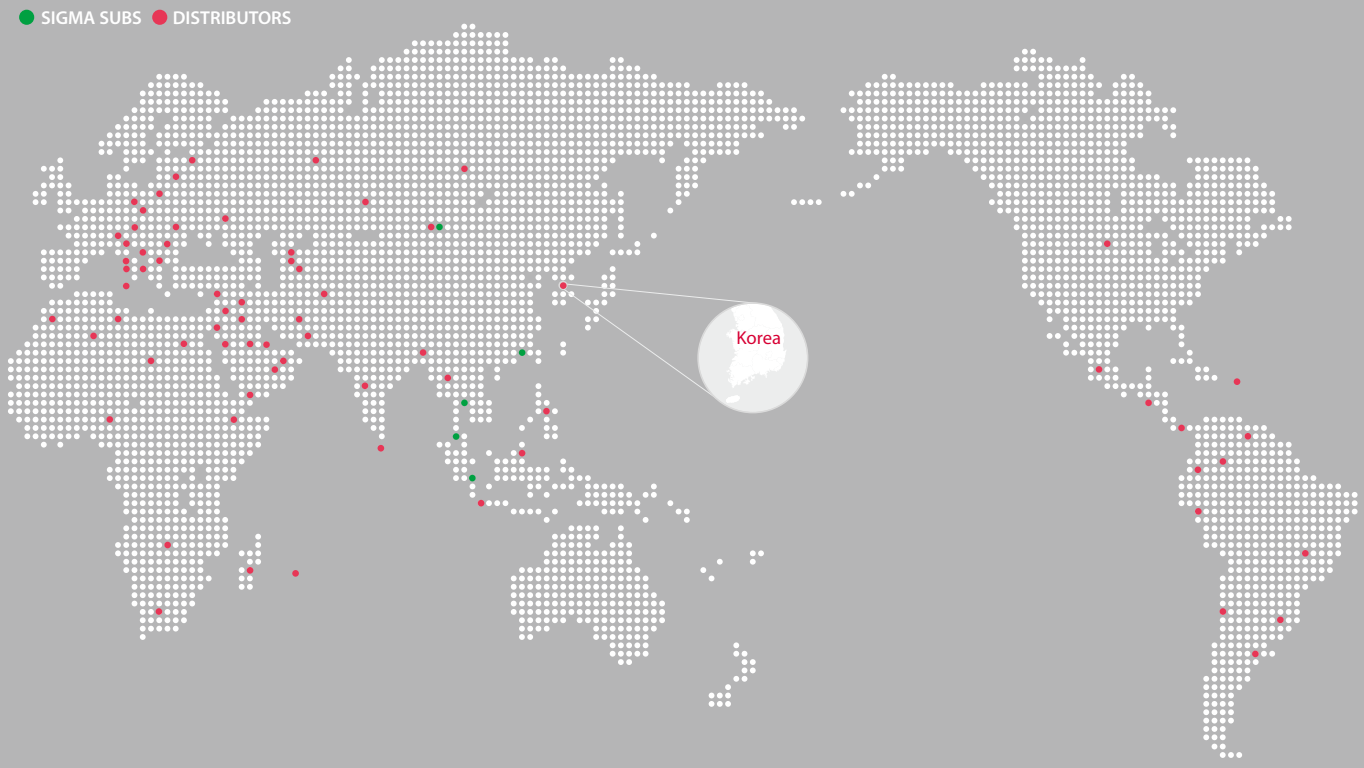
SIGMA's Design Center in Korea and China are fully equipped with professionals who follow the most up-to-date aesthetic designs to satisfy customers needs.

Global Network

SIGMA has been with you for more than 45 years serving over 60 Countries.

SIGMA Global Network

SIGMA has already exported approximately 100,000 elevators
worldwide since year 1978




