



More than **800'000 lifts** worldwide
with **GMV technology**



GREEN LIFT FLUITRONIC

MRL

4 GOOD REASONS TO CHOOSE GREEN LIFT FLUITRONIC

1

> RESPECT FOR THE ENVIRONMENT

- Use of **biodegradable ecological fluid (NO OIL)**
- **Reduced installed power** up to 20% compared to traditional hydraulic systems
- **Reduced consumption** up to 30% compared to traditional hydraulic system

2

- > **HIGH QUALITY** - more than 800,000 elevators worldwide with GMV technology - which allows the possibility of **WARRANTY EXTENSION UP TO 10 YEARS**. An extended warranty means quality and certainty of having spare parts available for 10 years. The 10-year warranty extension ensures that there is no manufacturer reliance. It guarantees maximum efficiency and low cost. The 10-year warranty extension is renewable for another 15 years, so for the entire lifetime of the elevator.

3

- > **FAST TRACK.**
(Delivery in 2 weeks) for Standard configurations, at a very competitive price.

4

- > **REDUCED SHAFT DIMENSION WITH NO PROJECT LIMIT**
- No machine Room
 - Short-Pit and Short-Headroom version available



Thanks to Fluitronic Technology, GMV reset the gap between gearless and traditional hydraulic elevator performances, with no economic impact.



> **GREEN LIFT FLUITRONIC ADVANTAGES:**

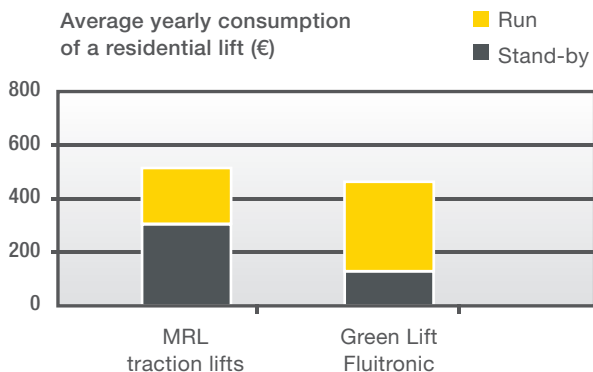
- **LOW SEISMIC VULNERABILITY**
no either machine or counterweight suspended masses
- **ELEVATOR COST**
less than 20%
- **CONSTRUCTIVE SIMPLENESS**
- **SAFETY, CONFORT AND MAINTENANCE SAVINGS**
The elevator brain is easy to reach. Machine maintenance can be done without leaving the ground. The total life cost of the elevator can be less up to 30% in 10-years, thanks to warranty extension and constructive simplicity.
- **SPARE PARTS**
All the technical information, spare parts and instruments needed to execute the right maintenance and programming, are available at the market price.
- **EMERGENCY DEVICE**
Return to floor with integrated door opening in case of blackout
- **MANUAL EMERGENCY**
Evacuation is possible without auxiliary power (MRL-MC version)

CUT THE ANNUAL CONSUMPTION COSTS OF A RESIDENTIAL GEARLESS ELEVATOR

> CUT THE ANNUAL CONSUMPTION COSTS OF A RESIDENTIAL GEARLESS ELEVATOR.

Green Lift Fluitronic guarantees exceptionally low energy consumption thanks to:

- Dry motors, higher efficiency because they are not subject to viscous fluid friction. Dry motors also allow less fluid heating and auxiliary cooling devices reduction
- NGV electronic valve, which reset the use of heat exchange devices, avoid from using valve and oil heating resistors
- Also the ETC system, together with mechanical valve 3010, eliminates the use of valve and oil heating resistors
- No need of Frequency Converter, which allows low power consumption in standby mode (unlike gearless electrical systems that cannot power off the Frequency Converter during stand-by mode)
- Energy Consumption only uphill direction, as well as all hydraulic systems
- Power Supply Size reduced up to 6 kW (450 kg capacity), with the new NRG5 power unit (Energy Saving)



As per above example, the annual cost of a Green Lift Fluitronic elevator doesn't exceed 300-400€ on average.

