

Dedicated to People Flow™

**KONE**

FOR A HIGHER STANDARD OF LIVING

# KONE R-series elevators



# The new KONE R-series elevators rise to the challenge

When developing the new R-series elevator range, KONE set four targets to:

- Deliver the most eco-efficient elevator solutions on the market.
- Increase the space efficiency of the KONE MonoSpace® machine-room-less elevator hoisting platform.
- Offer a wide and attractive design collection with plenty of complete car interior designs.
- Provide valuable options that improve users' convenience in their daily lives.

To enable a higher standard of living for all concerned, we developed a higher standard of elevator.

## HIGHLIGHTS

### **Eco-efficient from top to bottom**

KONE has taken eco-efficiency to a totally new level. This lowers the elevator's total cost of ownership and minimizes the environmental impact over the elevator's lifespan.

See more on pages 6–7.

### **More compact than ever**

KONE has maximized the car sizes, while minimizing the shaft sizes. This increases the passenger's convenience, at the same time providing more design freedom for architects and saves construction costs for builders and developers.

See more on page 9.

### **More design alternatives**

KONE has enhanced the selection of KONE Design collection car interiors with a new multicolored signalization and energy-efficient ceilings using compact LED lights. Now it is easier than ever to adapt the elevator's car interior design to the style of any building.

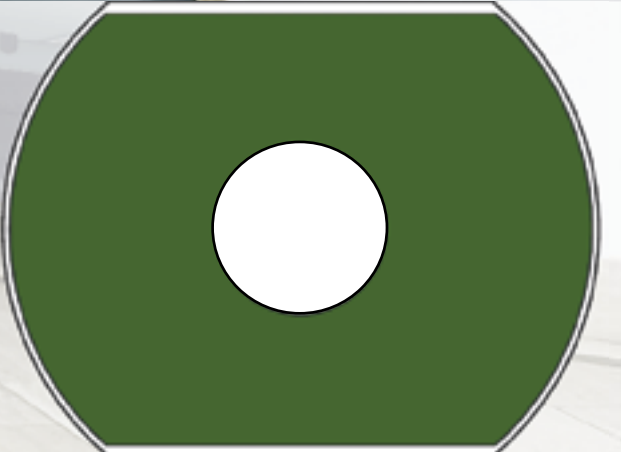
See more on pages 12–19.





**A complete information package about KONE R-series elevators**

On this CD you have all the relevant information you need for specifying KONE R-series elevators. You can also download this information package at [www.kone.xx/r\\_infopack](http://www.kone.xx/r_infopack)



# KONE R-series – three complete elevator solutions covering all people flow™ requirements in residential buildings

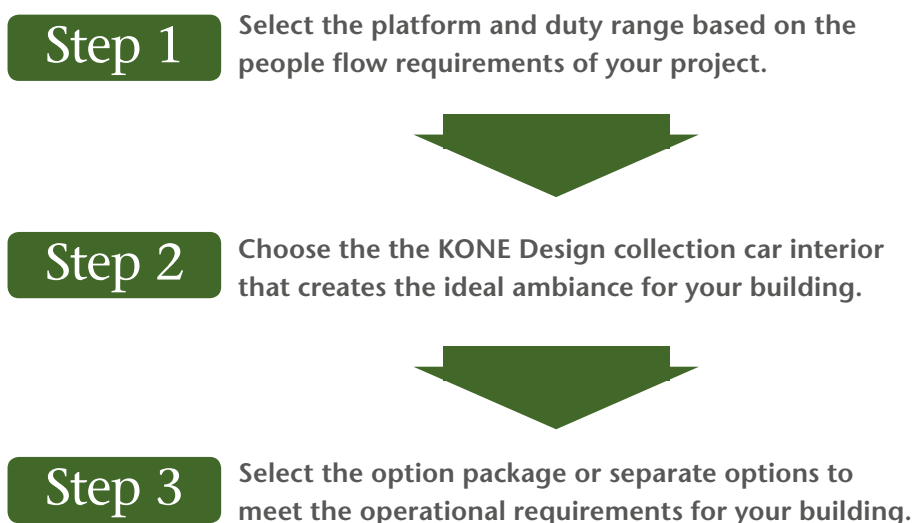
There are three elevator solutions in the KONE R-series range, to simplify selection while meeting the typical functional, architectural and people flow requirements in this segment. The KONE R3 is a quality elevator at an affordable price. The KONE R5 is a mid-range model with numerous options, and the KONE R7 is the top of the range, with many possibilities for customization.

