

*Dedicated to People Flow™*



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 stories.

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 5.*

### **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 10.*



## 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, including:

- GB7588-2003 (EN81-1:1998)
- Singapore SS 550 : 2009

## KONE MINISPACE™ ELEVATOR RANGE

Max travel: up to 63 floors and 210 meters of travel

Max load: transport up to 2000 kg

Max speed: up to 4.0 m/s

Group size: up to 8 cars in 1 elevator group



# 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 switchover 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

# Taking eco-efficiency to new heights

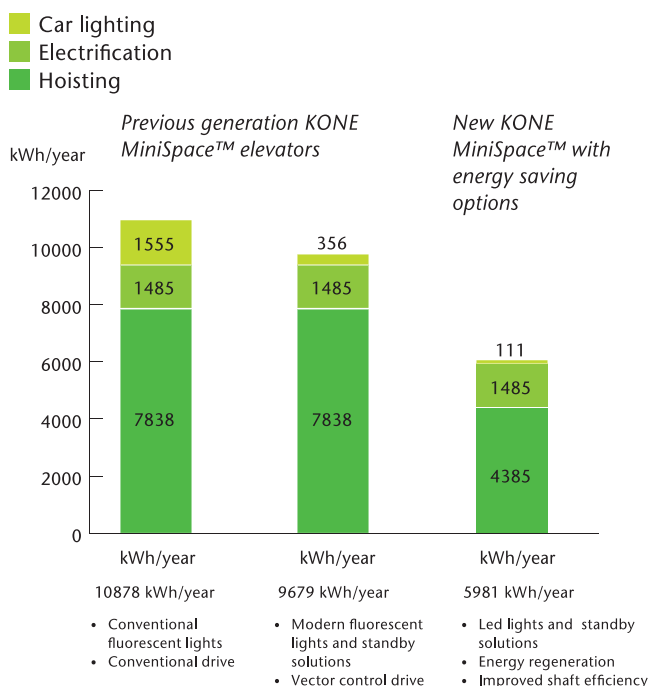
Save energy and costs. It is a simple calculation with impressive results. KONE MiniSpace™ elevators, powered by the KONE EcoDisc® hoisting motor, consume less energy than other gearless elevators. KONE EcoDisc® also creates less thermal losses than traditional machines, which brings direct savings in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

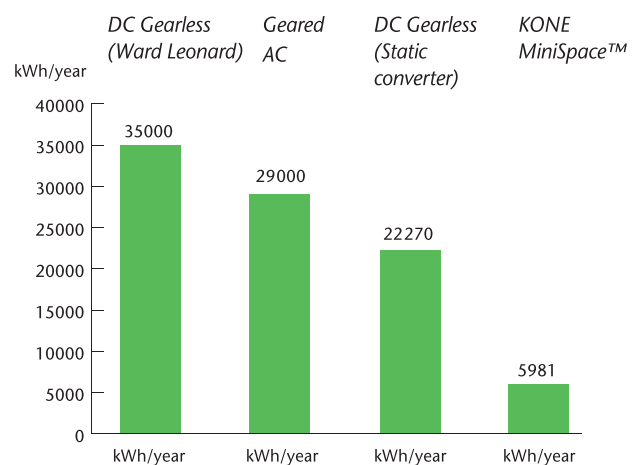


The eco-efficient KONE EcoDisc® hoisting system

## 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.





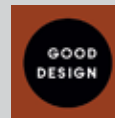
## KONE DESIGN COLLECTION

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.



reddot design award  
winner 2012

2 Good Design awards  
4 Red Dot design awards

## SIGNALIZATION DESIGNED TO IMPROVE USER EXPERIENCE IN RESIDENTIAL BUILDINGS



2

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, KDS 290, KDS 300 and KDS D.

