

Orona 3G Technical Solutions

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Orona 3G Technical Solutions

MACHINE-ROOM-LESS ELECTRICAL GEARLESS SOLUTIONS (MRLG)

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Orona 3G X-11	8
Orona 3G X-14	10
Orona 3G X-15	12
Orona 3G X-16	14
Orona 3G X-18	16

MACHINE-ROOM ABOVE ELECTRICAL GEARLESS SOLUTIONS

Orona 3G X-20 18	8
Orona 3G X-23 20	0
Orona 3G X-24 22	2
Orona 3G X-25 24	4
Orona 3G X-26	6
Orona 3G X-27	8
Orona 3G X-28	0

HYDRAULIC DRIVE SOLUTIONS

Orona 3G X-30)	32
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Orona 3G Optic	ns	34
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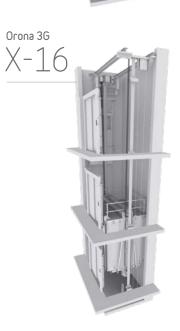
Features

Machine-room-less electrical gearless solutions (MRLG)





Orona 3G X-15





Machine-room above electrical gearless solutions



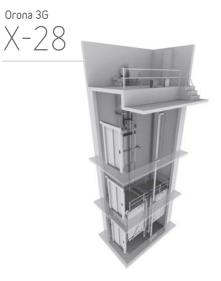
0rona 3G X-23







Orona 3G X-27



0rona 3G X-26



Hydraulic drive solutions



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

320 - 450 - 630 kg
4 - 6 - 8 persons
1 m/s
45 m
16 floors
1 front / 2 open through / 2 front & side
Direct Gearless (180 connections / hour)
ARCA II controller, low energy microprocessor
Automatic side-opening / Automatic central-opening
700 / 800 / 900
2,000 / 2,100
Standard car dimensions
2,100 / 2,200
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.



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.

2 OPTIMISED PASSENGER UNIT

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



5 DRIVE

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

ECO-EFFICIENCY

ACCESIBLE SPACE BELLOW THE PIT

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

6 DOORS

ADAPTABILITY

[≣ħ] [√

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.



ALC: N

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.





[🖬 h j]

			Car		Lift shaft *																					
L090 / 1	Load / capacity Car						Side-oper	ning doors	Central-op	ening doors																
	Q	AC	FC	PL	Entr	ances	AH1	FH ²	AH	FH ³	HF	HUP														
Persons	Load	Width	Depth	Clear opening	Accessibility	No. of entrances	Width	Depth	Width	Depth	Pit	Last Floor														
						1	1,325	1,350	1 600	1,300																
4	320 kg	825	1,100	700		2 x 180 ⁰	1,323	1,500	1,000	T,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,600	1,000	1,000	1,000	1,000	1,400		3,400
						2 x 90 ⁰ 1,4		1,350																		
				800				Ŀ	1	1,500	1,500	1,800	1,450		3,400											
6	450 kg	1,000	1,000 1,250			2 x 180 ⁰	1,000	1,650	1,000	1,550		(3,000) ⁵														
						2 × 90 ⁰	1,625	1,500			1,000	3,400														
						1	1 (00	1,650	2,000	1,600	(850) ⁴	3,400														
		1,100	1,400	900	i.	2 x 180 ⁰	1,600	1,800	2,000	1,700		(3,000) ⁵														
8	630 kg					2 x 90 ⁰	1,725	1,650																		
0	озо ку	1,200			L	1	1 700	1,500	2 000	1,450		3,400														
			1,250	900	Ŀ	2 x 180 ⁰	1,700	1,650	2,000	1,550		3,400														
						2 x 90 ⁰	1,825	1,575																		

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

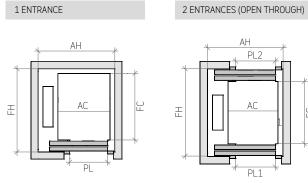
3 Shaft depth with door tracks projecting 40 mm on the landing

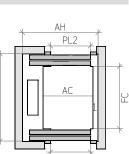
4 HF reduced pit optional 850 mm

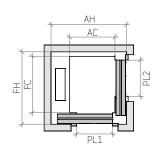
5 Minimum HUP for internal car height (HC) of 2,100 mm (HUP = HC + 1,300) HUP reduced headroom optional only for 6 and 8 persons (HUP = HC + 900)

* Minimum plumb measurements

Layout

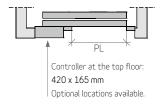




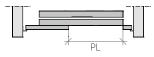


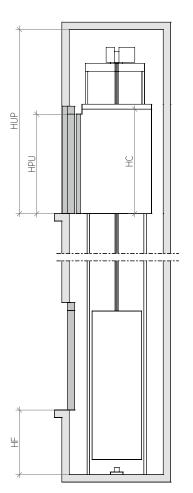
2 ENTRANCES (FRONT & SIDE)

CONTROLLER DETAIL



WIDE-FRAMED DOOR DETAIL





VERTICAL SECTION

Machine-room-less electrical gearless solutions (MRLG)

Compact machine-room-less solutions mainly designed for existing buildings. Latest direct drive technology for measurements on top floor and pit limit. Optimum use of space, machine-room-less solution.

General specifications

Load	180 to 630 kg
Capacity	2 to 8 persons
Speed	0.6 - 1 m/s
Maximum travel	45 m
Maximum floors served	16 floors
Entrances	1 front / 2 open through / 2 front and side
Drive system	Direct gearless
Controller	ARCA II controller, low energy microprocessor
Door types	Semiautomatic + Articulated (BUS) / Automatic side-opening / Automatic central-opening
Clear door opening	From 500 to 900 mm
Door height	2,000 / 2,100
Car dimensions	Parametric car dimensions
Internal car height	2,100 / 2,200
Aesthetic solutions	Orona 3G Domo Packs / Orona 3G Public Packs / Orona 3G Plus
Standard Optional	

Standard Optional

1 MRL

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



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.

2 OPTIMISED PASSENGER UNIT

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



5 DRIVE

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

ECO-EFFICIENCY

3 ACCESIBLE SPACE BELLOW THE PIT

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

6 DOORS

ADAPTABILITY

[≣ħ] [√

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.

AUTOMATIC RESCUE SYSTEM

13

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.





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										Lift s	haft*	:							
	Load / capacity			Standa	rd car		D	loors side	e jack		Doors rear jack			HF Pit		HUP ² Last Floor			
								٦	Felescopic (Doors		Central [Doors HH		Reduced			Reduced	
	Ŀ	Persons	Q Load	AC Width	FC Depth	PL Clear opening	Entrances	AH ¹ Width	FH ¹ Depth	TT	NN	AH ¹ Width	FH ¹ Depth	Std.	With safety cube	Without safety cube (EN 81-21)	Std.	Without safety cube (EN 81-21)	
_		4	320 kg	825	1,100	700	1 2 x 180 ⁰ 2 x 90 ⁰	1,150 1,150 1,280	1,460 1,720 1,460		X X X	1,190	1,580					3,450	
	Ŀ	6	450 kg	1,000	1,250	800	1 2 x 180 ⁰	1,355 1,355	1,610 1,860		X X	1,340	1,760	1,000	710	260		2,700	
							2 x 90 ⁰	1,485	1,610		Х						3,275		
	ie	8	630 kg	1,100	1,400	800	1 2 x 180 ⁰	1,455 1,455	1,670 1,840	X X		1,340	1,910				5,270		
							2 x 90 ⁰	1,610	1,670	Х									

TT - Two panel telescopic door NN - Three panel telescopic door

HH - Four panel central door

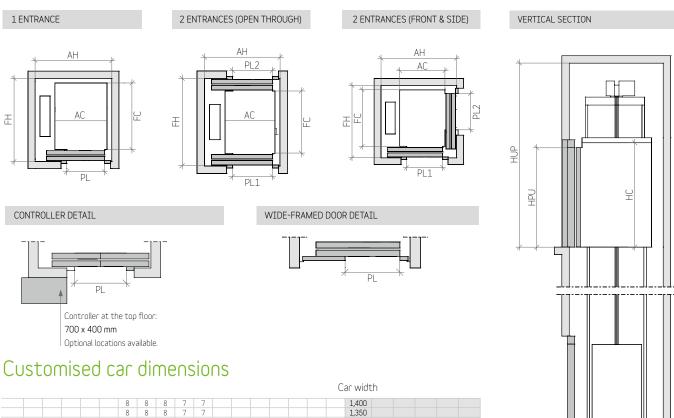
* Minimum plumb measurements

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).

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.

