



Orona

Orona 3G

Technical solutions





Orona 3G

Technical

solutions

MACHINE-ROOM-LESS ELECTRICAL GEARLESS SOLUTIONS (MRLG)

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Orona 3G

X-10

Machine-room-less electrical gearless solutions (MRLG)

High efficiency for residential and public buildings for medium traffic. Optimum use of space and latest direct drive (gearless) technology.

The standard solution.

Latest technology, affordable and functional.

General specifications

Load	320 - 450 - 630 kg
Capacity	4 - 6 - 8 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 (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
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								
Persons	Q Load	AC Width	FC Depth	PL Clear opening	Entrances		Side-opening doors		Central-opening doors		HF Pit	HUP Headroom	
					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					
						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
						2x180 ⁰		1,650		1,550			
						2x90 ⁰	1,625	1,500	3,400				
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	3,400				
		1,200	1,250	900	♿	1	1,700	1,500	2,000	1,450	3,400		
						2x180 ⁰		1,650		1,550			
						2x90 ⁰	1,825	1,575					
	1,100	1,400	800	♿	1	1,600	1,650	2,000	1,600	2,500 ⁶			
					2x180 ⁰		1,800		1,700				
					2x90 ⁰	1,725	1,650						

0 Minimum plumb measurements

- 1 Ac cessible space below the pit (counterweight with safety gear) add 50 mm to AH
- 2 Shaft depth with door tracks projecting 60 mm on the landing
- 3 Shaft depth with 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

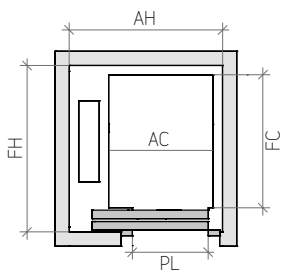
HUP reduced headroom optional only for 6 and 8 persons

- 6 Without safety space EN 81-21, minimum HUP for 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)

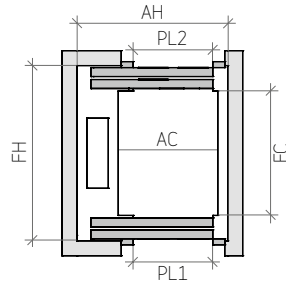
* The information is not contractually binding and is subject to the conditions of the shaft

Layout

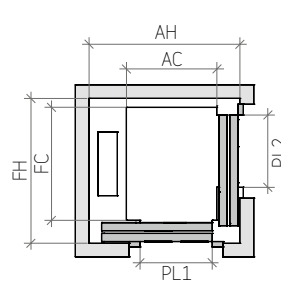
1 ENTRANCE



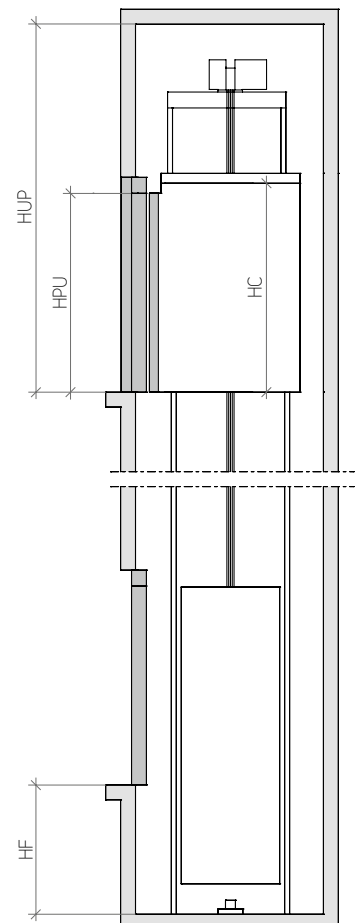
2 ENTRANCES (OPEN THROUGH)



2 ENTRANCES (FRONT & SIDE)



VERTICAL SECTION



Orona 3G

X-11

Machine-room-less electrical gearless solutions (MRLG)

Latest direct drive technology for existing buildings.
Enhanced use of available space for shafts with reduced pits and headrooms.

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
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.



Orona 3G

X-14

Machine-room-less electrical gearless solutions (MRLG)

Latest direct drive technology for existing buildings with single-phase option. The machine-room-less solution that provides up to 50% increase in the car size.

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
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.



Orona 3G

X-15

Machine-room-less electrical gearless solutions (MRLG)

The customised solution with high efficiency.
Optimum use of space and latest direct drive (gearless) technology.
Enhanced flexibility and performance.

General specifications

Load	450 to 1,000 kg
Capacity	6 to 13 persons
Speed	1 - 1.6 m/s
Maximum travel	60 m
Maximum floors served	16 - 21 floors
Entrances	1 front / 2 open through
Drive system	Regulated gearless
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.



Orona 3G

X-16

Machine-room-less electrical gearless solutions (MRLG)

High efficiency for public buildings.

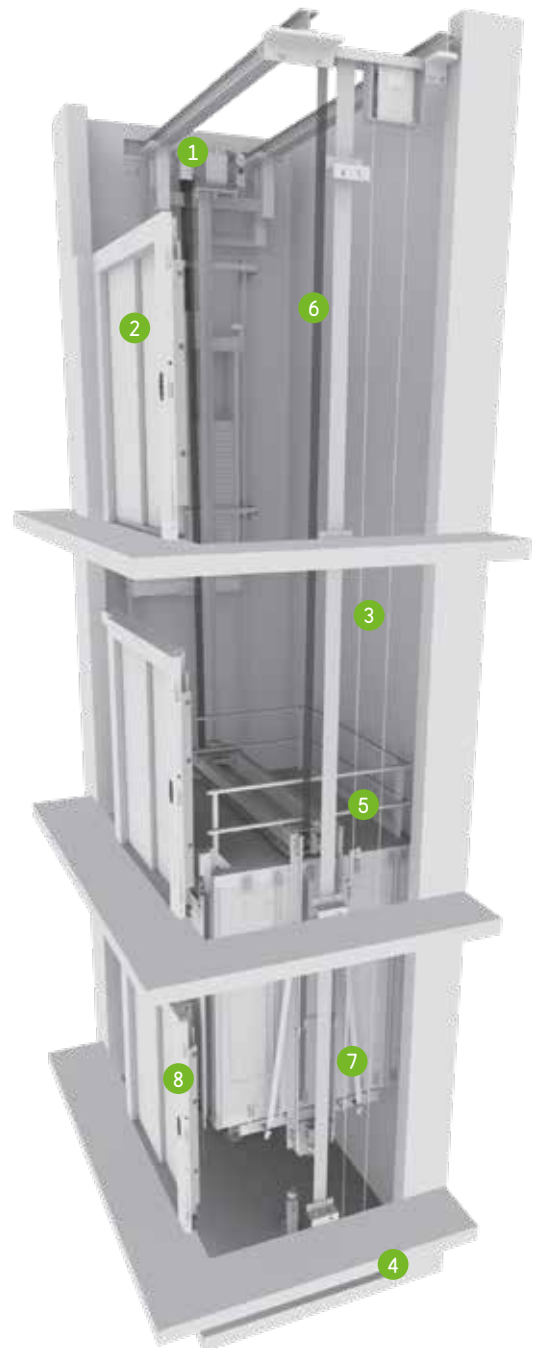
Enhanced reliability.

