

Dedicated to People Flow™

KONE

THE ELEVATOR WITH A COMPACT MACHINE ROOM

KONE MiniSpace™



100 years of elevator expertise at your service

KONE is the industry leader in elevator and escalator innovation. We have a long history of improving our customers' businesses and are Dedicated to People Flow™, creating the optimal solution to move people in your buildings efficiently, safely, and in comfort for generations to come.

The benefits of KONE MiniSpace™

- Machine room needs only 40% of the space of a conventional traction elevator's machine room
- Lower construction costs
- Impressive energy savings
- High-quality interior designs
- Full service throughout your building's lifecycle

KONE MINISPACE™ – A VERSATILE ELEVATOR WITH A COMPACT MACHINE ROOM

KONE elevators continue to set the industry standard. KONE MiniSpace™ elevators combine the KONE EcoDisc® motor with a compact machine room. KONE MiniSpace™ is ideal for passenger transportation in offices, hotels, and residential buildings of up to 63 stops.

KONE MiniSpace™ is versatile and reliable. Excellent ride comfort, a power-saving gearless drive, compact size, high efficiency, and low heat loss are the key features that have made this elevator the solution of choice in many of today's most prominent tall buildings. In addition, group control solutions meet the intense traffic demands of modern commercial buildings.

LESS SPACE, FASTER CONSTRUCTION

With KONE MiniSpace™, the machine room is simply an extension of the elevator shaft, making it easier and more cost-efficient to install. The compact KONE EcoDisc® motor can even be lifted inside the elevator shaft. For more information, turn to page 10.

IMPRESSIVE ENERGY SAVINGS

KONE MiniSpace™ elevators consume less energy and result in lower thermal losses than traditional machines. Find out how on page 6.

ATTRACTIVE INTERIOR DESIGN

Our elevator design concepts are the work of renowned professionals and designers, who unite attractive interiors with practical durability. See examples on page 8.