Layout



						8	8	8	7	7								1,400					
						8	8	8	7	7								1,350					
					8	8	8	7	7	6	6							1,300					
				8	8	8	7	7	6	6								1,250					
			8	8	8	7	7	6	6	6	5	5	5	4	4			1,200					
	8	8	8	8	7	7	6	6	6	5	5	5	4	4	4			1,150					
8	8	8	8	7	7	6	6	6	5	5	5	4	4	4	4			1,100					
8	8	8	7	7	6	6	6	5	5	5	5	4	4	4				1,050					
8	7	7	7	6	6	6	5	5	5	5	4	4	4					1,000					
	7	7	6	6	6	5	5	5	5	4	4	4	4	3	3	3	2	950					
	6	6	6		5	5	5	5	4	4	4	4	3	3	3	3	2	900					
	6	6			5	5	5	4	4	4	4	3	3	3	3	2	2	850					
					5	4	4	4	4	4	3	3	3	3	2	2	2	800					
					4	4	4	4	4	3	3	3	3	2	2	2		750					
					4	4	4	4	3	3	3	3	2	2	2			700					
					4	4	4	3	3	3	3	2	2	2				650					
						3	3	3	3	2	2	2	2					600					
450*	1,400	1,350	1,300	1,250	1,200	1,150	1,100	1,050	1,000	950	900	850	800	750	700	650	600		500	600	700	800	900
lar c	lepth	n																		С	lear d	oor o	penir

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Note: Car width and depth variable in increments of 5 mm. For simplification, table samples show increments of 100 mm. * Car depth only valid in the event of side car frame.

Orona 3G X - 14

Machine-room-less electrical gearless solutions (MRLG)

Compact machine-room-less solutions mainly designed for existing buildings. Latest direct drive technology.

The customised solution with maximum flexibility.

General specifications

Load	180 to 630 kg
Capacity	2 to 8 persons
Speed	0.6 - 1 m/s
Maximum travel	45 m
Maximum floors served	16 floors
Entrances	1 front / 2 open through / 2 front & side
Drive system	Direct gearless
Controller	ARCA II controller, low energy microprocessor
Door types	Semiautomatic + Articulated (BUS) / Automatic side-opening / Automatic central-opening
Clear door opening	From 500 to 900 mm
Door height	2,000 / 2,100 / 2,200 / 2,300
Car dimensions	Parametric car dimensions
Internal car height	2,100 / 2,200 / 2,300 / 2,400
Aesthetic solutions	Orona 3G Domo Packs / Orona 3G Public Packs / Orona 3G Plus
Standard Ontional	

Standard Optional

1 MRL 2 **OPTIMISED PASSENGER** 3 ACCESIBLE SPACE UNIT **BELLOW THE PIT** Compact machine-room-less solution. Adapts the lift to suit buildings Saves space, reduces weight, improves safety, and improves the installation which have an accessible space process. below the pit (optional). ***)**[ih][/ [≣ħ] [√ 4 TRACTION ROPES 5 DRIVE 6 DOORS Compact, quiet, gearless, energy Compact permanent magnet motor efficient, speed regulated (VVVF) for fast, accurate and quiet door permanent magnet electric motor. operation giving the most advanced performance. Advanced door opening and full height infra red door protection edges. Optional Solid Door for high flow situations. ***** [🖬 h j] ECO-EFFICIENCY ADAPTABILITY DESIGN AND ACCESSIBILITY CONTROL AND SAFETY





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.

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.



	Load / capacity		Car		Lift shaft *																				
L090 /	Load / capacity Car					Side-oper	ning doors	Central-op	ening doors																
Î ÎÎÎÎ	Q	AC	FC	PL	Entr	ances	AH1	FH ²	AH	FH ³	HF	HUP⁵													
Persons	Load	Width	Depth	Clear opening	Accessibility	No. of entrances	Width	Depth	Width	Depth	Pit	Last Floor													
						1	1,325	1,350	1,600	1,300															
4	320 kg	825	1,100	700		2 x 180 ⁰	1,323	1,500	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,400		
						2 x 90 ⁰ 1,450 1,350																			
			1,000 1,250	800	Ŀ	1	1,500	1,500	1,800	1,450															
6	450 kg	1,000				2 x 180 ⁰	1,000	1,650		1,550															
						2 × 90 ⁰	1,625	1,500			1,000	3,400													
						1	1,600	1,650	2,000	1,600	(850) ⁴	3,400													
		1,100	1,400	900	ie	2 x 180 ⁰	1,000	1,800	2,000	1,700															
0	620 kg				2 × 90 ⁰ 1,725 1,650																				
0	8 630 kg					1	1 700	1,500	2,000	1,450															
			1,200	1,250	900	Ľ	2 x 180 ⁰	1,700	1,650	2,000	1,550														
						2 x 90 ⁰	1,825	1,575																	

 $1\;$ 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

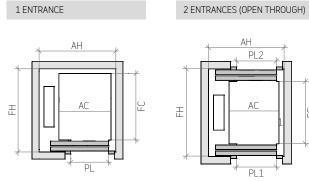
3 Shaft depth with door tracks projecting 40 mm on the landing

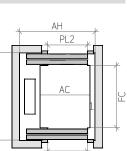
4 HF reduced pit optional 850 mm

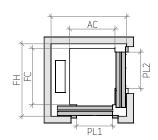
5 Minimum HUP for internal car height (HC) of 2,100 mm (HUP = HC + 1,300)

* Minimum plumb measurements

Layout

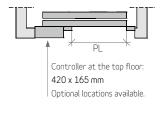




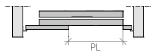


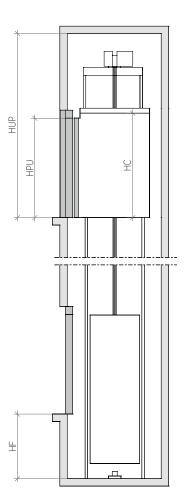
2 ENTRANCES (FRONT & SIDE)

CONTROLLER DETAIL



WIDE-FRAMED DOOR DETAIL





VERTICAL SECTION

Orona 3G X-15

Machine-room-less electrical gearless solutions (MRLG)

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

Maximum flexibility and performance.

General specifications

Load	320 to 1,000 kg
Capacity	4 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	Direct gearless
Controller	ARCA II controller, low energy microprocessor
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
Car dimensions	Parametric car dimensions
Internal car height	2,100 / 2,200 / 2,300 / 2,400
Aesthetic solutions	Orona 3G Domo Packs / Orona 3G Public Packs / Orona 3G Plus
Standard Ontional	

Standard Optional



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



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5 REDUCED HEADROOM

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

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.

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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.

ECO-EFFICIENCY



3 PARAMETRIC/FLEXIBLE

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

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***)**(Th)

ADAPTABILITY

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.

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

ACCESIBLE SPACE BELLOW THE PIT

[ih]√)

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.



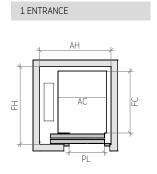
	ad / aaaa	oltru		Can					Lift s	haft *			
LO	ad / capa	icity		Car				Side-oper	ning doors	Central-op	ening doors		
		Q	AC	FC	PL	Entr	ances	AH1	FH ²	AH	FH ³	HF	HUP
Speed	Persons	Load	Width	Depth	Clear opening	Accessibility	No. of entrances	Width	Depth	Width	Depth	Pit	Last Floor
	4	320 kg	825	1100	700		1 2 x 180 ⁰	1,300	1,350 1,500				
	6	450 kg	1,000	1250	800	Ŀ	1 2 x 180 ⁰	1,450	1,500 1,650	1,725	1,450 1,550		
1 m/s	8	630 kg	1,100	1,400	900		1 2 x 180 ⁰	1,600	1,675 1,850	1,925	1,625 1,750	1,000	3,400
111/5	10	800 kg	1,350	1,400	900	1j	1 2 x 180 ⁰	1,825	1,675 1,850	1,925	1,625 1,750	(830) ⁴	(3050) ⁵
	13	1,000 kg	1,600	1,400	1,000	16	1 2 x 180 ⁰	2,075	1,675 1,850	2,150	1,625 1,750		
	15	1,000 ky	1,100	2,100	1,000		1 2 x 180 ⁰	1,775	2,375 2,550	2,125	2,300 2,400		
	4	320 kg	825	1,100	700		1 2 x 180 ⁰	1,325	1,350 1,500				
	6	450 kg	1,000	1,250	800	Ŀ	1 2 x 180 ⁰	1,475	1,500 1,650	1,725	1,450 1,550		
1.6 m/s	8	630 kg	1,100	1,400	900		1 2 x 180 ⁰	1,625	1,675 1,850	1,925	1,625 1,750	1,120	3,550
T'0 III\2	10	800 kg	1,350	1,400	900		1 2 x 180 ⁰	1,850	1,675 1,850	1,925	1,625 1,750	1,120	3,000
	13	1,000 kg	1,600	1,400	1,000	İŁ	1 2 x 180 ⁰	2,100	1,675 1,850	2,175	1,625 1,750		
	13	1,000 Kỹ	1,100	2,100	1,000		1 2 x 180 ⁰	1,775	2,375 2,550	2125,	2,300 2,400		

