

A person is performing a handstand against a brick wall. The person is wearing a dark tank top, dark pants, and light-colored sneakers. The scene is lit with a warm, orange-red light, creating a dramatic effect. The person's legs are spread wide, and their arms are supporting their weight on the ground.

i am | impressive |

air 600LS & 500LS Lift & Slide Doors

Technical Guide

10/16/V1/2.2

air 600LS and 500LS

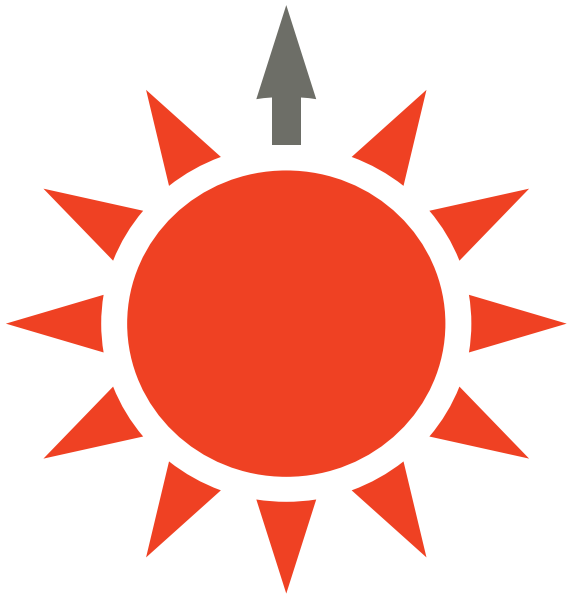
Technical Guide

10/16/V1/2.2

Contents

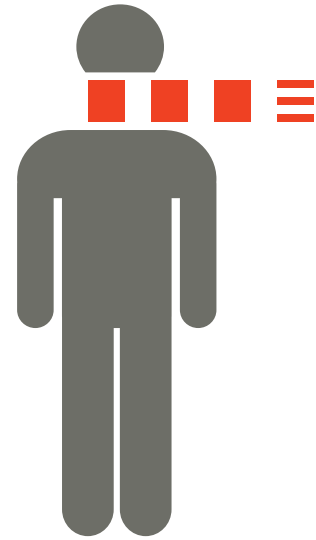
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i am | performance |



U Value

up to
 $0.95 \text{ Wm}^2\text{K}$



Windload

up to
1200 pa



Watertight

up to
900 pa



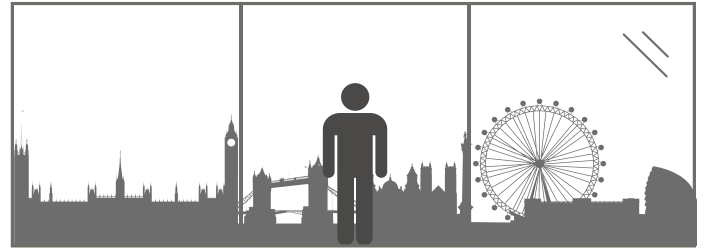
Burglar Proof

option of
SBD/PAS 24*

*refer to tech dept for specification details

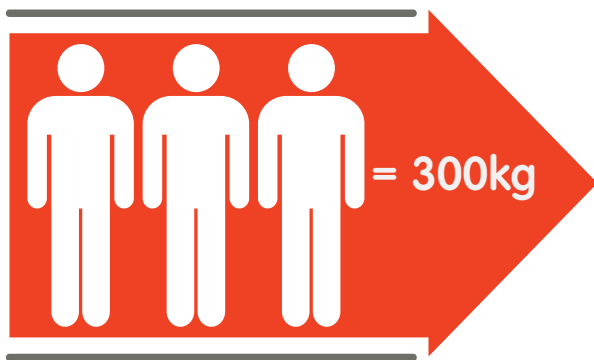


room for the view



Industry leading
25 year guarantee

Impressive
cornerless solution



300kg weight
per panel

Max Panel Sizes
2500w * 2700h



i am | impressive

air 600LS & 500LS



Available styles

- Monorail, 2, 3, 4 or 6 pane configurations
- Lift and slide door operation
- Triple track system which allows multiple sliders to open in the same direction (only available on 3 and 6 pane configurations)

PVCu Trickle Vent

(39mm add on required)



Available in Grey (RAL 7016), White, Black or Brown

Handles

A choice of colours and finishes in Standard or Luxury range (see p10 for details).

