

# Orona 3G Technical solutions

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# Orona 3G Technical solutions

#### MACHINE-ROOM-LESS ELECTRICAL GEARLESS SOLUTIONS (MRLG)

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#### MACHINE-ROOM ABOVE ELECTRICAL GEARLESS SOLUTIONS

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# 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.



#### 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.



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

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

[ 🖬 h j ]

l and t			Cas					Lift	shaft <sup>o</sup>			
L090 / (	capacity		Car				Side-oper	ning doors	Central-op	ening doors		
	Q	AC	FC	PL	Entr	rances	AH1	FH <sup>2</sup>	AH	FH <sup>3</sup>	HF	HUP
Persons	Load	Width	Depth	Clear opening	Accessibility	No. of entrances	Width	Depth	Width	Depth	Pit	Headroom
						1	1 225	1,350	1 (00	1,300		
4	320 kg	825	1,100	700		2x180 <sup>0</sup>	1,325	1,500	1,600	1,400		3,400
						2x90 <sup>0</sup>	1,450	1,350				
					L	1	1 500	1,500	1,800	1,450		3,400
6	450 kg	1,000	1,250	800	Ŀ	2x180 <sup>0</sup>	1,500	1,650	1,800	1,550		(3,000) <sup>5</sup>
						2x90 <sup>0</sup>	1,625	1,500				3,400
					İŁ	1	1,600	1,650	2,000	1,600		3,400
		1,100	1,400	900		2x180 <sup>0</sup>	1,000	1,800	2,000	1,700	1,000 (850) <sup>4</sup>	(3,000) <sup>5</sup>
						2x90 <sup>0</sup>	1,725	1,650			()	
					Ŀ	1	1,700	1,500	2,000	1,450		3,400
8	630 kg	1,200	1,250	900		2x180 <sup>0</sup>	1,700	1,650	2,000	1,550		3,400
						2x90 <sup>0</sup>	1,825	1,575				
						1	1 600	1,650	2,000	1,600		
	1,100	1,100	1,400	800	if.	2x180 <sup>0</sup>	1,600	1,800	2,000	1,700		2,5006
						2x90 <sup>0</sup>	1,725	1,650				

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

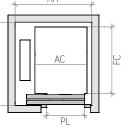
3 Shaft depth with door tracks projecting 40 mm on the landing

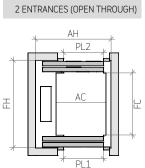
4 HF reduced pit optional 850 mm

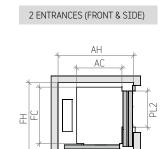
# Layout

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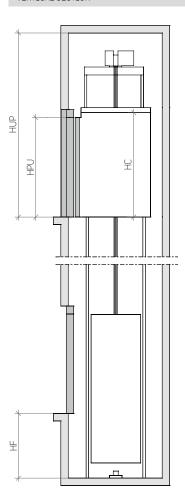






PL1

VERTICAL SECTION



HUP reduced headroom optional only for 6 and 8 persons

accessible space below the pit (counterweight with safety gear)

6 Without safety space EN 81-21, minimum HUP for internal car height (HC) of 2000 mm.

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

Check minimum height of headroom in case of central opening doors. Not compatible with

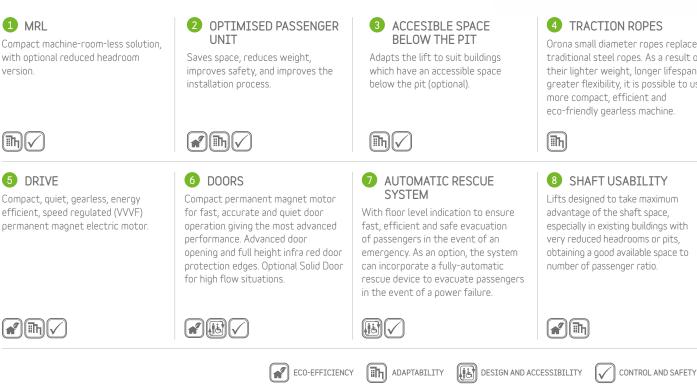
# Machine-room-less electrical gearless solutions (MRLG)

Latest direct drive technology for existing buildings. Enhaced 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	

ndard





#### 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.

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.



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

0 Minimum plumb measurements

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

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

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

# Layout

1 ENTRANCE 2 ENTRANCES (OPEN THROUGH) 2 ENTRANCES (FRONT & SIDE) VERTICAL SECTION AH AH AH PL2 AC Aſ AC Ŧ Ŧ Æ HUP PL1 PL PL1 HPU Ĥ

#### TT - Two panel telescopic door

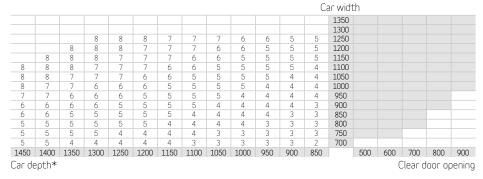
NN - Three panel telescopic door

HH - Four panel central door

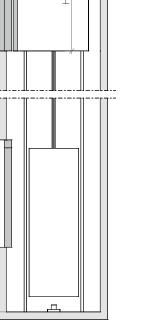
\* The information is not contractually binding and is subject to the conditions of the shaft

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## Customised car dimensions



Note: Car width and depth variable in increments of 5 mm. For simplification, table samples show increments of 50 mm. \* Car depth only valid in the event of side car frame.

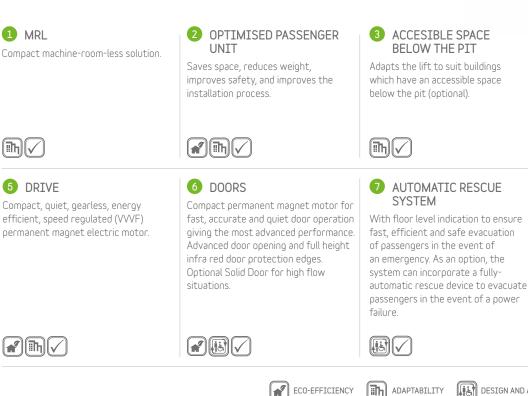


# Machine-room-less electrical gearless solutions (MRLG)

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	





#### 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.

## 8 SHAFT USABILITY

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**\*)**(Th)

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.

								Lifts	shaft <sup>o</sup>						
Load / d	Load / capacity Car						Side coun	terweight	Rear coun		HUP				
							Side-oper	ning doors	Central-op	ening doors		Red	uced	Headroom	
ii i	0	AC	FC	PL⁵	Ent	rances	AH1	FH <sup>2</sup>	AH <sup>3</sup>	FH <sup>2</sup>	Std.	With safety	Without safety	Std. <sup>4</sup>	
Persons	Load	Width	Depth	Clear opening	Accessibility	No. of entrances	Width	Depth	Width	Depth		space	space (EN 81-21)		
						1	1 1 5 0	1,300	1,150	1,525					
4	320 kg	825	1,100	700	700		2x180 <sup>0</sup>	1,150	1,450						
					2x90 <sup>0</sup>	1,250	1,300	1,200	1,525						
					Ŀ	1	1,325	1,450	1,300	1,675					
6	450 kg	1,000	1,250	800		2x180 <sup>0</sup>	1,520	1,600							
						2x90 <sup>0</sup>	1,425	1,450	1,400	1,675	1,000	890	400	3,400	
					ie	1	1,425	1,600	1,450	1,825	1,000	090	400	3,400	
		1,100	1,400	900		2x180 <sup>0</sup>	1,420	1,750							
0	620 ko					2x90 <sup>0</sup>	1,525	1,600	1,500	1,825					
0	8 630 kg				L	1	1,525	1,450	1,450	1,675					
		1,200	1,250	900	Ŀ	2x180 <sup>0</sup>	1,020	1,600							
						2x90 <sup>0</sup>	1,625	1,450	1,500	1,675					

