



Orona

Orona 3G

Technical solutions





Orona 3G

Technical

solutions

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Orona 3G X-10

Competitive solution for residential and low-rise public buildings

Machine-room-less electrical gearless solution (MRLG).

General specifications

Load	320 - 450 - 630 kg / 320 - 450 kg (single-phase)
Capacity	4 - 6 - 8 persons / 4 - 6 persons
Speed	1 m/s / 0.6 m/s (single-phase)
Maximum travel	40 m / 25 m (single-phase)
Maximum floors served	16 floors
Entrances	1 front / 2 open through / 2 front & side
Drive system	Regulated gearless (180 connections / hour)
Controller	ARCA III controller, low energy consumption multiprocessor
Door types	Automatic side-opening / Automatic central-opening
Clear door opening	700 / 800 / 900 mm
Door height	2,000 / 2,100 mm
Car dimensions	Standard car dimensions
Internal car height	2,100 / 2,200 mm
Supply	Three-phase / Single-phase
Aesthetic solutions	Orona 3G Domo Packs / Orona 3G Public Packs / Orona 3G Plus

Standard Optional



1 MRL

Compact machine-room-less solution, with optional reduced headroom version.



2 OPTIMISED PASSENGER UNIT

Saves space, reduces weight, improves safety, and improves the installation process.



3 ACCESSIBLE SPACE BELOW THE PIT

Adapts the lift to suit buildings which have an accessible space below the pit (optional).



4 TRACTION ROPES

Orona small diameter ropes replace traditional steel ropes. As a result of their lighter weight, longer lifespan and greater flexibility, it is possible to use a more compact, efficient and eco-friendly gearless machine.



5 DRIVE

Compact, quiet, gearless, energy efficient, speed regulated (VVVF) permanent magnet electric motor.



6 DOORS

Compact permanent magnet motor for fast, accurate and quiet door operation giving the most advanced performance. Advanced door opening and full height infra red door protection edges. Optional Solid Door for high flow situations.



7 AUTOMATIC RESCUE SYSTEM

With floor level indication to ensure fast, efficient and safe evacuation of passengers in the event of an emergency. As an option, the system can incorporate a fully-automatic rescue device to evacuate passengers in the event of a power failure.



Standard dimensions*

Load / capacity		Car			Lift shaft ⁰							
					Entrances		TT side-opening doors		CC central-opening doors		HF Pit	HUP Headroom
Persons	Q Load	AC Width	FC Depth	PL Clear opening	Accessibility	No. of entrances	AH ¹ Width	FH ² Depth	AH Width	FH ³ Depth		
4	320 kg	825	1,100	700		1	1,325	1,350	1,600	1,300	1,000 (850) ⁴	3,400
						2x180 ⁰		1,500		1,400		
						2x90 ⁰	1,450	1,350				
6	450 kg	1,000	1,250	800		1	1,500	1,500	1,800	1,450		3,400 (3,000) ^{5,7}
						2x180 ⁰		1,650		1,550		
						2x90 ⁰	1,625	1,500				
8	630 kg	1,100	1,400	900		1	1,600	1,650	2,000	1,600		3,400 ⁶ (3,000) ⁵
						2x180 ⁰		1,800		1,700		
						2x90 ⁰	1,725	1,650				
		1,200	1,250	900		1	1,700	1,500	2,000	1,450		3,400 (3,000) ⁵
						2x180 ⁰		1,650		1,550		
						2x90 ⁰	1,825	1,575				

0 Minimum plumb measurements

1 Accessible space below the pit (counterweight with safety gear) add 50 mm to AH

2 R=60 mm, shaft depth with TT 2 panel telescopic door tracks projecting 60 mm on the landing

3 R=40 mm, shaft depth with CC 2 panel central door tracks projecting 40 mm on the landing

4 HF reduced pit optional 850 mm

5 HUP minimum for internal car height (HC) of 2,100 mm
HUP reduced headroom optional only for 6 and 8 persons

6 For cases without safety room EN 81-21, minimum HUP of 2500 mm internal car height (HC) of 2000 mm.

Check minimum height of headroom in case of central opening doors.
Not compatible with accessible space below the pit (counterweight with safety gear)

7 Not available 2x90° with big vision doors

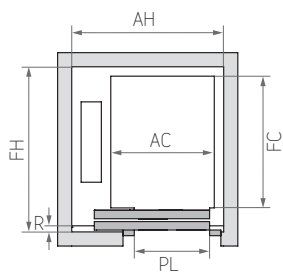
* The information is not contractually binding and is subject to the conditions of the shaft

TT - 2 panel telescopic door

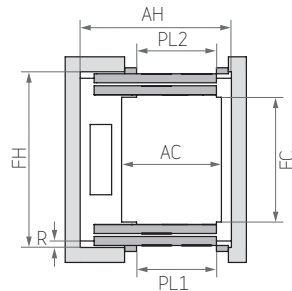
CC - 2 panel central door

Layout*

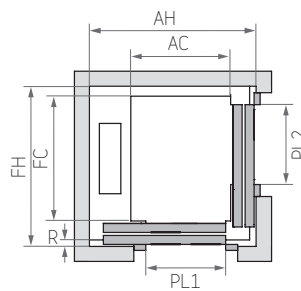
1 ENTRANCE



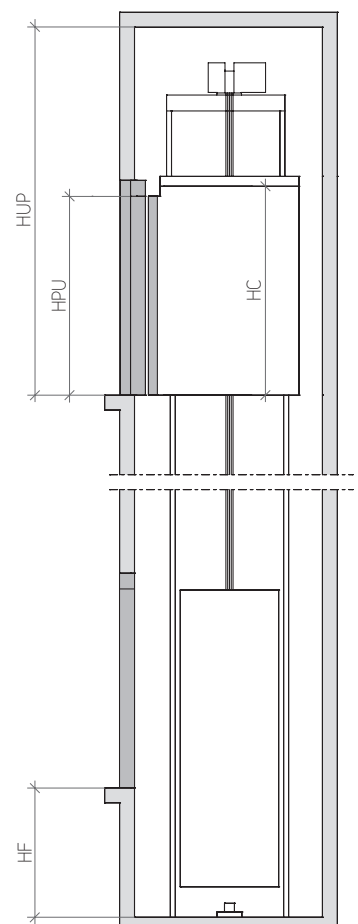
2 ENTRANCES (OPEN THROUGH)



2 ENTRANCES (FRONT & SIDE)



VERTICAL SECTION



* Note: The diagrams are for guidance only.

Orona 3G

X-11

Solution for shafts with reduced pits and headrooms with an enhanced space of the car size for existing buildings

Machine-room-less electrical gearless solution (MRLG).

General specifications

Load	180 to 630 kg / 180 to 450 kg (single-phase)
Capacity	2 to 8 persons / 2 to 6 persons (single-phase)
Speed	1 m/s / 0.6 m/s (single-phase)
Maximum travel	40 m / 25 m (single-phase)
Maximum floors served	16 floors
Entrances	1 front / 2 open through / 2 front and side
Drive system	Regulated gearless (180 connections / hour)
Controller	ARCA III controller, low energy consumption multiprocessor
Door types	Automatic side-opening / Automatic central-opening / Semiautomatic + Articulated (BUS)
Clear door opening	From 500 to 900 mm
Door height	2,000 / 2,100 / 2,200 mm
Car dimensions	Parametric car dimensions
Internal car height	2,000 / 2,100 / 2,200 mm
Supply	Three-phase / Single-phase
Aesthetic solutions	Orona 3G Domo Packs / Orona 3G Public Packs / Orona 3G Plus

Standard Optional



1 MRL

Compact machine-room-less solution, with optional reduced headroom version.



2 OPTIMISED PASSENGER UNIT

Saves space, reduces weight, improves safety, and improves the installation process.



3 ACCESSIBLE SPACE BELOW THE PIT

Adapts the lift to suit buildings which have an accessible space below the pit (optional).



4 TRACTION ROPES

Orona small diameter ropes replace traditional steel ropes. As a result of their lighter weight, longer lifespan and greater flexibility, it is possible to use a more compact, efficient and eco-friendly gearless machine.



5 DRIVE

Compact, quiet, gearless, energy efficient, speed regulated (VVVF) permanent magnet electric motor.



6 DOORS

Compact permanent magnet motor for fast, accurate and quiet door operation giving the most advanced performance. Advanced door opening and full height infra red door protection edges. Optional Solid Door for high flow situations.



7 AUTOMATIC RESCUE SYSTEM

With floor level indication to ensure fast, efficient and safe evacuation of passengers in the event of an emergency. As an option, the system can incorporate a fully-automatic rescue device to evacuate passengers in the event of a power failure.



8 SHAFT USABILITY

Lifts designed to take maximum advantage of the shaft space, especially in existing buildings with very reduced headrooms or pits, obtaining a good available space to number of passenger ratio.



ECO-EFFICIENCY



ADAPTABILITY




DESIGN AND ACCESSIBILITY



CONTROL AND SAFETY

Customised solution, examples of dimensions*

Load / capacity			Lift shaft ⁰																											
			Standard car			Entrances	Doors side counterweight				Doors rear counterweight		HF Pit			HUP ² Headroom														
							Telescopic Doors				Central Doors HH		Std.	Reduced		Std.	Reduced													
		Q	AC	FC	PL	No. of entrances	AH ¹	FH ¹	TT	NN	AH ¹	FH ¹		Std.	With safety space		Without safety space (EN 81-21)	Std.	With safety space	Without safety space (EN 81-21)										
Accessibility	Persons	Load	Width	Depth	Clear opening		Width	Depth			Width	Depth																		
	4	320 kg	825	1,100	700	1	1,200	1,350		X	-	-	1,000	830	310	3,400	3,000	2,600												
						2x180 ⁰	1,200	1,500		X	-	-																		
						2x90 ⁰	1,400	1,350		X	-	-																		
	6	450 kg	1,000	1,250	800	1	1,375	1,500		X	1,350	1,815							1,000	830	310	3,400	3,000	2,600						
						2x180 ⁰	1,375	1,650		X	-	-																		
						2x90 ⁰	1,525	1,500		X	-	-																		
	8	630 kg	1,100	1,400	800	1	1,475	1,650	X		-	-													1,000	830	310	3,400	3,000	2,600
						2x180 ⁰	1,475	1,800	X		-	-																		
						2x90 ⁰	1,625	1,650	X		-	-																		

0 Minimum plumb measurements

1 Automatic doors projecting 60 mm on the landing (TT or HH) or projecting 105 mm on the landing (NN) (always adapted to space 50 mm). Calculation for reduced headroom with safety space. For reduced headroom without safety space add 60 mm to AH

2 HUP minimum for internal car height (HC) of 2100 mm

NOTE: All of the examples are calculated with a 90 mm sill on car doors

* The information is not contractually binding and is subject to the conditions of the shaft

TT - 2 panel telescopic door

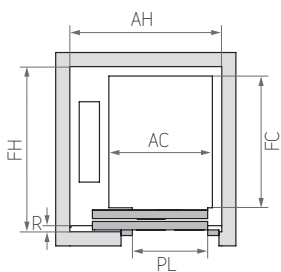
NN - 3 panel telescopic door

CC - 2 panel central door

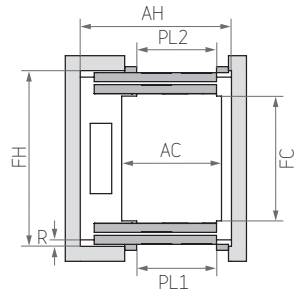
HH - 4 panel central door

Layout*

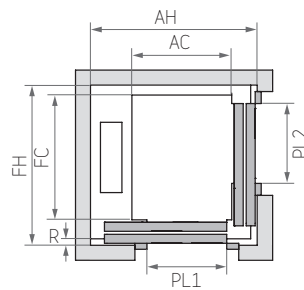
1 ENTRANCE



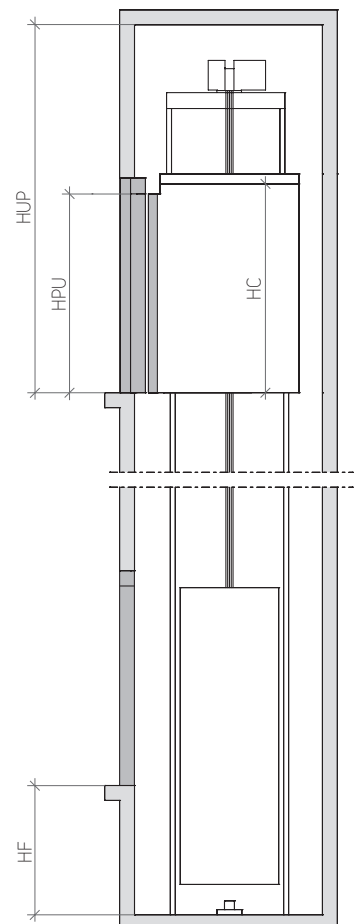
2 ENTRANCES (OPEN THROUGH)



2 ENTRANCES (FRONT & SIDE)



VERTICAL SECTION



* Note: The diagrams are for guidance only.

Customised car dimensions

														Car width					
															1350				
															1300				
															1250				
															1200				
															1150				
															1100				
															1050				
															1000				
															950				
															900				
															850				
															800				
															750				
															700				
1450	1400	1350	1300	1250	1200	1150	1100	1050	1000	950	900	850		500	600	700	800	900	

Car depth*

Clear door opening

Note: Dimensions considering 1 entrance. Car width and depth variable in increments of 5 mm.

For simplification, table samples show increments of 50 mm.

* Car depth only valid in the event of side car frame.

Orona 3G

X-14

Solution that provides up to 50% increase in the car size in existing buildings.

Machine-room-less electrical gearless solution (MRLG).

General specifications

Load	180 to 630 kg / 180 to 450 kg (single-phase)
Capacity	2 to 8 persons / 2 to 6 persons (single-phase)
Speed	1 m/s / 0.6 m/s (single-phase)
Maximum travel	40 m / 25 m (single-phase)
Maximum floors served	16 floors
Entrances	1 front / 2 open through / 2 front & side
Drive system	Regulated gearless (180 connections / hour)
Controller	ARCA III controller, low energy consumption multiprocessor
Door types	Automatic side-opening / Automatic central-opening / Semiautomatic + Articulated (BUS)
Clear door opening	From 500 to 900 mm
Door height	2,000 / 2,100 / 2,200 mm
Car dimensions	Parametric car dimensions
Internal car height	2,100 / 2,200 / 2,300 mm
Supply	Three-phase / Single-phase
Aesthetic solutions	Orona 3G Domo Packs / Orona 3G Public Packs / Orona 3G Plus

Standard Optional



1 MRL

Compact machine-room-less solution.



2 OPTIMISED PASSENGER UNIT

Saves space, reduces weight, improves safety, and improves the installation process.



3 ACCESSIBLE SPACE BELOW THE PIT

Adapts the lift to suit buildings which have an accessible space below the pit (optional).



4 TRACTION ROPES

Orona small diameter ropes replace traditional steel ropes. As a result of their lighter weight, longer lifespan and greater flexibility, it is possible to use a more compact, efficient and eco-friendly gearless machine.



5 DRIVE

Compact, quiet, gearless, energy efficient, speed regulated (VVVF) permanent magnet electric motor.



6 DOORS

Compact permanent magnet motor for fast, accurate and quiet door operation giving the most advanced performance. Advanced door opening and full height infra red door protection edges. Optional Solid Door for high flow situations.



7 AUTOMATIC RESCUE SYSTEM

With floor level indication to ensure fast, efficient and safe evacuation of passengers in the event of an emergency. As an option, the system can incorporate a fully-automatic rescue device to evacuate passengers in the event of a power failure.







8 SHAFT USABILITY

Lifts designed especially to use all the shaft space available especially in existing buildings, obtaining a good relation between the space available and the number of passengers to be transported.