Khalid Al Attar Tower
UAE


Al Rames Tower
Qatar


Darwaza Tower
Kuwait


Vorobievy Gory
Russia


Triumph Palace
Russia


Antei
Russia


Sheraton Hotel
Puerto Rico


Baiyoke Tower
Thailand


Grand Hyatt Hotel
Indonesia


Emerald Tower
Kazakhstan


LG Beijing Tower
China


ASEM Tower
Korea


Intercontinental Hotel
Korea


Korea World Trade Center
Korea


Plaza La Castellana
Venezuela

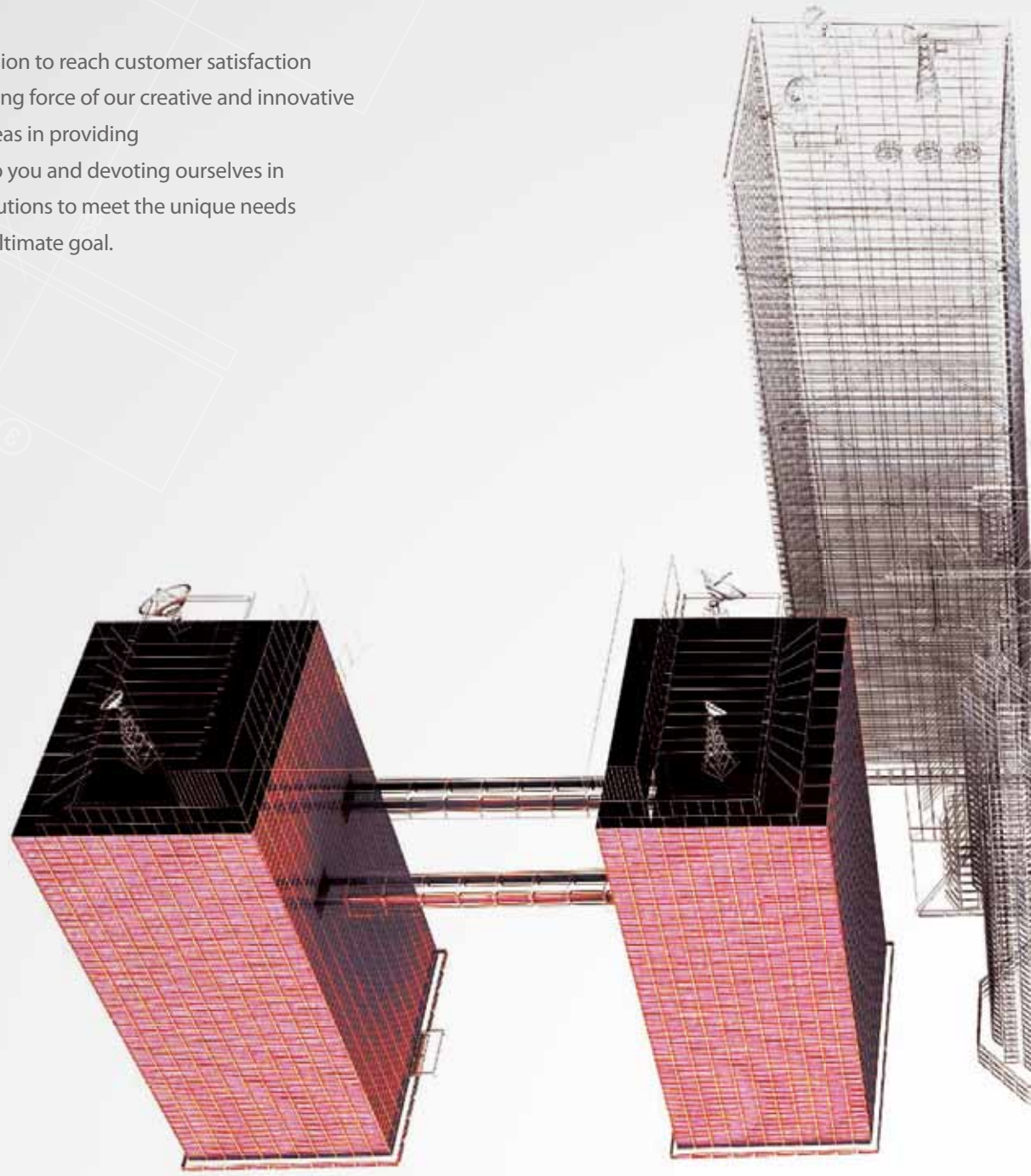

Torre Global Bank
Panama

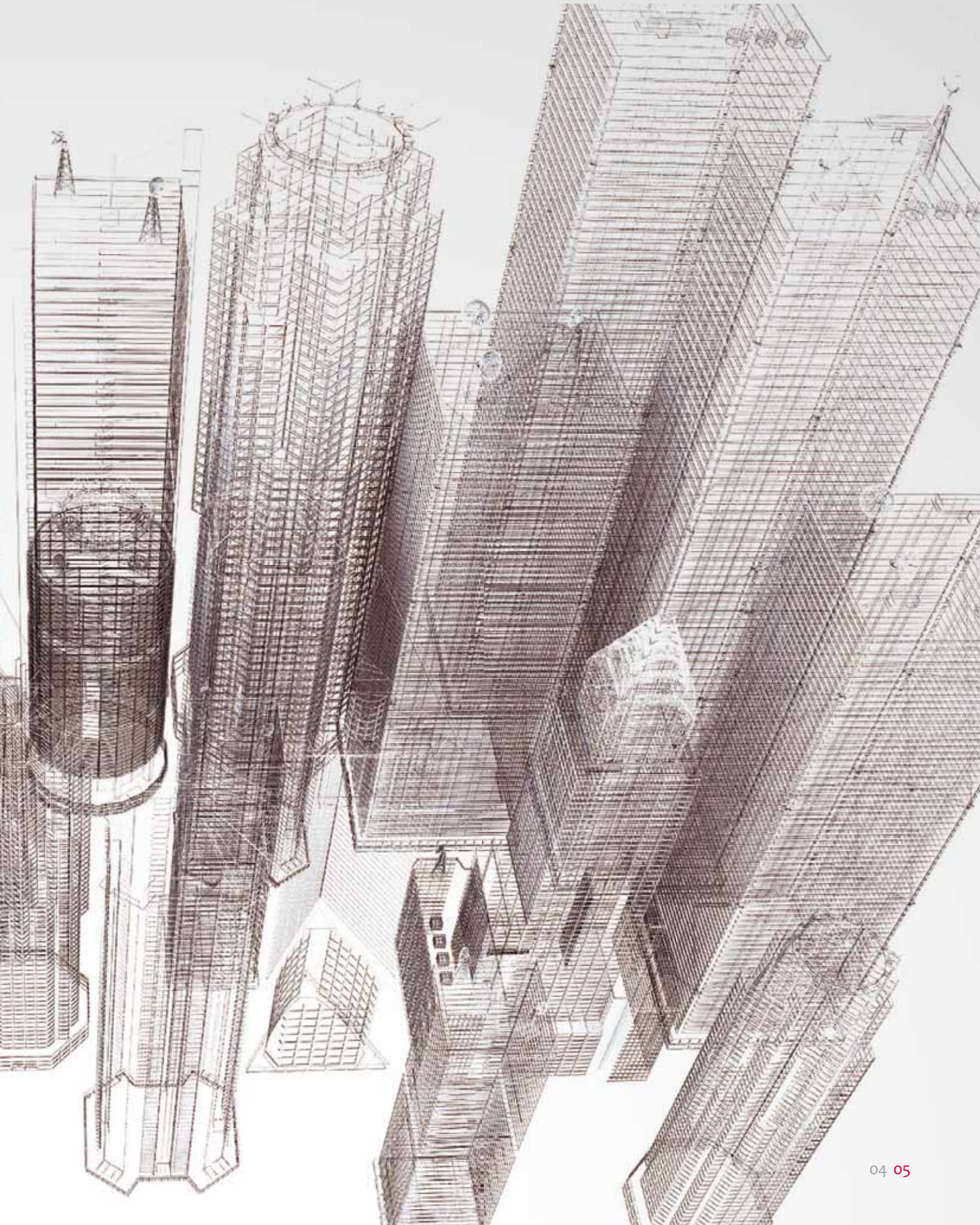

Ocean Two
Panama

Your Elevator Partner…

SIGMA

Our dedication and passion to reach customer satisfaction always have been a driving force of our creative and innovative ideas. Upgrading our ideas in providing comfortable elevators to you and devoting ourselves in creating customized solutions to meet the unique needs of your project are our ultimate goal.





Green Technology

Permanent Magnet (PM) Gearless Machine

PM gearless machine reduces about 40% in area and 50% in cubic volume leading to smaller machine room with flexible equipment layout. Machine itself realizes 35% less energy loss than induction machine and delivers improved power factor.

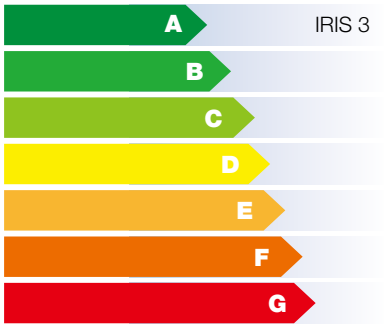
Re-used Energy

When the elevator travels up with light load or descends with heavy load, the machine generates energy. SIGMA's regenerative drive system captures wasted energy as a heat and feeds back to the building grid which will be re-used for other utilities.

<Regeneration>

Total Solution for Energy

IRIS3 is designed to consume minimum energy at the initial stage with adopting energy efficient components in door, lighting and traction units. Through total system control shown in the validated VDI A ratings, we realize up to 50% energy savings and promise sustainable growth.



The Long Beach Hong Kong
Building Storey : 50Fl.