The solution with enhanced robustness and comfort for the most demanding environments and specifications.

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
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.



Standard dimensions*

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

0 Minimum plumb measurements

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

2 Shaft depth with door tracks projecting 60 mm on the landing

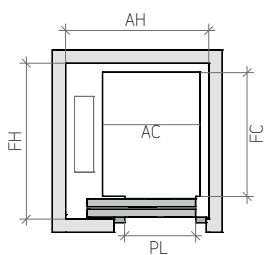
3 Shaft depth with door tracks projecting 40 mm on the landing

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

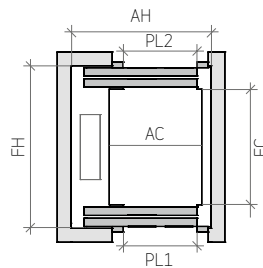
* The information is not contractually binding and is subject to the conditions of the shaft

Layout

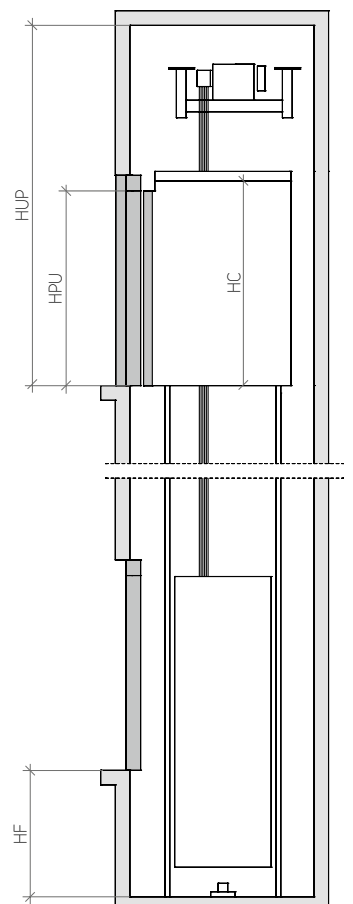
1 ENTRANCE



2 ENTRANCES (OPEN THROUGH)



VERTICAL SECTION



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						1,600													
													21	21	19	18	17	17	15	14	13	13	11					1,500												
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	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: Car width and depth variable in increments of 5 mm.

For simplification, table samples show increments of 100 mm.

Orona 3G

X-18

Machine-room-less electrical gearless solutions (MRLG)

High efficiency for public buildings.

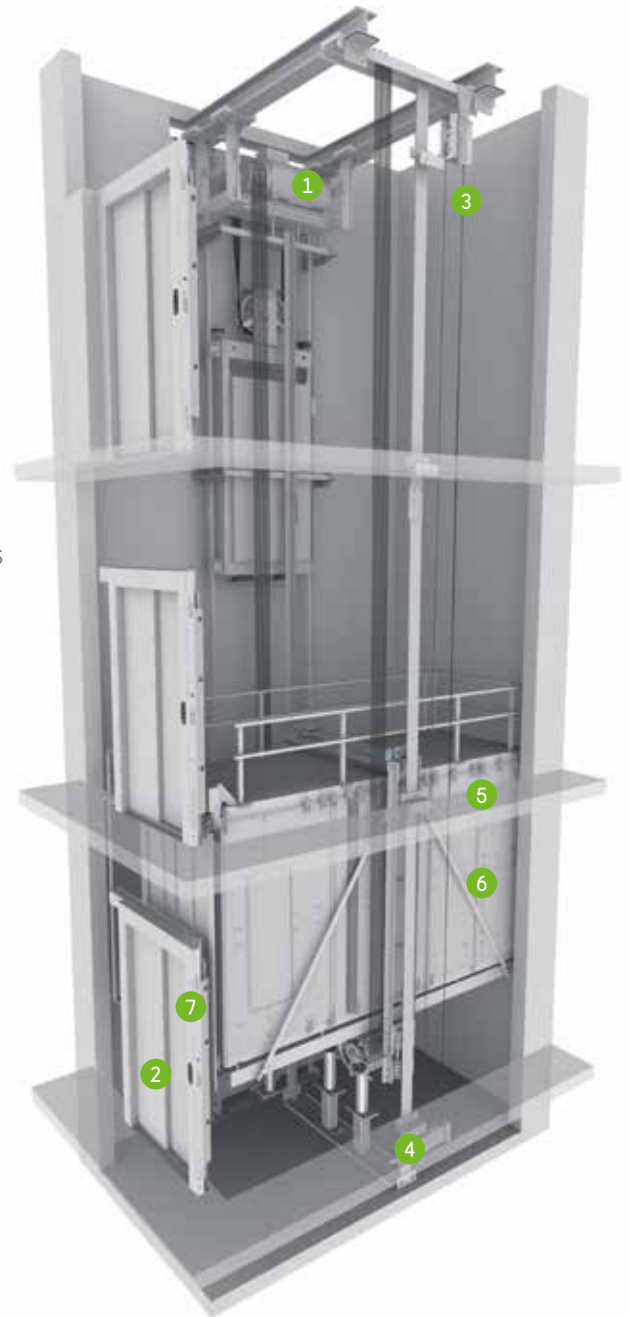
Enhanced durability, comfort, and reliability.

The high transport capacity and dimensional flexibility solution for all types of loads.

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
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.