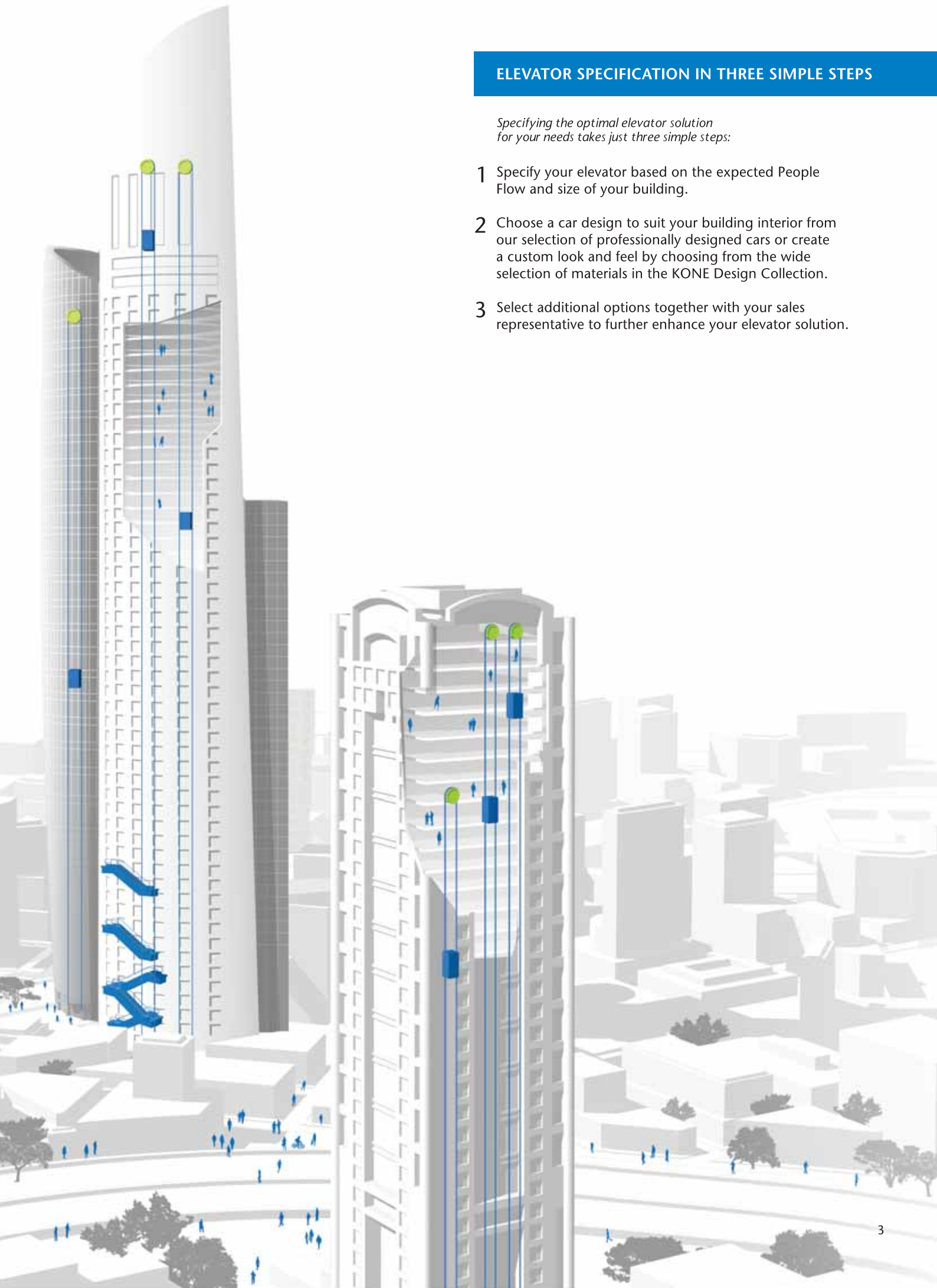
EXCELLENT SERVICE THROUGHOUT YOUR BUILDING'S LIFECYCLE

KONE offers full service throughout your building's lifecycle. Our expertise in traffic analysis means your building will have the right elevator capacity to ensure smooth People Flow. We also offer flexible KONE Care™ maintenance solutions and modernization services to keep things running smoothly. Read more on page 14.

ELEVATOR SPECIFICATION IN THREE SIMPLE STEPS

Specifying the optimal elevator solution for your needs takes just three simple steps:

- 1 Specify your elevator based on the expected People Flow and size of your building.
- 2 Choose a car design to suit your building interior from our selection of professionally designed cars or create a custom look and feel by choosing from the wide selection of materials in the KONE Design Collection.
- 3 Select additional options together with your sales representative to further enhance your elevator solution.





The KONE MiniSpace™ advantage

The secret behind the KONE MiniSpace™ solution is the permanent magnet, gearless KONE EcoDisc® motor. KONE EcoDisc® weighs less than half of a conventional geared traction machine and is approximately twice as efficient. The compact KONE EcoDisc® hoisting motor needs only 40% of the space compared with a conventional traction elevator machine room.

A SMOOTH AND QUIET RIDE

With the low rotational motor speed of KONE MiniSpace™ you get smooth ride quality and comfort. The V3F variable-frequency drive ensures a superior acceleration/deceleration profile, better floor-to-floor travel times, and precision leveling. The end result is a ride experience that will set your building apart.

A FOCUS ON QUALITY AND SAFETY

Quality is one of the key drivers at KONE. High quality people flow solutions enable people to move smoothly, safely, comfortably, and efficiently. Reliable products maximize the performance of our customers' buildings. Our commitment to quality covers the entire product lifespan, from manufacturing and installation to ongoing maintenance.

INDUSTRY STANDARDS AND REQUIREMENTS

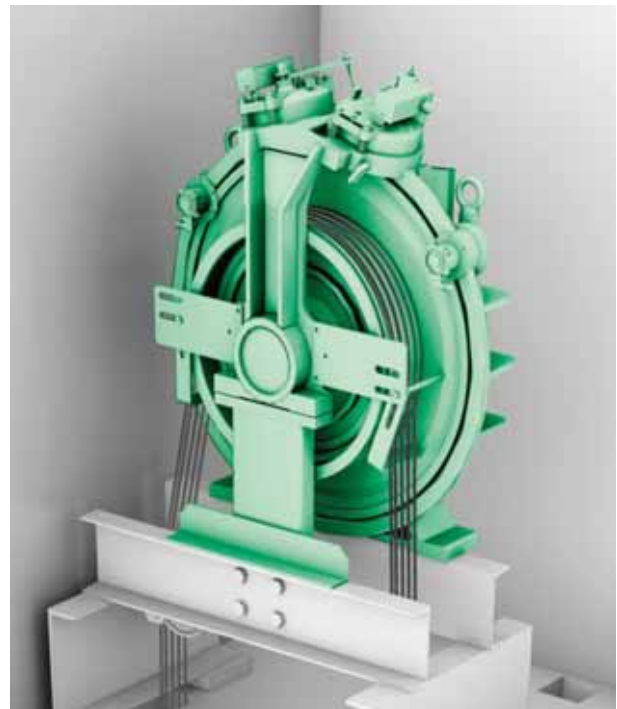
All KONE manufacturing units are ISO 14001 certified and meet all elevator industry standards and requirements as per IS standards.