Elevator : 38 units

ASEM Tower
Korea
Building Storey : 41Fl.
Elevator : 28 units

Perfect Control and Comfort

Noise and Vibration Control

Especially in high rise building, noise and vibration are created from movement of the people, flowing wind and operating machine which may cause discomfort. But, streamlined car structure, sealed car enclosure, reinforced multiple connections and wrapped on moving parts prevents noise and vibration leading to peaceful environment.

Precise and Optimal Control

The digital closed-loop variable frequency (VF) drive, with vector control, further increases efficiency and accuracy, and a digital speed encoder ensures correct car speed and positioning. Also, smoothed "Jerk-in and Jerk-out" velocity profiling enhances ride quality.

Safety and Reliability

Robust Elevator System

SIGMA understands that only robust system design can guarantee customers' requirements and keep their precious daily life style.
The intelligent controller which realized our core value has safety chain following the international code requirements to avoid unexpected error.
In addition, IRIS3 applies more than 10 kinds of safety devices.

Strict Test Standard

Our product development process requires stricter standards than the industry level and new products are born with much research, simulations and field tests. We execute more than 30 kinds of reliability tests and these intense quality assurance
programs make fool-proof products right from the design stage.

SIGMA NeT: Computerized Monitoring

Through SIGMA NeT which monitors elevator, escalator and movingwalks by internet-based software, our elevator not only provides a comprehensive and easy-to-use interface but also brings perfect quality to reality.
This results in harmony with building usage and customers' confidence.

