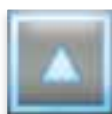


synergy

Factsheet NC 91 A 00



The compact solution for moderate travel heights and speeds.
450 kg – 1000 kg with 1 m/s.



**NEXT LEVEL
NEW INSTALLATION**

ThyssenKrupp Aufzugswerke
ThyssenKrupp Elevator Manufacturing France



Product Benefits

synergy NC 91 A 00

Next Level Safety

- CE type certificated product
- Risk analysis validated with APAVE notified body

Next Level Efficiency

- New generation motor with high efficiency
- Integrated VVVF controller
- Energy saving
- LED Lighting

Next Level Design/ Ergonomics

- Design for buildings of the future
- Three design lines (colour, wood, stainless)

Next Level Innovation

- Absence of a machine room
- Reduced shaft head / shaft pit
- Adapted for existing building

Next Level Comfort

- More floor space
- Low-noise
- Low-vibration design
- Smooth and precise stops

Next Level Scope of Delivery

- Short delivery time
- Large number of options

Next Level Reliability

- Robust
- High-quality material
- Efficient maintenance

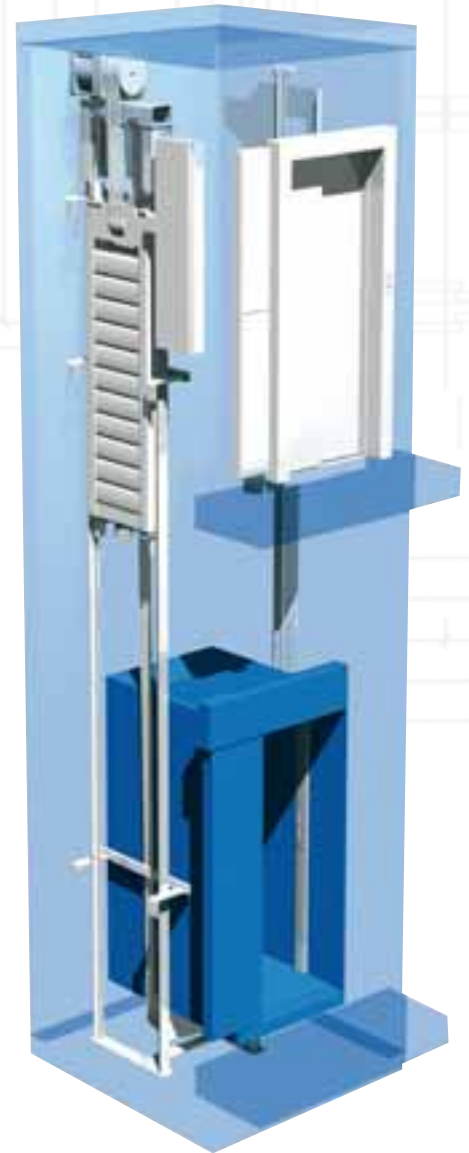
The synergy elevator system

A system solution based on requirements of the future. Hence the name synergy.

The synergy passenger elevator is an impressive revolutionary solution for new installations and modernizations that reflects the know-how of the company on an international level. A corporation-wide development strategy has produced a range of elevators that combine maximum quality, compactness and technology with an attractive design.

OUR VISION FOR THE FUTURE:

- Compact elevator system without machine room, also available without shaft head and/or without shaft pit on request.
- Suitable for residential and commercial buildings with a maximum of 12 floors.
- Modular construction enables short delivery times and a wide range of individual requirements.



NEXT LEVEL
NEW INSTALLATION

Technical Overview

synergy NC 91 A 00

Two-panel telescopic sliding doors (M2T - NC 91 A 00 / 10 / 30 / 40)