0 Minimum plumb measurements

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

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

3 Width calculated for 4 panel central door

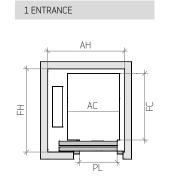
4 HUP minimum for internal car height (HC) 2,100 mm

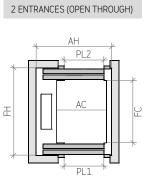
5 Door restrictions may exist for pits without safety space EN 81-21

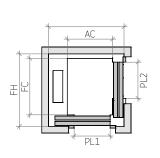
\* The information is not contractually binding and is subject to the conditions of the shaft

VERTICAL SECTION

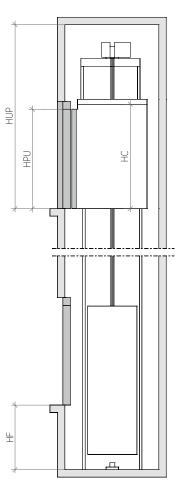
# Layout\*







2 ENTRANCES (FRONT & SIDE)



# Customised car dimensions

														Ca	ar wid	th				
						8	8	8	7	7	6				1,400					
					8	8	8	7	7	6	6	5			1,350					
				8	8	8	7	7	6	6	6	5			1,300					
			8	8	8	7	7	7	6	6	5	5			1,250					
		8	8	8	7	7	7	6	6	5	5	5			1,200					
	8	8	8	7	7	7	6	6	5	5	5	5	4		1,150					
8	8	8	7	7	7	6	6	5	5	5	5	4	4		1,100					
8	8	7	7	7	6	6	5	5	5	5	4	4	4	3	1,050					
8	7	7	6	6	6	5	5	5	5	4	4	4	4	3	1,000					
7	7	6	6	6	5	5	5	5	4	4	4	4	3	3	950					
6	6	6	6	5	5	5	5	4	4	4	4	3	3	3	900					
6	6	5	5	5	5	5	4	4	4	4	3	3	3	3	850					
5	5	5	5	5	5	4	4	4	4	3	3	3	3	3	800					
5	5	5	5	4	4	4	4	3	3	3	3	3	3	2	750					
5	5	4	4	4	4	4	3	3	3	3	3	2	2	2	700					
4	4	4	4	4	3	3	3	3	3	3	2	2	2	2	650					
4	4	4	3	3	3	3	3	3	3	2	2	2	2	2	630					
1,450	1,400	1,350	1,300	1,250	1,200	1,150	1,100	1,050	1,000	950	900	850	800	750		500	600	700	800	900
Car d	epth																С	lear di	por oc	ening

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

# Machine-room-less electrical gearless solutions (MRLG)

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



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 enhaced 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



#### 4 ACCESIBLE SPACE BELOW THE PIT

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

(III) (III)

🖌)(Th)

ADAPTABILITY

#### 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.

3 PARAMETRIC/FLEXIBLE

Flexible car and door configurations ensure available shaft dimensions can

be optimised (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.





		aitu (		Cas					Lifts	shaft <sup>o</sup>				
LU	oad / capa	uly		Car				Side-oper	ning doors	Central-op	ening doors			
		Q	AC	FC	PL	Entr	ances	AH1	FH <sup>2</sup> Depth	AH	FH <sup>3</sup>	HF	HUP⁵	
Speed	Persons	Load	Width	Depth	Clear opening	Accessibility	No. of entrances	Width		Width	Depth	Pit	Headroom	
	4	320 kg	825	1,100	700		1 2x180 <sup>0</sup>	1,300	1,350 1,500				3,400	
	6	450 kg	1,000	1,250	800	Ŀ	1 2x180 <sup>0</sup>	1,450	1,500 1,500 1,650	1,725	1,450 1,550			
	8	630 kg	1,100	1,400	900		1 2x180 <sup>0</sup>	1,600	1,675 1,850	1,925	1,625 1,750	1,000		
1 m/s	10	800 kg	1,350	1,400	900	(ij)	1 2x180 <sup>0</sup>	1,825	1,675 1,850	1,925	1,625 1,750	(830)4	3,400 (3,050) <sup>6</sup>	
	13	1,000 kg	1,600	1,400	1,000			1 2x180 <sup>0</sup>	2,075	1,675 1,850	2,150	1,625 1,750		
	13		1,100 2	2,100	1,000		1 2x180 <sup>0</sup>	1,775	2,375 2,550	2,125	2,300 2,400			
	4	320 kg	825	1,100	700		1 2x180 <sup>0</sup>	1,325	1,350 1,500					
	6	450 kg	1,000	1,250	800	Ŀ	1 2x180 <sup>0</sup>	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 2x180 <sup>0</sup>	1,625	1,675 1,850	1,925	1,625 1,750	1 1 2 0	2 5 5 0	
1.0 m/s	10	800 kg	1,350	1,400	900		1 2x180 <sup>0</sup>	1,850	1,675 1,850	1,925	1,625 1,750	1,120	3,550	
	10	1.0001	1,600	1,400	1,000	İ.	1 2x180 <sup>0</sup>	2,100	1,675 1,850	2,175	1,625 1,750			
	13	1,000 kg	1,100	2,100	1,000		1 2x180 <sup>0</sup>	1,775	2,375 2,550	2125,	2,300 2,400			

2 ENTRANCES (OPEN THROUGH)

AH

PL1

0 Minimum plumb measurements

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

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

4 HF reduced pit optional 830 mm

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

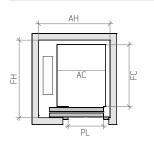
 $3\;$  Shaft depth with door tracks projecting 40 mm on the landing

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

 $\ast$  The information is not contractually binding and is subject to the conditions of the shaft

## Layout\*

#### 1 ENTRANCE



\* Note: The diagrams are for guidance only

# Customised car dimensions

											Ca	er widt	h					
							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						

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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 Clear door opening

# VERTICAL SECTION

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

# Machine-room-less electrical gearless solutions (MRLG)

High efficiency for public buildings.

Enhaced reliability.

The solution with enhaced 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 2 SOLID DOORS 3 PARAMETRIC/FLEXIBLE Compact, quiet, gearless, energy Extra robust doors with reduced Flexible car and door configurations ensure available shaft dimensions can efficient, speed regulated (VVVF) sound levels inside and outside the lift permanent magnet electric motor. and which are specially constructed be optimised (optional). for high volume passenger traffic. **\*** (13) (~ (Th) (!!!) **ℯ୵**)[ヨħ](╮ 5 ROBUST LIFT CAR 6 TRACTION ROPES 7 CARS Provides greater comfort during lift Reinforced wall panels and Orona small diameter ropes replace travel, with reduced vibration and traditional steel ropes. As a result of flooring provides durability their lighter weight, longer lifespan for heavy duty usage. Flexible and greater flexibility, it is possible to configurations offering optimum car use a more compact, efficient and ecoand door dimensions.

ECO-EFFICIENCY

friendly gearless machine.

