## Gen360<sup>™</sup> Completely reimagined

**OTIS** 

A digital vertical mobility platform



## Gen360



### COMPLETELY REIMAGINED

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# Digitally born

With growing digital power at our fingertips, we went back to the drawing board.

We focused on the people we serve. We unleashed our imagination, building on decades of experience.

We reimagined design, safety, service, experience and support.

We've combined decades of innovation with state-of-the-art technology to bring you a brand-new experience.

### A DIGITAL VERTICAL MOBILITY PLATFORM

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## **Design** "New perspectives"

No protrusion needed, letting you create a flat roof design. P.12

## Safety "Peace of mind"

Electronic active safeties, immediate situational evaluation and remote actions.

P.16

## **Service** "Smart connections"

Highly sophisticated sensors proactively detect and prevent issues.

P.20

## **Experience** "Superior journey"

New designs transform passenger ride, adding exceptional value.

# Completely reimagined for you

It's a design. It's a set of supporting services. It's an asset in your property. It's a team of experts working round the clock to remotely monitor, update, service, and take care of your elevator 24/7 - giving you ultimate flexibility and empowering you to be in complete control of your elevator.

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### Support "Streamlined execution"

Online support tools simplify every step, saving time and money.

## The elevator completely reimagined

Native active electronic safeties replacing conventional overspeed mechanical governor

Absolute electronic positioning of the car in hoistway and redundant speed control

New PrimaPlus door with up to 1,100 mm opening width and 2,200 mm opening height

> New foldable toe guard for silent operation on low pit configurations



Camera monitoring door lock

Maintenance in car Foldable platform In-car camera

Under-the-car camera

to monitor hoistway

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IoT native, Otis ONE<sup>™</sup> solution

Electronic architecture and safety chain providing data to the cloud

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# Discovering Gen360

#### THE TECHNOLOGY

The Gen360 platform is a true digital revolution. Native electronic architecture allowed us to completely reimagine every aspect of an elevator system, setting new standards for proactive digital elevator safety.

We completely redesigned our hardware in order to provide you with the best service. We have replaced many mechanical parts with electronic components. The new Otis ONE IoT solution turns your elevator into a powerful network of sensors for real-time status updates. With 360° cameras, our experts can visually confirm, fine-tune, diagnose and solve issues remotely without even stopping the elevator, giving you unmatched stress-free reliability.

#### **PROVEN AND RELIABLE**

We are well acquainted with connected elevators. We pioneered remote servicing over a decade ago as part of Gen2. With Gen360, we've built on that proud legacy and evolved - reimagining technology for the era of smart buildings.

#### THE SMART CHOICE

Gen360 is more than just an elevator, it's a complete platform connected to the smart core of low to mid-rise residential and commercial buildings. Gen360 helps building and property managers maximize efficiency and improve tenant experience.





# Design reimagined

The Gen360 platform gives you freedom to push the boundaries of design. No protrusion required, letting you create a much simpler, more elegant and appealing flat roof design<sup>\*</sup>.

## Function and freedom



\* May vary according to local regulation

## Design reimagined -----



#### DESIGN SAFE ELEVATORS IN SMALLER HOISTWAYS

Take advantage of lower overheads and reduced pit combinations without needing additional safety elements like folding balustrades. Gen360 adapts to existing buildings with advanced technology and variable dimensions so you get maximum safety - all in one impressive, compact package.

### BUILD, DESIGN, AND INSULATE IN A WATERTIGHT WAY

The Gen360 platform eliminates the need to perform any maintenance operation from the top of the car. As a result, you no longer need refuge space at the top of the hoistway, nor do you need a "protrusion" on the roof of the building.

- No protrusion building and waterproofing
- No roof cutting
- Better isolation
- Low overhead compatible (car height +400 mm) at 1 m/s, 1.6 m/s, 1.75 m/s\*

#### MAXIMIZE HOISTWAY EFFICIENCY

### Gen360 lets you design your elevator with even more flexibility:

- Insert a 9-passenger / 700 kg car in the same standard hoistway dimensions as an 8-passenger / 630 kg car
- Adjust car size thanks to variable dimensions
- Enlarge door size up to 1,100 mm width and 2,200 mm height

#### **Gen360**





# Safety reimagined

#### The Gen360 platform sets new standards for safety.

Moving from mechanical to electronic, the brand-new design of Gen360's safety chain allows 24/7 monitoring, immediate situational evaluation and remote actions while increasing the overall performance and efficiency of the elevator for peace of mind.

