

Fire-Resistant Technical Catalog

Doors Glass doors Sliding Doors





Doors Glass doors **Large and Sliding Doors** Elite Premio El 60-120 NovoGlass+ REI 30-60-90-120 Novoslide El 120 6 44 66 Single doors Single glass door Single sliding door 8 68 Double doors Double glass door 46 Double sliding door 70 10 Complex glass panels 48 Operating diagrams Doors whit glass panel 11 Door with "Custom" glass panel StahlGlass REI 30-60 e RE 120 12 L2 frame single doors Saliscendi REI 120 L2 frame double doors 13 Single glass door 50 Vertical sliding door 71 Double glass door 52 Magnum El 120 large-size door Scudo El 120 with panel Complex glass panels 54 Single doors 14 Single leaf installed inside wall opening 72 Double doors 16 FixGlassEI 60 - 90 - 120 Double leaf installed inside wall opening 73 Fixed glass 56 Elite Premio Revva Novofire El 60-90 Single doors 18 58 Single glass door **Accessories** Elite Premio Cavedi 60 Double glass door 19 62 Single doors Complex glass panels Closing systems 75 Modula El 60 77 Knobs and handles 20 Single doors Panic device 78 Double doors 22 Arm0© 79 Electrical devices 79 Metal Alettata Novoslide accessories 83 Single doors 24 Double doors 26 Elite Premio version 31 Performance kits Component details 33 Anchoring systems 34 K3-type drywall-mounted door 35 Installation on insulated flexible panels 35 Counterframe 36 Jamb 37 Asia El 30 Single doors 38 Double doors 40

Novoferm reserves the right to make changes whenever it is deemed useful on the basis of technical OR regulatory assessments.

WHICH STANDARDS ARE VALID FOR YOUR DOOR?

The door is MANUALLY OPERATED

Who will use is?	How will it be opened?	Where is located?	Fire rated or not?	Result
TYPE	OPERATING TYPE	POSITION	FIRE PROOF	DOCUMENTATION AND NORM
Pedestrian use		Internal	Fire rated	(No CPR) door DoC (conformity declaration as per national omologation)
44		internat	Not fire rated	LoP (list of performances)
MA	Hinged door	External	Fire rated	DoP and CE marking due to EN 14351-1 + EN 16034 (CPR)
1611			Not fire rated	DoP and CE marking due to EN 14351-1
Industrial use			Fire rated	DoP and CE marking due to EN 13241 + EN 16034 (CPR)
	Whatever	All	Not fire rated	DoP and CE marking due to EN 13241

The door is MOTOR OPERATED

Who will use is?	How will it be opened?	Where is located?	Fire rated or not?	Result
TYPE	OPERATING TYPE	POSITION	FIRE PROOF	DOCUMENTATION AND NORM
		Internal	Fire rated	Door's DoC (conformity declaration as per national omologation) + CE marking and DoC Machinery Directive
Pedestrian use	His god door		Not fire rated	LoP + CE marking and DoC Machinery Directive
Pedestrian use	Hinged door	External	Fire rated	Door's DoC (conformity declaration as per national omologation) + CE marking and DoC Machinery Directive
NN			Not fire rated	LoP CE marking and DoC Machinery Directive
	Others (sliding, revolving, folding)	All	Fire rated	Door's DoC (conformity declaration as per national omologation) + CE marking and DoC Machinery Directive
			Not fire rated	CE marking + DoC Machinery Directive
Industrial use			Fire rated	DoP and CE marking due to EN 13241 + EN 16034 CE marking and DoC Machinery Directive
	Whatever	All	Not fire rated	DoP and CE marking due to EN 13241 CE marking and DoC Machinery Directive

EN 14351	Windows and external pedestrian doorsets
EN 16034	Fire and smoke
EN 13241	Industrial, commercial, garage doors and gates

The CPR (Construction Products Regulation)

Lists the armonized criteria for the trade of construction products within EU. The regulation supplies the common techical language for evaluating the construction products' performances. Its ensures reliable datas for professionals operators, public autorities and end users, so all the parties can compare different products in all the EU countries.

Declaration of Performance (DoP) and CE mark

The DoP it's a key element of the CPR. It provides information about the product's perfomences. All products concerned by the harmonized EU norms have to have its Declaration (DoP) and have to be CE marked. These infromation enhance the transparency and improve the united European market.

The Declaration of Conformity (DoC)

It is a written form, issued by the producer, to state the CE marked product complies with the EU requirements. The declaration has to follow all the Comunitary Deeds concerning that specific product and to list all the required informations in order to identify the legislation of harmonization of the Commission which the Declaration (DoC) refers to. This declaration must concern one or more products, identified by a code or other unmistakable ways, and must be stored by the producer or by his authorized rapresentative for Europe (whe the producer is not located in the EU).

Declaration of Conformity (DoC) and Machineries Directive CE mark

The head regulation referring to the harmonization of the health and safety requirements for machineries in EU is the Machinery Directive 2006/42/CE. It improves the free tradeof machineries within the United European Market, it ensures a high-level protection to professionals and to the public of EU. Since it is a "new-method" type Directive, it makes easier to harmonize though a formula of mandatory rules and voluntary norms. The Machineries Directive is applied only to the products traded within EU market for the very first time.

LEGEND

LM = Order width (structural width)

LT = External frame width

LN = Clear passage width

LP = Clear passage width excluding leaf obstruction

LNP =Clear width with panic bar obstruction at 90°

HM = Order height (structural height)

HP = Clear passage height

STANDARD RAL COLOURS:

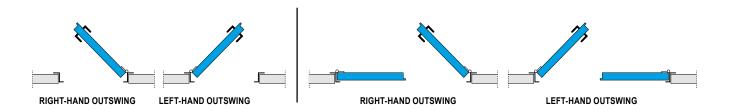
Powder coating for interiors (with embossed finishes only): RAL 7035, 1013, 5010, 9002, 9006, 9010, 9016, 7016.

OPENING SYSTEMS:

For **sliding doors**, the opening direction is determined by looking at the door from the guide side (inner side).

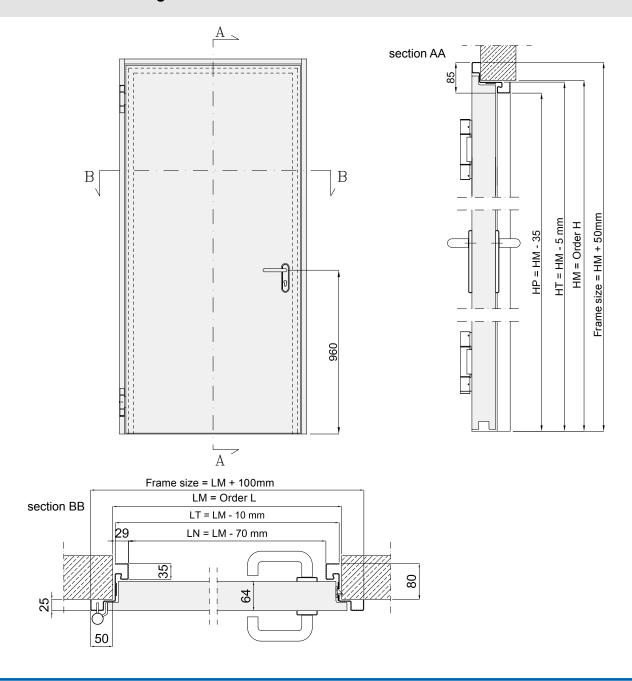


For $\boldsymbol{hinged\ doors},$ the opening direction is determined by the push side of the door.



DOORS

ELITE PREMIO Single doors



Elite Premio fire door. Certified according to European standard EN 1634 with fire resistance class EI 60, EI 120

Consists of

- 15/10 mm thick "Z-shaped galvanised steel frame, to make the door panel perfectly flush with the frame, with cold smoke seal compartment;
- the frame is mechanically joint to the corners without welding. The electrogalvanised coating remains intact at all points, without the corrosion that typically occurs in welded joints;
- the panel is flush with the double galvanised steel frame 8/10 thick, bent, boxed, electrowelded, with high-density internal insulation. Total door thickness mm. 64;
- 20 mm thick door panel, to minimise the risk of injuries in the event of impact against people;
- 2 pressed steel spring hinges per door leaf, sliding on tempered antifriction bushings, designed for intensive use and high load conditions. As a standard, they are painted in the same colour as the door. Adjustable at any time with special screws; cannot be reached when the door is closed. Hinges are mechanically fastened to the door and therefore can be replaced in case of long, heavy use, according to Italian Ministerial Decree M.I. 64 of 10/03/98, Ministerial Decree M.I. 21/06/04 (GU 155 of 05/07/04) and T.U. 81/2008 for escape routes;
- self-closing mechanism with spring in the hinges (adjustable);
- sealing bolts between the two hinges;
- Yale type lock with three-key cylinder;

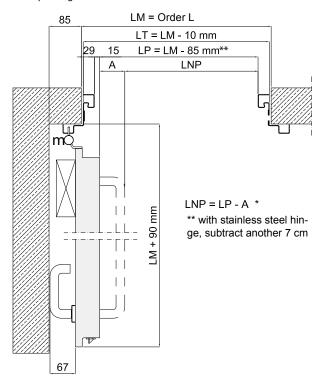
- black PVC handle with steel core, "U" shaped for accidental grips, placed at 960 mm from the floor, according to Italian Presidential Decree 503 of 24/07/96, unless otherwise requested by the customer;
- thermal seal all around the frame;
- surfaces with category Z140 galvanised coating (minimum zinc mass 140 g/sqm per surface), finished with embossed and/or textured epoxy polyester powder for internal use, 120 microns thick (RAL colours: see list on page 1):
- arranged for the installation of a movable drop-bar seal.

Available with CE marking

- EXTERNAL PEDESTRIAN DOORS as per EN 16034 and EN 14351-1
- INDUSTRIAL DOOR according to EN 16034 and EN 13241

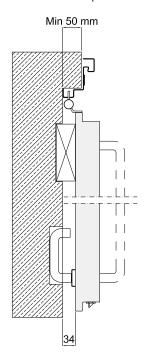
Nominal situation

90° opening



Limit situation

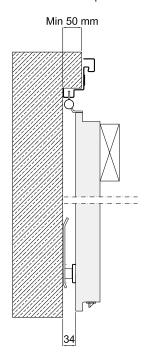
Standard handle and door closer on pull side



LM = Order L LT = LM - 10 mm

LN = LM - 70 mm

Stainless steel lowered handle and door closer on push side





180° opening

125

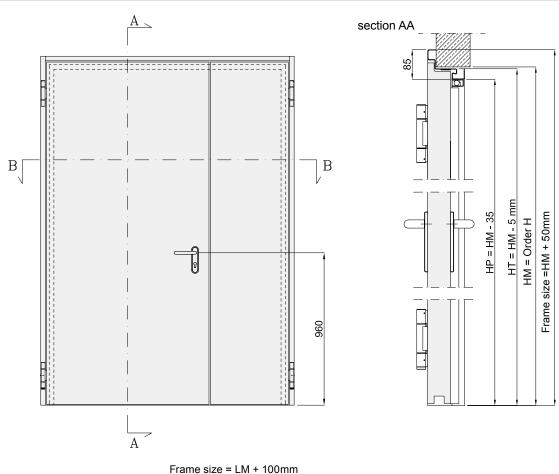
style	size	"A" **
Novoguard	79 mm	0 mm
Novopush	73 mm	0 mm
Cisa Touch	75 mm	0 mm
Cisa lever handle	105 mm	105 mm
EPN Touch	80 mm	0 mm
EPN Bar	103 mm	103 mm

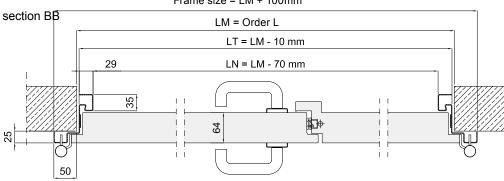
LM + 80 mm

** According to Italian Ministerial Decree 03.08-2015, par. G. 1.9.16

 $\ensuremath{\mathsf{N.B.}}$ All measurements are given in mm.

finished wall hole order size (LM x HM)	external frame (LT x HT)	clear width (LN x HN) 180° opening	clear width (LP x HP) 90° opening
STANDARD DO	ORS H = 2050		
800 x 2050	790 x 2045	730 x 2015	717 x 2015
900 x 2050	890 x 2045	830 x 2015	817 x 2015
1000 x 2050	990 x 2045	930 x 2015	917 x 2015
1250 x 2050	1240 x 2045	1180 x 2015	1167 x 2015
1300 x 2050	1290 x 2045	1230 x 2015	1217 x 2015
1350 x 2050	1340 x 2045	1280 x 2015	1267 x 2015
STANDARD DO	ORS H = 2150		
800 x 2150	790 x 2145	730 x 2115	717 x 2115
900 x 2150	890 x 2145	830 x 2115	817 x 2115
1000 x 2150	990 x 2145	930 x 2115	917 x 2115
1250 x 2150	1240 x 2145	1180 x 2115	1167 x 2115
1300 x 2150	1290 x 2145	1230 x 2115	1217 x 2115
1350 x 2050	1340 x 2145	1280 x 2115	1267x 2115





Elite Premio fire door. Certified according to the EN 1634 standard with fire resistance class El 60, El 120

Consists of

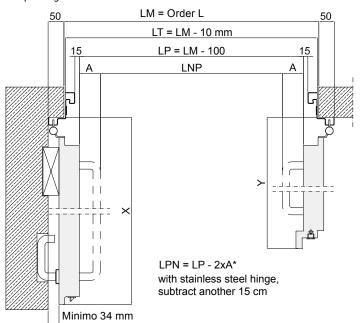
- 15/10 mm thick "Z-shaped galvanised steel frame, to make the door panel perfectly flush with the frame, with cold smoke seal compartment;
- frame with interlocked joints at the corners for excellent rigidity, without the corrosion that typically occurs in welded joints;
- door leaf flush with boxed and welded 8/10mm-thick galvanised double sheet steel frame with high-density insulation, protected with two layers of calcium sulphate material around the lock. Total door thickness 64 mm; Z140 zinc coating thickness (10-12 microns per side);
- 20 mm thick door leaf, to minimise the risk of injuries in the event of impact against people;
- 2 pressed steel hinges per door leaf, sliding on tempered antifriction bushings, designed for intensive use and high load conditions. Adjustable at any time with special screws; cannot be reached when the door is closed. Hinges are designed to be easily replaced, in compliance with the maintenance plan to be established according to Italian Min. Decree M.I. 64 of 10/03/98, Ministerial Decree M.I. 21/06/04 (GU 155 of 05/07/04) and T.U. 81/2008 for escape routes;
- self-closing mechanism with spring in the hinges (adjustable);
- door closer arm (except for Metal doors);
- sealing bolt between the two hinges;
- Yale type lock with three-key cylinder on main door leaf;

- Flush-bolt self-locking system on second door leaf, with lever opening;
- black PVC handle with steel core, "U" shaped for accidental grips, placed at 960 mm from the floor, according to Italian Presidential Decree 503 of 24/07/96, unless otherwise requested by the customer;
- thermal seal all around the frame;
- surface finished with embossed and/or textured epoxy polyester powder for internal use, 120 microns thick (RAL colours: see list on page 1);
- arranged for the installation of a movable drop-bar seal.

Available with CE marking

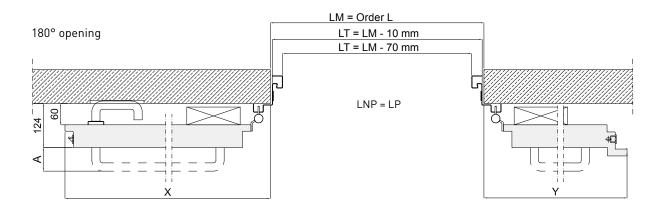
- EXTERNAL PEDESTRIAN DOORS as per EN 16034 and EN 14351-1
- INDUSTRIAL DOOR according to EN 16034 and EN 13241

90° opening



90° DOOR DIVISION			
Main door leaf order size	Х	Y	
800	890	Ord. Size	
900	990	secondary	
1000	1090	leaf + 115	

180° DOOR DIVISION			
Main door leaf order size	х	Y	
800	880	Ord. Size	
900	980	secondary	
1000	1080	leaf	
1000	1080	+ 105	



* Panic bar size

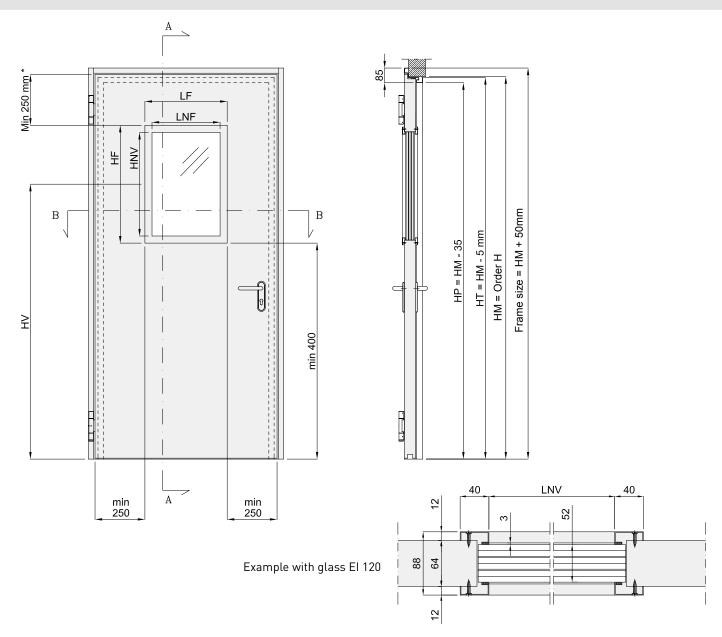
style	size	"A" **
Novoguard	79 mm	0 mm
Novopush	73 mm	0 mm
Cisa Touch	75 mm	0 mm
Cisa lever handle	105 mm	105 mm
EPN Touch	80 mm	0 mm
EPN Bar	103 mm	103 mm

**According to Italian Ministerial Decree 03.08-2015, par. G. 1.9.16

 $\ensuremath{\mathsf{N.B.}}$ All measurements are given in mm.

finished wall hole order size (LM x HM)	external frame (LT x HT)	nominal width (LN x HN) 180° opening	clear width (LP x HP) 90° opening
STANDARD DOORS H	l = 2050		
1250 x 2050 (800 + 450)	1240 x 2045	1180 x 2015	1150 x 2015
1350 x 2050 (900 + 450)	1340 x 2045	1280 x 2015	1250 x 2015
1450 x 2050 (1000 + 450)	1440 x 2045	1380 x 2015	1350 x 2015
1600 x 2050 (800 + 800)	1590 x 2045	1530 x 2015	1500 x 2015
1800 x 2050 (1000 + 800)	1790 x 2045	1730 x 2015	1700 x 2015
2000 x 2050 (1000 + 1000)	1990 x 2045	1930 x 2015	1900 x 2015
STANDARD DOORS H	l = 2150		
1250 x 2150 (800 + 450)	1240 x 2145	1180 x 2115	1150 x 2115
1350 x 2150 (900 + 450)	1340 x 2145	1280 x 2115	1250 x 2115
1450 x 2150 (1000 + 450)	1440 x 2145	1380 x 2115	1350 x 2115
1600 x 2150 (800 + 800)	1590 x 2145	1530 x 2115	1500 x 2115
1800 x 2150 (1000 + 800)	1790 x 2145	1730 x 2115	1700 x 2115
2000 x 2150 (1000 + 1000)	1990 x 2145	1930 x 2115	1900 x 2115

ELITE PREMIO Door with glass panel



- * minimum distance from the edge for fire certification. This does not apply to Metal doors.
- Rectangular or circular glass panels are supplied on request.
- We use REI fire-rated laminated glass, consisting of several glass sheets filled with a clear material that turns to an opaque foam during a fire.
- The glass is fastened with pressed steel mouldings that are screwed to the door, with special self-extinguishing seals that do not keep the material inside the glass from swelling at high temperatures.
- Supplied in standard sizes or in special sizes on request.