COMFORT AND HIGH PERFORMANCES



> NGV ELECTRONIC VALVE

NGV electronic valve with digital technology allows high ride performance, with gradual and undetected acceleration and deceleration and accurate floor levelling.



> ETC ELECTRONIC SYSTEM

ETC (Electronic Temperature Control) system, together with the 3010 Valve, is able to optimize the speed reduction curves, decreasing fly-time, ensuring a better traffic management compared to a traditional hydraulic elevator, with an average speed of 0,80m/s.

Both NGV valve and ETC device respects EN81.20 and EN81.70, concerning levelling precision of ± 10 mm when reaching landing floors.

GREEN LIFT FLUITRONIC ANTISEISMIC VERSION

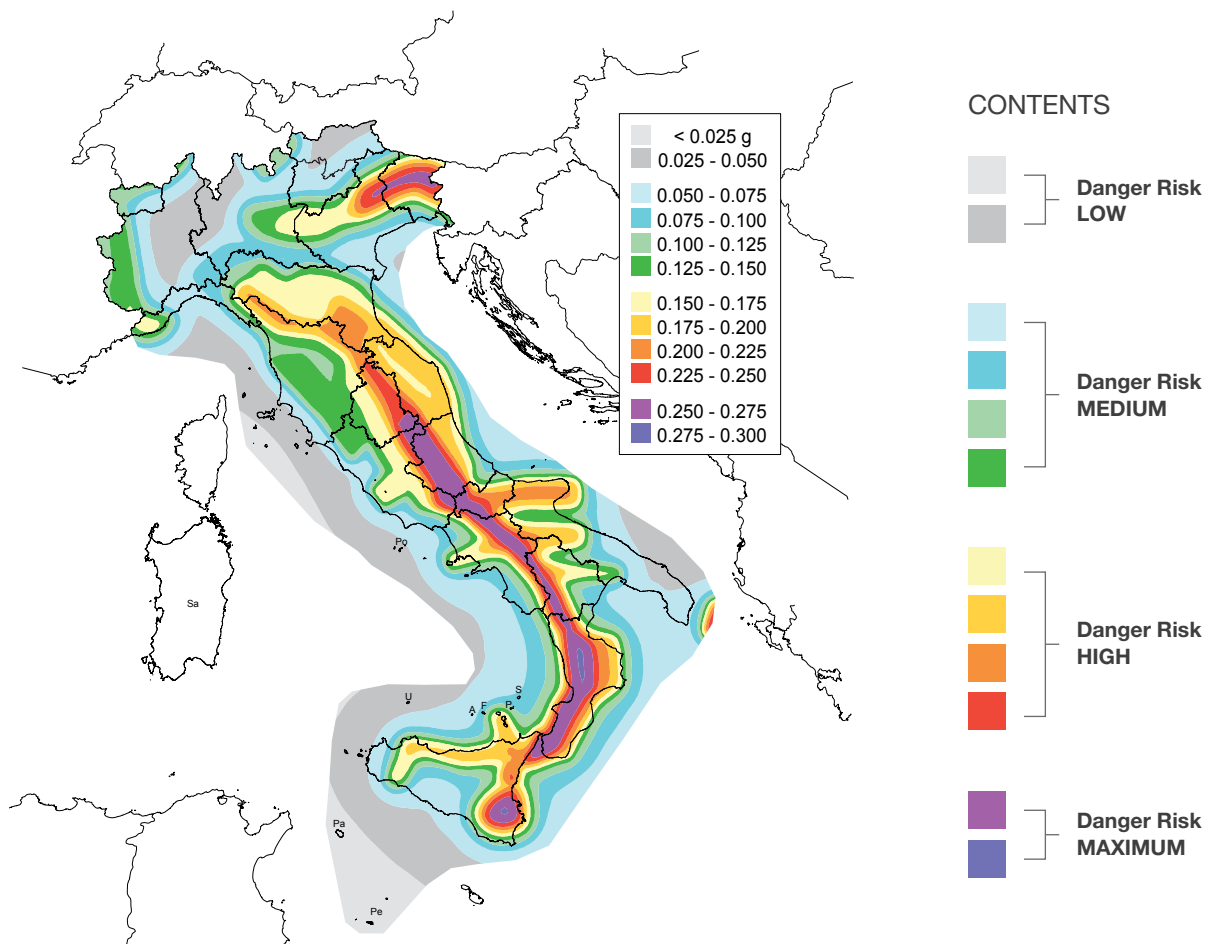
> Main characteristics of the GLF Antiseismic version:

- Car frame with appropriate protections to prevent guide-shoes escaping during an earthquake
- Guide Dimensions that takes into account the inertial forces created by the maximum horizontal acceleration (Ah)
- Car doors with additional door-lock to prevent from accidental opening
- Battery power supply that allows emergency operation in case of power failure: system stops and reaches, at reduced speed, the destination floor, opens the doors and remains out of service with the doors in open position.

> **According to EN81.77 Norm**, the elevator must be designed and manufactured considering the seismic grade of the area where it will be installed. The constructor company, must define, for any new building, the maximum horizontal acceleration (Ah) that can occur during a seismic event, depending on the area. The design criteria of the building must be adapted to the seismic risk level of the construction area. According to EN81.77, all lift design criteria must also take into account the acceleration value (Ah).

In every areas where new buildings must be designed in compliance with criteria appropriate to the level of seismic risk, the elevators should respect the EN81.77. Elevators which respect EN81.77 allow to maintain the facilities availability and avoid from wasting money to replace elevators inside buildings that resisted structurally to the earthquake.

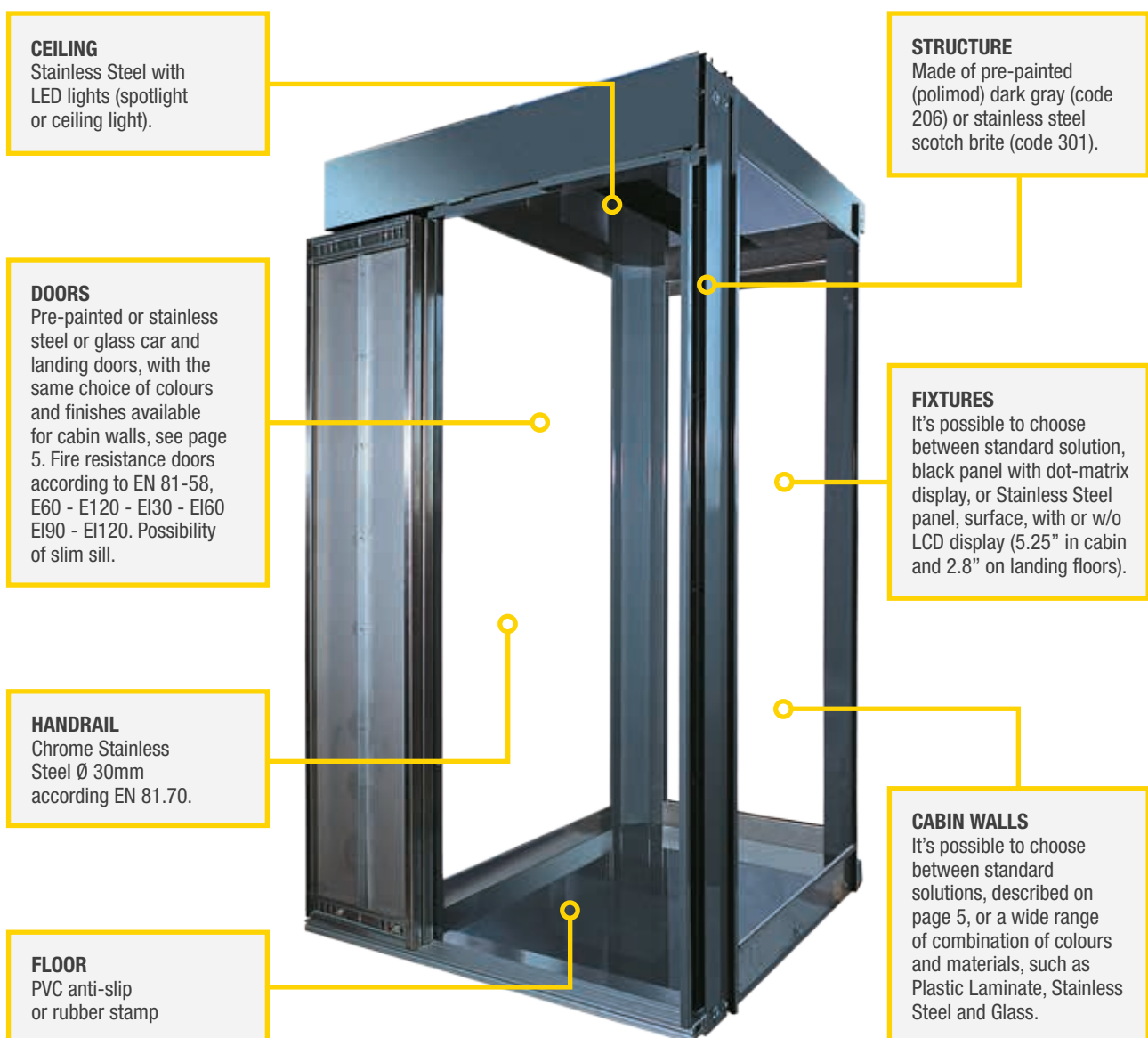
Hydraulic systems require less intervention to comply the EN81.77. Therefore, hydraulic systems, which respect EN81.77 have a competitive advantage in terms of construction and price compared to electrical units conforming to the same Law.



TMC CAR

(Tailor Made Car)

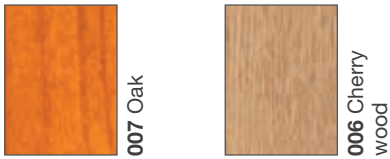
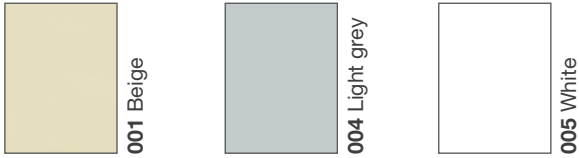
> **GMV lifts** got a tailor-made cabin, customizable, solid and light, ideal for low energy consumption lifts. Simplified assembly. Cabin walls, as well as car fixtures, could be customized on owners' desires and are easily **replaceable** allowing fast restyling. Cabins with **panoramic walls** are available. We can doors w/o door jambs, to allow maximum freedom in the realization of the entrances.



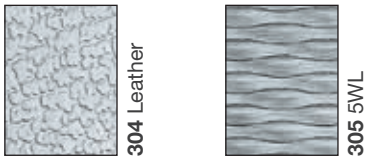
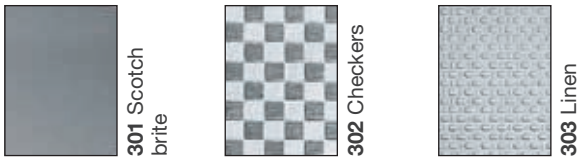
STANDARD CABIN TMC COLORS & MATERIALS