**\***)(Th)

#### 4 ACCESIBLE SPACE **BELOW THE PIT**

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

# [**#h]**]

#### 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.



noise

	Load / ca	aacity			Car				Lift	shaft <sup>o</sup>			
	LUJU / LJ	Jacity			Cal			Side-oper	ning doors	Central-op	ening doors		
Speed	Accessibility	Persons	Q Load	AC Width	FC Depth	PL Clear opening	No. of entrances	AH <sup>1</sup> Width	FH² Depth	AH Width	FH <sup>3</sup> Depth	HF Pit	HUP <sup>4</sup> Headroom
		8	630 kg	1,100	1,400	900	1 2x180 <sup>0</sup>	1,700	1,675 1,850	1,950	1,625 1,750		
		10	800 kg	1,350	1,400	900	1 2x180 <sup>0</sup>	1,975	1,675 1,850	1,975	1,625 1,750	1,050	3,550
	ie	13	1,000 kg	1,600	1,400	1,000	1 2x180 <sup>0</sup>	2,225	1,675 1,850	2,225	1,625 1,750	1,030	3,000
1 m/s		15	1,000 ky	1,100	2,100	1,000	1 2x180 <sup>0</sup>	1,775	2,375 2,550				
		17	1,275 kg	1,200	2,300	1,100	1 2x180 <sup>0</sup>	1,935	2,600 2,750				
	(	21	1,600 kg	1,700	1,950	1,000	1 2x180 <sup>0</sup>			2,450	2,200 2,300	1,150	3,600
		21	1,000 Kg	1,400	2,400	1,200	1 2x180 <sup>0</sup>	2,085	2,700 2,850				
		8	630 kg	1,100	1,400	900	1 2x180 <sup>0</sup>	1,725	1,675 1,850	1,950	1,625 1,750		
		10	800 kg	1,350	1,400	900	1 2x180 <sup>0</sup>	1,975	1,675 1,850	1,975	1,625 1,750	1,200	3,700
	ie	13	1,000 kg	1,600	1,400	1,000	1 2x180 <sup>0</sup>	2,225	1,675 1,850	2,225	1,625 1,750	1,200	5,700
1.6 m/s		13	1,000 Kg	1,100	2,100	1,000	1 2x180 <sup>0</sup>	1,775	2,375 2,550				
		17	1,275 kg	1,200	2,300	1,100	1 2x180 <sup>0</sup>	1,935	2,600 2,750				
	(	21	1,600 kg	1,700	1,950	1,000	1 2x180 <sup>0</sup>			2,450	2,200 2,300	1,250	3,750
		21	1,000 Kg	1,400	2,400	1,200	1 2x180 <sup>0</sup>	2,085	2,700 2,850				

0 Minimum plumb measurements

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

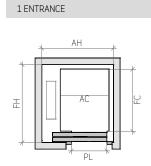
2 Shaft depth with door tracks projecting 60 mm on the landing

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



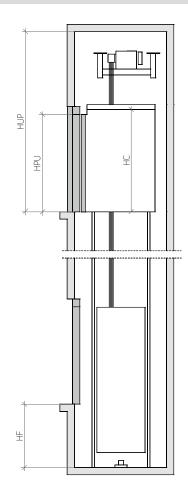


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# Customised car dimensions

													Ca	er wid	th								
									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
Cario	depti	n																		Clea	r doo	or op	ening

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

# Machine-room-less electrical gearless solutions (MRLG)

High efficiency for public buildings.

Enhaced 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.



#### ACCESIBLE SPACE BELOW 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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ADAPTABILITY

	Load / ca	apacity			(	Car				Lift shaft <sup>o</sup>		
Speed	Accessibility	Persons	Q Load	AC Width	FC Depth	PL Clear opening	Туре	No. of entrances	AH <sup>1</sup> Width	FH Depth	HF <sup>2</sup> Pit	HUP <sup>3</sup> Headroom
		24	1,800 kg	2,350	1,600	1,200	CC	1 2x180 <sup>0</sup>	3,150	1,950 2,160		
0.6 m/s		26	2,000 kg	2,350	1,700	1,200	CC	1 2x180 <sup>0</sup>	3,150	2,050 2,260	1,450	3,625
0.0 11/5	iiti	20	2,000 kg	1,500	2,700	1,300	TT	1 2x180 <sup>0</sup>	2,300	3,050 3,260	1,400	3,023
		33	2,500 kg	1,800	2,700	1,300	TT	1 2x180 <sup>0</sup>	2,600	3,050 3,260		
		24	1,800 kg	2,350	1,600	1,200	CC	1 2x180 <sup>0</sup>	3,150	1,950 2,160		
1 m/s	iii.i	26	2,000 kg	2,350	1,700	1,200	CC	1 2x180 <sup>0</sup>	3,150	2,050 2,260	1,450	3,650
T 11/2		20	2,000 kg	1,500	2,700	1,300	TT	1 2x180 <sup>0</sup>	2,300	3,050 3,260	1,400	3,000
		33	2,500 kg	1,800	2,700	1,300	TT	1 2x180 <sup>0</sup>	2,600	3,050 3,260		
		24	1,800 kg	2,350	1,600	1,200	CC	1 2x180 <sup>0</sup>	3,150	2,050 2,260		
16 ~ /a	İİLİ	26	2.000 kg	2,350	1,700	1,200	CC	1 2x180 <sup>0</sup>	3,150	2,050 2,260	1 600	2 700
1.6 m/s	men	20	2,000 kg	1,500	2,700	1,300	TT	1 2x180 <sup>0</sup>	2,300	3,050 3,260	1,600	3,790
		33	2,500 kg	1,800	2,700	1,300	TT	1 2x180 <sup>0</sup>	2,600	3,050 3,260		

CC - Two panel central door

TT - Two panel telescopic door

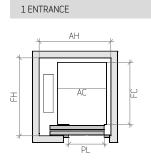
0 Minimum plumb measurements

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

# Layout



#### 2 ENTRANCES (OPEN THROUGH)

AH

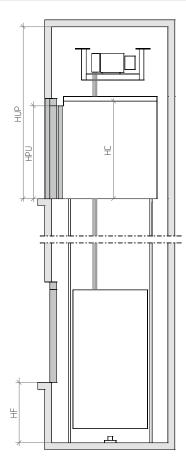
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\*The information is not contractually binding and is subject to the conditions of the shaft





													Са	width	١															
													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		1,900																
		33	33	31	30	28	27	25	24	22	22			1,800																
	33	31	30	29	28	26	25	23	22	22				1,700																
32	31	29	28	27	25	24	23	22	22					1,600																
30	28	26	26	24	23	22	22							1,500																
27	26	25	24	22	22	22								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	900	1,00	0 1,100	1,200 1	,300 1	,400 1	,500 1	,600 1	L,700	1,800	1,900	2,000	2,100	2,200	2,300	2,400	2,500
Car	dep	oth																							(	Clea	r da	oor o	pe	ning

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

# 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

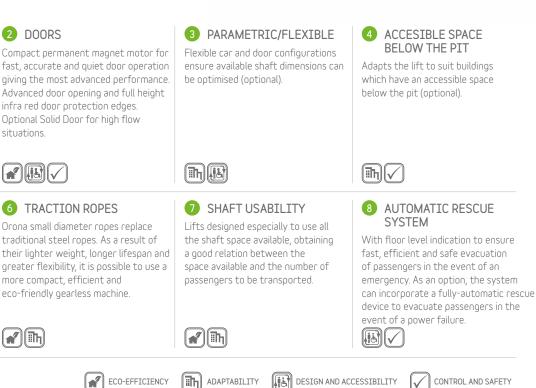
Load	700 to 1,250 kg
Capacity	9 to 16 persons
Speed	1 m/s
Maximum travel	40 m
Maximum floors served	16 floors
Entrances	1 front / 2 open through / 2 front & side
Drive system	Regulated gearless
Controller	ARCA III controller, low energy consumption multiprocessor
Door types	Automatic side-opening / Automatic 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	

2 DOORS

situations.

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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 enhaced safety and protection for maintenance staff.

