



***Plus* 70**

Batente 69mm

*barreira térmica de 25mm thermofoam e
vedação central de atenuação acústica*

LOU/ALU

Plus 70 - Desempenho / Performance



ITT - Ensaio de tipo inicial - Organismo notificado nº.

Norma EN 14351-1

ETI - Essai de type initial - Laboratoire notifié nº.

1668 - Ensatec



Permeabilidade ao Ar

Perméabilité à l'air

UNE-EN 12207



Classe 1

150pa (50m3)

Classe 2

300pa (27m3)

Classe 3

600pa (9m3)

Classe 4

600pa (3m3)



Estanquicidade à Água

Étanchéité à l'eau

UNE-EN 12208



1A

2A

3A

4A

5A

6A

7A

8A

9A

E1800



Resistência ao Vento

Résistance au Vent

UNE-EN 12210



≤1/150

A

≤1/200

B

≤1/300

C

400pa

1

800pa

2

1200pa

3

1600pa

4

2000pa

5

Ensaio realizado numa janela de batente de duas folhas com:
Essai réalisé sur une fenêtre de deux ouvrants à la française de:

1230 x 1480 mm

Certificado de ensaio/Certificat d'essai nº 244712

Desempenho térmico e acústico / Performance thermique et acoustique

Elementos usados na base dos cálculos
Elements utilisés sur la base des calculs:

Janela oscilo-batente de 2 folhas com:
Fenêtre oscilo-batant 2 vantaux avec:
2000 x 2200 mm

Composição e valores dos vidros / Composition et valeurs de vitrage

Unidade de vidro (IGU)*	Y	Ug	g	Tlg	Rw (C;Ctr)
(a) GuardianSun LamiGlass 44.1+16 Argon 90%+Float4+ClimaGuard Premiun2 4mm	0,044	0,5	0,37	62%	41(-2;-6)
(b) GuardianSun LamiGlass 44.1+16 Argon 90%+Float 4mm	0,049	1,0	0,41	69%	38(-2;-5)
(c) GuardianSun LamiGlass 44.1+16 Ar+Float 4mm	0,049	1,3	0,41	69%	38(-2;-5)

Y - Coeficiente linear junta aluminio/vidro (com Warm Edge Technoform Glassinsulation). Ug - Coeficiente Térmico g - Factor Solar Tlg - Transmissão Luminosa

$$U_w = \frac{\sum AgU_g + \sum AfU_f + \sum lg\Psi_g}{\sum Ag + \sum Af}$$



Transmissão Térmica

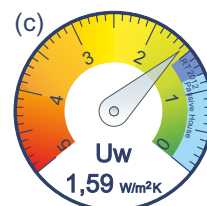
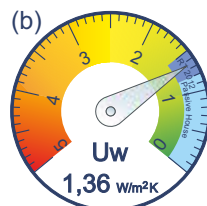
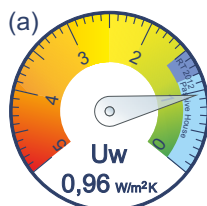
Transmittance Thermique

UNE-EN 10077-2

Exterior / Extérieur



Interior / Intérieur



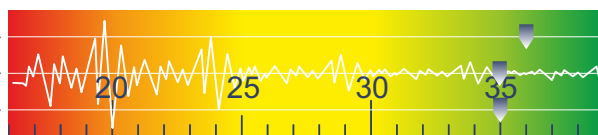
Atenuação Acústica

Isolation Acoustique

EN 14351-1+A1 (Anexo B)

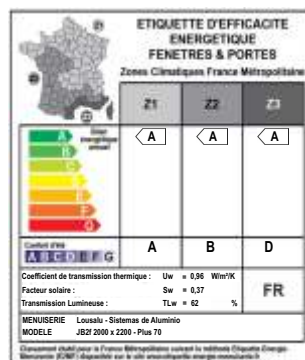
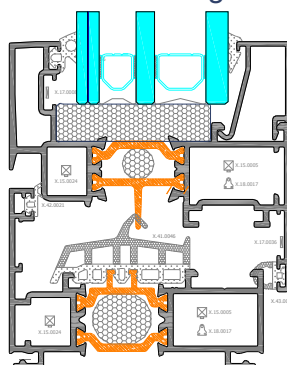
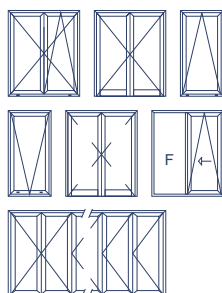
Rw (C;Ctr) com vidro / avec vitrage

- (a) 36 (-2;-5)
- (b) 35 (-2;-5)
- (c) 35 (-2;-5)



Tipologia e Classe energética / Typologie et classe énergétique

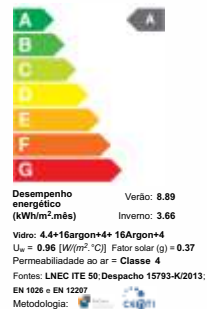
Tipologia construtiva
Typologie constructive



Avec vitrage (a)

Desempenho energético de:

JOB2F - 2000 x 2200 - Plus 70



Com Vidro (a)

Materiais, Tratamentos e Acabamentos / Matériaux, Traitement et Finition

Perfis / Profiles: Liga / alliage EN AW - 6060 (T5) - Acessórios / Accessoires: Canal Europeu

Vedantes / Joint d'étanchéité: EPDM / mousse de EPDM - Poliamida / Polyamid: 24,8mm

Acabamentos / Finition: Anodizado, Lacado e efeito madeira / anodisé, Laqué et effet bois

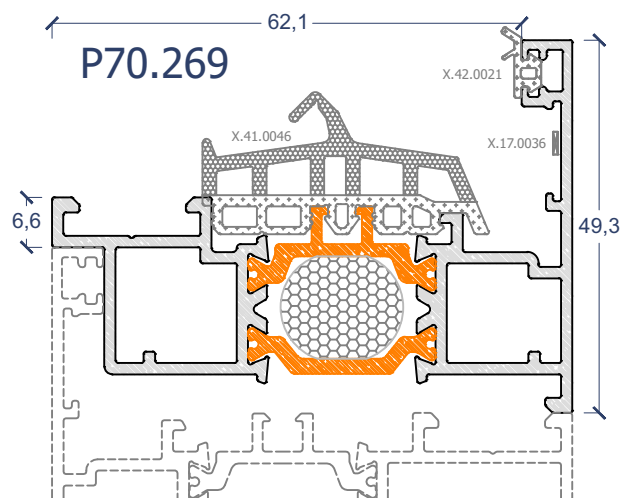
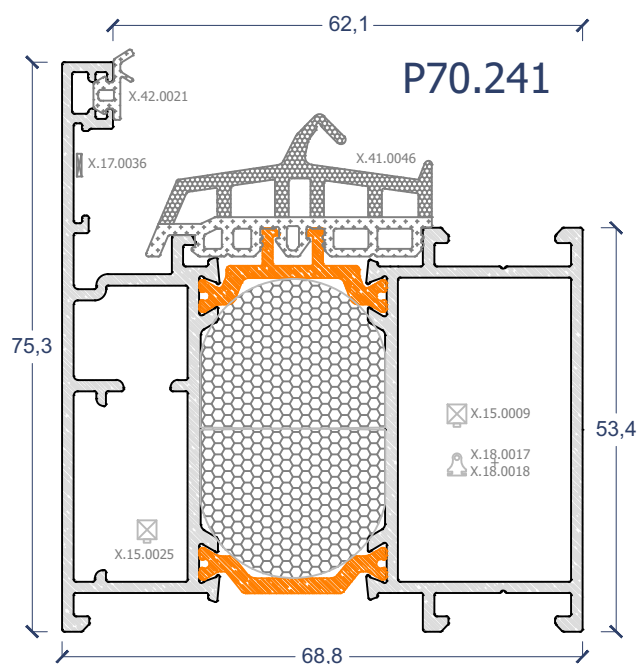
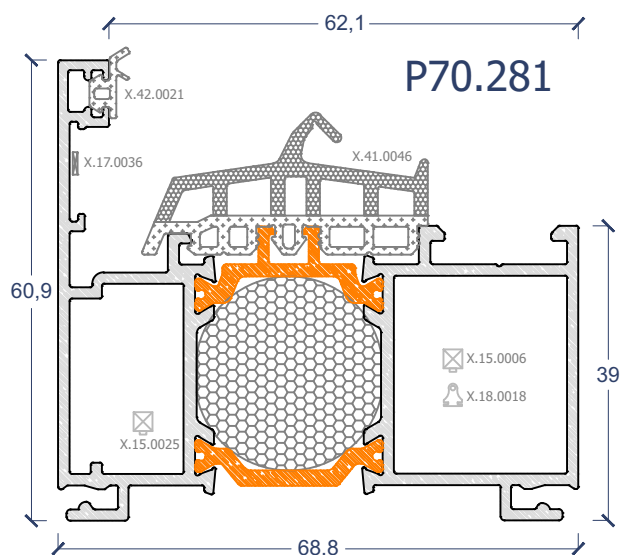
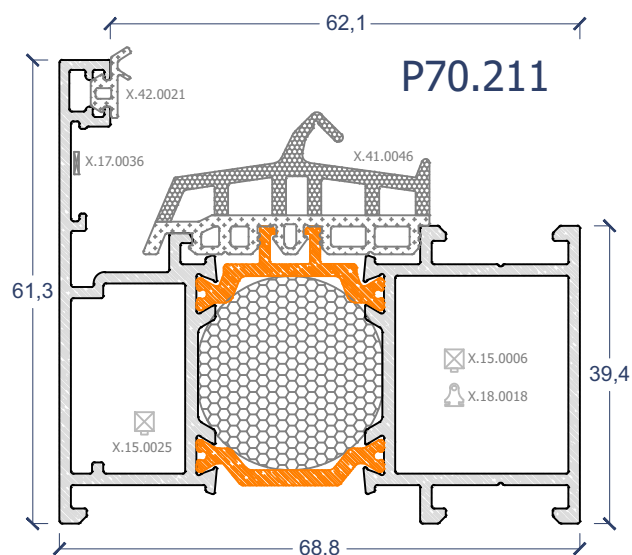
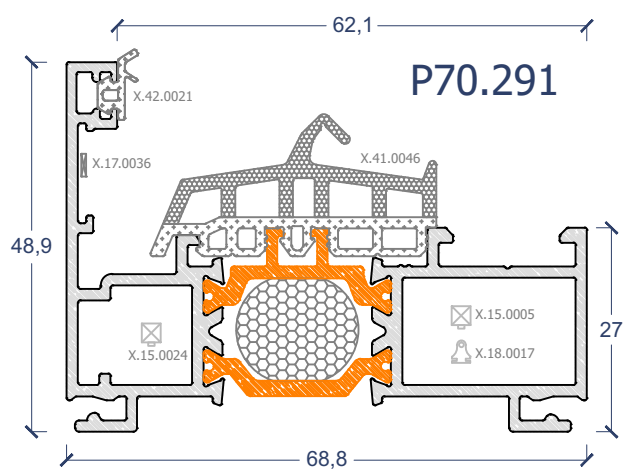
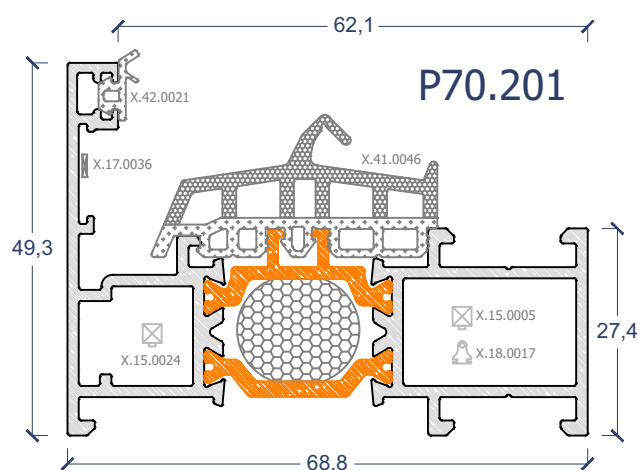