Customised solution, examples of dimensions*

Load / capacity		Car			Lift shaft ⁰									
					Side counterweight		Rear counterweight		HF Pit			HUP Headroom		
									Reduced					
 Persons	Q Load	AC Width	FC Depth	PL ⁵ Clear opening	Entrances		AH ¹ Width	FH ² Depth	AH ³ Width	FH ² Depth	Std.	With safety space	Without safety space ³ (EN 81-21)	Std. ⁴
					Accessibility	No. of entrances								
4	320 kg	825	1,100	700		1	1,150	1,300	1,150	1,525	1,000	890	400	3,400
						2x180 ⁰		1,450						
						2x90 ⁰		1,250		1,300				
6	450 kg	1,000	1,250	800		1	1,325	1,450	1,300	1,675				
						2x180 ⁰		1,600						
						2x90 ⁰		1,425		1,450				
8	630 kg	1,100	1,400	900		1	1,425	1,600	1,450	1,825				
						2x180 ⁰		1,750						
						2x90 ⁰		1,525		1,600				
		1,200	1,250	900		1	1,525	1,450	1,450	1,675				
						2x180 ⁰		1,600						
						2x90 ⁰		1,625		1,450	1,500	1,675		

0 Minimum plumb measurements

1 Accessible space below the pit (counterweight with safety gear) or reduced pit without safety space add 40 mm to AH
AH calculated for NN 3 panel telescopic door

2 Shaft depth with door tracks projecting as a whole on the landing

3 Width calculated for HH 4 panel central door

4 HUP minimum for internal car height (HC) 2,100 mm

5 Door restrictions may exist for pits without safety space EN 81-21

* The information is not contractually binding and is subject to the conditions of the shaft

TT - 2 panel telescopic door

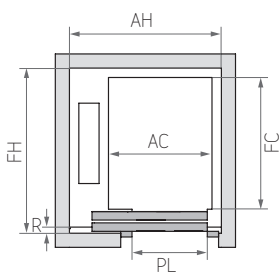
NN - 3 panel telescopic door

CC - 2 panel central door

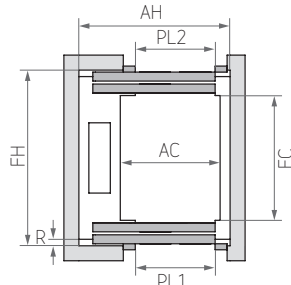
HH - 4 panel central door

Layout*

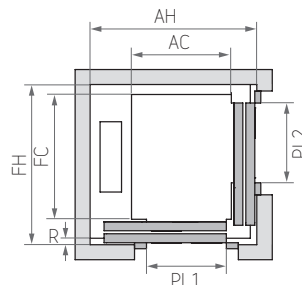
1 ENTRANCE



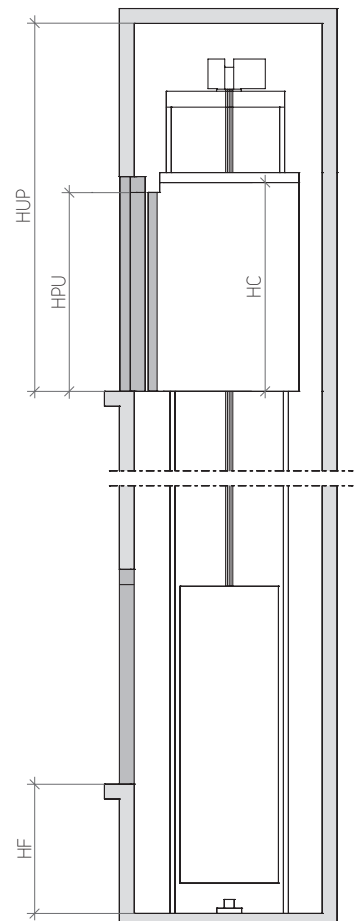
2 ENTRANCES (OPEN THROUGH)



2 ENTRANCES (FRONT & SIDE)



VERTICAL SECTION



* Note: The diagrams are for guidance only.

Customised car dimensions

															Car width					
						8	8	8	7	7	6				1,400					
						8	8	8	7	7	6	5			1,350					
				8	8	8	7	7	7	6	6	5			1,300					
			8	8	8	7	7	7	6	6	5	5			1,250					
		8	8	8	7	7	7	7	6	5	5	5			1,200					
	8	8	8	7	7	7	7	6	6	5	5	5	4		1,150					
8	8	8	7	7	7	6	6	5	5	5	5	4	4		1,100					
8	8	7	7	7	6	6	6	5	5	5	5	4	4	4	1,050					
8	7	7	6	6	6	5	5	5	5	5	4	4	4	4	3	1,000				
7	7	6	6	6	6	5	5	5	5	5	4	4	4	4	3	950				
6	6	6	6	6	5	5	5	5	5	4	4	4	4	3	3	900				
6	6	6	5	5	5	5	5	5	4	4	4	3	3	3	3	850				
5	5	5	5	5	5	5	4	4	4	4	3	3	3	3	3	800				
5	5	5	5	5	4	4	4	4	3	3	3	3	3	3	2	750				
5	5	4	4	4	4	4	4	3	3	3	3	3	2	2	2	700				
4	4	4	4	4	4	3	3	3	3	3	3	2	2	2	2	650				
4	4	4	3	3	3	3	3	3	3	3	2	2	2	2	2	630				
1,450	1,400	1,350	1,300	1,250	1,200	1,150	1,100	1,050	1,000	950	900	850	800	750		500	600	700	800	900
Car depth															Clear door opening					

Note: Dimensions considering 1 entrance. Car width and depth variable in increments of 5 mm.

For simplification, table samples show increments of 50 mm.

Orona 3G X-15

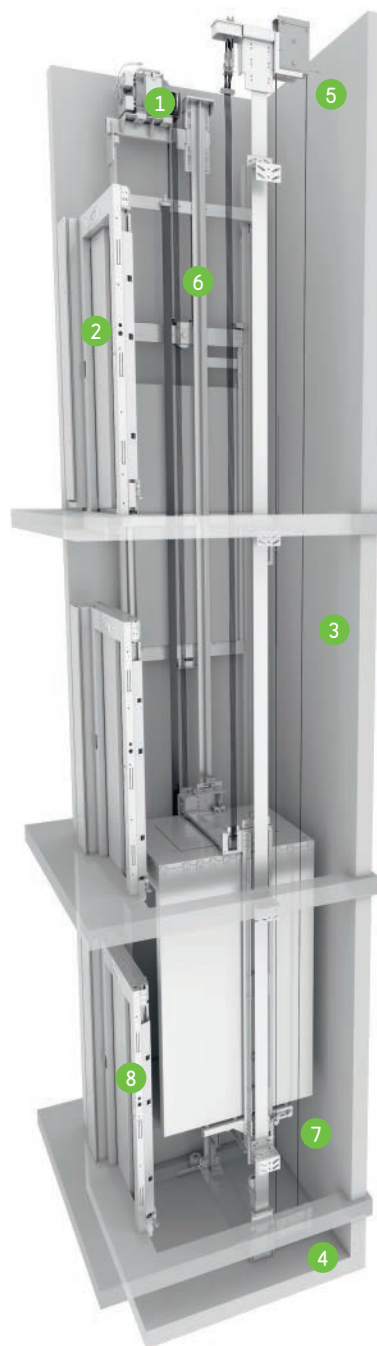
Customised solution for residential and public buildings with high traffic

Machine-room-less electrical gearless solution (MRLG).

General specifications

Load	450 to 1,000 kg
Capacity	6 to 13 persons
Speed	1 - 1.6 m/s
Maximum travel	50 - 60 m
Maximum floors served	16 - 21 floors
Entrances	1 front / 2 open through
Drive system	Regulated gearless (240 connections / hour)
Controller	ARCA III controller, low energy consumption multiprocessor
Door types	Automatic side-opening / Automatic central-opening
Clear door opening	From 600 to 1,500 mm (in 100 mm increments)
Door height	2,000 / 2,100 / 2,200 / 2,300 mm
Car dimensions	Parametric car dimensions
Internal car height	2,100 / 2,200 / 2,300 / 2,400 mm
Aesthetic solutions	Orona 3G Domo Packs / Orona 3G Public Packs / Orona 3G Plus

Standard Optional



1 DRIVE

Compact, quiet, gearless, energy efficient, speed regulated (VVVF) permanent magnet electric motor.



2 DOORS

Compact permanent magnet motor for fast, accurate and quiet door operation giving the most advanced performance. Advanced door opening and full height infra red door protection edges. Optional Solid Door for high flow situations.



3 PARAMETRIC/FLEXIBLE

Flexible car and door configurations ensure available shaft dimensions can be optimised (optional).



4 ACCESSIBLE SPACE BELOW THE PIT

Adapts the lift to suit buildings which have an accessible space below the pit (optional).



5 REDUCED HEADROOM

Optional feature to allow the reduction of the shaft headroom when required, whilst maintaining the enhanced safety and protection for maintenance staff.



6 TRACTION ROPES

Orona small diameter ropes replace traditional steel ropes. As a result of their lighter weight, longer lifespan and greater flexibility, it is possible to use a more compact, efficient and eco-friendly gearless machine.



7 SHAFT USABILITY

Lifts designed especially to use all the shaft space available, obtaining a good relation between the space available and the number of passengers to be transported.










8 AUTOMATIC RESCUE SYSTEM

With floor level indication to ensure fast, efficient and safe evacuation of passengers in the event of an emergency. As an option, the system can incorporate a fully-automatic rescue device to evacuate passengers in the event of a power failure.



Customised solution, examples of dimensions*

Load / capacity			Car			Lift shaft ⁰									
								TT side-opening doors		CC central-opening doors					
Speed		Q Load	AC Width	FC Depth	PL Clear opening	Entrances		AH ¹ Width	FH ² Depth	AH Width	FH ³ Depth	HF Pit	HUP ⁵ Headroom		
						Accessibility	No. of entrances								
1 m/s	4	320 kg	825	1,100	700		1 2x180 ⁰	1,300	1,350 1,500	1,725	1,450 1,550	1,000 (830) ⁴	3,400 (3,050) ⁶		
	6	450 kg	1,000	1,250	800		1 2x180 ⁰	1,450	1,500 1,650						
	8	630 kg	1,100	1,400	900		1 2x180 ⁰	1,600	1,675 1,850	1,925	1,625 1,750				
	10	800 kg	1,350	1,400	900		1 2x180 ⁰	1,825	1,675 1,850				1,925	1,625 1,750	
	13	1,000 kg	1,600	1,400	1,000		1 2x180 ⁰	2,075	1,675 1,850	2,150	1,625 1,750				
			1,100	2,100	1,000		1 2x180 ⁰	1,775	2,375 2,550				2,125	2,300 2,400	
	1.6 m/s	4	320 kg	825	1,100	700		1 2x180 ⁰	1,325	1,350 1,500	1,725		1,450 1,550	1,120	3,550
		6	450 kg	1,000	1,250	800		1 2x180 ⁰	1,475	1,500 1,650					
8		630 kg	1,100	1,400	900		1 2x180 ⁰	1,625	1,675 1,850	1,925	1,625 1,750				
10		800 kg	1,350	1,400	900		1 2x180 ⁰	1,850	1,675 1,850			1,925	1,625 1,750		
13		1,000 kg	1,600	1,400	1,000		1 2x180 ⁰	2,100	1,675 1,850	2,175	1,625 1,750				
			1,100	2,100	1,000		1 2x180 ⁰	1,775	2,375 2,550			2,125,	2,300 2,400		

0 Minimum plumb measurements

1 Accessible space below the pit (counterweight with safety gear)
add 115 mm to AH

2 R=60 mm, shaft depth with TT 2 panel telescopic door tracks projecting 60 mm on the landing

3 R=40 mm, shaft depth with CC 2 panel central door tracks projecting 40 mm on the landing

4 HF reduced pit optional 830 mm

5 HUP minimum for internal car height (HC) 2,100 mm

6 HUP reduced headroom optional (HUP=HC+900). Consult availability of car dimensions

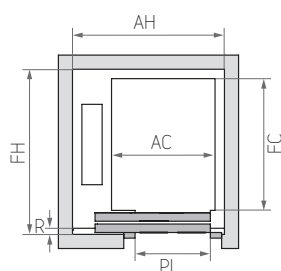
* The information is not contractually binding and is subject to the conditions of the shaft

TT - 2 panel telescopic door

CC - 2 panel central door

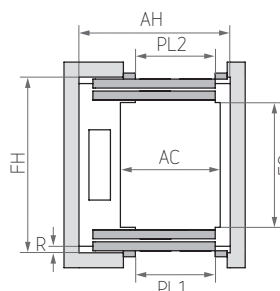
Layout*

1 ENTRANCE

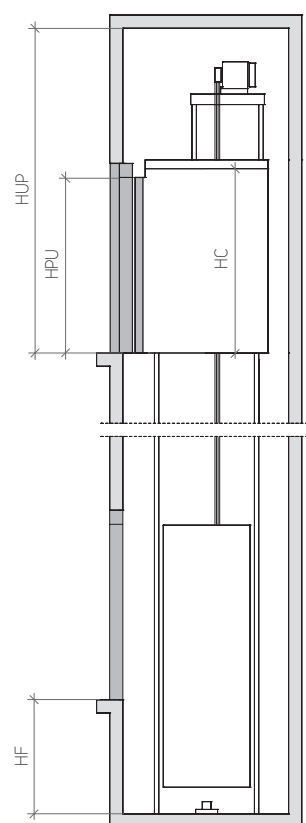


* Note: The diagrams are for guidance only.

2 ENTRANCES (OPEN THROUGH)



VERTICAL SECTION



Customised car dimensions

														Car width											
								13	12					1,600											
								13	13	11				1,500											
							13	13	12	11	10			1,400											
					13	12	11	10	9	8				1,300											
		13	13		12	11	10	9	9	8			6	1,200											
13	13	12	11	11	10	9	8	8	7	6	5			1,100											
12	12	11	10	10	9	8	7	7	6	5	5			1,000											
11	10	10	9	8	8	7	7	6	5	5	4			900											
						6	6	5	5	4	4			800											
2,100	2,000	1,900	1,800	1,700	1,600	1,500	1,400	1,300	1,200	1,100	1,000				600	700	800	900	1,000	1,100	1,200	1,300	1,400	1,500	
Car depth														Clear door opening											

Note: Dimensions considering 1 entrance. Car width and depth variable in increments of 5 mm. For simplification, table samples show increments of 100 mm.

Orona 3G X-16

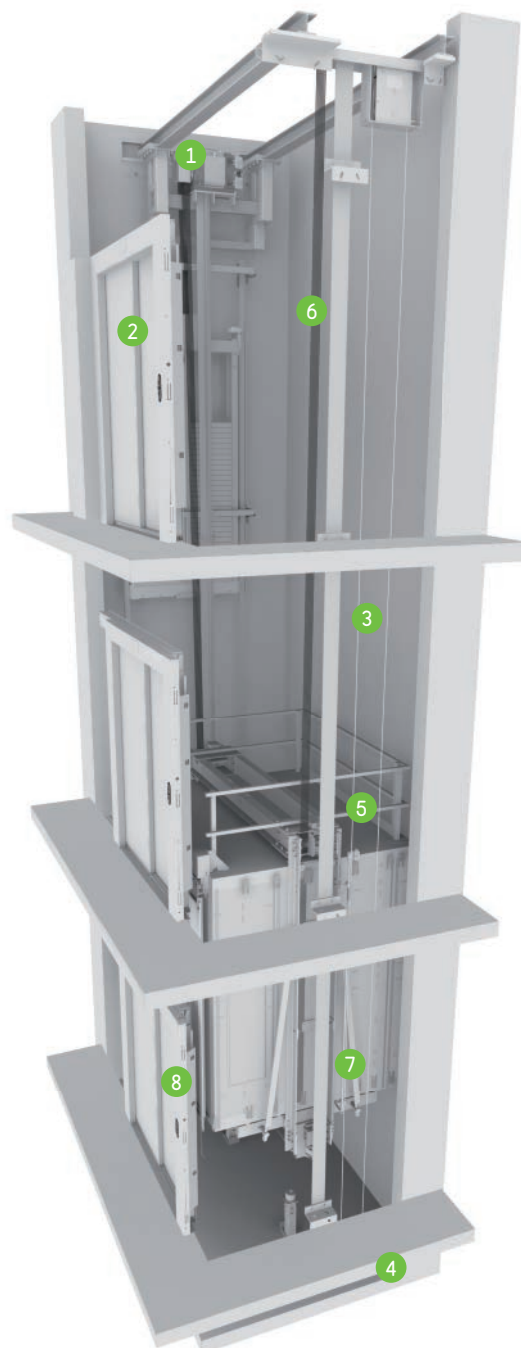
Solution designed for the most demanding specifications in public buildings with heavy traffic

Machine-room-less electrical gearless solution (MRLG).

