



# SYNERGY 100

Pure and efficient. The ideal elevator for functional residential buildings



# PURE AND EFFICIENT FOR RESIDENTIAL BUILDINGS



synergy 100 is the ideal solution if you are looking for a durable, energy-efficient and compact elevator for a new residential building with low traffic flows and basic needs.

synergy 100 proves that sleek design and a comfortable ride can be affordable. This compact elevator features durable materials that increase efficiency and working life. synergy 100 offers optimised shaft dimensions with the option of reduced pit and overhead spaces. All these attributes make synergy 100 perfect for residential buildings with low traffic flows.

Choose synergy 100 and trust in TK Elevators's expertise. Our excellent service ensures maximum availability and adds value to residential projects by ensuring optimum functionality for longer, resulting in increased user satisfaction.

## OVERVIEW SYNERGY 100

<b>Elevator type</b>	Machine room-less, optional machine room
<b>Load</b>	450 / 630 / 1,000 kg
<b>Speed</b>	1.0 m/s
<b>Travel height</b>	Up to 45 m
<b>Number of stops</b>	Up to 12 stops
<b>Cabin</b>	6 predesigned cabins
<b>Door types</b>	Side-opening or central opening with 2 panels
<b>Door opening width</b>	800 mm or 900 mm
<b>Door height</b>	2,000 mm or 2,100 mm



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# Our product portfolio



## synergy 100

Pure and efficient. The ideal lift for functional residential buildings. Timeless design, quality components and outstanding price-performance ratio.



## synergy 200

Flexible and versatile. Our elevator with the broadest application possibilities, ranging from residential to commercial buildings with up to 20 stops.



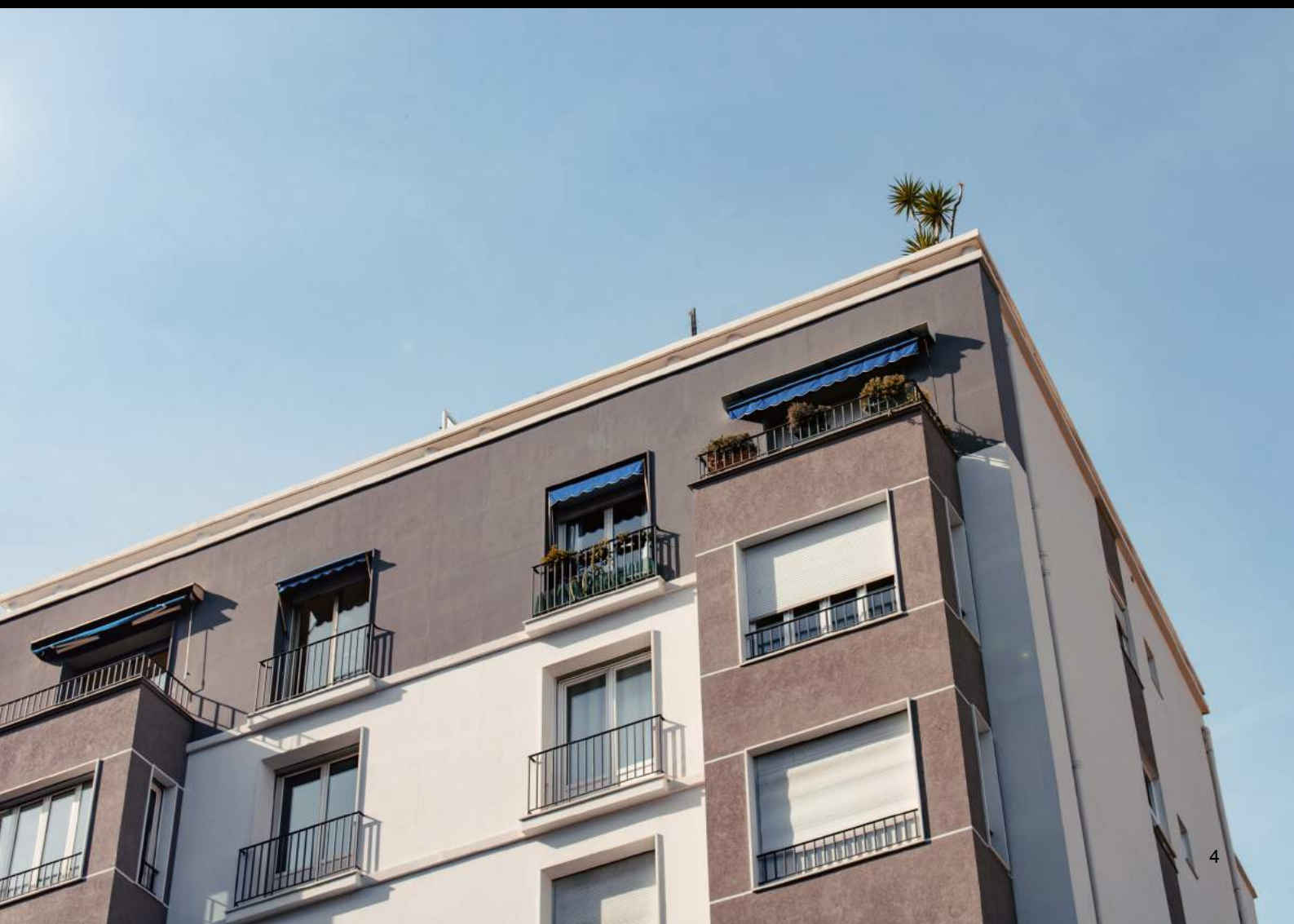
## evolution 200

The high-performance elevator of choice for mid-rise commercial buildings that require up to 100 m travel height and maximum reliability.