									Lift	shaft				
Load /	capacity		Standa	rd car	Ent	crances		s side rweight		s rear rweight	HF		HUP	
	Q	AC	FC	PL	LIN		AH1	FH <sup>1</sup>	AH1	FH <sup>1</sup>	<u> </u>	<u> </u>	Re	duced
Persons	Load	Width	Depth	Clear opening	Accessibility	No. of entrances	Width	Depth	Width	Depth	Std.	Std.	With safety space	Without safety space (EN 81-21)
						1	1,815	1,685	1,650	2,045				
10	800 kg	1,325	1,400	900	it	2x180 <sup>0</sup>	1,010	1,840	-	-				
	1 825 kg :					2x90 <sup>0</sup>	1,970	1,685	1,650	2,045				
11	825 kg	1,400	1,400	900	jė.	2x90 <sup>0</sup>	2,045	1,685	1,685	2,045				
	1 829 KG					1	1,590	2,385	-	-			3,000	2,750 <sup>2</sup>
		1,100	2,100	900	İŁ	2x180 <sup>0</sup>	T'2A0	2,540	-	-			3,000	2,730-
		1,100	2,100	900		2x90 <sup>0</sup>	1,745	2,385	-	-	1,250 <sup>3</sup>	3,400		
13	1,000 kg					1	1,890	1,885	-	-				
					ie	2x180 <sup>0</sup>	T'0A0	2,040	-	-				
		1,400	1,600	1,000		2x90 <sup>0</sup>	2,045	1,885	-	-				
					i.	1	1,690	2,585	-					
16	1,250 kg	1,200	2,300	1,000	TC-	2x180 <sup>0</sup>	1,845	2,740	-	-			-	-
TO	т,200 ку	1,200	2,300	1,000		2x90 <sup>0</sup>	1,04J	2,585	-	-				

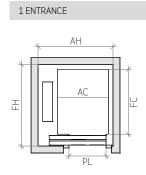
1 Shaft dimensions with side-opening doors supported 60mm on the landing

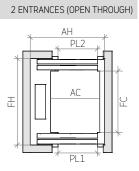
2 Minimum HUP for internal car height (HC) of 2100 mm. Available HUP of 2650 mm with internal car height (HC) of 2000 mm.

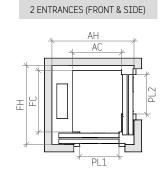
3 When 1,000 ≤HF< 1,250 mm, please consult.

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

## Layout





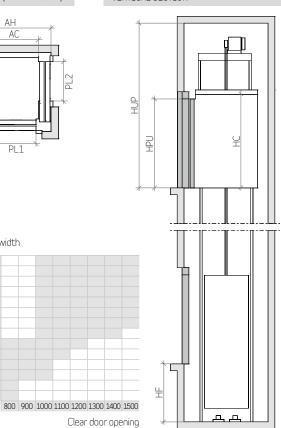


Car width

900

Car depth / Car width





# Customised car dimensions

Doors side counterweight / Doors rear counterweight

#### Car width / Car depth

	1300	1350	1400	1450	1500	1550	1600	1650	1700	1750	1800	1850	1900	1950	2000	2050	2100	2150	2200	2250
900												9	9	9	9	10	10	10	10	11
950										9	9	9	9	10	10	10	10	11	12	12
1000									9	9	9	10	10	10	10	11	12	12	12	13
1050							9	9	9	10	10	10	10	11	12	12	12	13	13	13
1100						9	9	10	10	10	10	11	12	12	12	13	13	13	14	14
1150				9	9	9	10	10	10	11	12	12	12	13	13	13	14	14	15	15
1200			9	9	9	10	10	10	11	12	12	13	13	13	13	14	15	15	15	16
1250		9	9	10	10	10	10	12	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	16	
1350		10	10	10	11	12	12	13	13	13	14	14	15	15	16	16	16	16		
1400	10	10	10	11	12	12	13	13	13	14	15	15	16	16	16	16				
1450				12	12	13	13	13	14	15	15	16	16	16	16					
1500			12	12	13	13	13	14	15	15	16	16	16							



# 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.



#### 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 **BELOW THE PIT**

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

#### 6 DOORS

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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.





	.,		C					Lift	shaft <sup>o</sup>			
Load / c	сарасіту		Car				Side-oper	ning doors	Central-op	ening doors		
	Q	AC	FC	PL	Ent	trances	AH1	FH <sup>2</sup>	AH	FH <sup>3</sup>	HF	HUP
Persons	Load	Width	Depth	Clear opening	Accessibility	No. of entrances	Width	Depth	Width	Depth	Pit	Headroom
						1	1 225	1,350	1 600	1,300		
4	320 kg	825	1,100	700		2x180 <sup>0</sup>	1,325	1,500	1,600	1,400		3,400
						2x90 <sup>0</sup>	1,450	1,350				
					i	1	1 500	1,500	1 900	1,450		3,400
6	5 450 kg 1,000 1,250 800	2x180 <sup>0</sup>	1,500	1,650	1,800	1,550		(3,000) <sup>5</sup>				
						2x90 <sup>0</sup>	1,625	1,500			1,000	3,400
					ii	1	1 600	1,650	2,000	1,600	(850) <sup>4</sup>	3,400
		1,100	1,400	900	15	2x180 <sup>0</sup>	1,600	1,800	2,000	1,700		(3,000) <sup>5</sup>
8	630 kg					2x90 <sup>0</sup>	1,725	1,650				
٥	030 K <u>ý</u>					1	1,700	1,500	2,000	1,450		3,400
		1,200	1,250	900	Ŀ	2x180 <sup>0</sup>	1,700	1,650	2,000	1,550		3,400
						2x90 <sup>0</sup>	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

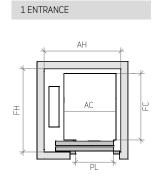
3 Shaft depth with door tracks projecting 40 mm on the landing

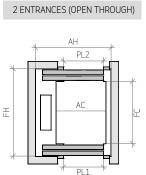
4 HF reduced pit optional 850 mm

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

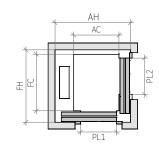
# Layout

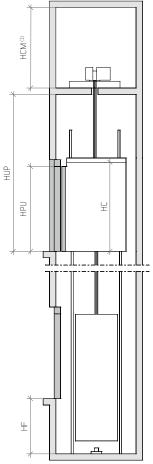






VERTICAL SECTION





(1) HCM - minimum 2,000 mm

# 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	

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 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.

ECO-EFFICIENCY

#### 3 ACCESIBLE SPACE **BELOW THE PIT**

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

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### 6 PARAMETRIC/FLEXIBLE

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

#### AUTOMATIC RESCUE 67 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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										ļ	Lift sha	əft <sup>o</sup>			
Load / d	capacity		Car				Side-oper	ning doors		-opening 's HH		HF Pit			HUP adroom
				PL	Ent	rances						Red	uced		Reduced
Persons	Q Load	AC Width	FC Depth	Clear opening	Accessibility	No. of entrances	AH <sup>1</sup> Width	FH <sup>2</sup> Depth	AH <sup>1</sup> Width	FH <sup>3</sup> Depth	Std.	With safety space	Without safety space (EN 81-21)	Std.4	Without safety space (EN 81-21)
4	320 kg	0.05		700		1	1 200	1,400	1 250	1,400					
4	320 KY	825	1,100	700		2x180 <sup>0</sup>	1,300	1,500	1,250	1,550					
6	450 40	4 000	4.050			1	1 450	1,550	1 450	1,550					
0	450 kg	1,000	1,250	800	Ŀ	2x180 <sup>0</sup>	1,450	1,650	1,450	1,700	1,000	705	285	3,380	3,000
						1	1 600	1,700	1 550	1,700	1,000	705	260	3,360	3,000
0	620 40	1,100	1,400	900	İŁ	2x180 <sup>0</sup>	1,600	1,800	1,550	1,850					
ŏ	8 630 kg -	1.000	4.050			1	1 650	1,550	1 450	1,550					
	1,200		1,250	900	Ŀ	2x180 <sup>0</sup>	1,650	1,650	1,650	1,700					

