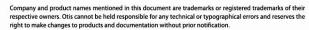


GeN2-Regen











Otis

- 160 years of rich history, the No.1 brand in the elevator industry
- Inventor of the world's first safety elevator
- Inventor of the world's first escalator
- Sales and Service operation located in over 200 countries and a service network covering over 1,700 locations worldwide
- Annual escalator and elevator sales of more than 70,000 elevators in 12 of the world's 20 highest buildings

Xizi Otis

- Xizi Otis boasts the largest yearly elevator capacity of more than
 66,200 units
- And the annual escalator and travolator production capacity is over 5,000 units
- Xizi Otis new factory is built in the standard of the U.S. Green Building Council's Leadership in Energy and Environmental Design (LEED)





 As the largest global production base of Otis, Xizi Otis has provided elevators and escalators to above 90 countries all over the world.



GeN2-Regen 01 — GeN2-Regen 02

GeN2-Regen

Brief Introduction & Product Scope

Environmentally friendly GeN2-Regen elevators set the new standard for performance, reliability, design flexibility and comfort-while reducing costs and energy usage throughout their lifecycle.

Rated Speed (m/s)		Load(kg)													
	250	320	400	450	550	630	680	800	1000	1150	1275	1350	1600	1800	2000
1															
1.5 /1.6															
1.75															

1 Regenerative Drive

The unique regenerative technology can transfer the potential energy to green electrical power which could be sent to internal grid. Obviously, it could achieve high energy saving.



2 Gearless Machine

The innovative design for gearless machine lead to the refinement and high–efficiency, building space saving.



3 PM Door Operator

Advanced technology incorporated in door operator ensures high safety, comfort and reliability.



Advantages of GeN2-Regen



4 Polyurethane-coated Steel Belt

A core renovation of the traction system: Conventional steel rope is replaced by greener, lighter, tougher, and more flexible polyurethane-coated steel belt. Subsequent renovations for driving machine and control system are made accordingly.



5 Resistance Based Inspection

OTIS unique Resistance Based Inspection (RBI) device monitors coated steel belt status 24 hours a day 7 days a week.





GeN2-Regen 05

Energy Saving

Regenerative Principle

During the elevator moving down with heavy load or moving up with light load, the reduced potential energy will be converted to power energy.

The converted power will be recycled by the regenerative driver, and fed back to internal grid.





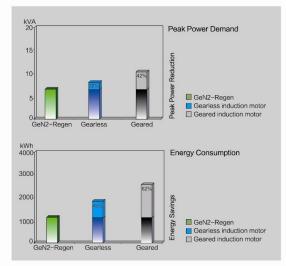


Regen Benefits

A. Energy Saving
Otis regenerative driver use up
to 70 percent less energy than
non-regenerative driver for
equivalent elevator motion

B. Environmentally Friendly Regen drives produce "clean power" –resulting in less pollution of the building's electrical power system and helping to protect sensitive building equipment.

C. Space Saving
Otis regenerative drives have
no DBR resistance, and the
design of drive is more
compact.



VDI 4707

VDI established its VDI 4707 standard to clearly assess elevator efficiency taking into account factors such as load, speed, frequency of use and travel height-both during travel and standby modes.



Location	Туре	Load (kg)	Speed (m/s)	Number of Stops	Rise (m)	Travels Time per Day	Usage Category	Travel Class	Standby Class	Efficiency Class
Xizi Otis Test Tower	GeN2- Regen	1000	1.75	16	53	3	4	А	С	А
Hangzhou Binjiang Residential	GeN2- Regen	1000	1.75	9	33.4	6	3	А	В	А

An elevator's energy efficiency is rated using seven different classes from A to G, where A represents the highest energy efficiency and G the lowest energy efficiency. VDI measures energy efficiency based on usage category on a scale from 1 to 5, where 1 represents low–usage elevator and 5 represents high–usage elevator.