1. Full-height (KSC D40) and Partial-height (KSC D20) COP
2. Info screen

# KONE references



*313@Somerset, Singapore*



*Centerpoint, Vietnam*



*Hatten City, Malaysia*



*Jem, Singapore*



*KEM Office, Indonesia*



*King Power Complex, Thailand*



*Le Meridien Saigon, Vietnam*



*Marina Bay Sands, Singapore*



*Crowne Plaza, Vietnam*

# Planning data (EN 81-1)

Car and wall dimensions						
Persons/rated load (kg)	Rated speed (m/s)	Car		Landing doors		
		Car size BB x DD (mm)	Car type	Door type	Door width LL (mm)	Shaft size WWxWD (mm)
08 / 630	1.0	1400 x 1100	SEC	CO	800	1800 x 1700
	1.6, 1.75, 2.0, 2.5	1400 x 1100	SEC	CO	800	1900 x 1750
	3.0	1400 x 1100	SEC	CO	800	1920 x 1755
10 / 800	1.0, 1.6, 1.75, 2.0	1350 x 1400	SEC	CO	800	1850 x 2000
	2.5, 3.0	1350 x 1400	SEC	CO	800	1900 x 2055
	1.0, 1.6, 1.75, 2.0	1350 x 1400	SEC	CO	900	1950 x 2000
12 / 900	2.5, 3.0	1350 x 1400	SEC	CO	900	2000 x 2055
	1.0, 1.6, 1.75, 2.0, 2.5	1500 x 1400	SEC	CO	900	2000 x 2050
	3.0, 3.5, 4.0	1500 x 1400	SEC	CO	900	2020 x 2080
13 / 1000	1.0, 1.6, 1.75, 2.0, 2.5	1600 x 1400	SEC	CO	900	2100 x 2050
	3.0, 3.5, 4.0	1600 x 1400	SEC	CO	900	2180 x 2080
	1.0, 1.6, 1.75, 2.0, 2.5	1600 x 1400	SEC	CO	1000	2200 x 2050
	3.0, 3.5, 4.0	1600 x 1400	SEC	CO	1000	2200 x 2080
	1.0, 1.6, 1.75, 2.0, 2.5	1600 x 1500	SEC	CO	900	2050 x 2150
	1.0, 1.6, 1.75, 2.0, 2.5	1600 x 1500	SEC	CO	1000	2150 x 2150
	1.0, 1.6, 1.75, 2.0, 2.5, 3.0	1100 x 2100	SEC	CO	900	2035 x 2470
	3.0	1100 x 2100	SEC	CO	1000	2200 x 2470
	3.5, 4.0	1100 x 2100	SEC	CO	900 / 1000	2295 x 2470
	1.0, 1.6, 1.75, 2.0, 2.5, 3.0	1100 x 2100	TTC	CO	900	2035 x 2470
	3.0	1100 x 2100	TTC	CO	1000	2200 x 2590
	3.5, 4.0	1100 x 2100	TTC	CO	900 / 1000	2295 x 2590
	1.0, 1.6, 1.75, 2.0, 2.5	1800 x 1450	SEC	CO	900 / 1000	2300 x 2100
	1.0, 1.6, 1.75, 2.0, 2.5	1800 x 1450	SEC	CO	1100	2400 x 2100
	3.0, 3.5, 4.0	1800 x 1450	SEC	CO	1000 / 1100	2400 x 2130
15 / 1150	1.0, 1.6, 1.75, 2.0, 2.5, 3.0, 3.5, 4.0	1300 x 2100	SEC	CO	1000	2350 x 2470
	3.0, 3.5, 4.0	1300 x 2100	SEC	CO	1100	2420 x 2470
	3.0, 3.5, 4.0	2000 x 1400	SEC	CO	1000 / 1100	2580 x 2080
17 / 1275	3.0, 3.5, 4.0	1200 x 2300	SEC	CO	1000	2315 x 2670
	1.0, 1.6, 1.75, 2.0, 2.5, 3.0, 3.5, 4.0	1200 x 2300	SEC	CO	1100	2415 x 2670
	1.0, 1.6, 1.75, 2.0, 2.5	1200 x 2300	TTC	CO	1100	2400 x 2790
18 / 1350	1.0, 1.6, 1.75, 2.0, 2.5	2000 x 1500	SEC	CO	900 / 1000 / 1100	2500 x 2150
	3.0, 3.5, 4.0	2000 x 1500	SEC	CO	1000 / 1100	2580 x 2180
	1.0, 1.6, 1.75, 2.0, 2.5	2100 x 1600	SEC	CO	900 / 1000 / 1100	2600 x 2250
21 / 1600	3.0, 3.5, 4.0	2100 x 1600	SEC	CO	1000 / 1100	2680 x 2280
	1.0, 1.6, 1.75, 2.0, 2.5	1400 x 2400	SEC	SO	1300	2350 x 2850
	1.0, 1.6, 1.75, 2.0, 2.5	1400 x 2400	TTC	SO	1300	2350 x 3090
24 / 1800	1.0, 1.6, 1.75	1500 x 2500	SEC	SO	1300	2350 x 2945
	1.0, 1.6, 1.75	1500 x 2500	TTC	SO	1300	2350 x 3190
26 / 2000	1.0, 1.6	1500 x 2700	SEC	SO	1300	2350 x 3145
	1.0, 1.6	1500 x 2700	TTC	SO	1300	2350 x 3390