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

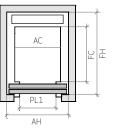
4 HUP minimum for internal car height (HC) of 2,100 mm

HH - Four panel central door

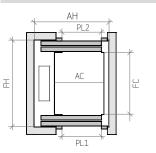
 $\ast$  The information is not contractually binding and is subject to the conditions of the shaft

## Layout

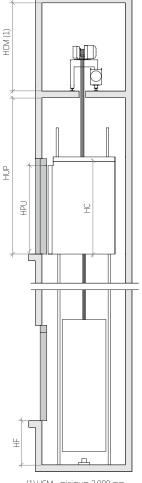




#### 2 ENTRANCES (OPEN THROUGH)



VERTICAL SECTION



#### (1) HCM - minimum 2,000 mm

# Customised car dimensions

												Li	ar wigt	In				
									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	90
Car d	deptł	٦																

Cochuidth



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

# 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.



#### 5 DRIVE

**\*)** (11) (~)

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

#### 2 **OPTIMISED PASSENGER** UNIT

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



#### 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.

ECO-EFFICIENCY

#### ACCESIBLE SPACE **BELOW THE PIT**

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

[**□**ħ][√

#### 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.



ADAPTABILITY



#### 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.



**\***) Th

#### 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.

DESIGN AND ACCESSIBILITY

								Lift s	haft⁰					
Load / c	capacity		Car				Side coun	terweight	Rear coun	terweight		HF Pit		HUP
							Side-oper	ning doors	Central-op	ening doors		Red	uced	Headroom
	Q	AC	FC	PL⁵	Ent	rances	AH1	FH <sup>2</sup>	AH <sup>3</sup>	FH <sup>2</sup>	Std.	With safety	Without safety	Std. <sup>4</sup>
Persons	Load	Width	Depth	Clear opening	Accessibility	No. of entrances	Width	Depth	Width	Depth		space	space (EN 81-21)	310.
						1	1,150	1,300	1,150	1,525				
4	320 kg	825	1,100 700	700		2x180 <sup>0</sup>	1,100	1,450						
	4 320 kg 825 1,10				2x90 <sup>0</sup>	1,250	1,300	1,200	1,525					
						1	1,325	1,450	1,300	1,675				
6	450 kg	1,000	1,250	800	لغ	2x180 <sup>0</sup>	1,320	1,600						
						2x90 <sup>0</sup>	1,425	1,450	1,400	1,675	1,000	890	400	2 400
						1	1 425	1,600	1,450	1,825	1,000	890	400	3,400
		1,100	1,400	900	if	2x180 <sup>0</sup>	1,425	1,750						
0	8 630 kg					2x90 <sup>0</sup>	1,525	1,600	1,500	1,825				
ŏ						1	1,525	1,450	1,450	1,675				
		1,200	1,250	900	Ŀ	2x180 <sup>0</sup>	1,323	1,600						
						2x90 <sup>0</sup>	1,625	1,450	1,500	1,675				

0 Minimum plumb measurements.

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

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

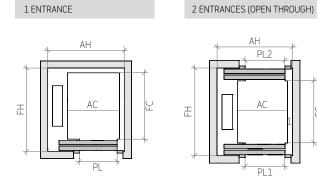
3 Width calculated for 4 panel central door

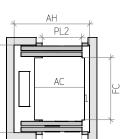
4 HUP minimum for internal car height (HC) 2,100 mm

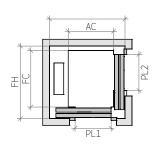
5 Door restrictions may exist for pits without safety space EN 81-21

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

# Layout

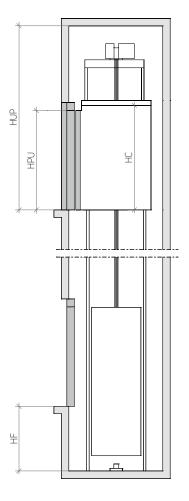






2 ENTRANCES (FRONT & SIDE)





# Customised car dimensions

						8	8	8	7	7	6				1,400					
					8	8	8	7	7	6	6	5			1,350					
				8	8	8	7	7	6	6	6	5			1,300					
			8	8	8	7	7	7	6	6	5	5			1,250					
		8	8	8	7	7	7	6	6	5	5	5			1,200					
	8	8	8	7	7	7	6	6	5	5	5	5	4		1,150					
8	8	8	7	7	7	6	6	5	5	5	5	4	4		1,100					
8	8	7	7	7	6	6	5	5	5	5	4	4	4	3	1,050					
8	7	7	6	6	6	5	5	5	5	4	4	4	4	3	1,000					
7	7	6	6	6	5	5	5	5	4	4	4	4	3	3	950					
6	6	6	6	5	5	5	5	4	4	4	4	3	3	3	900					
6	6	5	5	5	5	5	4	4	4	4	3	3	3	3	850					
5	5	5	5	5	5	4	4	4	4	3	3	3	3	3	800					
5	5	5	5	4	4	4	4	3	3	3	3	3	3	2	750					
5	5	4	4	4	4	4	3	3	3	3	3	2	2	2	700					
4	4	4	4	4	3	3	3	3	3	3	2	2	2	2	650					
4	4	4	3	3	3	3	3	3	3	2	2	2	2	2	630					
,450	1,400	1,350	1,300	1,250	1.200	1,150	1,100	1,050	1000	950	900	850	800	750		500	600	700	800	90

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

# 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. Enhaced 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

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.

# **ℯ**) (= h) (~

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.

ECO-EFFICIENCY

#### 3 ACCESIBLE SPACE **BELOW THE PIT**

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

# 6 PARAMETRIC/FLEXIBLE

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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.



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		aitu		Car					Lift	shaft <sup>o</sup>			
LU	oad / capa	LILY		Cal				Side-oper	ning doors	Central-op	ening doors		
		Q	AC	FC	PL	Entr	ances	AH	FH <sup>1</sup>	AH	FH <sup>2</sup>	HF	HUP <sup>4</sup>
Speed	Persons	Load	Width	Depth	Clear opening	Accessibility	No. of entrances	Width	Depth	Width	Depth	Pit	Headroom
	6	450 kg	1,000	1,250	800	Ŀ	1 2x180 <sup>0</sup>	1,470	1,520 1,690	1,720	1,470 1,590		
	8	630 kg	1,100	1,400	900		1 2x180 <sup>0</sup>	1,570	1,670 1,840	1,900	1,620 1,740		
	10	800 kg	1,350	1,400	900		1 2x180 <sup>0</sup>	1,820	1,670 1,840	1,900	1,620 1,740	1,000	0.400
1 m/s			1,600	1,400	1,000	İŁ	1 2x180 <sup>0</sup>	2,070	1,670 1,840	2,100	1,620 1,740	(850) <sup>3</sup>	3,400
	13	1000 kg	1,400	1,600	1,000		1 2x180 <sup>0</sup>	1,870	1,870 2,040	2,100	1,820 1,940		
			1,100	2,100	1,000		1 2x180 <sup>0</sup>	1,720	2,370 2,540	2,100	2,320 2,440		
	6	450 kg	1,000	1,250	800	Ľ.	1 2x180 <sup>0</sup>	1,470	1,520 1,690	1,720	1,470 1,590		
	8	630 kg	1,100	1,400	900		1 2x180 <sup>0</sup>	1,570	1,670 1,840	1,900	1,620 1,740		
	10	800 kg	1,350	1,400	900		1 2x180 <sup>0</sup>	1,820	1,670 1,840	1,900	1,620 1,740	4 4 9 9	0.550
1,6 m/s			1,600	1,400	1,000	ij	1 2x180 <sup>0</sup>	2,070	1,670 1,840	2,100	1,620 1,740	1,120	3,550
	13	1,000 kg	1,400	1,600	1,000		1 2x180 <sup>0</sup>	1,870	1,870 2,040	2,100	1,820 1,940		
			1,100	2,100	1,000		1 2x180 <sup>0</sup>	1,720	2,370 2,540	2,100	2,320 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)