Excellent Space Saving

The innovative belts allowed Otis to redesign the elevator's key components into a compact, integrated unit that eliminates the need for a machine room thereby saving building space and increases building usable area for property owner.

LED Illumination

New LED illumination, reduces energy consumption and lasts up to 10 times longer than conventional fluorescent lamps, meaning more energy saving and less downtime. The advanced technology makes LED illumination up to 80 percent more efficient than conventional fluorescent lamp.





Advanced Technology, Exceptional Benefits

GEORGE MEAD MEDAL

The highest reward awarded for technical achievements by UTC



Otis Polyurethane Coated-steel Belt





Revolutionary coated steel reinforced belt

The coated steel reinforced belt:

Greener, lighter and more robust coated steel belt replaced traditional steel rope, and led to the series of updates on traction machines and controllers, which is a fundamental breakthrough lifting technology over past 150 years.

Flexible and Durable:

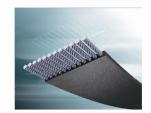
Compared with traditional steel rope, only 3mm thick and 30mm wide coated steel belt is more durable, more flexible and 20% lighter. Coated steel belt can get GeN2–Regen to the best balance between the intensity and traction force.

Lubrication Free:

The unique design of polyurethane–coated allows steel belt to run durably without lubrication. Require no lubrication. There is no pollution of oil or grease in hoistway or on landing.

Energy Efficiency:

Simultaneously, the Polyurethane-coated increases the contact area and reduces greatly wearing of the drive sheave. The service lifetime of belt is three times of steel rope in the same situation of running and maintenance.





RBI System

RBI System precision, superior monitoring

The RBI system's first-of-its-kind technology provides greater safety and peace of mind by continuously monitoring and ensuring the integrity of the CSB (coated steel belt). This automated 24/7 belt monitoring represents a significant advance over conventional inspections. Not only does this improve their reliability and extend their life but it also reduces the downtime required for inspection.

GeN2 Machine

New generation GeN2 traction machine

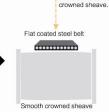
Neither the belts nor the gearless machine with sealed-for-life bearings require any form of polluting lubricants. The low inertia gearless machine is equipped with a highly efficient PM synchronous motor of radial construction. Thanks to its flexible belts, the GeN2 traction machine has a smaller sheave, which allows for a machine that is 70

conventional geared machines.

The gearless machine combined with a sophisticated load weighing device and a closed loop variable frequency drive with vector control contributes to a smooth and quiet ride. Furthermore, they result in outstanding stopping accuracy of with +/- 3mm at every landing.







Interaction of Otis ' flat belt and the smooth

Ensure Passengers Safety

Safety for all

Safety- Otis' foremost concerns since our company's earliest days. Today, Otis has one of the best safety records in the vertical transportation industry. We work constantly to improve the safety of existing products and to develop safer technologies for new products. Otis emphasizes a corporate policy of "safety first" and standardizes procedures to ensure every installation and service is performed the safest way, every time.

Strict E3 policy

E3 policy is an Otis global policy for safety components. The requirements cover safety components design, manufacturing, qualification and traceability, which captured the most severe requirements among all major international elevator codes and industry requirements. E3 compliance audit is led by Otis Worldwide Engineering, and approved by Otis world headquarter.

	OTIS E3 Policy	EN Code
Governor	25 times tripping test	20 times tripping test
Safety Gear	25 times freefall and runaway test	4 times freefall test
Buffer	100 times strike test	6 times strike test

Firstly safety elevator

Safety and reliability have been Otis ' foremost concerns since Elisha Otis invented the first safety elevator in 1852.



Passport to safety & quality

To ensure that our tradition of quality continues, Otis employs a rigorous Product Development Process (PDP). Every new product receives its own

"Passport " to the marketplace. All

major components are tested under the strict supervision of our engineers to ensure a 20-year life expectancy between overhauls. mitigate the possibility of injury or illness from hazards common to elevator industry.