Note : Maximum travel 60m (1.0 m/s), 75m (1.60 m/s), 100m (1.75 m/s), 110m (2.0 m/s), 135m (2.5 m/s), 150m (3.0 m/s), 180m (3.5 m/s), 210m (4.0 m/s)

Overhead dimensions																	
Persons/load (kg)	Door height (mm)	Car interior height 2280 (mm)								Car interior height 2400 (mm)							
		1.0 m/s	1.6 m/s	1.75 m/s	2.0 m/s	2.5 m/s	3.0 m/s	3.5 m/s	4.0 m/s	1.0 m/s	1.6 m/s	1.75 m/s	2.0 m/s	2.5 m/s	3.0 m/s	3.5 m/s	4.0 m/s
08 / 630	2100	3730	3880	3980	4080	4330	4730	N/A	N/A	3850	4000	4100	4200	4450	4850	N/A	N/A
10 / 800	2100	3730	3880	3980	4080	4330	4730	N/A	N/A	3850	4000	4100	4200	4450	4850	N/A	N/A
12 / 900	2100	3730	3880	3980	4080	4330	4730	5130	5030	3850	4000	4100	4200	4450	4850	5250	5150
13 / 1000	2100	3730	3880	3980	4080	4330	4830	5130	5030	3850	4000	4100	4200	4450	4950	5250	5150
15 / 1150	2100	3730	3880	3980	4080	4330	4780	5130	5030	3850	4000	4100	4200	4450	4900	5250	5150
17 / 1275	2100	3730	3880	3980	4080	4330	4780	5180	5030	3850	4000	4100	4200	4450	4900	5300	5150
18 / 1350	2100	3730	3880	3980	4080	4330	4780	5180	5030	3850	4000	4100	4200	4450	4900	5300	5150
21 / 1600	2100	3730	3880	3980	4080	4330	4830	5180	5530	3850	4000	4100	4200	4450	4950	5300	5650
24 / 1800	2100	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	3850	4000	4100	N/A	N/A	N/A	N/A	N/A
26 / 2000	2100	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	3850	4000	N/A	N/A	N/A	N/A	N/A	N/A