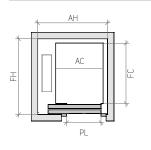
3 HF reduced pit optional 850 mm

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\*



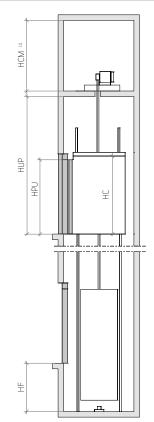


\* Note: The diagrams are for guidance only

# 2 ENTRANCES (OPEN THROUGH)

PL1

VERTICAL SECTION



# Customised car dimensions

											Cá	ar 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

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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

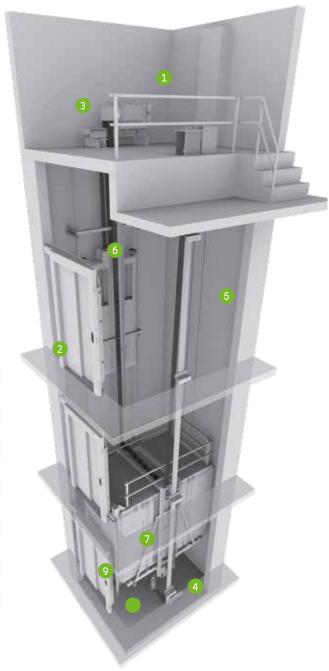
(1) HCM - minimum 2,000 mm

# 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	



#### MACHINE-ROOM 2 SOLID DOORS 3 DRIVE ACCESIBLE SPACE **BELOW THE PIT** A traditional solution simplifying lift Extra robust doors with reduced Compact, quiet, gearless, energy efficient, speed regulated (VVVF) Adapts the lift to suit buildings which maintenance sound levels inside and outside the lift and which are specially permanent magnet electric motor. have an accessible space below the constructed for high volume pit (optional). passenger traffic. (☶)(✓ **\*** 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 reduced vibration and noise. configurations ensure available ropes. As a result of their for heavy duty usage. Flexible ensure fast, efficient and safe configurations offering shaft dimensions can be lighter weight, longer lifespan 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 evacuate passengers in the event machine. of a power failure. (Th) (B) $\overline{\mathbf{V}}$ 🖌 (Th ECO-EFFICIENCY ADAPTABILITY ( DESIGN AND ACCESSIBILITY ( CONTROL AND SAFETY

		oitu (		Cas					Lift	shaft <sup>o</sup>			
LU	ад / сара	CILY		Car				Side-oper	ning doors	Central-op	ening doors		
		Q	AC	FC	PL	Entr	ances	AH <sup>1</sup>	FH <sup>2</sup>	AH	FH <sup>3</sup>	HF	HUP <sup>4</sup>
Speed	Persons	Load	Width	Depth	Clear opening	Accessibility	No. of entrances	Width	Depth	Width	Depth	Pit	Headroom
	8	630 kg	1,100	1,400	900		1 2x180°	1,700	1,675 1,850	1,950	1,625 1,750		
	10	800 kg	1,350	1,400	900		1 2x180°	1,975	1,675 1,850	1,975	1,625 1,750	1.050	
	10	1.000 სა	1,600	1,400	1,000	ii	1 2x180°	2,225	1,675 1,850	2,225	1,625 1,750	1,050	
1 /	13	1,000 kg	1,100	2,100	1,000	İŁ	1 2x180°	1,775	2,375 2,550				2 400
1 m/s	17	1.075	2,000	1,400	1,100		1 2x180°		,	2,750	1,650 1,750		3,400
	17	1,275 kg	1,200	2,300	1,100		1 2x180°	1,935	2,600 2,750			1 1 5 0	
	21	1 ( 00 )	2,100	1,600	1,100		1 2x180°		,	2,850	1,850 1950	1,150	
	21	1,600 kg	1,400	2,400	1,200	İİLİ	1 2x180°	2,085	2,700 2,850				
	8	630 kg	1,100	1,400	900		1 2x180°	1,725	1,675 1,850	1,950	1,,625 1,750		
	10	800 kg	1,350	1,400	900		1 2x180°	1,975	1,675 1,850	1,975	1,625 1,750	1,200	
	13	1.000 სა	1,600	1,400	1,000	İŁ	1 2x180°	2,225	1,675 1,850	2,225	1,625 1,750	1,200	
1.6 m/s	13	1,000 kg	1,100	2,100	1,000	15	1 2x180°	1,775	2,375 2,550				3,550
1.0 11/5	17	1.275 40	2,000	1,400	1,100		1 2x180°			2,750	1,650 1,750		3,550
	1/	1,275 kg	1,200	2,300	1,100		1 2x180°	1,935	2,600 2,750			1,250	
	21	1.600 kg	2,100	1,600	1,100	İİLİ	1 2x180°			2,850	1,850 1,950	T'SO	
	21	1,600 kg	1,400	2,400	1,200		1 2x180°	2,085	2,700 2,850				

2 ENTRANCES (OPEN THROUGH)

DI 1

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

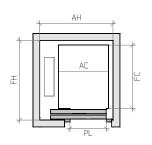
4~ HUP minimum for internal car height (HC) of 2,100 mm.

 $\ast$  The information is not contractually binding and is subject to the conditions of the shaft

VERTICAL SECTION

## Layout

#### 1 ENTRANCE



# Customised car dimensions

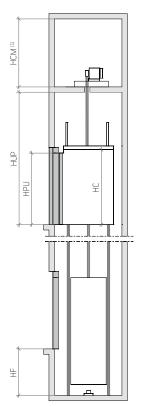
													Ca	ir wid	th								
									21	20	18			2,100									
								21	20	18	17			2,000									
							21	20	19	17	16			1,900									
						21	20	19	18	16	15			1,800									
					21	20	19	18	16	15	14			1,700									
				21	21	19	18	16	15	14	13	12		1,600									
		21	21	19	18	17	17	15	14	13	13	11		1,500									
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

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

Clear door opening



(1) HCM - minimum 2,000 mm

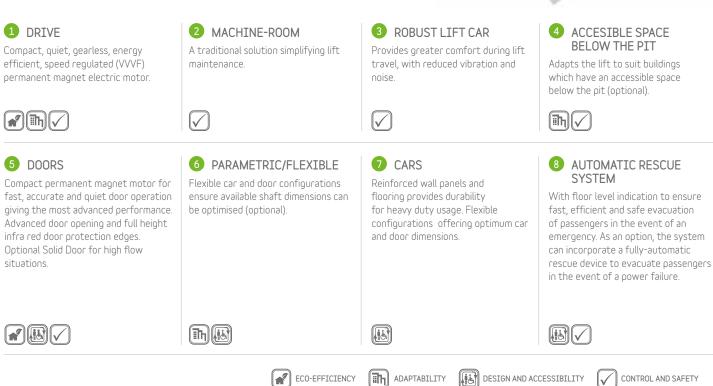
# Machine-room above electrical gearless solutions