## evolution 300

Powerful and customisable. Ideal for mid- to high-traffic commercial buildings with heavy-duty performance and custom-fit design requirements.



# The easy solution that meets all your mobility needs



## Best-in-class shaft efficiency

Whether you choose standard dimensions for overhead and pit or a version with reduced dimensions – synergy 100 is best-in-class.



## Low energy consumption

synergy 100 offers several standard features that keep energy costs in the green range, such as LED lighting, automatic stand-by operation and its efficient, gearless machine. synergy achieved an A class for energy-efficiency rating.



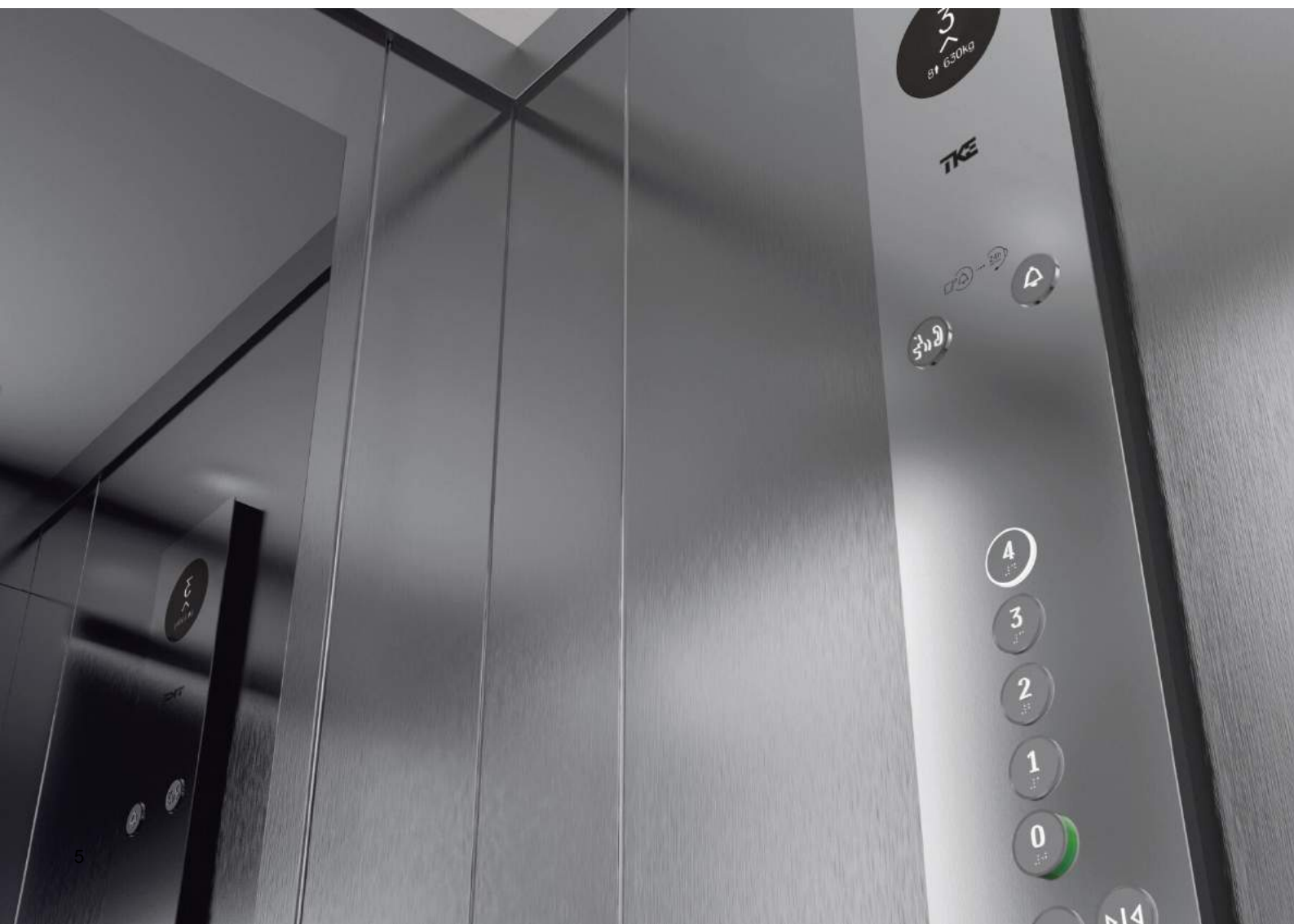
## Good investment

Excellent cost-performance ratio throughout the product life cycle. Durable materials and proven components for longevity, supported by our skilled installation and outstanding service to ensure a longer working life.



## Our long history of engineering experience

Our experience guarantees reliability, and enhanced safety, thanks to strict internal safety standards.



# One elevator. Many benefits.



1. Reduced overhead dimensions
2. Efficient gearless machine for low energy consumption
3. Reliable doors with safe operation
4. Intelligent, low-energy controller
5. Fast and safe scaffoldless installation process
6. Functional cabin design with durable skinplate finishes or timeless stainless steel walls
7. Reduced pit dimensions

# Performance

Delivering cost-effective performance that perfectly matches the needs of residential buildings.



## A proven solution

More than 90,000 units of the synergy family have already been delivered worldwide.



## With proven components

synergy 100 is manufactured using proven components that guarantee reliable performance.



## Gearless machine

High performance and quality ensure smooth operation and a long and reliable working life.