Rated load	450 kg	630 kg		1000 kg (deep)	
Speed (m/s)	1,0	1,0		1,0	
Travel height max. (m)	33	33		33	
Number of passengers	6	8		13	
Front and rear entrance	no	no	yes	no	yes
Number of landings max.	12	12		12	
Car width CW	1000	1100		1100	
Car depth CD	1250	1400		2100	
Car height CH	2100 / 2200 / 2300 / 2500	2100 / 2200 / 2300 / 2500		2100 / 2200 / 2300 / 2500	
Door width DW	800	800 / 900		800 / 900	
Door height DH	2000 / 2100 / 2300	2000 / 2100 / 2300		2000 / 2100 / 2300	
Shaft width SW (with DW 800)	1500	1600		1600	
Shaft width SW (with DW 900)	-	1600		1600	
Shaft depth S11/D11 door in shaft	1650	1785	2010	2485	2710
Shaft depth S11/D11 door in recess	1580	1715	1870	2415	2570
Shaft depth S11/D11 door in landing	1550	1685	1810	2385	2510
Shaft depth S8A/D11 door in shaft	1655	1790	2020	2490	2720
Shaft depth S8A/D11 door in recess	1600	1735	1910	2435	2610
Shaft head height without shaft head [DH + 500] with S11	2600 / 2700 / 2800 / 3000	2600 / 2700 / 2800 / 3000		2600 / 2700 / 2800 / 3000	
Shaft head height without shaft head [DH + 800] with S8A or glass door	2900 / 3000 / 3100 / 3300	2900 / 3000 / 3100 / 3300		2900 / 3000 / 3100 / 3300	
Shaft head height conventional [CH + 1300]	3400 / 3500 / 3600 / 3800	3400 / 3500 / 3600 / 3800		3400 / 3500 / 3600 / 3800	
Shaft pit depth without shaft pit	400	400		400	
Shaft pit depth conventional	1100 - 1850	1100 - 1850		1100 - 1850	
Floor-to-floor-distance min. [DH+550]	2550	2550		2550	

Two-panel central opening doors (M2Z - only with NC 91 A 00)

Rated load	450 kg	630 kg		1000 kg (deep)	
Speed (m/s)	1,0	1,0		1,0	
Travel height max. (m)	33	33		33	
Number of passengers	6	8		13	
Front and rear entrance	no	no	yes	no	yes
Number of landings max.	12	12		12	
Car width CW	1000	1100		1100	
Car depth CD	1250	1400		2100	
Car height CH	2100 / 2200 / 2300 / 2500	2100 / 2200 / 2300 / 2500		2100 / 2200 / 2300 / 2500	
Door width DW	800	800 / 900		800 / 900	
Door height DH	2000 / 2100 / 2300	2000 / 2100 / 2300		2000 / 2100 / 2300	
Shaft width SW (with DW 800)	1800	1800		1800	
Shaft width SW (with DW 900)	-	2000		2000	
Shaft depth SD S11/D11 door in shaft	1610	1745	1930	2445	2630
Shaft depth SD S11/D11 door in recess	1540	1675	1790	2375	2490
Shaft depth SD S11/D11 door in landing	1510	1645	1730	2345	2430
Shaft depth SD S8A/D11 door in shaft	1575	1710	1860	2410	2560
Shaft depth SD S8A/D11 door in recess	1560	1695	1830	2395	2530
Shaft head height conventional [CH + 1300]	3400 / 3500 / 3600 / 3800	3400 / 3500 / 3600 / 3800		3400 / 3500 / 3600 / 3800	
Shaft pit depth conventional	1100 - 1850	1100 - 1850		1100 - 1850	
Floor-to-floor-distance min. [DH+550]	2550	2550		2550	

Technical Specification I

synergy NC 91 A 00

Rated load	450 kg	630 kg	1000 kg (deep)
Drive	Synchronous gearless drive, frequency controlled (VVVF)	Synchronous gearless drive, frequency controlled (VVVF)	Synchronous gearless drive, frequency controlled (VVVF)
Start per hour max.	180 s/h	180 s/h	180 s/h
Operating input power (kVA) ^{1,2}	3,6	4,7	7,2
Operating current (A) ^{1,3}	5,1	6,7	10,4
Starting current (A) ^{1,3}	7,8	10,0	15,1
Landing accuracy	+ / - 5mm	+ / - 5mm	+ / - 5mm

During the planning phase, please consider all applicable regulations stipulated by the relevant notified body and all applicable national regulations.

Our sales advisors would be glad to provide information or explanations on these issues.

With elevator car flooring material thickness of up to 3.5 mm; shaft pit depth of 425 mm with flooring material thickness of up to 25 mm.