Safety gear upgrade

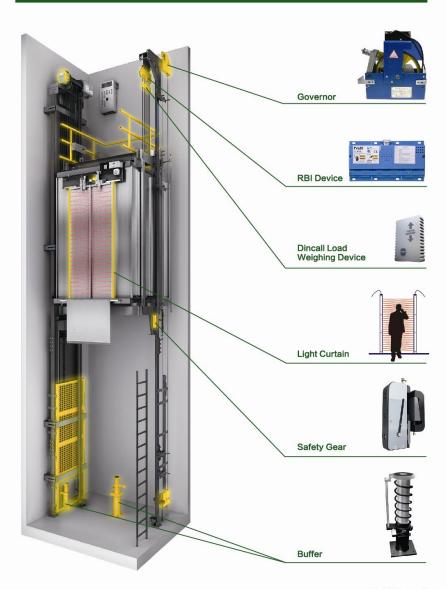
WWJSS, Worldwide Job Site Safety Standards, is focused on establishing and maintaining effective safety management systems, and specifying key mandatory work rules designed to



Nothing is more important to OTIS than the safety of the riding public and our employees. No matter it is at workshop or in the hoistway, safety is always taken consideration firstly in Otis. While advanced security features demonstrate an absolute commitment to both safety and reliability.



Safety Devices

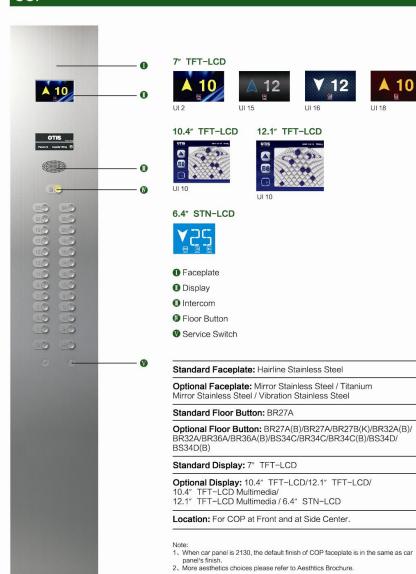


GeN2-Regen 11 — GeN2-Regen 12



GeN2-Regen 13

COP



Hall Call Panel





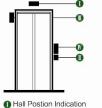


HBP H
Standard HBP: HBP11-STN
Optional HBP: HBP11-TFT, HBP11-B

Standard HPI: 4.3" STN-LCD
Optional HPI: 4.3" TFT-LCD(UI 2, UI 15, UI 16, UI 18)
Standard Faceplate: Hairline st.st

Optional Faceplate: Hairline st.st/Mirror st.st

HBP 11-B





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- Triali Fustion ii
- Parking Key Switch
- Hall Lantern
- Separated Hall Button Box Integrated Hall Button Box

HBP12 HBP12-TFT



HBP12



Standard Display: 4.3" TFT-LCD

Standard Button:BS34F (Square Stainless Steel Button)