Cabin walls - Car and Landing Doors*

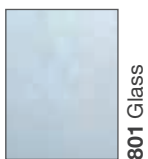
FACED



STAINLESS STEEL*

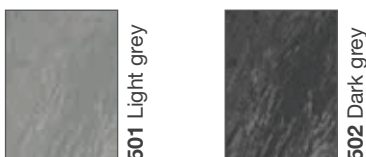


GLASS*

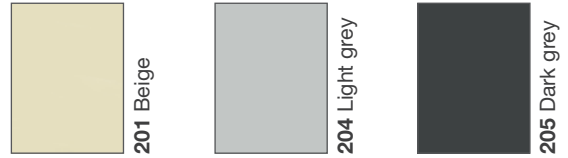


Floor coatings

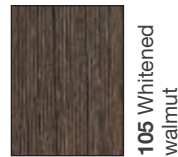
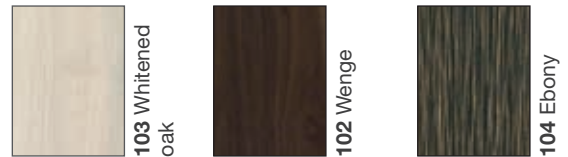
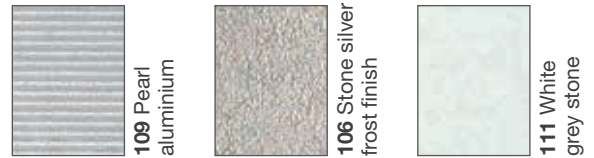
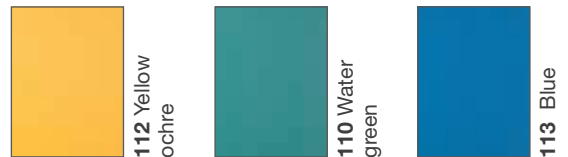
PVC