Colours

- Can be painted in any RAL colour
- Dual colour available

Aluminium Trickle Vent

(39mm add on required)



Available in White & Silver. RAL colours subject to paint set up surcharge and minimum order quantity.

Features and Options



Cornerless option (no post)



Triple track (style specific)



Double Track



Slim line middle section (style and size specific)



Triple track threshold



Double rollers can take weights up to 300kg



Option of Purity handle. (Other ranges also available)



Ultion security cylinder option

We reserve the right to make changes to the product specification as technical developments dictate, and without prior notice. Pictures shown in this guide are for illustrative purposes and are not binding in detail, colour or specification. All information is intended for guidance purposes only.

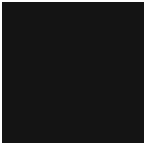
Handle Options

Standard Range

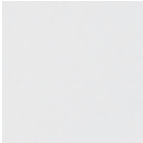
Standard Lift & Slide Handle



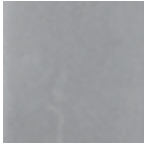
Colour Options



Black



White



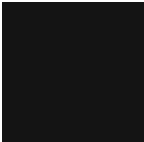
Silver

Cup Handles

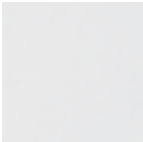
Standard Range



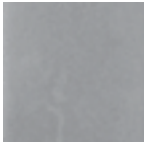
Colour Options



Black



White

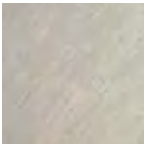


Silver

Luxury Range - Stainless Steel



Colour Options

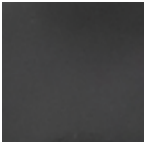


Stainless Steel

Luxury Range



Colour Options



Sapphire Black



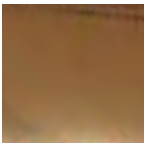
Moonlight White



Lithium



Belgian Chocolate*



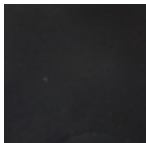
Obsidian*



Or*



Polaris*



Eclipse*

*Special order

Door Options

Styles 600LS:	600LS 2,3,4 or 6 panes. Triple track system available on 3 and 6 pane configurations.
Styles 500LS:	500LS Monorail 2 or 4 panel configurations
Glazing:	28mm, 36mm, 44mm
Depth of Frame 600LS:	Two track 139mm and three track 210mm.
Depth of Frame 500LS:	Two track 139mm
Beading:	Internally beaded
Handles:	Refer to page 10 for full range
Locking:	Multipoint locks
Colours:	Can be painted any RAL colour. Dual colour available (lead times on request)
Cills:	190mm cills (for use only with 139mm frame). 300mm cill (for use 210mm frame. Not available in coatex finish. Max length 5m). 83mm and 103mm add on cills available

U Value Indicator:

U values may vary dependent on glass and frame size, and glass specification used. U value as low as 0.95 achievable using high performance glass. **Please enquire for further details.**

aïr 500LS			
Centre Pane Value (W/m ² K)		Psi Value (W/m ² K)	Overall U-Value (W/m ² K)
TYPICAL DOUBLE GLAZED			
1.0		0.036	1.44
TYPICAL TRIPLE GLAZED	+		=
0.7		0.036	1.18
HIGH PERFORMANCE GLASS (DOUBLE GLAZED)			
0.4		0.05	0.95

aïr 600LS			
Centre Pane Value (W/m ² K)		Psi Value (W/m ² K)	Overall U-Value (W/m ² K)
TYPICAL DOUBLE GLAZED			
1.0		0.036	1.49
TYPICAL TRIPLE GLAZED	+		=
0.7		0.036	1.24
HIGH PERFORMANCE GLASS (DOUBLE GLAZED)			
0.4		0.05	1

Size Limits

- Sizes subject to weather exposure and wind load requirement.
- All information is intended for guidance purposes only. Contact Authorised Retailer for exact calculations.
- Thicker glass required on certain styles - please check with your glass supplier.