KONE MiniSpace™ ELEVATOR RANGE

Max travel	up to 63 floors & 210 meters of travel
Max load	transport up to 1632 kg
Max speed	up to 4.0 m/s
Group size	up to 8 cars in 1 elevator group

Note:

For Load >1632, please check with Customer Engineering



Taking eco-efficiency to new heights

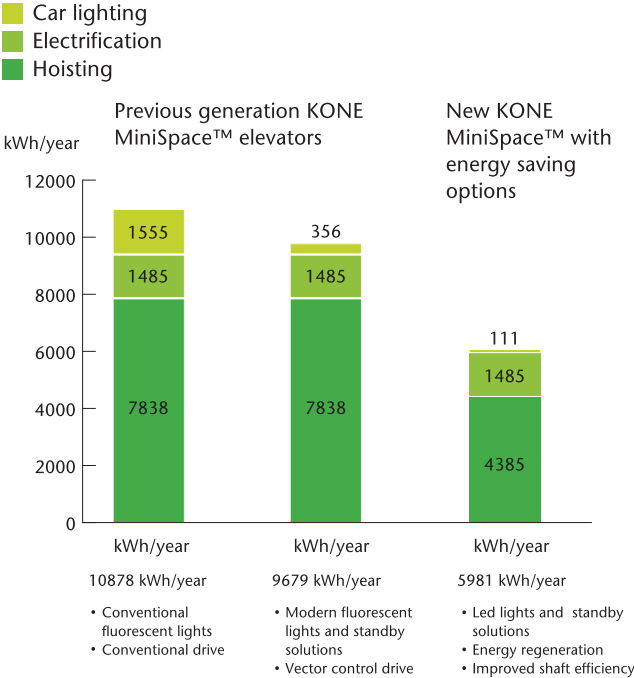
Save energy and costs. It is a simple calculation with impressive results. KONE MiniSpace™ elevators, powered by the KONE EcoDisc® hoisting motor, consume less energy than other gearless elevators. KONE EcoDisc® also creates less thermal losses than traditional machines, which brings direct savings in cooling and ventilation costs.

But the hoisting motor is not the only thing that can reduce the total energy consumption of an elevator. KONE has analyzed every function and option in order to reduce the total energy consumption.

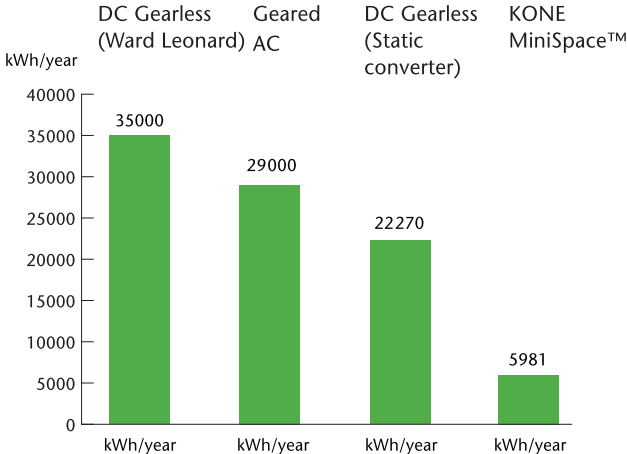


The eco-efficient KONE EcoDisc® hoisting system

MiniSpace™ energy consumption



Energy consumption compared to previous technologies



* The basis for the calculations is: an elevator speed of 2.5 m/s, a load of 1000 kg, 400,000 starts/year, 1000 running hours, a travel height of 99 m and 33 floors.

A GREEN HOISTING SYSTEM

The KONE EcoDisc® hoisting machine made DC gearless and energy-hungry geared hoisting machines obsolete. The KONE EcoDisc® permanent magnet synchronous machine, together with a vector-controlled drive system and energy regeneration options, provides the highest total efficiency and minimizes both mechanical and electrical losses.

FURTHER ENERGY SAVINGS WITH STANDBY MODE

Lights, signalization and ventilation can consume a considerable amount of energy even when the elevator is not moving. In a residential elevator this can represent a considerable portion of yearly energy costs. KONE offers the following options to minimize energy consumption:

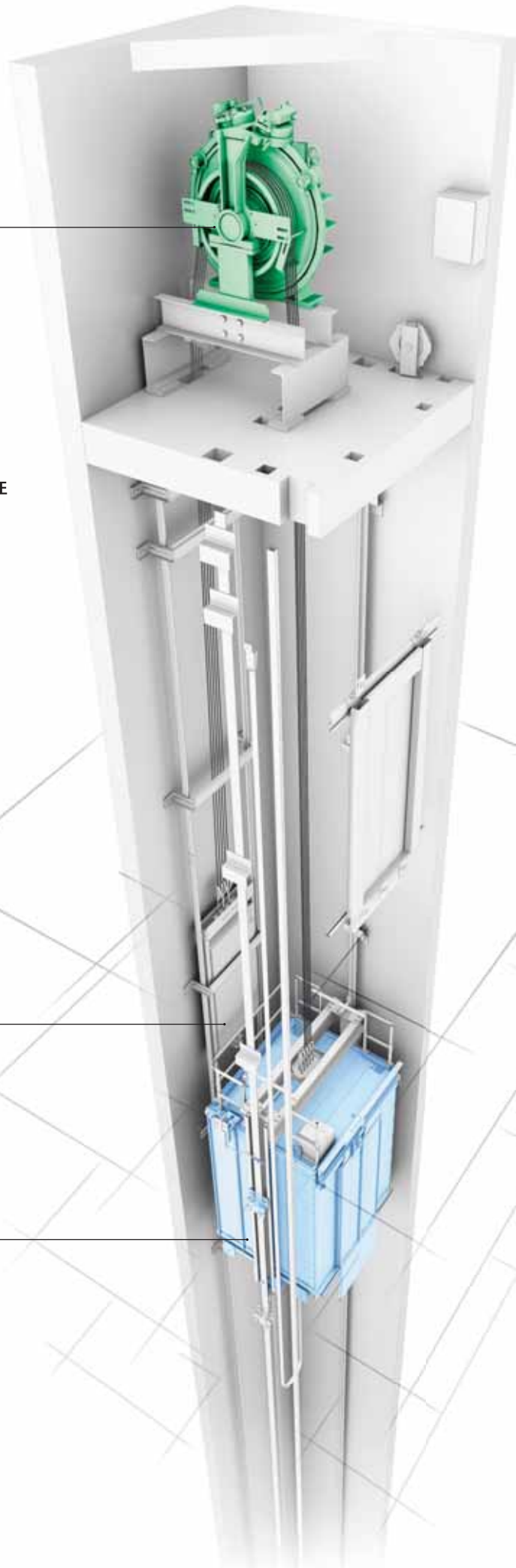
1. Automatic car light operation turns off the lights when the car is not in use and on again when the car is called.
2. Corridor illumination control automatically controls the light on the destination floor.
3. The power stage of the drive is set to sleep mode when not in use.
4. Signalization displays are dimmed when not in use.
5. The car fan is turned off when the elevator is not in use.

REGENERATIVE DRIVE

When the car is descending with a heavy load (or ascending with a light load), it contains potential energy. The regenerative drive recovers this energy, saving up to 30% of the total energy consumed by a typical 13-person KONE elevator.

ECO-EFFICIENT CAR LIGHTING

Surprisingly, the car lighting can account for up to 40% (1100 kWh) of an elevator's energy consumption. Halogen spots have been replaced with eco-efficient, long-lasting LED and modern fluorescent lighting technology. The lights are optimized for maximum efficiency and natural color saturation. LED lights last up to 10 times longer than traditional halogen bulbs and use up to 80% less energy.



Award-winning design

THAT HELPS YOUR BUILDING STAND OUT

WHAT SETS KONE DESIGN APART

- 1 Easy selection of car interiors**
A collection of 28 functional and visually appealing designs created by KONE's award winning design professionals.
- 2 The most flexible and versatile offering**
80 different materials and accessories that can be combined freely and used in all elevator products, for both new buildings and modernization projects.
- 3 The most innovative materials**
The combination of unique textured, patterned, and 3D-effect wall materials with novel lighting solutions creates a stunning visual effect.
- 4 Award-winning design**
KONE's elevator and signalization design concepts have received both red Dot and Good Design awards.

THE KONE DESIGN COLLECTION



When you're designing a building that people will call home, the elevator you choose should complement your building's look and feel, and make your building attractive to potential residents. Your elevator also needs to be functional – it should be accessible for all, well lit, user-friendly, easy to clean, and resistant to wear and tear.

The new KONE Design Collection – created by our award winning design team – offers you a versatile set of contemporary, themed interiors to choose from.

You can also create your own unique look and feel by mixing and matching our wide range of materials and accessories.

For more design inspiration take a look at the complete KONE Design Collection and use the KONE Car Designer tool together with a KONE sales representative.