Emerald tower
Building Storey : 53Fl.
Elevator : 20 units

Professional Project Management

All Way Through Management

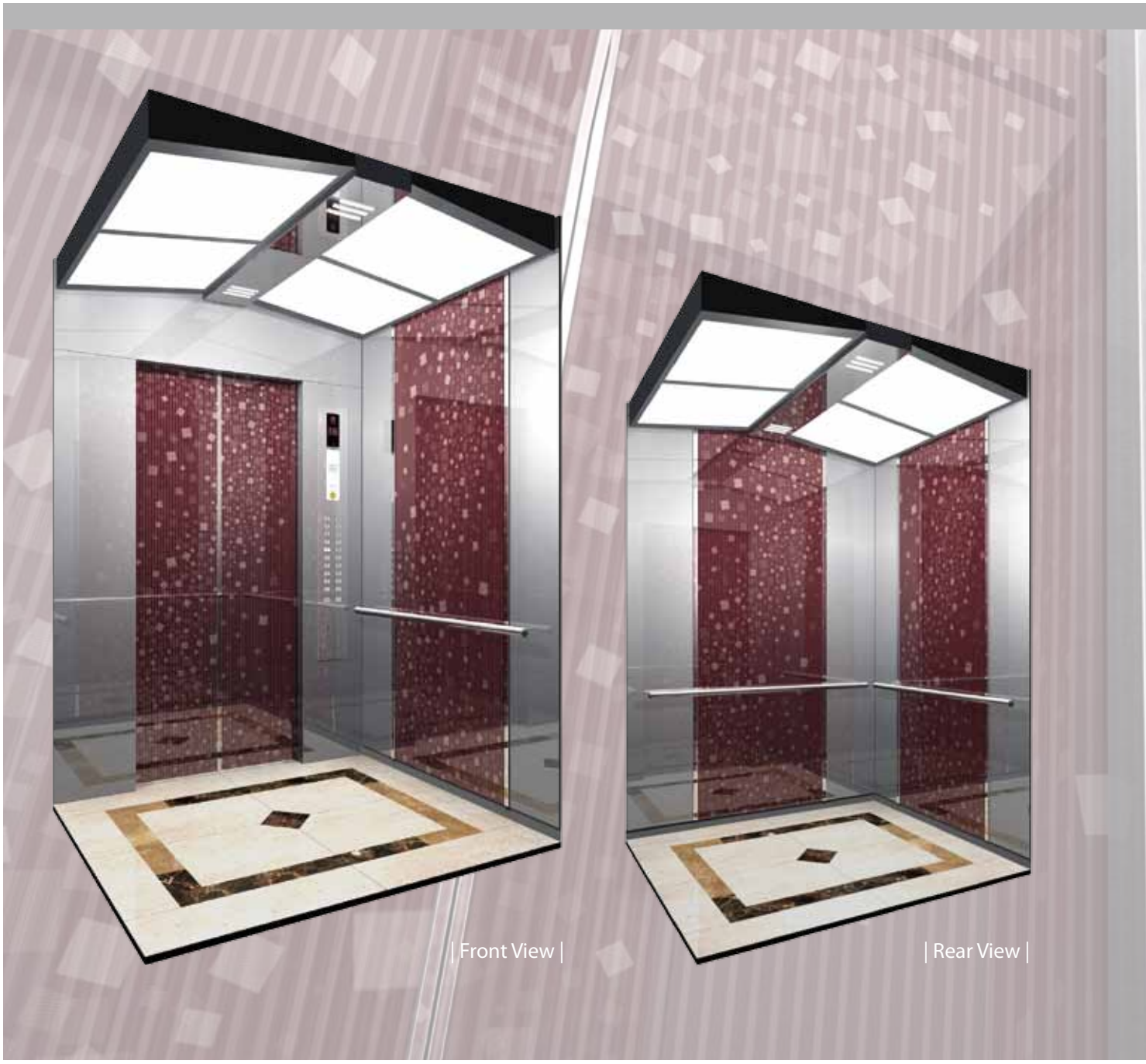
For more than 40 years of experience in the industry has given us a distinct expertise and challenging mind to take on any elevator difficulties.

Design Process

SIGMA's project management team works with developer/architect to understand exactly which type of elevator they require, to select the technology they need, and to achieve optional performance considering all aspects like shaft sizes, the number of people moving in and out of the premises, peak-hour traffic, elevator speed and number, and so on. This is very important role for preventing problems that may arise during operation.

Installation and Service Process

Installation can make designing criteria maximize and upgrade building's value. Our skilled engineers handle specification changes like add-ons to elevator and construction demands happening in the field. After completion and handover, elevator in operation can be maintained with the help of accumulated service knowledge.



| Front View |

| Rear View |

Entrance

Specification

Ceiling	C-NL2
Car door & Car wall	Pattern Glass Ruby
COP	CBX-16C (3S Vibration)
Handrail	HR-04 (Polished)
Floor	Miraton (Local)

| Front View |

| Rear View |

Entrance

Specification

Ceiling	LS02 (LED Ceiling)
Car door & Car wall	Stainless Steal Mirror&Bead
COP	CBX-64C
Handrail	HR-04 (Polished)
Floor	Marble(Local)

| Front View |

| Rear View |

Entrance

Specification

Ceiling	LW-01(LED Ceiling)
Car door & Car wall	MR-ET (EH1-085)+Bronze
COP	Mini Touch(CBT-70C)
Handrail	HR-04 (Polished + Bronze)
Floor	Marble(Local)

Ceiling Designs

NS01

NS03

NL02

LW01

LS01

LS02

Handrail

HR04

HR05

HR15

HR18

The actual product can be different (changed) depending on design

Car & Landing Fixtures

COP

CBM-22 CBX-22C CBX-64C

Handicapped COP

CBM-44SH

Vertical Hall Indicator

VIX-M652 VIX-MA52S

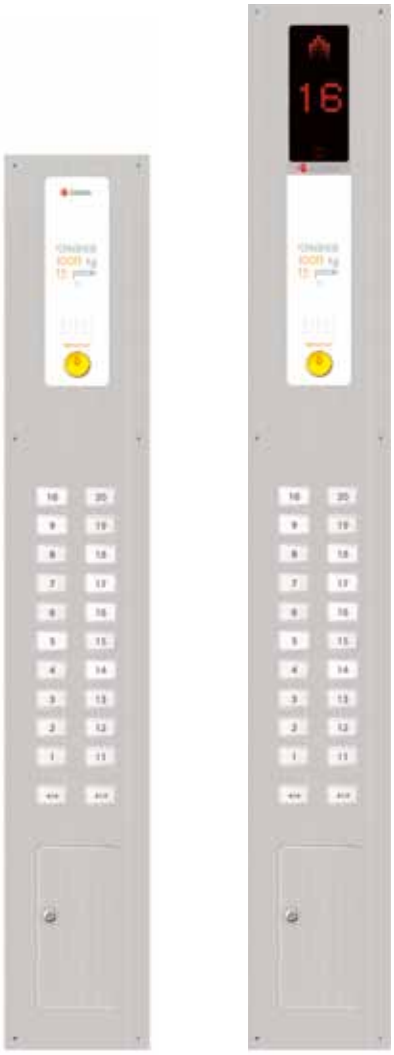
Hall Button

HBM-R45 HBM-RA5S HBM-R65

! The actual product can be different (changed) depending on design

Car & Landing Fixtures || (Option)