Max Glass Weight	300KG
Location	London (G/floor)
Deflection	Span/200 or 12mm

SASH PANE	Minimum	Maximum
Width	700	2500
Height	1900	2700

DOOR SIZES	Min (mm)	Max (mm)
2 PANE*		
Width	1500	2500
Height	1900	2760
*Max door size with 48mm slim interlock 5000w x 2300h		
3 PANE		
Width	2200	7500
Height	1900	2760
4 PANE*		
Width	3000	10000
Height	1900	2760
* Max door size with 48mm slim interlock 10000w x 2300h		
6 PANE		
Width	4500	15000
Height	1900	2760

FRAME ASSEMBLY	WIDTH	HEIGHT	ASSEMBLED	KIT FORM
Door Sizes up to	3000	2200	✓	
All door sizes exceeding above dimensions				✓

Can exceed above size limits *subject* to weight limits and location. Refer to technical team for guidance. 500LS fully assembled unless requested otherwise.

Choosing the Right Interlock

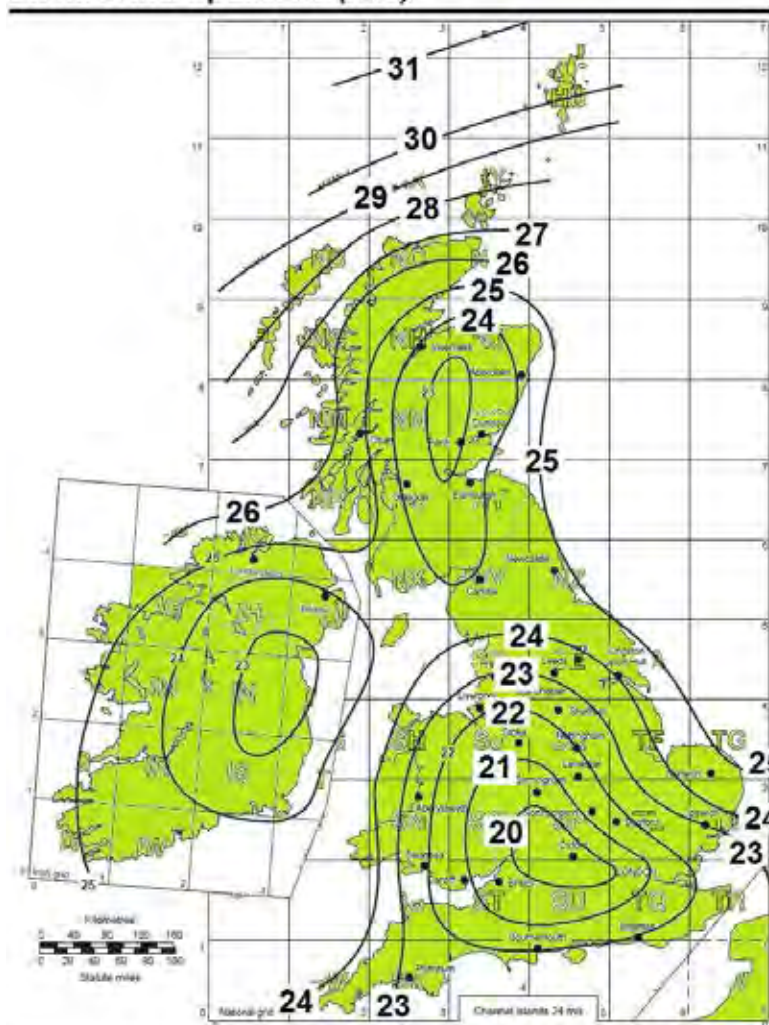
Using the map below locate the area in question and make a note of the basic windspeed. Locate the relevant windspeed in the table on the right and within that section you can ascertain pa rating based on the building height, distance from the sea and whether the building is in an exposed or sheltered area. Refer to the next page for interlock options.

Example:

- Area Bristol = basic wind speed 21
- Building height greater than 3 metres and lower than 6 metres
- Exposed location (open country) 10-50km distance to sea
- Pascal Rating = 796pa. (Refer to the next page for interlock options)

This is indicative only. Where specific performance is required, customer should employ a structural engineer for precise calculation.