SIGNALIZATION DESIGNED TO IMPROVE USER EXPERIENCE IN RESIDENTIAL BUILDINGS



Info Screen

KDS 300
Partial Height

KDS D

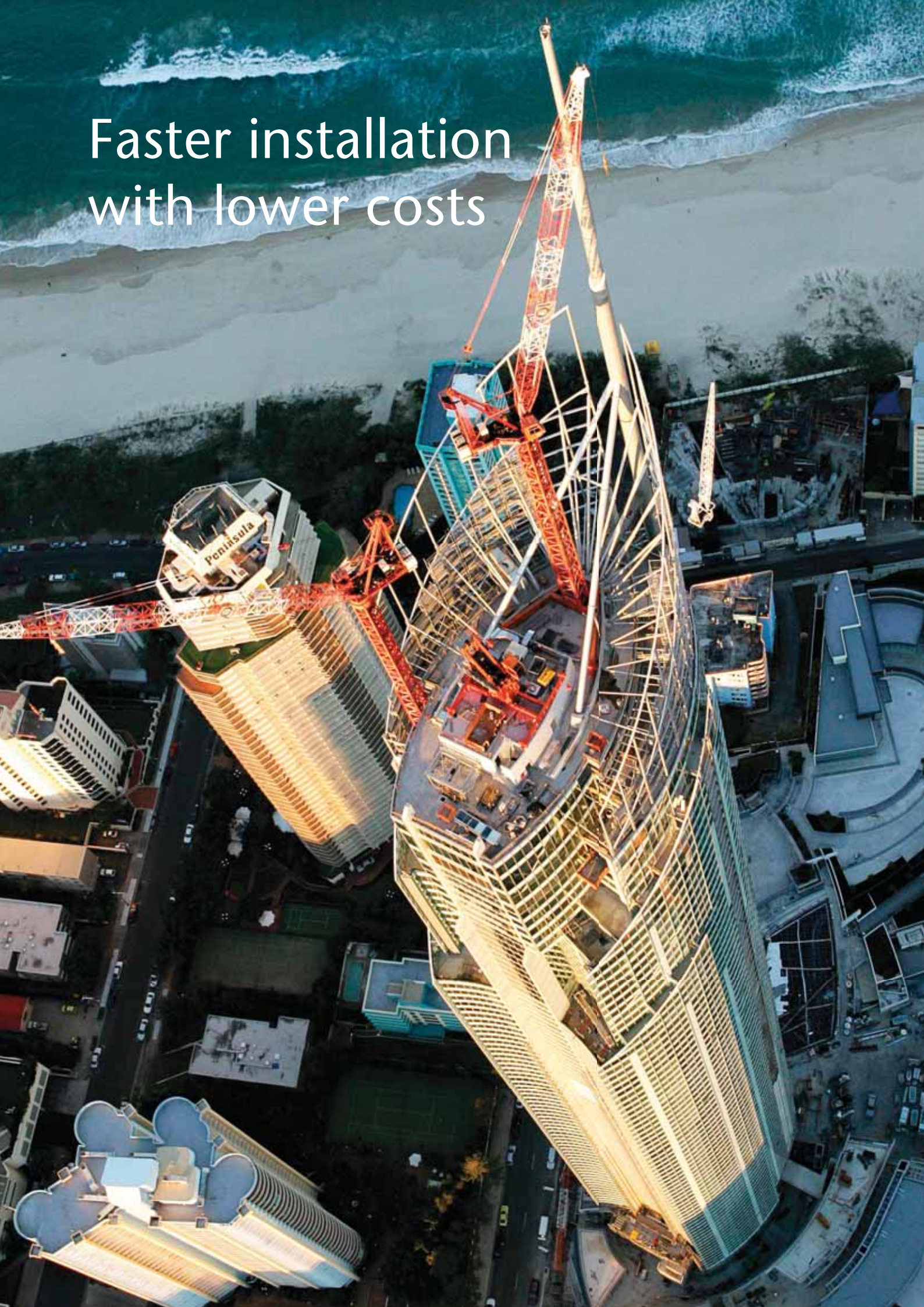
Our wide range of signalizations are designed to give passengers a great elevator experience with every trip. As well as adding the finishing touches to your elevator's interior, they make using the elevator even easier and more convenient for passengers.

KONE signalizations available for KONE MiniSpace™ are KDS 50, KSS 280, KDS 300 and KDS D.

KONE Design collection & Signalizations have won 4 Good Design Awards and 4 Red Dot design awards



Faster installation
with lower costs



The KONE MiniSpace™ solution not only saves space and energy throughout its lifetime, but it also saves money during construction.

EASY AND ECO-EFFICIENT INSTALLATION

The whole installation process is both safer and faster than with a traditional elevator installation. KONE has devised scaffold-less installation methods using special tools to erect the elevator. KONE has defined 5 Site Absolutes for what needs to be done on the building site before elevator installation can begin. When these requirements are met, the installation is uninterrupted and requires minimal or no assistance from the builder.

CONSTRUCTION TIME USE ELEVATORS

KONE's Construction Time Use elevators (CTUs) enable safer, more weatherproof, and faster transportation of people and goods on building sites during the construction phase compared with an exterior hoist. CTU elevators are simply the permanent elevators equipped with temporary signalization and protective materials so they can be used during construction. They can save hundreds of man-hours every day. After completion of your project, KONE CTU elevators can be quickly converted into the building's permanent elevators.

GROUNDBREAKING KONE JUMPLIFT CONCEPT

Exterior hoists have been used for over 40 years on construction sites, but there are growing concerns about their safety and efficiency. To overcome these concerns, KONE has developed an advanced elevator, the KONE JumpLift, which increases safety on the construction site, improves cost-efficiency, and speeds up construction work.