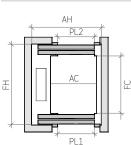
1 Accessible space below the pit (counterweight with safety gear) add 115 mm to AH $\,$

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

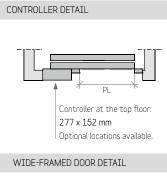
3 Shaft depth with door tracks projecting 40 mm on the landing

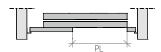
Layout





2 ENTRANCES (OPEN THROUGH)





Customised car dimensions

											Ca	r wid	th									
							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

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 70 Car depth

Clear door opening

VERTICAL SECTION

4 HF reduced pit optional 830 mm

5 HUP reduced headroom optional. Consult availability of car dimensions

* Minimum plumb measurements

Orona 3G X-16

Machine-room-less electrical gearless solutions (MRLG)

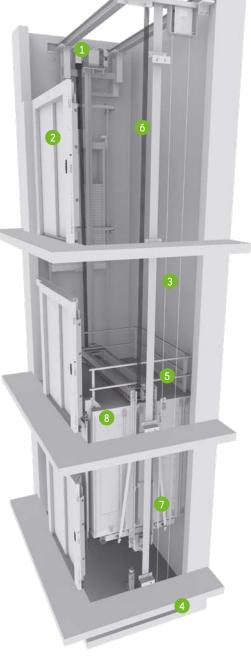
High efficiency for public buildings.

Maximum reliability.

The solution with maximum 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	Direct gearless
Controller	ARCA II controller, low energy microprocessor
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
Car dimensions	Parametric car dimensions
Internal car height	2,100 / 2,200 / 2,300 / 2,400
Aesthetic solutions	Orona 3G Public Packs / Orona 3G Public Plus
Standard Optional	



1 DRIVE 2 SOLID DOORS 3 PARAMETRIC/FLEXIBLE 4 ACCESIBLE SPACE **BELLOW THE PIT** Compact, quiet, gearless, energy Extra robust doors with reduced Flexible car and door configurations efficient, speed regulated (VVVF) sound levels inside and outside the lift ensure available shaft dimensions can Adapts the lift to suit buildings which have an accessible space below permanent magnet electric motor. and which are specially constructed be optimised (optional). for high volume passenger traffic. the pit (optional). ***** (Th) (!!!) [**]**ħ][[**#ħ**] 5 ROBUST LIFT CAR 6 TRACTION ROPES AUTOMATIC RESCUE 7 CARS SYSTEM Provides greater comfort during lift Orona small diameter ropes replace Reinforced wall panels and With floor level indication to ensure travel, with reduced vibration and noise. traditional steel ropes. As a result of flooring provides durability their lighter weight, longer lifespan for heavy duty usage. Flexible fast, efficient and safe evacuation and greater flexibility, it is possible to configurations offering optimum car of passengers in the event of an use a more compact, efficient and ecoand door dimensions. emergency. As an option, the system friendly gearless machine. can incorporate a fully-automatic rescue device to evacuate passengers in the event of a power failure. *****)(Th) (ii) (~

ECO-EFFICIENCY

14

ADAPTABILITY

		opolity			Car				Lift s	haft *			
	Load / ca	ματιτγ			Cal			Side-oper	ning doors	Central-op	ening doors		
Speed	Accessibility	Persons	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 Last Floor
		8	630 kg	1,100	1,400	900	1 2 x 180 ⁰	1,700	1,675 1,850	1,950	1,625 1,750		
		10	800 kg	1,350	1,400	900	1 2 x 180 ⁰	1,975	1,675 1,850	1,975	1,625 1,750	1,050	3,550
	if	13	1,000 kg	1,600	1,400	1,000	1 2 x 180 ⁰	2,225	1,675 1,850	2,225	1,625 1,750	1,030	3,550
1 m/s		13	1,000 kg	1,100	2,100	1,000	1 2 x 180 ⁰	1,775	2,375 2,550				
		17	1,275 kg	1,200	2,300	1,100	1 2 x 180 ⁰	1,935	2,600 2,750				
	iiti	21	1,600 kg	1,700	1,950	1,000	1 2 x 180 ⁰			2,450	2,200 2,300	1150	3600
		21	1,000 kg	1,400	2,400	1,200	1 2 x 180 ⁰	2,085	2,700 2,850				
		8	630 kg	1,100	1,400	900	1 2 x 180 ⁰	1,725	1,675 1,850	1,950	1,625 1,750		
		10	800 kg	1,350	1,400	900	1 2 x 180 ⁰	1,975	1,675 1,850	1,975	1,625 1,750	1,200	3,700
	it	13	1,000 kg	1,600	1,400	1,000	1 2 x 180 ⁰	2,225	1,675 1,850	2,225	1,625 1,750	1,200	3,700
1.6 m/s		13	1,000 kg	1,100	2,100	1,000	1 2 x 180 ⁰	1,775	2,375 2,550				
		17	1,275 kg	1,200	2,300	1,100	1 2 x 180 ⁰	1,935	2,600 2,750				
	ÎİL	21	1,600 kg	1,700	1,950	1,000	1 2 x 180 ⁰			2,450	2,200 2,300	1,250	3,750
		21	1,000 Kg	1,400	2,400	1,200	1 2 x 180 ⁰	2,085	2,700 2,850				

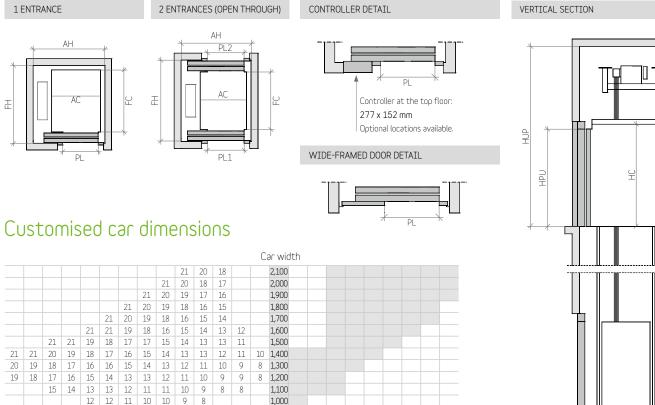
 $1\,$ Accessible space below the pit (counterweight with safety gear) add 50 mm to AH $\,$

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.

* Minimum plumb measurements

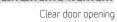


Car depth



11 10 10 9 8 900 8 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

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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)

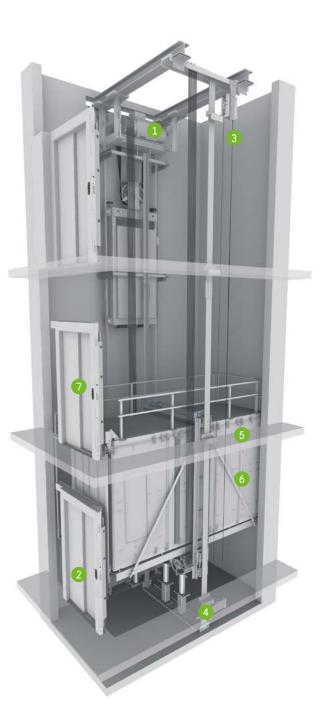
High efficiency for public buildings.

Maximum 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	50 - 50 - 75 m
Maximum floors served	32 floors
Entrances	1 front / 2 open through
Drive system	Direct gearless
Controller	ARCA II controller, low energy microprocessor
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
Car dimensions	Parametric car dimensions
Internal car height	2,100 / 2,200 / 2,300 / 2,400
Aesthetic solutions	Orona 3G Public Plus



Standard Optional

1 DRIVE

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



ACCESIBLE SPACE BELLOW THE PIT Adapts the lift to suit buildings

which have an accessible space below the pit (optional).

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.

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5 ROBUST LIFT CAR Provides greater comfort during lift travel, with reduced vibration and noise.

3 PARAMETRIC/FLEXIBLE

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



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

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.