NOTES

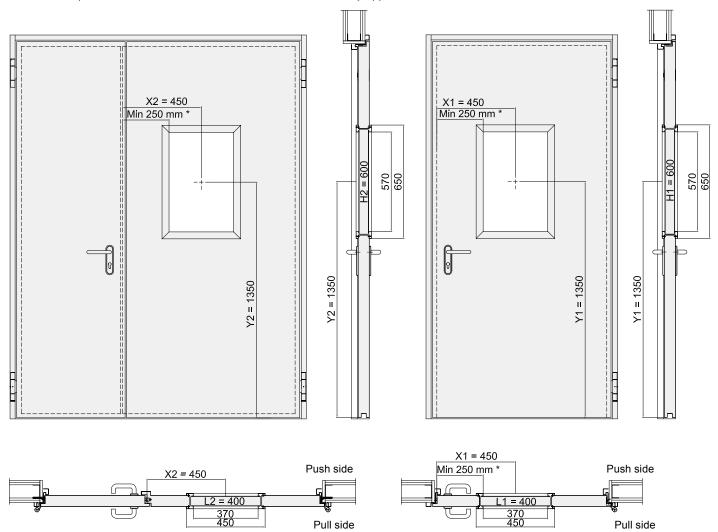
- For glass sizes greater than 300x400 and in case of frequent use, it is advisable to use a door closer.
- Glass is always pre-assembled.
- Fire-rated glass deteriorates when exposed to direct sunlight or in contact with water.
- Because of the particular construction method, the glass may include microspheres and imperfections; complaints will not be accepted if these are invisible from a distance of more than 3 metres.

height glass centreline	glass size	clear width external	glass glazing bead
(HV)	(L nom. x H nom.)	(LNV x HNV)	(LF x HF)
1550	300 x 400	270 x 370	350 x 450
1500	400 x 600	370 x 570	450 x 650
1550	Ø 400	370	Ø 450

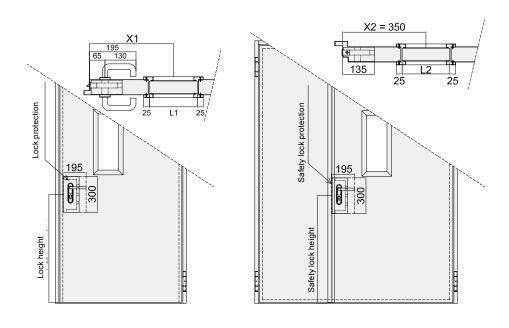
N.B.: All measurements are given in mm.

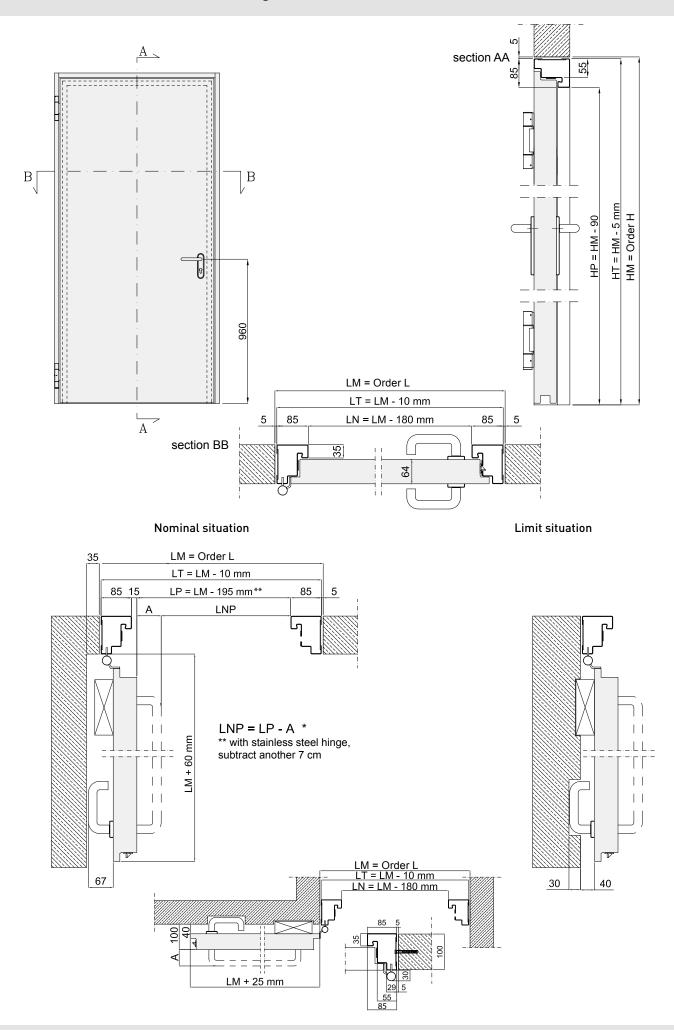
ELITE PREMIO Door with "Custom" glass panel

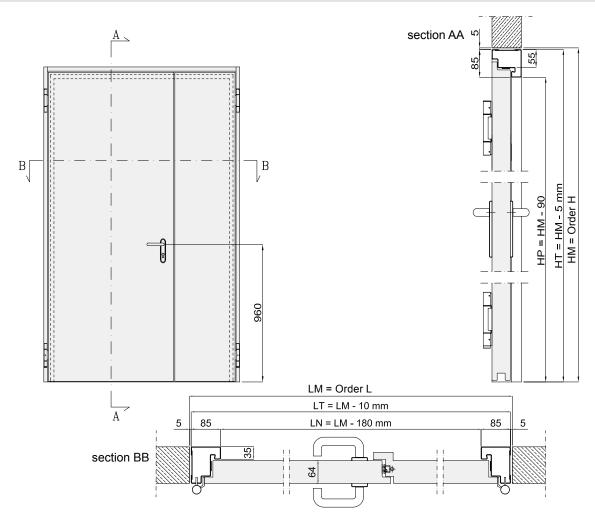
Glass size or placement can be customised (within the limits of any applicable certifications).



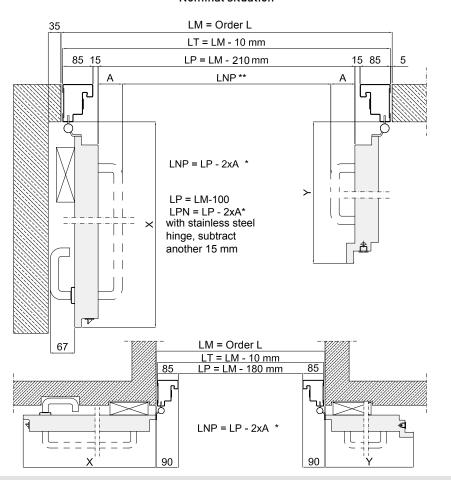
Handle and counter-lock box size







Nominal situation



90° DOOR DIVISION				
Main door panel order size	Х	Y		
800	860	Ord. Size		
900	960	secondary		
1000	1060	leaf		
1000	1060	+ 90		

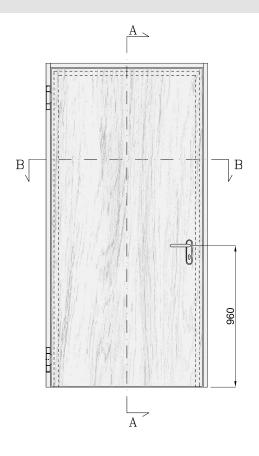
180° DOOR DIVISION				
Main door panel order size	х	Υ		
800	825	Ord. Size		
900	925	secondary		
1000	1025	leaf		
1000	1025	+ 50		

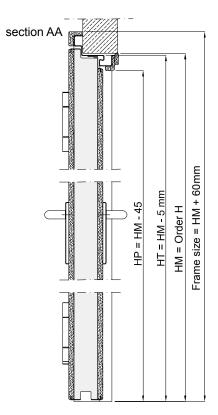
* Panic bar size

style	size	"A" **
Novoguard	79 mm	0 mm
Novopush	73 mm	0 mm
Cisa Touch	75 mm	0 mm
Cisa lever handle	105 mm	105 mm
EPN Touch	80 mm	0 mm
EPN Bar	103 mm	103 mm

^{**} According to Italian Ministerial Decree 03.08-2015, par. G. 1.9.16

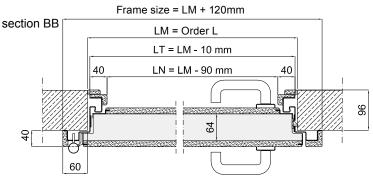
SCUDO EI 120, Single door with panel





LN varies depending on panel thickness

In case of leaf wider than 600 mm



ATTENTION: frame cladding not included, to be quoted separately.

Clad	aing	Standard equipment		ment
Leaf cladding, thick	Frame cladding, thick	Hinge type	Selector arm	Self-closing
7 mm	NO	Std hinge	GSR	Hinge with spring and door closer
14 mm	NO	Std hinge	GSR	Hinge with spring and door closer
7 mm	YES	Std hinge	GSR	Hinge with spring and door closer
14 mm	YES	Std hinge without spring	GSR	Door closer

N.B.: the SR 390 selector has limits connected to width of leaves. For very narrow doors, you must opt for a door closer with a sequencer. Please contact our. sales office for more information.

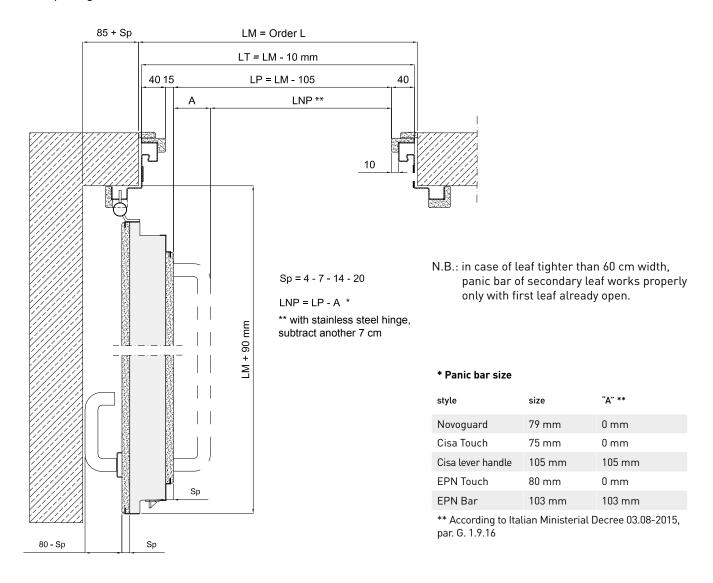
REI 120 fire door, certified according to the EN 1634 standard with fire resistance class EI 60, EI 120

Consists of:

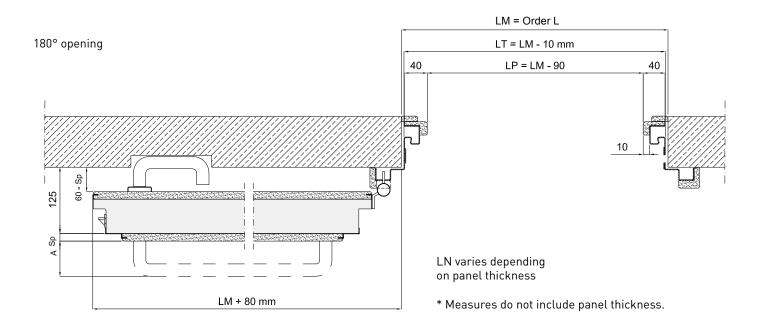
- 15/10 mm thick "Z-shaped galvanised steel frame, with cold smoke seal compartment:
- frame with interlocked joints at the corners, without the corrosion that typically occurs in welded joints;
- door panel flush with boxed and welded 8/10mm-thick galvanised double sheet steel frame with high-density insulation, protected with two layers of calcium sulphate material around the lock. Total door thickness 64 mm; Z140 zinc coating thickness (10-12 microns per side);
- panels available: solid wood, milled compound, or laminated MDF sheet. The panel is secured to the edges with specially shaped sheet steel, which is painted in the same colour as the panel;
- door leaf thickness varies according to panel thickness;
- 2 pressed steel hinges per door leaf, sliding on tempered antifriction bushings, designed for intensive use and high load conditions. Adjustable at any time with special screws; cannot be reached when the door is closed. Hinges are designed to be easily replaced, in compliance with the maintenance plan to be established according to Italian Min. Decree M.I. 64 of 10/03/98, Ministerial Decree M.I. 21/06/04 (GU 155 of 05/07/04) and T.U. 81/2008 for escape routes;
- self-closing mechanism with spring in the hinges (adjustable);

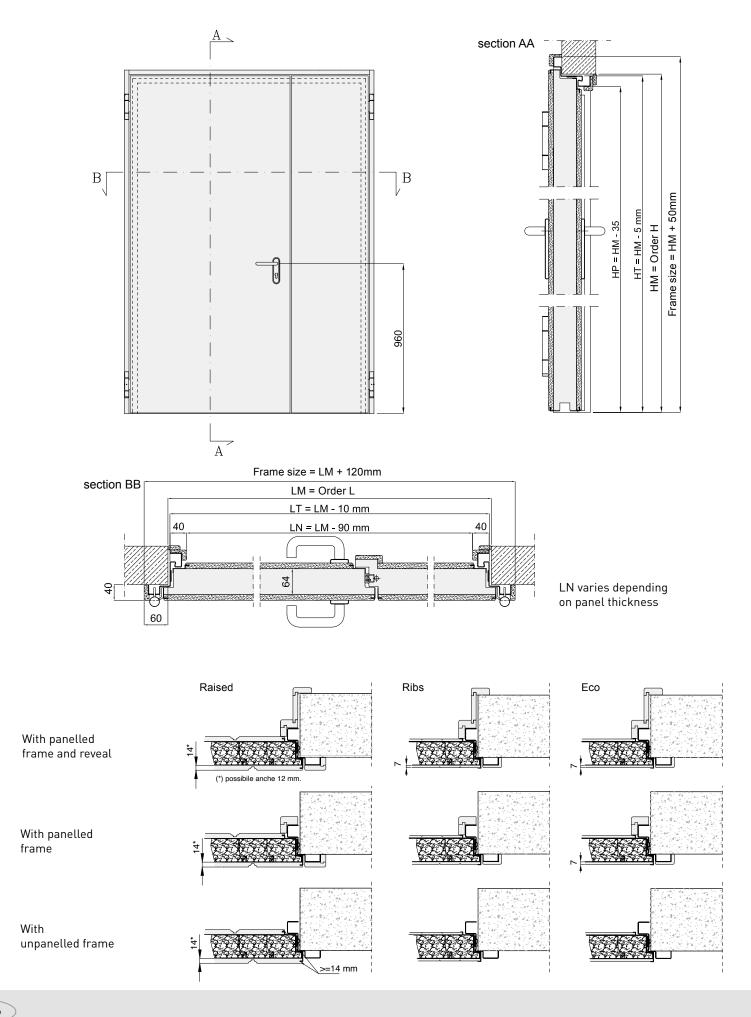
- door closer arm;
- sealing bolt between the two hinges;
- Yale type lock with three-key cylinder on main door leaf;
- Flush-bolt type self-locking system on second door leaf, with lever opening;
- black PVC handle with steel core, "U" shaped for accidental grips, placed at 960 mm from the floor, according to Italian Presidential Decree 503 of 24/07/96, unless otherwise requested by the customer;
- thermal seal all around the frame;
- for non-coated parts, surface finish with embossed and/or textured epoxy polyester powder for interior application (RAL colour: see list on page 1);
- arranged for the installation of a movable drop-bar seal.
- fastenings or anchoring systems and any frame fills as required (mechanical dowels + plasterboard strips, brackets, self-tapping screws + plasterboard strips, screws + plasterboard strips for drywall installation kit).

90° opening

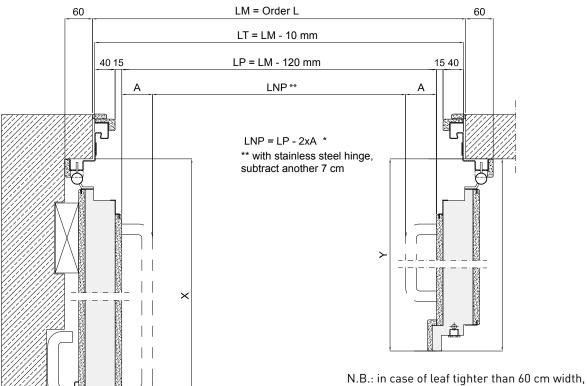


LNP varies depending on coating thickness





90° opening



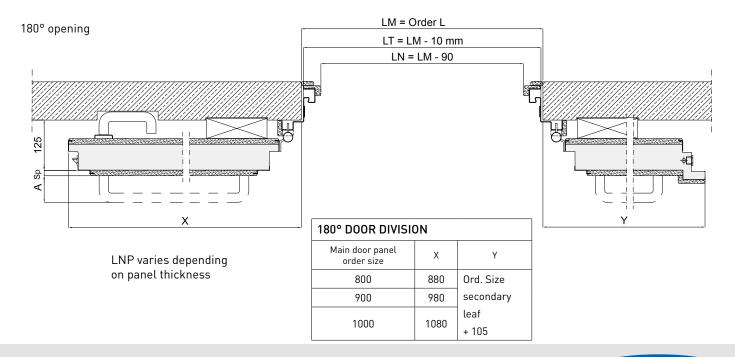
180° DOOR DIVISION		
Main door panel order size	Х	Υ
800	890	Ord. Size
900	990	secondary
1000	1090	leaf
1000	1070	+ 115

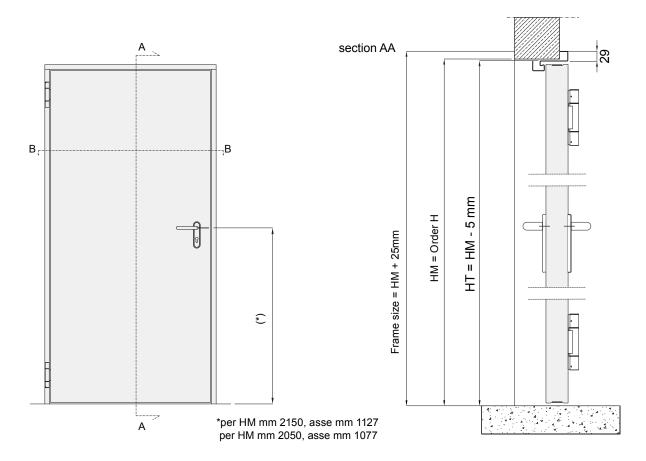
panic bar of secondary leaf works properly only with first leaf already open.

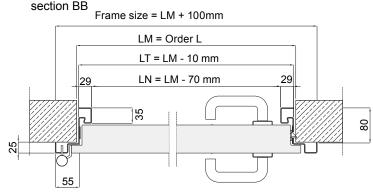
* Panic bar size

size	"A" **
79 mm	0 mm
75 mm	0 mm
105 mm	105 mm
80 mm	0 mm
103 mm	103 mm
	79 mm 75 mm 105 mm 80 mm

 $\ensuremath{^{**}}$ According to Italian Ministerial Decree 03.08-2015, par. G. 1.9.16







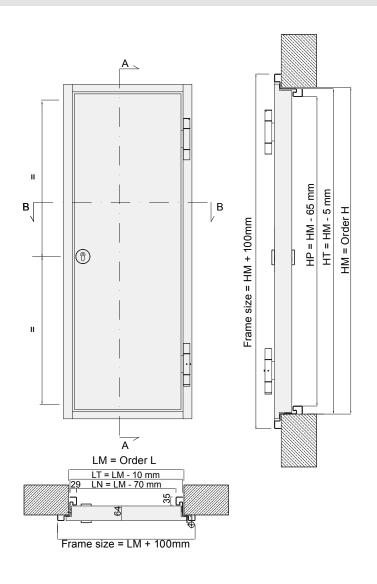
Elite Premio REVVA, reversible door. Certified according to the EN 1634 standard, with fire resistance class EI 60

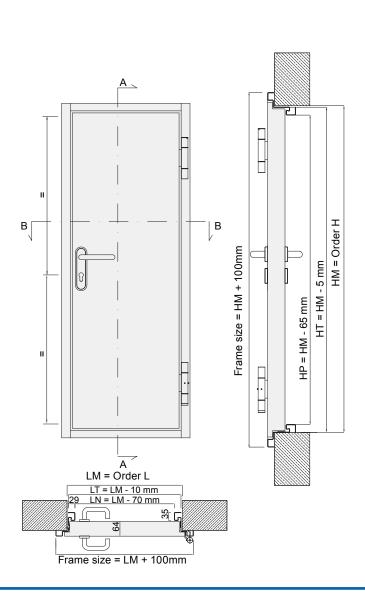
Consists of:

- 15/10 mm thick "Z-shaped galvanised steel frame, to make the door panel perfectly flush with the frame, with cold smoke seal compartment; the opening sense is decided at the work site, anchoring the horizontal frame on the vertical struts
- frame with interlocked joints at the corners for excellent rigidity, without the corrosion that typically occurs in welded joints;
- door leaf flush with boxed and welded 8/10mm-thick galvanised double sheet steel frame with high-density insulation, protected with two layers of calcium sulphate material around the lock. Total door thickness 64 mm; Z140 zinc coating thickness (10-12 microns per side);
- 20 mm thick door leaf, to minimise the risk of injuries in the event of impact against people;
- 2 pressed steel hinges per door leaf, sliding on tempered antifriction bushings, designed for intensive use and high load conditions. Adju- stable at any time with special screws; cannot be reached when the door is closed. Hinges are designed to be easily replaced, in compliance with the maintenance plan to be established according to Italian Min. Decree M.I. 64 of 10/03/98, Ministerial Decree M.I. 21/06/04 (GU 155 of 05/07/04) and T.U. 81/2008 for escape routes;

- self-closing mechanism with spring in the hinges (adjustable);
- sealing bolt between the two hinges;
- Yale type lock with three-key cylinder on main door leaf;
- black PVC handle with steel core, "U" shaped for accidental grips, placed at the centre of the door
- thermal seal all around the frame;
- surface finished with embossed and/or textured epoxy polyester powder for internal use, 120 microns thick (RAL colours: see list on page 4);

Available in standard sizes heights mm 2150, 2050.