The KONE JumpLift uses the building's permanent shaft during construction as soon as the first floors have been completed. It has a temporary machine room that moves upwards in the shaft as construction work progresses.

When the building's structure is finished, the switch over to use as the permanent elevator can be done quickly by installing the final machinery, signalization, and the material surfaces of the elevator car and landing doors.



How KONE MiniSpace™ speeds up construction

- Minimal or no support required from builder during lift installation (this is subject to completion of the Site Absolutes)
- Scaffold-less installation
- Construction Time Use elevators and the KONE JumpLift provide fast and safe weather-proof transportation

Intelligent features that improve your building's People Flow™

KONE helps you to deliver smarter people flow in your building. Our solutions optimize your elevator traffic while our systems monitor equipment in real time.

INTELLIGENT GROUP CONTROLS THAT LEARN

KONE's group control solutions are the best in the industry. PC-based group controls increase handling capacity during peak times and save energy when traffic is light. Artificial intelligence detects call and passenger information over a period of time, anticipates traffic, and adapts elevator operations accordingly.

KONE POLARIS™ DCS – TAKING ELEVATOR GROUP PERFORMANCE TO A NEW LEVEL

The KONE Polaris Destination Control System (DCS) can improve the handling capacity of the elevator group during peak times without extending the waiting times during quieter periods. The KONE Polaris system contains new solutions that enable easier access and simpler usage, with access control solutions such as PIN codes and access cards.

THE KONE E-LINK™ MONITORING SOLUTION

KONE E-Link provides a real-time view of the transportation status, demand, performance and availability of elevators and escalators in the building. Large building complexes or geographically remote buildings can be monitored and managed from a single location. This helps you ensure that the equipment delivers the best possible performance at all times. KONE E-link aids troubleshooting and allows you to respond more quickly to malfunctions or possible misuse. The solution has an open interface to allow integration with other facility management systems.





KONE Care™ maintenance

An elevator needs regular maintenance to ensure optimal performance. Our global network of service specialists ensures that even the most complex technical challenge is resolved quickly and effectively. We provide flexible maintenance options to meet your specific needs.

EXCELLENCE IN SERVICE AROUND THE CLOCK

Our KONE Care maintenance programs take into account the type, age, and usage of your equipment to maximize reliability and safety and minimize downtime and maintenance costs. KONE provides you with service excellence 365 days a year, 24 hours a day.

KONE CARE SOLUTIONS

KONE Care Standard is a cost-effective solution for reliable and top-quality maintenance that ensures compliance with safety laws and standards.

- KONE Care Plus simplifies maintenance management by making maintenance expenditure more predictable and providing realtime information on maintenance work.
- KONE Care Premium is the recommended solution if disruptions to people flow would have a major impact on your business. The solution provides a first-class level of service and rapid response times. Maintenance costs are also fully predictable.

Available
24 x 7 x 365

KONE Customer Care Center™
18004254666 /
18004254254





Shaft Information

Shaft information 2.5 m/s								
CAPACITY	LOAD (KG)	Car Width	Car Depth	Min Door Opening LL	Rear CWT		Side CWT	
		BB	DD		WW	WD	WW	WD
8P	544	1100	1300	800	1880	1945	-	-
	544	1300	1100	800	1920	1745	-	-
	544	1100	1300	800	-	-	1955	1890
10P	680	1300	1350	800	1920	1995	-	-
	680	1350	1300	800	1945	1945	-	-
	680	1100	1600	800	1880	2245	-	-
	680	1300	1350	800	-	-	2095	1965
	680	1350	1300	800	-	-	2145	1865
	680	1100	1600	800	-	-	1955	2040
	680	1000	1750	800	-	-	1905	2120
13P	884	1600	1350	900	2130	1995	-	-
	884	2000	1100	900	2530	1745	-	-
	884	1500	1450	900	2030	2095	-	-
	884	1100	2000	800	-	-	1955	2370
15P	1020	1600	1500	900	2145	2175	-	-
	1020	1100	2100	800	-	-	1955	2470
16P	1088	1800	1450	900	2360	2125	-	-
	1088	2000	1300	900	2560	1975	-	-
	1088	1600	1600	900	2160	2275	-	-
	1088	1300	2000	900	-	-	2195	2370
17P	1156	1800	1500	900	2360	2175	-	-
20P	1360	1700	1800	1000	2310	2225	-	-
	1360	1800	1700	1000	2410	2375	-	-
	1360	2000	1550	1000	2610	2325	-	-
	1360	1900	1650	1000	2510	2475	-	-
21P	1428	2000	1650	1000	2610	2325	-	-
	1428	1800	1800	1000	2410	2475	-	-
22P	1496	2000	1700	1100	2610	2375	-	-
24P	1632	2100	1700	1100	2710	2375	-	-