General specifications

Load	630 to 1,600 kg
Capacity	8 to 21 persons
Speed	1 - 1.6 m/s
Maximum travel	50 - 75 m
Maximum floors served	32 floors
Entrances	1 front / 2 open through
Drive system	Regulated gearless (240 connections / hour)
Controller	ARCA III controller, low energy consumption multiprocessor
Door types	Automatic side-opening / Automatic central-opening
Clear door opening	From 800 to 1,600 mm (in 100 mm increments)
Door height	2,000 / 2,100 / 2,200 / 2,300 mm
Car dimensions	Parametric car dimensions
Internal car height	2,100 / 2,200 / 2,300 / 2,400 mm
Aesthetic solutions	Orona 3G Public Packs / Orona 3G Public Plus

Standard Optional



1 DRIVE

Compact, quiet, gearless, energy efficient, speed regulated (VVVF) permanent magnet electric motor.



2 SOLID DOORS

Extra robust doors with reduced sound levels inside and outside the lift and which are specially constructed for high volume passenger traffic.



3 PARAMETRIC/FLEXIBLE

Flexible car and door configurations ensure available shaft dimensions can be optimised (optional).



4 ACCESSIBLE SPACE BELOW THE PIT

Adapts the lift to suit buildings which have an accessible space below the pit (optional).



5 ROBUST LIFT CAR

Provides greater comfort during lift travel, with reduced vibration and noise.



6 TRACTION ROPES

Orona small diameter ropes replace traditional steel ropes. As a result of their lighter weight, longer lifespan and greater flexibility, it is possible to use a more compact, efficient and eco-friendly gearless machine.



7 CARS

Reinforced wall panels and flooring provides durability for heavy duty usage. Flexible configurations offering optimum car and door dimensions.




8 AUTOMATIC RESCUE SYSTEM

With floor level indication to ensure fast, efficient and safe evacuation of passengers in the event of an emergency. As an option, the system can incorporate a fully-automatic rescue device to evacuate passengers in the event of a power failure.



Customised solution, examples of dimensions*

Load / capacity				Car			Lift shaft ⁰							
							TT side-opening doors		CC central-opening doors					
Speed			Q Load	AC Width	FC Depth	PL Clear opening	No. of entrances	AH ¹ Width	FH ² Depth	AH Width	FH ³ Depth	HF Pit	HUP ⁴ Headroom	
1 m/s		8	630 kg	1,100	1,400	900	1 2x180 ⁰	1,700	1,675 1,850	1,950	1,625 1,750	1,050	3,550	
		10	800 kg	1,350	1,400	900	1 2x180 ⁰	1,975	1,675 1,850	1,975	1,625 1,750			
		13	1,000 kg	1,600	1,400	1,000	1 2x180 ⁰	2,225	1,675 1,850	2,225	1,625 1,750			
				1,100	2,100	1,000	1 2x180 ⁰	1,775	2,375 2,550					
	17	1,275 kg	1,200	2,300	1,100	1 2x180 ⁰	1,935	2,600 2,750			1,150	3,600		
		21	1,600 kg	1,700	1,950	1,000	1 2x180 ⁰			2,450			2,200 2,300	
				1,400	2,400	1,200	1 2x180 ⁰	2,085	2,700 2,850					
		1.6 m/s		8	630 kg	1,100	1,400	900	1 2x180 ⁰	1,725			1,675 1,850	1,950
10				800 kg	1,350	1,400	900	1 2x180 ⁰	1,975	1,675 1,850	1,975	1,625 1,750		
13	1,000 kg			1,600	1,400	1,000	1 2x180 ⁰	2,225	1,675 1,850	2,225	1,625 1,750			
				1,100	2,100	1,000	1 2x180 ⁰	1,775	2,375 2,550					
17	1,275 kg		1,200	2,300	1,100	1 2x180 ⁰	1,935	2,600 2,750			1,250	3,750		
	21		1,600 kg	1,700	1,950	1,000	1 2x180 ⁰			2,450			2,200 2,300	
				1,400	2,400	1,200	1 2x180 ⁰	2,085	2,700 2,850					

0 Minimum plumb measurements

1 Accessible space below the pit (counterweight with safety gear) add 50 mm to AH

2 R=60 mm, shaft depth with TT 2 panel telescopic door tracks projecting 60 mm on the landing

3 R=40 mm, shaft depth with CC 2 panel central door tracks projecting 40 mm on the landing

4 HUP minimum for internal car height (HC) 2,100 mm.

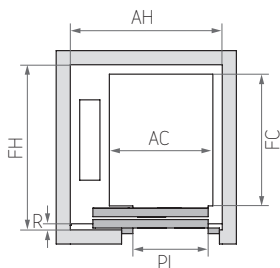
* The information is not contractually binding and is subject to the conditions of the shaft

TT - 2 panel telescopic door

CC - 2 panel central door

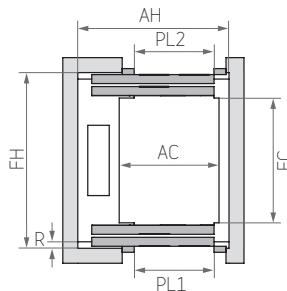
Layout*

1 ENTRANCE

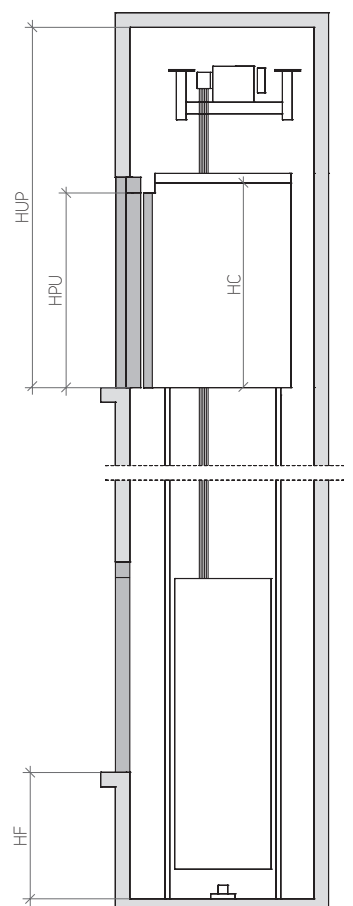


* Note: The diagrams are for guidance only.

2 ENTRANCES (OPEN THROUGH)



VERTICAL SECTION



Customised car dimensions

[illegible]

Note: Dimensions considering 1 entrance. Car width and depth variable in increments of 5 mm.

For simplification, table samples show increments of 100 mm.

Orona 3G X-18

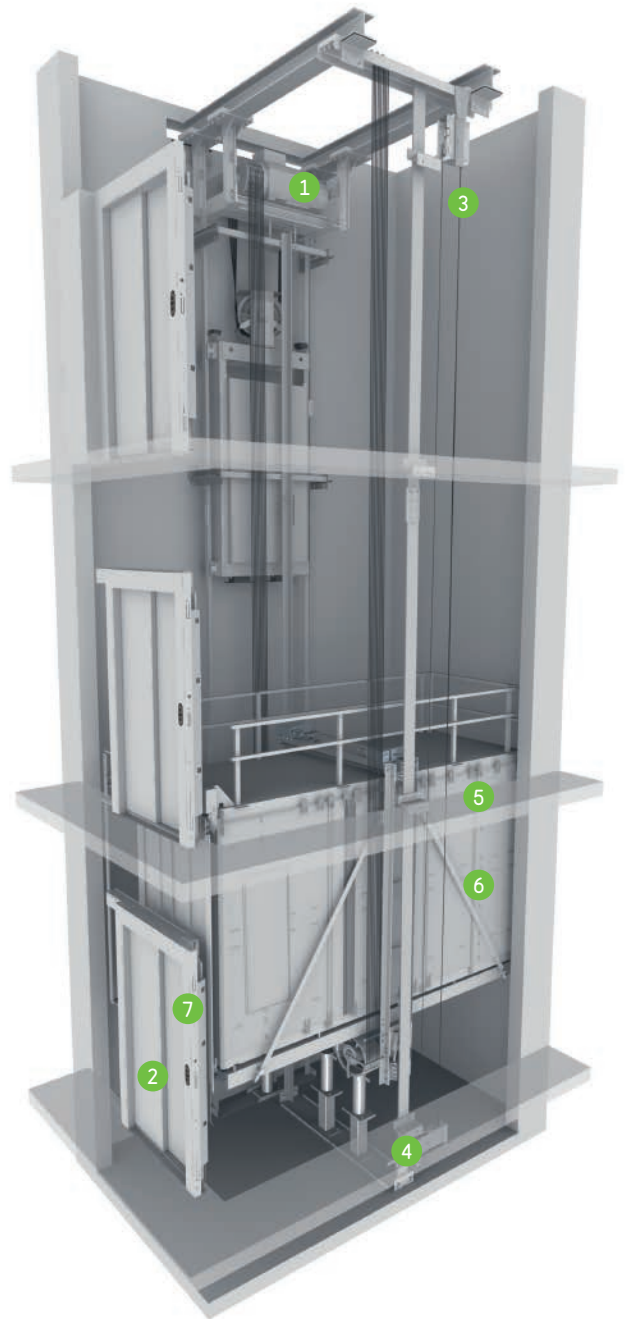
Solution designed for the transport of people and goods in public buildings with heavy traffic

Machine-room-less electrical gearless solution (MRLG).

General specifications

Load	1,650 to 2,500 kg
Capacity	22 to 33 persons
Speed	0.6 - 1 - 1.6 m/s
Maximum travel	40 m
Maximum floors served	16 floors
Entrances	1 front / 2 open through
Drive system	Regulated gearless (180 connections / hour)
Controller	ARCA III controller, low energy consumption multiprocessor
Door types	Automatic side-opening / Automatic central-opening
Clear door opening	From 900 to 2,500 mm (in increments of 100 mm)
Door height	2,000 / 2,100 / 2,200 / 2,300 mm
Car dimensions	Parametric car dimensions
Internal car height	2,100 / 2,200 / 2,300 / 2,400 mm
Aesthetic solutions	Orona 3G Public Plus

Standard Optional



1 DRIVE

Compact, quiet, gearless, energy efficient, speed regulated (VVVF) permanent magnet electric motor.



2 SOLID DOORS

Extra robust doors with reduced sound levels inside and outside the lift and which are specially constructed for high volume passenger traffic.



3 PARAMETRIC/FLEXIBLE

Flexible car and door configurations ensure available shaft dimensions can be optimised (optional).



4 ACCESSIBLE SPACE BELOW THE PIT

Adapts the lift to suit buildings which have an accessible space below the pit (optional).



5 ROBUST LIFT CAR

Provides greater comfort during lift travel, with reduced vibration and noise.



6 CARS

Reinforced wall panels and flooring provides durability for heavy duty usage. Flexible configurations offering optimum car and door dimensions.



7 AUTOMATIC RESCUE SYSTEM

With floor level indication to ensure fast, efficient and safe evacuation of passengers in the event of an emergency. As an option, the system can incorporate a fully-automatic rescue device to evacuate passengers in the event of a power failure.



ECO-EFFICIENCY



ADAPTABILITY






DESIGN AND ACCESSIBILITY



CONTROL AND SAFETY

Customised solution, examples of dimensions*

Load / capacity				Car				Lift shaft ⁰					
Speed	 Accessibility	 Persons	Q Load	AC Width	FC Depth	PL Clear opening	Type	No. of entrances	AH ¹ Width	FH Depth	HF ² Pit	HUP ³ Headroom	
0.6 m/s		24	1 800 kg	2 200	1 700	1 200	CC	1 2x180°	3 000	2 050 2 260	1 450	3 625	
				2 350	1 700	1 200	CC	1 2x180°		3 150			2 050 2 260
		1 500	2 700					1 300	TT				1 2x180°
				1 800	2 700	1 300	TT			1 2x180°			2 600
		24	1 800 kg					2 200	1 700	1 200			
				2 350	1 700	1 200	CC	1 2x180°	3 150	2 050 2 260			
1 500	2 700	1 300	TT					1 2x180°		2 300		3 050 3 260	
				1 800	2 700	1 300	TT	1 2x180°	2 600			3 050 3 260	
24	1 800 kg	2 200	1 700					1 200		CC		1 2x180°	3 000
		2 350	1 700	1 200	CC	1 2x180°	3 150	2 050 2 260					
1 500	2 700					1 300		TT	1 2x180°	2 300		3 050 3 260	
		1 800	2 700	1 300	TT		1 2x180°		2 600			3 050 3 260	
24	1 800 kg					2 200	1 700	1 200		CC	1 2x180°	3 000	2 050 2 260
		2 350	1 700	1 200	CC	1 2x180°	3 150	2 050 2 260					
1 500	2 700					1 300		TT	1 2x180°	2 300	3 050 3 260		
		1 800	2 700	1 300	TT		1 2x180°		2 600		3 050 3 260		

0 Minimum plumb measurements

1 With TT 2 panel telescopic doors

2 With PVC flooring. Marble floor option + 20 mm

3 HUP minimum for internal car height (HC) of 2,100 mm

*The information is not contractually binding and is subject to the conditions of the shaft.

TT - 2 panel telescopic door

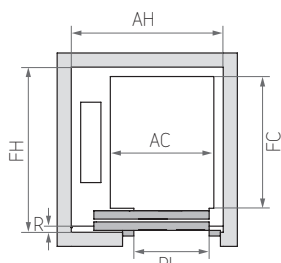
NN - 3 panel telescopic door

CC - 2 panel central door

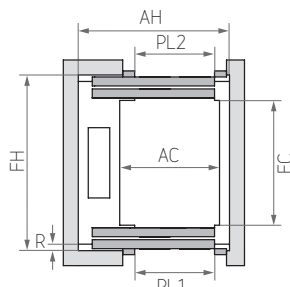
HH - 4 panel central door

Layout*

1 ENTRANCE

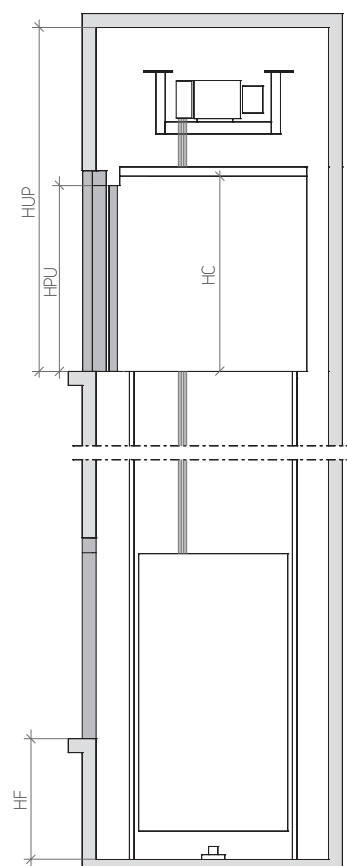


2 ENTRANCES (OPEN THROUGH)



* Note: The diagrams are for guidance only

VERTICAL SECTION



Customised car dimensions

Car width

Car depth

Clear door opening

Note: Dimensions considering 1 entrance. Car width and depth variable in increments of 5 mm. For simplification, table samples show increments of 100 mm.

Orona 3G X-19

Solution with flexible car door access (90°)

Machine-room-less electrical gearless solution (MRLG).

General specifications

Load	700 to 1,250 kg
Capacity	9 to 16 persons
Speed	1 m/s
Maximum travel	40 m
Maximum floors served	16 floors
Entrances	1 front / 2 open through / 2 front & side
Drive system	Regulated gearless (240 connections / hour)
Controller	ARCA III controller, low energy consumption multiprocessor
Door types	Automatic side-opening / Automatic central-opening
Clear door opening	From 700 to 1,500 mm
Door height	2,000 / 2,100 / 2,200 / 2,300 mm
Car dimensions	Parametric car dimensions
Internal car height	2,100 / 2,200 / 2,300 / 2,400 mm
Aesthetic solutions	Orona 3G Domo Packs / Orona 3G Public Packs / Orona 3G Plus

Standard Optional



1 DRIVE

Compact, quiet, gearless, energy efficient, speed regulated (VVVF) permanent magnet electric motor.



2 DOORS

Compact permanent magnet motor for fast, accurate and quiet door operation giving the most advanced performance. Advanced door opening and full height infra red door protection edges. Optional Solid Door for high flow situations.



3 PARAMETRIC/FLEXIBLE

Flexible car and door configurations ensure available shaft dimensions can be optimised (optional).



4 ACCESSIBLE SPACE BELOW THE PIT

Adapts the lift to suit buildings which have an accessible space below the pit (optional).



5 REDUCED HEADROOM

Optional feature to allow the reduction of the shaft headroom when required, whilst maintaining the enhanced safety and protection for maintenance staff.