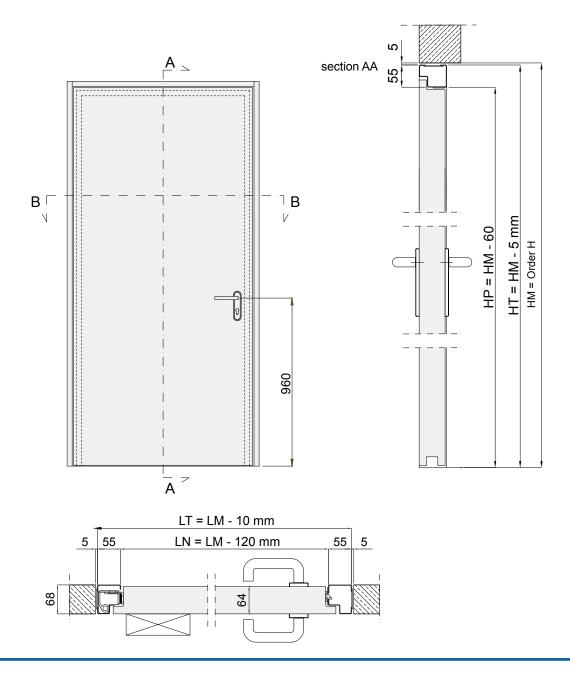


Elite Premio shaft door. Certified according to the EN 1634 standard with fire resistance class EI 60, EI 120

Consists of:

- 15/10 mm thick "Z-shaped galvanised steel frame, to make the door panel perfectly flush with the frame, with cold smoke seal compartment;
- frame with interlocked joints at the corners for excellent rigidity, without the corrosion that typically occurs in welded joints;
- door leaf flush with boxed and welded 8/10mm-thick galvanised double sheet steel frame with high-density insulation, protected with two layers of calcium sulphate material around the lock. Total door thickness 64 mm; Z140 zinc coating thickness (10-12 microns per side);
- 20 mm thick door leaf, to minimise the risk of injuries in the event of impact against people;
- 2 pressed steel hinges per door leaf, sliding on tempered antifriction bushings, designed for intensive use and high load conditions. Adjustable at any time with special screws; cannot be reached when the door is closed. Hinges are designed to be easily replaced, in compliance with the maintenance plan to be established according to Italian Min. Decree M.I. 64 of 10/03/98, Ministerial Decree M.I. 21/06/04 (GU 155 of 05/07/04) and T.U. 81/2008 for escape routes;
- self-closing mechanism with spring in the hinges (adjustable);

- Yale type lock with three-key cylinder on main door leaf; on request available cylinder for triangular key
- black PVC handle with steel core, "U" shaped for accidental grips, placed at the centre of the door unless otherwise requested by the customer;
- thermal seal all around the frame;
- thermal seal all around the frame;
- surface finished with embossed and/or textured epoxy polyester powder for internal use, 120 microns thick (RAL colours: see list on page 1);
- arranged for the installation of a movable drop-bar seal.
- Minimum certified size mm. 500x1250 h

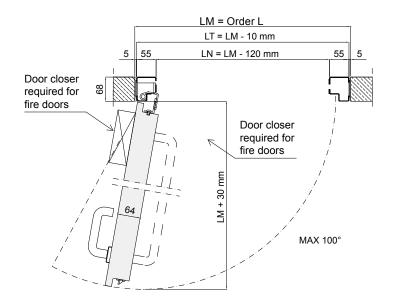


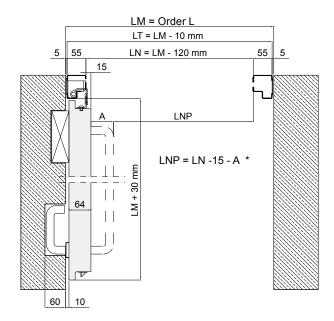
Elite Premio Modula fire proof door. Certified according to the EN 1634 standard with fire resistance class El 60

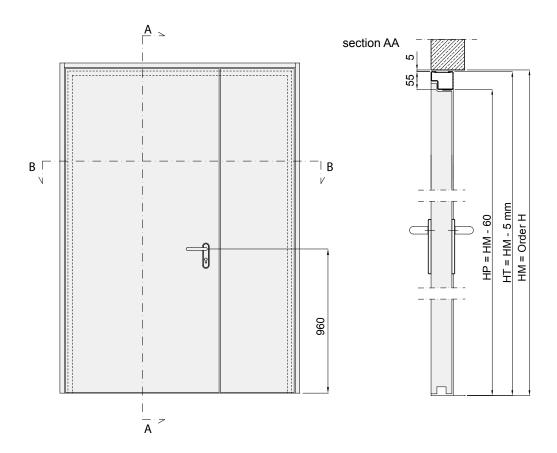
Provided with:

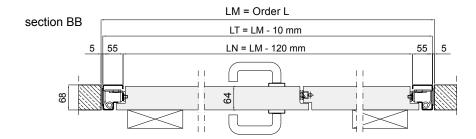
- 15/10 mm thick L-shaped galvanised steel frame, designed to make the door panel perfectly flush with the frame on both sides;
- the frame is mechanically joint to the corners without welding. The electrogalvanised coating remains intact at all points, without the corrosion that typically occurs in welded joints;
- the panel is flush with the double galvanised steel frame 8/10 thick, bent, boxed, electrowelded, with high-density internal insulation. Total door thickness mm. 64;
- 20 mm thick door panel, to minimise the risk of injuries in the event of impact against people;
- 2 concealed hinges for each leaf, made in pressed-steel, rotating on adjustable ball bearings;
- compulsory door closer, surface-mounted on each leaf;
- sealing bolts between the two hinges;
- Yale type lock with three-key cylinder;
- black PVC handle with steel core, "U" shaped for accidental grips, placed at 960 mm from the floor, according to Italian Presidential Decree 503 of 24/07/96, unless otherwise requested by the customer;

- thermal seal all around the frame;
- surfaces with category Z140 galvanised coating (minimum zinc mass 140 g/sqm per surface), finished with embossed epoxy polyester powder for internal use, 120 microns thick, RAL 7035, 1013, 5010, 9002, 9006, 9010, 9016, 7016;
- arranged for the installation of a movable drop-bar seal.









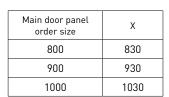
Elite Premio Modula fire proof door. Certified according to the EN 1634 standard with fire resistance class El 60

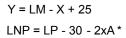
Provided with:

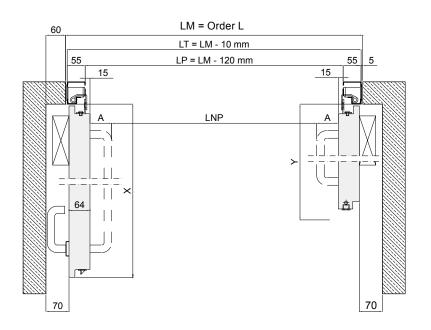
- 15/10 mm thick L-shaped galvanised steel frame, designed to make the door panel perfectly flush with the frame on both sides;
- the frame is mechanically joint to the corners without welding. The electrogalvanised coating remains intact at all points, without the corrosion that typically occurs in welded joints;
- the panel is flush with the double galvanised steel frame 8/10 thick, bent, boxed, electrowelded, with high-density internal insulation. Total door thickness mm. 64:
- 20 mm thick door panel, to minimise the risk of injuries in the event of impact against people;
- 2 concealed hinges for each leaf, made in pressed-steel, rotating on adjustable ball bearings;
- compulsory door closer, surface-mounted, in the double leaf version is provided dobule doorcloser wih GSR sequncing system;
- sealing bolt between the two hinges;
- Yale type lock with three-key cylinder on main door leaf;
- Flush-bolt self-locking system on second door leaf, with lever opening;
- black PVC handle with steel core, «U» shaped for accidental grips,

- placed at 960 mm from the floor, according to Italian Presidential Decree 503 of 24/07/96, unless otherwise requested by the customer;
- thermal seal all around the frame;
- surfaces with category Z140 galvanised coating (minimum zinc mass 140 g/sqm per surface), finished with embossed epoxy polyester powder for internal use, 120 microns thick, RAL 7035, 1013, 5010, 9002, 9006, 9010, 9016, 7016;
- arranged for the installation of a movable drop-bar seal.

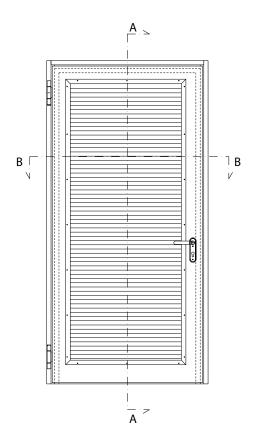
Nominal situation

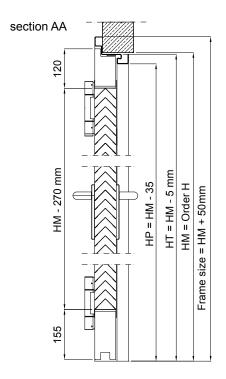


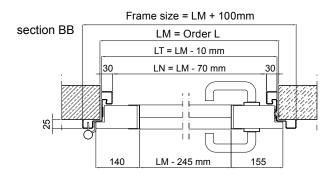




METAL ALETTATA Single doors







Aerating surface: 60% of the finned part

To calculate the passage use our APP "Novoferm Doors Tool"

Multi-purpose Elite Premio finned door

Provided with:

- 15/10 mm thick "Z-shaped galvanised steel frame, to make the door panel perfectly flush with the frame, with cold smoke seal compartment;
- the frame is mechanically joint to the corners without welding. The electrogalvanised coating remains intact at all points, without the corrosion that typically occurs in welded joints;
- the panel is flush with the double galvanised steel frame 8/10 thick, bent, boxed, electrowelded, with high-density internal insulation. Fitted with finned metal grill made in 1,2 mm thick zink metal, V-shaped ribs. Welded on the hinges side, and fixed on the opposite side with L-shaped counter profile;
- 2 pressed steel spring hinges per door leaf, sliding on tempered antifriction bushings, designed for intensive use and high load conditions. As a standard, they are painted in the same colour as the door. Adjustable at any time with special screws; cannot be reached when the door is closed. Hinges are mechanically fastened to the door and therefore can be replaced in case of long, heavy use, according to Italian Ministerial Decree M.I. 64 of 10/03/98, Ministerial Decree M.I. 21/06/04 (GU 155 of 05/07/04) and T.U. 81/2008 for escape routes;
- self-closing mechanism with spring in the hinges (adjustable);
- sealing bolt between the two hinges;
- Yale type lock with three-key cylinder on main door leaf;

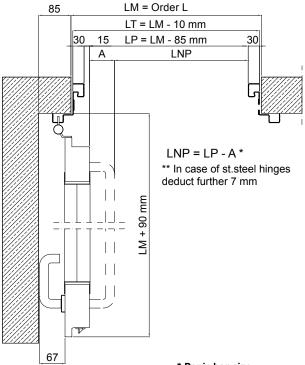
- black PVC handle with steel core, "U" shaped for accidental grips, placed at 960 mm, unless otherwise requested by the customer;
- surfaces with category Z140 galvanised coating (minimum zinc mass 140 g/sqm per surface), finished with embossed epoxy polyester powder for internal use, 120 microns thick, RAL 7035, 1013, 5010, 9002, 9006, 9010, 9016, 7016.

Available with CE marking

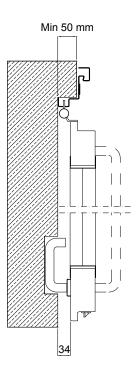
- EXTERNAL PEDESTRIAN DOORS as per EN 14351-1 secondo EN 14351-1

	EXT 0
Type of performance	class
Air permeability	0
Water tightness	0
Water tightness	C3

Nominal situation



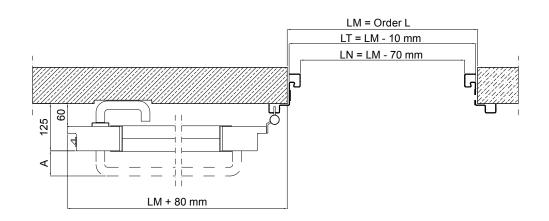
Limit situation

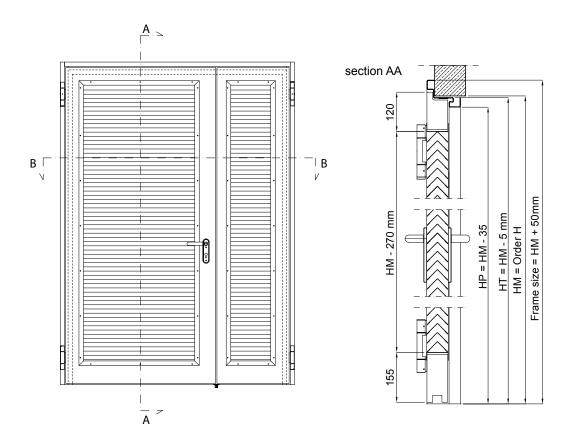


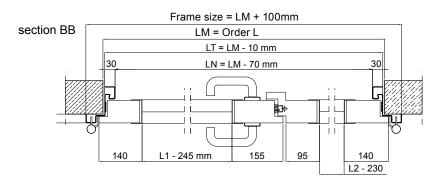
* Panic bar size

style	size	A" **
Novoguard	79 mm	0 mm
Cisa lever handle	100 mm	100 mm
EPN Bar	103 mm	103 mm

 $\ensuremath{^{**}}\xspace$ According to Italian Ministerial Decree 03.08-2015, par. G. 1.9.16







Aerating surface: 60% of the finned part

To calculate the passage use our APP "Novoferm Doors Tool"

Multi-purpose Elite Premio finned door

Provided with:

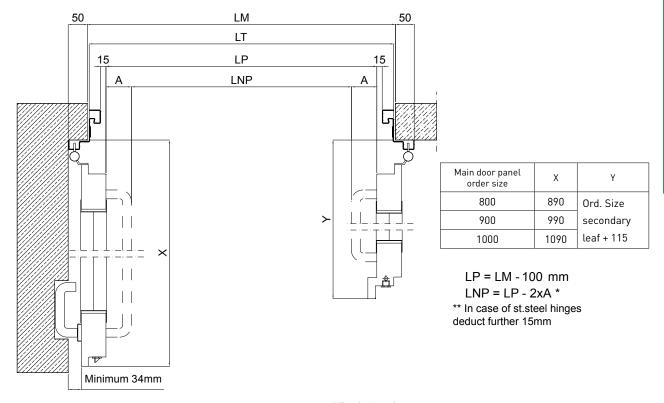
- 15/10 mm thick "Z-shaped galvanised steel frame, to make the door panel perfectly flush with the frame, with cold smoke seal compartment;
- the frame is mechanically joint to the corners without welding. The electrogalvanised coating remains intact at all points, without the corrosion that typically occurs in welded joints;
- the panel is flush with the double galvanised steel frame 8/10 thick, bent, boxed, electrowelded, with high-density internal insulation. Fitted with finned metal grill made in 1,2 mm thick zink metal, V-shaped ribs. Welded on the hinges side, and fixed on the opposite side with L-shaped counter profile;
- 2 pressed steel spring hinges per door leaf, sliding on tempered anti-friction bushings, designed for intensive use and high load conditions. As a standard, they are painted in the same colour as the door. Adjustable at any time with special screws; cannot be reached when the door is closed. Hinges are mechanically fastened to the door and therefore can be replaced in case of long, heavy use, according to Italian Ministerial Decree M.I. 64 of 10/03/98, Ministerial Decree M.I. 21/06/04 (GU 155 of 05/07/04) and T.U. 81/2008 for escape
- self-closing mechanism with spring in the hinges (adjustable);
- sealing bolt between the two hinges;
- Yale type lock with three-key cylinder on main door leaf;
- Flush-bolt self-locking system on second door leaf, with lever opening;

- black PVC handle with steel core, "U" shaped for accidental grips, placed at 960 mm, unless otherwise requested by the customer;
- surfaces with category Z140 galvanised coating (minimum zinc mass 140 g/sqm per surface), finished with embossed epoxy polyester powder for internal use, 120 microns thick, RAL 7035, 1013, 5010, 9002, 9006, 9010, 9016, 7016;

Available with CE marking

- EXTERNAL PEDESTRIAN DOORS as per EN 14351-1

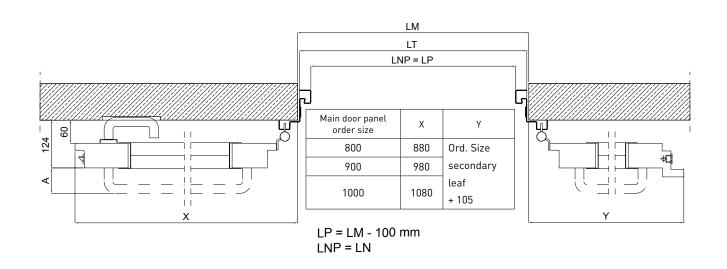
	EXIU
Type of performance	class
Air permeability	0
Water tightness	0
Wind tightness	C3

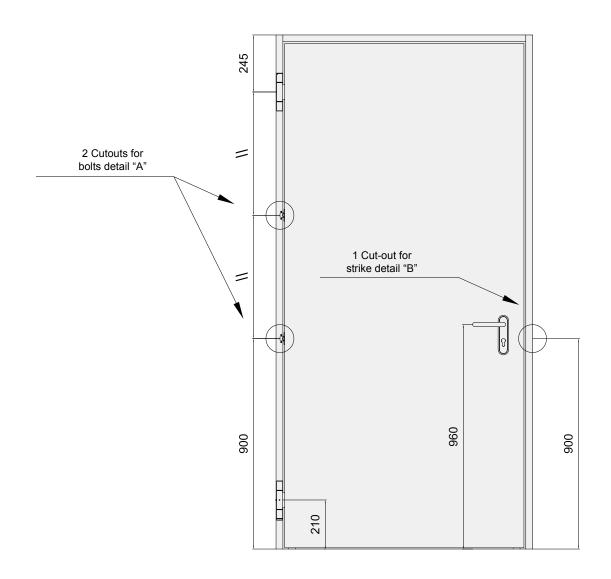


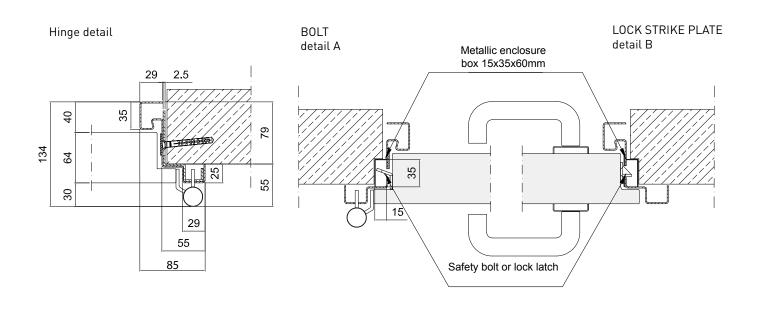
* Panic bar size

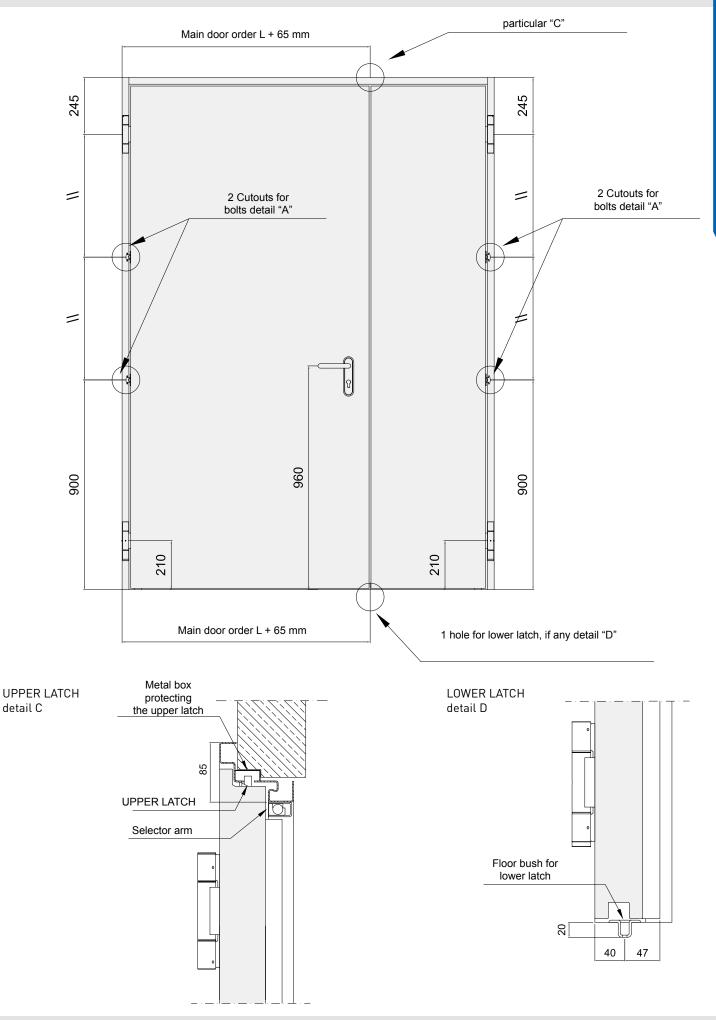
style	size	"A" **
Novoguard	79 mm	0 mm
Cisa lever handle	100 mm	100 mm
EPN Bar	103 mm	103 mm

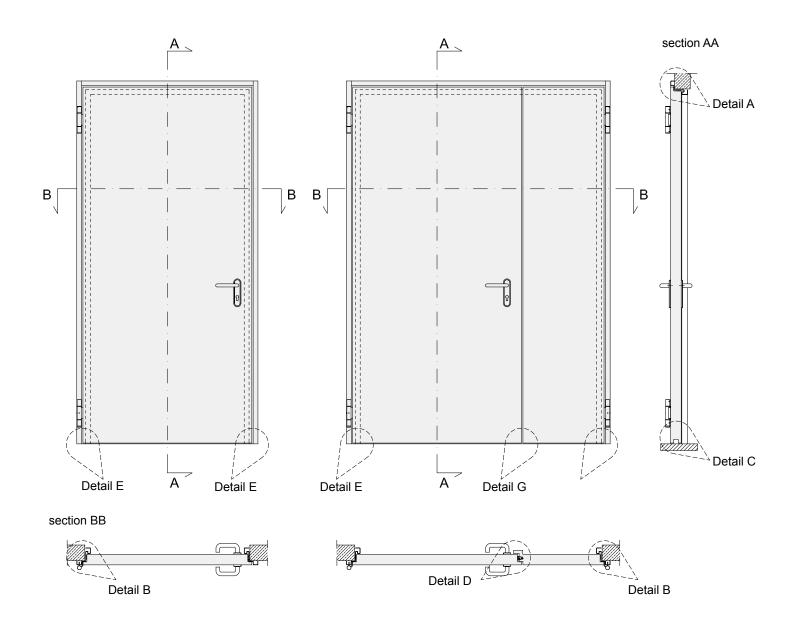
^{**}According to Italian Ministerial Decree 03.08-2015, par. G. 1.9.16 $\,$











Classified Performance:

Corrosion: minimum level C3 according to (EN ISO 12944-6:1998) Hinge load resistance: level 6 (up to 120 kg per hinge, EN 1935:2002) Transmittance: Ud [W / M2 * K] varies from 1.5 to 2 (without glass) (EN-ISO 10077-2:2012)

Watertightness: class 1B or 2B (EN 14351-1) Air permeability: class 1 or class 3 (EN 14351-1)

Air permeability according to ASTM E283-04 (2012): approved

Resistance t wind load: class C3 (EN 14351-1)

Torsional resistance: pass (EN 948)

Opening and closing cycles: maximum level for REI doors (more than 200,000 cycles), class 6 according to EN12400:2004, C5 according to EN 16034:2014

Sound insulation: up to 35 dB Rw (EN ISO 10140-2:2010 and EN ISO 717-1:2013)

Burglar resistance: RC2

Hold and cold smoke resistance: Sa and Sm rating [EN 1634-3:2005] CE marking 0407-CPD-578 (IG-202-2012), [EN14351-1:2006+A1:2010] for exterior door with/without panic bar.