Orona 3G

X-19

Machine-room-less electrical gearless solutions (MRLG)

Flexible accesses for competitive medium-load solutions, with optimised spaces in cars.

Specially designed for glass lift shafts.

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
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.



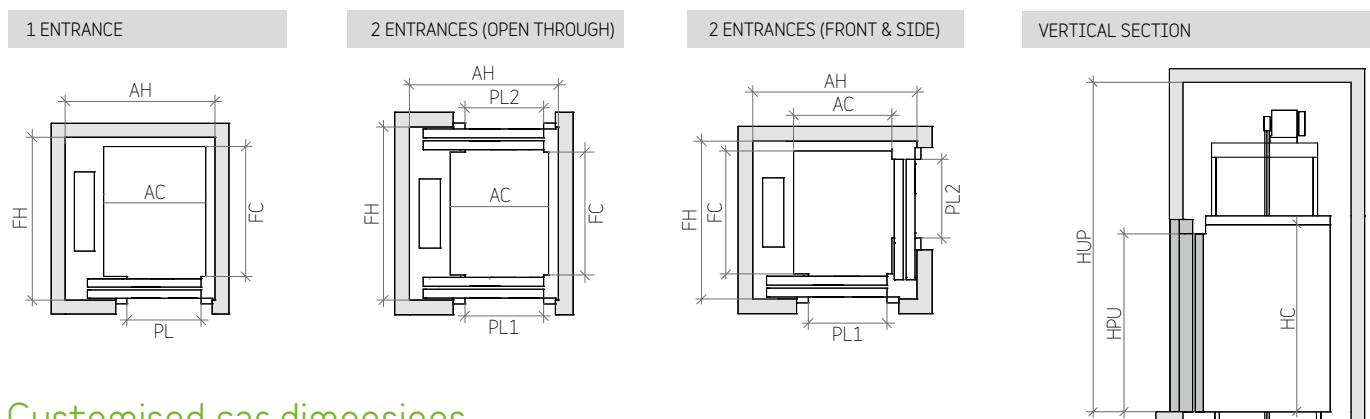
Standard dimensions*

Load / capacity		Standard car				Lift shaft								
						Entrances		Doors side counterweight		Doors rear counterweight		HF	HUP	
Persons	Q Load	AC Width	FC Depth	PL Clear opening	Accessibility			No. of entrances	AH ¹ Width	FH ¹ Depth	AH ¹ Width		FH ¹ 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	1,590	2,385	-	-				
13	1,000 kg	1,100	2,100	900		2x180 ⁰		2,540	-	-				
						2x90 ⁰	1,745	2,385	-	-				
						1	1,890	1,885	-	-				
		2x180 ⁰	2,040	-	-									
			2x90 ⁰	2,045	1,885	-		-						
		16	1,250 kg	1,200	2,300	1,000		1	1,690	2,585			-	-
2x180 ⁰	1,845							2,740	-	-				
2x90 ⁰								2,585	-	-				

- 1 Shaft dimensions with side-opening 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 $1,000 \leq HF < 1,250$ mm, please consult.

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

Layout



Customised car dimensions

Doors side counterweight / Doors rear counterweight

Car width / Car depth

1500		12	12	13	13	13	14	15	15	16	16	16	16									
1450		12	12	13	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	13	14	15	15	16	16	16				
1250		9	9	10	10	10	10	12	12	12	13	13	13	14	14	15	15	16	16	16		
1200			9	9	9	10	10	10	11	12	12	13	13	13	13	14	15	15	15	16		
1150				9	9	9	10	10	10	11	12	12	12	13	13	13	14	14	15	15		
1100					9	9	10	10	10	10	11	12	12	12	13	13	13	14	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	13	13			
950								9	9	9	9	10	10	10	10	10	11	12	12			
900										9	9	9	9	9	10	10	10	10	11			
	1300	1350	1400	1450	1500	1550	1600	1650	1700	1750	1800	1850	1900	1950	2000	2050	2100	2150	2200	2250		

Car width

2200																						
2100																						
2000																						
1900																						
1800																						
1700																						
1600																						
1500																						
1400																						
1300																						
1200																						
1100																						
1000																						
900																						
	800	900	1000	1100	1200	1300	1400	1500														

Car depth / Car width

Clear door opening

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

Orona 3G X-20

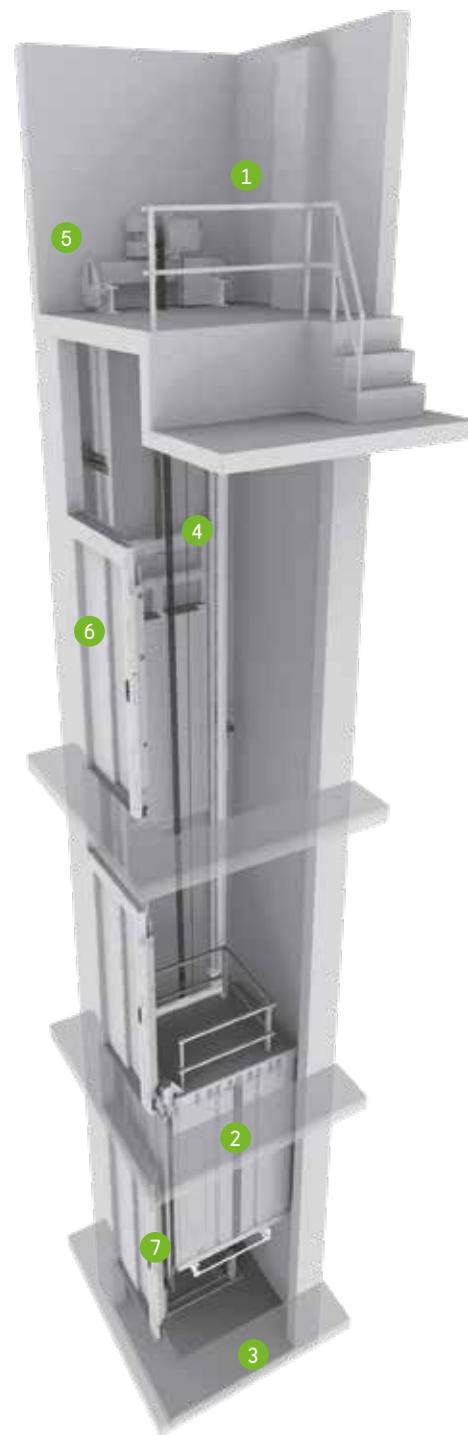
Machine-room above electrical gearless solutions

High efficiency for buildings with low traffic.
Optimum use of space and latest direct drive (gearless) technology.
The standard solution.
Latest technology, affordable and functional.