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ECO-EFFICIENCY ADAPTABILITY

	Load /	capacity			(Car		Lift shaft *							
Speed	Ŀ	Persons	Q Load	AC Width	FC Depth	PL Clear opening	Туре	Entrances	$\begin{array}{c} AH^1\\ Width \end{array}$	FH Depth	HF ² Pit	HUP ³ Last Floor			
		24	1,800 kg	2,350	1,600	1,200	CC	1 2 x 180 ⁰	3,150	1,950 2,160					
		24	2 000 1	2,350	1,700	1,200	CC	1 2 x 180 ⁰	3,150	2,050 2,260	1 450	2 (25			
0.6 m/s	ii Łi	26	2,000 kg	1,500	2,700	1,300	TT	1 2 x 180 ⁰	2,300	3,050 3,260	1,450	3,625			
		33	2,500 kg	1,800	2,700	1,300	TT	1 2 x 180 ⁰	2,600	3,050 3,260					
		24	1,800 kg	2,350	1,600	1,200	CC	1 2 x 180 ⁰	3,150	1,950 2,160					
1 /	iili	24	2 000 1	2,350	1,700	1,200	CC	1 2 x 180 ⁰	3,150	2,050 2,260	1 450	2 (5 0			
1 m/s		26	2,000 kg	1,500	2,700	1,300	TT	1 2 x 180 ⁰	2,300	3,050 3,260	1,450	3,650			
		33	2,500 kg	1,800	2,700	1,300	TT	1 2 x 180 ⁰	2,600	3,050 3,260					
		24	1,800 kg	2,350	1,600	1,200	CC	1 2 x 180 ⁰	3,150	2,050 2,260					
16 1	İİLİ	24	2 000 1	2,350	1,700	1,200	CC	1 2 x 180 ⁰	3,150	2,050 2,260	1 (0 0	2 700			
1.6 m/s	1151	26	2,000 kg	1,500	2,700	1,300	TT	1 2 x 180 ⁰	2,300	3,050 3,260	1,600	3,790			
		33	2,500 kg	1,800	2,700	1,300	TT	1 2 x 180 ⁰	2,600	3,050 3,260					

1 With 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

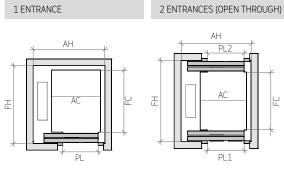
CONTROLLER DETAIL

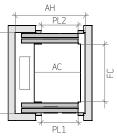
* Minimum plumb measurements

VERTICAL SECTION

CC - Two panel central door TT - Two panel telescopic door

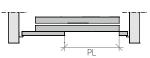
Layout



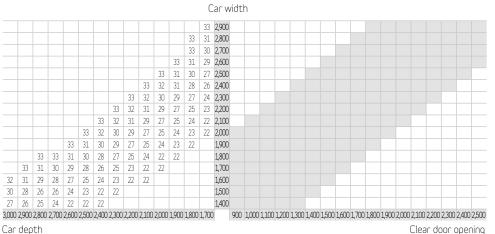


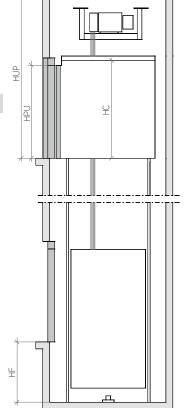


WIDE-FRAMED DOOR DETAIL



Customised car dimensions





Car depth

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

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	45 m
Maximum floors served	16 floors
Entrances	1 front / 2 open through / 2 front & side
Drive system	Direct gearless
Controller	ARCA II controller, low energy microprocessor
Door types	Automatic side-opening / Automatic central-opening
Clear door opening	700 / 800 / 900
Door height	2,000 / 2,100
Car dimensions	Standard car dimensions
Internal car height	2,100 / 2,200
Aesthetic solutions	Orona 3G Domo Packs / Orona 3G Public Packs / Orona 3G Plus
Standard Optional	

1 MACHINE-ROOM

A traditional solution simplifying lift maintenance.



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.

2 OPTIMISED PASSENGER UNIT

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



5 DRIVE

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

ECO-EFFICIENCY

3 ACCESIBLE SPACE **BELLOW THE PIT**

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

6 DOORS

ADAPTABILITY

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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.

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.



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	Load / capacity Car				Lift shaft *									
L090 / 0	сарасіту		Car				Side-oper	ning doors	Central-op	ening doors				
Î ÎÎÎ	Q	AC	FC	PL	Ent	crances	AH1	FH ²	AH	FH ³	HF	HUP		
Persons	Load	Width	Depth	Clear opening	Accessibility	No. of entrances	Width	Depth	Width	Depth	Pit	Last Floor		
						1	1 225	1,350	1 600	1,300				
4	320 kg	825	1,100	700		2 x 180 ⁰	1,325	1,500	1,600	1,400		3,400		
						2 x 90 ⁰	1,450	1,350						
					L	1	1,500	1,500	1,800	1,450		3,400		
6	450 kg	1,000	1,250	800	فع	2 x 180 ⁰	1,500	1,650	1,000	1,550		(3,000) ⁵		
						2 x 90 ⁰	1,625	1,500			1,000	3,400		
					iĿ	1	1,600	1,650	2,000	1,600	(850) ⁴	3,400		
		1,100	1,400	900		2 × 180 ⁰	1,000	1,800	2,000	1,700		(3,000) ⁵		
8	630 kg					2 x 90 ⁰	1,725	1,650						
0	050 KY					1	1,700	1,500	2,000	1,450		3,400		
		1,200	1,250	900	Ŀ	2 x 180 ⁰	1,700	1,650	2,000	1,550		3,400		
						2 x 90 ⁰	1,825	1,575						

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

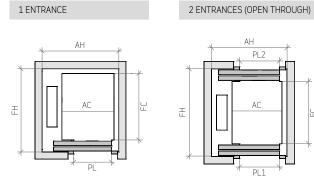
3 Shaft depth with door tracks projecting 40 mm on the landing

4 HF reduced pit optional 850 mm

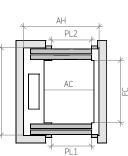
5 Minimum HUP for internal car height (HC) of 2,100 mm (HUP = HC + 1,300) HUP reduced headroom optional only for 6 and 8 persons (HUP = HC + 900)

* Minimum plumb measurements

Layout

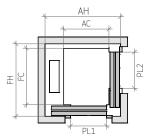


WIDE-FRAMED DOOR DETAIL



2 ENTRANCES (FRONT & SIDE)





HCM (1) ЧН ПРU £ 51.1 Ŧ ᅭ

(1) HCM - minimum 2,000 mm

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	Direct gearless
Controller	ARCA II controller, low energy microprocessor
Door types	Semiautomatic + Articulated (BUS) / Automatic side-opening / Automatic central-opening
Clear door opening	From 500 to 900 mm
Door height	2,000 / 2,100 / 2,200 / 2,300
Car dimensions	Parametric car dimensions
Internal car height	2,100 / 2,200 / 2,300 / 2,400
Aesthetic solutions	Orona 3G Domo Packs / Orona 3G Public Packs / Orona 3G Plus
Standard Ontional	

Standard Optional

1 MACHINE-ROOM

4 TRACTION ROPES

more compact, efficient and

eco-friendly gearless machine.

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

A traditional solution simplifying lift maintenance.

2 DRIVE

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

Compact permanent magnet motor

operation giving the most advanced

opening and full height infra red door

protection edges. Optional Solid Door

for fast, accurate and quiet door

performance. Advanced door

for high flow situations.



5 DOORS



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6 PARAMETRIC/FLEXIBLE

3 ACCESIBLE SPACE BELLOW THE PIT

Adapts the lift to suit buildings

which have an accessible space below the pit (optional).

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

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.