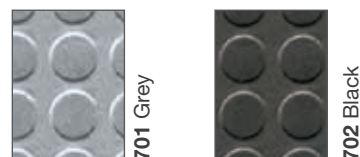
PRE-PAINTED SHEET METAL (Polimod)*



PLASTIC LAMINATED

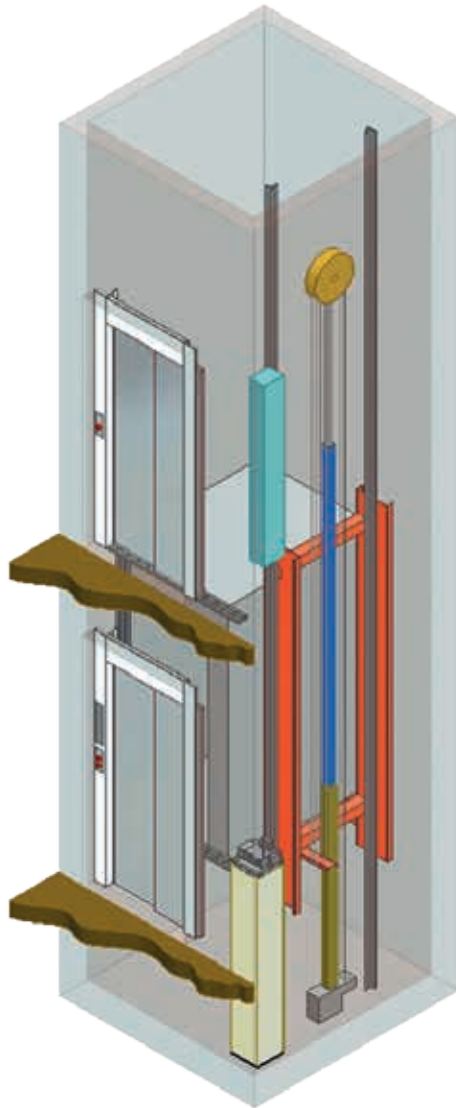


GAMMA A BOLLI

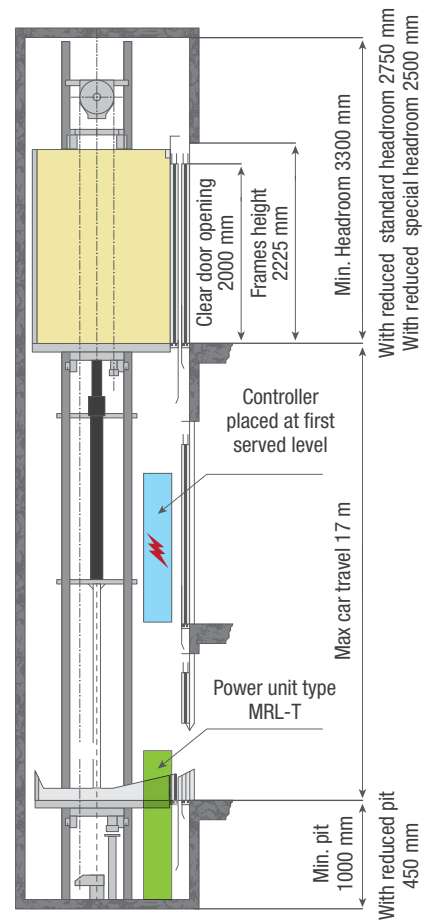


MRL-T VERSION

Everything inside the shaft. Ideal solution when space reduction is mandatory. Remote controls accessible from outside the shaft.

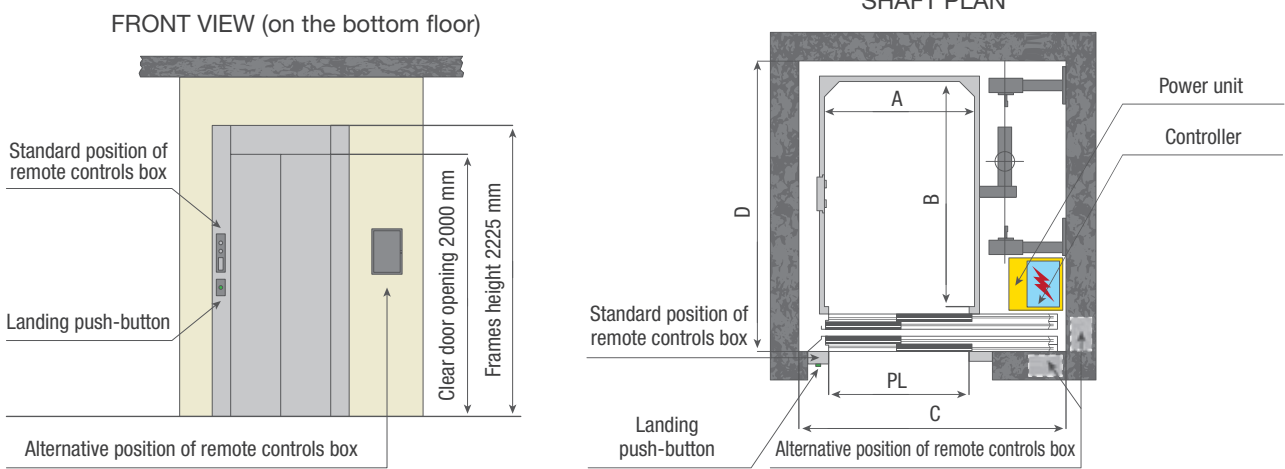


SHAFT SECTION



MRL-T 2 VERSION

The Control Cabinet is located outside the shaft, close to one of the landing doors (preferred at main floor).