System specification	R3	R5	R7
Speed (m/s)	1.0	1.0 and 1.6	1.0 and 1.6
Load (kg)	450, 480, 630, 1000	450, 480, 630, 800, 1000	All loads up to 1000
Car dimensions	Standard	Standard and flexible	Standard and flexible
Number of stops	11	16	16
Travel (m)	35	55	55
Group size	2	3	4
Control System	Down Collective (DC)	Down Collective (DC)	Down Collective (DC)
Max number of starts / year	200 000	200 000	200 000

KONE has made the selection process as fast and straightforward as possible. The designs and options have been grouped to streamline the selection process into three simple steps. An on-line tool (see [www.kone.com/architect\\_toolbox](http://www.kone.com/architect_toolbox)) is available to make the process still easier.

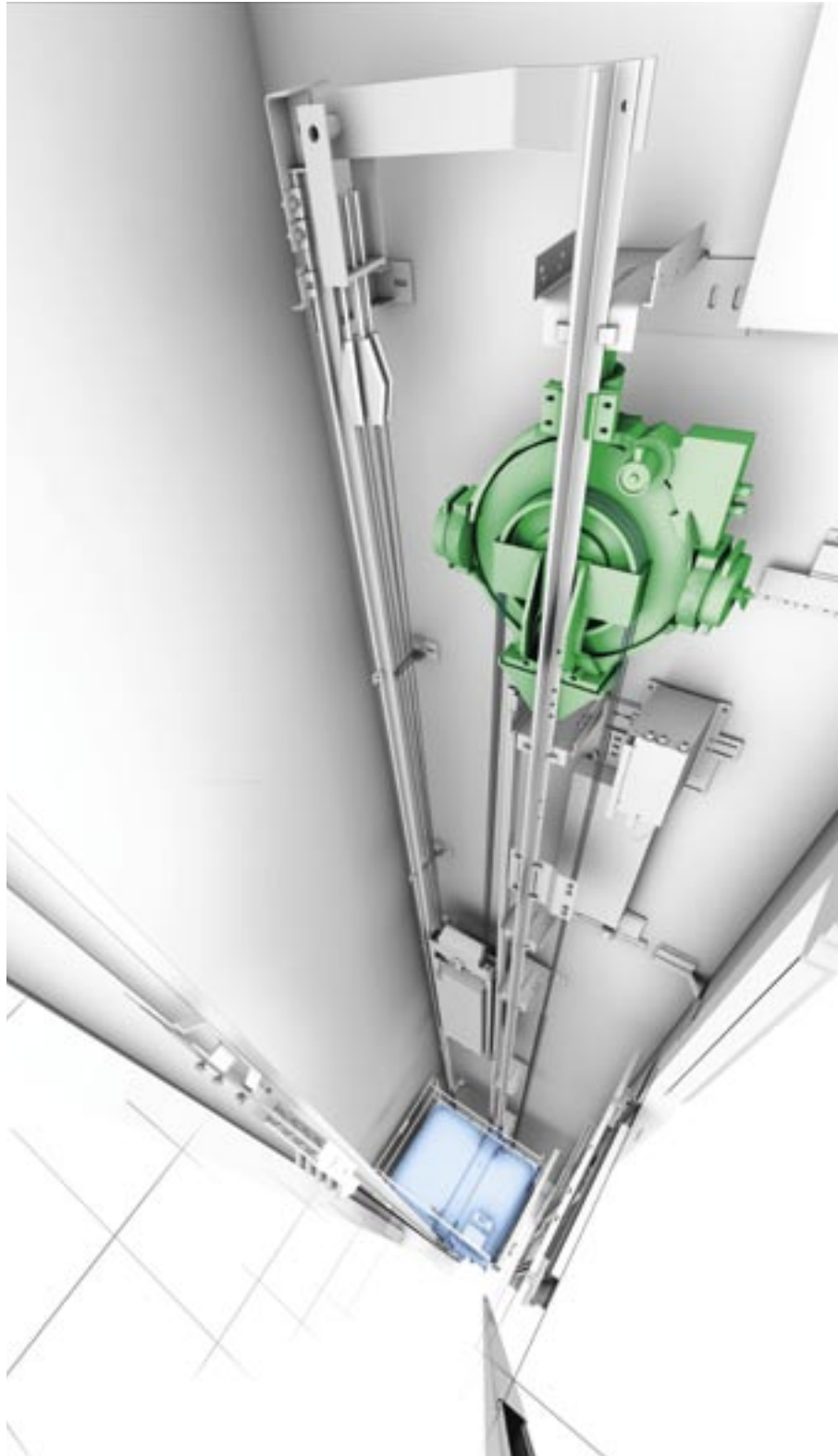
If you want to fine-tune your elevators, either visually or functionally, you can choose from a wide selection of available materials, components and functional options. (For a list of available options and specifications, see the table on page xx)