Shaft information 3.0 m/s								
CAPACITY	LOAD (KG)	Car Width	Car Depth	Min Door Opening LL	Rear CWT		Side CWT	
		BB	DD		WW	WD	WW	WD
8P	544	1100	1300	800	1860	1975	-	-
	544	1300	1100	800	1860	1775	-	-
10P	680	1300	1350	800	1860	2025	-	-
	680	1350	1300	800	1880	1975	-	-
	680	1100	1600	700	1860	2275	-	-
13P	884	1600	1350	900	2130	2025	-	-
	884	1500	1450	900	2030	2125	-	-
	884	1100	2000	800	-	-	1955	2370
15P	1020	1600	1500	900	2190	2175	-	-
16P	1088	1800	1450	900	2390	2125	-	-
	1088	2000	1300	900	2590	1975	-	-
	1088	1600	1600	900	2190	2275	-	-
17P	1156	1800	1500	900	2390	2175	-	-
20P	1360	2000	1550	1000	2590	2225	-	-
	1360	1800	1700	1000	2390	2375	-	-
	1360	1900	1650	1000	2490	2325	-	-
	1360	1700	1800	1000	2290	2475	-	-
21P	1428	2000	1650	1000	2590	2325	-	-
22P	1496	2000	1700	1100	2590	2375	-	-
24P	1632	2100	1700	1100	2690	2375	-	-

Shaft information 3.5 m/s								
CAPACITY	LOAD (KG)	Car Width	Car Depth	Min Door Opening LL	Rear CWT		Side CWT	
		BB	DD		WW	WD	WW	WD
10P	680	1300	1350	800	1870	2080	-	-
	680	1350	1300	800	1920	2030	-	-
	680	1100	1600	800	1860	2330	-	-
13P	884	1600	1350	900	2170	2080	-	-
	884	1500	1450	900	2070	2180	-	-
	884	1100	2000	800	-	-	2075	2390
15P	1020	1600	1500	900	2210	2230	-	-
	1020	1100	2100	800	-	-	2095	2540
16P	1088	1800	1450	900	2410	2180	-	-
	1088	1600	1600	900	2210	2330	-	-
	1088	1300	2000	900	-	-	2295	2490
17P	1156	1800	1500	900	2410	2230	-	-
20P	1360	2000	1550	1000	2610	2280	-	-
	1360	1300	2400	1000	-	-	2395	2770
	1360	1800	1700	1000	2410	2430	-	-
	1360	1900	1650	1000	2510	2380	-	-
	1360	1700	1800	1000	-	-	2675	2440
21P	1428	2000	1650	1000	2610	2380	-	-
22P	1496	2000	1700	1100	2610	2430	-	-
24P	1632	2100	1700	1100	2710	2430	-	-