6 TRACTION ROPES

Orona small diameter ropes replace traditional steel ropes. As a result of their lighter weight, longer lifespan and greater flexibility, it is possible to use a more compact, efficient and eco-friendly gearless machine.



7 SHAFT USABILITY

Lifts designed especially to use all the shaft space available, obtaining a good relation between the space available and the number of passengers to be transported.



8 AUTOMATIC RESCUE SYSTEM

With floor level indication to ensure fast, efficient and safe evacuation of passengers in the event of an emergency. As an option, the system can incorporate a fully-automatic rescue device to evacuate passengers in the event of a power failure.



Customised solution, examples of dimensions*

Load / capacity		Standard car			Lift shaft									
					Entrances		Doors side counterweight		Doors rear counterweight		HF	HUP		
							AH ¹	FH ¹	AH ¹	FH ¹		Std.	Reduced	
Persons	Q Load	AC Width	FC Depth	PL Clear opening	Accessibility	No. of entrances	Width	Depth	Width	Depth	Std.		With safety space	Without safety space (EN 81-21)
10	800 kg	1,325	1,400	900		1	1,815	1,685	1,650	2,045	1,250 ³	3,400	3,000	2,750 ²
						2x180 ⁰		1,840	-	-				
						2x90 ⁰	1,970	1,685	1,650	2,045				
11	825 kg	1,400	1,400	900		2x90 ⁰	2,045	1,685	1,685	2,045				
						1		2,385	-	-				
13	1,000 kg	1,100	2,100	900		2x180 ⁰	1,590	2,540	-	-				
						2x90 ⁰		2,385	-	-				
						1	1,890	1,885	-	-				
		1,400	1,600	1,000		2x180 ⁰		2,040	-	-				
						2x90 ⁰		1,885	-	-				
						1		2,585	-	-				
16	1,250 kg	1,200	2,300	1,000		2x180 ⁰	1,845	2,740	-	-			-	-
						2x90 ⁰		2,585	-	-			-	-

1 R=60 mm, shaft dimensions with TT side-opening telescopic doors supported 60mm on the landing

2 Minimum HUP for internal car height (HC) of 2100 mm. Available HUP of 2650 mm with internal car height (HC) of 2000 mm.

3 When 1,000 ≤ HF < 1,250 mm, please consult.

* The information is not contractually binding and is subject to the conditions of the shaft

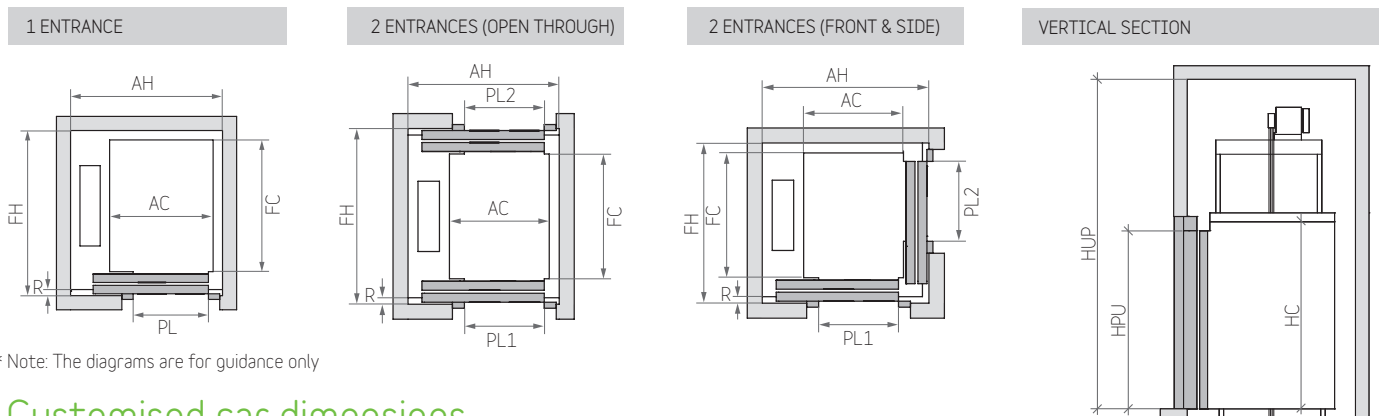
TT - 2 panel telescopic door

NN - 3 panel telescopic door

CC - 2 panel central door

HH - 4 panel central door

Layout*



Customised car dimensions

Doors side counterweight / Doors rear counterweight

Car width / Car depth

1500			12	13	13	13	14	15	15	16	16	16							
1450			12	12	13	13	13	14	15	15	16	16	16	16					
1400	10	10	10	11	12	12	13	13	13	14	15	15	16	16	16	16			
1350		10	10	10	11	12	12	13	13	13	14	14	15	15	16	16	16		
1300	9	9	10	10	10	11	12	12	13	13	13	14	15	15	16	16	16	16	
1250		9	9	10	10	10	10	12	12	12	13	13	13	14	14	15	15	16	16
1200			9	9	9	10	10	10	11	12	12	13	13	13	14	15	15	15	16
1150				9	9	9	10	10	10	11	12	12	12	13	13	14	14	15	15
1100					9	9	10	10	10	10	11	12	12	12	13	13	13	14	14
1050						9	9	9	10	10	10	10	11	12	12	12	13	13	13
1000							9	9	9	10	10	10	10	11	12	12	12	12	13
950								9	9	9	9	10	10	10	10	11	12	12	12
900									9	9	9	9	10	10	10	10	10	11	11

Car width

2200																			
2100																			
2000																			
1900																			
1800																			
1700																			
1600																			
1500																			
1400																			
1300																			
1200																			
1100																			
1000																			
900																			

Car depth / Car width

Clear door opening

Note: Dimensions considering 1 entrance. Car width and depth variable in increments of 5 mm.

For simplification, table samples show increments of 50 mm.

Orona 3G X-20

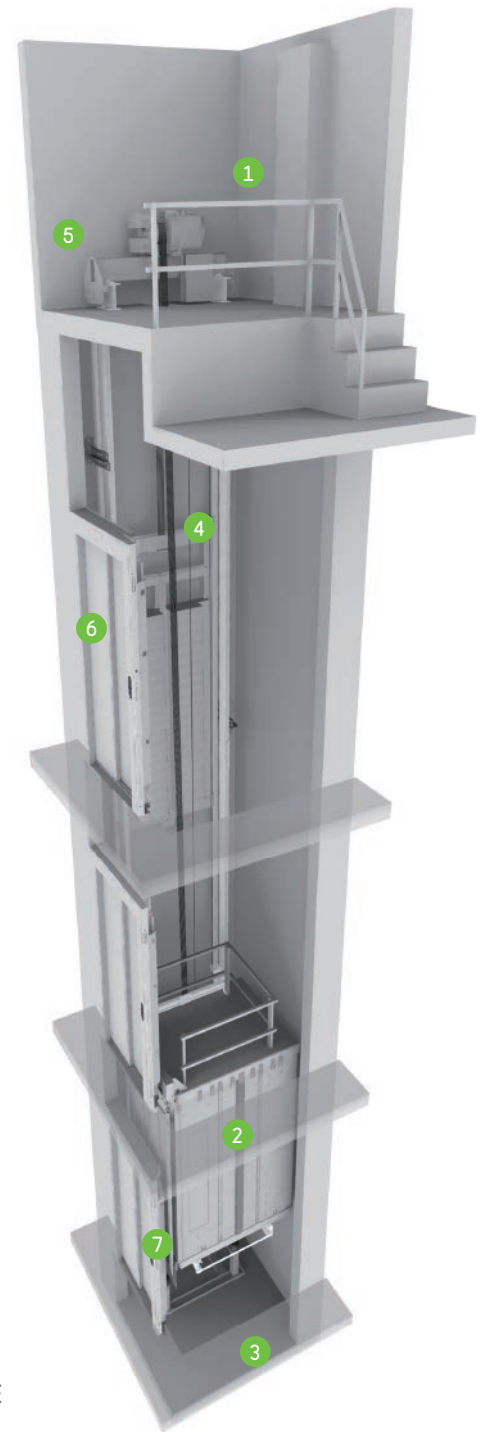
Competitive solution for residential and low-rise public buildings

Machine-room above electrical gearless solution.

General specifications

Load	320 - 450 - 630 kg / 320 - 450 kg (single-phase)
Capacity	4 - 6 - 8 persons / 4 - 6 persons (single-phase)
Speed	1 m/s / 0.6 m/s (single-phase)
Maximum travel	40 m / 50 m (single-phase)
Maximum floors served	16 floors
Entrances	1 front / 2 open through / 2 front & side
Drive system	Regulated gearless (180 connections / hour)
Controller	ARCA III controller, low energy consumption multiprocessor
Door types	Automatic side-opening / Automatic central-opening
Clear door opening	700 / 800 / 900 mm
Door height	2,000 / 2,100 mm
Car dimensions	Standard car dimensions
Internal car height	2,100 / 2,200 mm
Supply	Three-phase / Single-phase
Aesthetic solutions	Orona 3G Domo Packs / Orona 3G Public Packs / Orona 3G Plus

Standard Optional



1 MACHINE-ROOM

A traditional solution simplifying lift maintenance.



2 OPTIMISED PASSENGER UNIT

Saves space, reduces weight, improves safety, and improves the installation process.



3 ACCESSIBLE SPACE BELOW THE PIT

Adapts the lift to suit buildings which have an accessible space below the pit (optional).



4 TRACTION ROPES

Orona small diameter ropes replace traditional steel ropes. As a result of their lighter weight, longer lifespan and greater flexibility, it is possible to use a more compact, efficient and eco-friendly gearless machine.



5 DRIVE

Compact, quiet, gearless, energy efficient, speed regulated (VVVF) permanent magnet electric motor.



6 DOORS

Compact permanent magnet motor for fast, accurate and quiet door operation giving the most advanced performance. Advanced door opening and full height infra red door protection edges. Optional Solid Door for high flow situations.



7 AUTOMATIC RESCUE SYSTEM

With floor level indication to ensure fast, efficient and safe evacuation of passengers in the event of an emergency. As an option, the system can incorporate a fully-automatic rescue device to evacuate passengers in the event of a power failure.



Standard dimensions*

Load / capacity		Car			Lift shaft ⁰							
									TT side-opening doors		CC central-opening doors	
					Entrances		AH ¹ Width	FH ² Depth	AH Width	FH ³ Depth	HF Pit	HUP Headroom
Persons	Q Load	AC Width	FC Depth	PL Clear opening	Accessibility	No. of entrances						
4	320 kg	825	1,100	700		1	1,325	1,350	1,600	1,300	1,000 (850) ⁴	3,400
						2x180 ⁰		1,500		1,400		
						2x90 ⁰	1,450	1,350				
6	450 kg	1,000	1,250	800		1	1,500	1,500	1,800	1,450		3,400 (3,000) ^{5,6}
						2x180 ⁰		1,650		1,550		
						2x90 ⁰	1,625	1,500				
8	630 kg	1,100	1,400	900		1	1,600	1,650	2,000	1,600		3,400 (3,000) ⁵
						2x180 ⁰		1,800		1,700		
						2x90 ⁰	1,725	1,650				
		1,200	1,250	900		1	1,700	1,500	2,000	1,450		3,400 (3,000) ⁵
						2x180 ⁰		1,650		1,550		
						2x90 ⁰	1,825	1,575				

0 Minimum plumb measurements

1 Accessible space below the pit (counterweight with safety gear)
add 50 mm to AH

2 R=60 mm, shaft depth with TT 2 panel telescopic door tracks projecting 60 mm on the landing

3 R=40 mm, shaft depth with CC 2 panel central door tracks projecting 40 mm on the landing

4 HF reduced pit optional 850 mm

5 HUP minimum for internal car height (HC) of 2,100 mm

HUP reduced headroom optional only for 6 and 8 persons

6 Not available 2x90⁰ with big vision doors

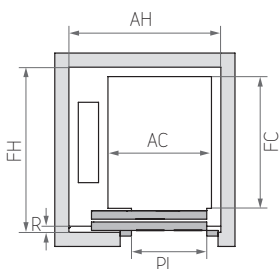
* The information is not contractually binding and is subject to
the conditions of the shaft

TT - 2 panel telescopic door

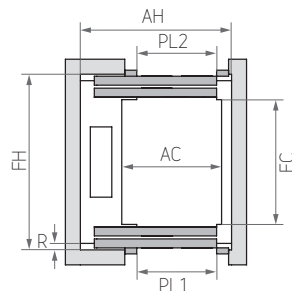
CC - 2 panel central door

Layout

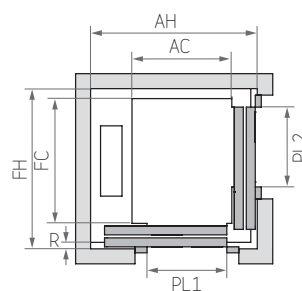
1 ENTRANCE



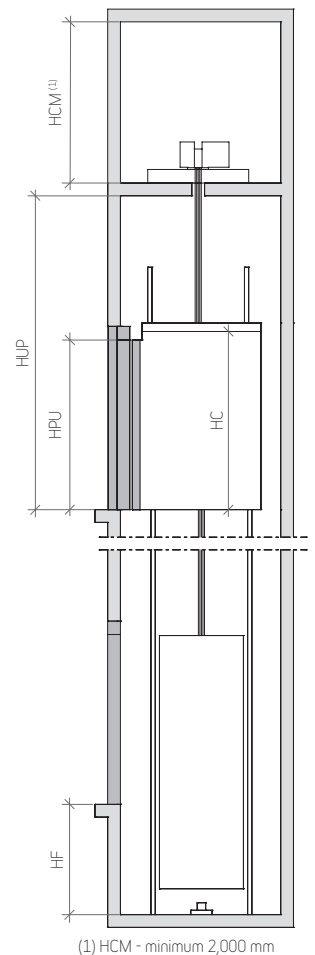
2 ENTRANCES (OPEN THROUGH)



2 ENTRANCES (FRONT & SIDE)



VERTICAL SECTION



(1) HCM - minimum 2,000 mm

* Note: The diagrams are for guidance only.

Orona 3G X-23

Competitive solution with use of available space in existing buildings

Machine-room above electrical gearless solution.

General specifications

Load	225 to 630 kg
Capacity	3 to 8 persons
Speed	1 m/s
Maximum travel	60 m
Maximum floors served	21 floors
Entrances	1 front / 2 open through
Drive system	Regulated gearless (180 connections / hour)
Controller	ARCA III controller, low energy consumption multiprocessor
Door types	Automatic side-opening / Automatic central-opening / Semiautomatic + Articulated (BUS)
Clear door opening	From 500 to 900 mm
Door height	2,000 / 2,100 / 2,200 / 2,300 mm
Car dimensions	Parametric car dimensions
Internal car height	2,100 / 2,200 / 2,300 / 2,400 mm
Aesthetic solutions	Orona 3G Domo Packs / Orona 3G Public Packs / Orona 3G Plus

Standard Optional



1 MACHINE-ROOM

A traditional solution simplifying lift maintenance.



2 DRIVE

Compact, quiet, gearless, energy efficient, speed regulated (VVVF) permanent magnet electric motor.



3 ACCESSIBLE SPACE BELOW THE PIT

Adapts the lift to suit buildings which have an accessible space below the pit (optional).



4 TRACTION ROPES

Orona small diameter ropes replace traditional steel ropes. As a result of their lighter weight, longer lifespan and greater flexibility, it is possible to use a more compact, efficient and eco-friendly gearless machine.



5 DOORS

Compact permanent magnet motor for fast, accurate and quiet door operation giving the most advanced performance. Advanced door opening and full height infra red door protection edges. Optional Solid Door for high flow situations.



6 PARAMETRIC/FLEXIBLE

Flexible car and door configurations ensure available shaft dimensions can be optimised (optional).







7 AUTOMATIC RESCUE SYSTEM

With floor level indication to ensure fast, efficient and safe evacuation of passengers in the event of an emergency. As an option, the system can incorporate a fully-automatic rescue device to evacuate passengers in the event of a power failure.