## Elevator specification in three simple steps



# The KONE R-series is built on the KONE MonoSpace® machine-room-less platform

The foundation of all KONE R-series elevators is the original KONE MonoSpace® machine-room-less platform. This platform has been the industry leader for more than 10 years. More than 200,000 units are in operation all over the world, with an unbeatable track record of operational reliability. Now this concept has been refined with the latest developments in energy and space efficiency.



# KONE raises eco-efficiency™ to new heights

## How much can you save?

The KONE MonoSpace® R-series elevator, powered by the KONE EcoDisc® hoisting motor, consumes 50% less energy than a geared two-speed traction elevator and 70% less than a hydraulic elevator. 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 squeeze the total energy consumption to a level never seen before in this segment.

## Regenerative drive

When the car is going down with a heavy load, it contains potential energy. The regenerative drive recovers this energy. It can save up to 20% of the total energy consumed by a typical 8 person KONE MonoSpace elevator.

## Eco-efficient car lighting

Surprisingly, the car lighting can represent up to 40% (equal to 1100 kWh) of the elevator's energy consumption. Halogen spots have been replaced with eco-efficient, long-lasting LED and modern fluorescent light 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.

## A green hoisting system

The KONE EcoDisc® hoisting system made hydraulic and geared hoisting units obsolete. With this highly efficient drive system, the KONE MonoSpace® has become the industry leader in elevator energy efficiency.

## Put the elevator to stand-by when not in use

Lights, signalization and ventilation can consume a considerable amount of energy even when the elevator is not moving. In a residential elevator with a low usage rate this can represent a considerable portion of yearly energy costs. The KONE R-series offers several options to minimize this consumption.

1. Automatic car light operation turns off the lights automatically when the car is not in use and on again when the car is called.
2. Corridor illumination control automatically controls the light at the destination floor.
3. The power stage of the drive will be 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.

## Not only energy-, but also eco-efficient™

Eco-efficiency has been the leading principle when developing KONE R-series elevators. Recyclable materials are used to minimize the ecological footprint. Halogen-free cables minimize hazardous fumes in case of fire. Environmental Product Declarations (EPD) based on lifecycle analysis according to ISO 14040 are available for all R-series elevators.



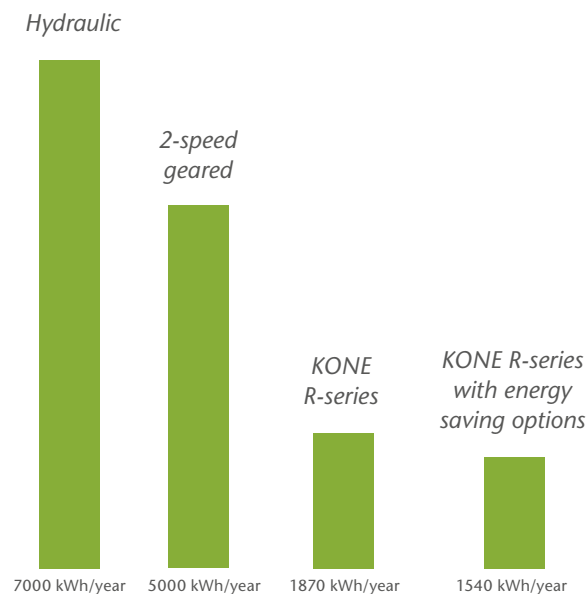
**KONE EcoDisc® now regenerates electricity**

The KONE EcoDisc®, equipped with a highly-efficient vector-controlled drive and regenerative capability, works as a generator when braking heavy loads or light cars. Instead of turning the braking energy into heat, the electricity is fed back to the network.