Elite Premio Acustica Door

- noise reduction level 34 Db;
- standard equipment: see table;
- to meet the noise reduction criteria, any gaps remaining between the wall and frame must be carefully sealed.

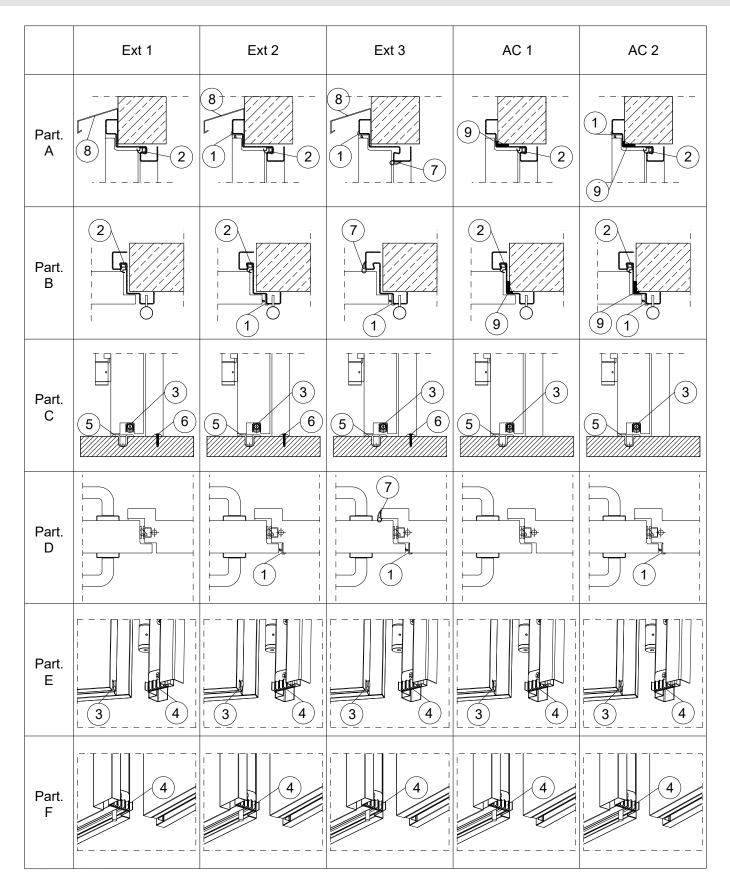
	Metal	EI 120	Scudo Class El 120
-	23 dB*	22 dB	22 dB*
AC1	33 dB	32 dB	34 dB
AC2	38 dB	39 dB	40 dB

*you can get that performance with basic model, without adding other components With AC1 and AC2 kit we strongly suggest to apply door closer $\,$

Multi-purpose Elite Premio exterior door

- standard equipment: see table;
- on request: sill pan (to avoid direct contact with water), with UV-resistant coating for direct exposure to sunlight.

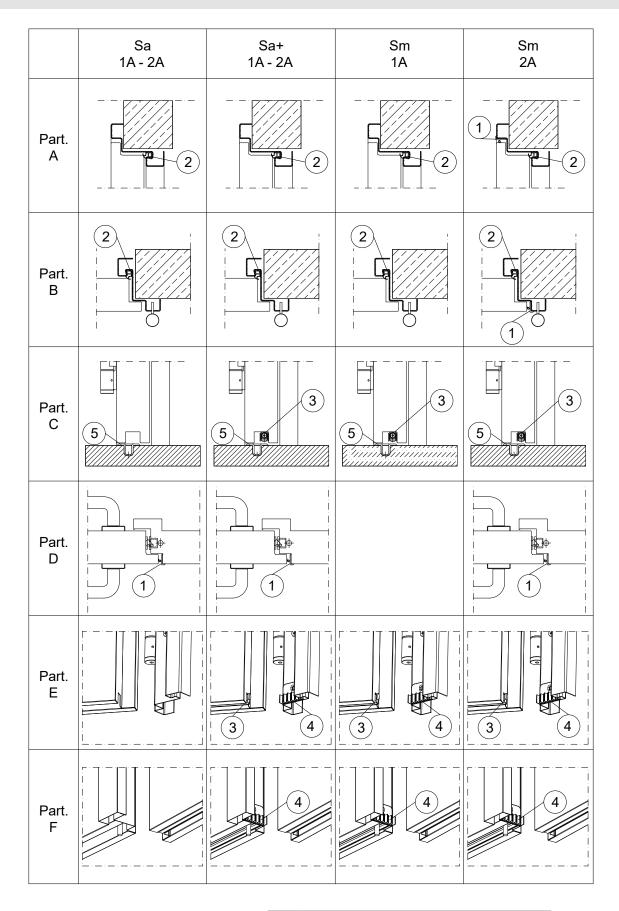
	EXT 0	EXT 1	EXT 2	EXT 3
Type of performance	class	class	class	class
Air permeability	0	1	2	3
Water tightness	0	1B	2B	2B
Wind tightness	C3	C3	C3	C3



Key

1	T seal with bulb attachment (GUA110)
2	Integrated seal (GUA200)
3	Movable drop-bar seal (PAR)
4	No Air seal (GUA203)
5	Floor bushing (POZ000)

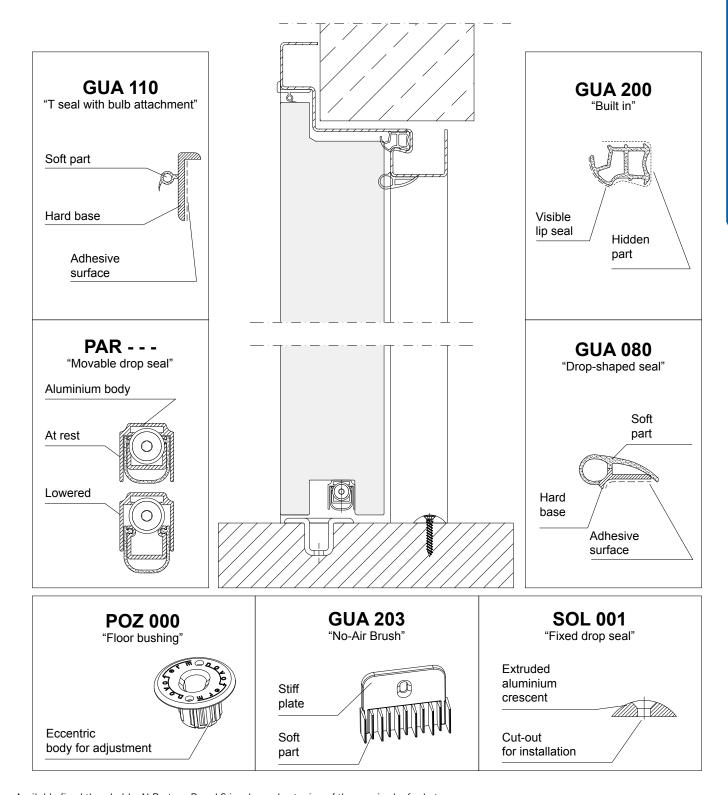
6	Fixed drop-bar seal (SOL001)
7	Drop seal (GUA080)
8	Sill pan (SC0000)
9	Corner silicone



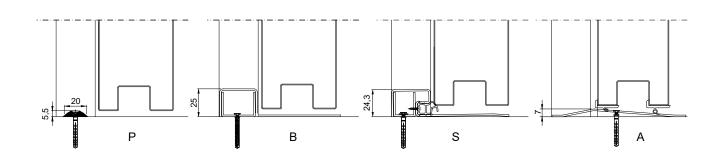
Key

1	T seal with bulb attachment (GUA110)
2	Integrated seal (GUA200)
3	Movable drop-bar seal (PAR)
4	No Air seal (GUA203)
5	Floor bushing (POZ000)

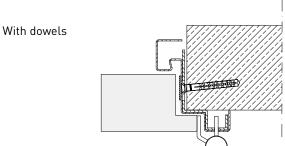
6	Fixed drop-bar seal (SOL001)
7	Drop seal (GUA080)
8	Sill pan (SC0000)
9	Corner silicone



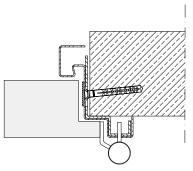
 $\label{thm:local_problem} \mbox{Available fixed thresholds. N.B.: type B and S involve a shortening of the passive leaf rebate.}$



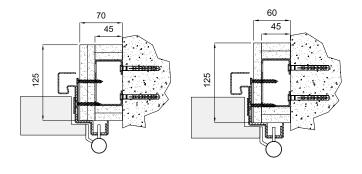
ELITE PREMIO Anchoring systems El 60 - El 120



Wall in the opening EI 60 EI 120

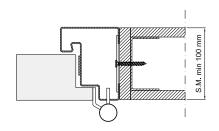


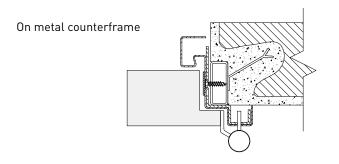
With proper quantity and thickens according to construction system adopted.



Tubular frame

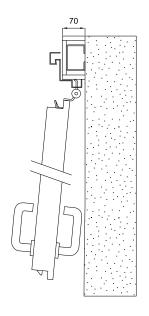
EI 120/60 drywall

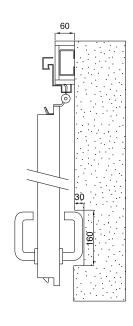




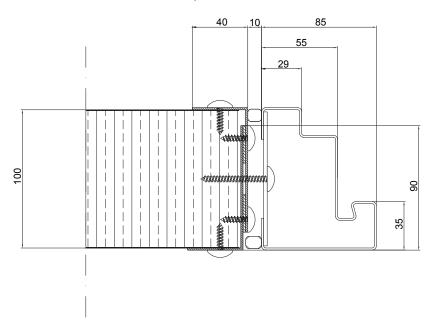
Elite Premio doors are tested on a standardised flexible support, according to the EN 1363-1 standard, par 7.2.2. In accordance with point 13.5.3. of EN 1634-1, the product can be installed in any non-standard flexible supporting construction, which achieves at least the same level of fire performance as the door.

In case of double gypsum panel rough opening 90 degrees



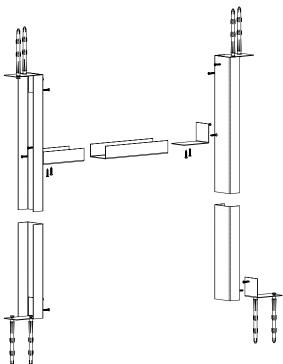


Installation on insulated flexible panels, tubolar frame EI 90,60 and non-fire rated door



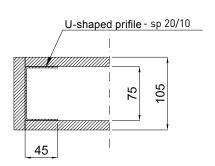
The door was mounted on the support by means of self-tapping screws 5.5x45 mm. Minimum thickness of the support mm 100

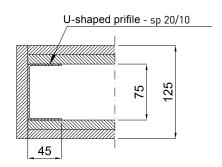
K3-type drywall-mounted door



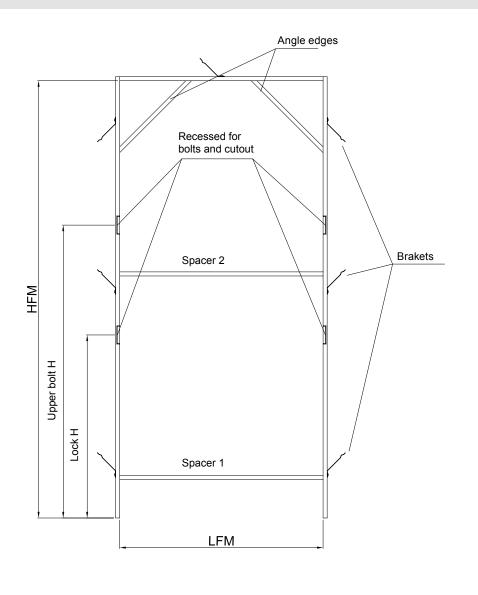
Examples of flexible masonry

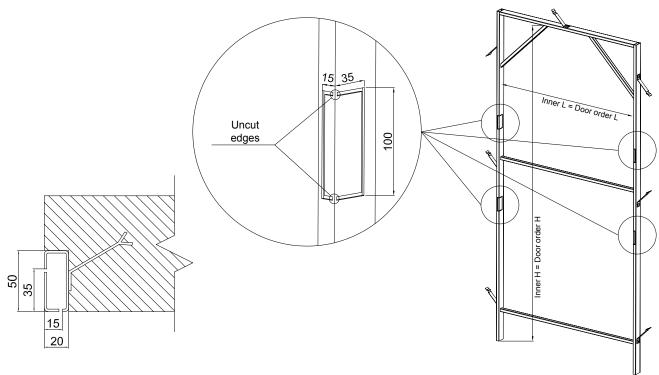
Drywall Drywall





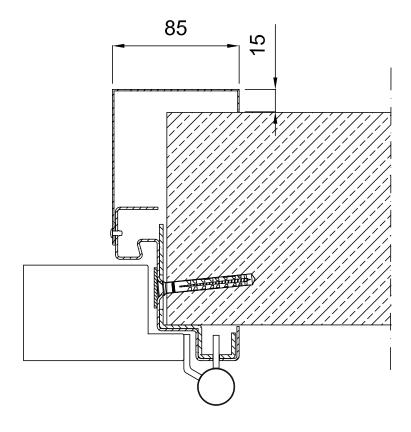
The structure must be covered with gypsum panels with proper quantity and thickens according to construction system adopted.





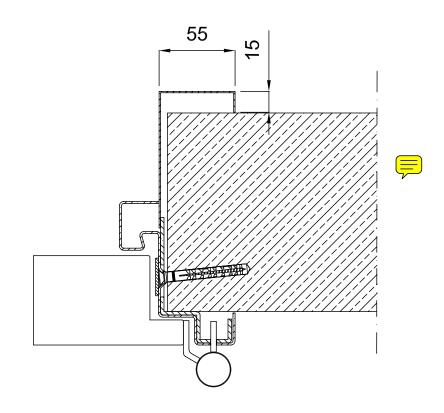
Outer jamb

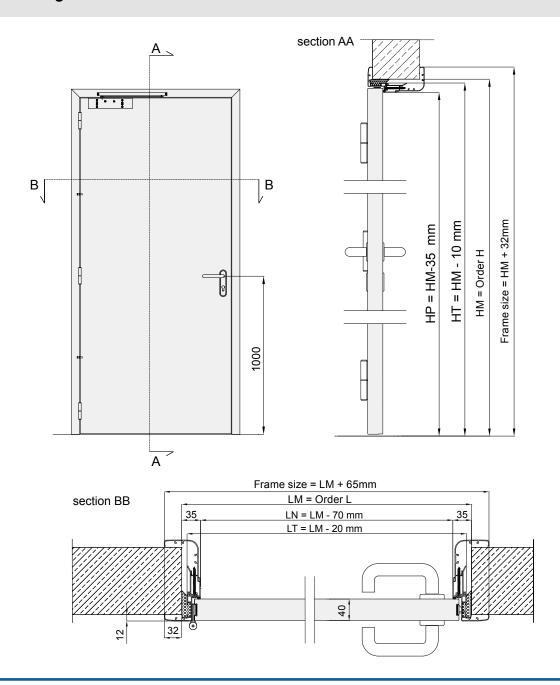
Supplied as requsted by the customer.



Inner jamb

Supplied as requested by the customer



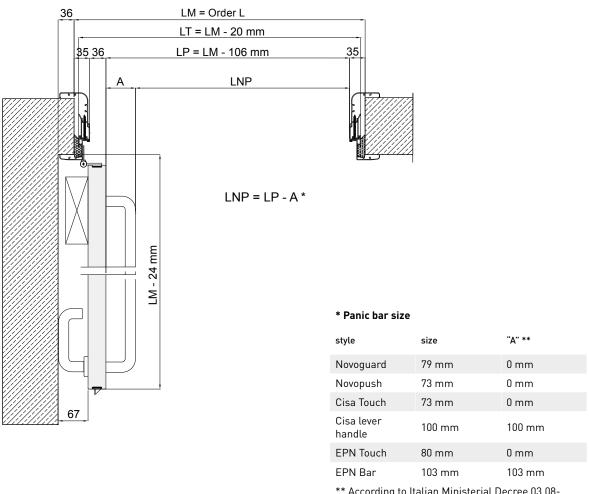


ASIA fire proof door. Certified according to the EN 1634 standard with fire resistance class EI 30

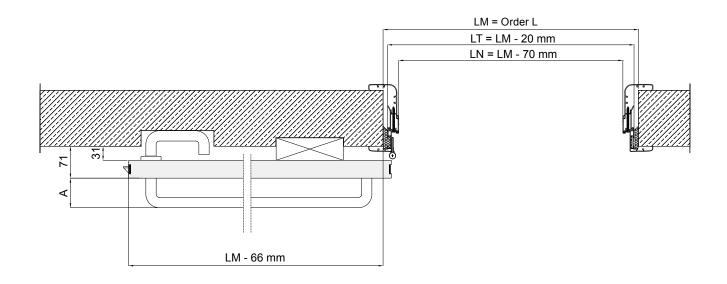
Provided with:

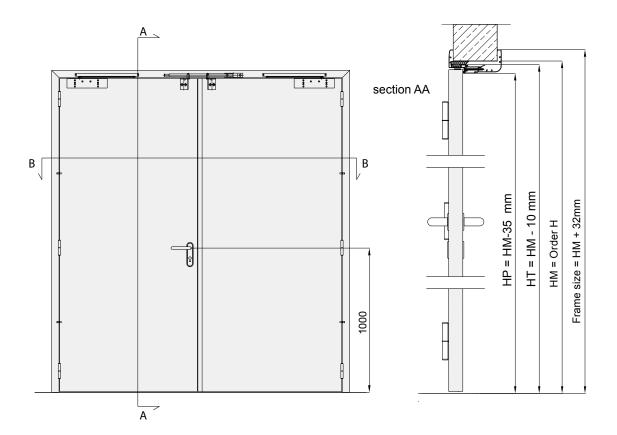
- anodized aluminium frame made for dowels installation. The shape is built for taking the aluminium profiels for wall covering in 2 models, type A for 100mm and 129mm, type B for 130mm and 159mm wall thickness. Is possible to add 60mm wall thickness covering using specific aluminium extentions;
- nr. 3 silver anodized aluminum hinges with self-lubricating teflon bearings and central steel pivot, adjustable. Rotation pin made in steel, fixed to the frame and to the leaf panel with steel screws;
- leaf composed by two separate galvanised steel sheets 6/10;
- superficial textured finishing with epoxy-polyester powder colour RAL 7035, 1013, 5010, 9002, 9006, 9010, 9016,7016. Goffrato surface, outside/ inside use;
- insulating filling made in rockwool, lock case protected with calciumphosfate based material;
- sealing bolt between the two hinges;
- Yale type lock with three-key cylinder on main door leaf;
- black PVC handle with steel core, "U" shaped for accidental grips;

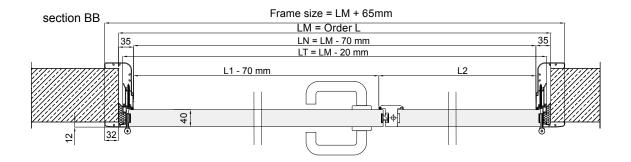
- idraulic door closer on each leaf;
- thermal seal all around the leaf panel, pre-mounted neopren rubber gasket on the frame.