## Made in Europe

At our elevator manufacturing centers in Germany and Spain.





# Safety & regulations

Ensuring safety for all users at all times.





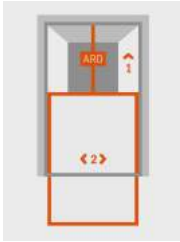
## Elevators are the safest means of transport

All safety elements are manufactured to meet all relevant industry standards and regulations, including our company's own strict internal Safety, Health and Environment standards, as well as meeting ISO 9001 and 14001.



## Stay connected 24/7

Whenever you need it, the communication system is there for you, keeping you connected with our 24hr call center.



## Emergency evacuation

In the event of a power failure, every synergy 100 can perform a required rescue operation on its own. The Automatic Rescue Device (ARD) will safely take you (load dependent) to the next floor [1] and open the doors to allow passengers to exit the elevator cabin [2].



## Highest standards

We design and test to the highest standards and manufacture our own safety components. Our service concept is built on the basis of ensuring maximum passenger comfort, convenience and safety at all times while protecting the long-term value of your investment.





# Comfort

More than a pleasant ride.



**Silent and low-vibration**  
synergy 100 is best-in-class within its segment. The controller avoids unnecessary trips and reduces waiting times.



**Accessibility**  
Cabin and door dimensions, the safety mirror, the handrails design, luminance contrast in fixtures, adjustable sound level, as well as voice announcements meet the accessibility requirements of the new EN 81-70 European standard.



**Landing accuracy**  
Landing accuracy of +/- 3 mm ensures safe and comfortable access for passengers.



**Easy-to-use push-buttons**  
With Braille lettering and green frame for the main floor button (COP).









# Energy efficiency

Sustainability is part of our corporate strategy. It involves the holistic improvement of our products and processes to help you reduce the environmental footprint of your buildings and qualify for LEED<sup>®</sup> and BREEAM<sup>®</sup> certification by incorporating green features in our elevators. The low energy consumption reduces the CO<sub>2</sub> footprint of the elevator during operation and consequently its share of the overall energy consumption of a building. This has also been proven by synergy's life cycle assessment.

**Learn more about TK Elevator's  
ESG efforts**



[www.tkelevator.com/global-en/sustainability](http://www.tkelevator.com/global-en/sustainability)



## Low energy consumption

thanks to the highly efficient gearless machine with no contaminant lubricants.



## Energy-saving

Standby mode (standard): cabin lighting comes with automatic switch-off. Sleep mode (optional): The electronic components are turned off when the elevator is in sleep mode and are instantly activated when the elevator is called.



## 100% LED

LED lighting is standard for all lighting devices in shaft, cabin (ceilings, push- buttons, etc.) and landings. LED lighting can last 10 times longer and is up to 80 % more energy efficient than halogen lighting.



## Class A rating

Measurements taken on a standard synergy configuration with sleep mode achieve the highest energyefficiency rating Class A according to ISO 25745-2, based on a 630 kg elevator at 1 m/s with 12 m travel height and usage category 1.







# Environmental Product Declaration

synergy 100 has a certified Environmental Product Declaration giving information about the environmental performance and contents, which has been controlled and verified according to the requirements of the International EPD<sup>®</sup> System. Registration number: S-P-01639. More information is available at [environdec.com](http://environdec.com)

**synergy 100 Environmental  
Product Declaration**



[www.environdec.com/library/epd1639](http://www.environdec.com/library/epd1639)



# CABIN DESIGN

Sophisticated functionality. The C design line for synergy 100 combines timeless, clean cabin designs with attractive and durable materials. Neutral colours, as well as long-lasting stainless steel finishes are the ideal choice for functional buildings.

**Compose your favourite C design  
line cabin**



[c-design-synergy.tkelevator.com](https://c-design-synergy.tkelevator.com)

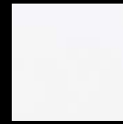


## Predesigned cabins

Choose between full stainless steel [ST] or a coated steel skinplate [SK] in the stylish unicoloured predesigned cabins.



### Skinplate



C20-SK01



C21-SK04



C22-SK04

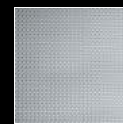


C23-SK07

### Stainless steel



C30-ST01



C32-ST02

**Cabin C30** Walls: ST01 Stainless steel / COP: Moon, stainless steel / Ceiling: LED plate / Floor: Vinyl, Concrete Dark Grey

## Ceilings

The white painted ceiling enhances the reflection of light from the slim LED panel light to provide comfortable, uniform lighting. Two vandal-resistant ceilings are available.



LED Plate (standard)



Steel Grille, vandal resistant



Steel Lightbox, vandal resistant

## Handrails

The standard handrail is a robust oval tube in chromeplated aluminum with curved ending. Optional: round satin stainless steel handrail with curved ending.



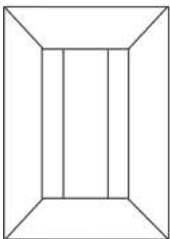
Chrome-plated aluminum



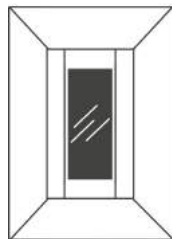
Stainless steel satin silver handrail

## Mirrors

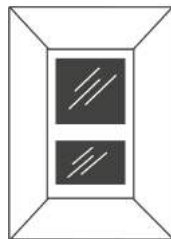
A mirror in 4 mm tempered safety glass is included on the rear wall, or on the side wall for elevators with a double entrance. Mirrors make the cabin feel more spacious and create appealing ceiling light reflections.