Customised solution, examples of dimensions*

Load / capacity		Car			Lift shaft ⁰										
							Side-opening doors		Central-opening doors HH		HF Pit			HUP Headroom	
 Persons	Q Load	AC Width	FC Depth	PL Clear opening	Entrances		AH ¹ Width	FH ² Depth	AH ¹ Width	FH ³ Depth	Std.	Reduced		Std. ⁴	Reduced Without safety space ⁵ (EN 81-21)
					Accessibility	No. of entrances						With safety space	Without safety space (EN 81-21)		
4	320 kg	825	1,100	700		1	1,300	1,400	1,250	1,400	1,000	705	285	3,380	3,000
						2x180 ⁰		1,500		1,550					
6	450 kg	1,000	1,250	800		1	1,450	1,550	1,450	1,550					
						2x180 ⁰		1,650		1,700					
8	630 kg	1,100	1,400	900		1	1,600	1,700	1,550	1,700					
						2x180 ⁰		1,800		1,850					
		1,200	1,250	900		1	1,650	1,550	1,650	1,550					
						2x180 ⁰		1,650		1,700					

0 Minimum plumb measurements

- 1 Accessible space below the pit (counterweight with safety gear) add 50 mm to AH
- 2 R=60 mm, shaft depth with TT 2 panel telescopic door tracks projecting 60 mm on the landing
- 3 R=40 mm, shaft depth with CC 2 panel central door tracks projecting 40 mm on the landing
- 4 HUP minimum for internal car height (HC) of 2,100 mm
- 5 Subject to car dimensions

* The information is not contractually binding and is subject to the conditions of the shaft

TT - 2 panel telescopic door

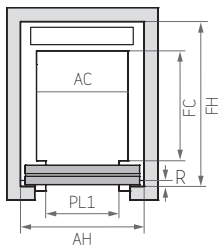
NN - 3 panel telescopic door

CC - 2 panel central door

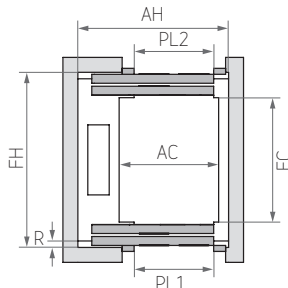
HH - 4 panel central door

Layout*

1 ENTRANCE

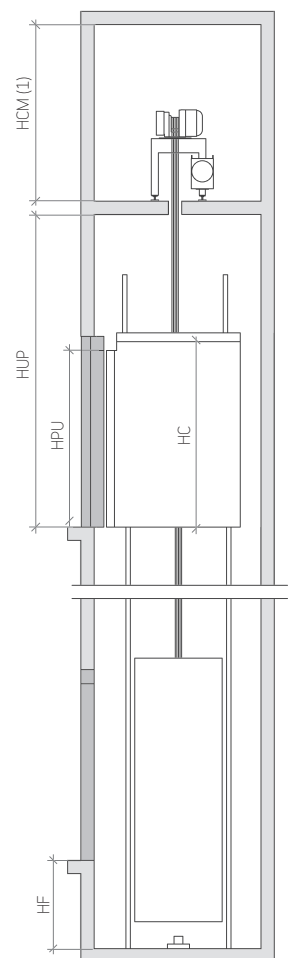


2 ENTRANCES (OPEN THROUGH)



* Note: The diagrams are for guidance only.

VERTICAL SECTION



(1) HCM - minimum 2,000 mm

Customised car dimensions

[illegible]

Note: Dimensions considering 1 entrance. Car width and depth variable in increments of 5 mm.
For simplification, table samples show increments of 100 mm.

Orona 3G X-24

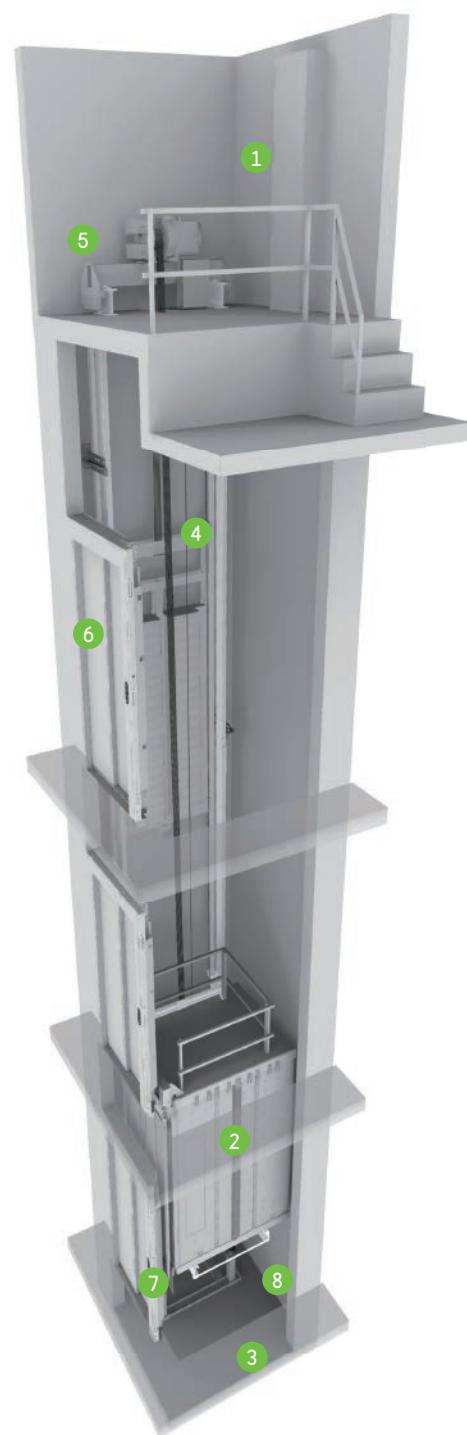
Solution that provides up to 50% increase in the car size in existing buildings

Machine-room above electrical gearless solution.

General specifications

Load	180 to 630 kg / 180 to 450 kg (single-phase)
Capacity	2 to 8 persons / 2 to 6 persons (single-phase)
Speed	1 m/s / 0.6 m/s (single-phase)
Maximum travel	40 m / 25 m (single-phase)
Maximum floors served	16 floors
Entrances	1 front / 2 open through / 2 front & side
Drive system	Regulated gearless (180 connections / hour)
Controller	ARCA III controller, low energy consumption multiprocessor
Door types	Automatic side-opening / Automatic central-opening / Semiautomatic + Articulated (BUS)
Clear door opening	From 500 to 900 mm
Door height	2,000 / 2,100 / 2,200 mm
Car dimensions	Parametric car dimensions
Internal car height	2,100 / 2,200 / 2,300 mm
Supply	Three-phase / Single-phase
Aesthetic solutions	Orona 3G Domo Packs / Orona 3G Public Packs / Orona 3G Plus

Standard Optional



1 MACHINE-ROOM

A traditional solution simplifying lift maintenance.



2 OPTIMISED PASSENGER UNIT

Saves space, reduces weight, improves safety, and improves the installation process.



3 ACCESSIBLE SPACE BELOW THE PIT

Adapts the lift to suit buildings which have an accessible space below the pit (optional).



4 TRACTION ROPES

Orona small diameter ropes replace traditional steel ropes. As a result of their lighter weight, longer lifespan and greater flexibility, it is possible to use a more compact, efficient and eco-friendly gearless machine.



5 DRIVE

Compact, quiet, gearless, energy efficient, speed regulated (VVVF) permanent magnet electric motor.



6 DOORS

Compact permanent magnet motor for fast, accurate and quiet door operation giving the most advanced performance. Advanced door opening and full height infra red door protection edges. Optional Solid Door for high flow situations.



7 AUTOMATIC RESCUE SYSTEM

With floor level indication to ensure fast, efficient and safe evacuation of passengers in the event of an emergency. As an option, the system can incorporate a fully-automatic rescue device to evacuate passengers in the event of a power failure.



8 SHAFT USABILITY

Lifts designed especially to use all the shaft space available especially in existing buildings, obtaining a good relation between the space available and the number of passengers to be transported.



ECO-EFFICIENCY



ADAPTABILITY







DESIGN AND ACCESSIBILITY



CONTROL AND SAFETY

Customised solution, examples of dimensions*

Load / capacity		Car			Lift shaft ⁰									
							Side counterweight		Rear counterweight		HF Pit			HUP Headroom
							TT side-opening doors		CC central-opening doors		Std.	Reduced		
	Q Load	AC Width	FC Depth	PL ⁵ Clear opening	Entrances		AH ¹ Width	FH ² Depth	AH ³ Width	FH ² Depth		Std.	With safety space	Without safety space (EN 81-21)
Persons					Accessibility	No. of entrances								
4	320 kg	825	1,100	700		1	1,150	1,300	1,150	1,525	1,000			
						2x180 ⁰		1,450						
						2x90 ⁰		1,250		1,300		1,200	1,525	
6	450 kg	1,000	1,250	800		1	1,325	1,450	1,300	1,675				
						2x180 ⁰		1,600						
						2x90 ⁰		1,425		1,450		1,400	1,675	
8	630 kg	1,100	1,400	900		1	1,425	1,600	1,450	1,825				
						2x180 ⁰		1,750						
						2x90 ⁰		1,525		1,600		1,500	1,825	
		1,200	1,250	900		1	1,525	1,450	1,450	1,675				
						2x180 ⁰		1,600						
						2x90 ⁰		1,625		1,450		1,500	1,675	

0 Minimum plumb measurements.

- 1 Accessible space below the pit (counterweight with safety gear) or reduced pit without safety space add 40 mm to AH
AH calculated for NN 3 panel telescopic door
- 2 Shaft depth with door tracks projecting as a whole on the landing
- 3 Width calculated for HH 4 panel central door
- 4 HUP minimum for internal car height (HC) 2,100 mm

5 Door restrictions may exist for pits without safety space EN 81-21

* The information is not contractually binding and is subject to the conditions of the shaft.

TT - 2 panel telescopic door

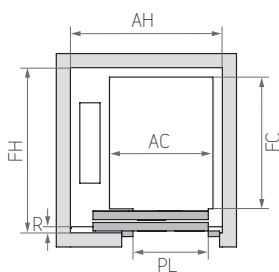
NN - 3 panel telescopic door

CC - 2 panel central door

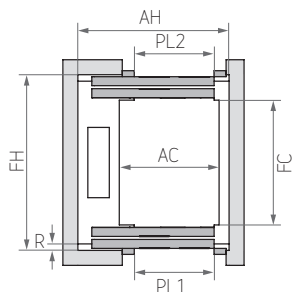
HH - 4 panel central door

Layout*

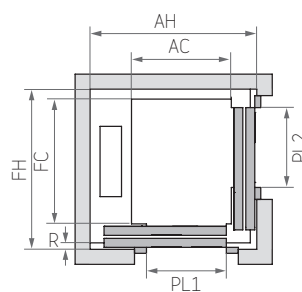
1 ENTRANCE



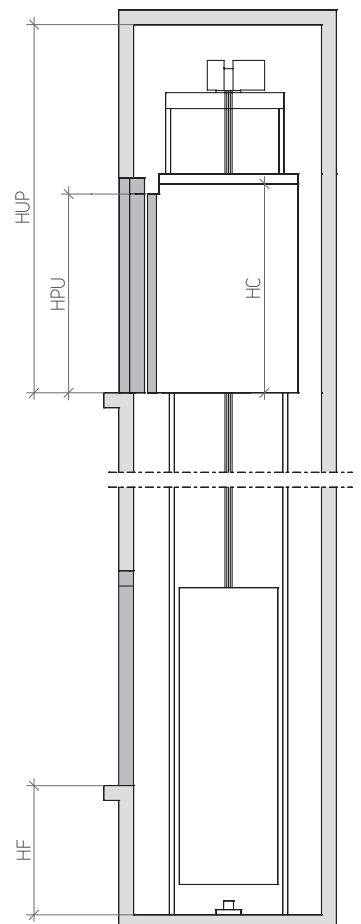
2 ENTRANCES (OPEN THROUGH)



2 ENTRANCES (FRONT & SIDE)



VERTICAL SECTION



* Note: The diagrams are for guidance only.

Customised car dimensions

															Car width						
						8	8	8	8	7	7	6	5			1,400					
						8	8	8	7	7	6	6	5			1,350					
				8	8	8	8	7	7	6	6	6	5			1,300					
			8	8	8	7	7	7	7	6	6	5	5			1,250					
		8	8	8	7	7	7	7	6	6	5	5	5			1,200					
	8	8	8	7	7	7	7	6	6	5	5	5	5	4		1,150					
8	8	8	7	7	7	7	6	6	5	5	5	5	4	4		1,100					
8	8	7	7	7	7	6	6	5	5	5	5	4	4	4	3	1,050					
8	7	7	6	6	6	6	5	5	5	5	4	4	4	4	3	1,000					
7	7	6	6	6	6	5	5	5	5	5	4	4	4	3	3	950					
6	6	6	6	5	5	5	5	5	4	4	4	4	3	3	3	900					
6	6	5	5	5	5	5	5	4	4	4	4	3	3	3	3	850					
5	5	5	5	5	5	5	4	4	4	4	4	3	3	3	3	800					
5	5	5	5	4	4	4	4	4	3	3	3	3	3	3	2	750					
5	5	4	4	4	4	4	4	3	3	3	3	3	2	2	2	700					
4	4	4	4	4	4	3	3	3	3	3	3	2	2	2	2	650					
4	4	4	3	3	3	3	3	3	3	3	2	2	2	2	2	630					
1,450	1,400	1,350	1,300	1,250	1,200	1,150	1,100	1,050	1,000	950	900	850	800	750			500	600	700	800	900
Car depth															Clear door opening						

Note: Dimensions considering 1 entrance. Car width and depth variable in increments of 5 mm.
For simplification, table samples show increments of 50 mm.

Orona 3G X-25

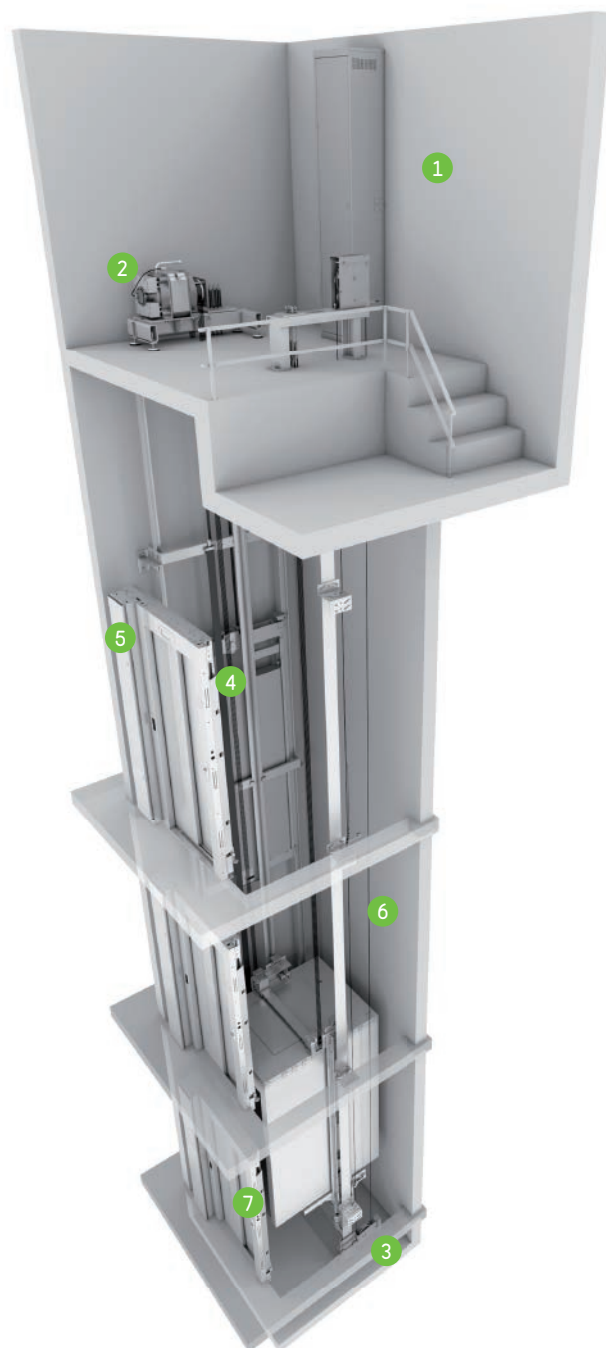
Customised solution for residential and public buildings with high traffic

Machine-room above electrical gearless solution.

General specifications

Load	450 to 1,000 kg
Capacity	6 to 13 persons
Speed	1 - 1.6 m/s
Maximum travel	50 - 60 m
Maximum floors served	16 - 21 floors
Entrances	1 front / 2 open through
Drive system	Regulated gearless (240 connections / hour)
Controller	ARCA III controller, low energy consumption multiprocessor
Door types	Automatic side-opening / Automatic central-opening
Clear door opening	From 600 to 1,500 mm (in 100 mm increments)
Door height	2,000 / 2,100 / 2,200 / 2,300 mm
Car dimensions	Parametric car dimensions
Internal car height	2,100 / 2,200 / 2,300 / 2,400 mm
Aesthetic solutions	Orona 3G Domo Packs / Orona 3G Public Packs / Orona 3G Plus

Standard Optional



1 MACHINE-ROOM

A traditional solution simplifying lift maintenance.