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					Lift shaft *										
Load /	capacity		Car				Side-oper	ning doors	Central-opening doors HH			HF Pit			HUP ⁴ st Floor
<u>i</u> i				PL	Ent	rances						Red	uced		Reduced
Persons	Q Load	AC Width	FC Depth	Clear opening	Accessibility	No. of entrances	AH ¹ Width	FH ² Depth	AH ¹ Width	FH ³ Depth	Std.	With safety cube	Without safety cube (EN 81-21)	Std.	Without safety cube (EN 81-21)
4	320 kg	0.05	1 1 0 0	700		1	1,300	1,400	1,250	1,400					
4	320 KY	825	1,100	700		2 x 180 ⁰	1,300	1,500	1,200	1,550					
6	450 kg	4 000	4.050		Ŀ	1	1,450	1,550	1,450	1,550					
0	450 K <u>ý</u>	1,000	1,250	800		2 x 180 ⁰	1,430	1,650	1,430	1,700	1,000	705	285	3,380	2,910
						1	1,600	1,700	1,550	1,700	1,000	705	200	3,300	2,910
8	630 kg	1,100	1,400	900	16	2 x 180 ⁰		1,800	1,000	1,850					
0	USU KY	1 200	1.050	000		1		1,550	1 650	1,550					
		1,200	1,250	900	2 × 180 ⁰		1,650	1,650	1,650	1,700					

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

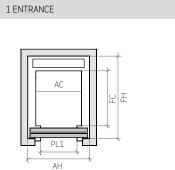
4 Minimum HUP for internal car height (HC) of 2,100 mm (HUP= HC + 1,280)

VERTICAL SECTION

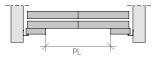
HH - Four panel central door

* Minimum plumb measurements

Layout

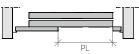


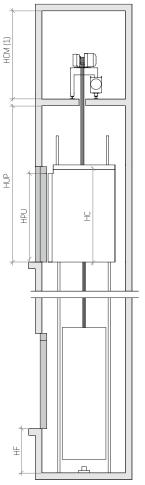
WIDE-FRAMED DOOR DETAIL



2 ENTRANCES (OPEN THROUGH)

WIDE-FRAMED DOOR DETAIL





(1) HCM - minimum 2,000 mm

Customised car dimensions

												Ca	ər widt	:h									
									8	8	6	5	1,800										
									8	7	6	5	1,700										
								8	8	7	5	5	1,600										
								8	7	6	5	4	1,500										
							8	7	6	5	4	4	1,400										
						8	8	7	6	5	4	4	1,300										
					8	8	7	6	5	5	4	4	1,200										
				8	8	7	6	5	5	4	4	3	1,100										
			8	7	7	6	5	5	4	4	4	3	1,000										
	8	8	7	6	6	5	5	4	4	4	3		900										
8	7	7	6	5	5	5	4	4	4	3			800										
7	6	6	5	5	4	4	4	4	3				700										
5	5	5	4	4	4	4	3	3					600										
1,800	1,700	1,600	1,500	1,400	1,300	1,200	1,100	1,000	900	800	700	600		500	600	700	800	900	1,000	1,100	1,200	1,300	1,400

Car depth

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

Clear door opening

X-24

Machine-room above electrical gearless solutions

Compact machine-room solutions mainly designed for existing buildings. Latest direct drive technology.

Maximum flexibility for the replacement of a lift with machine room.

General specifications

Load	180 to 630 kg
Capacity	2 to 8 persons
Speed	0.6 - 1 m/s
Maximum travel	45 m
Maximum floors served	16 floors
Entrances	1 front / 2 open through / 2 front & side
Drive system	Direct gearless
Controller	ARCA II controller, low energy microprocessor
Door types	Semiautomatic + Articulated (BUS) / Automatic side-opening / Automatic central-opening
Clear door opening	From 500 to 900 mm
Door height	2,000 / 2,100 / 2,200 / 2,300
Car dimensions	Parametric car dimensions
Internal car height	2,100 / 2,200 / 2,300 / 2,400
Aesthetic solutions	Orona 3G Domo Packs / Orona 3G Public Packs / Orona 3G Plus
Standard Optional	

1 MACHINE-ROOM

A traditional solution simplifying lift maintenance.

TRACTION ROPES

more compact, efficient and

eco-friendly gearless machine.

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

2 OPTIMISED PASSENGER UNIT

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

MhV

5 DRIVE

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

ECO-EFFICIENCY

3 ACCESIBLE SPACE BELLOW THE PIT

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

6 DOORS

ADAPTABILITY

[勖ҧ][√

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.





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			C					Lift s	haft *			
L090 / 1	capacity		Car				Side-oper	ning doors	Central-op	ening doors		
İİİİ	Q	AC	FC	PL	Ent	crances	AH1	FH ²	AH	FH ³	HF	HUP⁵
Persons	Load	Width	Depth	Clear opening	Accessibility	No. of entrances	Width	Depth	Width	Depth	Pit	Last Floor
						1	1 225	1,350	1 600	1,300		
4	320 kg	825	1,100	700		2 x 180 ⁰	1,325	1,500	1,600	1,400		
						2 x 90 ⁰	1,450	1,350				
					L	1	1,500	1,500	1,800	1,450		
6	450 kg	1,000	1,250	800	Ŀ	2 x 180 ⁰	1,500	1,650	1,800	1,550		
						2 x 90 ⁰	1,625	1,500			1,000	3,400
					İŁ	1	1,600	1,650	2,000	1,600	(850) ⁴	3,400
		1,100	1,400	900		2 x 180 ⁰	1,000	1,800	2,000	1,700		
8	630 kg					2 x 90 ⁰	1,725	1,650				
0	050 Ky					1	1,700	1,500	2,000	1,450		
		1,200	1,250	900	Ŀ	2 × 180 ⁰	1,700	1,650	2,000	1,550		
						2 x 90 ⁰	1,825	1,575				

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

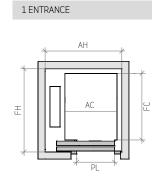
5 Minimum HUP for internal car height (HC) of 2,100 mm (HUP = HC + 1,300)

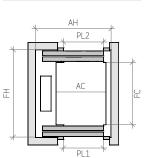
VERTICAL SECTION

* Minimum plumb measurements

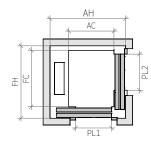
2 ENTRANCES (FRONT & SIDE)

Layout

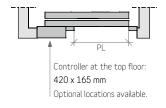


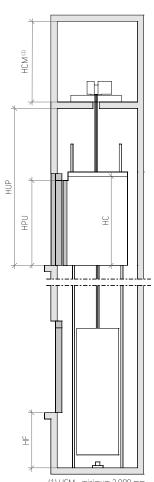


2 ENTRANCES (OPEN THROUGH)



WIDE-FRAMED DOOR DETAIL





(1) HCM - minimum 2,000 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. Maximum flexibility and performance.

General specifications

Load	320 to 1,000 kg
Capacity	4 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	Direct gearless
Controller	ARCA II controller, low energy microprocessor
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
Car dimensions	Parametric car dimensions
Internal car height	2,100 / 2,200 / 2,300 / 2,400
Aesthetic solutions	Orona 3G Domo Packs / Orona 3G Public Packs / Orona 3G Plus
Standard Optional	

Standard Optional

1 MACHINE-ROOM

4 TRACTION ROPES

more compact, efficient and

eco-friendly gearless machine.

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

A traditional solution simplifying lift maintenance.

2 DRIVE

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

Compact permanent magnet motor

operation giving the most advanced

opening and full height infra red door

protection edges. Optional Solid Door

for fast, accurate and quiet door

performance. Advanced door

for high flow situations.



5 DOORS



6 PARAMETRIC/FLEXIBLE

3 ACCESIBLE SPACE **BELLOW THE PIT**

Adapts the lift to suit buildings

which have an accessible space below the pit (optional).

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

AUTOMATIC RESCUE (7) 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.





 $\sqrt{}$



ECO-EFFICIENCY

	ad / caaa	-i+		Car					Lift s	haft *			
LU	ad / capad	lly		Cal				Side-oper	ning doors	Central-op	ening doors		
		Q	AC	FC	PL	Entr	ances	AH1	FH ²	AH	FH ³	HF	HUP
Speed	Persons	Load	Width	Depth	Clear opening	Accessibility	No. of entrances	Width	Depth	Width	Depth	Pit	Last Floor
	4	320 kg	825	1,100	700		1 2 x 180 ⁰	1,300	1,350 1,500				
	6	450 kg	1,000	1,250	800	Ŀ	1 2 x 180 ⁰	1,450	1,500 1,650	1,725	1,450 1,550		
	8	630 kg	1,100	1,400	900		1 2 x 180 ⁰	1,600	1,675 1,850	1,925	1,625 1,750	1.000	3,400
1 m/s							1		1,675		1,625	1,000 (830) ⁴	(3050) ⁵
	10	800 kg	1,350	1,400	900		2 x 180 ⁰	1,825	1,850	1,925	1,750		()
			1.600	1,400	1.000	ie	1	2,075	1,675	2,150	1,625		
	13	1,000 kg	1,000	1,400	1,000		2 x 180 ⁰	2,070	1,850	2,100	1,750		
		_,	1,100	2,100	1,000		1 2 x 180 ⁰	1,775	2,375 2,550	2,125	2,300 2,400		
							2 x 100°		1,350		2,400		
	4	320 kg	825	1,100	700		2 x 180 ⁰	1,325	1,500				
	6	450 kg	1,000	1,250	800	i	1	1,475	1,500	17,25	1450		
	0	400 ky	1,000	1,200	800	Ŀ	2 x 180 ⁰	1,473	1,650	17,20	1,550		
	8	630 kg	1,100	1,400	900		1	1,625	1,675	1,925	1,625		
1.6 m/s				,			2 x 180 ⁰		1,850		1,750	1,120	3,550
	10	800 kg	1,350	1,400	900		2 x 180 ⁰	1,850	1,675 1,850	1,925	1,625 1,750		
			4 (0 0	4 400	1 000		1		1,675	0 1,750 5 1,625	1,625		
	13	1.000 kg	1,600	1,400	1,000)	2 x 180 ⁰	2,100	1,850	2,175	1,750	
	13	1,000 kg	1,100	2,100	1 000		1	1,775	2,375	2,125	2,300	00	
			1,100	2,100	1,000	1,000 2 >	2 x 180 ⁰	1,770	2,550	2,120	2,400		