**Energy efficient lighting can look good**

LED lights are used in many KONE R-series ceilings. This technology is extremely energy efficient, while offering attractive ceiling alternatives. Also modern fluorescent light alternatives can result in energy savings of more than 50% compared to previous generation fluorescent lights.

**Average Energy Consumption\***



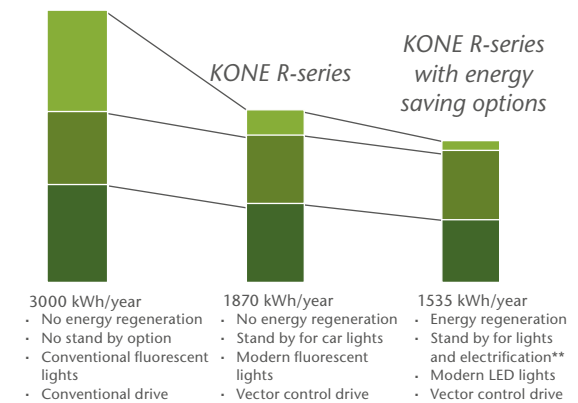
\* The basis for the calculations is: an elevator speed of 1.0 m/s (0.63 for hydraulic), a load of 630 kg (8 persons) and 200,000 starts/year.

**It's not only the motor that consumes electricity**

The energy needed for lighting and hoisting can be reduced by using LED lights and regenerative drive options.

- Car lighting
- Electrification
- Hoisting

*Typical modern MRL elevator*



\*\* Includes light, fan, signalization, drive.

# The most eco-efficient elevator with matching car interior design

In order to take the eco-efficiency of KONE R-series elevators still further, we have collected all of the eco-efficient options in one pack. Together these can squeeze the energy consumption to about 1650 kWh per year in a typical residential application.

A series of car interiors inspired by nature, with cozy and warm looks, soft lighting and earthy natural colors, are designed to complete your selection of the most eco-efficient elevator.

Eco-Efficiency™ features	R3, R5, R7
Modern Fluorescent / LED light	○
Car Lighting Standby OCL A	●
Car Fan Standby OCV A	○
Drive Standby	●
Signalization dimming at standby	●
Corridor Illumination Control CIC	○
Regenerative drive	○
Car light supply from solar cell*	○
KONE Nature Inspired Car Designs	○

\* Solar cell supplied by third party.

● Built-in  
○ Option available



KONE Nature Inspired Design Sunset E021



KONE Nature Inspired Design Sunrise E011

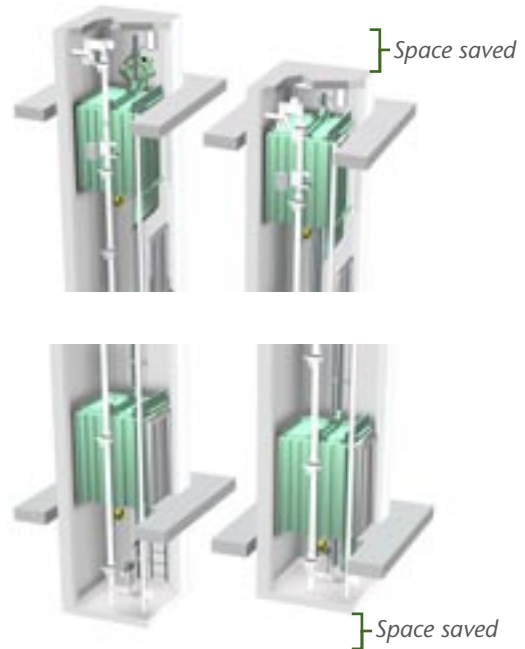


KONE Nature Inspired Design Twilight E031

# When every millimeter counts

## The car is larger and the shaft is shorter

The shaft for the KONE MonoSpace® needs even less space than before. Thanks to a smart redesign of the mechanical components, the pit and headroom spaces are smaller. This allows an easier fit of the shaft in the building and saves construction costs.