HBP12-B









HBP12-B

GeN2-Regen 15 -

Optional Cabin



2130 (standard for GeN2-Regen) Wall: Painted Steel



2110 Wall: Titanium Mirror Stainless Steel



2120 Wall: Hairline Stainless Steel



2124 Wall: Hairline Stainless Steel & Mirror Stainless Steel



T1
Rose golden mirror
st.st + Leather +
Sapele wood
finish



T2 Sapele wood finish + Ebony + Stainless inserts + Glass Mirror

Optional Ceiling



4081L(EEC option) Material: W1003 Painted Steel



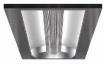
4087L Material: M6004 Painted Steel



4170L Material: R3001 Painted Steel



B4091L Material: W1001 Painted Steel



4180L Material: M6004 Painted Steel



4095 Material: Hairline Stainless Steel Surface

Optional Flooring

PVC Flooring





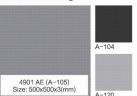




4901 KC-09207 Size: 600x600x3(mm)



Rubber Flooring



Stainless Steel Flooring



Steel Flooring



Standard Function	Description
ACP(mode1)	Anti-Crime Protection forces each car in the group to stop at a pre-determined floor and open its door for security inspection. Mode 1-ACP is actived via installation parameters
ADO	In order to accelerate traffic, automatic door opening starts while the elevator car approaches a landing.
ALARB	An alarm sound signal will be given out to the outside in specific conditions
ANS	If there is only one passenger in the car, but registered car call number is more than preset-number, all car calls will be canceled, need to reregister car call
CBC	Before the car starts, the registration of a call or operation can be canceled by double click of this button.
CCM	On the top of the car, a bell ring will be given out when the car stops at the destination floor
CFT	More open time for the cafeteria floor to meet with the requirement of the extra passenger flow
DTC	If the car door does not close completely within an adjustable time (default 20s – should be longer than the nudging time) after the door close command, the elevator will enter the [DTC] mode: Remove itself from group operation, and will try to open the door in the next landing, the lift will shut down after 3 failure retries.
DTO	If the car door does not open completely within an adjustable time (default 20s) after the door open command, the elevator will: Remove itself from group operation, and will try to open the door in the next landing, the lift will shut down after 3 failure retries.
ELTU	Emergency light in the car will start whenever there is a power cut.
ERO	Electrical release the machien brake by standby power to enable emergency car running.
FAN	There is a switch to control the car fan on or off.
FCL	All car and/or hall calls registered are answered in the order in which the landings are reached. Direction of travel will be established by the first car command / hall call registered.
HCC	This feature allows the passenger to delete a hall call if a hall button was accidentally pushed. Hall call is deleted if the hall button is pushed twice again (within approximately 1 second).
ICU-3	3 stations intercom system reliaze communication between car and machine room, car and supervisor room
LNS	When a car is loaded to a predetermined percentage of its capacity, it is considered 'full'. it will bypass further hall calls.
LWS	If the load exceeds the rate load, the sound signal will be given out by speaker, and 'OVER LOAD' will be displayed, the car door will not close, the elevator will not start.
NTSD	If the speed is not slowed to the preset value while the car reach the end floor, a forced deceleration will be carried out by system in order to protect the safety of the car
PRK	Elevators in a same group will park on different floors once spare in order to shorten the response time
RIN	When the power reencloseed from a cut, position signals can not be given or the position can not be detected, the car will move to lobby and reinitiate.
RLEV	Automatic relevel the car to correct the stopping errors
TCI	The inspection operation switch and its push buttons and an emergency stopping device 'TES' shall be placed on the car roof that they are readily accessible.

Optional Function	Description
ARED	This device is used for rescue operation in case of power shutdown, it is powered by a rechargeable battery, when a sudden power cut happens, a sound signal will comfort the trapped passengers, then the car will move towards to the near floor, keep the door open to the passengers.
ВА	Elevators with BA function can provide scattered elevator status for computed management of the buildings, such as running directions, floor numbers, safety signals, door signals.
CLI	There is a switch to control the car lighting on or off.
DCL	Down Collective Operation The system has UP hall buttons at the bottom floor and/or at the main landing only, all other floors have DN hall buttons only.
DHB	Pressure on the Door Hold button to keep the door open.
EAC	The elevator air conditioner is designed specially to adjust the air in car, and it is an independent circulating system.
EFO	Upon recognition of fireman's service, a car shall return non-stop to the designated return landing and park with the doors fully open.
EFS	EFS shall automatically place the car on independent service when the elevator is at the designated return landing from Phase I with the doors fully open.
EPO	This feature can only be used if the building is equipped with an emergency power generator. In case that regular power supply shuts down, the power supply of cars turns to emergency power which is provided by local, then cars in group except cars in inspection mode run to defined landings (or next land-ings.) one by one.
EQO	Once an earthquake has happened, all the calls and operations will be cleared after the earthquake signal. The car will stop at the nearest floor to unload passengers.
FSL	This function can be selected automatically when EFO or EFS is selected, and FSL can't be selected when EFO or EFS is not selected. It will indicate in the car while turn into EFO/EFS.
НСМ	The Hall Chime fixture can be a substitute for hall lanterns and gong boards. It includes up and down lanterns, and a speaker. The chime is transmitted via the audio link to speakers in the lanterns.
ISC	Switch the lift to be independent from group control