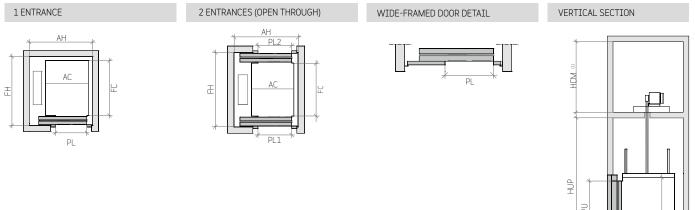
1 Accessible space below the pit (counterweight with safety gear) add 115 mm to AH

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 830 mm

5 HUP reduced headroom optional. Consult availability of car dimensions

* Minimum plumb measurements

Layout



Customised car dimensions

											Ca	ſW
							13	12				1,6
						13	13	11				1,5
					13	13	12	11	10			1,4
				13	12	11	10	9	8			1,3
		13	13	12	11	10	9	9	8		6	1,2
13	13	12	11	11	10	9	8	8	7	6	5	1,1
12	12	11	10	10	9	8	7	7	6	5	5	1, C
11	10	10	9	8	8	7	7	6	5	5	4	90
						6	6	5	5	4	4	80
2100	2 000	1 000	1 000	1 700	1 (00	1 500	1 400	1 200	1 200	1 100	1 000	

2,100 2,000 1,900 1,800 1,700 1,600 1,500 1,400 1,300 1,200 1,100 1,000 Car depth

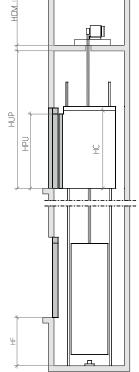
width

Note:

	1,600										
	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
								CI	ear do	oor op	enina
		N.L. A									



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

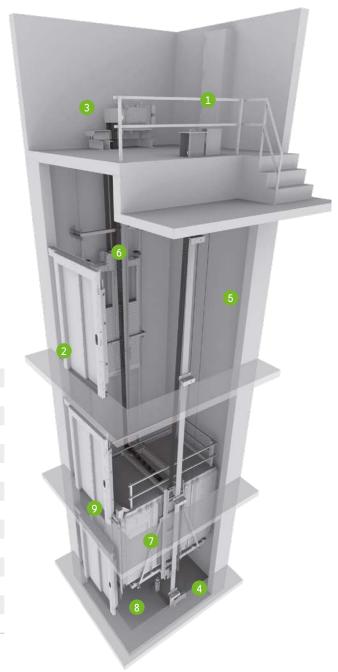
X-26

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	Direct gearless
Controller	ARCA II controller, low energy microprocessor
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
Car dimensions	Parametric car dimensions
Internal car height	2,100 / 2,200 / 2,300 / 2,400
Aesthetic solutions	Orona 3G Public Packs / Orona 3G Public Plus
Standard Optional	



MACHINE-ROOM 2 SOLID DOORS 3 DRIVE ACCESIBLE SPACE **BELLOW THE PIT** A traditional solution simplifying lift Extra robust doors with reduced Compact, quiet, gearless, energy sound levels inside and outside efficient, speed regulated (VVVF) Adapts the lift to suit buildings which maintenance. the lift and which are specially permanent magnet electric motor. have an accessible space below the pit constructed for high volume (optional). passenger traffic. (≣ħ)(√ 7 CARS 6 TRACTION ROPES ROBUST LIFT CAR 9 AUTOMATIC RESCUE PARAMETRIC/ 8 FLEXIBLE SYSTEM Orona small diameter ropes Reinforced wall panels and Provides greater comfort Flexible car and door replace traditional steel flooring provides durability during lift travel, with With floor level indication to configurations ensure available for heavy duty usage. Flexible reduced vibration and noise. ropes. As a result of their ensure fast, efficient and safe lighter weight, longer lifespan configurations offering shaft dimensions can be evacuation of passengers in the optimised (optional). and greater flexibility, it optimum car and door event of an emergency. As an is possible to use a more dimensions. option, the system can incorporate compact, efficient and a fully-automatic rescue device to eco-friendly gearless machine. evacuate passengers in the event of a power failure. (Th) (B) ***** (11) $\sqrt{}$ ECO-EFFICIENCY ADAPTABILITY (DESIGN AND ACCESSIBILITY (CONTROL AND SAFETY

	ad / caos	voit v		Car					Lift s	haft *			
LO	ad / capa	icity		Car				Side-oper	ning doors	Central-op	ening doors		
		Q	AC	FC	PL	Entr	ances	AH1	FH ²	AH	FH ³	HF	HUP ⁴
Speed	Persons	Load	Width	Depth	Clear opening	Accessibility	No. of entrances	Width	Depth	Width	Depth	Pit	Last Floor
	8	630 kg	1,100	1,400	900		1 2 x 180°	1,700	1,675 1,850	1,950	1,625 1,750		
	10	800 kg	1,350	1,400	900	أنح	1 2 x 180°	1,975	1,675 1,850	1,975	1,625 1,750	1,050	
	13	1,000 kg	1,600	1,400	1,000		1 2 x 180°	2,225	1,675 1,850	2,225	1,625 1,750	1,000	
1 m/s	15	1,000 kg	1,100	2,100	1,000		1 2 x 180°	1,775	2,375 2,550				2 400
1 11/5	17	1,275 kg	2,000	1,400	1,100		1 2 x 180°			2,750	1,650 1,750		3,400
	1/	1,275 ку	1,200	2,300	1,100	İİİ	1 2 x 180°	1,935	2,600 2,750			1,150	
	21	1,600 kg	2,100	1,600	1,100		1 2 x 180°			2,850	1,850 1950	1,100	
	21	1,000 ку	1,400	2,400	1,200		1 2 x 180°	2,085	2,700 2,850				
	8	630 kg	1,100	1,400	900		1 2 x 180°	1,725	1,675 1,850	1,950	1,,625 1,750		
	10	800 kg	1,350	1,400	900		1 2 x 180°	1,975	1,675 1,850	1,975	1,625 1,750	1 200	
	13	1 000 1	1,600	1,400	1,000	it	1 2 x 180°	2,225	1,675 1,850	2,225	1,625 1,750	1,200	
16	13	1,000 kg	1,100	2,100	1,000		1 2 x 180°	1,775	2,375 2,550				2.550
1.6 m/s	17	1 275 1-	2,000	1,400	1,100		1 2 x 180°			2,750	1,650 1,750		3,550
	17	1,275 kg	1,200	2,300	1,100	IIIĖ	1 2 x 180°	1,935	2,600 2,750			1 250	
	21	1 600 14-	2,100	1,600	1,100		1 2 x 180°			2,850	1,850 1,950	1,250	
	21	1,600 kg	1,400	2,400	1,200		1 2 x 180°	2,085	2,700 2,850				

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

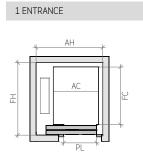
2 Shaft depth with door tracks projecting 60 mm on the landing

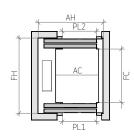
 $3\;$ Shaft depth with door tracks projecting 40 mm on the landing

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

* Minimum plumb measurements

Layout

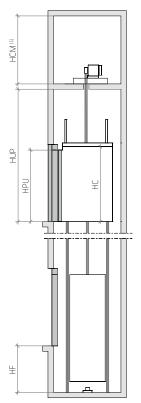




2 ENTRANCES (OPEN THROUGH)

WIDE-FRAMED DOOR DETAIL

VERTICAL SECTION



Customised car dimensions

													C	ar wio	lth								
									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
Cacio	lenth																						



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

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
Capacity	6 to 13 persons
Speed	1.6 m/s
Maximum travel	120 m
Maximum floors served	64 floors
Entrances	1 front / 2 open through
Drive system	Direct gearless
Controller	ARCA II controller, low energy microprocessor
Door types	Automatic side-opening / Automatic central-opening
Clear door opening	From 700 to 1000 mm (at intervals of 100 mm)
Door height	2,000 / 2,100 / 2,200 / 2,300
Car dimensions	Parametric car dimensions
Internal car height	2,100 / 2,200 / 2,300 / 2,400
Aesthetic solutions	Orona 3G Domo Packs / Orona 3G Public Packs / Orona 3G Plus
Standard Optional	

 $\sqrt{}$

1 DRIVE

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



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.