## Ultra-reliable performance

## Safety **reimágined**

#### **GEN360 COMPLETELY REIMAGINES ELEVATOR SAFETY**

We've been setting the industry standards for more than 160 years. Now, we're completely reimagining safety to deliver digitally-enhanced, seamless, reliable vertical mobility. The Gen360 platform introduces active safeties where mechanical components are replaced by "drive by wire" electronic technology, allowing immediate remote situational evaluation and actions.





**ELECTRONIC SAFETY ACTUATOR** 

to accurately monitor car position and speed

ABSOLUTE POSITIONING

24/7 monitoring of all main elevator components integrated into a single loop to anticipate

**PROACTIVE SAFETY** 

and prevent issues

in the hoistway

replaces the mechanical speed governor, allowing it to monitor speed redundantly and automatically trigger a safety break

#### **REMOTE RESCUE & INTERVENTION**

If the elevator does stop, Gen360 electronic safeties allow immediate situational evaluation to trigger remote operations.

The car is delivered to the closest floor, drastically reducing time of intervention and discomfort.

#### **EMERGENCY TWO-WAY VIDEO CALLS\***

In the unlikely event of an elevator fault, our trained staff offer immediate assistance to passengers through the in-car eView screen. We'll always be there by your side.



\* May vary according to local regulation

## What is "active electronic safety"?



#### AUTOMOTIVE AND AEROSPACE INSPIRED

"Drive by wire" is well established in the aerospace and automotive industries. Replacing conventional mechanical safeties with drive by wire systems significantly reduces the number of moving parts in the hoistway.

This frees up space, increases reliability, and monitors safety 24/7 for peace of mind.



# Service reimagined

**The Gen360 platform revolutionizes service and maintenance.** Your tenants depend on elevators, and you depend on reliable performance. Gen360 uses highly sophisticated sensors to detect and prevent issues so you can maximize availability of your unit.



## Service reimagined -----

#### DIGITALLY NATIVE, REIMAGINED SERVICE

The Gen360 platform goes beyond simply adding sensors. Thanks to the native integration of Otis ONE, our Internet of Things solution, Gen360 generates proactive and predictive insights. The 360° hoistway vision cameras let our experts remotely assess inside and below the car as well as door lock for quick problem diagnosis. The elevator system performance is constantly monitored and analyzed. And what's more, Gen360 provides real-time information on the health of your unit.



#### THAT'S MORE THAN CONVENIENT, IT'S DEEPLY REASSURING

We completely redesigned our hardware for smarter performance. With Otis ONE, data is now collected automatically and interpreted in the cloud via big data analytics. These insights feed predictive algorithms that anticipate your needs.

#### **TURNING DATA INTO ACTIONS**

Smart data keeps downtime to an absolute minimum. If an onsite visit is needed, your Otis expert will know the exact services your elevator requires.

#### **REMOTE SERVICES**

The Gen360 platform benefits from the company's unrivaled experience in remote services - gained over a decade with Otis Elite™ Service - to give you the immediate support you need.

#### 360° VISION WITH CAMERAS

to confirm and fine tune diagnosis (door lock and under-the-car cameras).

#### **Otis ONE IoT TECHNOLOGY NATIVE**

Up to 20 sensors generate insights feeding the cloud.

#### NEW ELECTRONIC ARCHITECTURE

allows simpler wiring and data transmission to electronic components.



## Remote support

Using Gen360's cameras, qualified technicians supported by remote experts can check then confirm or fine-tune a diagnosis straight away. Many times, they can service the unit remotely as well - often without needing to stop the elevator. OTIS



# **Experience** reimagined

**The Gen360 platform offers a smooth and entertaining ride.** You want an elevator that sets your property apart.

That's why we've redesigned every aspect of the elevator journey, including the look, feel, and sound design. Because details add exceptional value for you and for passengers.