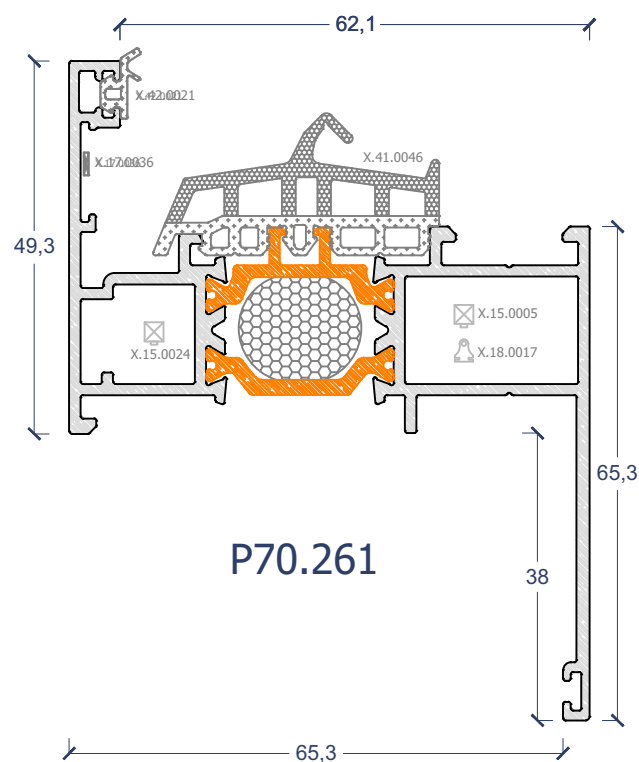
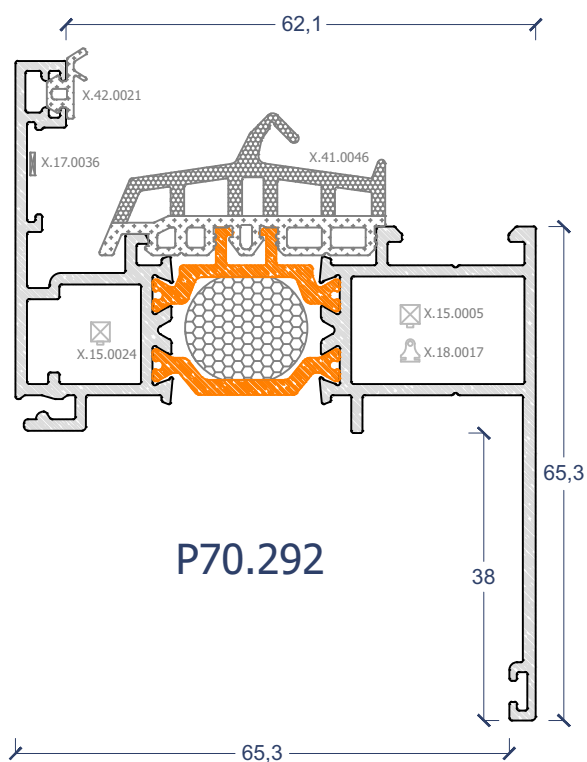
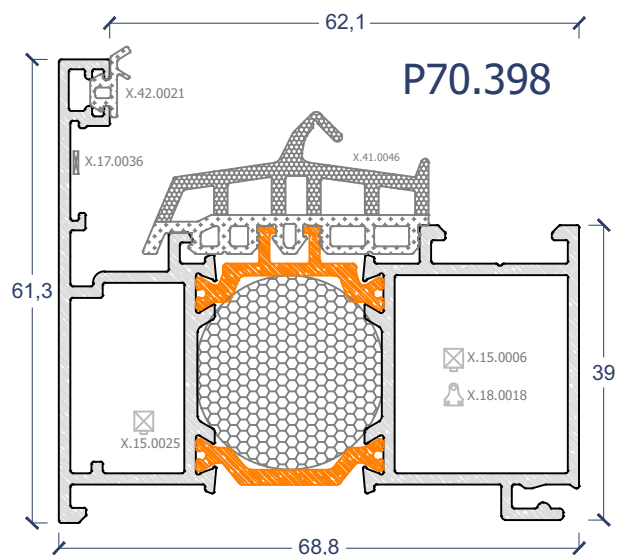
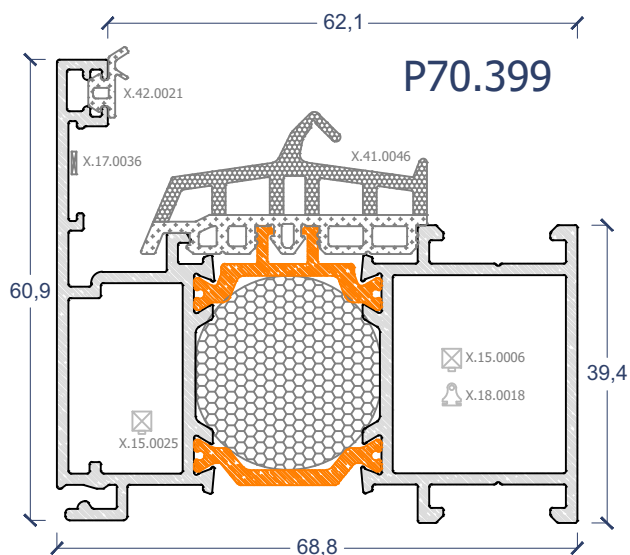
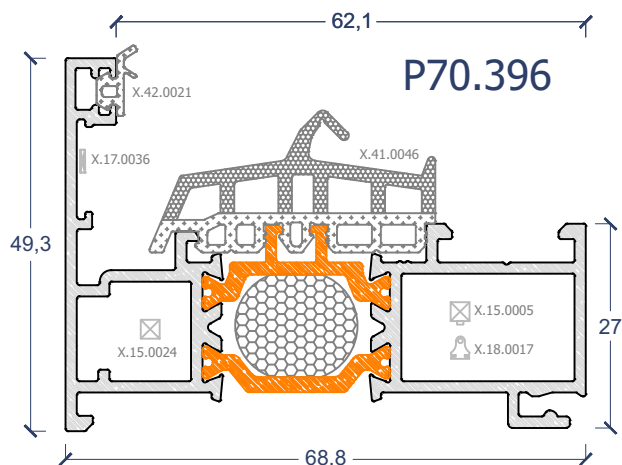
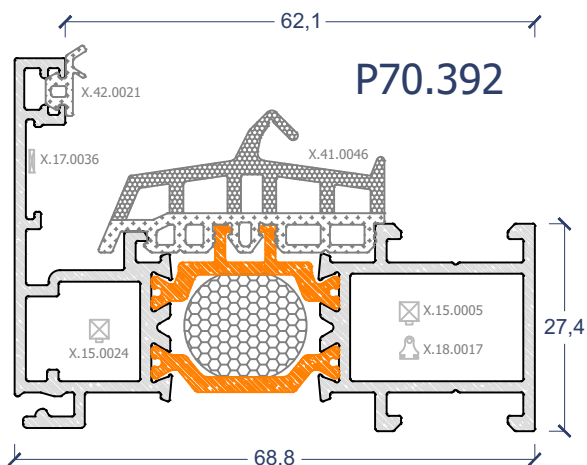
* Fonte: Guardian Performance Calculator 4.1 e Acoustic Database 20171102 by Guardian Glass. Os valores apresentados são apenas ilustrativos, pois podem variar em função dos vidros a aplicar em obra.

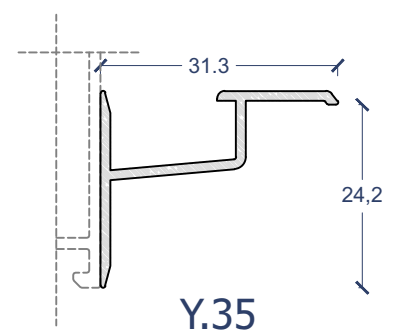
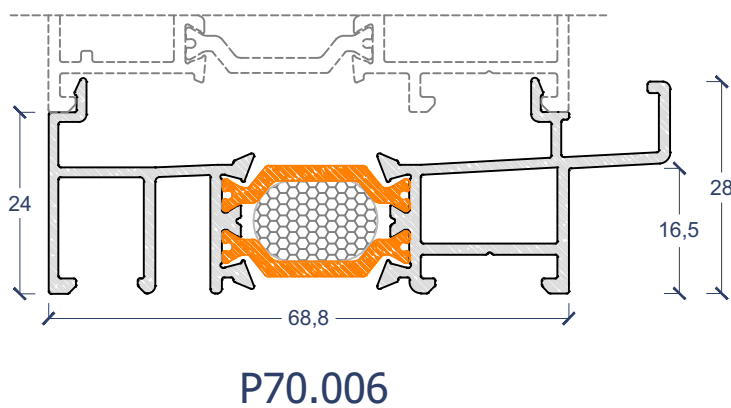
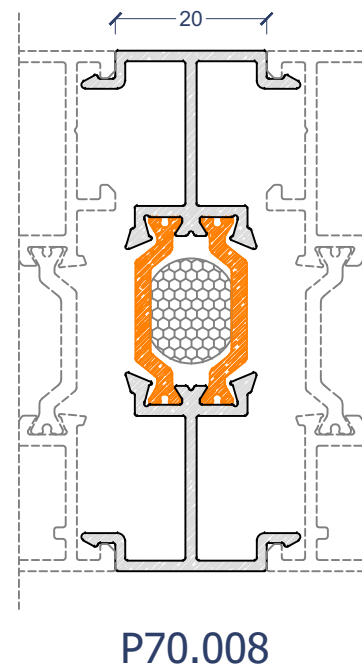
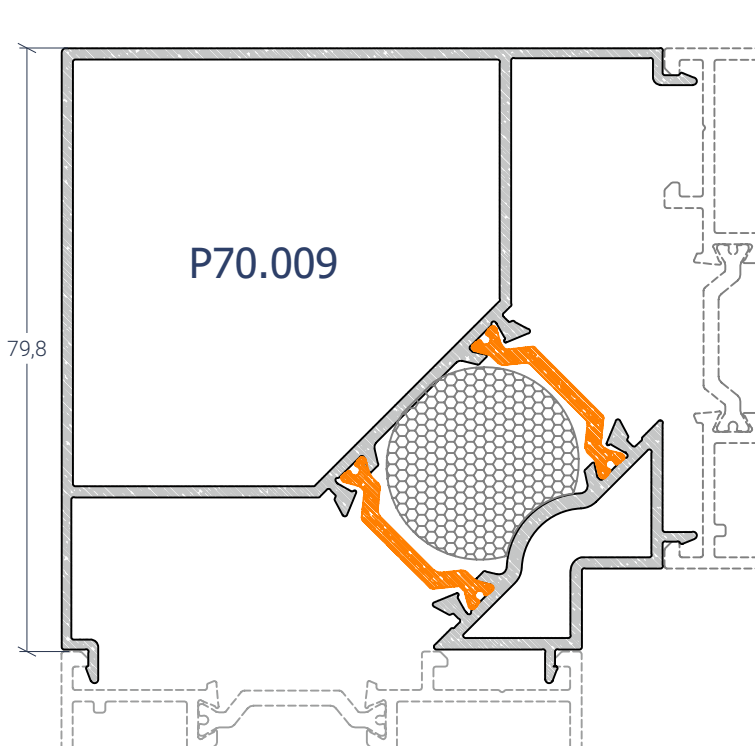
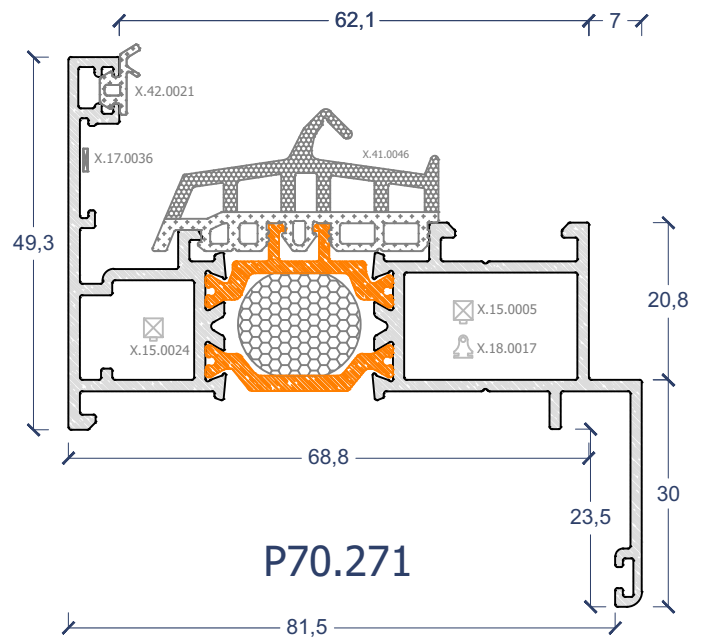
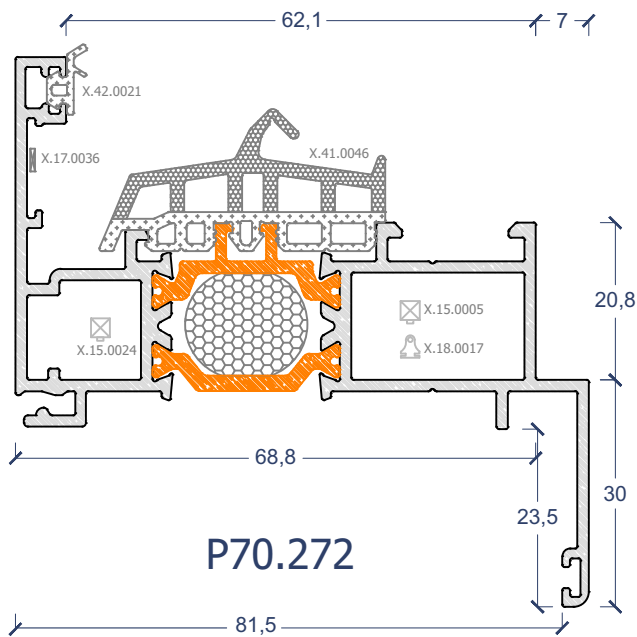
Plus 70