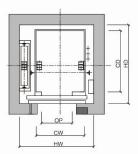
O* Function	Description
ACP(mode2)	Anti-Crime Protection forces each car in the group to stop at a pre-determined floor and open its door. This allows a security guard or receptionist at the floor to visually inspect the passengers of the elevator before the car completes its run. Mode 2- ACP is triggerd from keyswitch.
AES	Computers carry out district monitor system. This function can provide computed monitoring for all the elevators in this district and offer the BA for the computed management of the building.
AMS	It can be installed in the porter's lodge, simply display the condition signals by LED indicators and lock/unlock the elevator.
EFS2	"EFS" function isn't provided for abroad client at present, but the EFS electrical interface can be supplied. While the switch with lock is positioned start, EFS will be trigged to clear all the hall calls, and the car will response only to commands from the car, to go with the fireman elevator.

Functions most in use are showed here, please refer to SEB for more detailed information Optional*, need to contact CLC

GeN2-Regen≤630kg

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ELEVATION



HOISTWAY PLAN

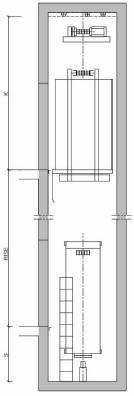


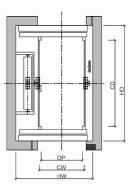
2:PARK SW. ONLY FOR MAIN LANDING 3:ONLY FOR FIRE SW. SELECTED AT MAIN LANDING 4:E&I PANEL AT TOP LEVEL FREE HOLE FOR HALL FIXTURE, INTERIOR DIA, Ø30MM PVC PIPE RECOMMENDED

FRONT VIEW

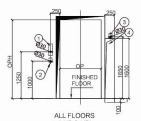
Load (kg)	Speed (m/s)	(CW)X(CD) (mm)	(OP)X(OHP) (mm)	(HW)X(HD) (mm)	S STD (mm)	K MIN (mm)	Max FLOORS	Max RISE (m)
250	1	850×800	700×2000	1450×1400	1200	3650	16	20
250	1	0000000	700X2000	1430X 1400	1350	3800	10	45
320		850x950	700×2000	1450x1400	1200	3650	16	20
320	1	850X950	700X2000	1450X1400	1350	3800	16	45
400	4	950x1150	700×2000	1550x1550	1200	3650	16	20
400	1	950001150	700X2000	1330X1330	1350	3800	10	45
450		4000 4050	700 0000	4000 4050	1200	3650	40	20
450	1	1000x1250	700x2000	1600x1650	1350	3800	16	45
550	4	4000:4400	700, 2000	4000 4750	1200	3650	40	20
550	1	1000x1400	700×2000	1600x1750	1350	3800	16	45
630		1100×1400	700x2000	1700×1800	1200	3650	16	20
630	1	1100X1400	700X2000	1700X1800	1350	3800	10	45

GeN2-Regen Two Entrance





HOISTWAY PLAN



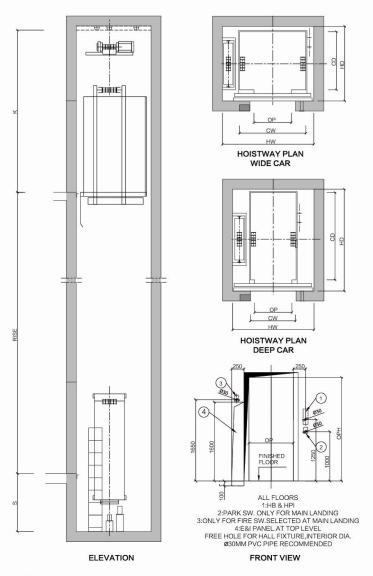
1:HB & HPI
2:PARK SW. ONLY FOR MAIN LANDING
3:ONLY FOR FIRE SW.
SELECTED AT MAIN LANDING
4:E&I PANEL AT TOP LEVEL
FREE HOLE FOR HALL FIXTURE,
INTERIOR DIA, Ø30MM PVC PIPE
RECOMMENDED