 $\ensuremath{^{**}}$ According to Italian Ministerial Decree 03.08-2015, par. G. 1.9.16





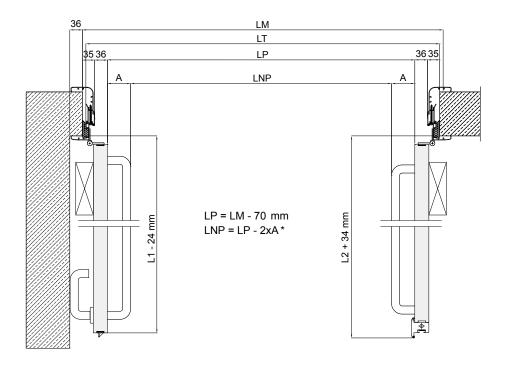


ASIA fire proof door. Certified according to the EN 1634 standard with fire resistance class EI 30

Provided with:

- anodized aluminium frame made for dowels installation. The shape is built for taking the aluminium profiels for wall covering in 2 models, type A for 100mm and 129mm, type B for 130mm and 159mm wall thickness. Is possible to add 60mm wall thickness covering using specific aluminium extentions;
- nr. 3 silver anodized aluminum hinges with self-lubricating teflon bearings and central steel pivot, adjustable. Rotation pin made in steel, fixed to the frame and to the leaf panel with steel screws;
- leaf composed by two separate galvanised steel sheets 6/10;
- superficial textured finishing with epoxy-polyester powder colour RAL 7035, 1013, 5010, 9002, 9006, 9010, 9016,7016. Goffrato surface, outside/ inside use;
- insulating filling made in rockwool, lock case protected with calciumphosfate based material;
- sealing bolt between the two hinges;
- Yale type lock with three-key cylinder on main door leaf;
- Flush-bolt self-locking system on second door leaf, with lever opening;
- black PVC handle with steel core, "U" shaped for accidental grips;
- closing selector for 2 leaves door;

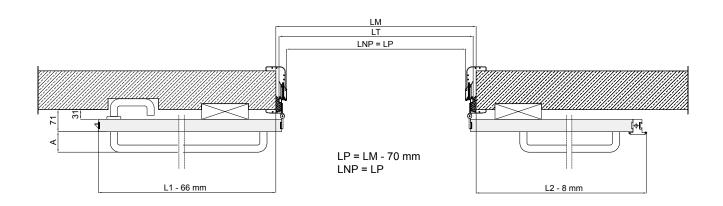
- idraulic door closer on each leaf;
- thermal seal all around the leaf panel, pre-mounted neopren rubber gasket on the frame.



* Panic bar size

modello	ingombro	"A" **
Novoguard	79 mm	0 mm
Novopush	73 mm	0 mm
Cisa Touch	73 mm	0 mm
Cisa lever handle	100 mm	100 mm
EPN Touch	80 mm	0 mm
EPN Bar	103 mm	103 mm

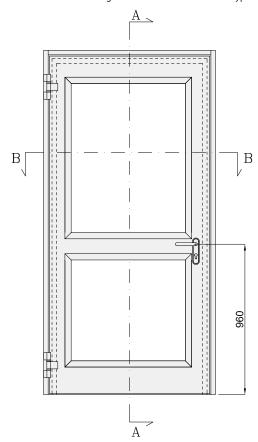
** According to Italian Ministerial Decree 03.08-2015, par. G. 1.9.16

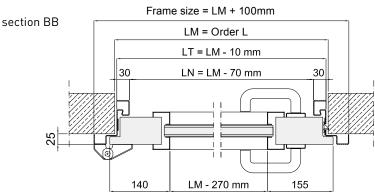


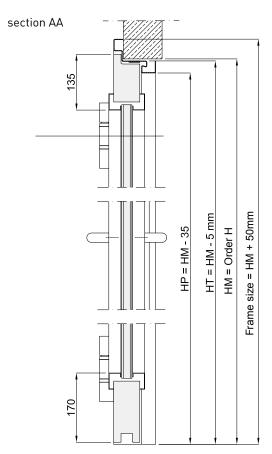
GLASS DOORS

Novoglass+, Single glass door***

***the EI 60 version mounts the same hinges as the Elite metal door type







CE marking available for single and double leaf EI 60

- EXTERNAL PEDESTRIAN DOORS as per EN 16034 and EN 14351-1

	EXT 0	EXT 2
Type of performance	class	class
Air permeability	0	2
Water tightness	0	2B
Wind tightness	C3	C3

(See components on page 31-32)

NOVOGLASS fire-rated glass door, EI 60, EI 120 certifie

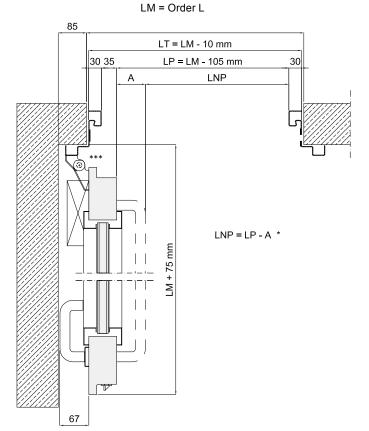
Consists of:

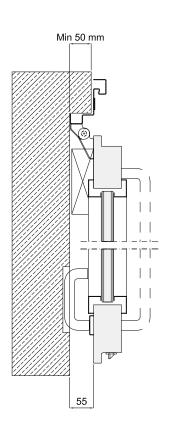
- 15/10 mm thick "Z-shaped galvanised steel frame, to make the door panel perfectly flush with the frame, with cold smoke seal compartment;
- the frame is mechanically joint to the corners without welding. The electrogalvanised coating remains intact at all points, without the corrosion that typically occurs in welded joints;
- door panel consisting of a steel framework, with a supporting section, flush with a frame made of pressed, boxed and welded double galvanized sheet steel, with inorganic insulation, free of asbestos. The profile of the door leaf features a special finish on the glass side (which is therefore invisible after installation) designed to reduce thermal conductivity between the two sides of the door;
- REI fire-rated laminated glass, consisting of several glass sheets filled with a normally clear material that turns to an opaque foam and gives out water vapour during a fire. Glass panels are fastened with glazing beads, without visible screws, with special self-extinguishing seals that do not keep the material inside the glass from swelling at high temperatures.
- 2 steel spring hinges per panel, designed for intensive use and high load onditions. Adjustable at any time with special screws; cannot be reached when the door is closed. Hinges are mechanically fastened to the door and therefore can be replaced in case of long, heavy use, according to Italian Ministerial Decree M.I. 64 of 10/03/98, Ministerial Decree M.I. 21/06/04 (GU 155 of 05/07/04) and T.U. 81/2008 for escape routes;

- black hydraulic door closer;
- sealing bolts between the two hinges;
- Yale type lock with three-key cylinder;
- black PVC handle with steel core, "U" shaped for accidental grips, placed at 960 mm from the floor, according to Italian Presidential Decree 503 of 4/07/96, unless otherwise requested by the customer;
- thermal seal all around the frame;
- surfaces with category Z140 galvanised coating (minimum zinc mass 140 g/sqm per surface), finished with embossed and/or textured epoxy polyester powder for internal use, 120 microns thick (RAL colours: see list on page 1);
- arranged for the installation of a movable drop-bar seal;
- the lower profile width can be increased upon request up to 40 cm according to Italian Presidential Decrees no. 503 of 24 July 1996, no. 384 of 27 April 1978, Ministerial decree no. 236 of 14 June 1989 for the removal of architectural barriers.

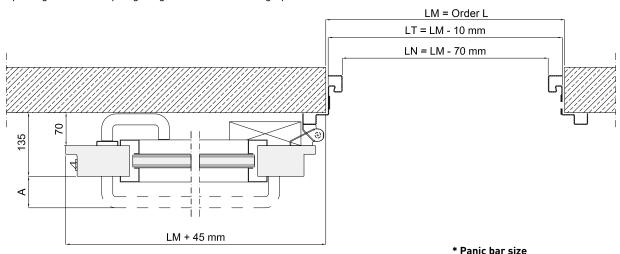
Nominal situation

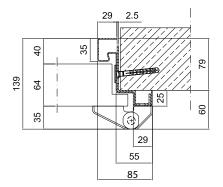
90° opening with steel spring hinge. For standard hinge please see Elite Premio section

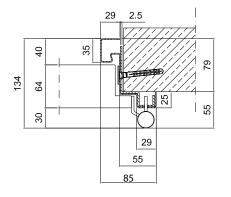




180° opening with steel spring hinge. For standard hinge please see Elite Premio section







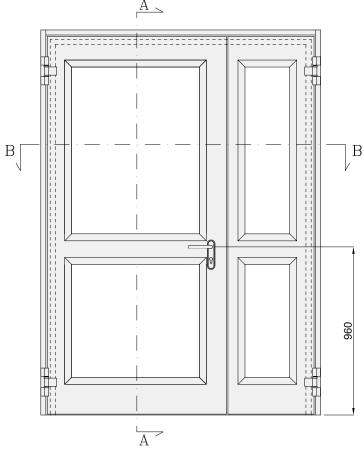
* Panic bar size

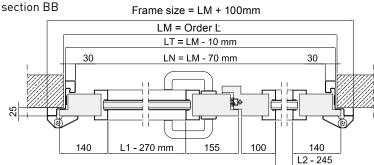
style	size	"A" **
Novoguard	79 mm	0 mm
Novopush	73 mm	0 mm
Cisa Touch	75 mm	0 mm
Cisa lever handle	105 mm	105 mm
EPN Touch	80 mm	0 mm
EPN Bar	103 mm	103 mm

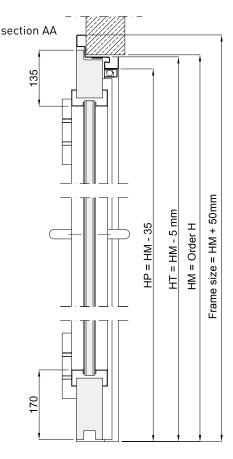
** ** According to Italian Ministerial Decree 03.08-2015, par. G. 1.9.16

Novoglass+, Double glass door***

***the EI 60 version mounts the same hinges as the Elite metal door type;







for single and double leaf EI 60

- EXTERNAL PEDESTRIAN DOORS as per EN 16034 and EN 14351-1

	EXT 0	EXT 2
Type of performance	class	class
Air permeability	0	2
Water tightness	0	2B
Wind tightness	C3	C3

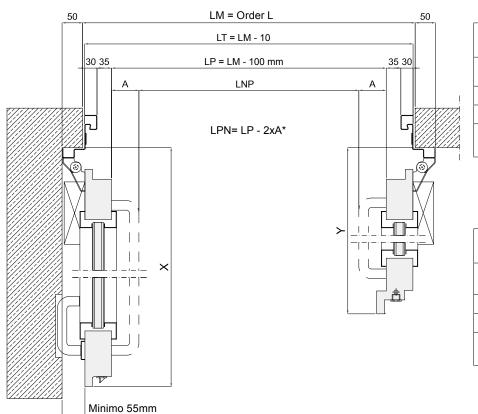
NOVOGLASS fire-rated glass door, El 60, El 120 certified

Consists of

- 15/10 mm thick "Z-shaped galvanised steel frame, to make the door panel perfectly flush with the frame, with cold smoke seal compartment;
- the frame is mechanically joint to the corners without welding. The electrogalvanised coating remains intact at all points, without the corrosion that typically occurs in welded joints;
- the door leaves consist of a steel framework, with a supporting section, flush
 with a frame made of pressed, boxed and welded double galvanized sheet
 steel, with inorganic insulation, free of asbestos. The profile of the door panel
 features a special finish on the glass side (which is therefore invisible after
 installation) designed to reduce thermal conductivity between the two sides
 of the door.
- REI fire-rated laminated glass, consisting of several glass sheets filled with a normally clear material that turns to an opaque foam and gives out water vapour during a fire. Glass panels are fastened with glazing beads, without visible screws, with special self-extinguishing seals that do not keep the material inside the glass from swelling at high temperatures.
- 2 steel spring hinges per panel, designed for intensive use and high load conditions. Adjustable at any time with special screws; cannot be reached when the door is closed. Hinges are mechanically fastened to the door and therefore can be replaced in case of long, heavy use, according to Italian Ministerial Decree M.I. 64 of 10/03/98, Ministerial Decree M.I. 21/06/04 (GU 155 of 05/07/04) and T.U. 81/2008 for escape routes;

- black hydraulic door closer.
- black door closer arm;
- sealing bolts between the two hinges;
- Yale type lock with three-key cylinder;
- Flush-bolt self-locking system on second door panel, with lever opening;
- black PVC handle with steel core, "U" shaped for accidental grips, placed at 960 mm from the floor, according to Italian Presidential Decree 503 of 24/07/96, unless otherwise requested by the customer;
- thermal seal all around the frame;
- surfaces with category Z140 galvanised coating (minimum zinc mass 140 g/sqm per surface), finished with embossed and/or textured epoxy polyester powder for internal use, 120 microns thick (RAL colours: see list on page 1);
- arranged for the installation of a movable drop-bar seal;
- the lower profile width can be increased upon request up to 40 cm according to Italian Presidential Decrees no. 503 of 24 July 1996, no. 384 of 27 April 1978, Ministerial decree no. 236 of 14 June 1989 for the removal of architectural barriers.

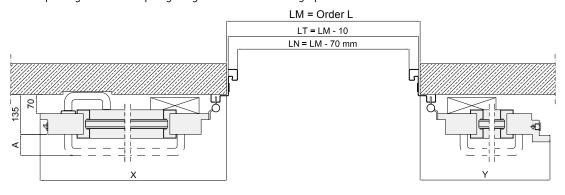
90° opening with steel spring hinge. For standard hinge please see Elite Premio section



90° DOOR DIVISION with steel spring hinge			
Main door panel order size	Х	Y	
800	890	Ord. Size	
900	990	secondary	
1000	1090	leaf	
1000	1070	+ 115	

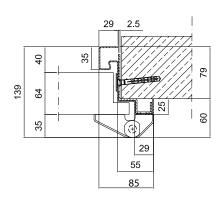
90° DOOR DIVISION with std hinge			
Main door panel order size	х	Υ	
800	880	Ord. Size	
900	980	secondary	
1000	1080	leaf.	
1000	1080	+ 105	

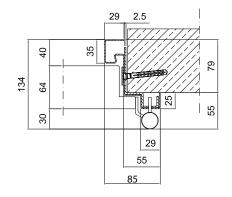
180° opening with steel spring hinge. For standard hinge please see Elite Premio section



180° DOOR DIVISION with steel spring hinge				
Main door panel X Y				
800	845	0-4 6:		
900	945	Ord. Size secondary		
1000	1045	lear + 70		

180° DOOR DIVISION with std hinge			
Main door panel X Y			
800	880	0-4 6:	
900	980	Ord. Size secondary leaf + 105	
1000	1080	tear + 103	

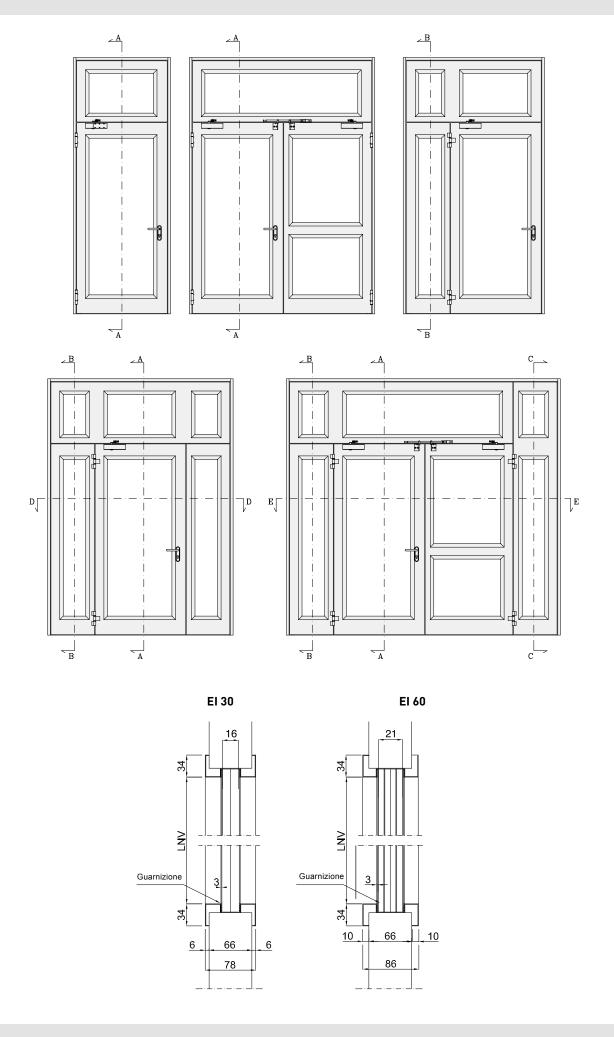


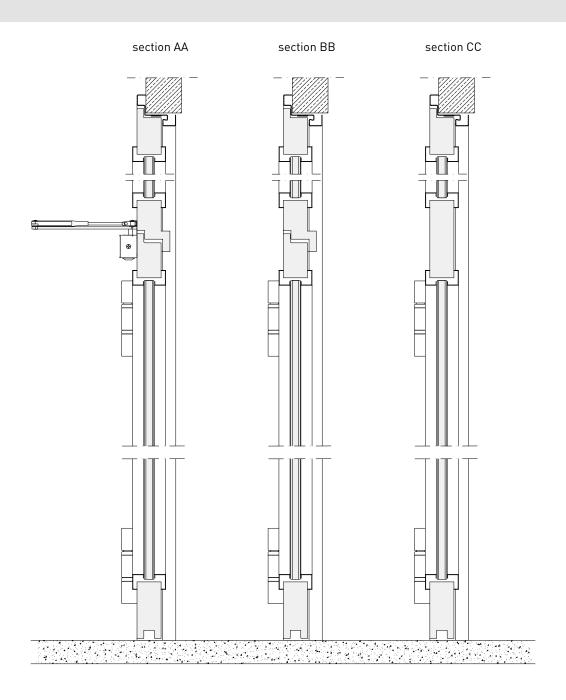


* Panic bar size

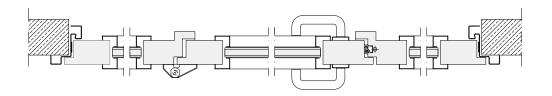
style	size	"A" **
Novoguard	79 mm	0 mm
Novopush	73 mm	0 mm
Cisa Touch	75 mm	0 mm
Cisa level handle	105 mm	105 mm
EPN Touch	80 mm	0 mm
EPN Bar	103 mm	103 mm

^{**} According to Italian Ministerial Decree 03.08-2015, par. G. 1.9.16

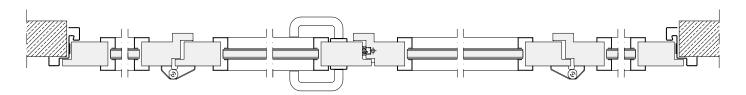


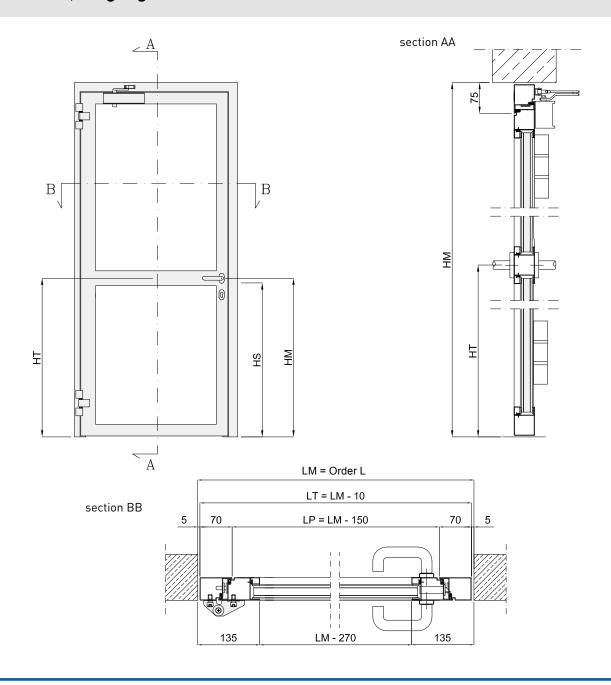


section DD



section DD

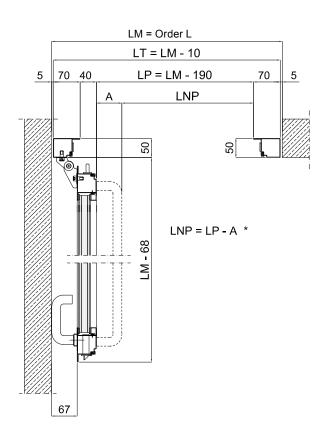




Stahlglass fire-rated glass door, certified to UNI 9723, fire resistance class REI 30-60, Re 120

- Door panel and frame profiles in 15/10 mm thick tubular calibrated steel, welded at the corners, with double housings for neoprene compound gaskets. Their special shape, the door panel and frame are perfectly flush, for an excellent aesthetic result. The profiles feature a special finish to reduce thermal conductivity and are filled with a special sublimating material. Self-extinguishing seal all around the door.
- REI fire-rated laminated glass, consisting of several glass sheets filled with a normally clear material that turns to an opaque foam and gives out water vapour during a fire. Glass panels are fastened with flush glazing beads, with special self-extinguishing seals that do not keep the material inside the glass from swelling at high temperatures.
- 2 three-part hinges per door panel, pivoting on ball bearings in three directions; adjustable. Hinges are also designed to be easily replaceable as required according to the maintenance plan according to Italian Ministerial Decree M.I. 64 of 10-03-98 (fire doors) and Law Decree 626/94 and 242/96 (escape routes).
- Nylon handle with steel core.
- Black hydraulic door closer.