### Experience reimagined -----

#### **GEN360 COMPLETELY REIMAGINES ELEVATOR PASSENGER EXPERIENCE.**

**The Gen360 platform delivers a smooth and entertaining ride.** Your passengers will enjoy a new large in-car display, elegantly placed behind the back mirror. Our immersive sound designs enlarge space perception, and you can now choose our new Lounge Ambiance on top of the wide range of 400,000 other design configurations. To top it off, Gen360 introduces a new hall fixture range and enhanced eCall functionalities.

#### LOOK, FEEL AND EXPERIENCE

Gen360 adds extraordinary value to your building.



#### eView IN-CAR DISPLAY

Custom announcements, infotainment live feeds (news, weather...), phone land line elimination: eView is much more than just a screen. 10" standard, discover the optional large eView 18" behind back mirror.



#### HALL FIXTURES

Redesigned hall fixtures with greater contrast, inspired by EN 81-70.





reddot winner 2021

#### SOUND DESIGN Space perception and ride are transformed thanks to sound design.

## eCall

There's no need to touch elevator buttons thanks to the eCall app. Call the elevator from your phone so it's ready to go when you are.

> Thanks to the power of APIs, seamlessly plug eCall into your building application.



# Support reimagined

**Gen360 tools save you time and money.** Our online support tools streamline the entire process from start to finish, from drawings to specifications and throughout the lifetime of your unit.

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## Efficient planning, streamlined execution



#### **SUPPORTING YOU**

The Gen360 platform comes with a suite of digital tools to help you manage your elevator project seamlessly.



#### **DEVELOPER PORTAL (OTIS APIs)**

Connect your Otis data seamlessly to your existing building management applications.



#### THE OTIS CUSTOMER PORTAL GIVES YOU ALL THE INFORMATION YOU NEED IN ONE PLACE, RIGHT WHEN YOU NEED IT.

#### **Real-time information:**

- View account details 24/7
- Contact our teams
- Track maintenance
- Monitor the performance and health of all your units



## Technical specifications ———

#### THE TRUE VALUE OF GEN360 IS BRINGING TOGETHER THE LATEST TECHNOLOGIES IN ONE COMPREHENSIVE PLATFORM TO MAXIMIZE EFFICIENCY.

#### WHAT MAKES GEN360 TECHNICALLY SO DIFFERENT?\*

- Maintenance from the car EN 81&50 compliant, up to 1.75 m/s
- Reduced overhead and reduced pit combined
- **Full-electronic safety chain** inspired by the aerospace and automotive industries
- **Digital connectivity** Otis ONE IoT solution native
- Remote rescue operation + batteries backup
- Multiple remote servicing capabilities supported by Otis experts

- Car and hoistway cameras for remote diagnosis
- CANBus electrical architecture and sensors feeding data in real time to optimize performance
- ▶ 24/7 bi-directional live video-link using an Otis Line operator in case of need with eView in-car display
- Remote call with the eCall app and API solutions
- Remote software updates

#### MAKING EVERY LANDING A MASTERPIECE

With Gen360, you can tailor every landing to perfectly complement your building. Choose from a variety of new hall fixture designs and features. **Explore design possibilities using our simple, free design tool OtisCreate.** 



\* Available features may vary according to local regulations. Please contact your sales representative for more information.

MAIN EN CODE COMPLIANCE	<ul> <li>EN 81-20 &amp; 50 and EN 81-21</li> <li>EN 81-28</li> <li>EN 81-58 multiple options, up to El120</li> <li>EN 81-70 optional</li> <li>EN 81-71 category 1 optional</li> <li>EN 81-72 optional</li> <li>EN 81-77 category 1 optional</li> </ul>
TRACTION SYSTEM	<ul> <li>Otis polyurethane coated steel belt system: 20 years of reliability proven over 1,000,000 installed units</li> <li>Gearless machine with synchronous permanent magnet motor</li> <li>Radial low inertia design with sealed-for-life bearings</li> <li>2:1 underslung configuration</li> <li>24/7 belts monitoring with Pulse</li> </ul>
CONTROL SYSTEM	<ul> <li>Modular microprocessor system</li> <li>APRS (Absolute positioning system)</li> <li>PESSRAL (Programmable Electronic Systems in Safety Related Applications for Lifts)</li> <li>ESA (Electronic Safety Actuation)</li> <li>Low Voltage Architecture</li> </ul>
DRIVE SYSTEM	<ul> <li>Closed loop, variable frequency</li> <li>Standard regenerative "ReGen drive" Otis technology</li> <li>Up to 150 starts / hour</li> <li>+/- 3 mm stopping accuracy</li> </ul>
IOT SYSTEM	<ul> <li>Otis ONE electronics boards</li> <li>Up to 20 sensors</li> <li>Elevator 'heartbeat' monitoring every 20 seconds</li> </ul>
LANDING DOORS	<ul> <li>PrimaPlus Otis manufactured standard</li> <li>Up to 1,100mm opening width and 2,200 mm opening height</li> </ul>
CAR DOOR	<ul> <li>Otis Glide operator standard</li> <li>Up to 240 starts / hour as a peak</li> </ul>