¹⁾ With 400 Volt / 50 Hz. ²⁾ For the control unit 2.1 kVA have to be added. ³⁾ For the control unit 3 A have to be added

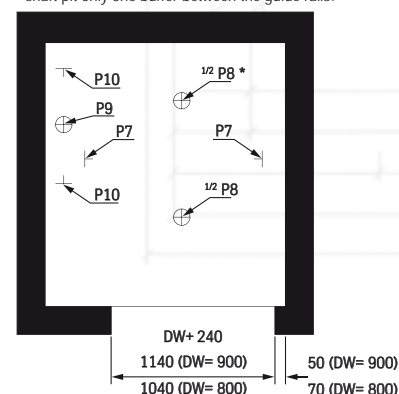
Occuring forces in the shaft pit

Rated load	450 kg	630 kg	1000 kg
Load points P 7 (guide rails)	16	20	29
Load points P 8 (car buffer)	48	59	86
Load point P 9 (counterweight buffer)	37	44	62
Loadpoints P 10 (guide rails)	16	19	27
Extraordinary Forces:			
Load points P 11 (machine frame)	4 x 3.5	4 x 4.5	4 x 6
Load points P 12 (rope and bracket)	4 x 2.5-4 x 6.5	4 x 3.5-4 x 9.0	4 x 6.0-4 x 13.5

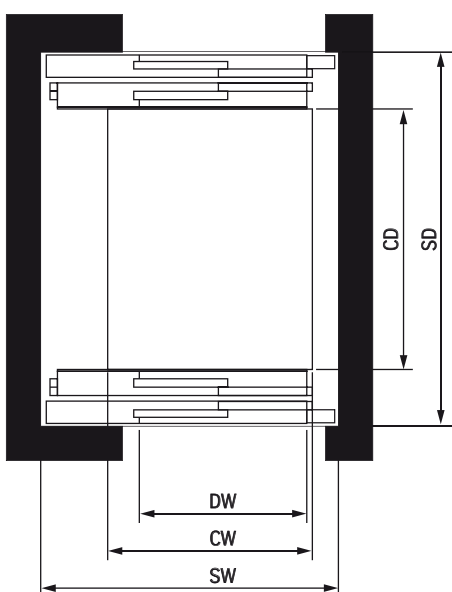
Load specifications are guide values in kN.

The forces P7-P10 never occur simultaneously.

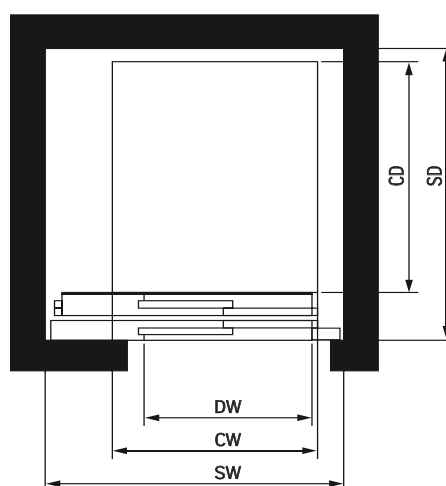
* two buffers with reduced shaft pit. With normal shaft pit only one buffer between the guide rails.



Car entrance with telescopic door (front and rear entrance)



Car entrance with telescopic door



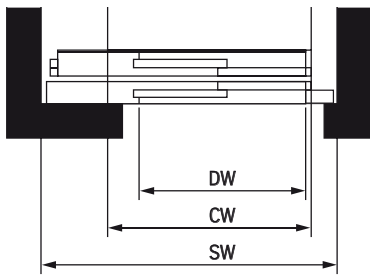
NEXT LEVEL
NEW INSTALLATION

Technical Specifications II

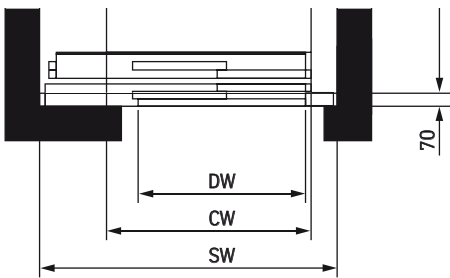
synergy NC 91 A 00

Landing door installations

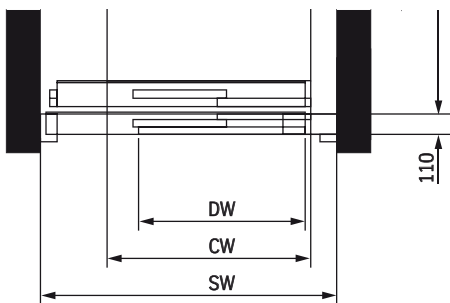
Landing door installed directly in the shaft using dowels, otherwise no special structural requirements.



Landing door installed in recess in the shaft; the shaft depth can be optimized as a result.