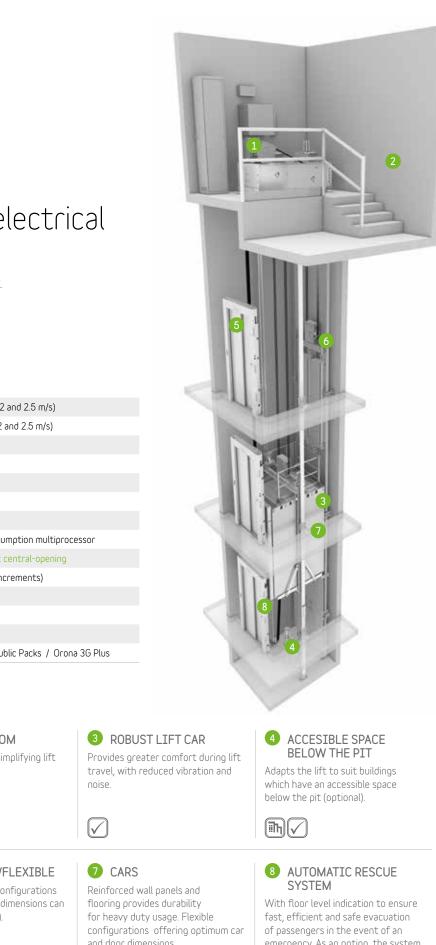
With the latest direct drive (gearless) technology. Designed for high-rise buildings. Great flexibility and high performance.

## 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	

Standard





	l ood / coc	acity		Са	c				Lift	shaft <sup>o</sup>			
	Load / cap	Jacity		Ca				Side-open	ing doors <sup>1</sup>	Central-ope	ening doors <sup>1</sup>		
	<b>İ</b> İİİ	Q	AC	FC	PL	Entr	ances	AH <sup>2</sup>	FH <sup>3</sup>	AH	FH <sup>4</sup>	HF⁵	HUP <sup>6</sup>
Speed	Persons	Load	Width	Depth	Clear opening	Accessibility	No. of entrances	Width	Depth	Width	Depth	Pit	Headroom
	6	450 kg	1,000	1,250	800	(j.	1	1,500	1,800	1,750	1,750		
			_,	_,			2x180°	1,600	1,700	1,750	1,600	1,200 <sup>5</sup>	3,550 <sup>6</sup>
	8	630 kg	1,100	1,400	800		1	1,500	1,950	1,750	1,900	1,200	0,000
							2x180°	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		
						if	2x180°	2,000	1,850	2,000	1,750		
			1,600	1,400	900		1 2x180°	2,000 2,250	1,950 1,850	2,000 2,250	1,900 1,750	1,250 <sup>5</sup>	3,600 <sup>6</sup>
	13	1,000 kg					1	1,700	2,650	1,950	2,600		
			1,100	2,100	900		2x180°	1,750	2,550	1,950	2,450		
							1	1,700	2,000	1,950	1,950		
	8	630 kg	1,100	1,400	900		2x180°	1,800	1,850	2,050	1,750		
	10	0001	1 250	1 400	000		1	1,800	2,000	1,950	1,950		
	10	800 kg	1,350	1,400	900	(ie)	2x180°	2,050	1,850	2,150	1,750		
			1 ( 00	1 400	1 000		1	2,050	2,000	2,150	1,950		
	13	1,000 kg	1,600	1,400	1,000		2x180°	2,300	1,850	2,400	1,750		
2 m/s	12	1,000 kg	1,100	2,100	1,000		1	1,800	2,700	2,150	2,650	1,550	4 0007
-			1,100	2,100	1,000		2x180°	1,850	2,550	2,150	2,450	1,000	4,0007
2.5 m/s			2,000	1,400	1,100		1	2,500	2,050	2,500	2,000	1,900	4,250 <sup>7</sup>
	17	1,275 kg	2,000	1,400	1,100		2x180°	2,800	1,850	2,500	1,750	1,700	4,200
	1/	1,270 Kg	1,200	2,300	1,100		1	1,850	2,850	2,350	2,850		
			1,200	2,000	1,100	(iii:ii)	2x180°	2,000	2,750	2,350	2,650		
			2,100	1,600	1,100		1	2,550	2,250	2,550	2,150		
	21	1,600 kg	_,100	_,500	_,_00		2x180°	2,900	2,050	2,850	1,950		
		1,000	1,400	2,400	1,200		1	2,150	2,950	2,550	2,950		
			1,.00	_,	1,200	2	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

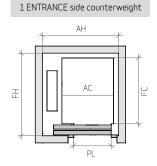
CC - Two panel central door

TT - Two panel telescopic door

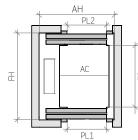
2 ENTRANCES (OPEN THROUGH)

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

# Layout

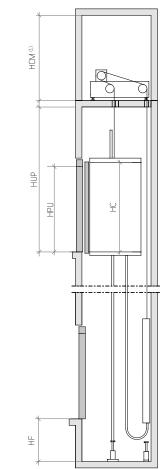


# 1 ENTRANCE rear counterweight



Clear door opening

#### VERTICAL SECTION



(1) HCM - minimum 2,000 mm

AC H H H Car width

# Customised car dimensions

										Là	ar. Mid	ιτη							
							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

2,100 2,000 1,900 1,800 1,700 1,600 1,500 1,400 1,300 1,200 1,10 Car depth

													Ca	r wid	th								
									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	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									
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	0 1,400	1,500	1,0
																				-			

Car depth Clear door opening

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

# 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 enhaced 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.



# 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 fullyautomatic rescue device to evacuate passengers in the event of a power failure.

noise.

 $\square$ 

#### 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.

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.

 $\square$ 

(≣h)(√)



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





ADAPTABILITY

	Load / ca	apacity			C	Car			L	lift shaft <sup>o</sup>		
Speed	Accessibility	Persons	Q Load	AC Width	FC Depth	PL Clear opening	Туре	No. of entrances	$\begin{array}{c} AH^1\\ Width \end{array}$	FH Depth	HF <sup>2</sup> Pit	HUP <sup>3</sup> Headroom
		24	1,800 kg	2,350	1,600	1,200	CC	1 2x180 <sup>0</sup>	3,150	1,950 2,160		
		24	2,000	2,350	1,700	1,200	CC	1 2x180 <sup>0</sup>	3,150	2,050 2,260	1 450	2.400
0.6 m/s	İİLİ	26	2,000 kg	1,500	2,700	1,300	TT	1 2x180 <sup>0</sup>	2,300	3,050 3,260	1,450	3,400
		33	2,500 kg	1,800	2,700	1,300	TT	1 2x180 <sup>0</sup>	2,600	3,050 3,260		
		24	1,800 kg	2,350	1,600	1,200	CC	1 2x180 <sup>0</sup>	3,150	1,950 2,160		
		24	0.0001	2,350	1,700	1,200	CC	1 2x180 <sup>0</sup>	3,150	2,050 2,260	4.450	0.405
1 m/s	İİLİ	26	26	2,000 kg	1,500 2,700 1,300 TT		TT	1 2x180 <sup>0</sup>	2,300	3,050 3,260	1,450	3,425
		33	2,500 kg	1,800	2,700	1,300	TT	1 2x180 <sup>0</sup>	2,600	3,050 3,260		
		24	1,800 kg	2,350	1,600	1,200	CC	1 2x180 <sup>0</sup>	3,150	2,050 2,260		
				2,350	1,700	1,200	CC	1 2x180 <sup>0</sup>	3,150	2,050 2,260		
1.6 m/s	26	26	26 2,000 kg	1,500	2,700	1,300	TT	1 2x180 <sup>0</sup>	2,300	3,050 3,260	1,600	3,565
		33	2,500 kg	1,800	2,700	1,300	TT	1 2x180 <sup>0</sup>	2,600	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.