I COP



CBM-16

CBX-16C

I Vertical Hall Indicator

VIX-M692

VIX-MA92S

I Hall Button

HBM-S49

HBM-SA9S

! The actual product can be different (changed) depending on design

Car & Landing Fixtures ||| (Option)

COP

CBL-85C

Horizontal Hall Indicator

HIL-C193

HIL-A193

Vertical Hall Indicator

VIL-MBB2S

Hall Button

HBM-RBBS

Handicapped COP

CBM-D1SH

! The actual product can be different (changed) depending on design

Car & Landing Fixtures Ⅳ (Option)

OPB

CBT-70C

Horizontal Hall Indicator

HIL-A172

HIL-C172

Hall Button

HBT-A76

HBM-S78

! The actual product can be different (changed) depending on design

Car Position Indicator

CIX-10

CIX-13

Horizontal Hall Indicator

HIX-A162

HIX-C162

Hall Lantern

HLV-C08

HLV-C11

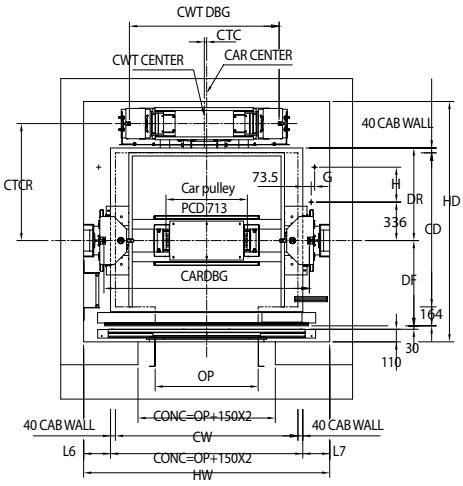
HLV-C48

! The actual product can be different (changed) depending on design

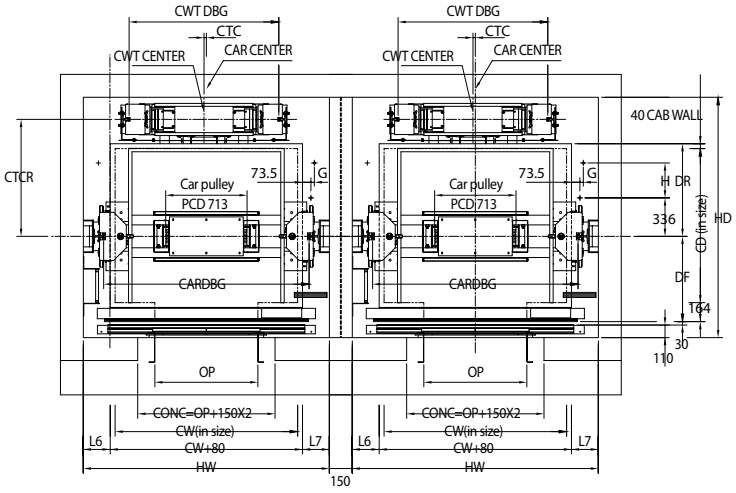
Technical Data

Layout

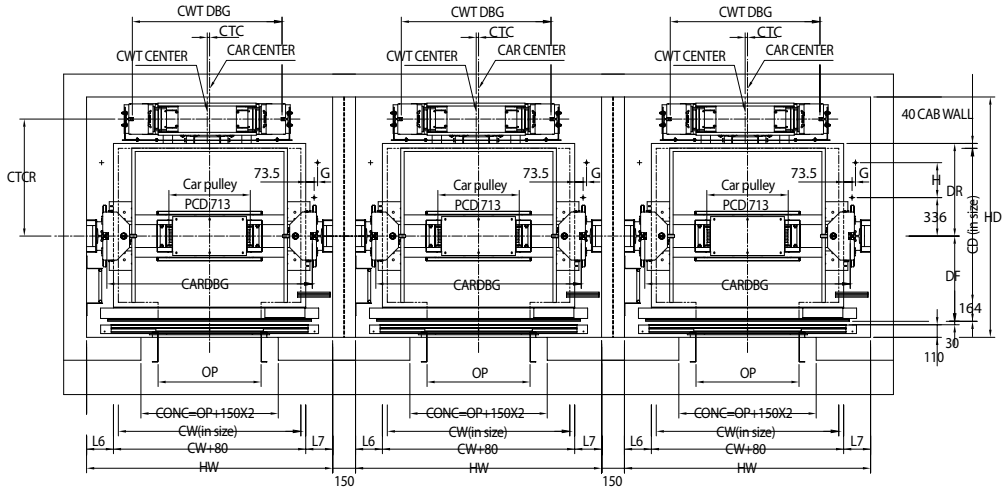
Simplex



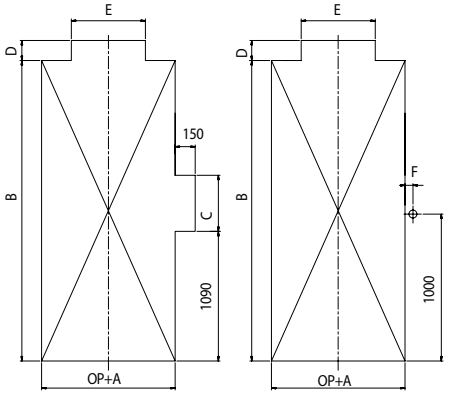
Duplex



Triplex



Entrance



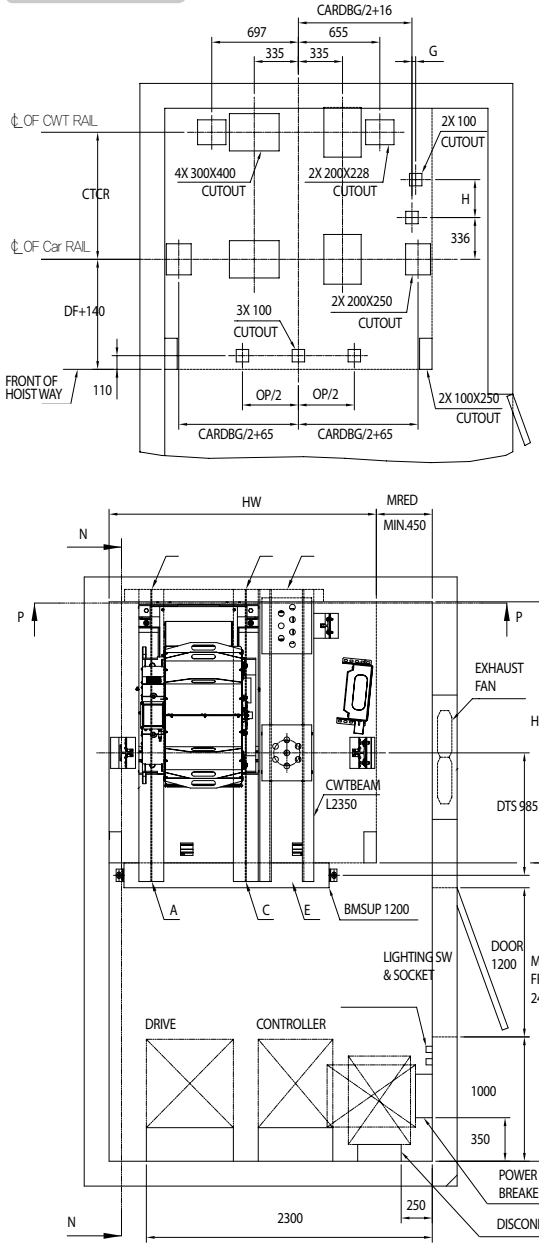
R	G	H
<150m	30	305
>150m	30	419

Jamb type	A	B	C	D	E	F
Narrow	300	2250	Dimension with C,D,E,F depends on landing fixture type			
Wide Straight	300	2250				
Light Straight with transom panel	300	2550				
Wide Tapered	300	2250				
Wide Tapered with transom panel	300	2550				