Without mirror



Partial width / partial height



Double entrance side wall

## Floors

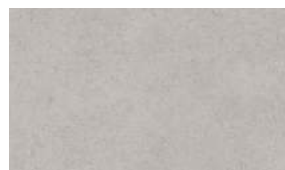
Hardwearing, easy-to-clean vinyl in a choice of three colours. You also have the possibility to supply your own flooring (recess  $\leq 25$  mm).



Nature black



Concrete dark grey



Concrete light grey



own flooring (recess  $\leq 25$  mm)







# Series 50 operating panels and indicators

## Cabin Operating Panels (COP)

With its minimalist design, the Moon operating panel perfectly combines functionality and quality. It is available in stainless steel (standard) or white tempered glass with a 3.5" display. The vandal-resistant option features the VB push-button series. Optionally, a second vertical or horizontal COP can be installed.



Moon / stainless steel, 210×1000×30 mm



Moon / safety glass, 210×1000×30 mm



Steel Moon / vandal-resistant, 210×1000×30 mm



XL horizontal / stainless steel, 350×164×92 mm

## Second vertical or horizontal COP



XL horizontal + Moon COP



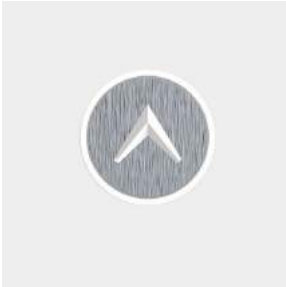
Second Moon COP side-opening door L2



Second Steel Moon COP central-opening door C2

**Push-buttons**

Standard DB button series with stainless steel faceplate and Braille lettering, main floor green frame and round white confirmation lighting. Optionally, VB and XL push-buttons are available for vandal-resistant and horizontal COP accordingly. All series conform with the new EN 81-70 regulation.



DB02 push-button, stainless steel silver



VB02 push-button, stainless steel black



XL push-button, coated steel, matt white



### Landing Operating Panels (LOP)

Contemporary styling for landing signalling in white safety glass or stainless steel. With optional TFT 3.5" display and/or extra keyswitch.



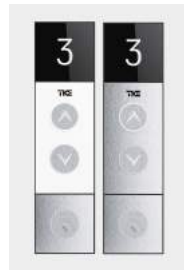
LOP 51 / 91x171x25 mm



LOP 52 / 91x261x25 mm



LOP 53 / 91x261x25 mm



LOP 50 / 91x350x25 mm



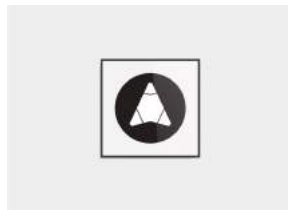
Vandal resistant LOP 51/52

### Landing Indicator Panels

Achieve a modern and neutral look with a black glass face plate. Or select the most functional option with the arrow integrated in the cabin portal.



LIP 50 / 261x91x21 mm



LDIP 50-51 / 91x101x21 mm



LIDC 31 (40x120x2 mm)



# Series 30 operating panels and indicators

## Cabin Operating Panels (COP)

The Light Moon operating panel perfectly combines functionality and quality. Optionally, a second vertical or horizontal COP can be installed.



Light Moon / stainless steel,  
189×950×31 mm



XL horizontal / stainless steel,  
350×164×92 mm

## Landing Operating Panels (LOP)

Thanks to their slim design, series 30 fixtures are particularly suitable for narrow landing door jambs.



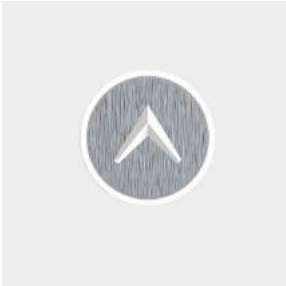
LOP 31 with buttons / 67×160×21  
mm



LOP 31 with keyswitch /  
67×160×21 mm

**Push-buttons**

Standard DB button series with stainless steel faceplate and round white confirmation lighting. XL push-buttons are available for XL horizontal COP accordingly.



DB02 push-button, stainless steel silver



XL push-button, coated steel, matt white

**Landing Indicator Panels**



LID 31 / 65x160x21 mm



LIDC 31 (40x120x2 mm)



# Selected features and options

- Standard
- Option

## COMFORT

### Accessibility

Door open/close and alarm push-button	●
Big push-buttons with Braille lettering (COP)	●
Round green frame in main floor push-button	●
Adjustable sound level (35-65 dBA)	●
Luminance contrast in fixtures	●
Induction loop for hearing-impaired passengers	○
XL horizontal COP with XL push-buttons	○

### Access Control

Cancellation calls by double click in COP	○
Key and Eurokey switch in COP/LOP for access/functions	○
Encoded car calls (ECC)	○
Preference / Independent service of COP	○
Out of service LOP	○
Prepared for card reader LOP/COP	○

### Others

Car ventilation fan	○
CCTV multimedia travelling cable	○

## PERFORMANCE

Parking level in main landing floor	○
Building management system (BMS)	○
Extended Building Management System (BMS)	○

### Layout

Reduced overhead	○
Reduced and extra-reduced pit	○
Machine room	○

## ENERGY EFFICIENCY

Energy-saving cabin LED lighting	●
Energy-saving shaft LED lighting	●
Cabin lighting stand-by	●
Sleep mode	○