2 MACHINE-ROOM

A traditional solution simplifying lift maintenance.

6 PARAMETRIC/FLEXIBLE

Flexible car and door configurations

be optimised (optional).

(Th) (#3)

ensure available shaft dimensions can

3 ROBUST LIFT CAR Provides greater comfort during lift travel, with reduced vibration and noise.

 \checkmark

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

ACCESIBLE SPACE **BELLOW THE PIT**

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



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.





ADAPTABILITY

				C					Lift s	haft *			
l	Load / ca	расіту		Car				Side-oper	ning doors	Central-op	ening doors		
		Q	AC	FC	PL	Entr	ances	AH1	FH ²	AH	FH ³	HF ⁴	HUP⁵
Speed	Persons	Load	Width	Depth	Clear opening	Accessibility	No. of entrances	Width	Depth	Width	Depth	Pit	Last Floor
	6	450 kg	1,000	1,250	800		1	1,500	1,800	1,750	1,750		
	0	400 Kg	1,000	1,200	800	Ŀ	2 x 180°	1,600	1,700	1,750	1,600	1,200	3,550
	8	630 kg	1,100	1,400	800		1	1,500	1,950	1,750	1,900	1,200	3,000
	0	030 KY	1,100	1,400	800		2 x 180°	1,700	1,850	1,750	1,750		
1.6 m/s	10	800 kg	1,350	1,400	800		1	1,750	1,950	1,750	1,900		
T'0 III/2	10	000 KY	1,500	1,400	000		2 x 180°	2,000	1,850	2,000	1,750		
			1,600	1,400	900	ĮŁ.	1	2,000	1,950	2,000	1,900	1,250	2 600
	13	1.000 kg	1,000	1,400	900		2 x 180°	2,250	1,850	2,250	1,750	1,200	3,600
	T2	1,000 kg	1,100	2,100	900	1	1,700	2,650	1,950	2,600			
			1,100	2,100		2 x 180°	1,750	2,550	1,950	2,450			

 $1\;$ Accessible space below the pit (counterweight with safety gear) add 30 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

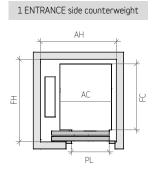
4 For longer travels to 75 m, HF = 1,300 mm

5 Minimum HUP for internal car height (HC) of 2,100 mm (HUP = HC + 1,350) Analyse for each example. If side counterweight Q>630 kg, HUP min = 3,800 mm

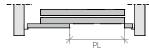
VERTICAL SECTION

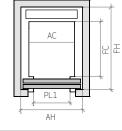
* Minimum plumb measurements

Layout



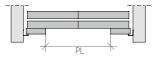
WIDE-FRAMED DOOR DETAIL





1 ENTRANCE depth counterweight

WIDE-FRAMED DOOR DETAIL

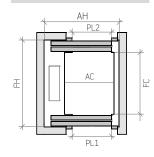


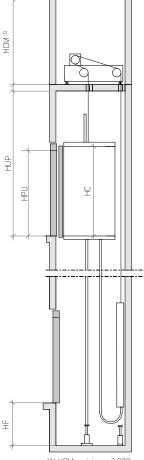
Customised car dimensions

										Ca	r widt	:h							
							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	8	1,300								
		13	12	12	11	10	9	9	8	6	1,200								
13	13	12	11	11	10	9	8	8	7		1,100								
12	12	11	10	10	9	8	7	7	6		1,000								
11	10	10	9	8	8	7	7	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
Car d	epth															Cle	ar do	or ope	ening

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

2 ENTRANCES (OPEN THROUGH)







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 maximum performance and maintenance efficiency.

General specifications

Load	1650 to 2500 kg
Capacity	22 to 33 persons
Speed	0.6 - 1 - 1.6 m/s
Maximum travel	50 - 50 - 75 m
Maximum floors served	32 floors
Entrances	1 front / 2 open through
Drive system	Direct gearless
Controller	ARCA II controller, low energy microprocessor
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
Car dimensions	Parametric car dimensions
Internal car height	2,100 / 2,200 / 2,300 / 2,400
Aesthetic solutions	Orona 3G Plus
Standard Optional	



1 DRIVE

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



(Th) (#3)

6 PARAMETRIC/FLEXIBLE

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

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.

ABN 🗸

noise.

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6 ROBUST LIFT CAR Provides greater comfort during lift travel, with reduced vibration and

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.

ECO-EFFICIENCY

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

4 MACHINE-ROOM

A traditional solution simplifying lift maintenance.

\square



ADAPTABILITY

(≣h)(√)

	Load /	capacity			(Car				Lift shaft *		
Speed	Ŀ	Persons	Q Load	AC Width	FC Depth	PL Clear opening	Туре	Entrances	$\begin{array}{c} AH^1\\ Width \end{array}$	FH Depth	HF ² Pit	HUP ³ Last Floor
		24	1,800 kg	2,350	1,600	1,200	CC	1 2 x 180º	3,150	1,950 2,160		
0.6 m/s	(26	2,000 kg	2,350	1,700	1,200	CC	1 2 x 180º	3,150	2,050 2,260	1,450	3,400
0.0 11/3		20	2,000 kg	1,500	2,700	1,300	TT	1 2 x 180º	2,300	3,050 3,260	1,400	3,400
		33	2,500 kg	1,800	2,700	1,300	TT	1 2 x 180º	2,600	3,050 3,260		
		24	1,800 kg	2,350	1,600	1,200	CC	1 2 x 180º	3,150	1,950 2,160		
1 m/s		26	2,000 kg	2,350	1,700	1,200	CC	1 2 x 180º	3,150	2,050 2,260	1,450	3,425
111/3	iiti	20	2,000 kg	1,500	2,700	1,300	TT	1 2 x 180º	2,300	3,050 3,260	1,400	3,420
		33	2,500 kg	1,800	2,700	1,300	TT	1 2 x 180º	2,600	3,050 3,260		
		24	1,800 kg	2,350	1,600	1,200	CC	1 2 x 180º	3,150	2,050 2,260		
1.6 m/s		26	2,000 kg	2,350	1,700	1,200	CC	1 2 x 180º	3,150	2,050 2,260	1,600	3,565
T'O III/2	s	20	2,000 ку	1,500	2,700	1,300	TT	1 2 x 180º	2,300	3,050 3,260	1,000	3,000
		33	2,500 kg	1,800	2,700	1,300	TT	1 2 x 180º	2,600	3,050 3,260		

1 With 2 panel telescopic doors

2 With PVC flooring. Marble floor option + 20 mm

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

WIDE-FRAMED DOOR DETAIL

CC - Two panel central door

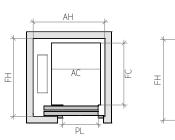
TT - Two panel telescopic door

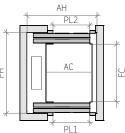
* Minimum plumb measurements

VERTICAL SECTION

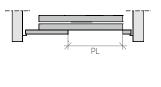
Layout

1 ENTRANCE



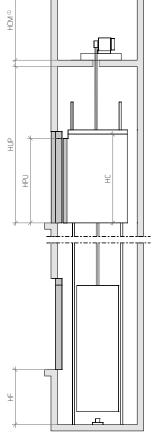


2 ENTRANCES (OPEN THROUGH)



Customised car dimensions

													33	2,900																
												33	31	2,800																
												33	30	2,700																
											33	31	29	2,600																
										33	31	30	27	2,500																
									33	32	31	28	26	2,400																
								33	32	30	29	27	24	2,300																
							33	32	31	29	27	25	23	2,200																
						33	32	31	29	27	25	24	22	2,100																
					33	32	30	29	27	25	24	23	22	2,000																
				33	31	30	29	27	25	24	23	22		1,800																
		33	33	31	30	28	27	25	24	22	22			1,700																
	33	31	30	29	28	26	25	23	22	22				1,600																
32	31	29	28	27	25	24	23	22	22					1,500																
30	28	26	26	24	23	22	22							1,500																
27	26	25	24	22	22	22								1,400																
,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		900	1,000	1,100	1,200	1,300	1,400	1,500	1,600	1,700	1,800	1,900	2,000	2,100	2,200	2,300	2,400



(1) HCM - minimum 2000 mm

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

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	ARCA II controller, low energy microprocessor
Door types	Semi-automatic + Articulated (BUS) / Automatic side-opening / Automatic central-opening
Clear door opening	From 600 to 1,600 mm (in 100 mm increments)
Door height	2,000 / 2,100
Car dimensions	Parametric car dimensions
Internal car height	2,100 / 2,200
Aesthetic solutions	Orona 3G Domo Packs / Orona 3G Public Packs / Orona 3G Plus
Standard Optional	

1 HYDRAULIC LIFTS

The hydraulic systems, renown 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.