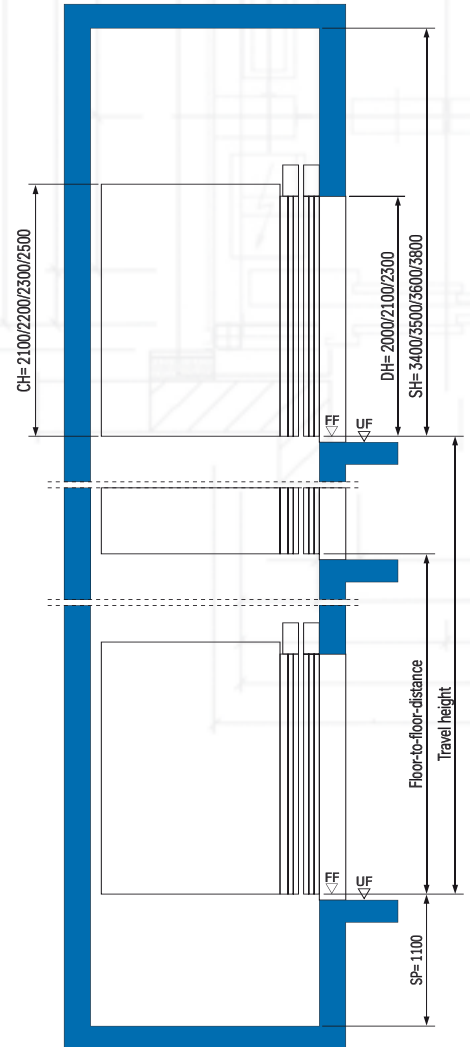
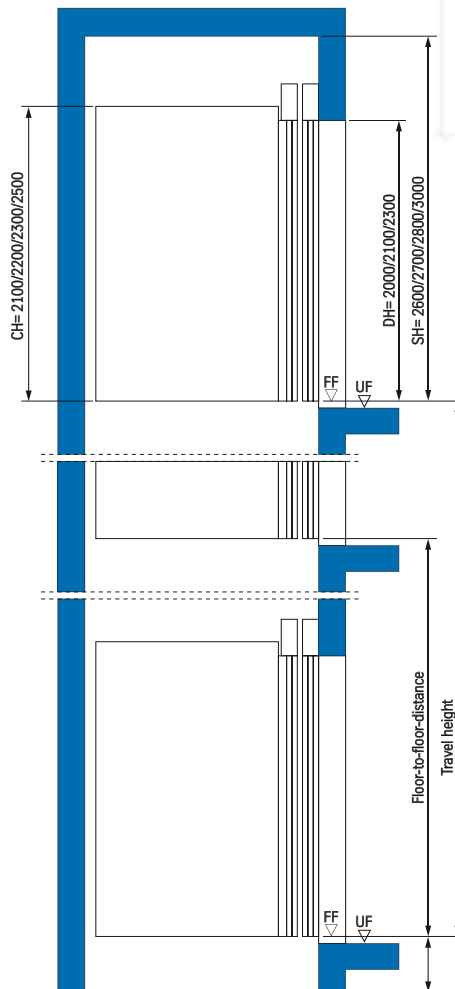


Landing door installed on the landing in the entire shaft front wall; no special shaft door opening required in the building.



Used

- | | |
|------------------|------------------|
| CH = Car height | SW = Shaft width |
| CW = Car width | SH = Shaft head |
| DH = Door height | SP = Shaft pit |
| DW = Door width | |



synergy - with conventional shaft headroom and with conventional shaft pit.

Select this version if there is enough room from a structural viewpoint.

synergy - without shaft head and without shaft pit for maximum utilization of space.

synergy is also available with conventional shaft pit on request. Please consider all applicable regulations stipulated by the relevant notified body and all applicable national regulations. Our sales advisors would be glad to provide information or explanations on these issues.