## SAFETY & REGULATIONS

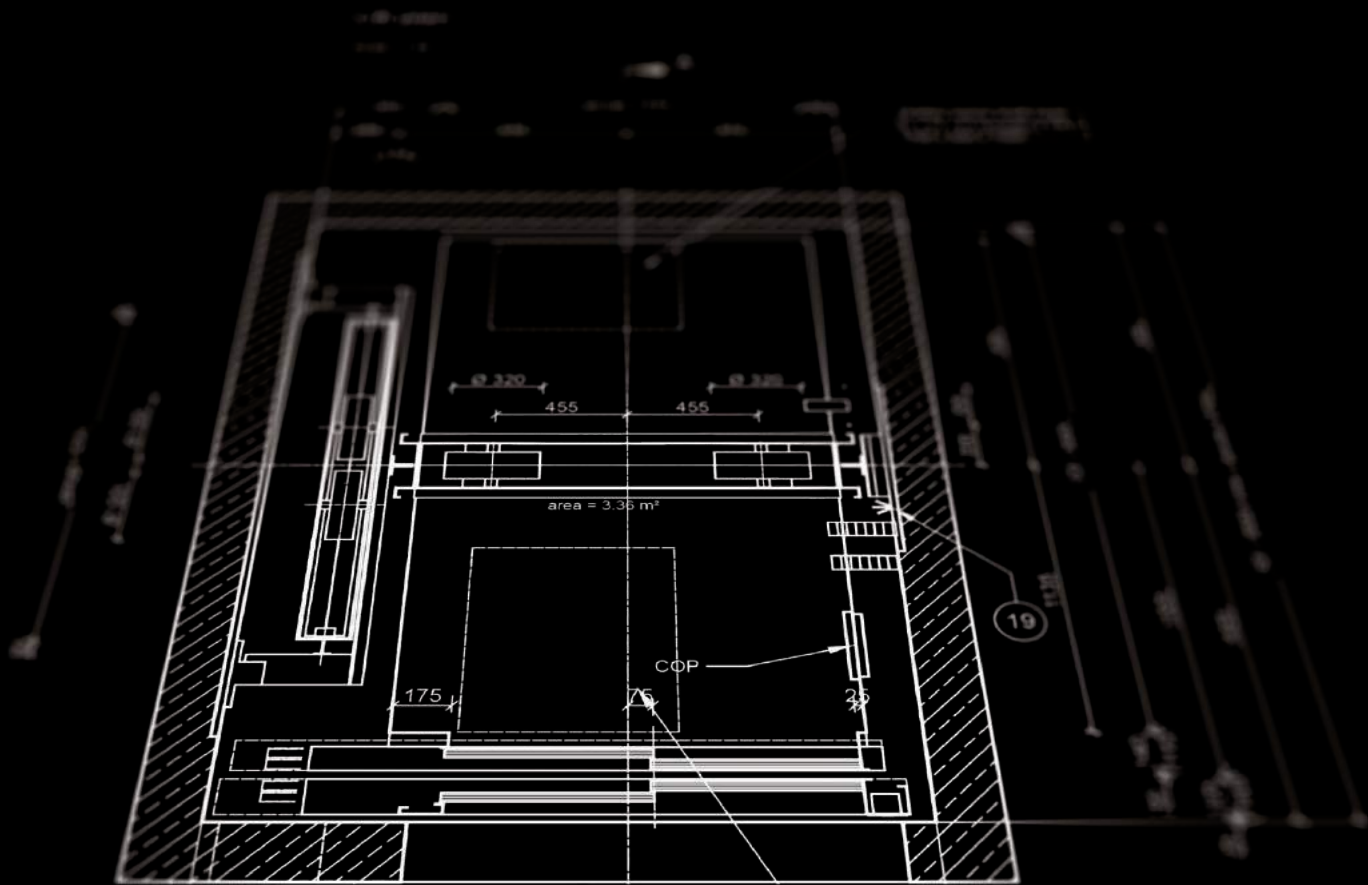
Light curtain protection	●
Emergency lighting in cabin 3 h	●
Automatic evacuation to next landing	○
Automatic evacuation to any landing	○
Two-/three-way intercom	○
Safety gear on counterweight	○
Water pit sensor	○
Halogen-free shaft wiring (except for the motor and travelling cable)	●
Doors fire rating E-120	●
Doors fire rating EI-60	○
EN 81-20/50, Lifts construction and comp. testing	●
EN 81-28, Emergency call system	●
EN 81-70, Accessibility to lifts	○
EN 81-71, Vandal-resistant, partially Category 1	○
EN 81-73, Fire evacuation	○
EN 81-77, Seismic, Category 0	●
EN 81-77, Seismic, Category 1, 2, 3	○

## DESIGN

Predesigned cabins	●
Vandal-resistant false ceiling	○
Preparation for own custom flooring ≤ 25 mm	○
Stainless steel COP/LOP	●
Glass faceplate COP/LOP	○
Vandal-resistant COP / LOP	○
Double vertical / horizontal COP	○
Vandal-resistant push-buttons	○
TFT 3.5" display in COP, functions/direction	●
TFT 3.5" display in LOP, functions/direction	○
LIDC Landing arrow indicator in car portal	○
Series 50 LOP, LIP and LDIP surface-mounted on door frame or wall	○
Series 30 slim LOP and LID, surface-mounted on door frame or wall	○
Selectable controller cabinet position	○
Landing doors prime coated in RAL 7032	●
Landing doors in ferritic stainless steel (AISI 441)	○
Landing doors in stainless steel linen	○
Cabin doors in ferritic stainless steel (AISI 441)	●
Cabin doors in stainless steel linen	○

To discover all options available for synergy 200, please contact your local TK Elevator sales representative.  
The details quoted in this sheet can only be viewed as binding when confirmed expressly in writing.