Basic Wind Speed V_b (m/s)

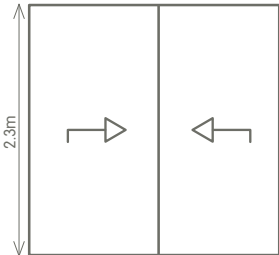


Wind Load at Sea Level (Pa)

Building Height m		Exposed (Open Country)			Sheltered (Town Areas)		
		Distance to Sea			Distance to Sea		
		0 to 10km	10 to 50km	50km+	0 to 10km	10 to 50km	50km+
20 45mph	≤ 3	669	569	537	469	441	413
	>3 and ≤ 6	796	722	677	677	634	601
	>6 and ≤ 10	893	844	786	844	805	758
	>10 and ≤ 15	965	934	873	965	934	883
21	≤ 3	737	627	592	517	486	455
	>3 and ≤ 6	877	796	747	747	699	663
	>6 and ≤ 10	985	930	867	930	888	836
	>10 and ≤ 15	1 064	1 030	963	1 064	1 030	974
22	≤ 3	809	688	650	568	533	500
	>3 and ≤ 6	963	873	820	820	768	727
	>6 and ≤ 10	1 081	1 021	952	1 021	974	918
	>10 and ≤ 15	1 168	1 130	1 057	1 168	1 130	1 069
23	≤ 3	884	752	710	621	583	546
	>3 and ≤ 6	1 053	955	896	896	839	795
	>6 and ≤ 10	1 182	1 116	1 040	1 116	1 065	1 003
	>10 and ≤ 15	1 276	1 235	1 155	1 276	1 235	1 168
24	≤ 3	963	819	773	676	634	594
	>3 and ≤ 6	1 146	1 039	976	976	914	866
	>6 and ≤ 10	1 287	1 215	1 132	1 215	1 160	1 092
	>10 and ≤ 15	1 390	1 345	1 258	1 390	1 345	1 272
25	≤ 3	1 045	888	839	733	688	645
	>3 and ≤ 6	1 244	1 128	1 059	1 059	991	939
	>6 and ≤ 10	1 396	1 319	1 229	1 319	1 258	1 185
	>10 and ≤ 15	1 508	1 459	1 365	1 508	1 459	1 380
26	≤ 3	1 130	961	908	793	745	698
	>3 and ≤ 6	1 345	1 220	1 145	1 145	1 072	1 016
	>6 and ≤ 10	1 510	1 426	1 329	1 426	1 361	1 282
	>10 and ≤ 15	1 631	1 579	1 476	1 631	1 579	1 493
27	≤ 3	1 219	1 036	979	855	803	752
	>3 and ≤ 6	1 450	1 316	1 235	1 235	1 156	1 095
	>6 and ≤ 10	1 628	1 538	1 433	1 538	1 468	1 382
	>10 and ≤ 15	1 759	1 702	1 592	1 759	1 702	1 610
28	≤ 3	1 311	1 114	1 053	920	864	809
	>3 and ≤ 6	1 560	1 415	1 328	1 328	1 244	1 178
	>6 and ≤ 10	1 751	1 654	1 541	1 654	1 579	1 486
	>10 and ≤ 15	1 892	1 831	1 712	1 892	1 831	1 731
29	≤ 3	1 406	1 195	1 129	987	926	868
	>3 and ≤ 6	1 673	1 518	1 424	1 424	1 334	1 264
	>6 and ≤ 10	1 878	1 774	1 653	1 774	1 693	1 595
	>10 and ≤ 15	2 029	1 964	1 836	2 029	1 964	1 857
30	≤ 3	1 505	1 279	1 208	1 056	991	929
	>3 and ≤ 6	1 791	1 624	1 524	1 524	1 428	1 352
	>6 and ≤ 10	2 010	1 899	1 769	1 899	1 812	1 706
	>10 and ≤ 15	2 171	2 102	1 965	2 171	2 102	1 988
31 70mph	≤ 3	1 607	1 366	1 290	1 127	1 059	992
	>3 and ≤ 6	1 912	1 734	1 628	1 628	1 524	1 444
	>6 and ≤ 10	2 146	2 028	1 889	2 028	1 935	1 822
	>10 and ≤ 15	2 319	2 244	2 098	2 319	2 244	2 122