2 DRIVE

Compact, quiet, gearless, energy efficient, speed regulated (VVVF) permanent magnet electric motor.



3 ACCESSIBLE SPACE BELOW THE PIT

Adapts the lift to suit buildings which have an accessible space below the pit (optional).



4 TRACTION ROPES

Orona small diameter ropes replace traditional steel ropes. As a result of their lighter weight, longer lifespan and greater flexibility, it is possible to use a more compact, efficient and eco-friendly gearless machine.



5 DOORS

Compact permanent magnet motor for fast, accurate and quiet door operation giving the most advanced performance. Advanced door opening and full height infra red door protection edges. Optional Solid Door for high flow situations.



6 PARAMETRIC/FLEXIBLE

Flexible car and door configurations ensure available shaft dimensions can be optimised (optional).



7 AUTOMATIC RESCUE SYSTEM

With floor level indication to ensure fast, efficient and safe evacuation of passengers in the event of an emergency. As an option, the system can incorporate a fully-automatic rescue device to evacuate passengers in the event of a power failure.



Customised solution, examples of dimensions*

Load / capacity			Car			Lift shaft ⁰							
						Entrances		TT side-opening doors		CC central-opening doors		HF Pit	HUP ⁴ Headroom
Speed	Persons	Q Load	AC Width	FC Depth	PL Clear opening	Accessibility	No. of entrances	AH Width	FH ¹ Depth	AH Width	FH ² Depth		
1 m/s	6	450 kg	1,000	1,250	800	♿	1 2x180 ⁰	1,470	1,520 1,690	1,720	1,470 1,590	1,000 (850) ³	3,400
	8	630 kg	1,100	1,400	900		1 2x180 ⁰	1,570	1,670 1,840	1,900	1,620 1,740		
	10	800 kg	1,350	1,400	900	♿	1 2x180 ⁰	1,820	1,670 1,840	1,900	1,620 1,740		
	13	1000 kg	1,600	1,400	1,000		1 2x180 ⁰	2,070	1,670 1,840	2,100	1,620 1,740		
			1,400	1,600	1,000		1 2x180 ⁰	1,870	1,870 2,040	2,100	1,820 1,940		
			1,100	2,100	1,000		1 2x180 ⁰	1,720	2,370 2,540	2,100	2,320 2,440		
							1 2x180 ⁰						
							1 2x180 ⁰						
							1 2x180 ⁰						
							1 2x180 ⁰						
							1 2x180 ⁰						
							1 2x180 ⁰						
							1 2x180 ⁰						
1,6 m/s	6	450 kg	1,000	1,250	800	♿	1 2x180 ⁰	1,470	1,520 1,690	1,720	1,470 1,590	1,120	3,550
	8	630 kg	1,100	1,400	900		1 2x180 ⁰	1,570	1,670 1,840	1,900	1,620 1,740		
	10	800 kg	1,350	1,400	900	♿	1 2x180 ⁰	1,820	1,670 1,840	1,900	1,620 1,740		
	13	1,000 kg	1,600	1,400	1,000		1 2x180 ⁰	2,070	1,670 1,840	2,100	1,620 1,740		
			1,400	1,600	1,000		1 2x180 ⁰	1,870	1,870 2,040	2,100	1,820 1,940		
			1,100	2,100	1,000		1 2x180 ⁰	1,720	2,370 2,540	2,100	2,320 2,440		
							1 2x180 ⁰						
							1 2x180 ⁰						
							1 2x180 ⁰						
							1 2x180 ⁰						
							1 2x180 ⁰						
							1 2x180 ⁰						
							1 2x180 ⁰						
							1 2x180 ⁰						

0 Minimum plumb measurements

- 1 R=60 mm, shaft depth with TT 2 panel telescopic door tracks projecting 60 mm on the landing
- 2 R=40 mm, shaft depth with CC 2 panel central door tracks projecting 40 mm on the landing
- 3 HF reduced pit optional 850 mm
- 4 HUP minimum for internal car height (HC) 2,100 mm (HUP=HC+1,300)

Note: minimum AH dimensions calculated with the most favourable combination of controller cabinet and door pillar it is connected to

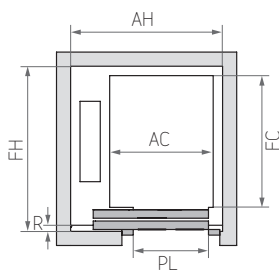
* The information is not contractually binding and is subject to the conditions of the shaft

TT - 2 panel telescopic door

CC - 2 panel central door

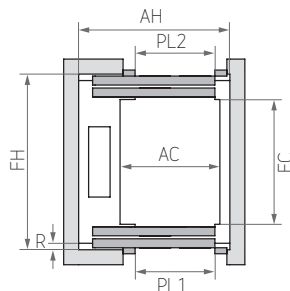
Layout*

1 ENTRANCE

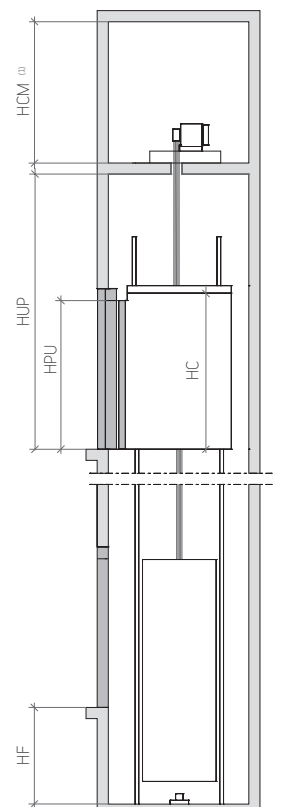


* Note: The diagrams are for guidance only.

2 ENTRANCES (OPEN THROUGH)



VERTICAL SECTION



Customised car dimensions

Car width													Clear door opening												
						13	12						1,600												
					13	13	11						1,500												
				13	13	12	11	10					1,400												
				13	12	11	10	9	8				1,300												
		13	13	12	11	10	9	9	8			6	1,200												
13	13	12	11	11	10	9	8	8	7	6	5	5	1,100												
12	12	11	10	10	9	8	7	7	6	5	5	5	1,000												
11	10	10	9	8	8	7	7	6	5	5	4	4	900												
					6	6	5	5	4	4			800												
2,100	2,000	1,900	1,800	1,700	1,600	1,500	1,400	1,300	1,200	1,100	1,000		600	700	800	900	1,000	1,100	1,200	1,300	1,400	1,500			

Note: Dimensions considering 1 entrance. Car width and depth variable in increments of 5 mm.
For simplification, table samples show increments of 100 mm.

(1) HCM - minimum 2,000 mm

Orona 3G X-26

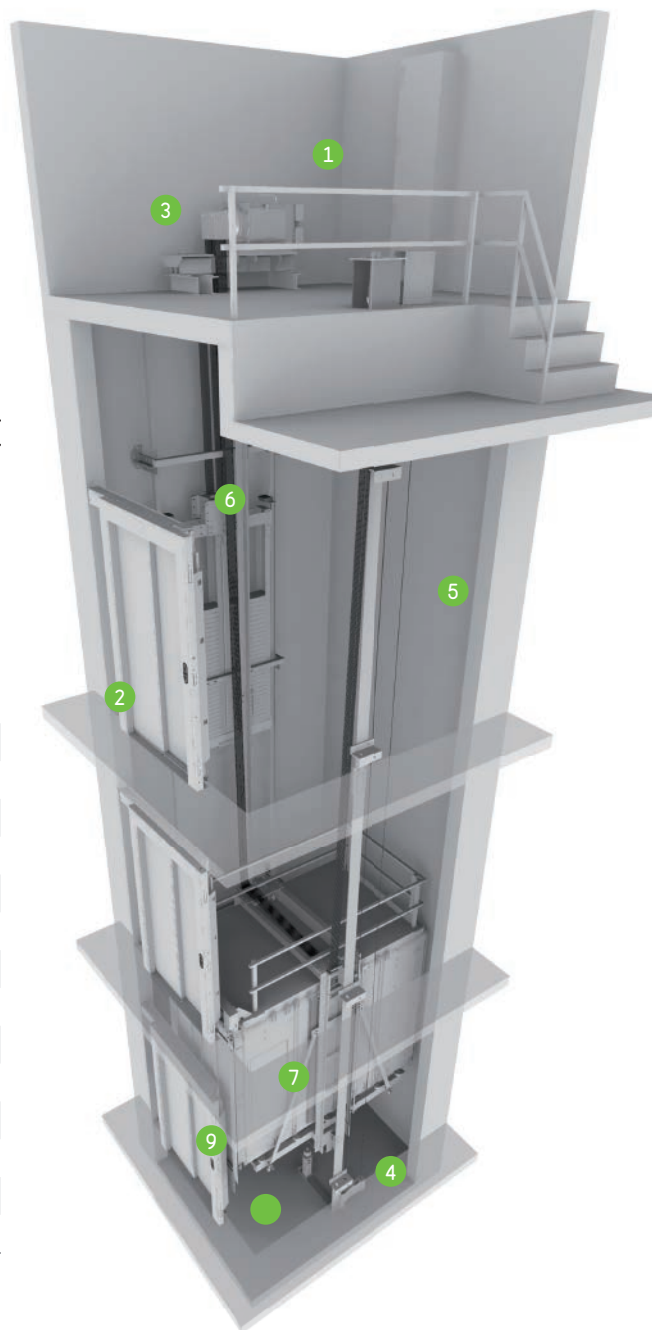
Solution designed for the most demanding specifications in public buildings with heavy traffic

Machine-room above electrical gearless solution.

General specifications

Load	630 to 1,600 kg
Capacity	8 to 21 persons
Speed	1 - 1.6 m/s
Maximum travel	50 - 75 m
Maximum floors served	32 floors
Entrances	1 front / 2 open through
Drive system	Regulated gearless (240 connections / hour)
Controller	ARCA III controller, low energy consumption multiprocessor
Door types	Automatic side-opening / Automatic central-opening
Clear door opening	From 800 to 1,600 mm (in 100 mm increments)
Door height	2,000 / 2,100 / 2,200 / 2,300 mm
Car dimensions	Parametric car dimensions
Internal car height	2,100 / 2,200 / 2,300 / 2,400 mm
Aesthetic solutions	Orona 3G Public Packs / Orona 3G Public Plus

Standard Optional



1 MACHINE-ROOM

A traditional solution simplifying lift maintenance.



2 SOLID DOORS

Extra robust doors with reduced sound levels inside and outside the lift and which are specially constructed for high volume passenger traffic.



3 DRIVE

Compact, quiet, gearless, energy efficient, speed regulated (VVVF) permanent magnet electric motor.



4 ACCESSIBLE SPACE BELOW THE PIT

Adapts the lift to suit buildings which have an accessible space below the pit (optional).



5 PARAMETRIC/FLEXIBLE

Flexible car and door configurations ensure available shaft dimensions can be optimised (optional).



6 TRACTION ROPES

Orona small diameter ropes replace traditional steel ropes. As a result of their lighter weight, longer lifespan and greater flexibility, it is possible to use a more compact, efficient and eco-friendly gearless machine.



7 CARS

Reinforced wall panels and flooring provides durability for heavy duty usage. Flexible configurations offering optimum car and door dimensions.



8 ROBUST LIFT CAR

Provides greater comfort during lift travel, with reduced vibration and noise.



9 AUTOMATIC RESCUE SYSTEM

With floor level indication to ensure fast, efficient and safe evacuation of passengers in the event of an emergency. As an option, the system can incorporate a fully-automatic rescue device to evacuate passengers in the event of a power failure.



ECO-EFFICIENCY



ADAPTABILITY








DESIGN AND ACCESSIBILITY



CONTROL AND SAFETY

Customised solution, examples of dimensions*

Load / capacity			Car			Lift shaft ⁰													
								TT side-opening doors		CC central-opening doors									
Speed		Q Load	AC Width	FC Depth	PL Clear opening	Entrances		AH ¹ Width	FH ² Depth	AH Width	FH ³ Depth	HF Pit	HUP ⁴ Headroom						
						Accessibility	No. of entrances												
1 m/s	8	630 kg	1,100	1,400	900		1 2x180 ⁰	1,700	1,675 1,850	1,950	1,625 1,750	1,050	3,400						
	10	800 kg	1,350	1,400	900		1 2x180 ⁰	1,975	1,675 1,850	1,975	1,625 1,750								
	13	1,000 kg	1,600	1,400	1,000		1 2x180 ⁰	2,225	1,675 1,850	2,225	1,625 1,750								
			1,100	2,100	1,000		1 2x180 ⁰	1,775	2,375 2,550										
	17	1,275 kg	2,000	1,400	1,100		1 2x180 ⁰			2,750	1,650 1,750								
			1,200	2,300	1,100		1 2x180 ⁰	1,935	2,600 2,750										
	21	1,600 kg	2,100	1,600	1,100		1 2x180 ⁰			2,850	1,850 1950	1,150							
			1,400	2,400	1,200		1 2x180 ⁰	2,085	2,700 2,850										
			1.6 m/s	8	630 kg		1,100	1,400	900		1 2x180 ⁰			1,725	1,675 1,850	1,950	1,625 1,750	1,200	3,550
				10	800 kg		1,350	1,400	900		1 2x180 ⁰			1,975	1,675 1,850	1,975	1,625 1,750		
13	1,000 kg	1,600		1,400	1,000	1 2x180 ⁰	2,225	1,675 1,850	2,225		1,625 1,750								
		1,100		2,100	1,000	1 2x180 ⁰	1,775	2,375 2,550											
17	1,275 kg	2,000		1,400	1,100	1 2x180 ⁰			2,750		1,650 1,750								
		1,200		2,300	1,100	1 2x180 ⁰	1,935	2,600 2,750											
21	1,600 kg	2,100		1,600	1,100		1 2x180 ⁰			2,850	1,850 1,950	1,250							
		1,400		2,400	1,200		1 2x180 ⁰	2,085	2,700 2,850										

0 Minimum plumb measurements

1 Accessible space below the pit (counterweight with safety gear) add 50 mm to AH

2 R=60 mm, shaft depth with TT 2 panel telescopic door tracks projecting 60 mm on the landing

3 R=40 mm, shaft depth with CC 2 panel central door tracks projecting 40 mm on the landing

4 HUP minimum for internal car height (HC) of 2,100 mm.

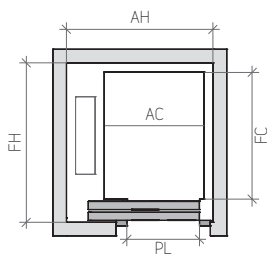
* The information is not contractually binding and is subject to the conditions of the shaft

TT - 2 panel telescopic door

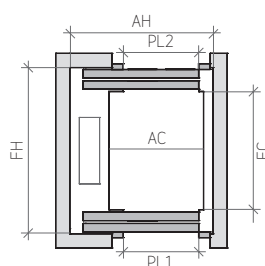
CC - 2 panel central door

Layout*

1 ENTRANCE

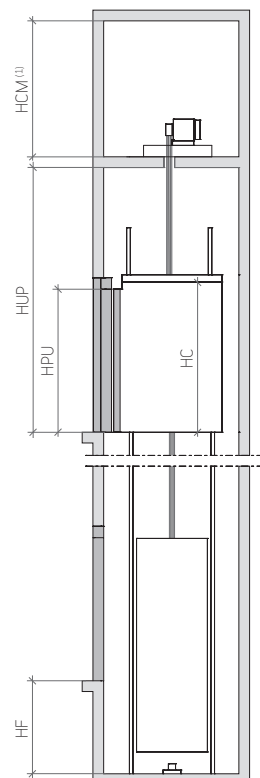


2 ENTRANCES (OPEN THROUGH)



* Note: The diagrams are for guidance only.