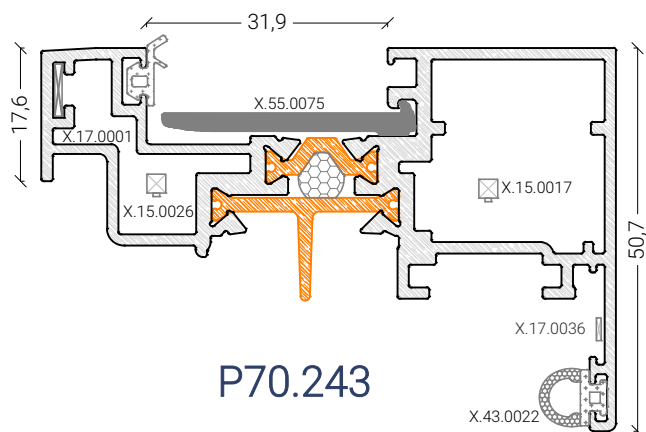


rpt 25 thermofoam

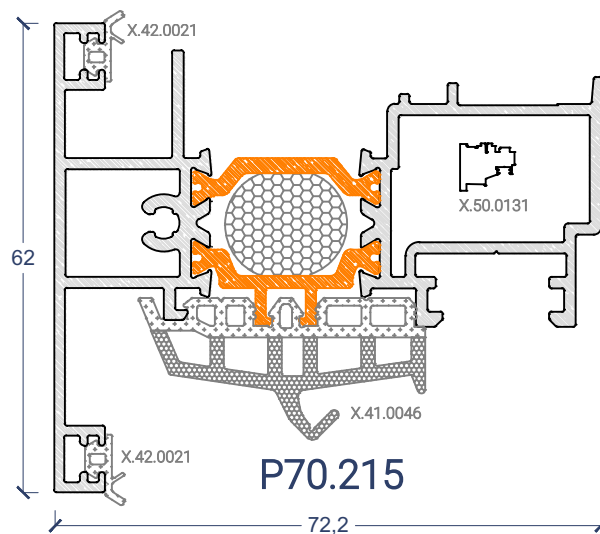




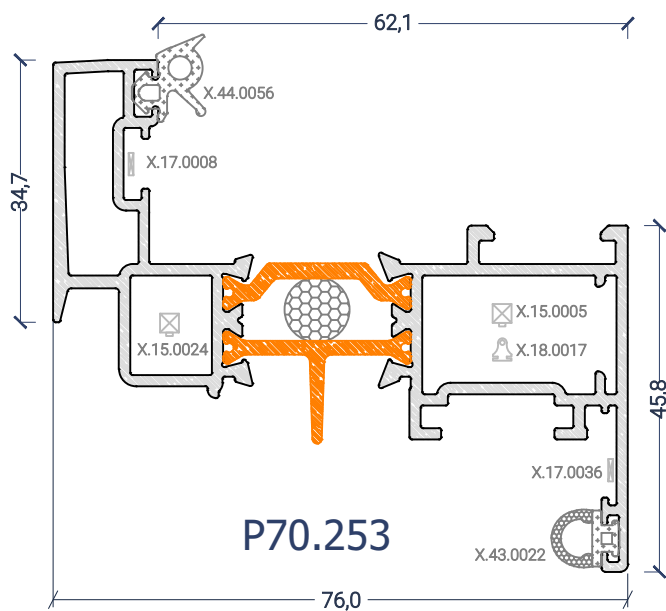




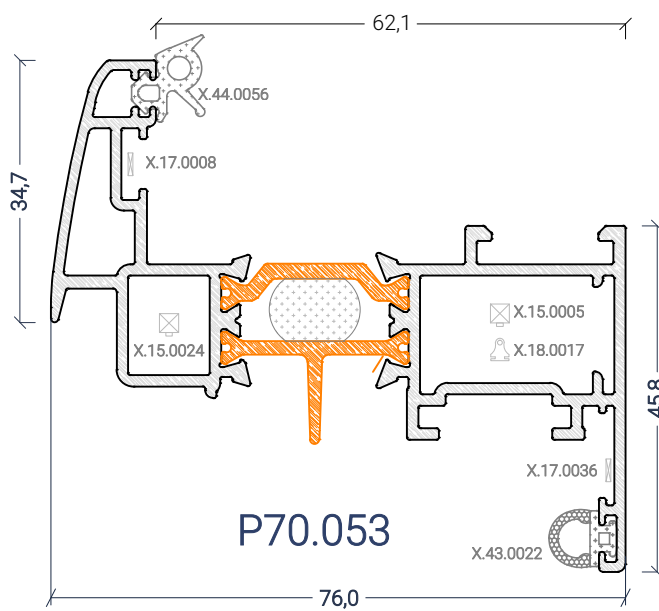
P70.243



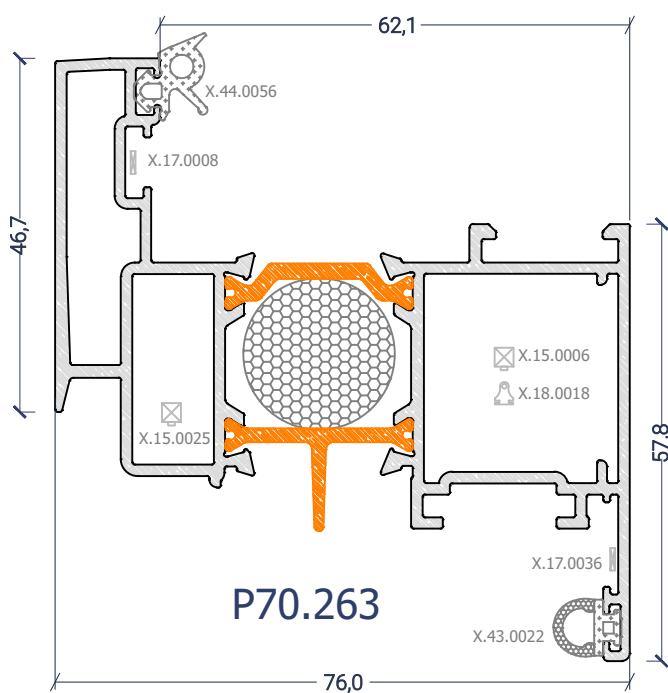
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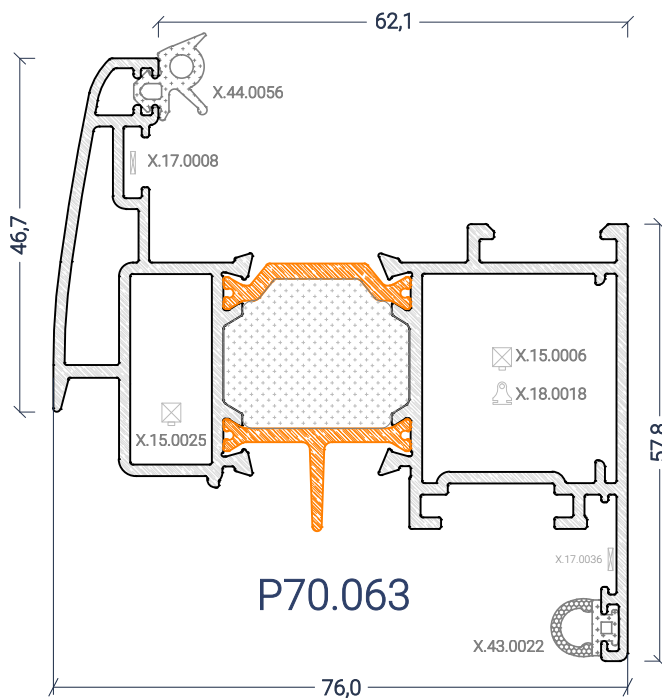
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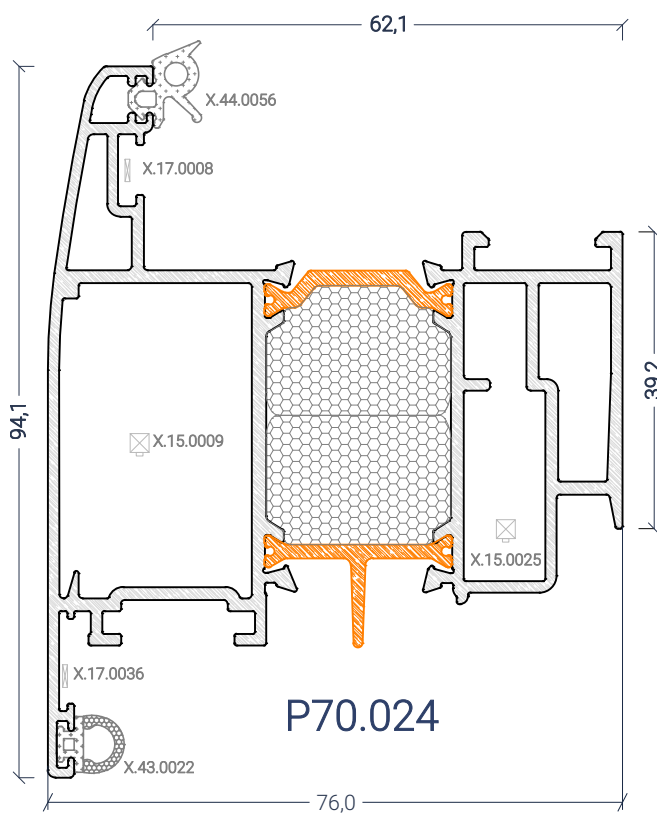
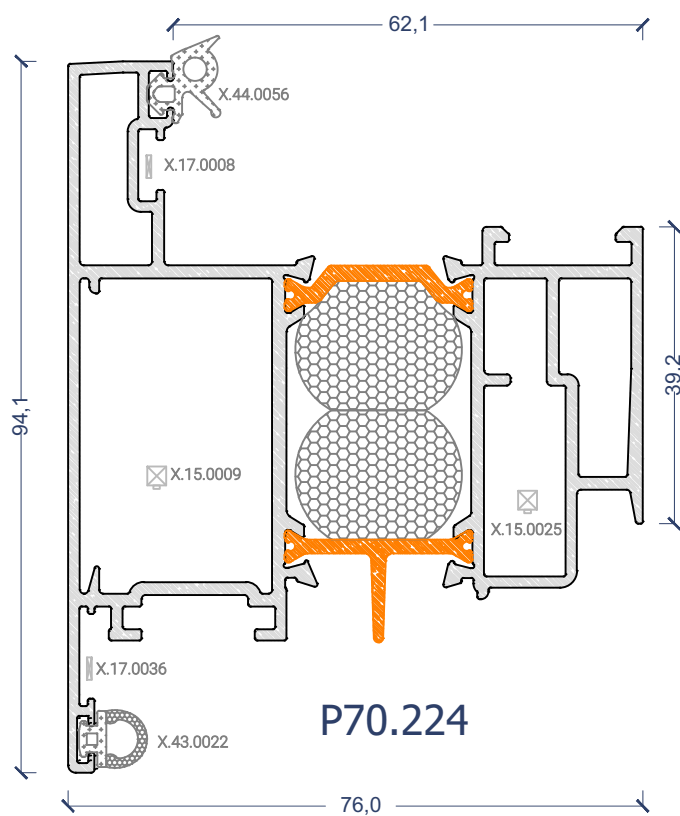
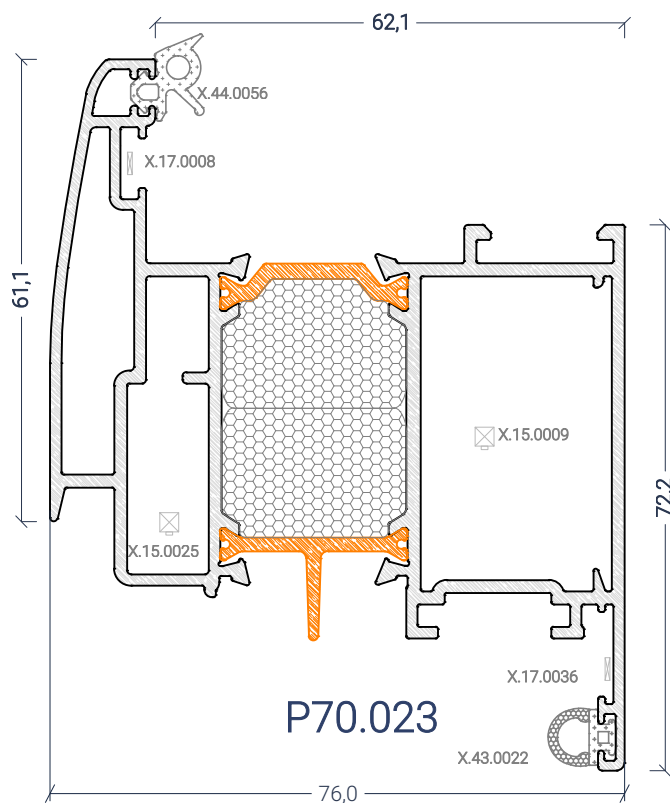
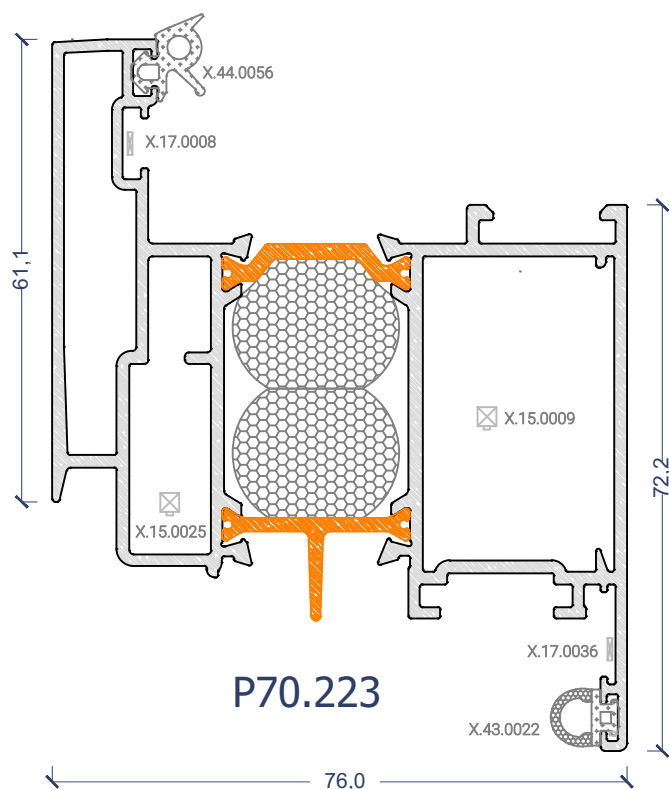
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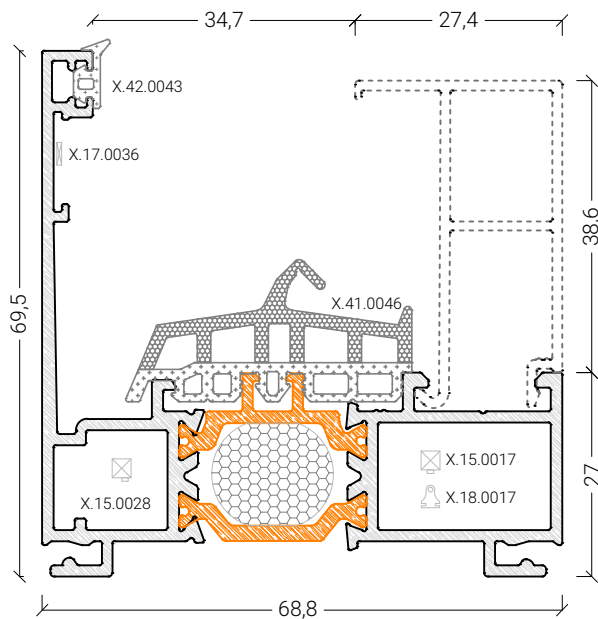