General specifications

Load	320 - 450 - 630 kg
Capacity	4 - 6 - 8 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
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
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							
Persons	Q Load	AC Width	FC Depth	PL Clear opening	Entrances		Side-opening doors		Central-opening doors		HF Pit	HUP Headroom
					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	1,000 (850) ⁴	3,400 (3,000) ⁵
						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	1,000 (850) ⁴	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	1,000 (850) ⁴	3,400	
					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 Shaft depth with door tracks projecting 60 mm on the landing

3 Shaft depth with door tracks projecting 40 mm on the landing

4 HF reduced pit optional 850 mm

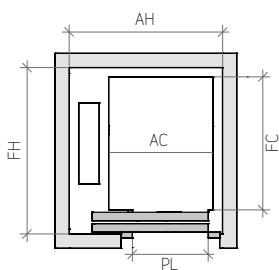
5 HUP minimum for internal car height (HC) of 2,100 mm

HUP reduced headroom optional only for 6 and 8 persons

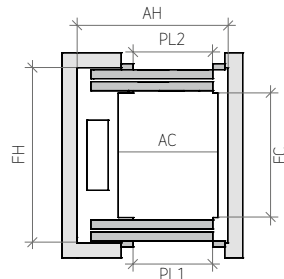
* The information is not contractually binding and is subject to the conditions of the shaft

Layout

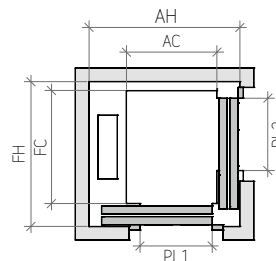
1 ENTRANCE



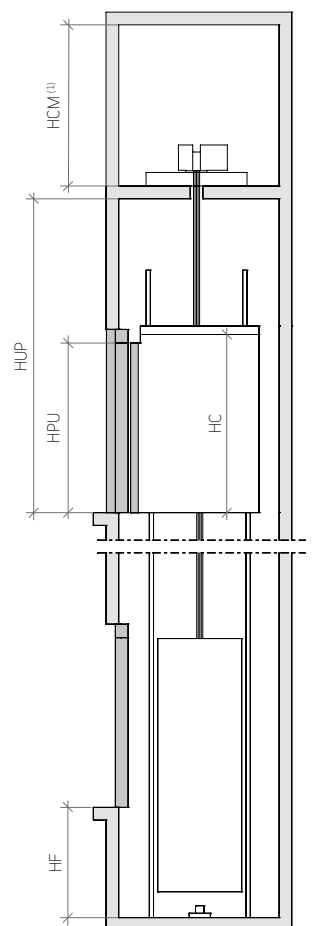
2 ENTRANCES (OPEN THROUGH)



2 ENTRANCES (FRONT & SIDE)



VERTICAL SECTION



(1) HCM - minimum 2,000 mm

Orona 3G X-23

Machine-room above electrical gearless solutions

Compact machine-room solutions mainly designed for existing buildings.

Latest direct drive technology.

The affordable and functional option when a lift with machine room is replaced.

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
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.



Orona 3G

X-24

Machine-room above electrical gearless solutions

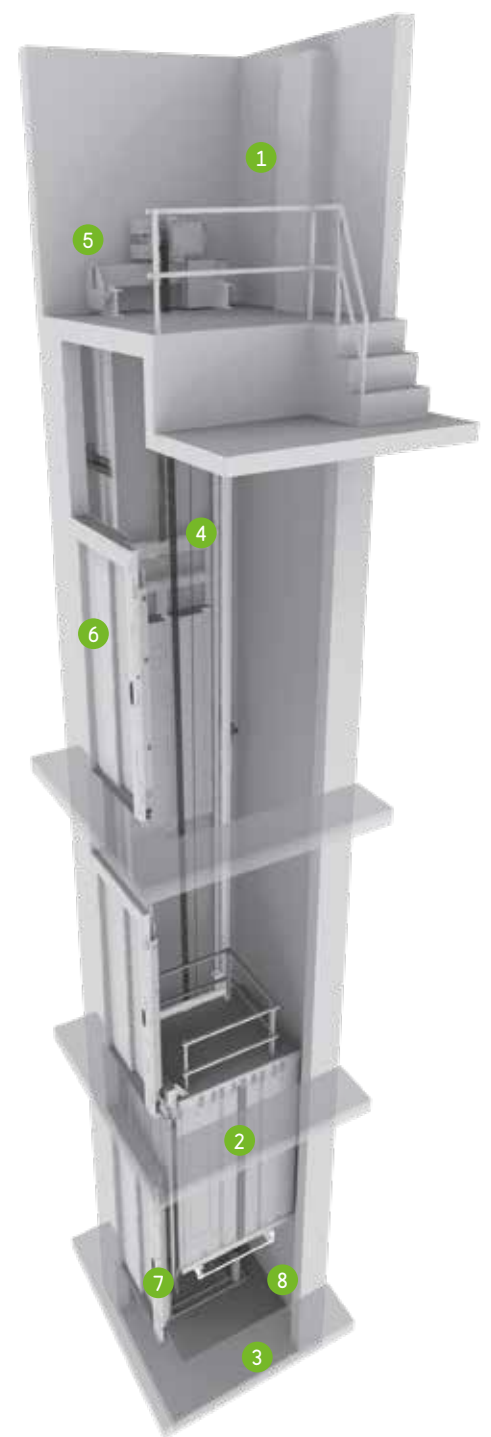
Latest direct drive technology for existing buildings.

The perfect choice for replacing a lift with machine-room with the minimum of building alterations.