VERTICAL SECTION



(1) HCM - minimum 2,000 mm

Customised car dimensions

														Car width															
											21	20	18			2,100													
											21	20	18	17			2,000												
											21	20	19	17	16			1,900											
											21	20	19	18	16	15			1,800										
											21	20	19	18	16	15	14		1,700										
											21	21	19	18	16	15	14	13	12										
											21	19	18	17	17	15	14	13	13	11									
21	21	20	19	18	17	16	15	14	13	13	12	11	10				1,400												
20	19	18	17	16	16	15	14	13	12	11	10	9	8				1,300												
19	18	17	16	15	14	13	13	12	11	10	9	9	8				1,200												
			15	14	13	13	12	11	11	10	9	8					1,100												
					12	12	11	10	10	9	8						1,000												
					11	10	10	9	8	8							900												
2,500	2,400	2,300	2,200	2,100	2,000	1,900	1,800	1,700	1,600	1,500	1,400	1,300	1,200					800	900	1,000	1,100	1,200	1,300	1,400	1,500	1,600			
Car depth														Clear door opening															

Note: Dimensions considering 1 entrance. Car width and depth variable in increments of 5 mm.

For simplification, table samples show increments of 100 mm.

Orona 3G X-27

Solution for high-rise buildings

Machine-room above electrical gearless solution.

General specifications

Load	450 to 1,000 kg / 630 to 1,600 kg (2 and 2.5 m/s)
Capacity	6 to 13 persons / 8 to 21 persons (2 and 2.5 m/s)
Speed	1.6 / 2 - 2.5 m/s
Maximum travel	120 m / 130 m (2 and 2.5 m/s)
Maximum floors served	64 floors
Entrances	1 front / 2 open through
Drive system	Regulated gearless (240 connections / hour)
Controller	ARCA III controller, low energy consumption multiprocessor
Door types	Automatic side-opening / Automatic central-opening
Clear door opening	From 800 to 1,600 mm (in 100 mm increments)
Door height	2,000 / 2,100 / 2,200 / 2,300 mm
Car dimensions	Parametric car dimensions
Internal car height	2,100 / 2,200 / 2,300 / 2,400 mm
Aesthetic solutions	Orona 3G Domo Packs / Orona 3G Public Packs / Orona 3G Plus

Standard Optional



1 DRIVE

Compact, quiet, gearless, energy efficient, speed regulated (VVVF) permanent magnet electric motor.



2 MACHINE-ROOM

A traditional solution simplifying lift maintenance.



3 ROBUST LIFT CAR

Provides greater comfort during lift travel, with reduced vibration and noise.



4 ACCESSIBLE SPACE BELOW THE PIT

Adapts the lift to suit buildings which have an accessible space below the pit (optional).



5 DOORS

Compact permanent magnet motor for fast, accurate and quiet door operation giving the most advanced performance. Advanced door opening and full height infra red door protection edges. Optional Solid Door for high flow situations.



6 PARAMETRIC/FLEXIBLE

Flexible car and door configurations ensure available shaft dimensions can be optimised (optional).



7 CARS

Reinforced wall panels and flooring provides durability for heavy duty usage. Flexible configurations offering optimum car and door dimensions.









8 AUTOMATIC RESCUE SYSTEM

With floor level indication to ensure fast, efficient and safe evacuation of passengers in the event of an emergency. As an option, the system can incorporate a fully-automatic rescue device to evacuate passengers in the event of a power failure.



Customised solution, examples of dimensions*

Load / capacity			Car			Lift shaft ⁰							
								Side-opening doors ¹		Central-opening doors ¹			
						Entrances		AH ²	FH ³	AH	FH ⁴	HF ⁵	HUP ⁶
Speed		Q Load	AC Width	FC Depth	PL Clear opening	Accessibility	No. of entrances	Width	Depth	Width	Depth	Pit	Headroom
1.6 m/s	6	450 kg	1,000	1,250	800		1	1,500	1,800	1,750	1,750	1,200 ⁵	3,550 ⁶
							2x180 ⁰	1,600	1,700	1,750	1,600		
	8	630 kg	1,100	1,400	800		1	1,500	1,950	1,750	1,900	1,250 ⁵	3,600 ⁶
							2x180 ⁰	1,700	1,850	1,750	1,750		
	10	800 kg	1,350	1,400	800		1	1,750	1,950	1,750	1,900		
							2x180 ⁰	2,000	1,850	2,000	1,750		
	13	1,000 kg	1,600	1,400	900		1	2,000	1,950	2,000	1,900		
							2x180 ⁰	2,250	1,850	2,250	1,750		
		1,100	2,100	900	1	1,700	2,650	1,950	2,600				
					2x180 ⁰	1,750	2,550	1,950	2,450				
2 m/s - 2.5 m/s	8	630 kg	1,100	1,400	900		1	1,700	2,000	1,950	1,950	1,815 ⁷ - 2,180 ⁸	4,000 ⁹ - 4,250 ¹⁰
							2x180 ⁰	1,800	1,850	2,050	1,750		
	10	800 kg	1,350	1,400	900		1	1,800	2,000	1,950	1,950		
							2x180 ⁰	2,050	1,850	2,150	1,750		
	13	1,000 kg	1,600	1,400	1,000		1	2,050	2,000	2,150	1,950		
							2x180 ⁰	2,300	1,850	2,400	1,750		
			1,100	2,100	1,000	1	1,800	2,700	2,150	2,650			
						2x180 ⁰	1,850	2,550	2,150	2,450			
	17	1,275 kg	2,000	1,400	1,100		1	2,500	2,050	2,500	2,000	1,865 ⁷ - 2,230 ⁸	4,250 ¹⁰
							2x180 ⁰	2,800	1,850	2,500	1,750		
							1	1,850	2,850	2,350	2,850		
							2x180 ⁰	2,000	2,750	2,350	2,650		
	21	1,600 kg	2,100	1,600	1,100		1	2,550	2,250	2,550	2,150		
							2x180 ⁰	2,900	2,050	2,850	1,950		
			1,400	2,400	1,200		1	2,150	2,950	2,550	2,950	2,085 ⁷ - 2,230 ⁸	
							2x180 ⁰	2,200	2,850	2,550	2,750		

0 Minimum plumb measurements

1 TT doors / CC doors

2 Accessible space below the pit (counterweight with safety gear) add 70 mm to AH

3 R=60 mm, shaft depth with TT 2 panel telescopic door tracks projecting 60 mm on the landing

4 R=40 mm, shaft depth with CC 2 panel central door tracks projecting 40 mm on the landing

5 For travels over 75 m, HF=1,300 mm

6 Minimum HUP for internal car height (HC) of 2,100 mm

If side counterweight Q>630kg, HUP min=3,800 mm

7 (2m/s) HF minimum (HF=BC+1410) Table BC=100

8 (2,5m/s) HF minimum (HF=BC+1795) Table BC=100

9 (2m/s)HUP minimum with side counterweight (HUP=HC+1681) * Table HC=2300

(2m/s) HUP minimum with rear counterweight (HUP=HC+1561)

10 (2,5m/s) HUP minimum with side counterweight (HUP=HC+1905) *Table HC=2300

(2,5m/s) HUP minimum with rear counterweight (HUP=HC+1785)

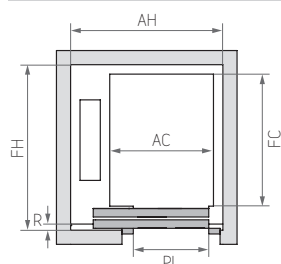
*The information is not contractually binding and is subject to the conditions of the shaft

TT - 2 panel telescopic door

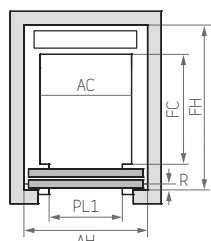
CC - 2 panel central door

Layout*

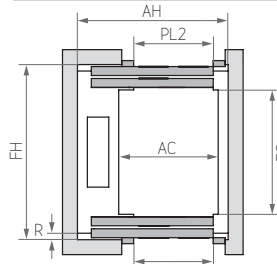
1 ENTRANCE side counterweight



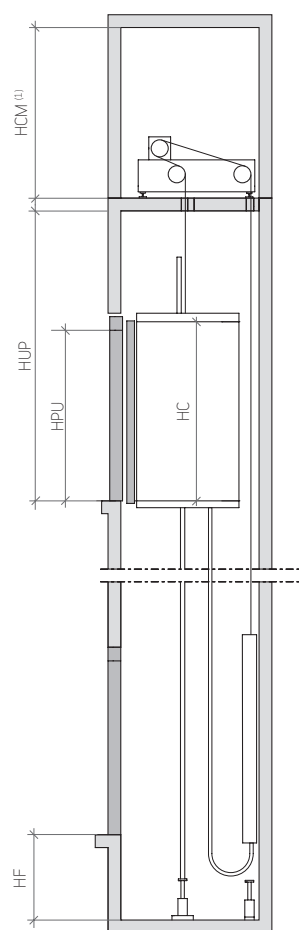
1 ENTRANCE rear counterweight



2 ENTRANCES (OPEN THROUGH)



VERTICAL SECTION



* Note: The diagrams are for guidance only.

Customised car dimensions

Car width													Clear door opening
13	12	11	10	9	8	7	6	5	4	3	2	1	
1,600	1,500	1,400	1,300	1,200	1,100	1,000	900	800	700	600	500	400	
1,500	1,400	1,300	1,200	1,100	1,000	900	800	700	600	500	400	300	
1,400	1,300	1,200	1,100	1,000	900	800	700	600	500	400	300	200	
1,300	1,200	1,100	1,000	900	800	700	600	500	400	300	200	100	
1,200	1,100	1,000	900	800	700	600	500	400	300	200	100	0	
1,100	1,000	900	800	700	600	500	400	300	200	100	0	-100	
1,000	900	800	700	600	500	400	300	200	100	0	-100	-200	
900	800	700	600	500	400	300	200	100	0	-100	-200	-300	

Car depth

Car width													Clear door opening
21	20	19	18	17	16	15	14	13	12	11	10	9	
2,100	2,000	1,900	1,800	1,700	1,600	1,500	1,400	1,300	1,200	1,100	1,000	900	
2,000	1,900	1,800	1,700	1,600	1,500	1,400	1,300	1,200	1,100	1,000	900	800	
1,900	1,800	1,700	1,600	1,500	1,400	1,300	1,200	1,100	1,000	900	800	700	
1,800	1,700	1,600	1,500	1,400	1,300	1,200	1,100	1,000	900	800	700	600	
1,700	1,600	1,500	1,400	1,300	1,200	1,100	1,000	900	800	700	600	500	
1,600	1,500	1,400	1,300	1,200	1,100	1,000	900	800	700	600	500	400	
1,500	1,400	1,300	1,200	1,100	1,000	900	800	700	600	500	400	300	
1,400	1,300	1,200	1,100	1,000	900	800	700	600	500	400	300	200	
1,300	1,200	1,100	1,000	900	800	700	600	500	400	300	200	100	
1,200	1,100	1,000	900	800	700	600	500	400	300	200	100	0	
1,100	1,000	900	800	700	600	500	400	300	200	100	0	-100	
1,000	900	800	700	600	500	400	300	200	100	0	-100	-200	
900	800	700	600	500	400	300	200	100	0	-100	-200	-300	

Car depth

Note: Dimensions for one entrance. Car width and depth variable in increments of 5 mm.

For simplification, table samples increments of 100 mm.

(1) HCM - minimum 2,000 mm

Orona 3G X-28

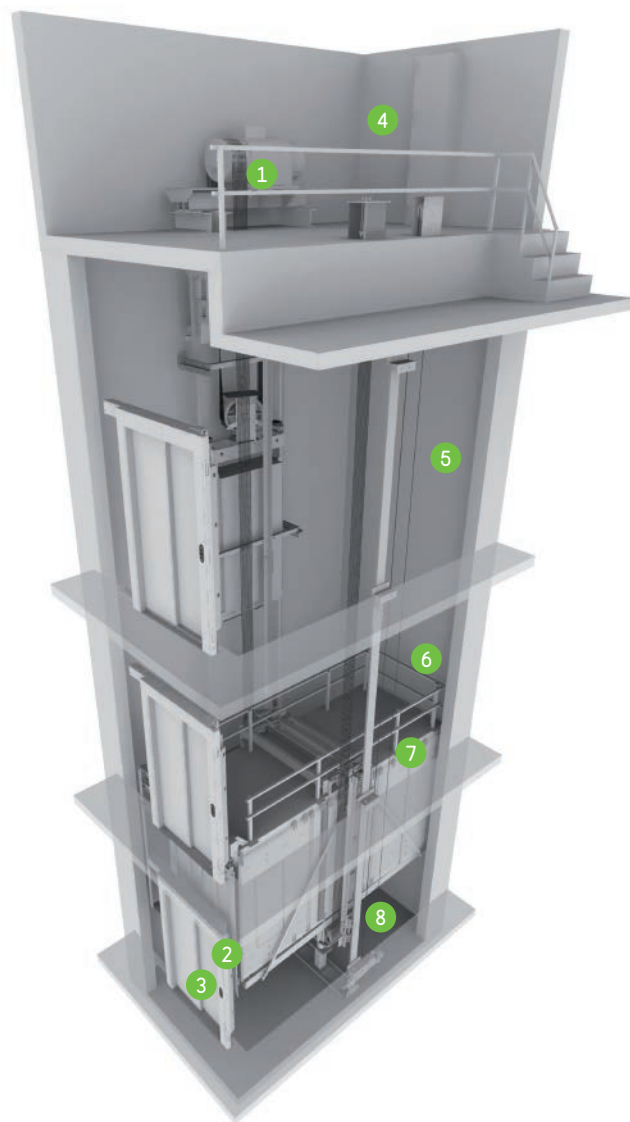
Solution designed for the transport of people and goods in public buildings with heavy traffic

Machine-room above electrical gearless solution.

General specifications

Load	1,650 to 2,500 kg
Capacity	22 to 33 persons
Speed	0.6 - 1 - 1.6 m/s
Maximum travel	40 m
Maximum floors served	16 floors
Entrances	1 front / 2 open through
Drive system	Regulated gearless (180 connections / hour)
Controller	ARCA III controller, low energy consumption multiprocessor
Door types	Automatic side-opening / Automatic central-opening
Clear door opening	From 900 to 2,500 mm (in increments of 100 mm)
Door height	2,000 / 2,100 / 2,200 / 2,300 mm
Car dimensions	Parametric car dimensions
Internal car height	2,100 / 2,200 / 2,300 / 2,400 mm
Aesthetic solutions	Orona 3G Plus

Standard Optional



1 DRIVE

Compact, quiet, gearless, energy efficient, speed regulated (VVVF) permanent magnet electric motor.



2 AUTOMATIC RESCUE SYSTEM

With floor level indication to ensure fast, efficient and safe evacuation of passengers in the event of an emergency. As an option, the system can incorporate a fully-automatic rescue device to evacuate passengers in the event of a power failure.



3 SOLID DOORS

Extra robust doors with reduced sound levels inside and outside the lift and which are specially constructed for high volume passenger traffic.



4 MACHINE-ROOM

A traditional solution simplifying lift maintenance.



5 PARAMETRIC/FLEXIBLE

Flexible car and door configurations ensure available shaft dimensions can be optimised (optional).



6 ROBUST LIFT CAR

Provides greater comfort during lift travel, with reduced vibration and noise.



7 CARS

Reinforced wall panels and flooring provides durability for heavy duty usage. Flexible configurations offering optimum car and door dimensions.



8 ACCESSIBLE SPACE BELOW THE PIT

Adapts the lift to suit buildings which have an accessible space below the pit (optional).