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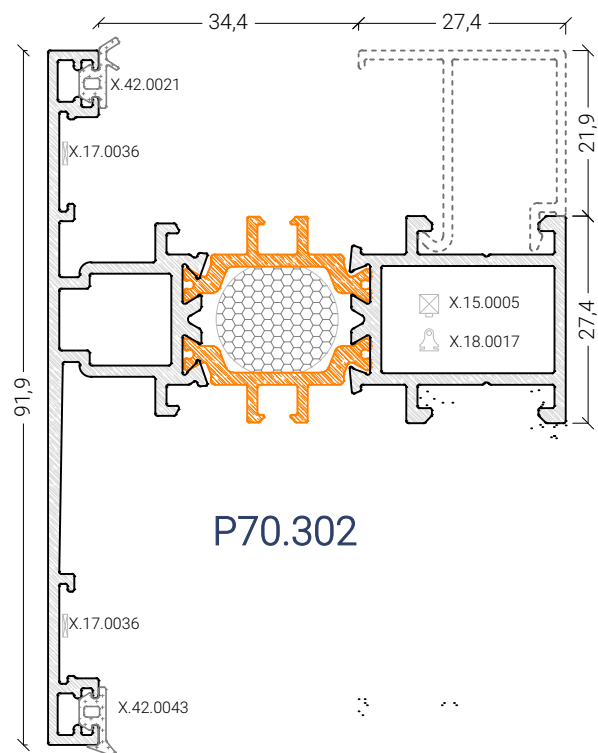


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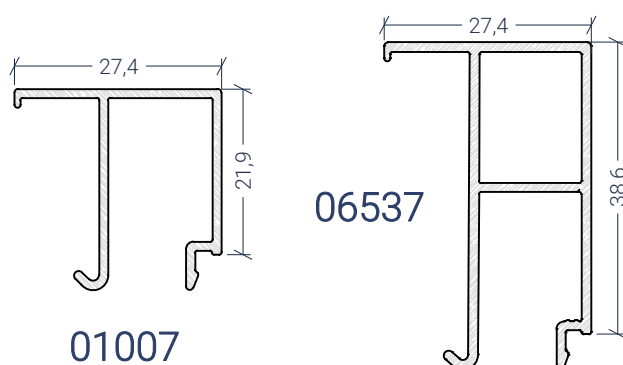




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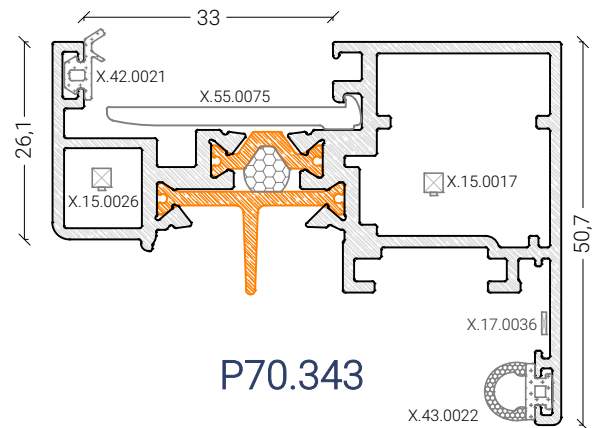
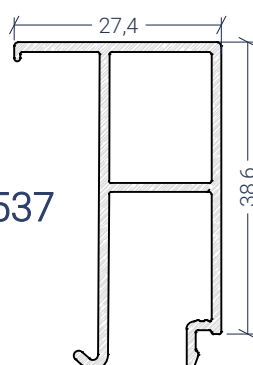


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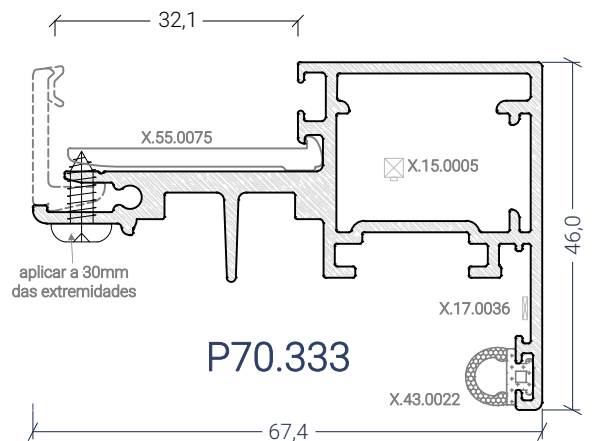