FRONT VIEW

-			
F	FV	ΔΤ	ION
_		~.	

Load (kg)	Speed (m/s)	(CW)X(CD) (mm)	(OP)X(OHP) (mm)	(HW)X(HD) (mm)	S STD (mm)	S MIN (mm)	K STD (mm)	K MIN (mm)	Max FLOORS	Max RISE (m)
	1	1200x2300	1100x2100	2050x2910	1400	1350	3900	3850	16	50
1275 (Through Car)	1.5/1.6	1200x2300	1100x2100	2050x2910	1500	1450	4100	4050	24	75
(Trifodgir Gar)	1.75	1200x2300	1100x2100	2050x2910	1550	1500	4150	4100	24	75
	1	1400x2400	1300x2100	2350x3010	1400	1350	3900	3850	16	50
1600 (Through Car)	1.5/1.6	1400x2400	1300x2100	2350x3010	1500	1450	4100	4050	24	75
,	1.75	1400x2400	1300x2100	2350x3010	1550	1500	4150	4100	24	75
	1	1500x2700	1300x2100	2400x3310	1450	1400	3900	3850	16	50
2000 (Through Car)	1.5/1.6	1500x2700	1300x2100	2400x3310	1550	1500	4100	4050	24	75
	1.75	1500x2700	1300x2100	2400x3310	1600	1550	4150	4100	24	75

GeN2-Regen 680-2000kg single entrance



Load (kg)	Speed (m/s)	(CW)X(CD) (mm)	(OP)X(OHP) (mm)	(HW)X(HD) (mm)	S STD (mm)	S MIN (mm)	K STD (mm)	K MIN (mm)	Max FLOORS	Max RISE (m)
	1	1150x1400	800x2100	1900x1800	1400	1350	3900	3850	16	50
680 (Wide Car)	1.5/1.6	1150x1400	800x2100	1900x1800	1450	1400	4050	4000	24	75
,	1.75	1150x1400	800x2100	1900x1800	1450	1400	4100	4050	24	75
	1	1350x1400	800x2100	2000x1800	1400	1350	3900	3850	16	50
800 (Wide Car)	1.5/1.6	1350x1400	800x2100	2000x1800	1450	1400	4050	4000	24	75
	1.75	1350x1400	800x2100	2000x1800	1450	1400	4100	4050	24	75
	1	1600x1400	900x2100	2200x1800	1400	1350	3900	3850	16	50
1000 (Wide Car)	1.5/1.6	1600x1400	900x2100	2200x1800	1450	1400	4050	4000	24	75
	1.75	1600x1400	900x2100	2200x1800	1450	1400	4100	4050	24	75

Load (kg)	Speed (m/s)	(CW)X(CD)	(OP)X(OHP) (mm)	(HW)X(HD) (mm)	S STD (mm)	S MIN (mm)	K STD (mm)	K MIN (mm)	Max FLOORS	Max RISE (m)
	1	1200x2300	1100x2100	2050x2800	1400	1350	3900	3850	16	50
1275 (Deep Car)	1.5/1.6	1200x2300	1100x2100	2050x2800	1500	1450	4100	4050	24	75
(1.75	1200x2300	1100x2100	2050x2800	1550	1500	4150	4100	24	75
	1	1400x2400	1300x2100	2350×2900	1400	1350	3900	3850	16	50
1600 (Deep Car)	1.5/1.6	1400x2400	1300x2100	2350x2900	1500	1450	4100	4050	24	75
(,	1.75	1400x2400	1300x2100	2350x2900	1550	1500	4150	4100	24	75
	1	1500x2700	1300x2100	2400x3200	1450	1400	3900	3850	16	50
2000 (Deep Car)	1.5/1.6	1500x2700	1300x2100	2400x3200	1550	1500	4100	4050	24	75
,,	1.75	1500x2700	1300x2100	2400x3200	1600	1550	4150	4100	24	75