#### SUPPORTING THE PLANET

Gen360 also has a best-in-class energy rating. The energy consumption per day of Gen360 corresponds to an **A class efficiency from ISO 25745.** 

Considering a 630kg, 1m/s, 5 stops, usage category 2 elevator. That makes it better for the environment.

For more information, please refer to our **Gen360 Environmental Product Declaration.** 

EPD compliant with EN 15804 standard.



## Main dimensions

			PARAMETER	UNIT	IT STANDARD DIM. CARS									
DUTY LOAD		DL	[kg]	320		400		450	480	525	630	700		
PASSENGER CAPACITY		NBPAS	_	4 5		5	6		7	8	9			
SIZE		-	-	Deep	Stretch	Deep	Stretch	Deep	Stretch	Deep	Deep	Deep		
CAR TYPE		CARTYPE	-	4D	4S	5D	55	6S	6D	7D	8D	9D		
SPEED		V	[m/s]			1	1 / 1.6 / 1.75							
MINIMUM HOISTWAY Width DIMENSIONS		HW	[mm]	1310         1360         1350 (TLD700)         1510 (TLD700)           (TLD700)         1360         1365 (TLD750)         1510 (TLD750)           (TLD700)         (TLD700)         1510 (TLD800)         1510 (TLD800)           1770 (CLD800)         1780 (CLD800)         1780 (CLD800)		1510 (TLD800)         1600 (TLD           1515 (TLD850)         1600 (TLD           1590 (RFF TLD900)         1510         1780 (RFF C           1600/1650 (TFF TLD900)         (TLD800)         1790 (TFF C           1780 (RFF CLD800)         1960 (RFF C         1960 (RFF C           1790 (TFF CLD800)         1970 (TFF C         1970 (TFF C			LD900) = CLD800) = CLD800) = CLD900)					
NOTES: TFF: Total frame		1 entrance			1350	1300	1450	1350	1500	1550	1600	1650	1670	
family RFF: Reduced frame family	Depth	2 entrances	WTW	[mm]	1510	1460	1610	1510	1660	1710	1760	1810	1830	
	N	Vidth	CW	[mm]	800	840	840	1000	1000		1000	1100	1130	
CAR DIMENSIONS	C	Depth	CD	[mm]	1100	1050	1200	1100	1250	1300	1350	1400	1420	
	F	leight	СН	[mm]	21 22		22	00 00 / OP=800)	2100 2200 2300 (only OPH=2100)					
	Height		OPH	[mm]	2000 2000 2100 (only OP=800)			2000 2100						
DOOR OPENING DIMENSIONS	Telescopic 2 panels (TLD)				700		700 750 800		800 850 900		800			
	Width	Central 2 panels (CLD)	OP	[mm]			800		800		-	800 900	800 900	
CAR BALUSTRAD	F			[mm]				alustrade needeo						
Reduced			[]	900 or 1100 for standard maintenance procedure										
		overhead			CH+400									
OVERHEAD		Standard overhead	к	[mm]	CH+1220	CH+2177	CH+1220	CH+2177		С	H+1220			
PIT		Standard	S [mm]		1380 930									
<b>NOTES:</b> v=1m/s		Reduced							recess is 5 m					
MAXIMUM NUMBER OF STOPS *		N	-	345 (if floor recess is 30 mm) 14 at 1m/s 24 at 1.6m/s & 1.75m/s										
MAXIMUM RISE		R	[m]	45 at 1m/s 75 at 1.6m/s & 1.75m/s										
CARS IN GROUP			GROUP	-					p to 3	•				
COUNTERWEIGH	т		CWT	_	With or without safeties up to 1m/s, without safeties otherwise									
VOLTAGE			VOLT	[V]	380 - 400 - 415									
FREQUENCY			FREQ	[Hz]	50 - 60									

\* Please contact your local sales representative for detailed specifications, depending on configurations.