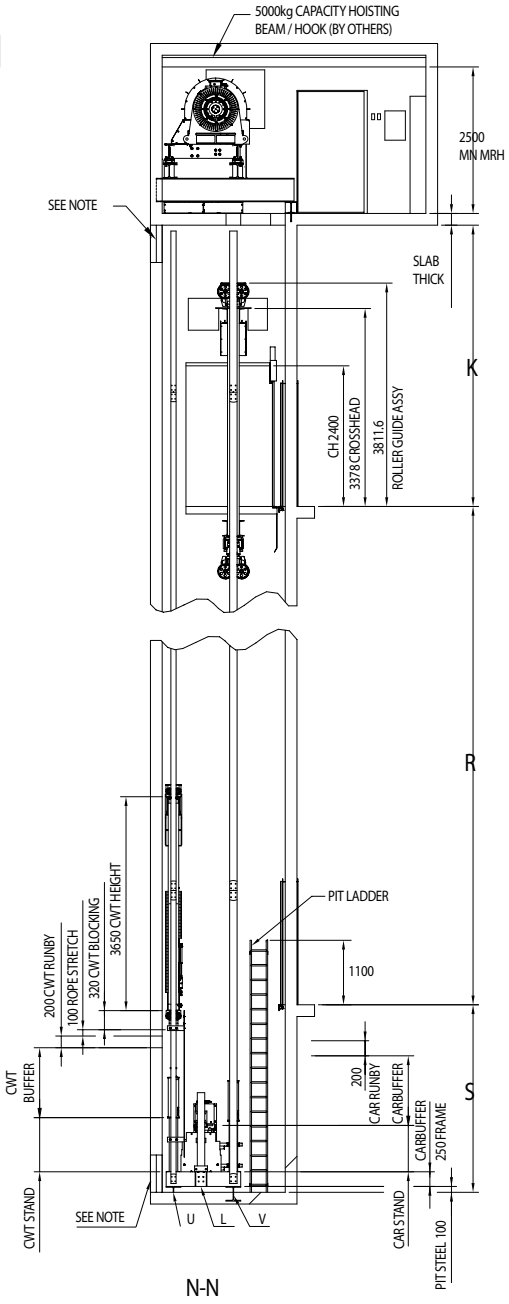
Technical Data

Layout

Machine room



Hoistway Section



OH &PIT Size

	SPEED (V)		
	3.0m/s	3.5m/s	4.0m/s
MINIMUM OVERHEAD (K)	CH+2470	CH+2470	CH+2630
MINIMUM PIT DEPTH (S)	2100	2100	3430

Technical Data

Hoistway Dimension

CWT Location	Speed [M/MIN]	Persons	Duty Load [kg]	Opening Type	Entrance Width	Car Size		Hoistway Size				Machine Room Size				Pit Reaction [kg]			Machine Reaction					
						Width	Depth	Simplex		Duplex		Simplex		Duplex										
			DUTY		OP	CW	CD	HW	HD	HW	HD	MW	MD	AM	BM	U	V	L	A	B	C	D	E	F
Rear drop	180	12	900	Center pening	900	1600	1350	2150	2100	2150	2100	2600	4500	2600	4500	11500	10800	2300	1100	1600	1100	1600	1100	1800
		13	1000		900	1600	1500	2150	2250	2150	2250	2600	4650	2600	4650	12700	12000	2500	1200	1700	1200	1700	1200	1900
		15	1150		900	1800	1500	2350	2250	2350	2250	2800	4650	2800	4650	14500	13800	2800	1300	1800	1300	1800	1300	2200
		15	1150		1100	2000	1350	2550	2100	2550	2100	3000	4500	3000	4500	14500	13800	2800	1200	1800	1200	1800	1300	2200
		18	1350		900	1800	1700	2350	2450	2350	2450	2800	4850	2800	4850	16900	16200	3300	1200	2200	1200	2200	1300	2800
		18	1350		1100	2000	1500	2550	2250	2550	2250	3000	4650	3000	4650	16900	16200	3300	1400	2000	1400	2000	1500	2500
		18	1350		1100	2000	1550	2550	2300	2550	2300	3000	4700	3000	4700	16900	16200	3300	1400	2000	1400	2000	1600	2500
		21	1600		1100	2000	1750	2550	2500	2550	2500	3000	4900	3000	4900	19900	19200	3800	1300	2400	1300	2400	1600	3200
		24	1800		1100	2000	1800	2550	2550	2550	2550	3000	4950	3000	4950	22300	21600	4300	1400	2600	1400	2600	1700	3600
		26	2000		1100	2350	1700	2940	2450	2940	2450	2940	4850	2940	4850	24700	24000	4700	3000	5400	3000	5400	N/A	N/A
		30	2250		1100	2400	1800	2990	2550	2990	2550	2990	4950	2990	4950	27700	27000	5200	3300	5900	3300	5900	N/A	N/A
	210	12	900	Center pening	900	1600	1350	2150	2100	2150	2100	2600	4500	2600	4500	11500	10800	2300	1100	1600	1100	1600	1100	1800
		13	1000		900	1600	1500	2150	2250	2150	2250	2600	4650	2600	4650	12700	12000	2500	1200	1700	1200	1700	1200	1900
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		18	1350		900	1800	1700	2350	2450	2350	2450	2800	4850	2800	4850	16900	16200	3300	1200	2200	1200	2200	1300	2800
		18	1350		1100	2000	1500	2550	2250	2550	2250	3000	4650	3000	4650	16900	16200	3300	1400	2000	1400	2000	1500	2500
		18	1350		1100	2000	1550	2550	2300	2550	2300	3000	4700	3000	4700	16900	16200	3300	1400	2000	1400	2000	1600	2500
		21	1600		1100	2000	1750	2550	2500	2550	2500	3000	4900	3000	4900	19900	19200	3800	1300	2400	1300	2400	1600	3200
		24	1800		1100	2000	1800	2550	2550	2550	2550	3000	4950	3000	4950	22300	21600	4300	1400	2600	1400	2600	1700	3600
		26	2000		1100	2350	1700	2940	2450	2940	2450	2940	4850	2940	4850	24700	24000	4700	3000	5400	3000	5400	N/A	N/A
		30	2250		1100	2400	1800	2990	2550	2990	2550	2990	4950	2990	4950	27700	27000	5200	3000	5900	3300	5900	N/A	N/A
	240	12	900	Center pening	900	1600	1350	2150	2100	2150	2100	2600	4500	2600	4500	11500	10800	2300	1100	1600	1100	1600	1100	1800
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		30	2250		1100	2400	1800	2990	2550	2990	2550	2990	4950	2990	4950	27700	27000	5200	3300	5900	3300	5900	N/A	N/A

※Above data is for Rear Drop. For Side Drop, Please contact Sigma.