(III) (III)

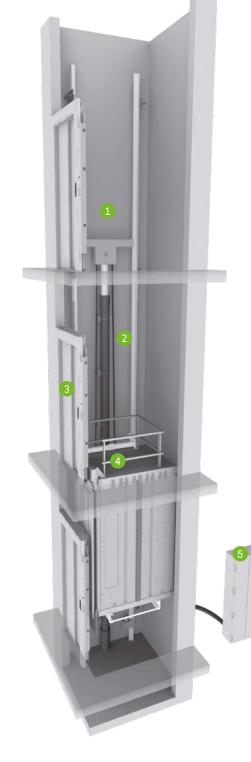
4 CAR ACCESSIBILITY Optional EN 81-70 accessible car. Optional car light control, including LED lighting options.

5 REDUCED MACHINE ROOM

(**II**h)

ECO-EFFICIENCY

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



32

ADAPTABILITY ADAPTABILITY

							Lift shat	t*						
Load /	capacity				Side piston	(TT)			Rear pis	ton (HH)	ł	ΗF	Н	UP ²
		0	Standard	d car		Lift shaft						Pit	Last	Floor
	Q	AC	FC	PL	En	trances	AH	FH ¹	AH	FH ¹	Std.	Without	Std.	Without
Persons	Load	Width	Depth	Clear opening	Accessibility	No. of entrances	Width	Depth	Width	Depth	510.	safety cube (EN 81-21)	SLU.	safety cube (EN 81-21)
						1	1200	1,000	1,100	1,300				,
2	180 kg	750	750	600		2 x 180 ⁰	1,200	1,150						
						2 x 90 ⁰	1,350	1,000	1,100	1,300		615		2 0 1 0
						1	1,250	1,350	1,175	1,650		610		3,010
4	320 kg	825	1,100	700		2 x 180 ⁰	1,250	1,500						
						2 x 90 ⁰	1,400	1,350	1,175	1,650	1.050			
						1	1,425	1,500	1,325	1,800	1,050			
6	450 kg	1,000	1,250	800	Ŀ	2 x 180 ⁰	1,425	1,650						
						2 x 90 ⁰	1,575	1,500	1,325	1,800				2 1 5 0
					ił	1	1,575	1,650						3,150
8	630 kg	1,100	1,400	900	15	2 x 180 ⁰	1,575	1,800						
						2 x 90 ⁰	1,675	1,650					3,400	
					ił	1	1,800	1,650	1,700	1,975			3,400	
10	800 kg	1,350	1,400	900		2 x 180 ⁰	1,800	1,800						
						2 x 90 ⁰	1,925	1,650	1,700	1,975		815		
					1j	1	1,550	2,350				010		
		1,100	2,100	900		2 x 180 ⁰	1,550	2,500						
13	1,000 kg					2 x 90 ⁰	1,675	2,350			1,100			3,230
10	1,000 kg					1			1,700	1,975	1,100			3,230
		1,600	1,400	1,000	(ije)	2 x 180 ⁰								
						2 x 90 ⁰			1,850	1,975				
					ie	1	1,650	2,550						
16	1,200 kg	1,200	2,300	1,000		2 x 180 ⁰	1,650	2,700						
						2 x 90 ⁰	1,775	2,550						

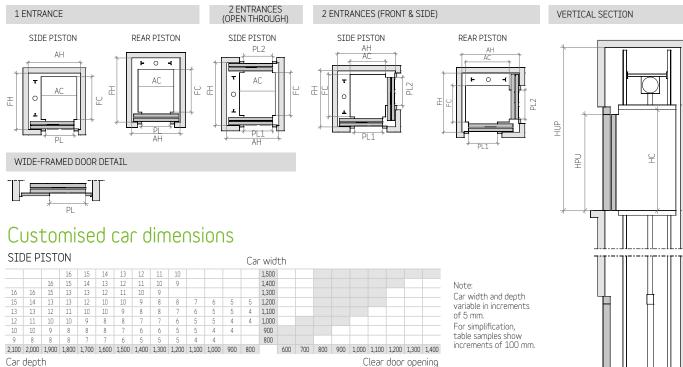
1 Shaft depth with door tracks projecting 60 mm on the landing

2 Minimum HUP for internal car height (HC) of 2,100 mm (HUP = HC + 1225)

TT - Two panel telescopic door

HH - Four panel central door

* Minimum plumb measurements

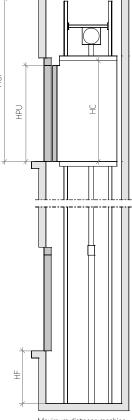


REAR PISTON

Layout

REA	K PI.	5101	N				С	ar wid	th											
				13	12	10	9	2,100												N1
				13	12	10	9	2,000												Note:
			13	12	10	9	8	1,900												Car width and depth
			13	12	10	9	8	1,800												variable in increments
		13	12	10	9	8	7	1,700												of 5 mm.
	13	12	10	10	9	8	7	1,600												For simplification,
13 12 11 10 9	12	11	10	8	8	7	6	1,500												table samples show
12	11	10	9	8	8	7	6	1,400												increments of 100 mm
11	10	9	8	8	7	6	5	1,300												Increments of 100 min
10	9		8	7	6	5	5	1,200												
9			7	6	5	5	4	1,100												
			6	5	5	4	4	1,000												
			5	5	4	4		900												
			5	4	4			800												
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	1,600	

Car depth



Maximum distance machine room to cylinder 10 m.

X-10 X-11 X-14 X-15 X-16

ECO-EFFICIENCY		I	1	I	I
Low-energy drive	•	•	•	•	•
Efficient lighting	•	•	•	•	۰
Automatic car lighting switch off	•	•	•	•	۰
Landing illumination control	0	0	0	0	0
Lift stand-by mode	0	0	0	0	0

ADAPTABILITY

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Flexible controller location	0		0	0	0
Lift well enclosure	0	0	0	0	0
Reduced headroom	R	V		R	
Reduced pit	R	R/V	R	R	
Accessible space below the pit	0	0	0	0	0

CONTROL AND SAFETY

EVACUATION

Autodialler system	0	0	0	0	0
Automatic rescue system	0	0	0	0	0
Behaviour of lifts in the event of fire (EN 81-73)	0	0	0	0	0
Connection to auxiliary power source (generator)	0	0	0	0	0
Pit water detector	0	0	0	0	0
Safety landing call cancelling	0	0	0	0	0
Firefighters lift (EN 81-72)				0	° (> 1000 kg)

ACCESS CONTROL

Zone cancelling, coded call	0	0	0	0	0
Compulsory stop at main floor	0	0	0	0	0
External call cancelling	0	0	0	0	0
Automatic car call deletion	0	0	0	0	0
Independent entrance selection	0	0	0	0	0
Non-emergency outage	0	0	0	0	0
Emergency outage	0	0	0	0	0
Forced closure (nudging feature)	0	0	0	0	0
Anti-vandalism (EN 81-71)				0	0

COMMUNICATIONS*

Pre-opening doors	0	0	0	0	0
Down collective control	0	0	0	0	0
Full collective control	0	0	0	0	0
Intercom system	0	0	0	0	0

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

X-18	X-20	X-23	X-24	X-25	X-26	X-27	X-28	X-30
•	•	٠	٠	٠	•	٠	٠	
•	•	•	•	•	•	•	٠	•
•	٠	٠	٠	٠	٠	•	•	•
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	
0								0
0	0	0	0	0	0	0	0	0
	R	V		R				V
	R	R/V	R	R				V
0	0	0	0	0	0	0	0	
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0		0		0	° (> 1000 kg)	0	0	
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0				0	0	0		
0	0	0	0	0	0	0	0	0

0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0

(R) With safety cube (V) With safety cube via compensatory measures according to EN81-21

• Standard • Optional

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

Technical solutions Aesthetic solutions