Extract: BS6375-1 Annex A. Abbreviated method of determination of wind load for low rise building

Interlocks for 2 Pane Doors

500LS (mono) & 600LS (2 Track)		O/A door width (mm)	Interlock options based on Windload				
			up to 600pa	up to 700pa	up to 800pa	up to 900pa	up to 1000pa
		1400	1	1	1	2/3	2/3
		2000	1	1	1	2/3	2/3
		2400	1	1	1	2/3	2/3
		3000	1	1	1	2/3	2/3
		3400	1	1	1	2/3	2/3
		3800	1	1	1	2/3	2/3
		4400	1	1	1	2/3	2/3
		4600	1	1	1	2/3	2/3
		5000	1	1	1	2/3	2/3
Option 1		Option 2		Option 3			
48mm interlock (see p 22 for section drawing)		69mm interlock (see p 22 for section drawing)		48mm interlock with external reinforcement Available on special order with extended lead time. (see p 22 for section drawing)			

Eg:

Option 1 = 3800mm x 2300mm (for windload up to 800pa)

Option 2/3 = 3800mm x 2300mm (for windload above 800pa)

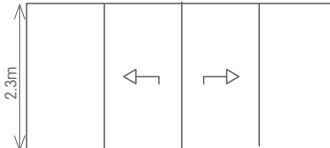
Option 2/3 = Height above 2300mm

Option 2/3 = Door height between 1900mm and 2300mm (for wind load above 800pa)

All interlock options are subject to the following:

- Doors should be installed no more than 200m above sea level
- Max building height = 10m
- Door should always be operated as per the instructions in the associated Installation and Operation guide. Excessive force should not be used as this may distort profiles over time. The installation company and/or surveyor are wholly responsible for specifying correct product/profiles for the correct application and/or location
- Guidance in this document should be followed carefully. If you intend to go outside the shown limits please refer to our technical department for approval. If no written approval is given, a guarantee will **not** be provided
- In the event profile distortion occurs, it may not be visible but may result in difficulty when opening/closing the door, installer company should investigate immediately once reported.
- Reinforcement can be added after installation to provide additional strength. Please refer to installation guide for fitting instructions

Interlocks for 4 Pane Doors

500LS (mono) & 600LS (2 Track)		O/A door width (mm)	Interlock options based on Windload				
			up to 600pa	up to 700pa	up to 800pa	up to 900pa	up to 1000pa
		2800	1	1	1	2/3	2/3
		3000	1	1	1	2/3	2/3
		4800	1	1	1	2/3	2/3
		6000	1	1	1	2/3	2/3
		6800	1	1	1	2/3	2/3
		7600	1	1	1	2/3	2/3
		8800	1	1	1	2/3	2/3
		9200	1	1	1	2/3	2/3
		9600	1	1	1	2/3	2/3
		10000	1	1	1	2/3	2/3
Option 1		Option 2		Option 3			
48mm interlock (see p 22 for section drawing)		69mm interlock (see p 22 for section drawing)		48mm interlock with external reinforcement Available on special order with extended lead time. (see p 22 for section drawing)			

Eg:

Option 1 = 4000mm x 2300mm (for windload up to 800pa)

Option 2/3 = 4000mm x 2300mm (for windload above 800pa)

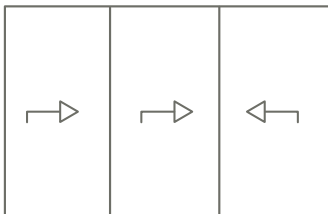
Option 2/3 = Height above 2300mm

Option 2/3 = Door height between 1900mm and 2300mm (for wind load above 800pa)

All interlock options are subject to the following:

- Doors should be installed no more than 200m above sea level
- Max building height = 10m
- Door should always be operated as per the instructions in the associated Installation and Operation guide. Excessive force should not be used as this may distort profiles over time. The installation company and/or surveyor are wholly responsible for specifying correct product/profiles for the correct application and/or location
- Guidance in this document should be followed carefully. If you intend to go outside the shown limits please refer to our technical department for approval. If no written approval is given, a guarantee will **not** be provided
- In the event profile distortion occurs, it may not be visible but may result in difficulty when opening/closing the door, installer company should investigate immediately once reported.
- Reinforcement can be added after installation to provide additional strength. Please refer to installation guide for fitting instructions