Load (kg)	Speed (m/s)	(CW)X(CD) (mm)	(OP)X(OHP) (mm)	(HW)X(HD) (mm)	S STD (mm)	S MIN (mm)	K STD (mm)	K MIN (mm)	Max FLOORS	Max RISE (m)
	1	1900x1400	1100x2100	2650x1800	1400	1350	3900	3850	16	50
1150 (Wide Car)	1.5/1.6	1900x1400	1100x2100	2650x1800	1500	1450	4100	4050	24	75
,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	1.75	1900x1400	1100x2100	2650x1800	1550	1500	4150	4100	24	75
20000000	1	2000x1450	1100x2100	2700x1850	1400	1350	3900	3850	16	50
1275 (Wide Car)	1.5/1.6	2000x1450	1100x2100	2700x1850	1500	1450	4100	4050	24	75
	1.75	2000x1450	1100x2100	2700x1850	1550	1500	4150	4100	24	75
	1	2000x1550	1100x2100	2700x1950	1400	1350	3900	3850	16	50
1350 (Wide Car)	1.5/1.6	2000x1550	1100x2100	2700x1950	1500	1450	4100	4050	24	75
	1.75	2000×1550	1100x2100	2700x1950	1550	1500	4150	4100	24	75
	1	2000x1750	1100x2100	2700x2180	1400	1350	3900	3850	16	50
1600 (Wide Car)	1.5/1.6	2000x1750	1100x2100	2700x2180	1500	1450	4100	4050	24	75
(Tride Gary	1.75	2000×1750	1100x2100	2700x2180	1550	1500	4150	4100	24	75
	1	2000x1900	1100x2100	2700x2300	1450	1400	3900	3850	16	50
1800 (Wide Car)	1.5/1.6	2000x1900	1100x2100	2700x2300	1550	1500	4100	4050	24	75
(11100 001)	1.75	2000x1900	1100x2100	2700x2300	1600	1550	4150	4100	24	75
	1	2000×2000	1100x2100	2700x2400	1450	1400	3900	3850	16	50
2000 (Wide Car)	1.5/1.6	2000x2000	1100x2100	2700x2400	1550	1500	4100	4050	24	75
,	1.75	2000x2000	1100x2100	2700x2400	1600	1550	4150	4100	24	75

Significant Projects



India Mumbai Metro

46 units of GeN2-Regen



Indonesia Ciputra World

7 units of GeN2-Regen and one unit of FOVF



Thailand Radisson Plaza

5 units of GeN2-Regen and 3 units of OH5000



Panama Metro

40 units of GeN2-Regen and 130 units of XO21NP



Russia OMEGA Media Village

187 units of GeN2-Regen



Macau LRT

43 units of GeN2–Regen, 38 units of XO21NP and 2 units of XO–PE



Portugal Aqua Portimão

10 units of GeN2-Regen, 10 units of XO-508 and 9 units of XOP



South Africa Blue Route Mall

11 units of GeN2–Regen and 16 units of XO–508



Kuwait Avenues Phase 3

55 units of GeN2-ReGeN, 6 units of Public Escalators and 97 units of XO-508



Oman Salalah Airport

33 unit of GeN2-Regen and 14 units of XO-508



Malaysia Setia Mall

16 units of GeN2-Regen, 22 units of XO-508 and 2 units of XOP



Dominica Santo Domingo Metro

43 units of GeN2-Regen