01007

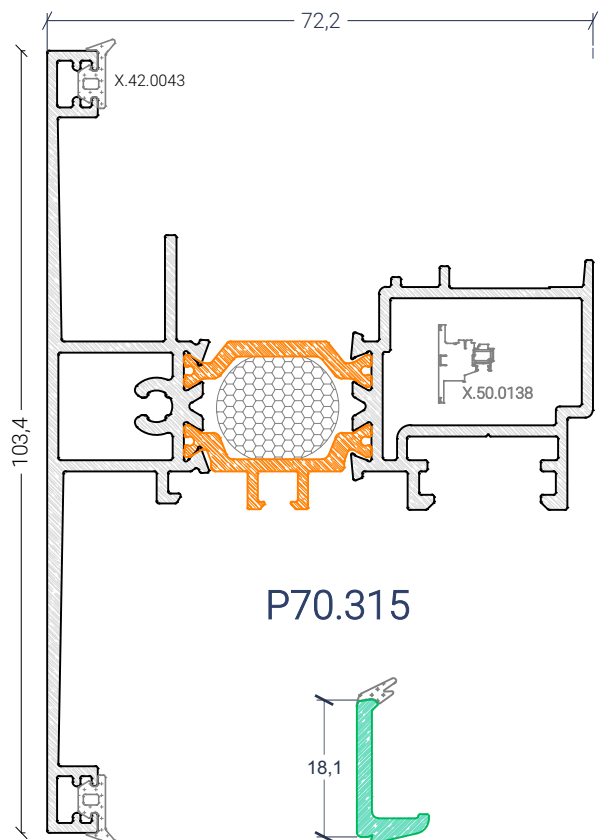
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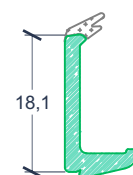
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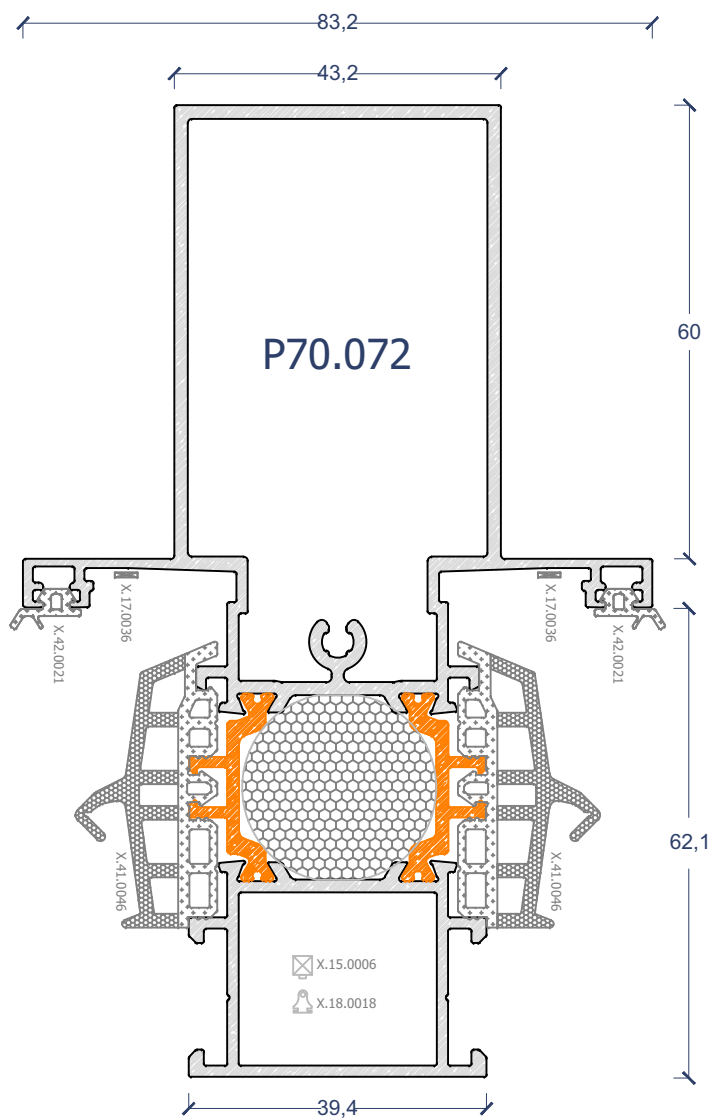
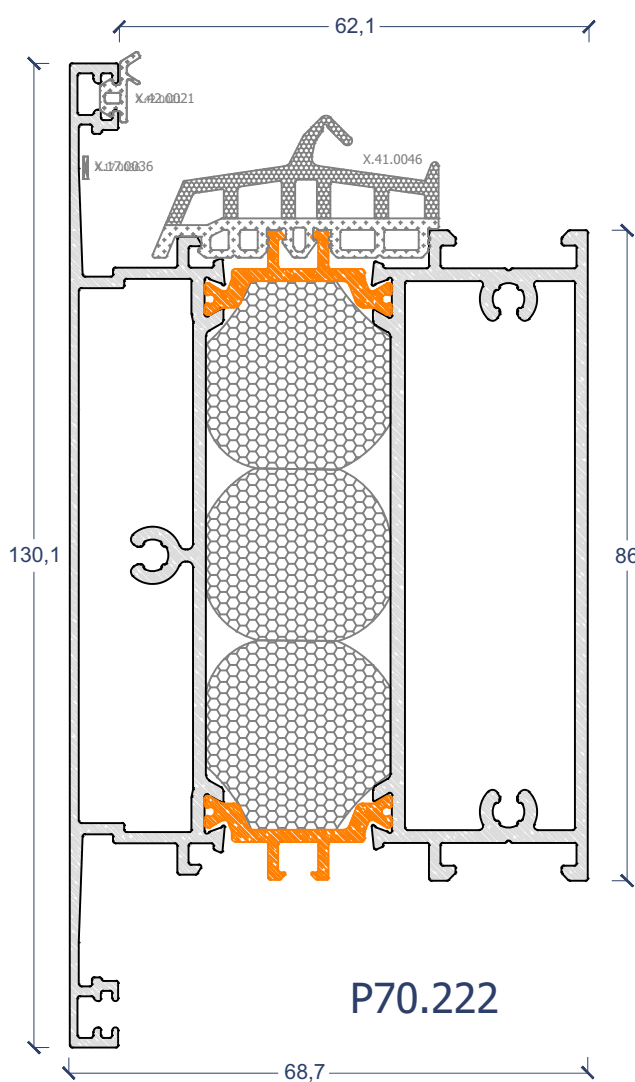
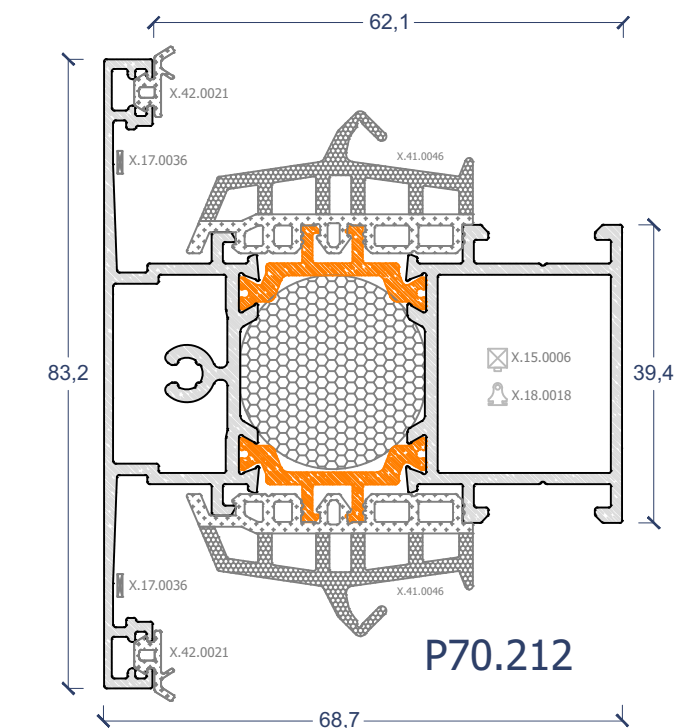
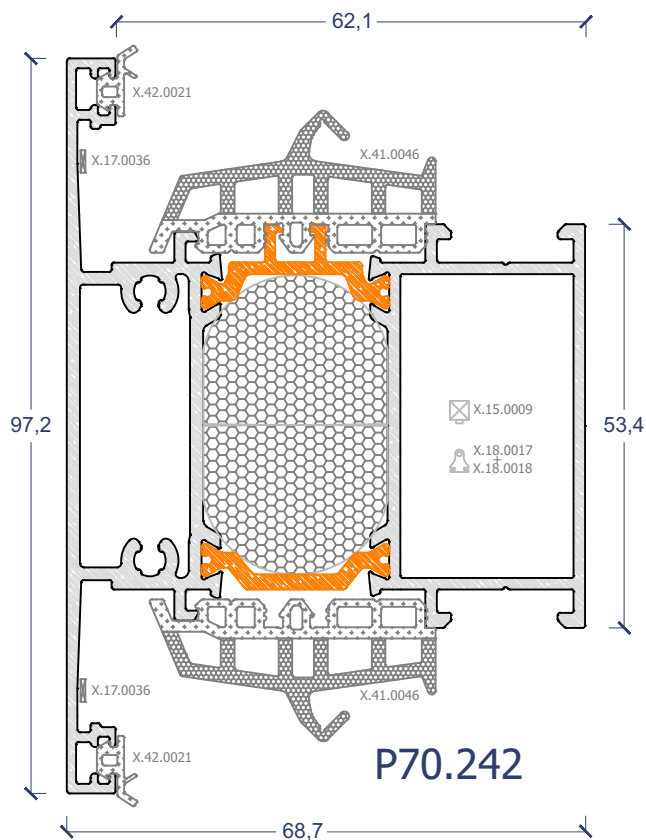
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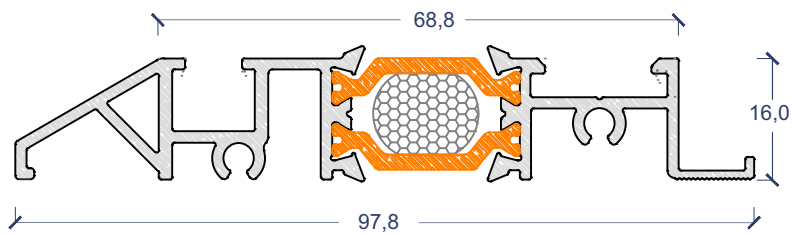


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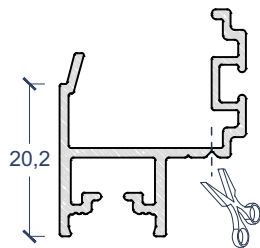


Y.0233

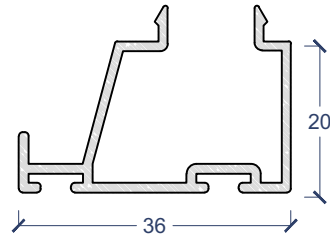




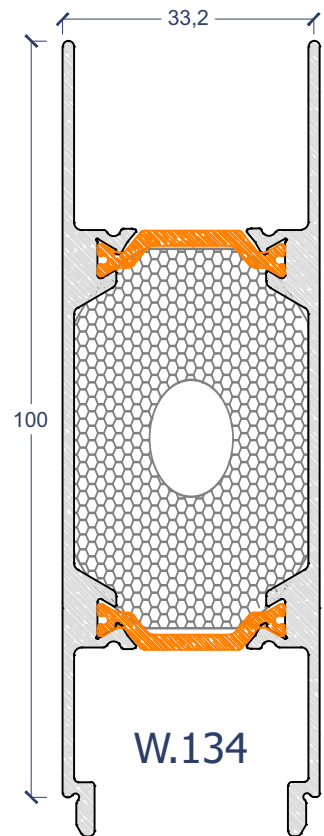
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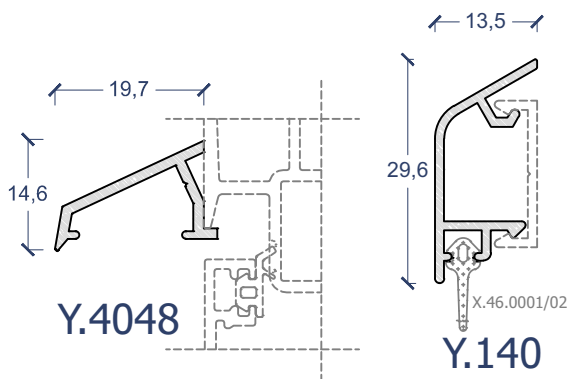
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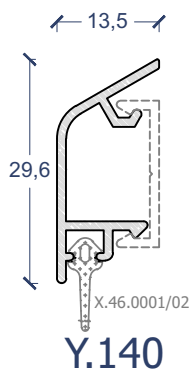
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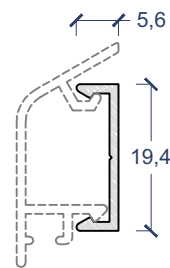
W.134