Design Options

synergy NC 91 A 00

Car lightings



1. Honeycomb



2. Spot*



3. Constellation*



4. Domino*



5. Imola (Ø=320 mm)**



6. Polymero (Ø=310 mm)**

Walls

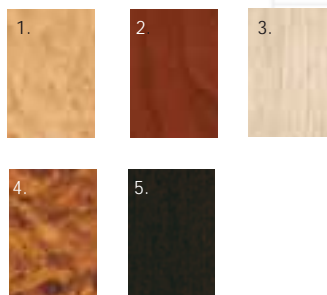
colour-line



1. Electrolytically zinc-plated
2. Traffic white (RAL 9016)
3. White aluminium (RAL 9006)
4. Sand yellow
5. Ocean blue

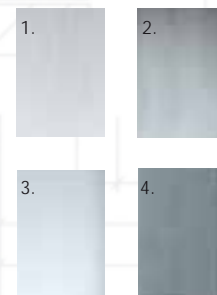
6. Pastell green
7. Pastell grey

wood-line



1. Kiruna Bird
2. Rich Cherry
3. Natural Oak
4. Amber Burl
5. Erable Chocolat

stainless-line



1. Stainless Steel grain 220, polished
2. Stainless Steel "linen"
3. Electrolytically zinc-plated
4. Elephant Stainless Steel

Floorings

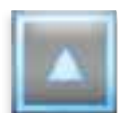


1. Light gray 1578
2. Dark gray 1582
3. Black blue 2668
4. Traffic wood 3391*
5. Traffic Attila 2691*
*vinyl

Car accessories



1. Stainless Steel skirting
2. Aluminium skirting
3. Stainless Steel hand-rail, grain 220, Ø =40 mm
4. Stainless Steel hand-rail, grain 220, Ø =40 mm with bend ends
5. Focus hand-rail (Aluminium in RAL 9006) (4+5 acc. to EN 81-70)
6. Back wall mirror
7. Bumper rails
 - a. Stainless Steel
 - b. PVC (white/ red/ blue)
 - c. Wood (exotic red/ oak)



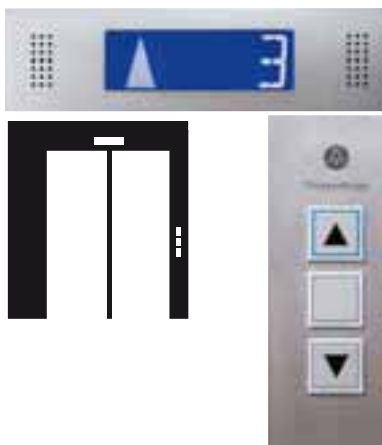
NEXT LEVEL
NEW INSTALLATION

Operating panel & Display synergy NC 91 A 00

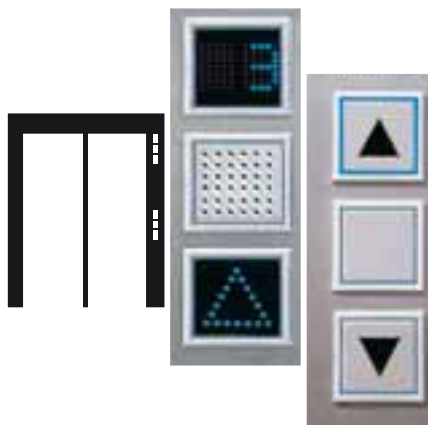
The modern operating and indicating elements inside and outside the car characterized by an attractive, functional design and hard-wearing quality are user-friendly in every respect.



Wall installation in wall mounted: synergy is available with "blue-line" indicator and call landing stations installed on the door.



Door frame installation: synergy is also available with "blue-line" indicator with scrolling arrows and arrival gong located above the door entrance. Indicator and call landing stations are directly applied on the door frame.



Alternatives: synergy is available with different operating and indicating elements. The call buttons are integrated in the shaft door frame. The position indicator, gong and direction indicator are located at the top. Indications are visualized on blue LED dot matrix displays.