# PLANNING



## synergy online in-planner tool

Make the most of your building space and find the optimal dimensions for your new synergy 100 cabin – or the best-fitting cabin for your planned shaft dimensions





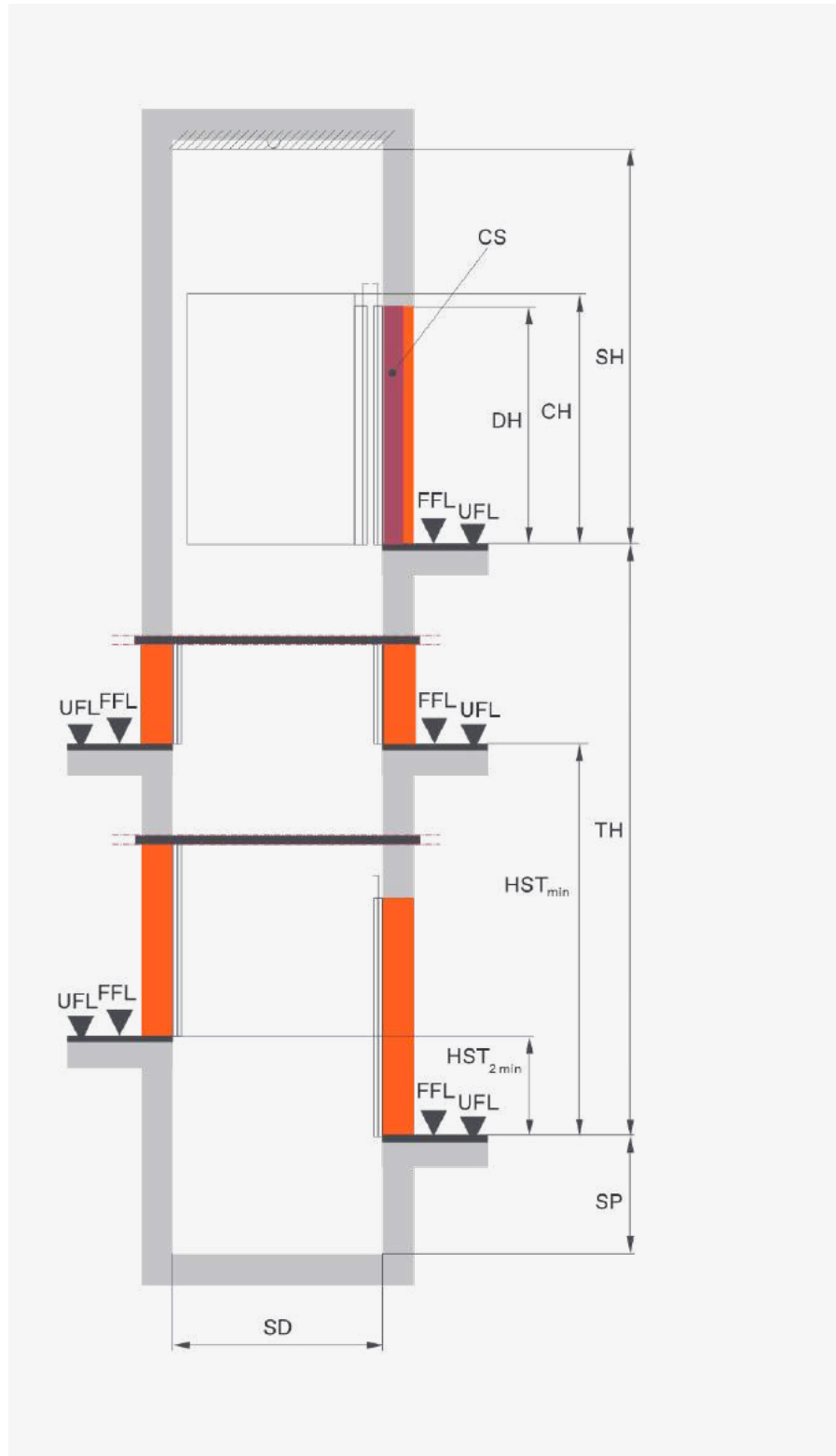
# Shaft layout

## Values

<b>SD</b>	see dimension page
<b>SH</b>	standard = 3400 mm / reduced from CH + 490 mm
<b>SP</b>	standard from 1000 mm / reduced = 425 / 550 mm
<b>TH</b>	max. 45 m (30 m with reduced pit and/or overhead) / min. 2900 mm
<b>HST</b>	min. DH + 450 - 510 mm (consult conditions)
<b>HST<sub>2</sub></b>	min. 250 mm
<b>CH</b>	2070 / 2200 mm
<b>DH</b>	2000 / 2100 mm

## Key

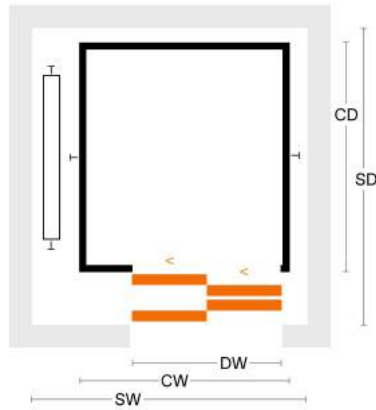
<b>SD</b>	shaft depth
<b>SH</b>	shaft head
<b>SP</b>	shaft pit
<b>TH</b>	travel height
<b>HST</b>	min. height between floors
<b>CH</b>	cabin height
<b>DH</b>	door height
<b>CS</b>	controller system
<b>FFL</b>	finished floor level
<b>UFL</b>	unfinished floor level