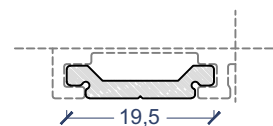
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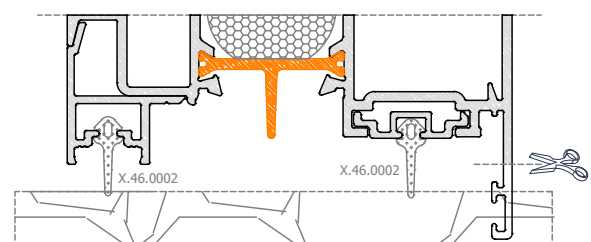
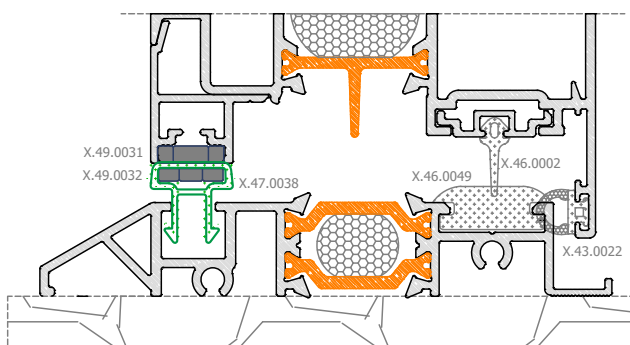
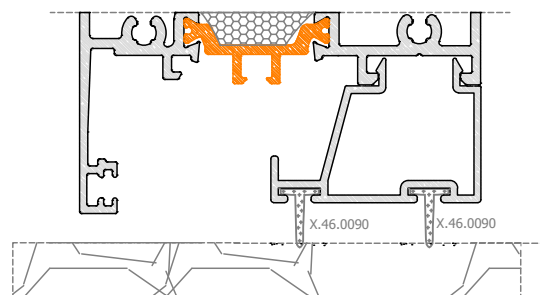
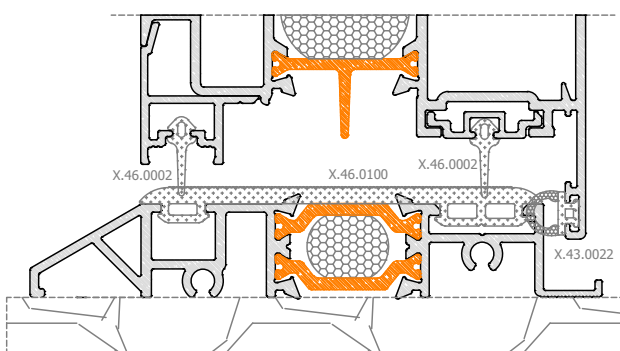
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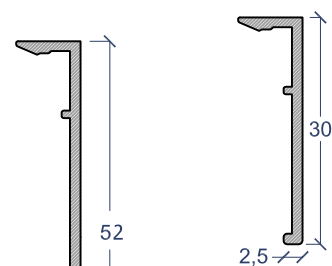
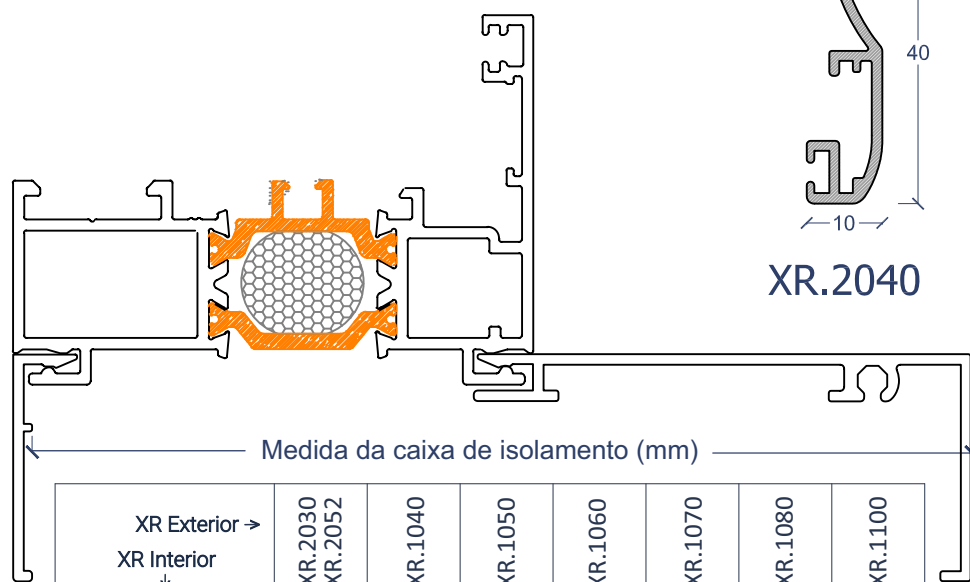
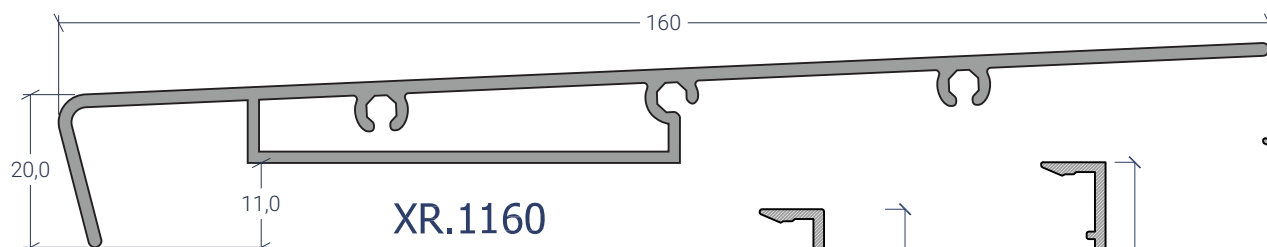
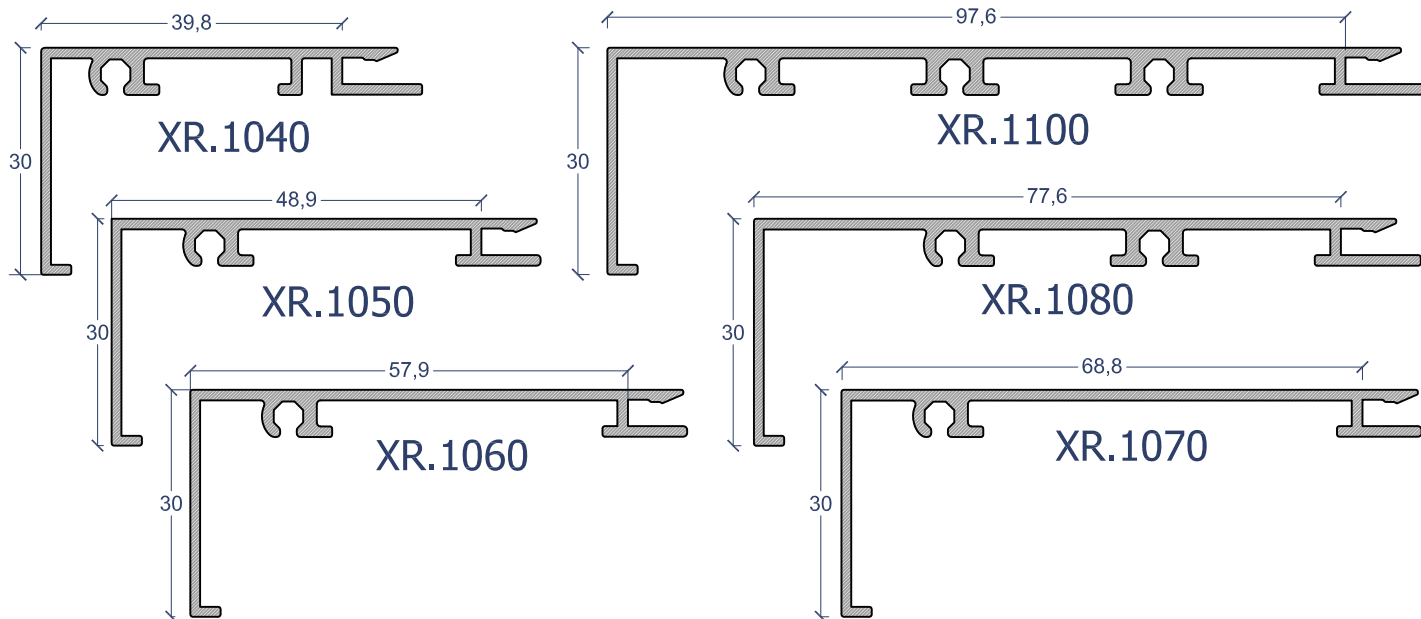
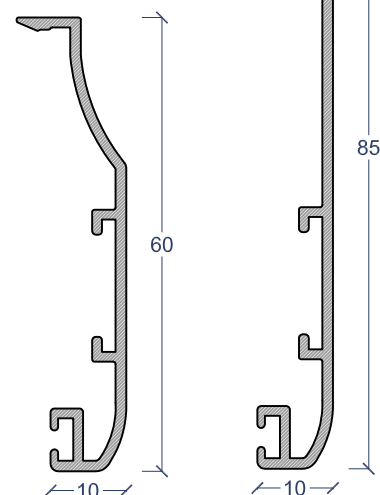


Y.139



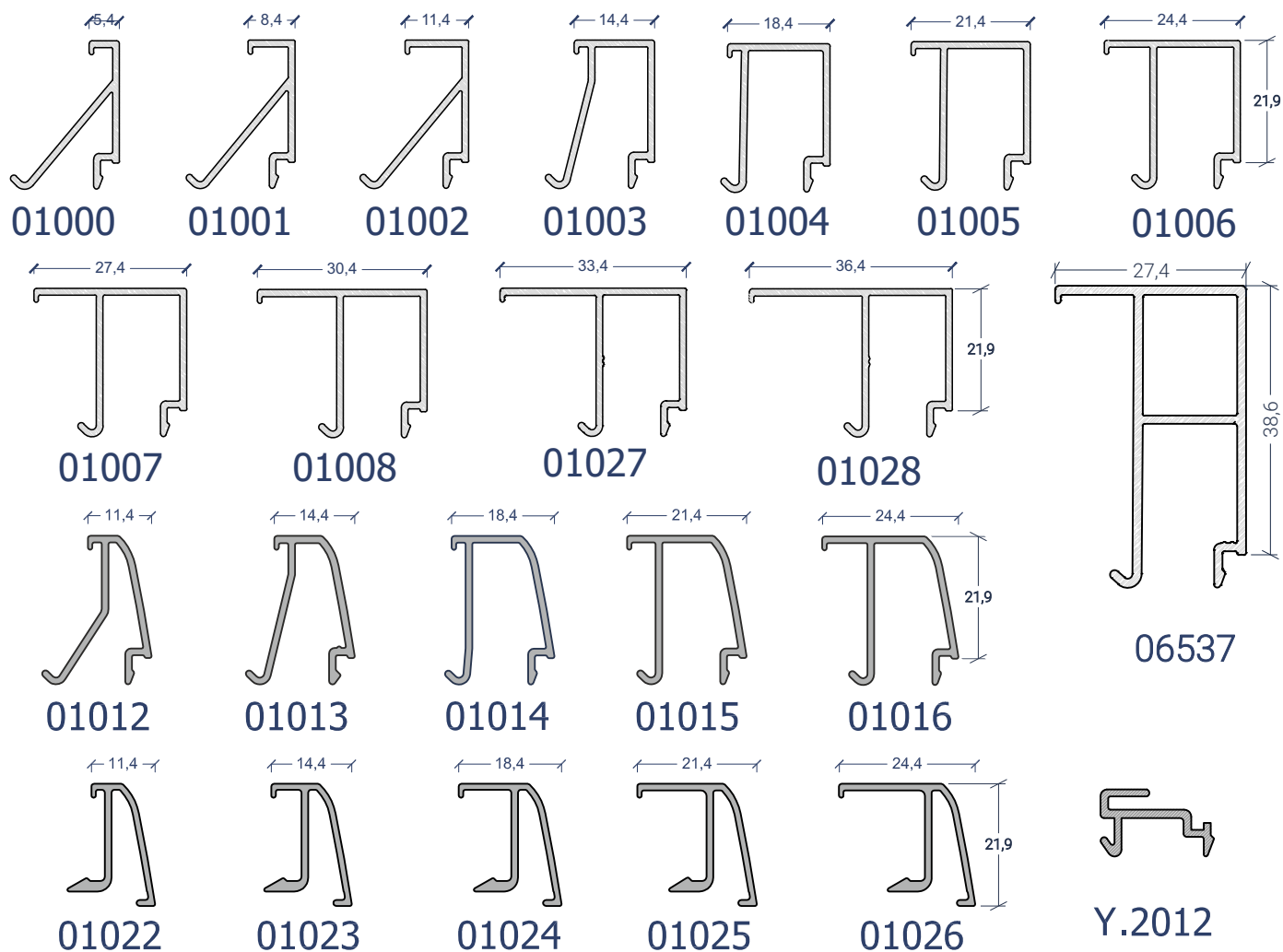
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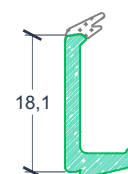

XR.2030
XR.2052

XR.2060
XR.2085

Medida da caixa de isolamento (mm)

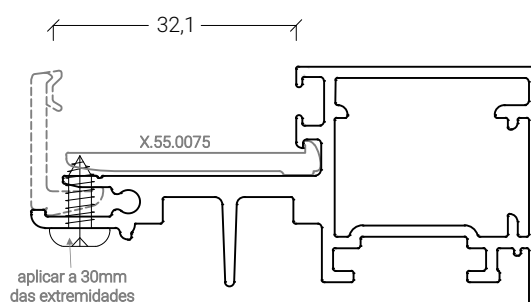
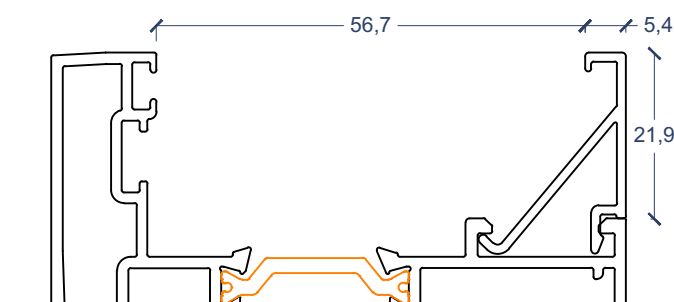
XR Exterior → XR Interior ↓	XR.2030 XR.2052	XR.1040	XR.1050	XR.1060	XR.1070	XR.1080	XR.1100
XR.2030	67	107	116	125	136	145	165
XR.2040/52/60/85	65	105	114	123	134	143	163
XR.1040	105	145	154	163	174	183	203
XR.1050	114	154	163	172	183	192	212
XR.1060	123	163	172	181	192	201	221
XR.1070	134	174	182	192	203	212	232
XR.1080	143	183	192	201	212	221	241
XR.1100	163	203	212	221	232	241	261

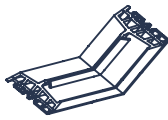
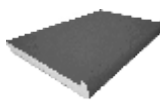
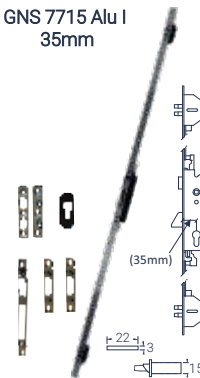


	Rectos	Curvos	Mola
62,1			
25,7 36,4	01028		
28,7 33,4	01027		
31,7 30,4	01008		
34,7 27,4	01007		
37,7 24,4	01006	01016	01026
40,7 21,4	01005	01015	01025
43,7 18,4	01004	01014	01024
47,7 14,4	01003	01013	01023
50,7 11,4	01002	01012	01022
53,7 8,4	01001		
56,7 5,4	01000		