General specifications

Load	180 to 630 kg
Capacity	2 to 8 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
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
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

Standard dimensions*

Load / capacity		Car			Lift shaft ⁰									
					Side counterweight		Rear counterweight		HF Pit		HUP Headroom			
Persons	Q Load	AC Width	FC Depth	PL ⁵ Clear opening	Entrances		Side-opening doors		Central-opening doors			Std.	Reduced	
					Accessibility	No. of entrances	AH ¹ Width	FH ² Depth	AH ³ Width	FH ² Depth	With safety space		Without safety space (EN 81-21)	
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				

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 4 panel central door

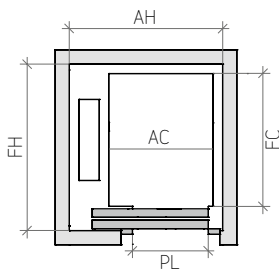
4 HUP minimum for internal car height (HC) 2,100 mm

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

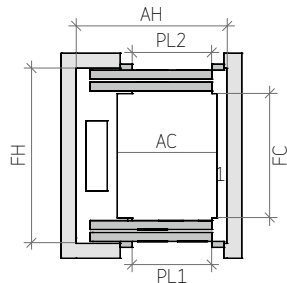
* The information is not contractually binding and is subject to the conditions of the shaft.

Layout

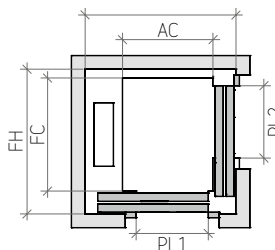
1 ENTRANCE



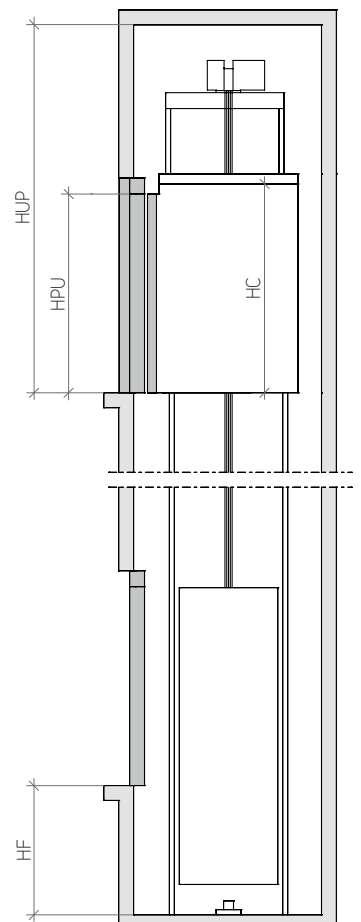
2 ENTRANCES (OPEN THROUGH)



2 ENTRANCES (FRONT & SIDE)



VERTICAL SECTION



Customised car dimensions

		Car width																			
		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	Car depth														Clear door opening						
						8	8	8	8	7	7	6	6	5							
				8	8	8	7	7	7	6	6	6	5								
			8	8	8	7	7	7	7	6	6	5	5								
			8	8	8	7	7	7	7	6	6	5	5								
			8	8	8	7	7	7	7	6	6	5	5								
			8	8	8	7	7	7	7	6	6	5	5								
8	8	8	7	7	7	6	6	6	5	5	5	5	4	4							
8	8	7	7	7	6	6	5	5	5	5	5	4	4	4	3						
8	7	7	6	6	6	5	5	5	5	5	4	4	4	4	3						
7	7	6	6	6	5	5	5	5	5	4	4	4	4	3	3						
6	6	6	6	5	5	5	5	5	4	4	4	4	3	3	3						
6	6	5	5	5	5	5	4	4	4	4	4	3	3	3	3						
5	5	5	5	5	5	4	4	4	4	4	3	3	3	3	3						
5	5	5	5	4	4	4	4	4	3	3	3	3	3	3	2						
5	5	4	4	4	4	4	4	3	3	3	3	3	3	2	2						
4	4	4	4	4	3	3	3	3	3	3	3	2	2	2	2						
4	4	4	3	3	3	3	3	3	3	3	2	2	2	2	2						

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

Orona 3G X-25

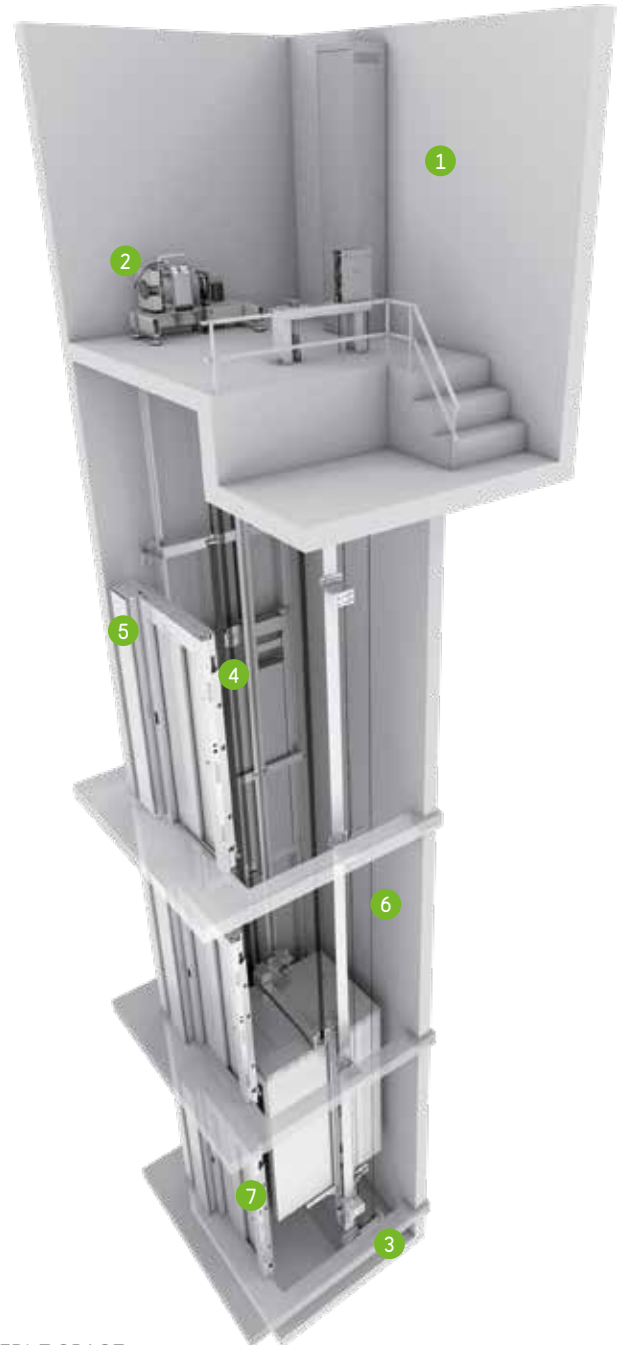
Machine-room above electrical gearless solutions

High efficiency for residential and public buildings.
Optimum use of space and latest direct drive (gearless) technology.
The customised solution.
Enhanced flexibility and performance.