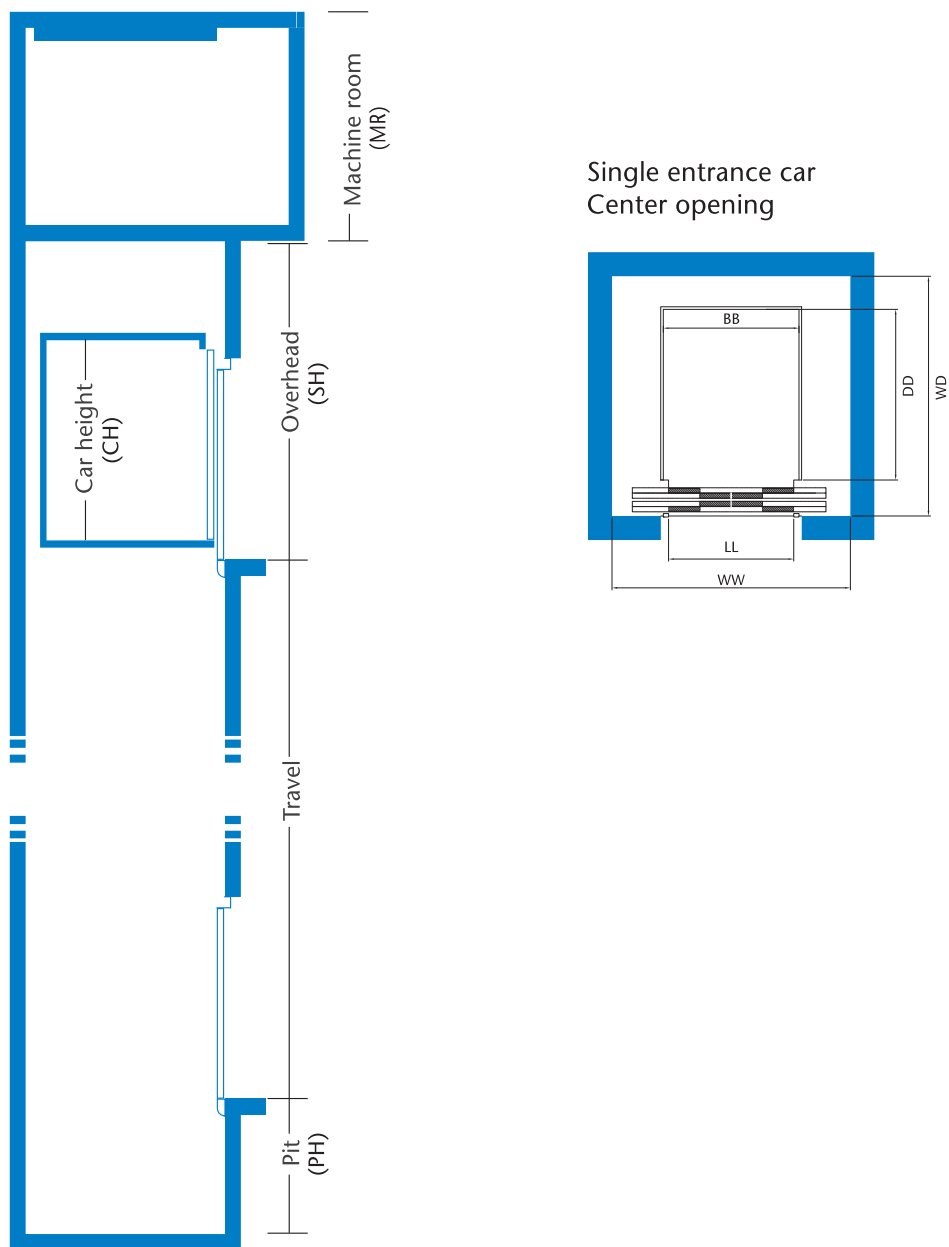
Shaft information 4 m/s								
CAPACITY	LOAD (KG)	Car Width	Car Depth	Min Door Opening LL	Rear CWT		Side CWT	
		BB	DD		WW	WD	WW	WD
13P	884	1600	1350	900	2170	2080	-	-
	884	1500	1450	900	2070	2180	-	-
15P	1020	1600	1500	900	2210	2230	-	-
16P	1088	1800	1450	900	2410	2180	-	-
	1088	1600	1600	900	2210	2330	-	-
	1088	1300	2000	900	-	-	2295	2490
17P	1156	1800	1500	900	2410	2230	-	-
20P	1360	2000	1550	1000	2610	2280	-	-
	1360	1300	2400	1000	-	-	2395	2770
	1360	1800	1700	1000	2410	2430	-	-
	1360	1900	1650	1000	2510	2380	-	-
21P	1428	2000	1650	1000	2610	2380	-	-
22P	1496	2000	1700	1100	2610	2430	-	-
24P	1632	2100	1700	1100	2710	2430	-	-

Note: For all the cases shaft tolerance is considered as 50mm

Layout and dimensions

Speed	2.5 Load ≤1020 kg	2.5 Load >1020Kg	3	3.5		4	
	Side / Rear	Side/Rear	Side/Rear	Rear	Side	Rear	Side
Std car Inside Height (CH) mm	2400	2400	2400	2400	2400	2400	2400
Std Door Height (H) mm	2200	2200	2200	2200	2200	2200	2200
Max Travel (m)	120	120	150	180	180	210	210
Std Pit height (mm)	2000	2100	2700	3800	4300	4100	4800
Std Head room height (mm)	5500	5600	5800	6100	5700	6800	6200

Elevation Layout



WW - Well Width; WD- Well Depth; BB - Car Width; DD - Car Depth; LL - Door Opening

KONE references



Ashok Towers, Mumbai, India



Shanghai IFC, Shanghai, China



Millennium Residence, Bangkok, Thailand



Capital Plaza, Abu Dhabi, UAE



Skyline Mansion, Shanghai, China



Interchange 21, Bangkok, Thailand



Al Dar Headquarters, Abu Dhabi, UAE



Financial Street, Beijing, China



KONE provides innovative and eco-efficient solutions for elevators, escalators, automatic building doors and the systems that integrate them with today's intelligent buildings.

We support our customers every step of the way; from design, manufacturing and installation to maintenance and modernization. KONE is a global leader in helping our customers manage the smooth flow of people and goods throughout their buildings.

Our commitment to customers is present in all KONE solutions. This makes us a reliable partner throughout the life cycle of the building. We challenge the conventional wisdom of the industry. We are fast, flexible, and we have a well-deserved reputation as a technology leader, with such innovations as KONE MonoSpace®, KONE EcoMod™ and KONE UltraRope™.

KONE employs on average 43,000 dedicated experts to serve you globally and locally.

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