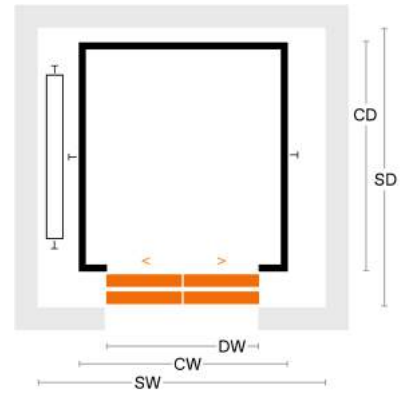
# Door options

## Key

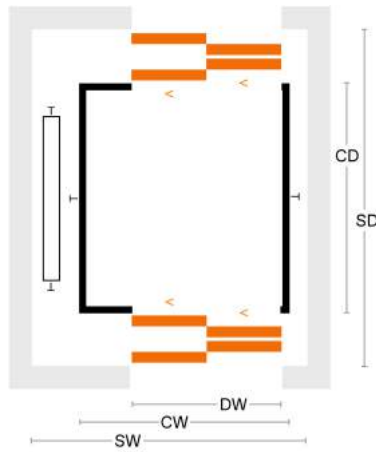
<b>L2</b>	2-panel side-opening door
<b>C2</b>	2-panel central-opening door
<b>S</b>	single entrance
<b>D</b>	double entrance
<b>SW</b>	shaft width
<b>DW</b>	door width
<b>CW</b>	cabin width
<b>CD</b>	cabin depth
<b>SD</b>	shaft depth