STANDARD DIMENSIONS

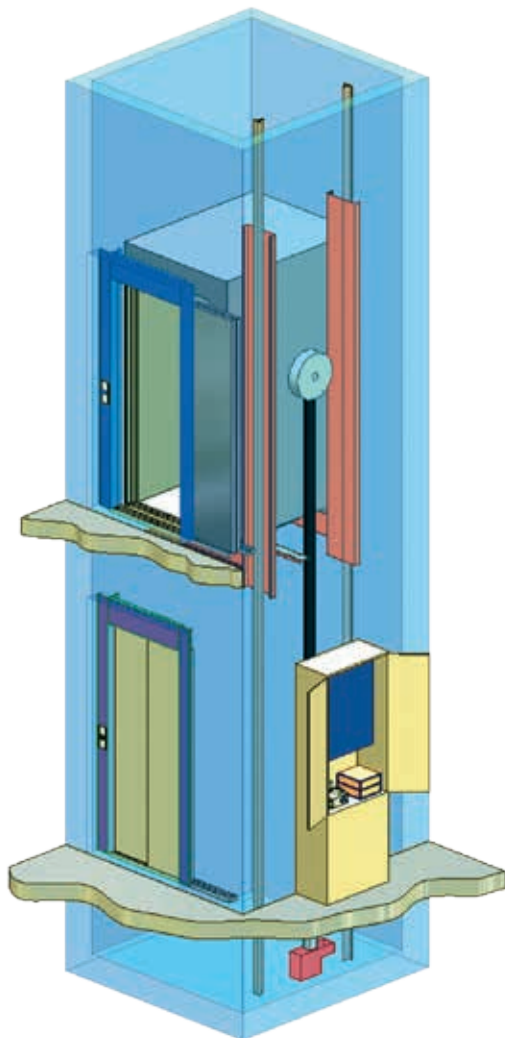
Payload [kg]	No. of passengers	Car dimensions [mm]		Entrances [No.]	Clear door opening [mm]	Min. shaft dimensions with doors opening at side [mm]	
		A	B		PL	C	D
350	4	800	1200	1	750	1350	1550
450	6	950	1300	1	800/850/900	1500/1500/1550	1650
				2 opposite	800/850/900	1500/1500/1550	1840
		1000 (*)	1250 (*)	1	800/850/900	1550	1600
				2 opposite	800/850/900	1550	1790
		1000 (*)	1300 (*)	1	800/850/900	1550	1650
				2 opposite	800/850/900	1550	1840
630	8	1100 (*)	1400 (*)	1	800/900	1650	1750
				2 opposite	800/900	1650	1940

Standard speed [m/s]	Standard speeds for each payload									
	Upward	0,40		0,52		0,62		0,86		
	Downward	0,40	0,48 (**)	0,52	0,62 (**)	0,62	0,74 (**)	0,86	1,00 (**)	

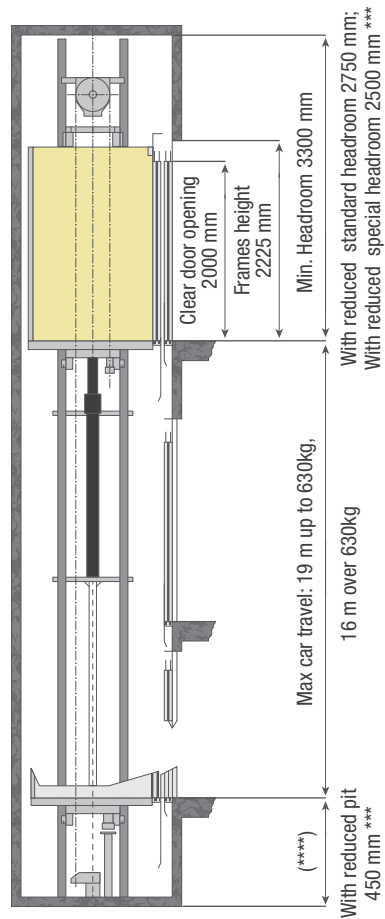
Non-contractual information subject to conditions of use. Shaft dimensions refer to orthogonal spaces. For feasibility of any solution, not present in the table, please contact GMV Sales Office. The cabin dimensions shown in the table with an asterisk are in accordance with EN 81-70. For any cabin dimensions not shown in the table, please contact GMV Sales Office. For doors with central openings, please contact GMV sales office. Available with reduced pit and/or head room, with doors opening at side