General specifications

Load	450 to 1,000 kg
Capacity	6 to 13 persons
Speed	1 - 1.6 m/s
Maximum travel	60 m
Maximum floors served	16 - 21 floors
Entrances	1 front / 2 open through
Drive system	Regulated gearless
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.



Standard dimensions*

Load / capacity			Car			Lift shaft ⁰									
Speed	Persons	Q Load	AC Width	FC Depth	PL Clear opening	Entrances		Side-opening doors		Central-opening doors		HF Pit	HUP ⁴ Headroom		
						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	1,470	1,520	1,720	1,470	1,000 (850) ³	3,400		
							2x180 ⁰		1,690		1,590				
	8	630 kg	1,100	1,400	900	♿	1	1,570	1,670	1,900	1,620				
							2x180 ⁰		1,840		1,740				
	10	800 kg	1,350	1,400	900	♿	1	1,820	1,670	1,900	1,620				
							2x180 ⁰		1,840		1,740				
	13	1000 kg	1,600	1,400	1,000	♿	1	2,070	1,670	2,100	1,620				
							2x180 ⁰		1,840		1,740				
							1		1,870		1,870			2,100	1,820
							2x180 ⁰				2,040				1,940
							1		1,720		2,370			2,100	2,320
							2x180 ⁰				2,540				2,440
1,6 m/s	6	450 kg	1,000	1,250	800	♿	1	1,470	1,520	1,720	1,470	1,120	3,550		
							2x180 ⁰		1,690		1,590				
	8	630 kg	1,100	1,400	900	♿	1	1,570	1,670	1,900	1,620				
							2x180 ⁰		1,840		1,740				
	10	800 kg	1,350	1,400	900	♿	1	1,820	1,670	1,900	1,620				
							2x180 ⁰		1,840		1,740				
	13	1,000 kg	1,600	1,400	1,000	♿	1	2,070	1,670	2,100	1,620				
							2x180 ⁰		1,840		1,740				
							1		1,870		1,870			2,100	1,820
							2x180 ⁰				2,040				1,940
							1		1,720		2,370			2,100	2,320
							2x180 ⁰				2,540				2,440

0 Minimum plumb measurements

- 1 Shaft depth with doors tracks projecting 60 mm on the landing (doors adapted 50 mm towards the lift shaft) (std. doors 90 mm sill)
- 2 Shaft depth with doors tracks projecting 40 mm on the landing (doors adapted 34 mm towards the lift shaft) (std. doors 54 mm sill)

3 HF reduced pit optional 850 mm

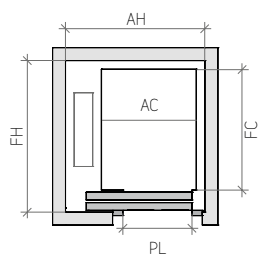
4 HUP minimum for internal car height (HC) 2,100 mm (HUP=HC+1,300)

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

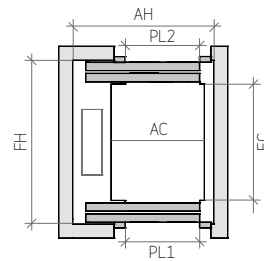
* The information is not contractually binding and is subject to the conditions of the shaft

Layout*

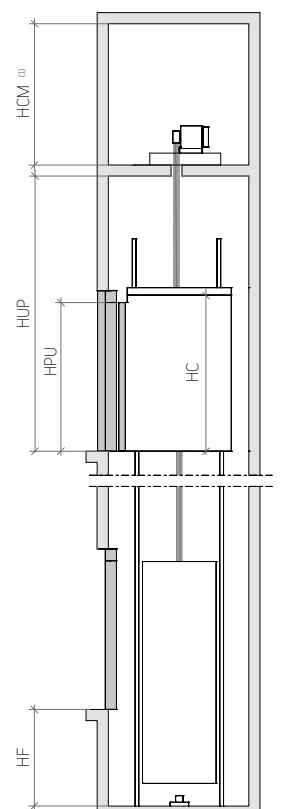
1 ENTRANCE



2 ENTRANCES (OPEN THROUGH)



VERTICAL SECTION



* Note: The diagrams are for guidance only

Customised car dimensions

Car width												Clear door opening											
												1,600											
												1,500											
												1,400											
												1,300											
												1,200											
												1,100											
												1,000											
												900											
												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:

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

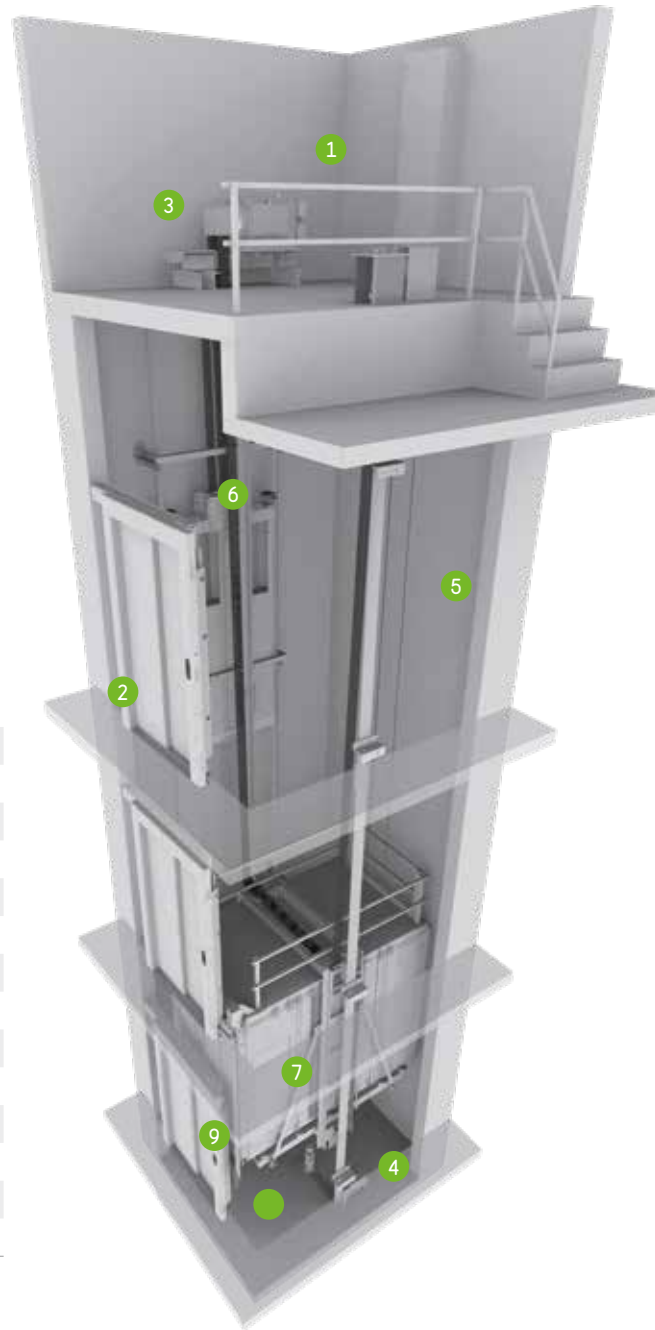
Machine-room above electrical gearless solutions

With the latest direct drive technology in public buildings.
Less noise and more accessible maintenance.
The robust solution with machine room for heavy traffic.

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
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

Orona 3G

X-27

Machine-room above electrical gearless solutions

With the latest direct drive (gearless) technology.
Designed for high-rise buildings.
Great flexibility and high performance.

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
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.



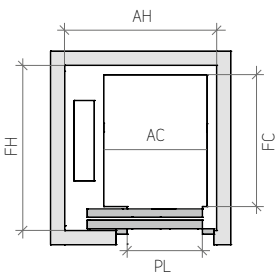
Standard dimensions*

Load / capacity			Car			Lift shaft ⁰							
Speed	Persons	Q Load	AC Width	FC Depth	PL Clear opening	Entrances		Side-opening doors ¹		Central-opening doors ¹		HF ⁵ Pit	HUP ⁶ Headroom
						Accessibility	No. of entrances	AH ² Width	FH ³ Depth	AH Width	FH ⁴ Depth		
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°	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		
							2x180°	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°	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°	2,250	1,850	2,250	1,750			
13	1,000 kg	1,100	2,100	900	♿	1	1,700	2,650	1,950	2,600			
						2x180°	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	1,550 - 1,900	4,000 ⁷ - 4,250 ⁷
							2x180°	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°	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°	2,300	1,850	2,400	1,750		
	13	1,000 kg	1,100	2,100	1,000	♿	1	1,800	2,700	2,150	2,650		
							2x180°	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		
							2x180°	2,800	1,850	2,500	1,750		
	17	1,275 kg	1,200	2,300	1,100	♿	1	1,850	2,850	2,350	2,850		
							2x180°	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°	2,900	2,050	2,850	1,950			
21	1,600 kg	1,400	2,400	1,200	♿	1	2,150	2,950	2,550	2,950			
						2x180°	2,200	2,850	2,550	2,750			

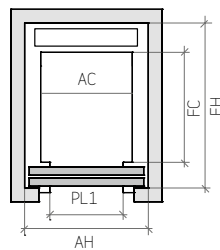
- 0 Minimum plumb measurements
 - 1 TT / CC
 - 2 Accessible space below the pit (counterweight with safety gear) add 70 mm to AH
 - 3 Lift shaft depth with door tracks projecting 60 mm on the landing
 - 4 Lift shaft depth with door tracks projecting 40 mm on the landing
 - 5 For travels over 75 m, HF=1,300 mm
 - 6 Minimum HUP for internal car height (HC) of 2,100 mm
If side counterweight Q>630kg, HUP min=3,800 mm
 - 7 HUP may vary according to counterweight position and speed
CC - Two panel central door
TT - Two panel telescopic door
- *The information is not contractually binding and is subject to the conditions of the shaft

Layout

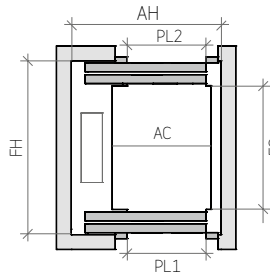
1 ENTRANCE side counterweight



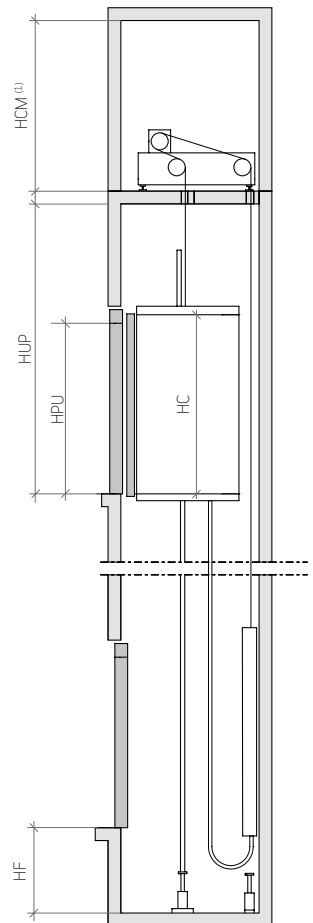
1 ENTRANCE rear counterweight



2 ENTRANCES (OPEN THROUGH)



VERTICAL SECTION



Customised car dimensions

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

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

Note: Car width and depth variable in increments of 5 mm. For simplification, table samples increments of 100 mm.

Orona 3G

X-28

Machine-room above electrical gearless solutions

With the latest direct drive technology in public buildings.

Less noise and more accessible maintenance. The large-scale customised solution with a machine room, with enhanced performance and maintenance efficiency.

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
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).