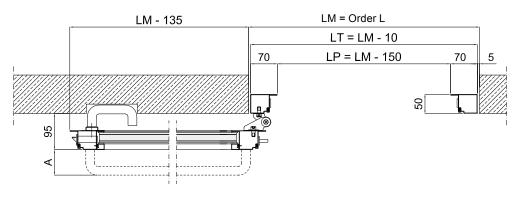
- Fireproof lock with three-key cylinder.
- Fire paint finish in a range of RAL colours (see list on page 1).
- Can be installed on a counterframe previously walled by the customer or with dowels.

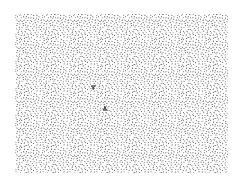


* Panic bar size

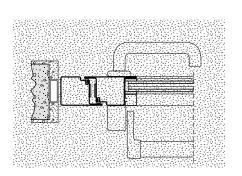
style	size	"A" **
Novoguard	79 mm	0 mm
Cisa Touch	75 mm	0 mm
Cisa lever handle	105 mm	105 mm
EPN Touch	80 mm	0 mm
EPN Bar	103 mm	103 mm

** According to Italian Ministerial Decree 03.08-2015, par. G. 1.9.16

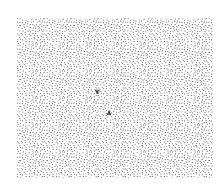




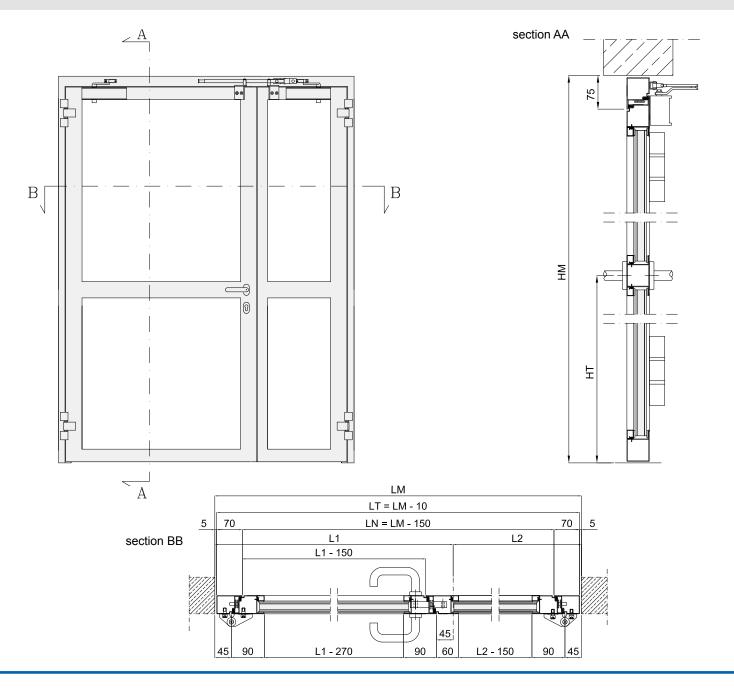
Installation in a Z-shaped edge



Installation in an L-shaped opening



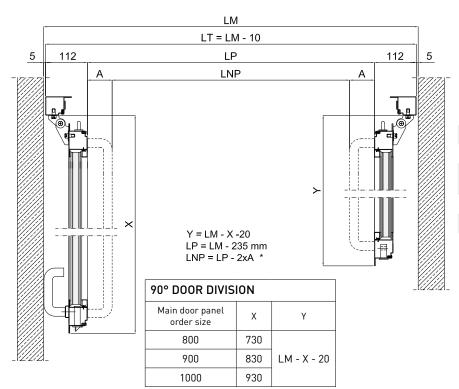
Installation in a T-shaped edge with opposite opening



Stahlglass fire-rated glass door, certified to UNI 9723, fire resistance class REI 30-60, Re 120

- Door panel and frame profiles in 15/10 mm thick tubular calibrated steel, welded at the corners, with double housings for neoprene compound gaskets. Their special shape, the door panel and frame are perfectly flush, for an excellent aesthetic result. The profiles feature a special finish to reduce thermal conductivity and are filled with a special sublimating material. Self-extinguishing seal all around the door.
- REI fire-rated laminated glass, consisting of several glass sheets filled with a normally clear material that turns to an opaque foam and gives out water vapour during a fire. Glass panels are fastened with flush glazing beads, with special self-extinguishing seals that do not keep the material inside the glass from swelling at high temperatures.
- 2 three-part hinges per door panel, pivoting on ball bearings in three directions; adjustable. Hinges are also designed to be easily replaceable as required according to the maintenance plan according to Italian Ministerial Decree M.I. 64 of 10-03-98 (fire doors) and Law Decree 626/94 and 242/96 (escape routes).
- Nylon handle with steel core.
- Black door closer arm.
- Black hydraulic door closer.

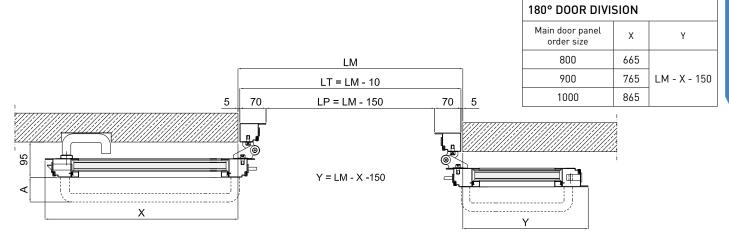
- Fire-rated lock with three-key cylinder on main door panel.
- Fire paint finish in a range of RAL colours (see list on page 1). Also available with aluminium coating on request.
- Can be installed on a counterframe previously walled by the customer or with dowels.

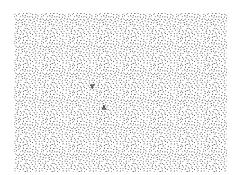


* Panic bar size

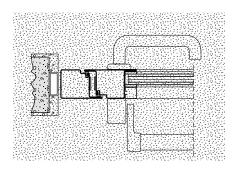
style	size	"A" **
Novoguard	79 mm	0 mm
Cisa Touch	75 mm	0 mm
Cisa lever handle	105 mm	105 mm
EPN Touch	80 mm	0 mm
EPN Bar	103 mm	103 mm

** According to Italian Ministerial Decree 03.08-2015, par. G. 1.9.16

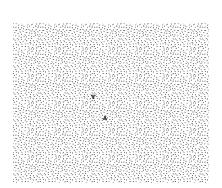




Installation in a Z-shaped edge

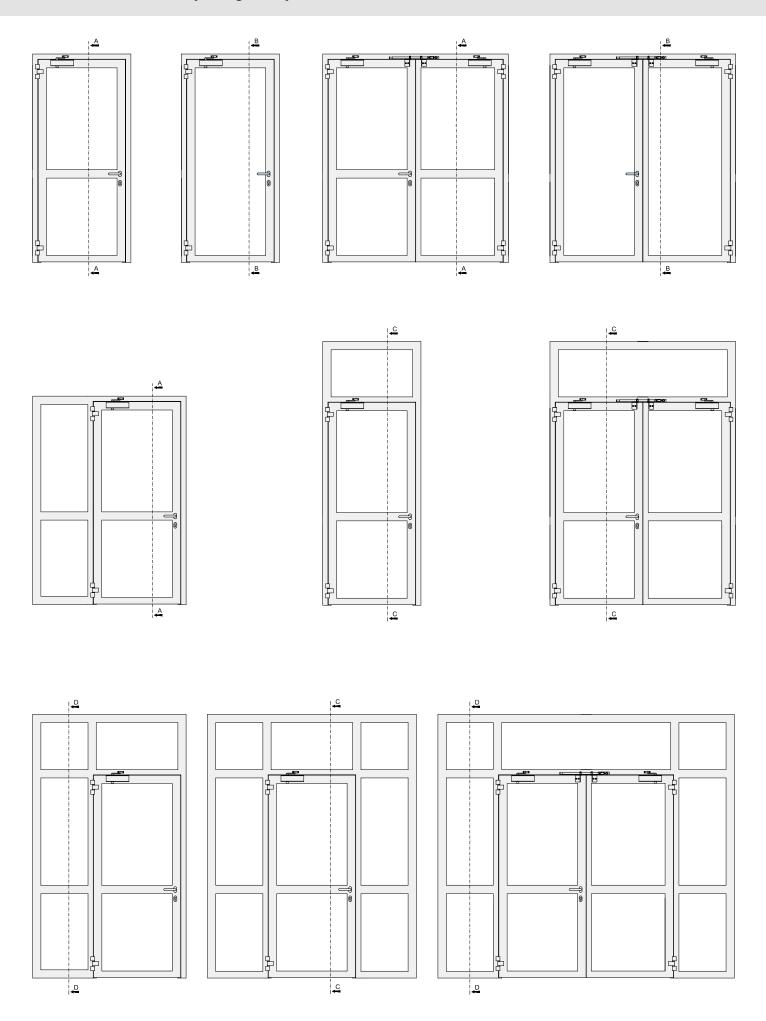


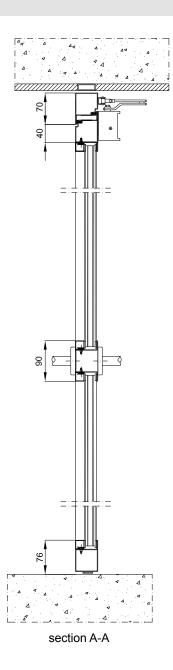
Installation in an L-shaped opening

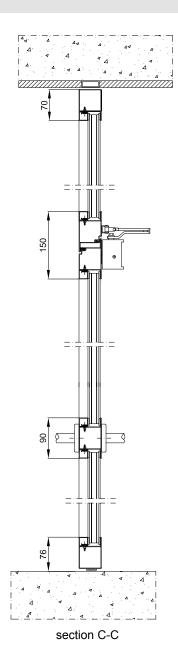


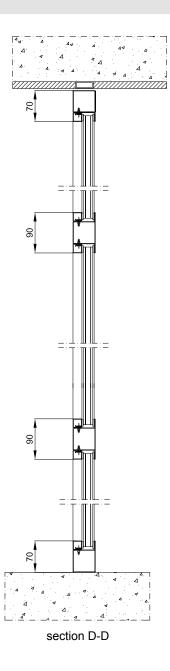
Installation in a T-shaped edge with opposite opening

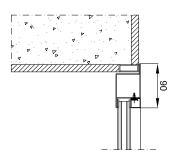
STAHLGLASS, Complex glass panels REI 30-60, RE 120

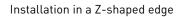


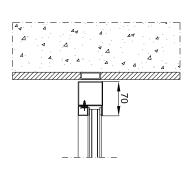




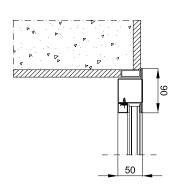






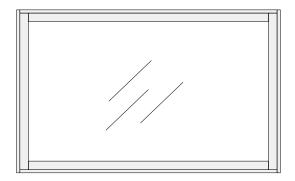


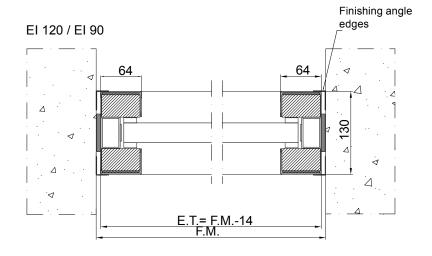
Installation in an L-shaped opening

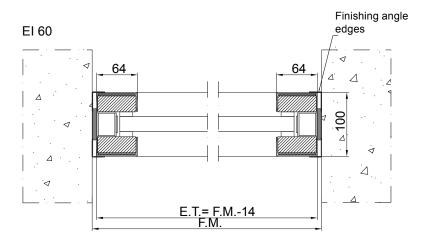


Installation in a T-shaped edge with opposite opening

fixed glass single glass







Fire-rated fixed glass

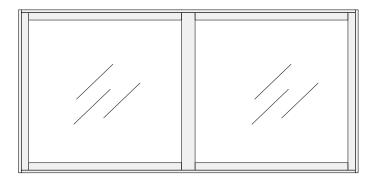
For practical and aesthetic reasons, certain areas must necessarily have fire-rated doors with glass panels which, in addition to ensuring fire resistance, allow the light to pass through them, or make it possible to "see through" them.

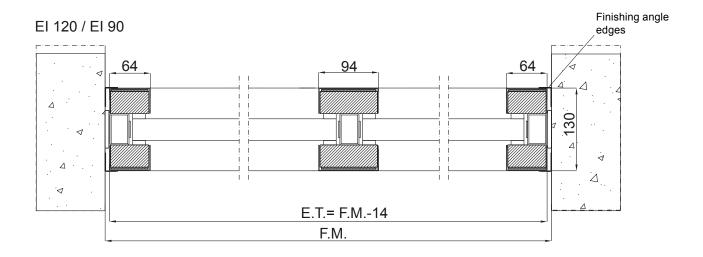
Fixed glass panels are used for these applications: they are normally installed on stairwells, observation walkways in departments at high risk for fires, offices with views on machining departments, processing centres, etc.

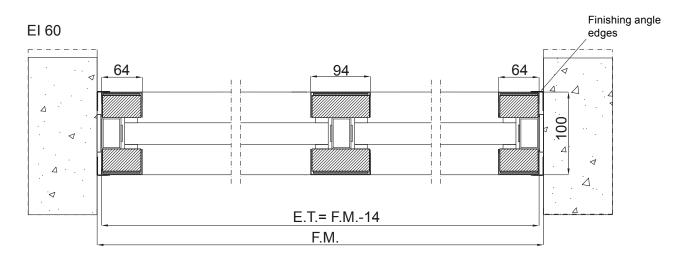
- Frame profiles with 30/10 mm thick tubular steel profile; coated on both sides with silicate fibre sheets, secured to the tubular profile with steel plates. Profiles are covered with "Alustahl" extruded aluminium casings coated with electrically conductive paint, in "Fixglass" painted steel casings in a range of RAL colours (see list on page 1).
- REI fire-rated laminated glass, consisting of several glass sheets filled with a normally clear material that turns to an opaque foam and gives out water vapour during a fire. Glass panels are fastened with flush glazing beads, covered with an aluminium coating, with special selfextinguishing seals that do not keep the material inside the glass from swelling at high temperatures.
- Intumescent seals placed on the fixed frame.

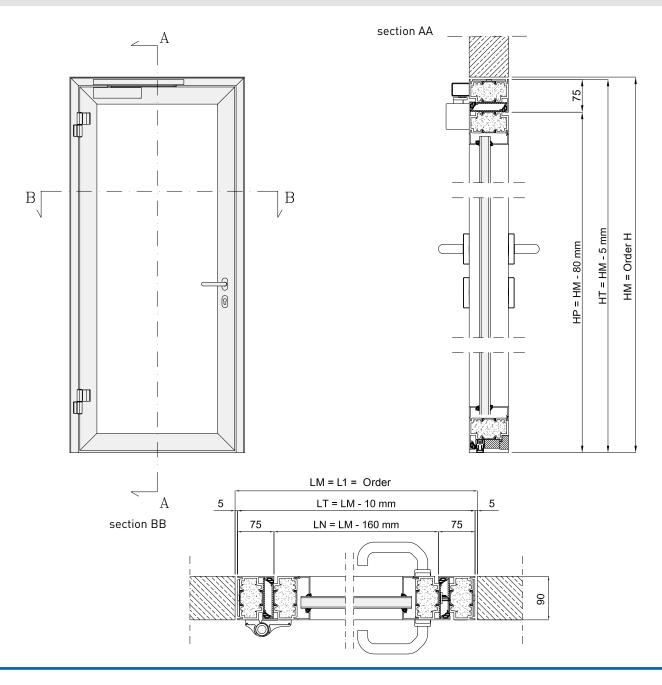
Please note: Standard for indoor use, for external use provide glass for outdoor applications

fixed glass double glass







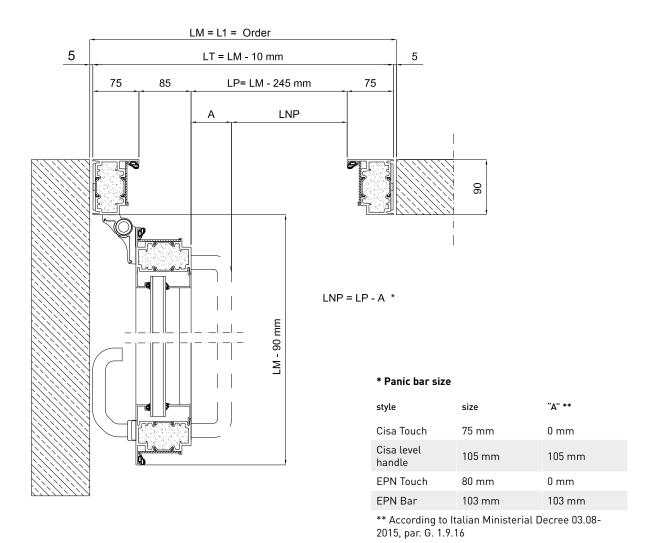


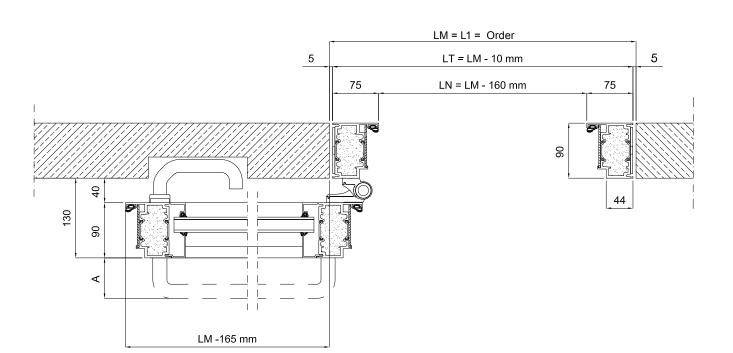
Novofire El 60 - El90 glass door, certified to European standard EN 1634

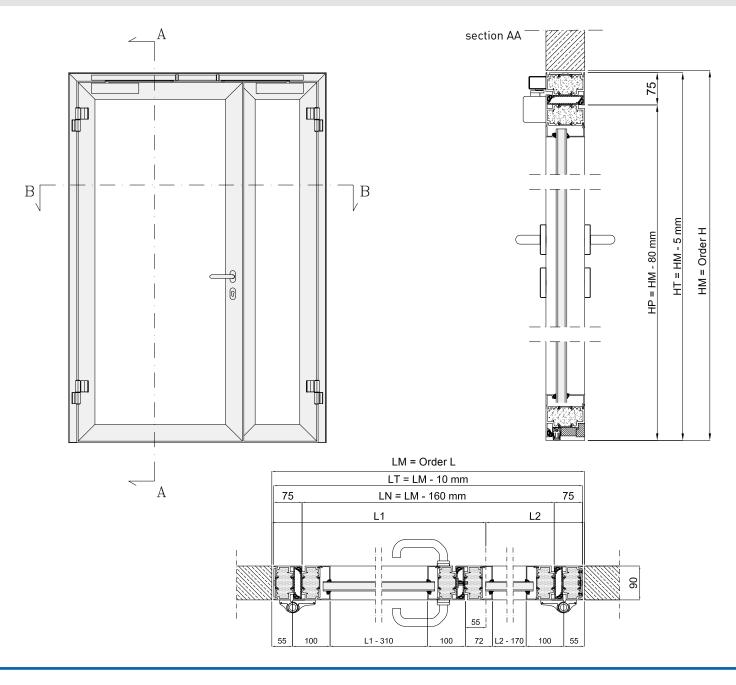
- Fixed frame consisting of an extruded aluminium profile (90x75 mm), a 20 mm recess, with reinforced polyamide profile for thermal insulation.
 Profiles are filled with mineral self-coolant mix that changes its molecular structure by releasing water vapour at high temperatures;
- the load-bearing structure of movable door leaves consists of tubular extruded aluminium, 90x100 mm, 20 mm recesses with the same finish as the frame. Door panels include glass parts, consisting of several float glass plates with intumescent layers, which turn into refractory, opaque cellular screens in case of high temperatures. Glass panels are secured to perimeter support profiles with metal clips and flush interlocked aluminium glazing beads;
- 52 mm thick blind panels, consisting of 2 metal sheets with a refractory insulating panel in between, can be fitted on request. All is secured to perimeter support profiles with metal clips and flush aluminium glazing beads;
- 2 aluminium door hinges, 3D adjustable, with stainless steel centre pivot, secured to the fixed frame and door profile with M8 steel screws; in the event of a fire, connection to the frame is provided by the bolts;
- black intumescent seals with graphite;
- lock with stainless steel lever handle;
- security bolts;

- door closer
- movable drop seal integrated into the door leaves;
- standard finish: silver anodised aluminium; also available in a range of RAL colours on request (see list on page 1);
- glass panels should not be exposed to direct sunlight, water, humidity or condensation, and high temperature fluctuations;
- burglar resistance class RC1 or RC2 according to EN V1627;
- available for exteriors on request.