Electrical Data

Speed [M/MIN]	Capacity		Motor Capacity [kW]	MCCB Capacity (A)				Lead-In Wire Size [mm²]				Earth Wire Size [mm²]				Heat Output [kcal/H]	Starting Power [kVA/set]
				1 unit		2 units		1 unit		2 units		1 unit		2 units			
	Person	Load[kg]		220V	380V	220V	380V	220V	380V	220V	380V	220V	380V	220V	380V		
180	13	900	20	100	60	200	100	35	16	95	35	35	16	50	16	2430	61.2
	15	1000	21	125	60	200	125	35	16	95	35	35	16	50	25	2700	66.5
	17	1150	24	125	100	225	125	35	16	95	35	35	16	50	25	3105	71.1
	20	1350	27	125	100	250	150	35	16	120	35	35	16	50	25	3645	77.0
	24	1600	31	150	100	300	175	35	16	120	35	35	16	50	25	4320	87.5
	27	1800	34	175	100	300	175	70	25	150	50	35	25	50	35	4860	94.1
	30	2000	36	175	100	350	200	70	25	150	50	35	25	50	35	5400	113.2
	34	2250	40	200	160	350	225	70	25	150	50	35	25	50	35	6075	117.8
210	13	900	23	125	100	200	125	35	16	95	35	35	16	50	16	2835	61.2
	15	1000	25	125	100	250	150	35	16	120	35	35	16	50	25	3150	77.7
	17	1150	28	150	100	250	150	35	16	120	35	35	16	50	25	3622.5	82.9
	20	1350	31	150	100	300	175	35	16	120	35	35	16	50	35	4252.5	89.5
	24	1600	36	175	100	350	200	75	25	150	50	35	25	50	35	5040	102.0
	27	1800	40	200	160	350	200	75	25	150	50	35	25	50	35	5670	109.3
	30	2000	42	225	160	400	250	75	25	200	50	35	25	50	35	6300	125.1
	34	2250	46	225	160	400	250	95	35	200	70	35	35	50	35	7087.5	136.9
240	13	900	26	125	100	250	150	35	16	95	35	35	16	50	25	3240	69.8
	15	1000	29	150	100	250	150	35	16	120	35	35	16	50	25	3600	88.2
	17	1150	32	150	100	275	175	35	16	150	35	35	16	50	35	4140	94.1
	20	1350	36	175	100	300	175	75	25	150	50	35	25	50	35	4860	102.0
	24	1600	42	200	160	350	200	75	25	150	50	35	25	50	35	5760	115.8
	27	1800	46	225	160	400	225	95	35	150	70	35	35	50	35	6480	124.4
	30	2000	48	225	160	400	250	95	35	150	70	35	35	50	35	7200	125.1
	34	2250	53	250	160	450	250	95	35	200	70	35	35	50	35	8100	131.0

Technical Data

Technical Features

I Operation Functions

● Standard ○ Option

Features	Description	
Automatic Bypass	A fully-loaded car (more than 80% of rated load) bypasses hall calls in order to maintain maximum operational efficiency.	●
Advance Door Opening	In order to accelerate traffic, automatic door opening starts while the elevator car approaches a landing.	●
Alarm Bell	This function activated by the in-car alarm buttons offers an acoustic alarm. The alarm device is powered by its own power supply including a back-up battery.	●
Overload Holding Stop (110% of rated load)	When the number of passengers exceeds the normal capacity, a buzzer sounds and the elevator remains stopped at that floor. When the excessive number of passengers disembark, the buzzer stops, the elevator doors close, and operation continues.	●
Car Door Safety Edge	Extending the full height of the car door, this device causes the doors to return to the fully open position should the door encounter a person or obstacle while closing.	●
Automatic Car Return (ARD)	Automatic car return parks the car at a defined landing with the doors in a defined state, when the car has no demand.	●
Door Nudging	If the doors are prevented from closing for a fixed period of time, the door reversal devices are rendered inoperative.	●
Non-Stop Operation	Specific floors which are memorized in control panel can be set to disable using switch on car operating panel or in security room.	●
Re-leveling Operation	Adjust leveling between landing sill and car sill.	●
Parking Operation	The elevator can be automatically parked at the predetermined floor with its doors closed, and the lights and ventilation will be turned off as well.	○
Emergency Fireman Operation	All cars not on fireman's service shall be commanded to make an express priority run to the designated return landing as soon as a fireman's car is switched to Emergency Fireman's Service. For Emergency Fireman Operation, the cars are parked until the end of Emergency Fireman's Service.	○
Attendant Operation	The operating mode of an elevator can be changed from the normal automatic operation to the attendant service by an attendant switch.	○
Independent Service Operation	Independent service operation removes the car from the group, permitting it to respond to registered car calls while prohibiting the doors from closing unless constant pressure is applied to a start button. While on this operation, the car ignores all hall calls and the hall lanterns do not illuminate.	○
Building Automatic Interface	It makes the communication between elevator and building integrated. BA board will collect the floor, direction and status information of elevator. The computer can get this information through serial communication.	○
Counterweight with Safety	This function may be used to protect the car from going upwards. The installation provides a counterweight governor (in addition to the car governor) which triggers a safety gear of the counterweight.	○
Door Hold Button	Its operation acts like a door open button, but the operation keeps the doors open for a defined period of time.	○
Earthquake Operation	The earthquake sensor detects whether the earthquake occur or not. When earthquake occurs, the device forces the elevator to stop at the nearest floor with door fully open, and the elevator can't operate any more.	○
Car Call Cancellation	Allows cancellation of an incorrectly registered car call. For example, if you press the button for the wrong floor, you can cancel by pressing the same floor button again.	○
Anti-nuisance Operation	In case of substantial difference between the number of calls registered on the car operating panel and actual load in the elevator, the elevator prevents unnecessary operation by cancelling all registered calls when it arrives at the nearest floor.	○
Voice Synthesizer	This system provides riding passengers with audio information about car operation such as direction of travel, landing floor, etc.	○
Night Noise Restriction	A timer or RTC (Real Time Clock) activates this feature. When RTC reaches designated time, chime and/or gong is deactivated and synthesizer volume is decreased.	○
Door Photo Sensor	The doors reverse to fully open position if the light ray unit detects an obstacle when the doors are closing.	○