Interlocks for 3 and 6 Pane Doors

600LS (3 Track)		O/A door width (mm)	Interlock options based on Windload				
			up to 600pa	up to 700pa	up to 800pa	up to 900pa	up to 1000pa
		2100	4	4	4	4	4
		3000	4	4	4	4	4
		3600	4	4	4	4	4
		4500	4	4	4	4	4
		5100	4	4	4	4	4
		5700	4	4	4	4	4
		6600	4	4	4	4	4
		6900	4	4	4	4	4
		7200	4	4	4	4	4
		7500	4	4	4	4	4
Option 4							
83mm sash (see p 22 for section drawing)							

All interlock options are subject to the following:

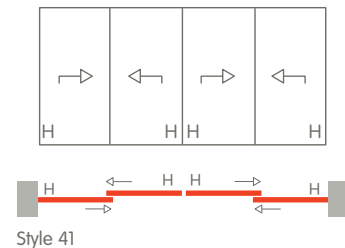
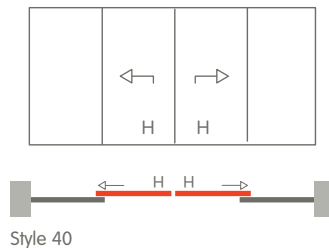
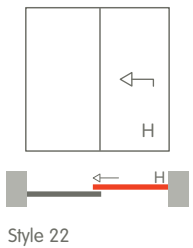
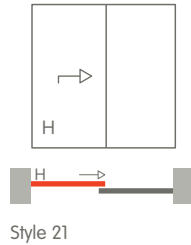
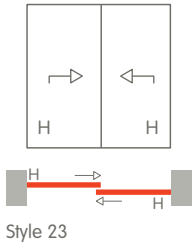
- Doors should be installed no more than 200m above sea level
- Max building height = 10m
- Door should always be operated as per the instructions in the associated Installation and Operation guide. Excessive force should not be used as this may distort profiles over time. The installation company and/or surveyor are wholly responsible for specifying correct product/profiles for the correct application and/or location
- Guidance in this document should be followed carefully. If you intend to go outside the shown limits please refer to our technical department for approval. If no written approval is given, a guarantee will **not** be provided

air 600LS

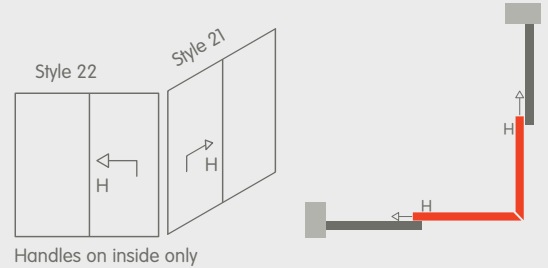
Door Styles

- All styles viewed from outside.
- Main sliding panels on inside track
- Triple track system (allows multiple sliders to open in the same direction) only available on 3 and 6 pane configurations.

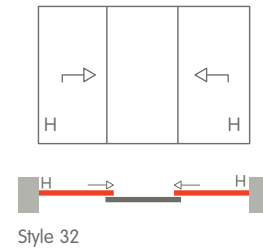
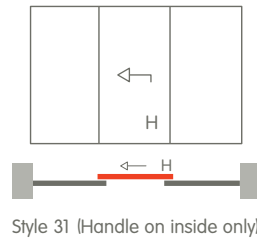
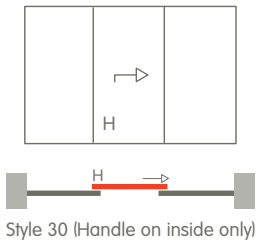
2 Track - available with 48mm or 69mm interlocks