N.B.: panic bar of secondary leaf works properly only with first leaf already open.





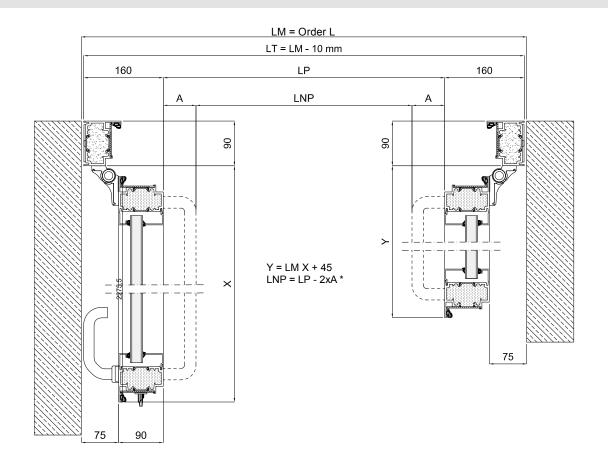


Novofire El 60 - El90 glass door, certified to European standard EN 1634

- Fixed frame consisting of an extruded aluminium profile (90x75 mm), a 20 mm recess, with reinforced polyamide profile for thermal insulation.
 Profiles are filled with mineral self-coolant mix that changes its molecular structure by releasing water vapour at high temperatures;
- the load-bearing structure of movable door leaves consists of tubular extruded aluminium, 90x100 mm, 20 mm recesses with the same finish as the frame. Door panels include glass parts, consisting of several float glass plates with intumescent layers, which turn into refractory, opaque cellular screens in case of high temperatures. Glass panels are secured to perimeter support profiles with metal clips and flush interlocked aluminium glazing beads;
- 52 mm thick blind panels, consisting of 2 metal sheets with a refractory insulating panel in between, can be fitted on request. All is secured to perimeter support profiles with metal clips and flush aluminium glazing beads;
- 2 aluminium door hinges, 3D adjustable, with stainless steel centre pivot, secured to the fixed frame and door profile with M8 steel screws; in the event of a fire, connection to the frame is provided by the bolts;
- black thermo-expanding seals with graphite;
- lock with stainless steel lever handle, safety lock on smaller leaf;
- security bolts;

- door closer with integrated closing sequence control for double doors;
- movable drop seal integrated into the door leaves;
- standard finish: silver anodised aluminium; also available in a range of RAL colours on request (see list on page 1);
- glass panels should not be exposed to direct sunlight, water, humidity or condensation, and high temperature fluctuations;
- burglar resistance class RC1 or RC2 according to EN V1627;
- available for exteriors on request.

N.B.: panic bar of secondary leaf works properly only with first leaf already open.

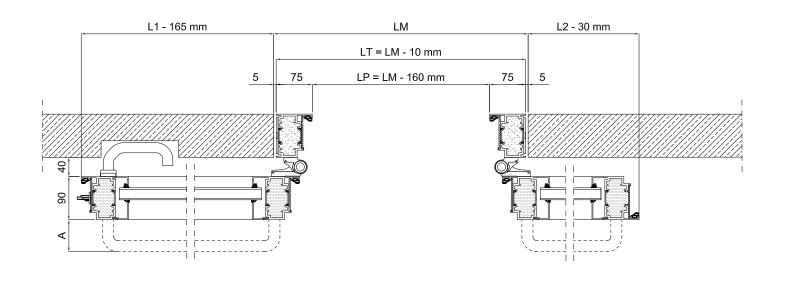


90° DOOR DIVISION				
Main door panel order size	х	Y		
800	710			
900	810	LM - X - 45		
1000	910			

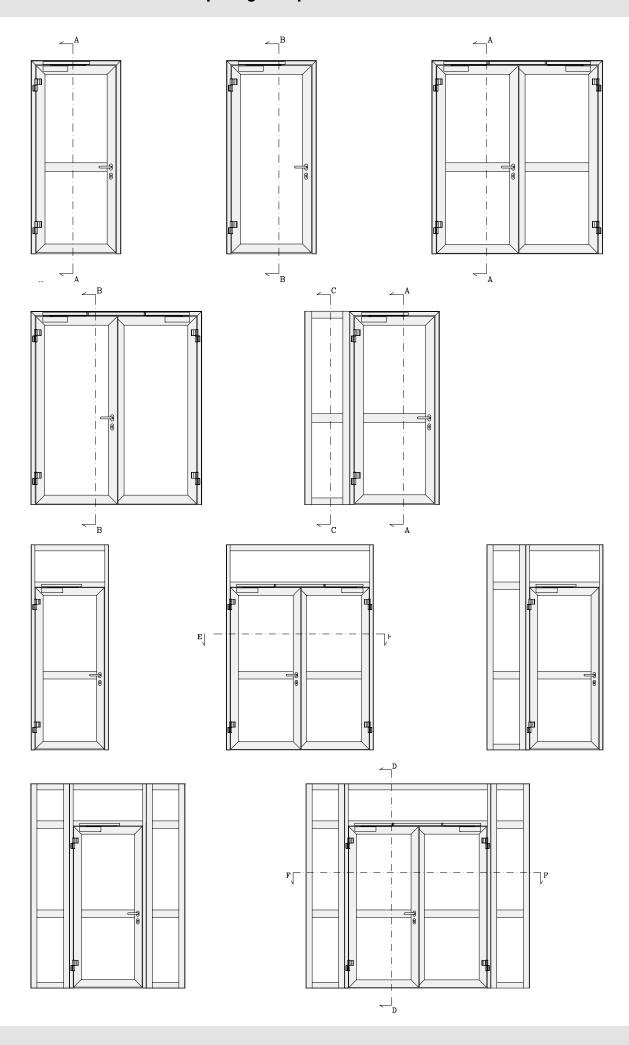
* Panic bar size

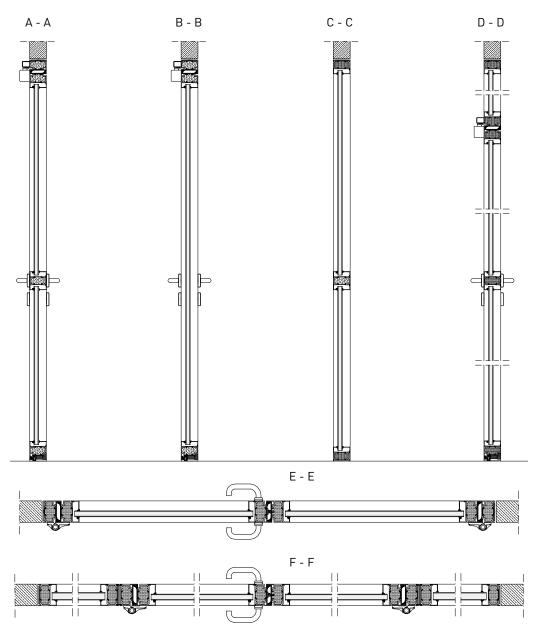
style	size	"A" **
Cisa Touch	75 mm	0 mm
Cisa level handle	105 mm	105 mm
EPN Touch	80 mm	0 mm
EPN Bar	103 mm	103 mm

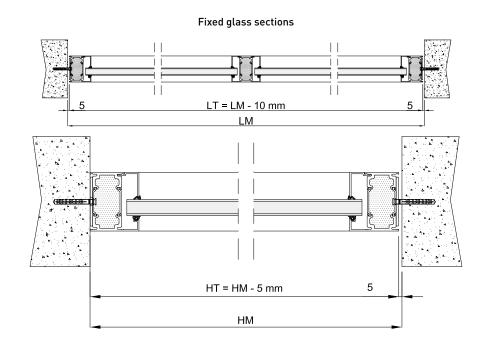
** According to Italian Ministerial Decree 03.08-2015, par. G. 1.9.16



GLASS DOORS Novofire Complex glass panels

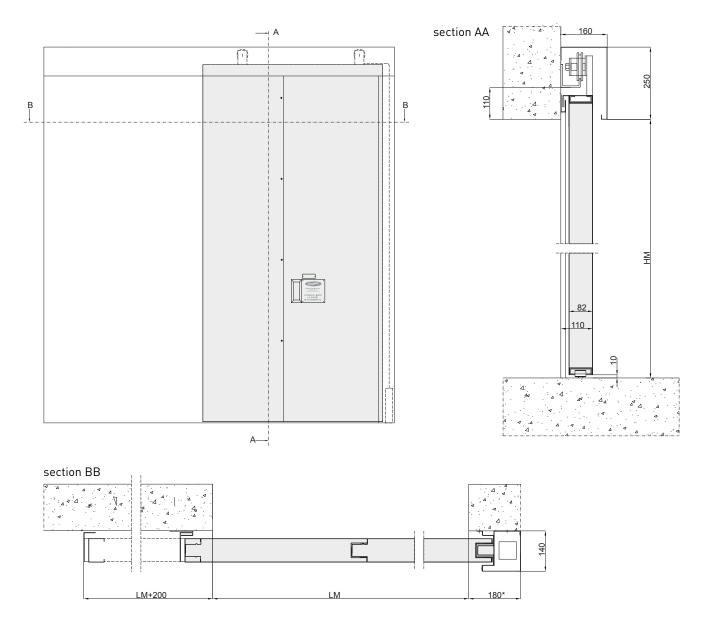






NOTE

LARGE AND SLIDING DOORS



^{*} Door size with HM>LM. When HM<LM, the size of the counterweight can vary from 181 to 340 mm.

Fire proof single sliding door EI 120, CE marked according to EN 13241

- Panels made of pressed, welded sheet steel with high-density insulation.
- Strike beam with guide rail and counterweight, to close the door in case of fire.
- Labyrinth seals around the perimeter of movable panel.
- Top rail with special mounting brackets for installation in reinforced concrete lintels.
- Pressed sheet metal track cover casing, divided into modular elements.
- Intumescent seal around the perimeter.
- Fixed handles for opening the door.
- This door has no floor rail; perpendicularity is maintained by a bottom roller guide. Slides gently and smoothly thanks to wheels mounted on double ball bearings.
- A special construction allows for easy inspection of all motion mechanisms.
- Surface finished with textured and/or embossed epoxy polyester powder in the available RAL colours (see list on page 1);
- Doors are normally equipped with a counterweight self-closing device.

N.B.: sliding doors are composed by metal sheet having preconf gured deformations in order to maintain fire performance even in the presence of strong thermal expansion.

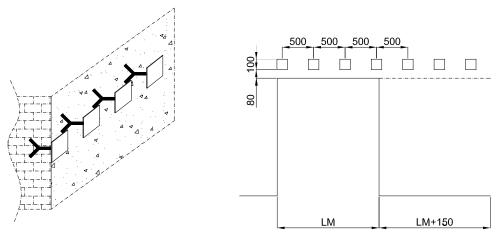
The sliding door is made up of vertical elements (panels) all having the same dimensions, except for the last element.

Visible galvanized steel head screws.

Special conditions

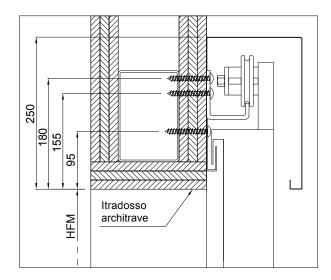
Brackets for concrete walls

Installation on walls with low mechanical strength.



N.B.: for installation on flat walls or doors with very low height/width ratio, ask the company.

Support beam

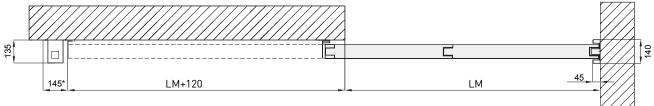


Example of a customer-provided beam coating (not binding). The construction will be projected and realized by the company that performs the compartments (including beam cladding).

N.B.: minimum recommended dimensions for guide anchors. It is in charge of the Customer to define size of the carpentry and to verify fire proof resistance according to cladding material chosen. Reference door weight 40 Kg / m2.

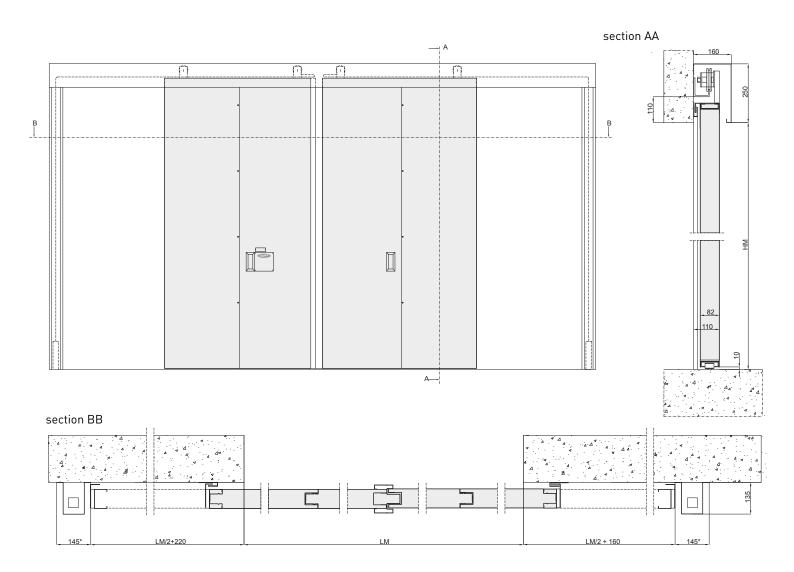
Flat strike, counterweight on the opposite side

Fire resistant coating at customer care to be made after installation of the door



^{*} Door size with HM>LM. When HM<LM, the size of the counterweight can vary from 146 to 290 mm.

NOVOSLIDE Double sliding door



^{*} Door size with HM>LM. When HM<LM, the size of the counterweight can vary from 146 to 290 mm.

Fire proof double sliding door EI 120, CE marked according to EN 13241

- Panels made of pressed, welded sheet steel with high-density insulation.
- Strike beam with guide rail and counterweight, to close the door in case of fire
- Labyrinth seals all around the movable panels.
- Top rail with special mounting brackets for installation in reinforced concrete lintels.
- Pressed sheet metal rail cover, divided into modular elements.
- Intumescent seal around the perimeter.
- Fixed handles for opening the door.
- This door has no floor rail; perpendicularity is maintained by a bottom roller guide. Slides gently and smoothly thanks to wheels mounted on double ball bearings.
- A special construction allows for easy inspection of all motion mechanisms.
- Doors are normally equipped with a counterweight self-closing device.
- Surface finished with textured and/or embossed epoxy polyester powder in the available RAL colours (see list on page 1).
- The door is supplied as a standard of a continuous and/or limit stop damper as required by Italian law 81/08.

N.B.: sliding doors are composed by metal sheet having preconfigured deformations in order to maintain fire performance even in the presence of strong thermal expansion.

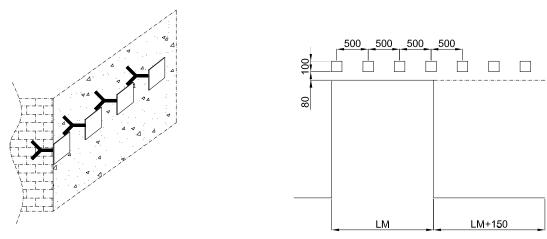
The sliding door is made up of vertical elements (panels) all having the same dimensions, except for the last element.

Visible galvanized steel head screws.

Special conditions

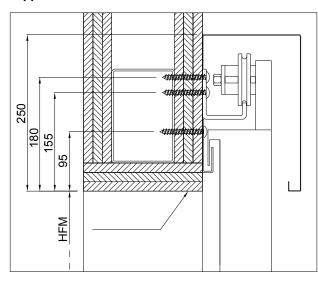
Brackets for concrete walls

Installation on walls with low mechanical strength



N.B.: for installation on flat walls or doors with very low height/width ratio, ask the company.

Support beam

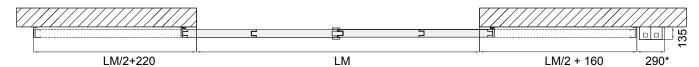


Example of a customer-provided beam coating (not binding). The construction will be projected and realized by the company that performs the compartments (including beam cladding).

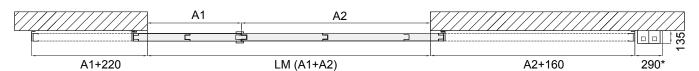
N.B.: minimum recommended dimensions for guide anchors. It is in charge of the Customer to define size of the carpentry and to verify fire proof resistance according to cladding material chosen. Reference door weight 40 Kg / m2.

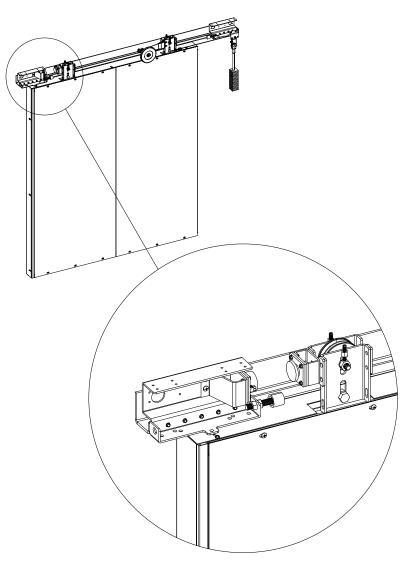
Counterweights on the opposite side

With same-size panels



With different-size panels



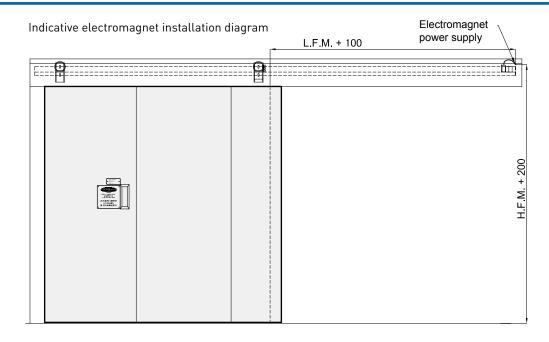


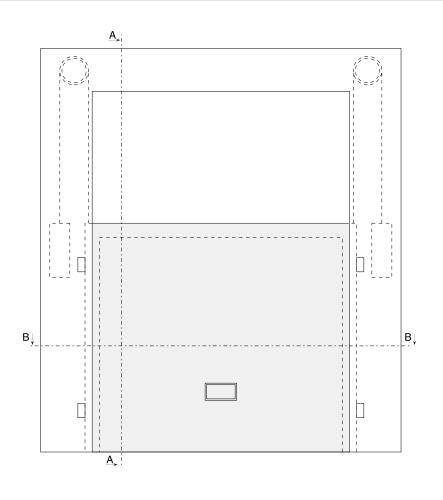
Operation with sealing electromagnet

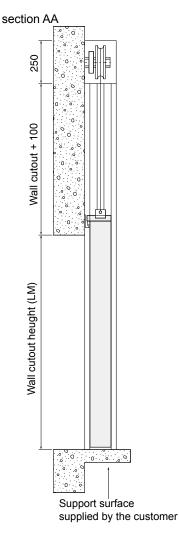
The Novoslide EI 120 door with electromagnet is normally kept fully open by an electromagnet powered by the fire detection system. The door closes fully when the electromagnet is deenergised:

1) in case of fire. When the control unit detects smoke or high temperature, it cuts off power from the electromagnet; 2) with a manual release button. For periodic or emergency checks, or for any other needs, the button will disengage the electromagnet.

When left free, the door is dragged closed by the counterweight and its movement is slowed down by dampers.