Speed = 0.63 m/s	Before	Now
Pit (mm)	1150	1100
Headroom (mm) CH=2100	3500	3380

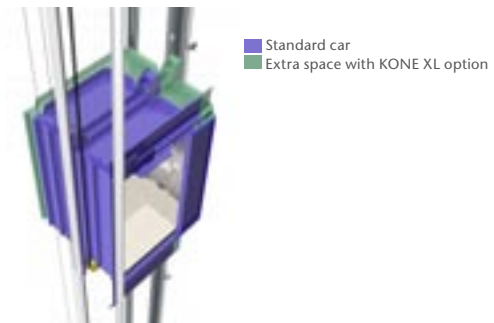
  

Speed = 1.0m/s	Before	Now
Pit (mm)	1150	1100
Headroom (mm) CH=2100	3500	3400

Speed = 1.6m/s	Before	Now
Pit (mm)	1350	1350
Headroom (mm) CH=2100	3750	3670

With innovative design and optimal positioning of the shaft components, the KONE XL Car option enables a larger car to fit in a standard shaft. This highly efficient solution gives more capacity in the same space – or you can get the same capacity in a smaller shaft.



Shaft dimensions WW x WD mm	Car Capacity		Benefit+
	Standard Persons / load kg	KONE XL Car™ Persons / load kg	
1350 x 1500	4 / 320	5 / 400	+ 1 person
1400 x 1400	4 / 320	5 / 400	+ 1 person
1350 x 1600	5 / 400	6 / 480	+ 1 person
1500 x 1500	5 / 400	6 / 480	+ 1 person
1650 x 1600	6 / 450	8 / 630	+ 2 person
1650 x 1700	6 / 480	9 / 800	+ 3 person
1650 x 1650	6 / 480	9 / 800	+ 3 person
1800 x 1700	8 / 630	10 / 800	+ 2 person
2000 x 1700	8 / 630	13 / 1000	+ 5 person
1900 x 1800	10 / 800	12 / 900	+ 2 person
2000 x 1800	10 / 800	13 / 1000	+ 3 person
2000 x 1850	12 / 900	13 / 1000	+ 1 person
2000 x 1910	12 / 900	13 / 1000	+ 1 person

The above dimensions are examples, more different shaft sizes are available. Please ask your local KONE sales representative for details.

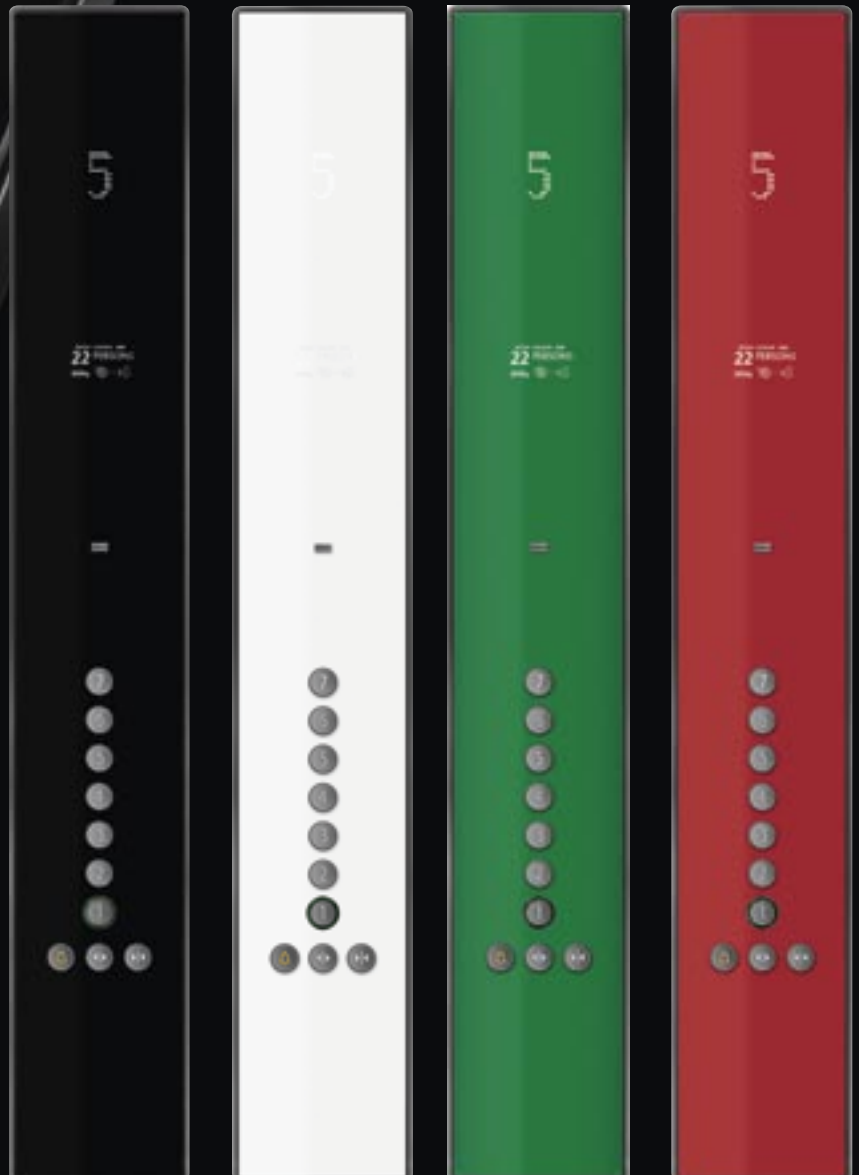
# KONE Design collection – when every detail counts