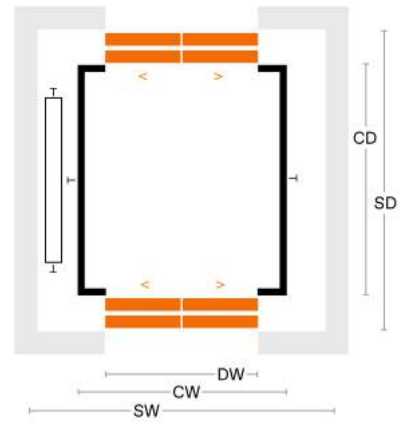
**L2 - S**



**C2 - S**



**L2 - D**



**C2 - D**

# Dimensions

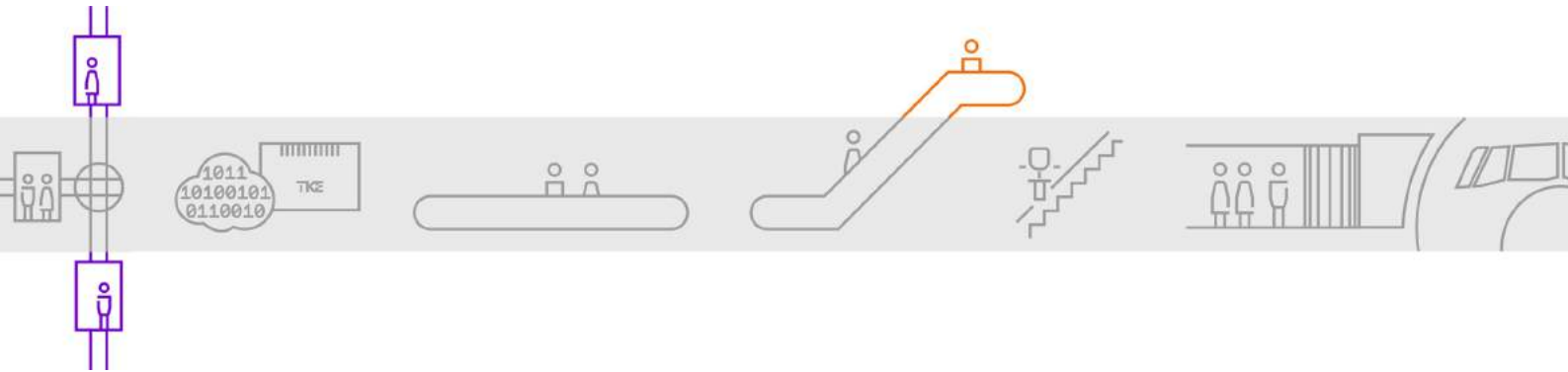
SYSTEM				CABIN		DOOR				SHAFT							
Rated load	Number of passengers	Speed	Travel height max.	Car width x car depth	Car height	Type of entrance	Door type	Door width	Door height	Shaft width	Shaft width full front	Shaft depth door in recess	Shaft depth full front	Shaft depth door partially in shaft	Shaft depth door in shaft	Shaft pit	Shaft head
kg		m/s	mm	mm	mm			mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
<b>450</b>	<b>6</b>	<b>1.0</b>	<b>45</b>	<b>1000 x 1250</b>	<b>2200</b>	<b>S/D</b>	<b>L2/C2</b>	<b>800-900</b>	<b>2000-2100</b>								
450	6	1.0	45	1000 x 1250	2200	S	L2	800	2000	1495	1505	1540	1540	1610	1665	1000	3400
450	6	1.0	45	1000 x 1250	2200	S	L2	900	2000	1595	1600	1540	1540	1610	1665	1000	3400
450	6	1.0	45	1000 x 1250	2200	D	L2	800	2000	1495	1505	1680	1680	1830	1930	1000	3400
450	6	1.0	45	1000 x 1250	2200	D	L2	900	2000	1595	1600	1680	1680	1830	1930	1000	3400
450	6	1.0	45	1000 x 1250	2200	S	C2	800	2000	1780	-	1505	-	1545	1595	1000	3400
450	6	1.0	45	1000 x 1250	2200	D	C2	800	2000	1780	-	1610	-	1700	1790	1000	3400
<b>450</b>	<b>6</b>	<b>1.0</b>	<b>45</b>	<b>1000 x 1300</b>	<b>2200</b>	<b>S/D</b>	<b>L2/C2</b>	<b>800-900</b>	<b>2000-2100</b>								
450	6	1.0	45	1000 x 1300	2200	S	L2	800	2000	1495	1505	1590	1590	1660	1715	1000	3400
450	6	1.0	45	1000 x 1300	2200	S	L2	900	2000	1595	1600	1590	1590	1660	1715	1000	3400
450	6	1.0	45	1000 x 1300	2200	D	L2	800	2000	1495	1505	1730	1730	1880	1980	1000	3400
450	6	1.0	45	1000 x 1300	2200	D	L2	900	2000	1595	1600	1730	1730	1880	1980	1000	3400
450	6	1.0	45	1000 x 1300	2200	S	C2	800	2000	1780	-	1555	-	1595	1645	1000	3400
450	6	1.0	45	1000 x 1300	2200	D	C2	800	2000	1780	-	1660	-	1750	1840	1000	3400
<b>630</b>	<b>8</b>	<b>1.0</b>	<b>45</b>	<b>1100 x 1400</b>	<b>2200</b>	<b>S/D</b>	<b>L2/C2</b>	<b>800-900</b>	<b>2000-2100</b>								
630	8	1.0	45	1100 x 1400	2200	S	L2	800	2000	1595	-	1690	-	1760	1815	1000	3400
630	8	1.0	45	1100 x 1400	2200	S	L2	900	2000	1595	1605	1690	1690	1760	1815	1000	3400
630	8	1.0	45	1100 x 1400	2200	D	L2	800	2000	1595	-	1830	-	1980	2080	1000	3400
630	8	1.0	45	1100 x 1400	2200	D	L2	900	2000	1595	1605	1830	1830	1980	2080	1000	3400
630	8	1.0	45	1100 x 1400	2200	S	C2	800	2000	1795	-	1655	-	1695	1745	1000	3400
630	8	1.0	45	1100 x 1400	2200	S	C2	900	2000	1980	-	1655	-	1695	1745	1000	3400
630	8	1.0	45	1100 x 1400	2200	D	C2	800	2000	1795	-	1760	-	1850	1940	1000	3400
630	8	1.0	45	1100 x 1400	2200	D	C2	900	2000	1980	-	1760	-	1850	1940	1000	3400
<b>1000</b>	<b>13</b>	<b>1.0</b>	<b>45</b>	<b>1100 x 2100</b>	<b>2200</b>	<b>S/D</b>	<b>L2/C2</b>	<b>800-900</b>	<b>2000-2100</b>								
1000	13	1.0	45	1100 x 2100	2200	S	L2	900	2000	1600	1610	2390	2390	2460	2515	1000	3400
1000	13	1.0	45	1100 x 2100	2200	D	L2	900	2000	1600	1610	2530	2530	2680	2780	1000	3400
1000	13	1.0	45	1100 x 2100	2200	S	C2	900	2000	1980	-	2355	-	2395	2445	1000	3400
1000	13	1.0	45	1100 x 2100	2200	D	C2	900	2000	1980	-	2460	-	2550	2640	1000	3400

**Please note:** The values shown correspond to a generic installation. Please contact your TK Elevator sales representative for guaranteed shaft dimensions for specific projects, especially for reduced shaft head and/or pit. During the planning phase, all applicable regulations stipulated by relevant notified bodies and all applicable national regulations should also be considered.

**Key:** S: Single entrance, D: Double entrance, L2: Side-opening door with 2 panels, C2: Central-opening door with 2 panels

**Reduced SP or SH:** Optional reduced SP = 425/550 mm and reduced SH = CH+490 mm, for CH=2070 mm and self supporting cabin at 1 m/s.

# ABOUT TK ELEVATOR



**We are elevator people. Striving to move the world. Known for a passion for technology with service at the heart at our business.**

Over the past decades, TK Elevator has established itself as one of the world's leading elevator companies and became independent after its sale by thyssenkrupp AG in August 2020. To our customers in over 100 countries we provide an extensive service network that guarantees close proximity, with more than 1,000 locations and over 50,000 employees.

TK Elevator's most important business line is our manufacturer-independent service for mobility solutions represented by over 24,000 service technicians.

Our new installation product portfolio ranges from commodity elevators for residential and commercial buildings to cutting-edge, highly customised solutions for state-of-the-art skyscrapers. What's more, it also consists of escalators and moving walks, passenger boarding bridges, stair and platform lifts. Integrated cloud-based service solutions, such as the MAX platform, are gaining in importance. These digital offerings mean there are no longer any limits to urban mobility.

## TK Elevator – move beyond

**50,000+**  

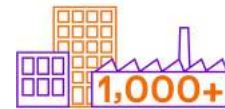

We are a team of over 50,000 colleagues

 **24,000+**

With more than 24,000 best-trained technicians

 **100+**

We serve customers in over 100 countries

 **1,000+**

From more than 1,000 locations worldwide







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