Overhead dimensions										Pit depth (mm)								
Persons/load (kg)	Door height (mm)	Car interior height 2500, 2600, 2700								Persons/load (kg)	1.0 m/s	1.6 m/s	1.75 m/s	2.0 m/s	2.5 m/s	3.0 m/s	3.5 m/s	4.0 m/s
		1.0 m/s	1.6 m/s	1.75 m/s	2.0 m/s	2.5 m/s	3.0 m/s	3.5 m/s	4.0 m/s									
08 / 630	2100	CH+1450	CH+1600	CH+1700	CH+1800	CH+2050	CH+2450	N/A	N/A	08 / 630	1190	1340	1430	1430	2530	3100	N/A	N/A
10 / 800	2100	CH+1450	CH+1600	CH+1700	CH+1800	CH+2050	CH+2450	N/A	N/A	10 / 800	1190	1340	1430	1430	2530	3100	N/A	N/A
12 / 900	2100	CH+1450	CH+1600	CH+1700	CH+1800	CH+2050	CH+2450	CH+2850	CH+2750	12 / 900	1190	1340	1430	1430	2530	3100	3800	3800
13 / 1000	2100	CH+1450	CH+1600	CH+1700	CH+1800	CH+2050	CH+2550	CH+2850	CH+2750	13 / 1000	1190	1340	1430	1430	2530	3100	4200	4500
15 / 1150	2100	CH+1450	CH+1600	CH+1700	CH+1800	CH+2050	CH+2500	CH+2850	CH+2750	15 / 1150	1240	1360	1490	1490	2530	3100	4250	4550
17 / 1275	2100	CH+1450	CH+1600	CH+1700	CH+1800	CH+2050	CH+2500	CH+2900	CH+2750	17 / 1275	1240	1360	1490	1490	2530	3100	4250	4550
18 / 1350	2100	CH+1450	CH+1600	CH+1700	CH+1800	CH+2050	CH+2500	CH+2900	CH+2750	18 / 1350	1240	1360	1490	1490	2530	3100	3800	3850
21 / 1600	2100	CH+1450	CH+1600	CH+1700	CH+1800	CH+2050	CH+2550	CH+2900	CH+3250	21 / 1600	1240	1360	1490	1490	2530	3100	4250	4550
24 / 1800	2100	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	24 / 1800	1260	1380	1550	N/A	N/A	N/A	N/A	N/A
26 / 2000	2100	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	26 / 2000	1260	1380	N/A	N/A	N/A	N/A	N/A	N/A

Note : (a) Door Height = 2200 / 2300 / 2400 mm. are only available for the car interior height 2500, 2600 and 2700 mm.





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 40,000 dedicated experts to serve you globally and locally.

**KONE Corporation**  
**[www.kone.com](http://www.kone.com)**

## KONE OFFICES IN SOUTH EAST ASIA

### Indonesia - PT. KONE Indo Elevator

Jakarta (main office)	+62 21 6570 3990
Bali	+62 361 785 8383
Bandung	+62 22 8606 0804
Makassar	+62 411 466 2780
Surabaya	+62 31 855 6383
Yogyakarta	+62 274 284 0089

**[www.kone.co.id](http://www.kone.co.id)**

### Malaysia - KONE Elevator (M) Sdn Bhd

Kuala Lumpur (main office)	+603 7494 7500
Johor Bahru	+607 559 0885
Penang	+604 656 3222
Sabah	+6015 4818 9128

**[www.kone.my](http://www.kone.my)**

### Philippines - KPI Elevators, Inc.

Makati City (main office)	+632 811 2929
Cebu	+63 32 233 5790

**[www.kone.ph](http://www.kone.ph)**

### Singapore - KONE Pte Ltd

Singapore	+65 6424 6246
-----------	---------------

**[www.kone.sg](http://www.kone.sg)**

### Thailand - KONE Public Company Limited

Bangkok	+66 2784 6500
---------	---------------

**[www.kone.co.th](http://www.kone.co.th)**

### Vietnam - KONE Vietnam LLC

Ho Chi Minh (main office)	+84 8 3997 5373
Hanoi	+84 4 3974 9445

**[www.kone.vn](http://www.kone.vn)**

## DISTRIBUTORS IN SOUTH EAST ASIA

### Brunei

Yusoki Sdn Bhd	+673 2790037
----------------	--------------

### Cambodia

Comin Khmere	+855 23 885 640
--------------	-----------------

### Laos

Comin Asia	+856 30 777 4777
------------	------------------

### Myanmar

Octagon Automobile & Machinery Services Co., Ltd	+95 9 8631438
--	---------------

### Sarawak(Malaysia)

Elebest Engineering Sdn Bhd	+60 82 365836
-----------------------------	---------------