## **New design for a new user experience**

To provide the best possible solution for any building and budget, the KONE Design Team has developed elevator car interiors that create the best possible user experience. The KONE look and feel is the visible part of the passenger's elevator experience. This covers comfortable lighting solutions, sophisticated details in the Car Operating Panel (COP), a variety of interior materials and colors, accessories in the right places and eco-efficient solutions.

Creating the best overall elevator experience is more than mixing and matching the materials and components. The goal is to create a whole where the parts work together in a harmonious way. The KONE Design collection car interiors, with the most energy-efficient lighting, the most innovative Car Operating Panel and the most inspiring new material combinations, match any type of architecture. We have checked the lighting level, the accessibility codes, the durability and ecological aspects of the materials. The end result is a positive user experience: aesthetically, functionally and emotionally.

The focus is on lighting and the user interface. The new KONE Design collection signalization, with different colors and patterns, allows fine-tuning of the car interiors to any context.



*KONE Design signalization offers a wide selection of colors and patterns to match the color scheme of the building and car interior. The tough polycarbonate/aluminum frame structure is impact resistant and long-lasting.*

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# Fast selection. Unlimited choice.

KONE Design collection car interiors allow quick and convenient selection. When you select one of these expert-designed cars, you can be sure that they meet the highest standards of visual, functional and operational specifications. The collection offers a wide variety of colors, patterns and moods to satisfy any taste and style.

KONE Design collection interiors also meet the European EN81-70 standards relating to disabled access.