Y.0233



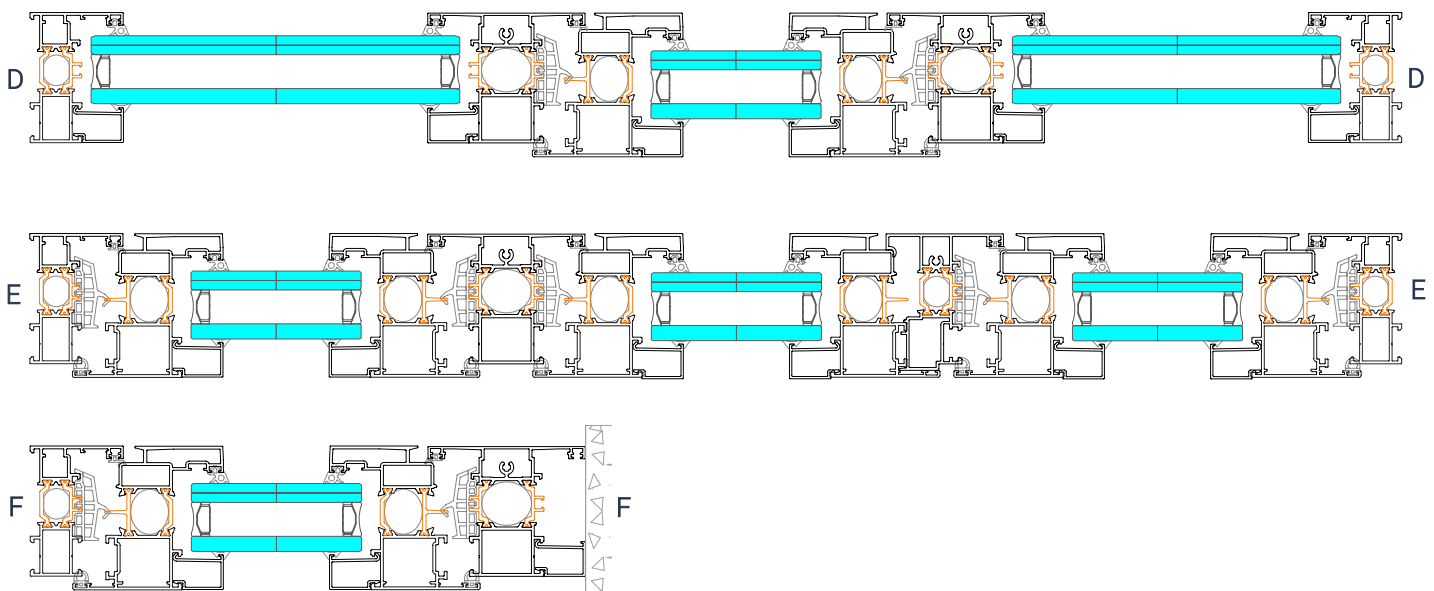
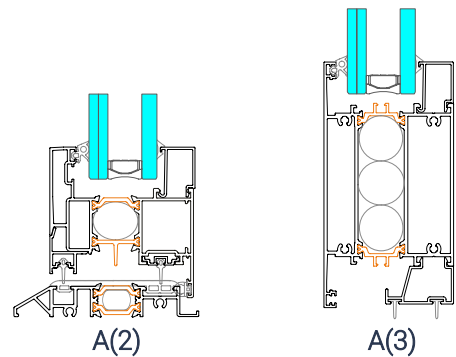
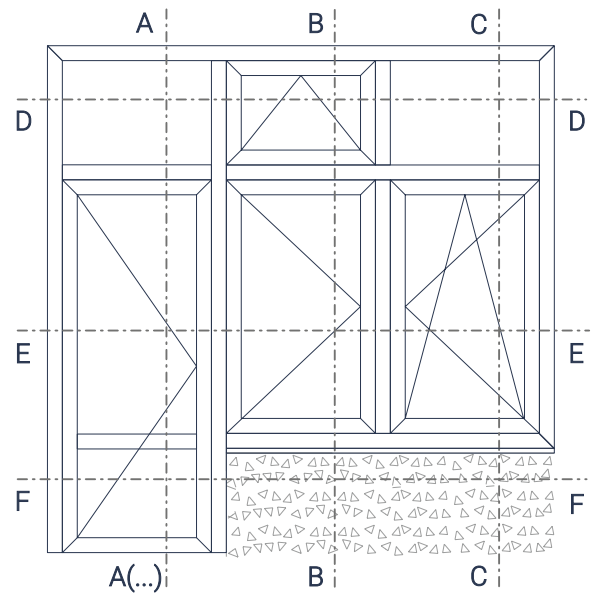
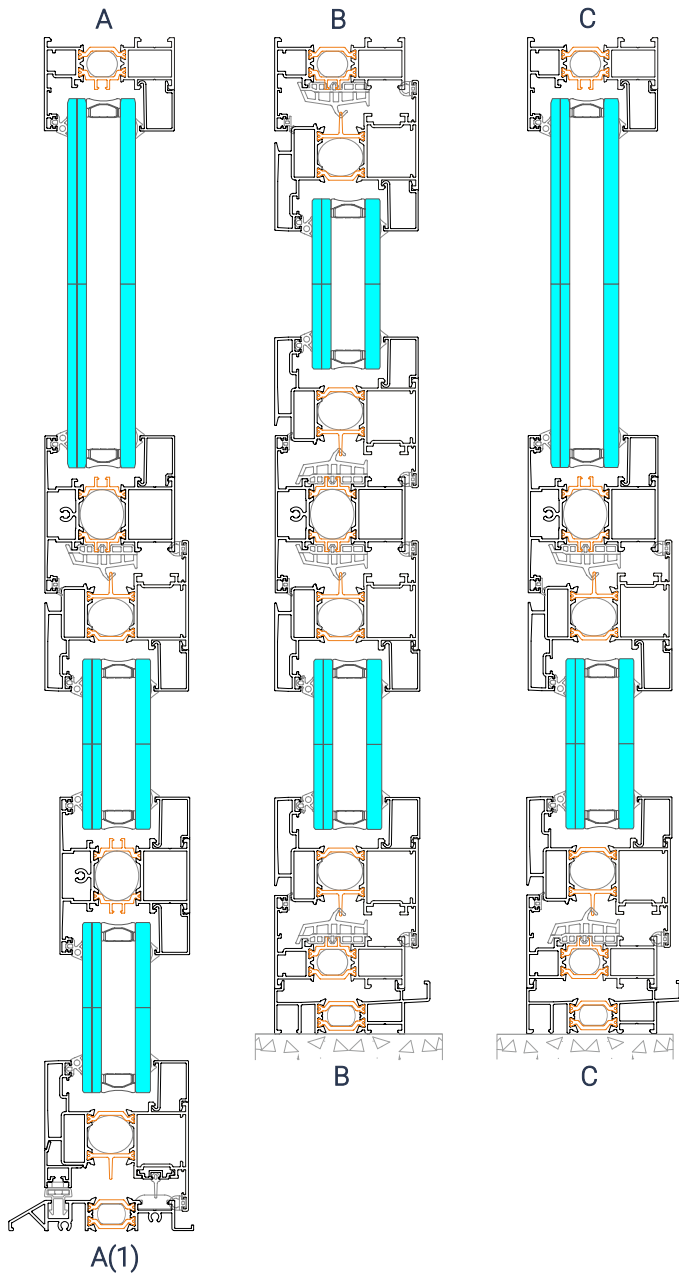
X.15.0005 Esq. R26 PC8 (23x14) 	X.17.0008 Esq. Alinh. (2x9) Parafuso 	X.41.0046 Ved. Central P 70 	X.46.0100 Vedante Soleira P70.016 EPDM 	X.50.0131 Topo inversor P70.215 	X.19.0024 Esq. fixador Xarriots 
X.15.0006 Esq. R26 P8 (23x26) 	X.17.0036 Esq. Alinh. (1x12,7) 	X.41.0049 Canto Vulcanizado 	X.46.0049 Ved. Soleira Magnética 	X.50.0138 Topo inversor P70.315 	X.19.0049 Esq. fixador Xarriots 
X.15.0009 Esq. R26 PC8 (23x40) 	X.17.0020 Esq. Alinh. (1,7x5) 	X.42.0021 Vedante aro fixo 	X.49.0031 Magnético superior 	X.52.0012 Goteira c/ deflector 	X.55.0040 Fixad. Esq XR 1040/80/100 
X.15.0016 Esq. R26 PD8 (23x26) 	X.18.0017 União Trav. (22x14) 	X.43.0022 Vedante aro móvel 	X.49.0032 Magnético inferior 	X.52.0051 Topo sol. cond. R6006/26 	X.55.0042 Fixador Esq XR 1060 
X.15.0017 Esq. R26 PD8(23x14) 	X.18.0018 União Trav. (22x26) 	X.44.0056 Ved. exterior vidros EPDM 	X.47.0078 PVC Porta-magnético 	X.50.0035 Topo pingadeira Y.140 	X.55.0043 Fixador Esq XR 1050 
X.15.0024 Esq. R26 PC5 (10x13) 	X.15.0028 Esq. R26 PD5 (10x13) 	X.44.0056 Ved. Aro Fixo F. Oculta EPDM 	X.46.0001 Vedante da pingadeira EPDM 	X.55.0075 Suporte de vidro f. oculta 	X.55.0044 Fixador Esq XR 1070 
X.15.0025 Esq. R26 PC5 (10x25) 	X.15.0029 Esq. R26 PD5 (10x25) 	X.46.0090 Vedante de pingante 	X.46.0002 Vedante de pingadeira EPDM 	X.38.2063 Fechadura de 3 pontos GNS 7715 Alu I 35mm 	X.67.1070 Cilindro Standard 30x70 
X.15.0026 Esq. R26 PC5 (10x10) 	X.17.0071 Esq. Alinh. XR (1,8x18) 		X.38.2060 Fechadura de prumo GNS 7716 Alu I 35 mm 		X.67.1077 Cilindro Segurança 30x70 

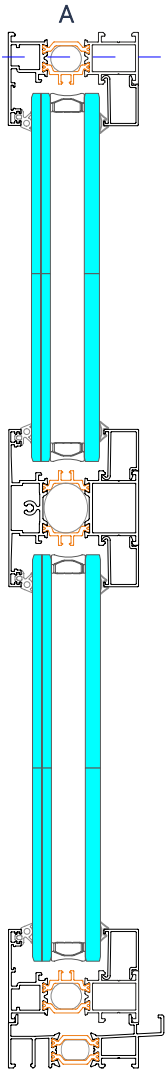
Acessórios de manobra:

Dobradiças, Cremones, Sistemas de movimento e fecho, etc. Ver catálogo de acessórios por manobra.

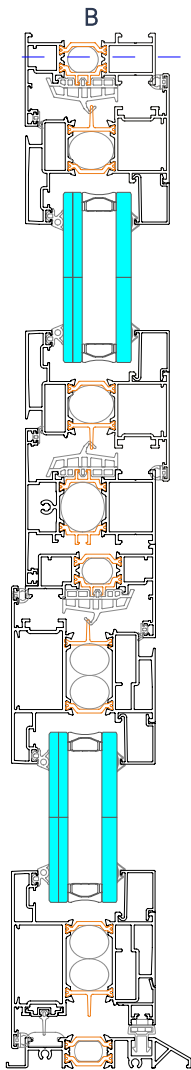
pormenores de construção

Portas c/ abertura p/ exterior

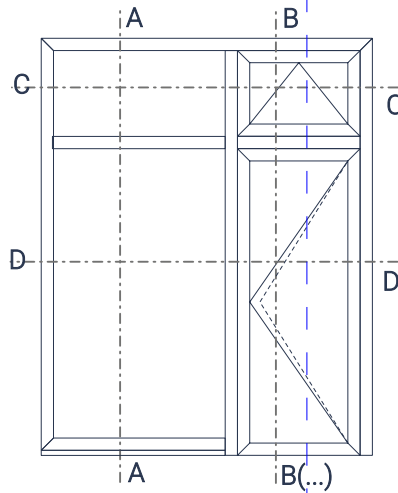




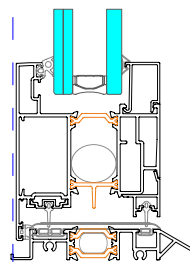
A



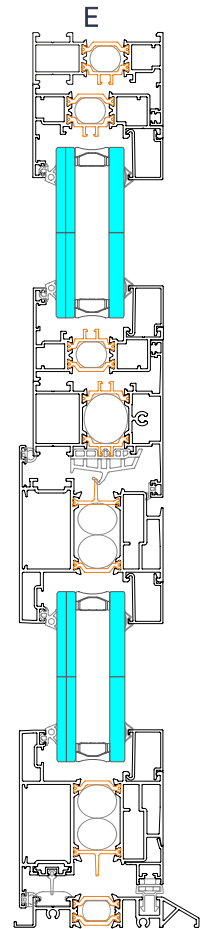
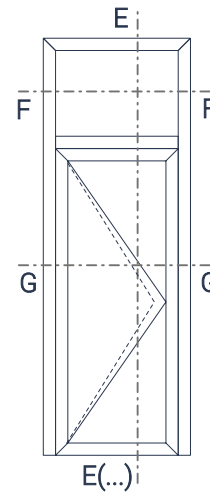
B(1)