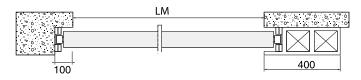
Standard situation

Counterweights on two sides



Special situation

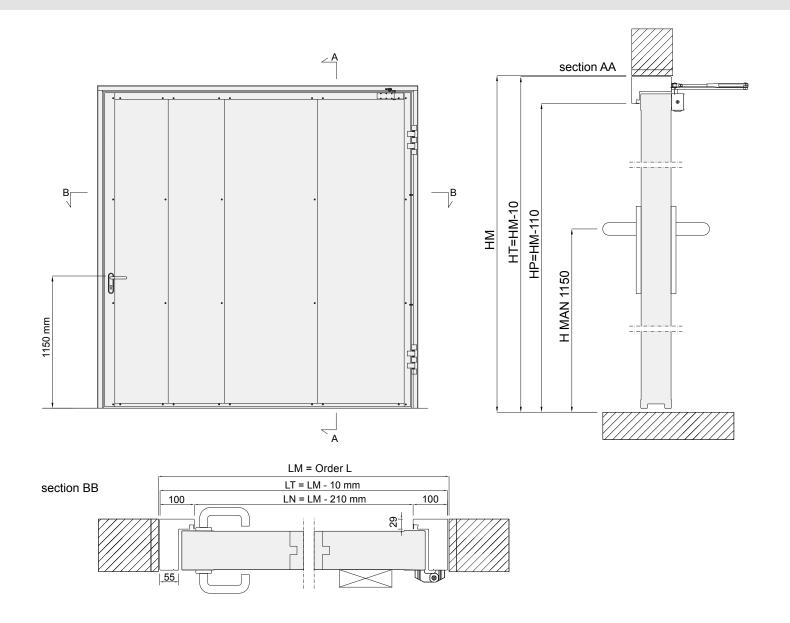
Counterweight on one side



Fire-rated vertical sliding door, certified to UNI 9723

- Movable panels made of pressed, welded steel with high-density insulation.
- Boxed top beam and side guides complete with sliding rails, counterweight, labyrinth seals, roller wheels on ball bearings for smooth sliding.
- Self-closing system with thermal fuse.
- Intumescent fire seals.
- End of travel dampers, supplied as standard.
- Surface finished with textured and/or embossed epoxy polyester powder in the available RAL colours (see list on page 1).
- Can be connected to the fire detection and control system via an electromagnetic door retainer.
- Certified size: minimum 500x500h mm max mm 2070x1540h (sqm 3.15)

MAGNUM Single leaf installed inside wall opening



Magnum fire-rated El 120 door, certified according EN13241

- Vertical modular panels (to be assembled on site), 80 mm thick, consisting of 8/10 mm thick double sheet metal with mineral fire insulation inside.
- 60x90 mm tubular steel frame, suitable for installation in the door span.
- Intumescent seal around the perimeter.
- Door closer system with hydraulic air pump and/or counterweight for large doors.
- Slides on adjustable multisector bearing hinges.
- Door closing sequence selector for double doors;
- Fire-rated lock with three-key cylinder on main door panel;
- Flush-bolt self-locking system on second door panel, with lever opening;
- Black resin handle with steel core.
- Surface finished with textured and/or embossed epoxy polyester powder in the available RAL colours (see list on page 1).

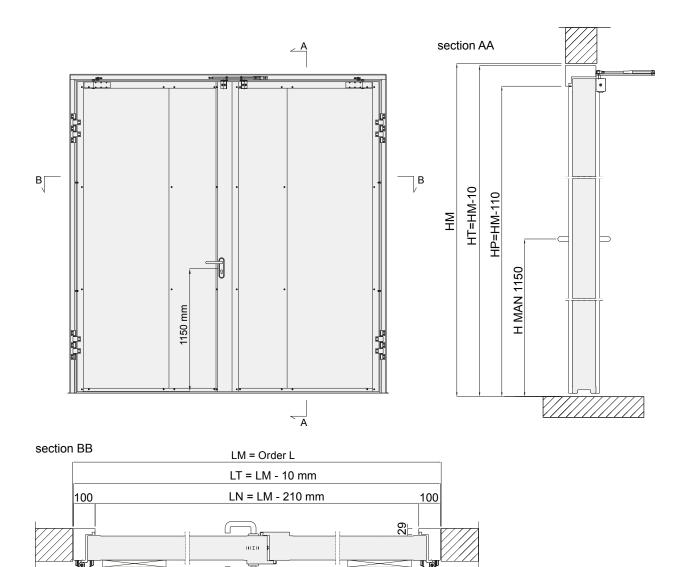
Visible galvanized steel head screws.

*Panic bar size

style	size	"A" **
Novoguard	79 mm	0 mm
Cisa touch	75 mm	0 mm
Cisa level handle	105 mm	105 mm
EPN Touch	80 mm	0 mm
EPN Bar	103mm	103

** According to Italian Ministerial Decree 03.08-2015, par. G. 1.9.16

MAGNUM Double leaves installed inside wall opening



Magnum fire-rated El 120 door, certified according EN13241

- Vertical modular panels (to be assembled on site), 80 mm thick, consisting of 8/10 mm thick double sheet metal with mineral fire insulation inside.
- 60x90 mm tubular steel frame, suitable for installation in the door span.
- Intumescent seal around the perimeter.
- Door closer system with hydraulic air pump and/or counterweight for large doors.
- Slides on adjustable multisector bearing hinges.
- Door closing sequence selector for double doors;
- Fire-rated lock with three-key cylinder on main door panel;
- Flush-bolt self-locking system on second door panel, with lever opening;
- Black resin handle with steel core.
- Surface finished with textured and/or embossed epoxy polyester powder in the available RAL colours (see list on page 1).

Visible galvanized steel head screws.

*Panic bar size

style	size	"A" **
Novoguard	79 mm	0 mm
Cisa touch	75 mm	0 mm
Cisa level handle	105 mm	105 mm
EPN Touch	80 mm	0 mm
EPN Bar	103mm	103

** According to Italian Ministerial Decree 03.08-2015, par. G. 1.9.16

ACCESSORIES

Closing systems

Spring hinge for Elite Premio doors

Pressed steel spring hinge, adjustable, with hidden screws.

Painted as a standard; also available in stainless steel (AISI 304).





Hinges for glass doors

Three-part hinge, pivoting on ball bearings in three directions; adjustable.

Black as a standard; also available in stainless steel.





Door closer for Novoglass+, Elite Premio and Magnum doors

Closes painted steel doors; screwed onto the top beam of the door frame. Black as a standard.

Other colours available on request.

Door closers for Stahlglass, Alusthal and Scudo doors

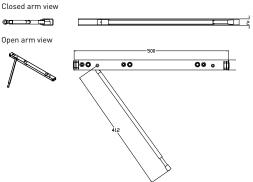
Coordinates door closure.

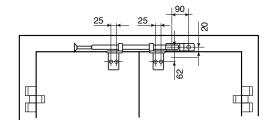
Closer arm screwed onto the frame; two supports on the doors. Zinked version on request.











Electro-magnetic door closer LOCK C

Automatic device for fire resistant doors, provided with magnet and built-in system which allows the full range leaf swinging, in case of alarm it releases the leaf to close. Available in RAL 9006



Specifications: Power Supply: 24 V DC Absorption: 60 mA.

Door closer with parallel sliding arm

Pinion and rack type, with adjustable closing force, EN 3/4 size, adjustable closing speed with two independent valves and adjustable end stroke. Works on a horizontal external slide track. Black, silver or stainless steel on request.

Max door opening: 160°.

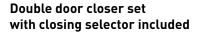


Accessories: Door closer

Door closer with standard arm

Pinion and rack type, with adjustable closing force, EN 3/4 size, adjustable closing speed with two independent valves and adjustable end stroke. With visible standard arm.

Black, silver or stainless steel on request.



Hydraulic door closer driven by a rack spring, installed on the movable panel to gently guide the doors to their closed positions. Equipped with a dual closing speed adjustment device: A) with an opening angle of more than 10°: B) with an opening angle of less than 10° (approx.). Works with an arm moving on a horizontal external slide placed on the fixed frame of the door. Coordinates of the closing sequence with a sequencer device placed inside the slide. Covered with silver or black casings.

Max door opening: 180°.





Accessories: Knobs and handles

Handles for Elite and Novoglass doors

PVC handle

"U" shaped for accidental grips with steel core and cover plate with cylinder hole. Includes cylinder with 3 keys. Black as a standard.

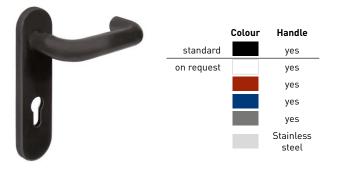
Other colours available on request.

Handles for Stahlglass and Alustahl doors

PVC handle

"U" shaped for accidental grips, with escutcheon with cylinder hole. Includes cylinder with 3 keys.

Black as a standard; stainless steel on request.







Fixed knob

Black resin

Includes cover plate with or without cylinder hole.



Stainless steel

Stainless steel handle

Includes cover plate with or without cylinder hole.



Stainless steel handle

"U" shaped for accidental grips, with escutcheon with cylinder hole. Includes cylinder with 3 keys.



Accessories: Locks and cylinders

Locks for Elite Premio and Novoglass doors

Also available with stainless steel front plate.



Yale lock



Set for panic exit doors

New lock for Elite Premio and Novoglass

Locks compatible to norm DIN 18251, with latch and deadbolt (handed locks, DIN left or DIN right)



Set for doors without panic function



Compatible panic featueres: B, D, E

List and explanation of panic functions:

Туре	Description	Internal handle	Foreign key	External handle
Α	No key nor handle on the external side, all panic locks can feature the type A.	Panic	No	No
В	The external handle can be permanently activated or deactivated with the key. Same to the usual operation of panic locks with central latch.	Panic	Yes	Yes
С	The external handle can only be activated with the key inserted. When you remove the key there is no way to operate the handle. Therefore, you always need the key to access from the outside.	Panic	Yes	Yes
D	The handle can be enabled and disabled using the key. Unlike type "B", in the event of the panic use, the external handle will be back enabled until will be again disabled with the key.	Panic	Yes	Yes
E	Similar to operation "C" but with the cylinder key only on the outside, with or without fixed knob. Access from the outside with the key that retracts the lock latch.	Yes	Yes	Fixed knob

European cylinder

Standard



Yale cylinder with three keys.



Yale cylinder with three keys.

Shafts cylinder

Cylinder specific for shaft and technical rooms, to use with triangular key.

Opening onsly on one side.



N.B.: in case of rooms where pedestrian can step in, a panic handle in the inside should be provided.

Novoguard panic bar

EN1125 certified. Works with a lock installed inside the door panel, reversible. Ball-bearing lever operation requiring minimum effort. Aluminium bar of different lengths; length can be easily reduced during installation.

Black or grey drive mechanisms.



Novoguard aluminium bar, size mm 79.



Novoguard brushed stainless steel bar, size 79 mm

EPN stainless steel panic bar

 ${\rm EN1125}$ certified. Works with a lock installed inside the door panel, reversible.

Fully made of brushed stainless steel.

Stainless steel compact or lever bar, stainless steel mechanisms. Pair with black or stainless steel handle on the pull side.



Stainless steel EPN-Bar, size mm 103.



Stainless steel EPN-Touch, size mm 80.

Novopush panic bar

EN1125 certified. Works with a lock installed inside the door panel, reversible. Ball-bearing bar operation.

Compact black painted or stainless steel bar of different lengths; length can be easily reduced during installation. Black or grey covers.

Cannot be installed on following: Magnum, Glass and finned door. On Scudo when frame is wood covered.



Stainless steel effect Novopush bar, size mm 73.



Novopush black bar with photoluminescent strip, size mm 73.

CISA panic bar

EN1125 certified. Works with a lock using mechanisms inside the door panels. Reversible. Door can also be opened from the smaller door panel. Door with lever bar or compact bar of various lengths; length is adjustable during installation. Various colour combinations available on request.



Cisa lever handle, size mm 100.



Cisa Touch bar, size mm 73.

Accessories: Safety device

Arm0©

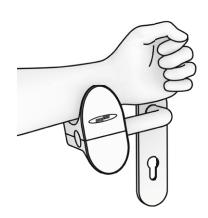
The device is made in high- performance plastic and it allows to operate the door without touching it with bare hands.

Included in the packaging:

- 1 Armo device
- 4 optional spacers for handles with diameter lower than 20mm







Electrical Accessories: Access control

Electric strike 118F

Fail Secure type electric door opener. In the event of a power failure, the door can only be opened with a key or a panic device. **Only for single doors.**



Specifications: Power Supply: 12/24 V. Absorption: 280/560 mA.

Fail secure: current passing through the device opens the electric strike (standard solution).

Fail safe: always powered; power failure opens the electric strike.

All Fail Secure electric strikes are now compatible with either 12V or 24V and work with either direct and/or alternating current (DC and AC).

Fail Safe strikes are continually powered and need a defined voltage (12V or 24V) and DC only. To be specified when ordering.

Electrical contacts

They are installed on doors with access control to reduce the risk of burglary.



Magnetic sensor

Flush mounted, wire connection.

Specifications:

Operation: NC output reed switch

with a magnet nearby.

Operating temperature: -25°C +70°C

Max voltage: 200 Vcc. Max current: 1 A. Max power: 10W.



High-security magnetic contact

Flush mounted, secured with screws, wire connection. Triple- tuned magnetic circuits.
Specifications:

Operation: NC output reed switches with a magnet nearby.

Operating temperature: -10°C +40°C

Max current: 300 mA. Max power: 3W.

Electric handle

For remote door opening control.

Reversible, neutral when there is a power failure, the door opens with a key (the key activates the handle; by removing the key, the handle is deactivated). With permanent release, the handle opens only while there is an electric impulse.

Led integrated into the handle body to display the door status. Nickel plated steel box, painted aluminium casing (black or grey).



Specifications: Rated voltage: 12/24 V Operating voltage: min. 5 V, max 28 V. Absorption: 800 mA.

Electric lock for Elite Prize and Novoglass doors only

The handle is free (in neutral) when there is a power failure (Fail Secure). In the presence of power supply, the door can be opened with the handle. With permanent release, the handle opens only while there is an electric impulse. Also available with Fail Safe operation on request (handle turns freely when there is power).

On request handle with cylinder hole plate with two-color LED indicator..



Specifications: Power Supply: 12 V DC. Absorption: 800 mA.

Electronic lock

Handed lock (not reversible), compatible with fire locks (interaxle 72mm). Provided with built-in PCB handling the timer function and open-close state through double-colour LED light. Available in all main configuration like panic, fail safe, fail secure).



Specifications:

Power Supply: 12-24 V ac/dc +/-10%.

Absorption: 350 mA max.



Door arragement diagram with electric lock

Yale electric lock

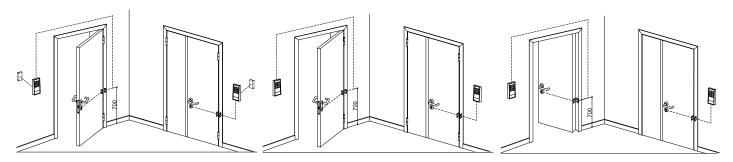
- Button on the push side.
- Keycard lock on the pull side.
- Power supply 12Vcc.

Electric lock with panic device on the push side

- Panic bar or handle on the push side.
- Keycard lock, pull side.
- Power supply 12Vcc..

Electric lock with panic device on the pull side

- Keycard lock on the push side.
- Handle on the pull side.
- Power supply 12Vcc.



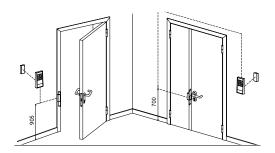
Door arrangement diagram in case of electric strike

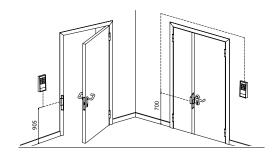
- Button on the push side.Keycard lock on the pull side.Power Supply: 12Vac/dc.

Metal doors only

- Panic bar or handle on the push side.
- Keycard lock on the pull side.
- Power Supply: 12Vac/dc..

Metal doors only





N.B.: The panic bar must be installed on the larger door panel, and not on the smaller one.

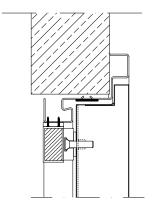
Electromagnetic safety lock

A door sealing device designed to keep security doors closed. Suitable for access control systems, the electromagnet is unlocked in emergency situations so that the door can be opened freely.

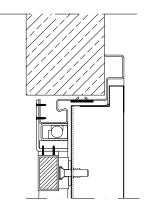
Specifications: Strength: 300 Kg Power Supply: 12/24 V Absorption: 290/590 mA



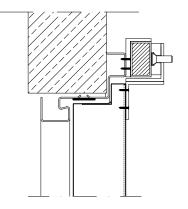
Installation on the push side - single door -



Installation on the push side - double door -



Installation on the push side



Electrical accessories: Electromagnets

Electromagnetic retainer

Door retainer device with built-in release button; normally equipped with a pivoting plate for installation.

Designed to keep doors open.

Specifications: Strength: 50 Kg Power Supply: 24 V Absorption: 60 mA



Wall-mounted electromagnet, consisting of a black plastic base and a white cover.

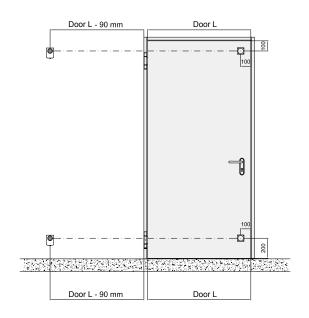


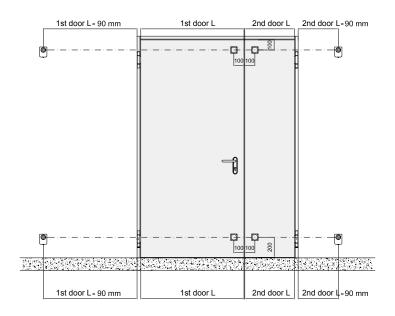
Floor/ceiling electromagnet consisting of black plastic tube with adjustable height.



Pivoting plate.

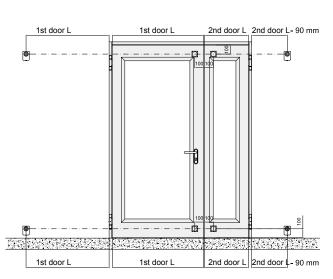
Indicative diagram for electromagnetic retainer installation on Elite Prize door

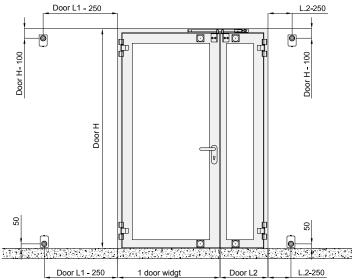




Indicative diagram for electromagnetic retainer installation on Novoglass door

Indicative diagram for electromagnetic retainer installation on Stahiglass door





Hook lock for night-time closing

The device is applied on the external surface of the sliding door, so it can be operated only from the installation side.



Electromagnetic retainer

Door retainer device, normally equipped with a pivoting plate for installation.

Designed to keep doors open.

Emergency release button available on request.

Specifications: Strength: 50 kg. Power Supply: 24 V. Absorption: 60 mA.







Electromagnet.

Fixed plate.

Release button.

Standard equipment

Fire-rated door sliding doors are equipped with a closing speed control system. Equipped as standard with continuous magnetic induction regulator and end-of-travel rack damper. A hydraulic damper is installed in special cases (e.g. bypass sliding doors).



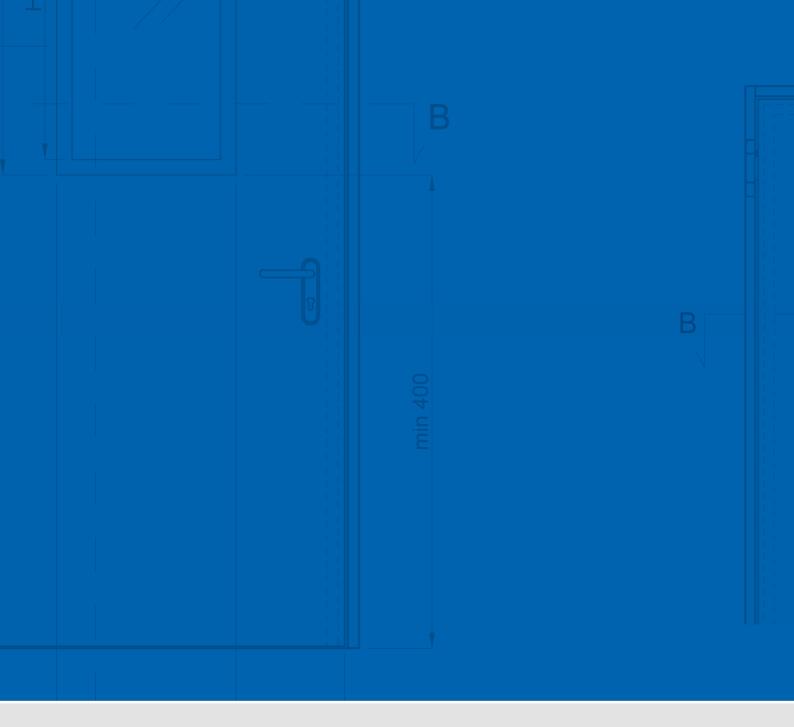
Rack damper. NB: It adjusts the closing stroke, not the slowing motion..



Continuous magnetic induction regulator or stroke brake.



Hydraulic oil.



Novoferm authorized retailer:

Edition 03.2023



Novoferm Schievano srl

35012 Camposampiero (Padova) Italy Via A. Volta 1 Tel. + 39 049 9315111 Fax + 39 049 9301877 www.novoferm.it ufficio.commerciale@novoferm.it