## R3



R3 spring 0001

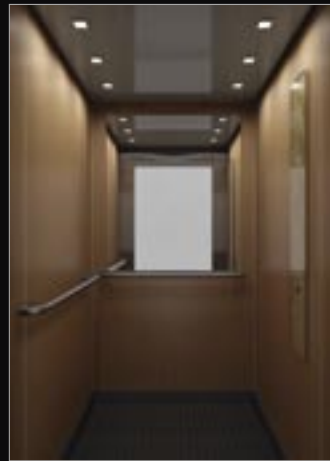
## R5



R5 spring 0051



R5 summer 0061



R5 autumn 0071



R5 winter 0081



R5 spring 0091



R5 summer 0101



R5 autumn 0111



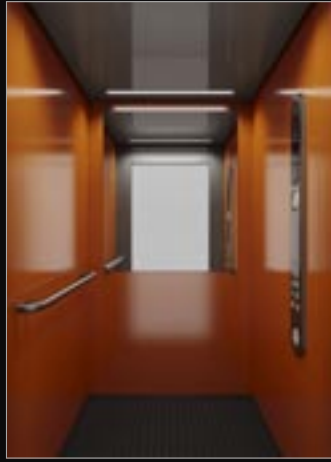
R5 winter 0121



R3 spring 0011



R3 summer 0021



R3 autumn 0031



R3 winter 0041

# R7



R7 spring 0171



R7 summer 0181



R7 autumn 0191



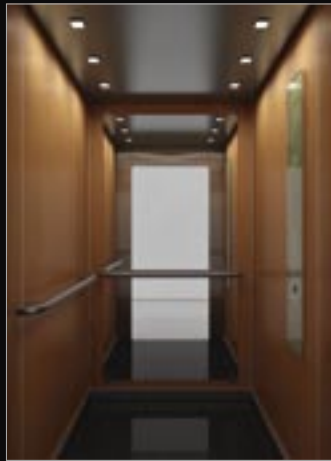
R7 winter 0201



R7 spring 0131



R7 summer 0141



R7 autumn 0151



R7 winter 0161

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# R7

## DESIGNED FOR A LUXURIOUS RIDE

When looks really matter – and when the luxurious ride is as important as custom cars.



### *C7 winter 0161*

**CEILING**  
Type: LF98  
Material: Asturias Satin (F) stainless steel  
Light type: LED (rectangular)

**WALLS**  
1. Asturias Satin (F) stainless steel  
2. Murano Mirror (H) mirror polished stainless steel

**FLOOR**  
Diorite Black (SF2) composite stone

**CAR OPERATING PANEL**  
KSC D20 partial height COP  
Solid color: Sapphire Blue

**HANDRAIL**  
HR53 stainless steel (F)  
rounded ends

**SKIRTING**  
Asturias Satin (F) stainless steel

### *KONE MonoSpace R7*

Speed (m/s):	1.0 and 1.6
Load (kg):	up to 1000
Number of stops:	16
Travel (m):	55
Group size:	4

All KONE Design collectio car interiors comply with EN81-70 standards.  
Through type car (TTC) options are also available.

### Mix & Match

If you can't find exactly what you're looking for from our KONE Design Series interiors, you can replace elements with alternatives from the range. Select ceilings, walls, doors, mirrors, and other accessories. There are thousands of possible combinations.

## Draft



## Draft



### KONE Deluxe custom car interior

White marble on the lobby floor? Now you can match it in the elevators, using local materials. With the Deluxe option, you can choose any materials you like. The only limit is the weight restriction.

## Draft



### KONE Deco™

KONE Deco is a design concept that allows you to change the appearance of the elevator as often as you like. KONE Deco consists of replaceable elements for car interiors, doors, and lobby areas. The design can be based on your own photographs or images from KONE's collection.

# R5

## A RANGE OF SOPHISTICATED DESIGNS

Take it to the next level with attractive visuals for residential applications.



### *KONE MonoSpace R5*

Speed (m/s):	1.0 and 1.6
Load (kg):	450, 480, 630, 800, 1000
Number of stops:	16
Travel (m):	55
Group size:	3



### *R5 autumn 0111*

**CEILING**  
Type: LF97  
Material: Silicon Grey (R2)  
coated metal  
Light type: LED (square)

**WALLS**  
1. Asturias Satin (F) stainless steel  
2. Sedona Sandy (L20) laminate  
3. Partial high glass mirror

**FLOOR**  
Detroit Grey (SF5) rubber

**CAR OPERATING PANEL**  
KSC D20 partial height COP  
Pattern: Raster  
Color: Silver Grey

**HANDRAIL**  
HR41R stainless steel (F)  
rounded ends

**SKIRTING**  
Asturias Satin (F) stainless steel

All KONE Design collection car interiors comply with EN81-70 standards.  
Through type car (TTC) options are also available.

# R3

## COST-EFFECTIVE, ATTRACTIVE DESIGN

Simplicity and functionality for when cost-efficiency is the key.



### *KONE MonoSpace R3*

Speed (m/s):	1.0
Load (kg):	450, 480, 630, 1000
Number of stops:	11
Travel (m):	35
Group size:	2



### *R3 spring 0011*

**CEILING**  
Type: LF94  
Material: Alpina White (R8)  
coated metal  
Light type: T5 flurescent tubes

**WALLS**  
1. Astoria Almond (R10)  
coated metal  
2. Partial height glass mirror

**FLOOR**  
Dayton Grey (RC9) rubber

**CAR OPERATING PANEL**  
KSC 420 partial height  
Faceplate material:  
Asturias Satin (F) stainless steel

**HANDRAIL**  
HR53 stainless steel (F)  
rounded ends

All KONE Design collection car interiors comply with EN81-70 standards.  
Through type car (TTC) options are also available.