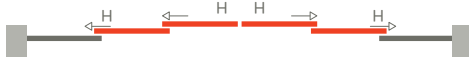
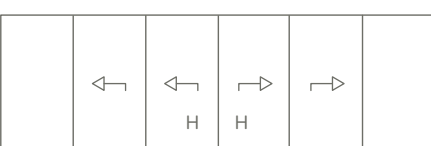
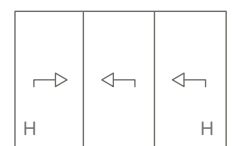
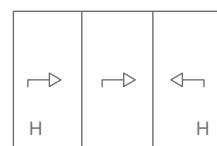
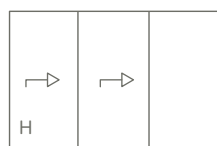
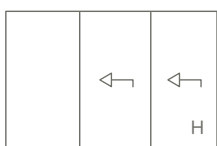
2 Track - Cornerless Option available with 83mm sash only (due to handle position)



2 track - available with 83mm sash only



3 track - available with 83mm sash only

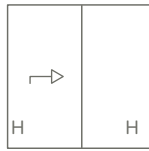


air 500LS

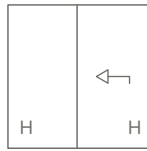
Door Styles

- All styles viewed from outside
- Main sliding panels on outside track

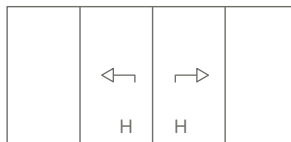
Monorail Standard Single Track - available with 48mm or 69mm interlocks



Style 20



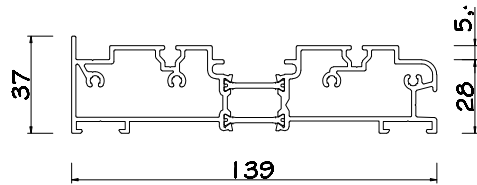
Style 21



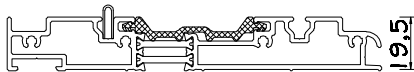
Style 40

air 600LS Profiles

006.1901 2 Track Bottom Frame (LS)

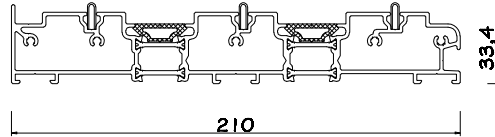


006.1917 2 Track Bottom Low Frame (LS) Limited Weather rating

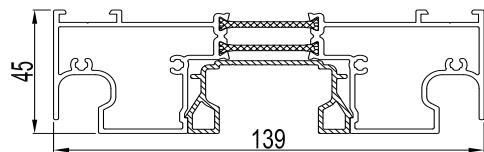


006.1920 3 Track Bottom Frame (LS)

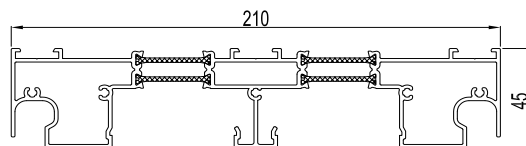
61



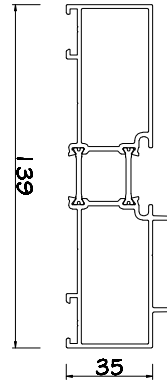
006.1903- 2 Track Head (LS)



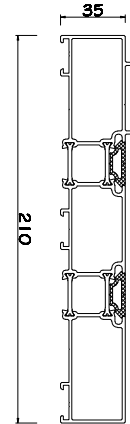
006.1923 3 Track Head (LS)



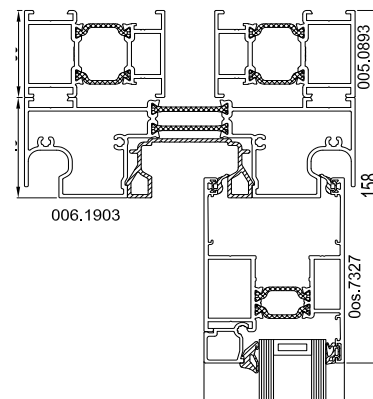
006.1902 Jamb (LS)



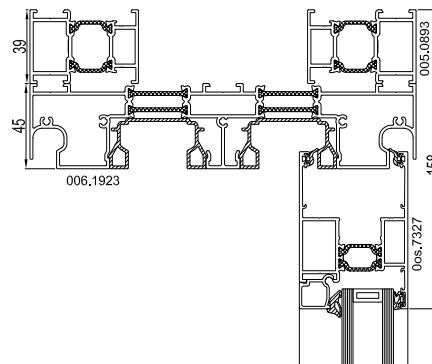
006.1922 Jamb (LS)