Option list

synergy NC 91 A 00

TECHNICAL DATA	COLOUR-LINE	WOOD-LINE	STAINLESS-LINE
Rated load			
450 kg / 630 kg / 1000 kg	● / ● / ●	● / ● / ●	● / ● / ●
630 kg / 1000 kg (open through car)	○ / ○	○ / ○	○ / ○
Speed 1.0 m/s	●	●	●
Travel height max. 33 m	●	●	●
Number of landings max. 12	●	●	●
Car height CH 2100 mm / 2200 mm / 2300 mm / 2500 mm	○ / ● / ○ / ○	○ / ○ / ● / ○	○ / ○ / ● / ○
Type of door			
2 panel telescopic sliding door	●	●	●
2 panel central opening doors (only with NC 91 A 00)	○	○	○
Door width 800 mm / 900 mm (telescopic)	● / ○	○ / ●	○ / ●
Door height 2000 mm / 2100 mm / 2300 mm	● / ○ / ○	○ / ● / ○	○ / ● / ○
Shaft head			
min. 3400 mm, CH+1300 mm	●	●	●
reduced min. 2900 mm, CH+800 mm (VF400)	○	○	○
reduced min. 2600 mm, CH+500 mm	○	○	○
Shaft pit			
min. 1100 mm	●	●	●
min. 1100 mm - 1850 mm	○	○	○
reduced min. 400 mm + height of floor	○	○	○
reduced 450 mm - 1100 mm	○	○	○
Dowel fixing	○	○	○
Counterweight with safety gear	○	○	○
Roller guide shoes on car and counterweight	○	○	○
Halfen Fixing	○	○	○
Compatible Supports for calcium silicate wall (1000 kg, only normal overhead)	○	○	○
Halogen free cables	○	○	○
LANDING DOOR			
Landing door in shaft / in recess (80 mm)	● / ○	● / ○	● / ○
Landing door on landing floor (110 mm)	○	○	○
Full front shaft door with flexible shaft dimensions (1600-1800 mm)	○	○	○
Fire test report E120 EW60	●	●	●
Fire test report Russia / UK	○ / ○	○ / ○	○ / ○
Gap covering finishing			
Prime painted / Electrolytically zinc-plated	○ / ○	○ / ○	○ / ○
Stainless Steel grain 220 / Linen / Elephant Skin	○ / ○ / ○	○ / ○ / ○	○ / ○ / ○
Finishing			
Prime painted / Electrolytically zinc-plated	● / ●	○ / ○	○ / ○
Stainless Steel grain 220 / Linen / Elephant Skin	○ / ○ / ○	● / ○ / ○	● / ○ / ○
Sill finish material Stainless Steel	○	○	○
Sill finish material aluminium	●	●	●
Profile of aluminium between shaft door frame	○	○	○
Dowel fixing	○	○	○
Floor-to-floor distance min. DH + 360 mm	●	●	●
Glass doors	○	○	○

● Serial Equipment, ○ Option, - Not available.

Regarding availability of options please be in contact to our sales advisors.



NEXT LEVEL
NEW INSTALLATION

Option list

synergy NC 91 A 00

CAR DOOR	COLOUR-LINE	WOOD-LINE	STAINLESS-LINE
Re-opening device			
with one beam photo cell	●	-	-
with light curtain	○	●	●
Door panel finishing			
Electrolytically zinc-plated	●	○	-
Prime painted	○	○	○
Stainless Steel grain 220	○	●	●
Stainless Steel linen	○	○	○
Elephant Skin	○	○	○
Painted RAL Traffic White ¹ , White Aluminium ²	○	○	○
Sill finish material aluminium	●	●	●
Car door locking device mechanical	○	○	○
Glass doors	○	○	○
CAR AESTHETICS			
Car height 2100 mm / 2200 mm / 2300 mm / 2500 mm	○ / ● / ○ / ○	○ / ○ / ● / ○	○ / ○ / ● / ○
Wall finishing			
Electrolytically zinc-plated	●	○	○
Traffic White ¹ / White Aluminium ² / Sand Yellow / Ocean Blue	○ / ○ / ○ / ○	-	-
Rich Cherry / Amber Burl / Natural Oak / Kiruna Bird / Erable Chocolat	-	○ / ○ / ○ / ● / ○	-
Pastell Green / Pastell Grey	○ / ○	- / -	- / -
Stainless Steel grain 220 / Linen	- / -	- / -	● / ○
Elephant Skin	○	○	○
Painted RAL 9006, 9016	○	○	○
Car roof finishing Traffic White¹	●	●	●
Car lighting			
Honeycomb	○	○	●
Spot	○	●	○
Constellation	○	○	○
Domino	○	○	○
Imola	○	○	○
Polymero	●	○	○
LED (Spot / Constellation / Domino)	○	○	○
Car front panel finishing			
Prime painted / Stainless Steel grain 220 / Stainless Steel Linen	○ / ● / ○	○ / ● / ○	○ / ● / ○
Painted Traffic White ¹ , White Aluminium ²	○	○	○
Skirting (aluminium / Stainless Steel grain 220)	○ / ○	● / ○	● / ○
Flooring			
Light grey 1578 / Dark grey 1582 / Black blue 2668 (glued on factory)	○ / ● / ○	● / ○ / ○	● / ○ / ○
Traffic wood 3391 / Traffic Attila 2691 (glued on factory)	○ / ○	○ / ○	○ / ○
Type of flooring 25 mm height (flooring by others)	○	○	○

¹) RAL 9016, ²) RAL 9006

● Serial Equipment, ○ Option, - Not available.