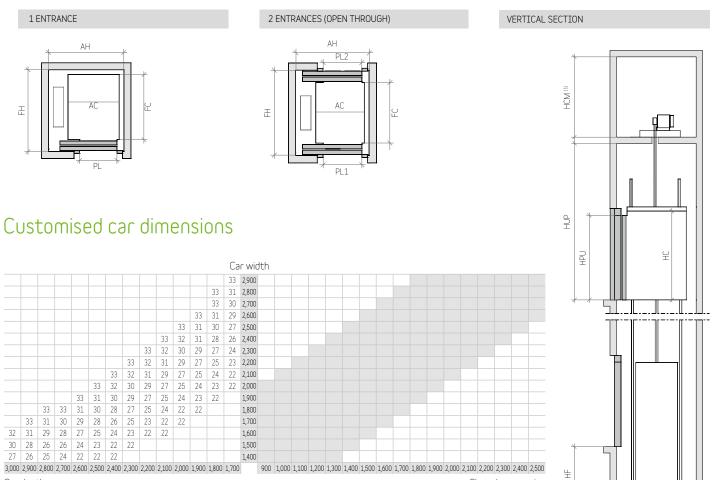
CC - Two panel central door

TT - Two panel telescopic door

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

## Layout

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

(1) HCM - minimum 2000 mm

# Orona 3G

# 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, 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

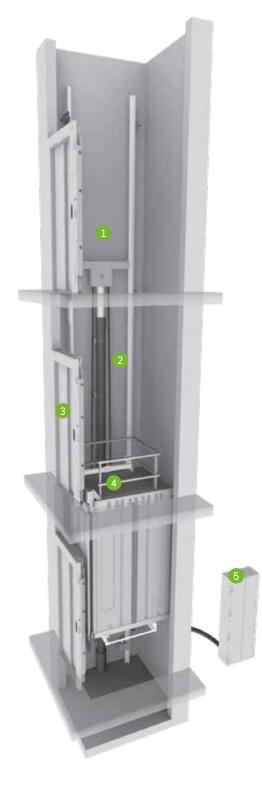
Compact permanent magnet motor for fast, accurate and quiet door operation giving the most advanced performance. Advanced door opening and full height infra red door protection edges. Optional Solid Door for high flow situations.

(III) (III)

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

#### 5 REDUCED MACHINE ROOM

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.





(**II**h)

ECO-EFFICIENCY

							Lift sha	ft <sup>0</sup>							
Load /	capacity				Side pistor	I (TT)			Rear pis	ton (HH)		HF		ł	HUP <sup>2</sup>
		0	Standar	d car		Lift shaft						Pit		He	adroom
	Q	AC	FC	PL	En	trances	AH	$FH^1$	AH	FH <sup>1</sup>	Std.	With safety	Without safety space	Std.	Without safety space
Persons	Load	Width	Depth	Clear opening	Accessibility	No. of entrances	Width	Depth	Width	Depth	510.	Space	(EN 81-21)	310.	(EN 81-21)
						1	1200	1,000	1,100	1,300			, ,		, ,
2	180 kg	750	750	600		2x180 <sup>0</sup>	1,200	1,150							
						2x90 <sup>0</sup>	1,350	1,000	1,100	1,300			615		3,010
						1	1,250	1,350	1,175	1,650			010		3,010
4	320 kg	825	1,100	700		2x180 <sup>0</sup>	1,250	1,500							
						2x90 <sup>0</sup>	1,400	1,350	1,175	1,650	1,200	1,100			
					<b>i</b>	1	1,425	1,500	1,325	1,800	1,200	1,100			
6	450 kg	1,000	1,250	800	Ŀ	2x180 <sup>0</sup>	1,425	1,650							
						2x90 <sup>0</sup>	1,575	1,500	1,325	1,800			860		3,150
					ie	1	1,575	1,650					800		3,100
8	630 kg	1,100	1,400	900		2x180 <sup>0</sup>	1,575	1,800							
						2x90 <sup>0</sup>	1,675	1,650						3,400	
					أنح	1	1,800	1,650	1,700	1,975				5,400	
10	800 kg	1,350	1,400	900		2x180 <sup>0</sup>	1,800	1,800							
						2x90 <sup>0</sup>	1,925	1,650	1,700	1,975					
					ie	1	1,550	2,350							
		1,100	2,100	900		2x180 <sup>0</sup>	1,550	2,500					875		3,230
13	1,000 kg					2x90 <sup>0</sup>	1,675	2,350			1,250	1,150			
10	1,000 Kg					1			1,700	1,975	1,200	1,100			
		1,600	1,400	1,000	(ij	2x180 <sup>0</sup>									
						2x90 <sup>0</sup>			1,850	1,975					
					iė	1	1,650	2,550							
16	1,250 kg	1,200	2,300	1,000		2x180 <sup>0</sup>	1,650	2,700							
						2x90 <sup>0</sup>	1,775	2,550							

0 Minimum plumb measurements

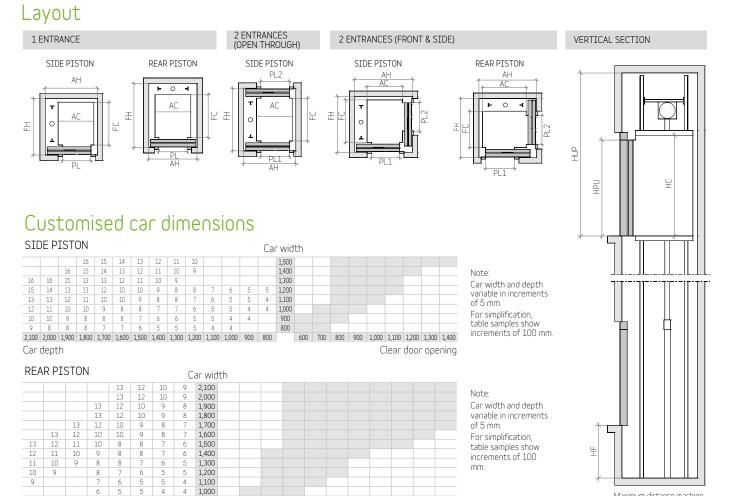
1 Shaft depth with door tracks projecting 60 mm on the landing

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

TT - Two panel telescopic door

HH - Four panel central door

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



#### Maximum distance machine room to cylinder 10 m.

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

4 4 4

900

Clear door opening

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

# Orona 3G Options

	X-10	X-11	X-14	X-15	X-16
ECO-EFFICIENCY	I		I	1	
Low-energy drive	•	٠	•	•	•
Efficient LED lighting	•	٠	٠	•	
Automatic car lighting switch off	•	•	٠	•	•
Landing illumination control	0	0	0	0	0
Lift stand-by mode	0	0	0	0	0
Single-phase supply		0	0		

#### **Th**

#### ADAPTABILITY

Flexible controller location	0	0	0	0	0
Lift well enclosure	0	0	0	0	0
Reduced headroom	R/V	R/V		R	
Reduced pit	R	R/V	R/V	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	° (> 1,000 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 cancelling	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 closing (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-19	X-20	X-23	X-24	X-25	X-26	X-27	X-28	X-30
•	•	•	•	•	•	•	•	
•	•	•	•	•	•	•	•	•
•	٠	•	•	۰	•	•	•	•
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				V
	R	R/V	R/V	R				V
0	0	0	0	0	0	0	0	
	-							
0	0	0	0	0	0	0	0	o
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	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

• 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