	STAN	IDARD DIM. CARS			VARIABLE DIM. CARS		
800	1000 1 entrance						
10	12		13		3 to 13		
Wide	Wide	Deep	Stretch	Wide	Variable		
10W	12W	13D	13S 13W		VAR		
					1 (compulsory up to 5 pass.) / 1.6 / 1.75		
1895 (TLD900) 1960 (RFF CLD900) 1970 (TFF CLD900) 2075 (CLD1000) 2150 (CLD1100)	1945 (TLD900) 1960 (RFF CLD900) 1970 (TFF CLD900) 2125 (CLD1000) 2150 (CLD1100)	1600 (TLD800) 1600 (TLD900) 1960 (RFF CLD900) 1970 (TFF CLD900) 1820 (TLD1000)	1945 (TLD800) 1945 (TLD900) 1945 (CLD800) 1960 (CLD900)	2145 (TLD800) 2145 (TLD900) 2145 (CLD800) 2145 (CLD900) 2255 (CLD1000) 2400 (CLD1100)	1302 to 2222		
1650	1750	2350			1120 - 2915		
1760	1910	2510	2010	1810	1390 - 2510		
1350	1400	1100	1400	1600	From 800 to 1600 when low overhead From 780 to 1600 when standard overhead 10 mm steps		
1400	1500 2100 1600 1400				From 870 to 2100 when low overhead From 800 to 2100 when standard overhead 10 mm steps		
					2100 2200 2300 (only OPH=2100)		
	2000 2100						
900	900 1000	800 900 1000	800 900	800 900	700 (only OPH=2000) 750 (only OPH=2000) 800 850 (only OPH=2000) 900		
900 1000 1100	1100	900	800 900	800 900 1000 1100	700 (only OPH=2000) 800 900		
		lo balustrade needed v 00 or 1100 for standarc					
		CH+	⊦400				
	Default CH+1220 Depend on CW and CD *						
	Default 930 Depend on CW and CD*						
		345 (if floor re	ecess is 5 mm) cess is 30 mm)				
		24 at 1.6m/	: 1m/s 's & 1.75m/s				
		75 at 1.6m/	: 1m/s 's & 1.75m/s				
	\\/:+b	•	to 3	tios othorwise			
	vviui OF V	without safeties up to 1 380 - 40	00 - 415	ues outerwise			

Vertical section



One telescoping door entrance



Two telescoping door entrances



## Gen360

### COMPLETELY REIMAGINED

OTIS

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## Innovation is in our DNA-

At Otis, we keep people moving safely. In fact, we connect 2 billion people to the places that matter most to them. We're found in buildings tall and small, from low-rise residences to the Burj Khalifa Tower. We're everywhere people are on the move.

Over 160 years ago, Elisha Otis created the world's first safe elevator, making modern cities, as we know them today, possible.

We're proud to build on that legacy. Reimagining the industry Otis created.

## **Gen360** an industrial European footprint

#### BERLIN

Electronic components engineering and manufacturing

**ROISSY-EN-FRANCE** 

Spare parts logistic center

#### GIEN

Systems engineering and manufacturing Doors engineering and manufacturing Logistic center: assembly and shipment

#### SAN SEBASTIAN

Traction systems and safeties manufacturing

#### MADRID

Systems engineering and manufacturing Logistic center: assembly and shipment

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Otis gives people freedom to connect and thrive in a taller, faster, smarter world. The global leader in the manufacture, installation and servicing of elevators and escalators, we move 2 billion people a day and maintain more than 2 million customer units worldwide - the industry's largest Service portfolio. You'll find us in the world's most iconic structures, as well as residential and commercial buildings, transportation hubs and everywhere people are on the move. Headquartered in Connecticut, USA, Otis is 69,000 people strong, including 40,000 field professionals, all committed to meeting the diverse needs of our customers and passengers in more than 200 countries and territories. To learn more, visit www.otis.com and follow us on LinkedIn, Instagram, Facebook and Twitter @OtisElevatorCo.

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