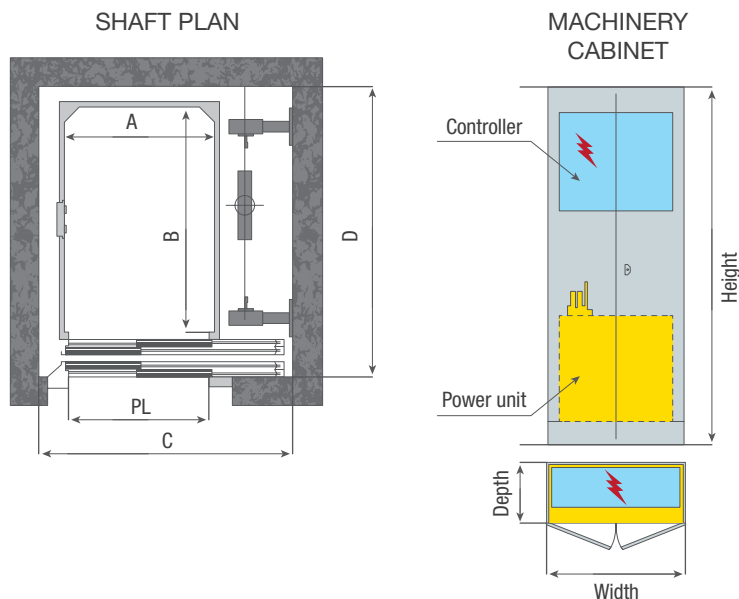
MRL-MC VERSION

Control Panel and Power Unit (traditional or dry-motor version) could be placed in a cabinet close to Machine Room, typically at lower floor, to simplify maintenance and intervention. This is the cheapest MRL Solution.



SHAFT SECTION





MACHINERY CABINET				
Cabinet type	Dimensions [mm]			Payload kg
	Width	Depth	Height	
C	870	400	2100	320/630
C-EN 81.20	870	400	2100	320/630
F	1000	650	2100	900/1025

STANDARD DIMENSIONS

Payload [kg]	No. of passengers	Car dimensions [mm]		Ingressi [N°]	Clear door opening [mm]	Min. shaft dimensions with doors opening at side [mm]	
		A	B			PL	C
320	4	900	1000	1	700/800	1350/1400	1550
350	4	800	1200	1	750	1350	1550
450	6	950	1300	1	800/850/900	1400/1500/1550	1650
				2 opposite	800/850/900	1400/1500/1550	1840
		1100	1100	1	800/850/900	1500/1550/1550	1450
				2 opposite	800/850/900	1550	1640
		1000 (*)	1250 (*)	1	800/850/900	1450/1500/1550	1600
				2 opposite	800/850/900	1450/1500/1550	1790
1000 (*)	1300 (*)	1	800/850/900	1450/1500/1550	1650		
		2 opposite	800/850/900	1450/1500/1550	1840		
630	8	1100 (*)	1400 (*)	1	800/900	1550	1750
				2 opposite	800/900	1550	1940
900	12	1400 (*)	1500 (*)	1	900/1000	1900	1850
				2 opposite	900/1000	1900	2040
1000	13	1100 (*)	2110 (*)	1	900/1000	1600/1700	2450
				2 opposite	900/1000	1600/1700	2650

Standard speed [m/s]	Standard speeds for each payload									
	Upward	0,40		0,52		0,62		0,86		
	Downward	0,40	0,48 (**)	0,52	0,62 (**)	0,62	0,74 (**)	0,86	1,00 (**)	

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GMV worldwide



GMV's quality systems are certified. Furthermore, we have introduced the "6 sigma" concept as a total quality philosophy, up to the complete testing of the products.

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