Standard 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	Accessibility	24	1,800 kg	2,350	1,600	1,200	CC	1 2x180 ⁰	3,150	1,950	1,450	3,400
		Persons	26	2,000 kg	2,350	1,700	1,200	CC		1 2x180 ⁰		
	1,500				2,700	1,300	TT	1 2x180 ⁰	2,300	2,260		
	Persons	33	2,500 kg	1,800	2,700	1,300	TT	1 2x180 ⁰	2,600	3,050		
										3,260		
	1 m/s	Accessibility	24	1,800 kg	2,350	1,600	1,200	CC	1 2x180 ⁰	3,150		
Persons			26	2,000 kg	2,350	1,700	1,200	CC	1 2x180 ⁰		2,050	
		1,500			2,700	1,300	TT	1 2x180 ⁰	2,300	2,260		
Persons		33	2,500 kg	1,800	2,700	1,300	TT	1 2x180 ⁰	2,600	3,050		
										3,260		
1.6 m/s		Accessibility	24	1,800 kg	2,350	1,600	1,200	CC	1 2x180 ⁰	3,150	2,050	1,600
	Persons		26	2,000 kg	2,350	1,700	1,200	CC	1 2x180 ⁰		2,260	
		1,500			2,700	1,300	TT	1 2x180 ⁰	2,300	3,050		
	Persons	33	2,500 kg	1,800	2,700	1,300	TT	1 2x180 ⁰	2,600	3,260		
										3,050		
										3,260		

0 Minimum plumb measurements

1 With TT doors

2 With PVC flooring. Marble floor option + 20 mm

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

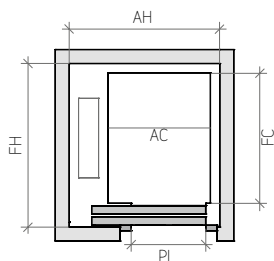
CC - Two panel central door

TT - Two panel telescopic door

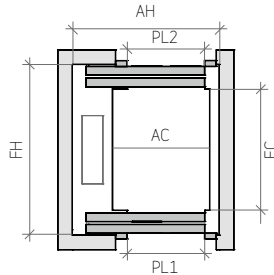
* The information is not contractually binding and is subject to the conditions of the shaft

Layout

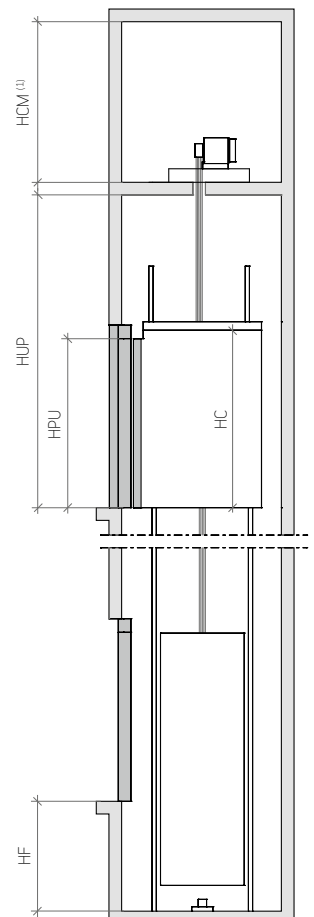
1 ENTRANCE



2 ENTRANCES (OPEN THROUGH)



VERTICAL SECTION



Customised car dimensions

		Car width															
		33	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17
Car depth	3,000																
	2,900																
	2,800																
	2,700																
	2,600																
	2,500																
	2,400																
	2,300																
	2,200																
	2,100																
	2,000																
	1,900																
	1,800																
	1,700																
	1,600																
	1,500																
1,400																	
	3,000	2,900	2,800	2,700	2,600	2,500	2,400	2,300	2,200	2,100	2,000	1,900	1,800	1,700	1,600	1,500	

Clear door opening

Note: 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

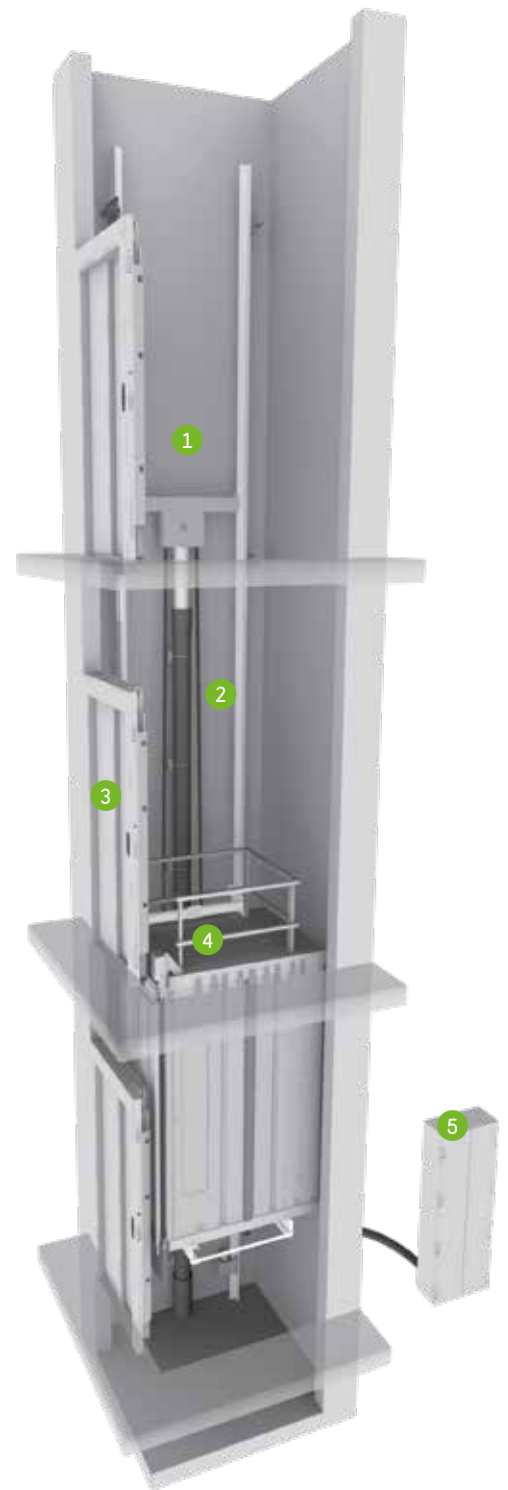
Hydraulic drive solutions

For light-traffic applications.
The versatile and adaptable hydraulic solution.

General specifications

Load	320 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.



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
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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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