# KONE R-series options

To speed up your selection process, we have grouped the most popular options that enhance *eco-efficiency*, *accessibility* and *security*. The eco-efficiency package is described in more detail on page 10.



## Accessibility features

These features ensure that the elevator meets the requirements of EN81-70, accessibility to lifts for person including persons with disability. The curtain of light door safety device immediately stops and re-opens closing elevator doors. Additionally the integrated building door and elevator access system (KONE IDE300™) can enhance the accessibility and convenience for all elevator users.



## Security features

These features increase the security of the elevator passengers and occupants of the building. This includes locking of car calls and landing calls functionality, preventing unauthorized use and access to locked floors.



# KONE R-series options and features

System features	R3	R5	R7
KONE IDE300 Building door and elevator access integration		○	○
KONE Remote Monitoring with GSM connection	○	○	○
EN81-71 Vandal resistant lifts, category 1		○	○
EN81-72 Fire fighters lifts		○	○
EN81-73 Behaviour of lifts in the event of fire	○	○	○
Automatic evacuation to nearest landing (EBD A)	○	○	○

Car interior design	R3	R5	R7
KONE Design Collection (number of available car interiors)	4	8	8
Mix & Match car interior materials (inc. local flooring)		○	○
KONE Nature Inspired Design		○	○
Glass doors		○	○
KONE Deco			○

Eco-efficiency features	R3	R5	R7
Regenerative drive	○*)	○*)	○*)
Fluorescent/LED lighting	●	●	●
Car light standby (OCL A)	●	●	●
Ventilation standby (OCV A)	○	○	○
Signalization dimming	●	●	●
Drive standby	●	●	●
Corridor illuminating control (CIC)	○	○	○
Car light supply from solar cell	○	○	○

Accessibility features	R3	R5	R7
EN81-70 Accessibility to lifts for persons including persons with disability	○	○	○
Car interior design according to EN81-70	●	●	●
Curtain of light (COL)	○	●	●
Lift announcer (ACU)	○	○	○
Door open with extended door time (DOE B)	○	○	○
Horizontal COP for disabled use	○	○	○

Security features	R3	R5	R7
Locking of car calls (LOC)			○
Compulsory stopping at main floor (CSM)			○
Priority call in car (PRC)			○

● Built-in

○ Option available

\*) Please consult your KONE sales professional for proper specifications



# Fast in – fast out, safely and hassle free

## **Out of your sight and out of your way**

The absence of a machine-room not only saves construction costs. It also improves the installation speed and efficiency, keeping us out of your sight and critical path during construction. Improving the installation process has been an integral part of the development of the KONE MonoSpace®.

## **No need for crantage or scaffolding**

Installation efficiency is ensured by a unique scaffold-free installation system that offers an unrivalled degree of time-saving, safety and flexibility and avoids crantage. It also minimizes disruption to other trades, as most of the work is done inside the well.

## **Dedicated tools and instruments**

State-of-the-art tools are used for measurement and adjustments to assure not only smooth and efficient installation, but also for a smooth and quiet ride.

## **Efficient project management**

A KONE Project Supervisor will handle the co-ordination of the entire installation process from beginning to end, ensuring completion on time and within budget.

## **Interruption-free installation**

To assure smooth and interruption-free operation for both parties, KONE has established the Site Absolutes. This mutual agreement and check list of site readiness ensures an interruption-free installation process.

## **Scaffold-free**

- Minimal interface with other trades
- Lift well lighting and pit socket included
- No increased loads at the top of the well for lift equipment compared to conventional lifts
- Reduced power supply requirements







KONE provides innovative and eco-efficient solutions for elevators, escalators and automatic building doors. 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 MaxiSpace™, and KONE InnoTrack™. You can experience these innovations in architectural landmarks such as the Trump Tower in Chicago, the 30 St Mary Axe building in London, the Schiphol Airport in Amsterdam and the Beijing National Grand Theatre in China.

KONE employs over 32,500 dedicated experts to serve you in over 50 countries.

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