Regarding availability of options please be in contact to our sales advisors.

Option list

synergy NC 91 A 00

	COLOUR-LINE	WOOD-LINE	STAINLESS-LINE
Handrail			
Stainless Steel dia. 40 mm with bend end (EN 81-70)	○	○	○
Stainless Steel dia. 40 mm	○	○	○
Focus (EN 81-70)	○	○	○
Wall mirror (side wall)	○	○	○
Wall mirror (back wall)	○	○	○
Glass rear wall (basic / comfort)	○	○	○
Car tip up seat	○	○	○
Bumper rails	○	○	○
Access solutions			
Preparation for card reader for car call access	○	○	○
Preparation for card reader access control at landing	○	○	○
Car call with digicode control from inside the car	○	○	○
Key switch access control in cabin	○	○	○
Key switch access control at landing	○	○	○
OPERATING AND INDICATING ELEMENTS			
Car Operating Panel (COP) blue-line	●	●	●
Button STEP classic blue / Blue Tactile, Braille	● / ○	● / ○	● / ○
Direction indicator STEP classic at every landing (LED dot matrix blue)	●	●	●
Position indicator STEP classic at every landing (LED dot matrix blue)	○	○	○
LCD indicator position & direction indicator at every landing (LCD blue)	○	○	○
Priority switch	○	○	○
Inscription panel in case of fire in COP	○	○	○
Positioning of landing operating & indicating element			
STEP Modul in door frame	●	●	●
in wall	○	○	○
in shaft door frame front	○	○	○
Arrows in car door frame	○	○	○
CONTROL FUNCTIONS			
Service box finishing hairline			
Stainless Steel grain 220	●	●	●
Service box to built up on wall	●	●	●
Service box in the wall	○	○	○
Service box in the front wall of the shaft	○	○	○
Service box in upper landing	●	●	●
Service box at any landing	○	○	○
Service box shifted (length of electrical line 2.5 / 5.0 / 10 m)	○	○	○
One-button collective control	●	●	●
Two-button collective control	○	○	○
Duplex-Control group of two lifts	○	○	○
Relevelling	○	○	○
Levelling with open doors	○	○	○
Two opposite car entrances on the same level	○	○	○
Fire emergency control			
ONE fire emerg. landing	○	○	○
TWO fire emerg. landing	○	○	○
key switch at 1 landing	○	○	○

● Serial Equipment, ○ Option, - Not available.

Regarding availability of options please be in contact to our sales advisors.



NEXT LEVEL
NEW INSTALLATION

Option list

synergy NC 91 A 00

	COLOUR-LINE	WOOD-LINE	STAINLESS-LINE
Push button box for switching off power of control/light	○	○	○
Collective fault	○	○	○
Evacuation			
automatic release in nearest landing	○	●	●
in any landing	○	○	○
through standby supply provided by others	○	○	○
Parking level	○	○	○
Intercom			
two way intercom / three way intercom	● / ○	● / ○	● / ○
three way intercom to central	○	○	○
Penthouse control	○	○	○
Selective door control	○	○	○
Overload signal	●	●	●
Emergency light in the car			
with emergency button / with STEP element	● / ○	● / ○	● / ○
Teleservice			
Generation 7 / Modem	○ / ○	○ / ○	○ / ○
lift warden	○	○	○
Emergency system			
Easy Alarm / MEMCO	○ / ○	○ / ○	○ / ○
Landing key switch			
locking of level / out of service at level	○ / ○	○ / ○	○ / ○
Non simultaneous starting	○	○	○
Automatic lightning control at landing	○	○	○
Humidity sensor in the pit	○	○	○
Phase comparator	●	●	●
No service to floors on fire	○	○	○
Automatic car-light switch ON/OFF	○	○	○
Lift in service output (dry contact)	○	○	○
Second COP in cabin	○	○	○
Autodial Teleservice	○	○	○
Car key switch on COP	○	○	○
REGULATION AND OTHERS			
EN 81-70 disabled package	○	○	○

● Serial Equipment, ○ Option, - Not available.

Regarding availability of options please be in contact to our sales advisors.



NEXT LEVEL
NEW INSTALLATION



NEXT LEVEL NEW INSTALLATION



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Stand 06/2010_V1.0/ NC 91 A 00 - V8

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