ECO-EFFICIENCY



ADAPTABILITY








DESIGN AND ACCESSIBILITY



CONTROL AND SAFETY

Customised solution, examples of dimensions*

Load / capacity				Car				Lift shaft ⁰							
Speed	 Accessibility	 Persons	Q Load	AC Width	FC Depth	PL Clear opening	Type	No. of entrances	AH ¹ Width	FH Depth	HF ² Pit	HUP ³ Headroom			
0.6 m/s		24	1,800 kg	2,200	1,700	1,200	CC	1 2x180°	3,000	2,050 2,260	1,450	3,625			
		26	2,000 kg	2,350	1,700	1,200	CC	1 2x180°	3,150	2,050 2,260		3,400			
				1,500	2,700	1,300	TT	1 2x180°	2,300	3,050 3,260					
		33	2,500 kg	1,800	2,700	1,300	TT	1 2x180°	2,600	3,050 3,260					
								24	1,800 kg	2,200			1,700	1,200	CC
		1 m/s		26	2,000 kg	2,350	1,700	1,200	CC	1 2x180°		3,150	2,050 2,260	3,425	
1,500	2,700					1,300	TT	1 2x180°	2,300	3,050 3,260					
33	2,500 kg			1,800	2,700	1,300	TT	1 2x180°	2,600	3,050 3,260					
								24	1,800 kg	2,200	1,700	1,200	CC		1 2x180°
1.6 m/s				26	2,000 kg	2,350	1,700	1,200	CC	1 2x180°	3,150	2,050 2,260	1,600	3,565	
						1,500	2,700	1,300	TT	1 2x180°	2,300	3,050 3,260			
		33	2,500 kg	1,800	2,700	1,300	TT	1 2x180°	2,600	3,050 3,260					
								24	1,800 kg	2,200	1,700	1,200			CC

0 Minimum plumb measurements

1 With TT 2 panel telescopic doors

2 With PVC flooring. Marble floor option + 20 mm

3 HUP minimum for internal car height (HC) 2,100 mm.

* The information is not contractually binding and is subject to the conditions of the shaft

TT - 2 panel telescopic door

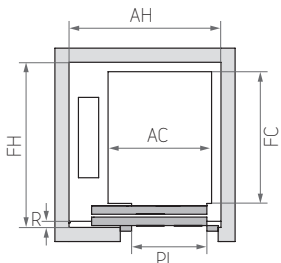
NN - 3 panel telescopic door

CC - 2 panel central door

HH - 4 panel central door

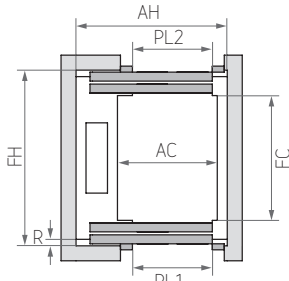
Layout*

1 ENTRANCE

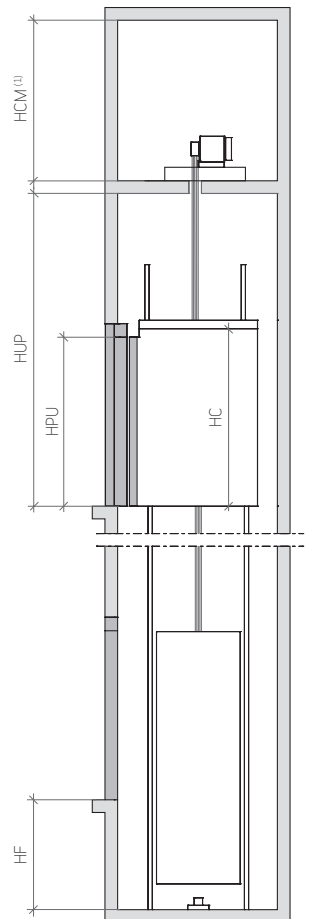


* Note: The diagrams are for guidance only.

2 ENTRANCES (OPEN THROUGH)



VERTICAL SECTION



Customised car dimensions

[illegible]

Note: Dimensions for one entrance. Car width and depth variable in increments of 5 mm.

For simplification, table samples show increments of 100 mm.

(1) HCM - minimum 2000 mm

Orona 3G X-30

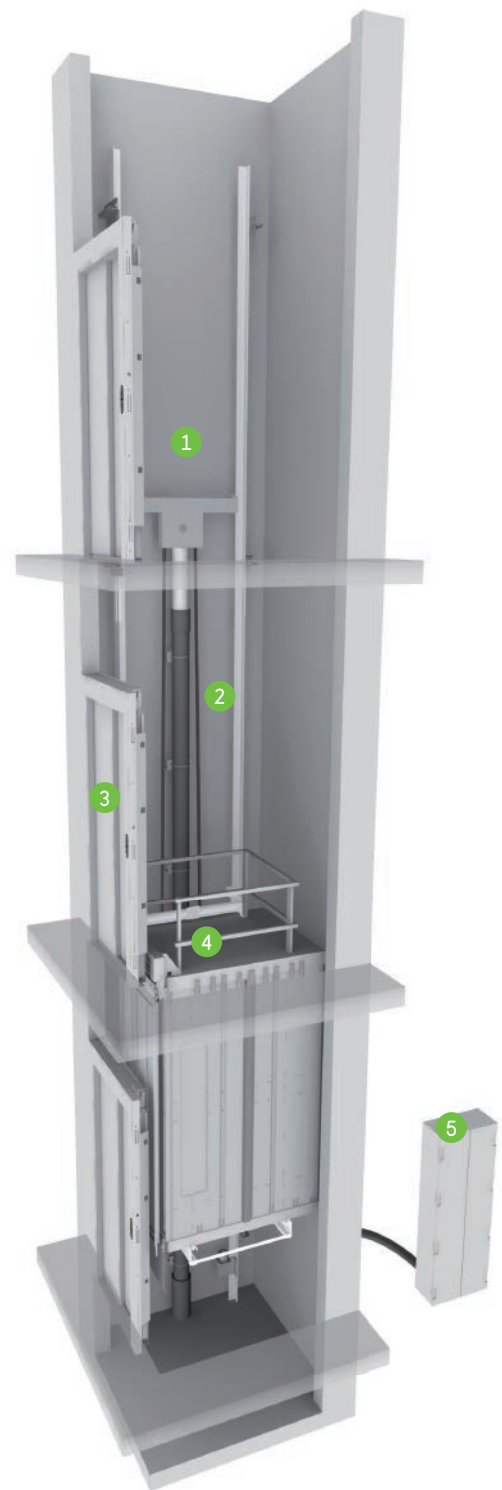
Hydraulic drive solution for buildings with moderate traffic

Hydraulic drive solution.

General specifications

Load	180 to 1,000 kg
Capacity	2 to 16 persons / 2 to 4 persons / 13 to 16 persons
Speed	0.6 m/s
Maximum travel	21 m
Maximum floors served	7 floors
Entrances	1 front / 2 open through / 2 front & side
Drive system	Hydraulic
Controller	ARC III controller, low energy consumption multiprocessor
Door types	Automatic side-opening / Automatic central-opening / Semiautomatic + Articulated (BUS)
Clear door opening	From 600 to 1,600 mm (in 100 mm increments)
Door height	2,000 / 2,100 mm
Car dimensions	Parametric car dimensions
Internal car height	2,100 / 2,200 mm
Aesthetic solutions	Orona 3G Domo Packs / Orona 3G Public Packs / Orona 3G Plus

Standard Optional



1 HYDRAULIC LIFTS

The hydraulic systems, renowned for their long life cycle, are very versatile and offer convenient solutions to high load requirements or reduced shaft spaces.



2 PARAMETRIC/FLEXIBLE

Flexible car and door configurations ensure available shaft dimensions can be optimised (optional).



3 DOORS

Compact permanent magnet motor for fast, accurate and quiet door operation giving the most advanced performance. Advanced door opening and full height infra red door protection edges. Optional Solid Door for high flow situations.



4 CAR ACCESSIBILITY

Optional EN 81-70 accessible car. Optional car light control, including LED lighting options.










5 REDUCED MACHINE ROOM

As an alternative to a machine-room, the controller/machinery can be fitted into a metal cabinet and located in a convenient location within the building.



Customised solution, examples of dimensions*

Load / capacity		Lift shaft ⁰														
		Side piston (TT)								Rear piston (HH)		HF Pit			HUP ² Headroom	
		Standard car			Lift shaft											
	Q Load	AC Width	FC Depth	PL Clear opening	Entrances		AH Width	FH ¹ Depth	AH Width	FH ¹ Depth	Std.	With safety space	Without safety space (EN 81-21)	Std.	Without safety space (EN 81-21)	
					Accessibility	No. of entrances										
2	180 kg	750	750	600		1	1200	1,000	1,100	1,300	1,200	1,100	615	3,010		
4	320 kg	825	1,100	700		2x180 ⁰	1,200	1,150								
						2x90 ⁰	1,350	1,000	1,100	1,300						
					1	1,250	1,350	1,175	1,650							
6	450 kg	1,000	1,250	800		2x180 ⁰	1,250	1,500								
						2x90 ⁰	1,400	1,350	1,175	1,650						
						1	1,425	1,500	1,325	1,800						
8	630 kg	1,100	1,400	900		2x180 ⁰	1,425	1,650								
						2x90 ⁰	1,575	1,500	1,325	1,800						
						1	1,575	1,650								
10	800 kg	1,350	1,400	900		2x180 ⁰	1,575	1,800								
						2x90 ⁰	1,675	1,650								
						1	1,800	1,650	1,700	1,975						
13	1,000 kg	1,100	2,100	900		2x180 ⁰	1,800	1,800								
						2x90 ⁰	1,925	1,650	1,700	1,975						
						1	1,550	2,350								
		1,600	1,400	1,000		2x180 ⁰	1,550	2,500								
						2x90 ⁰	1,675	2,350								
16	1,250 kg	1,200	2,300	1,000		1	1,650	2,550								
						2x180 ⁰	1,650	2,700								
						2x90 ⁰	1,775	2,550								

0 Minimum plumb measurements

1 R=60 mm, shaft with TT 2 panel telescopic door tracks projecting 60 mm on the landing

2 HUP minimum for internal car height (HC) of 2,100 mm

* The information is not contractually binding and is subject to the conditions of the shaft

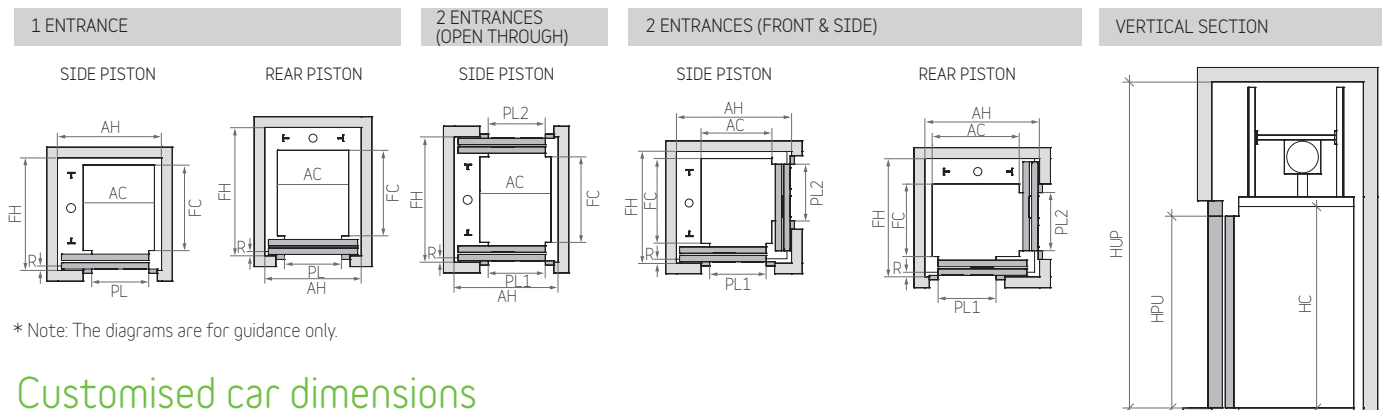
TT - 2 panel telescopic door

NN - 3 panel telescopic door

CC - 2 panel central door

HH - 4 panel central door

Layout*

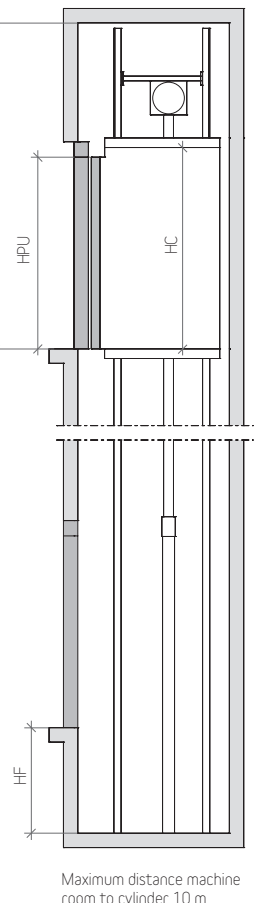


Customised car dimensions

SIDE PISTON		Car width															
		16	15	14	13	12	11	10	9								
		16	15	14	13	12	11	10	9								
16	16	15	13	13	12	11	10	9									
15	14	13	13	12	10	10	9	8	7	6	5	5					
13	13	12	11	10	10	9	8	8	7	6	5	5	4				
12	11	10	10	9	8	8	7	7	6	5	5	4	4				
10	10	9	8	8	7	6	6	5	5	4	4						
9	8	8	8	7	7	6	5	5	5	4	4						
2,100	2,000	1,900	1,800	1,700	1,600	1,500	1,400	1,300	1,200	1,100	1,000	900	800	600	700	800	900
														Clear door opening			

REAR PISTON		Car width															
				13	12	10	9										
				13	12	10	9										
				13	12	10	9	8									
				13	12	10	9	8									
				13	12	10	9	8	7								
				13	12	10	10	9	8	7							
13	12	11	10	8	8	7	6										
12	11	10	9	8	8	7	6										
11	10	9	8	8	7	6	5										
10	9		8	7	6	5	5										
9			7	6	5	5	4										
			6	5	5	4	4										
			5	5	4	4											
			5	4	4												
1,500	1,400	1,300	1,200	1,100	1,000	900	800	600	700	800	900	1,000	1,100	1,200	1,300	1,400	1,500
														Clear door opening			

Note:
Dimensions for one entrance.
Car width and depth variable in increments of 5 mm.
For simplification, table samples show increments of 100 mm.



Orona 3G

Options



ECO-EFFICIENCY

	X-10	X-11	X-14	X-15	X-16
Low-energy drive	•	•	•	•	•
Efficient LED lighting	•	•	•	•	•
Automatic car lighting switch off	•	•	•	•	•
Landing illumination control	○	○	○	○	○
Lift stand-by mode	○	○	○	○	○
Single-phase supply	○	○	○		



ADAPTABILITY

Flexible controller location	○	○	○	○	○
Lift well enclosure	○	○	○	○	○
Reduced headroom	R/V	R/V		R	
Reduced pit	R	R/V	R/V	R	
Accessible space below the pit	○	○	○	○	○



CONTROL AND SAFETY

EVACUATION

Autodialler system	○	○	○	○	○
Automatic rescue system	○	○	○	○	○
Behaviour of lifts in the event of fire (EN 81-73)	○	○	○	○	○
Connection to auxiliary power source (generator)	○	○	○	○	○
Pit water detector	○	○	○	○	○
Safety landing call cancelling	○	○	○	○	○
Firefighters lift (EN 81-72)				○	° (> 1,000 kg)

ACCESS CONTROL

Zone cancelling, coded call	○	○	○	○	○
Compulsory stop at main floor	○	○	○	○	○
External call cancelling	○	○	○	○	○
Automatic car call cancelling	○	○	○	○	○
Independent entrance selection	○	○	○	○	○
Non-emergency outage	○	○	○	○	○
Emergency outage	○	○	○	○	○
Forced closing (nudging feature)	○	○	○	○	○
Anti-vandalism (EN 81-71)				○	○

COMMUNICATIONS*

Pre-opening doors	○	○	○	○	○
Down collective control	○	○	○	○	○
Full collective control	○	○	○	○	○
Intercom system	○	○	○	○	○

* In order to check out these options please consult with us.

X-19	X-20	X-23	X-24	X-25	X-26	X-27	X-28	X-30
------	------	------	------	------	------	------	------	------

●	●	●	●	●	●	●	●	
●	●	●	●	●	●	●	●	●
●	●	●	●	●	●	●	●	●
○	○	○	○	○	○	○	○	○
○	○	○	○	○	○	○	○	
	○							

○								○
○	○	○	○	○	○	○	○	○
R/V	R	V		R				V
	R	R/V	R/V	R				V
○	○	○	○	○	○	○	○	

○	○	○	○	○	○	○	○	○
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○	○	○	○	○	○	○	○	○
○	○	○	○	○	○	○	○	○
○		○		○	○ (> 1000 kg)	○	○	

○	○	○	○	○	○	○	○	○
○	○	○	○	○	○	○	○	○
○	○	○	○	○	○	○	○	○
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				○	○	○		

○	○	○	○	○	○	○	○	○
○	○	○	○	○	○	○	○	○
○	○	○	○	○	○	○	○	○
○	○	○	○	○	○	○	○	○

● Standard ○ Optional R With safety space V With virtual safety space

- ✦ 1 out of every 10 new lifts in Europe is Orona
- ✦ More than 100 countries have Orona products installed
- ✦ 250,000 lifts worldwide with Orona technology
- ✦ First company in the sector worldwide certified in Eco-design (ISO 14006)

Orona 3G

- ✦ Technical solutions
- Aesthetic solutions



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