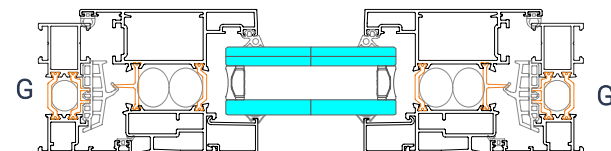
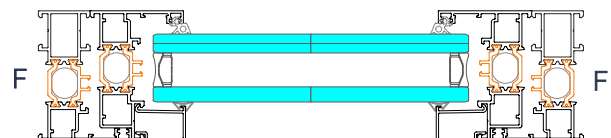
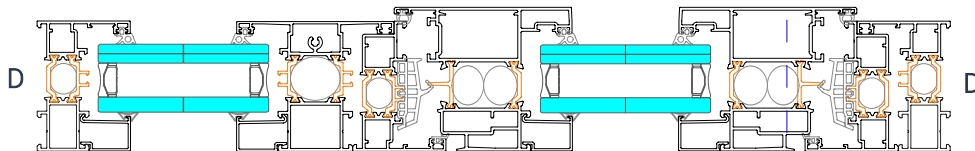
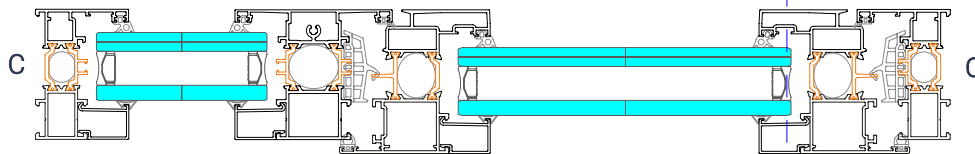
B(2)/E(2)



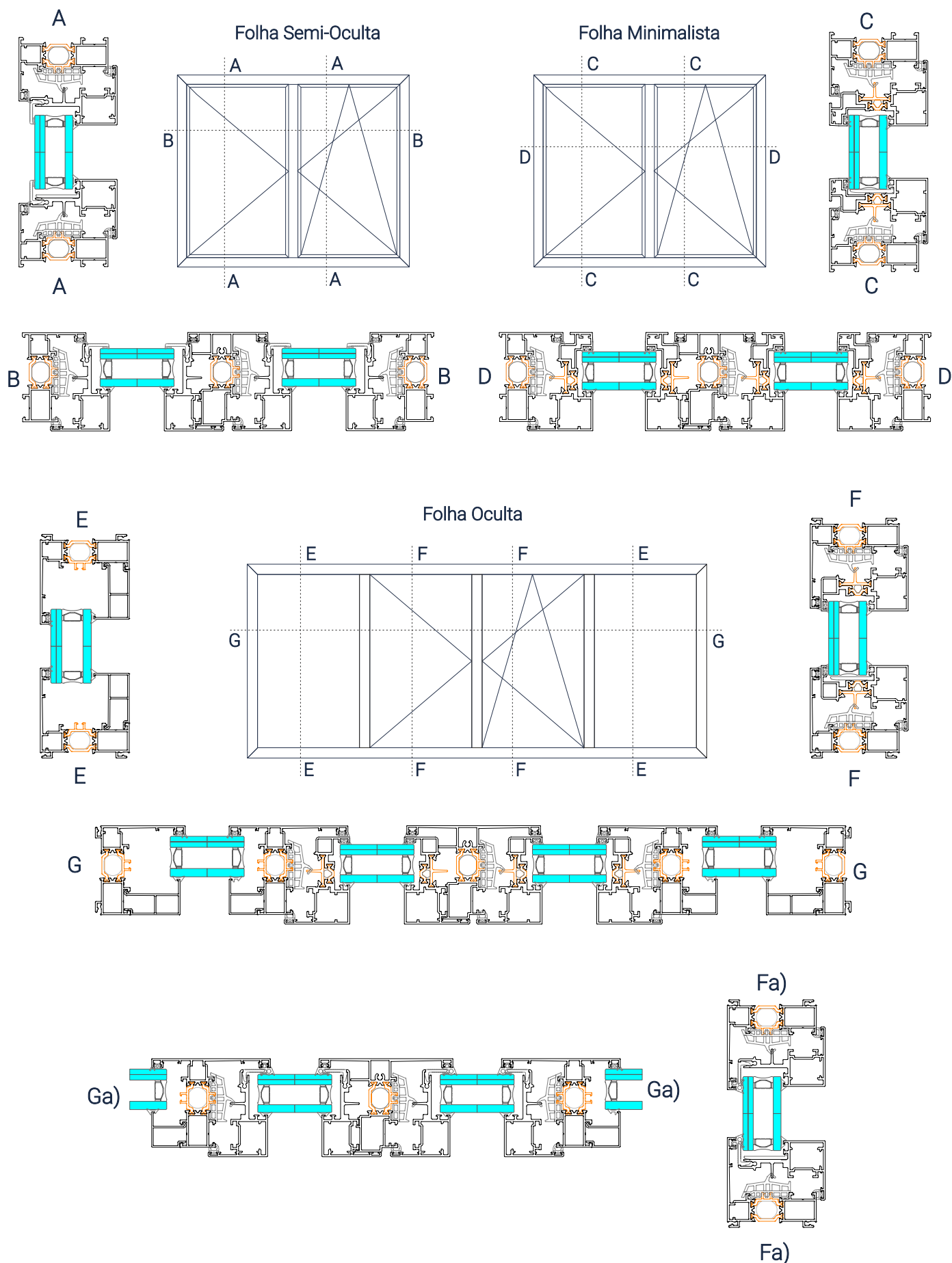
B(3)/E(3)

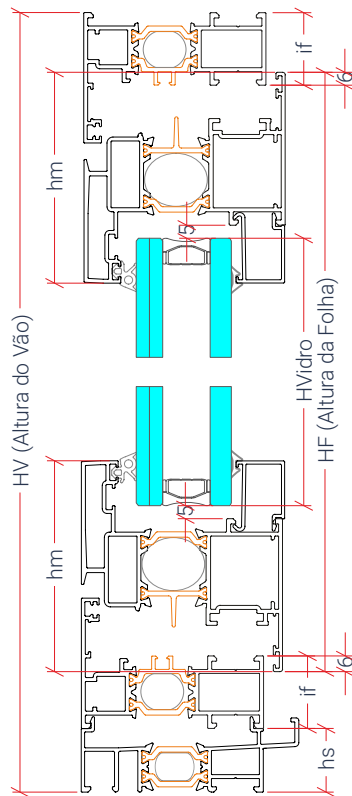


E(1)



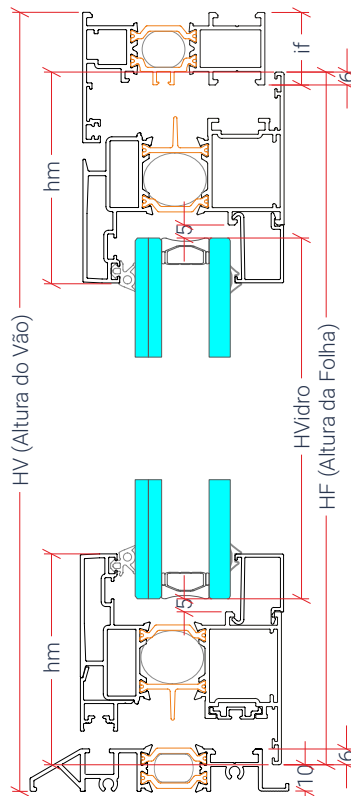
Pormenores - Folha Minimalista, Oculta e Semi-oculta



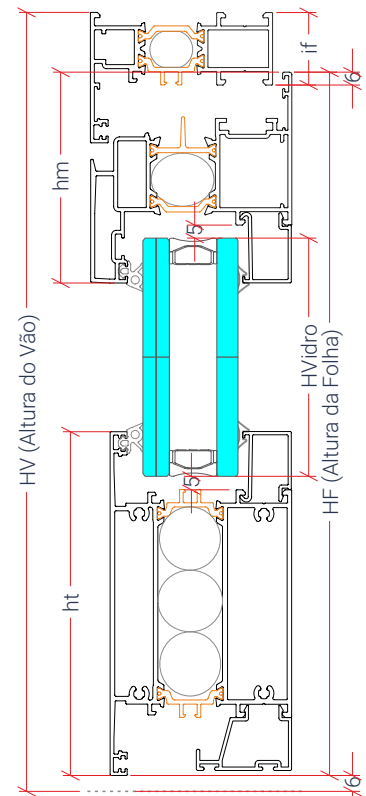


$$HF = (HV + 12) - (2 \times if + hs)$$

$$H\text{Vidro} = HF + 34 - 2 \times hm$$

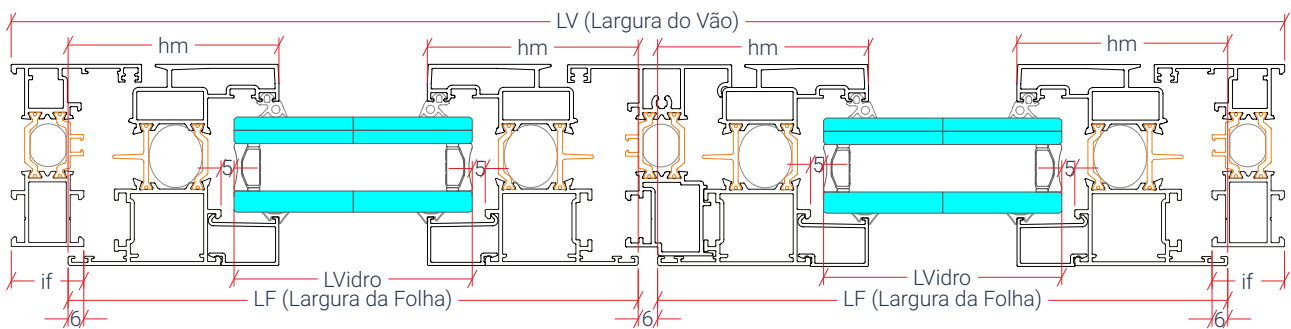


$$HF = HV - if - 4$$



$$HF = HV - if$$

$$H\text{Vidro} = HF + 34 - (hm + ht)$$

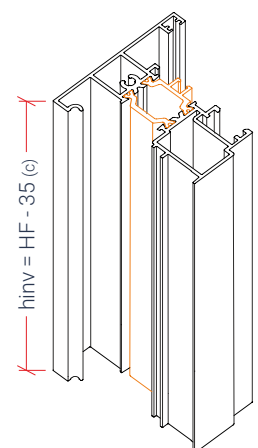
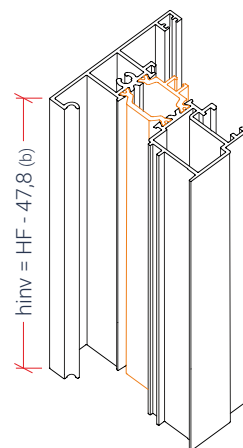
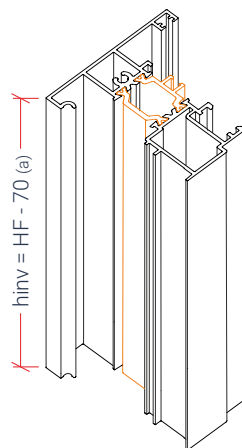


$$LF = \frac{(LV + 12 - 2 \times if) - ((nF - 1) \times 6)}{nF}$$

$$L\text{Vidro} = LF + 34 - 2 \times hm$$

LEGENDA:

- HV - Altura do Vão
- LV - Largura do Vão
- HF - Altura da Folha
- LF - Largura da Folha
- nF - Nº de folhas
- LVidro - Largura do Vidro
- HVidro - Altura do Vidro
- if - Altura interior do aro fixo
- hs - Altura da soleira de condensação
- hm - Altura do aro móvel
- ht - Altura da travessa
- hinv - Altura do inversor central



(a)- c/aro fixo a toda a volta; (b)- c/soleira de porta; (c)- s/aro e sem soleira