Trickle Vent add on (2 Track)

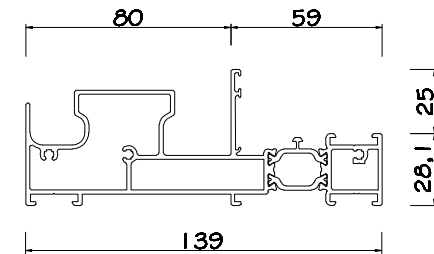


Trickle Vent add on (3 Track)

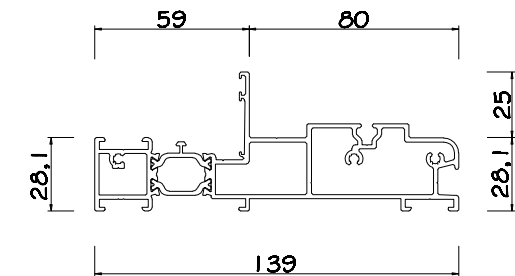


air 500LS Profiles

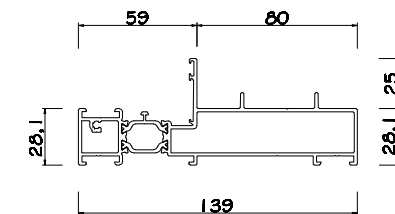
006.1913 Head Profile LS (Monorail)



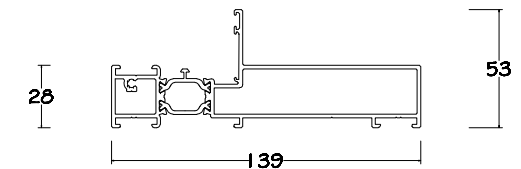
006.1910 - Bottom Track LS (Monorail)



006.1911 Jamb LS (Monorail)

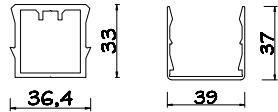


006.1912 Jamb LS (Monorail)

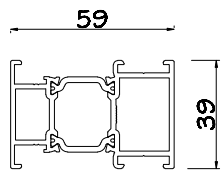


Common Ancillaries, Couplers and Add ons

030.1096 37 x 39 Reinforcing

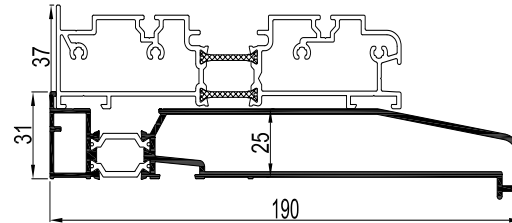


005.0893 Add on

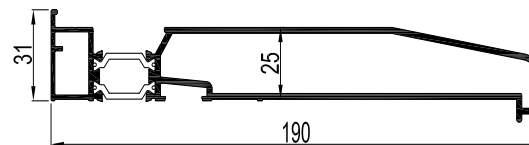


Recommended Cill Options

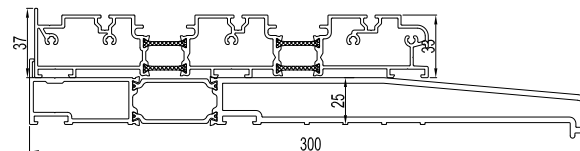
ETC458 - Typical cill detail using 139mm frame only



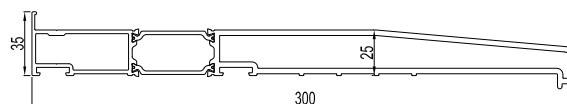
ETC458 - 190mm Cill



ETC478- Typical Cill detail using 210mm frame only

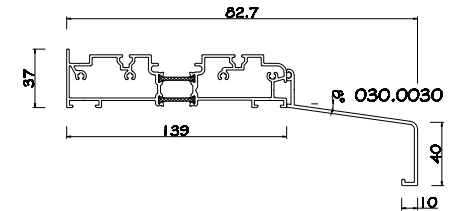


300mm cill (not available with coatex finish. Max length 5m)

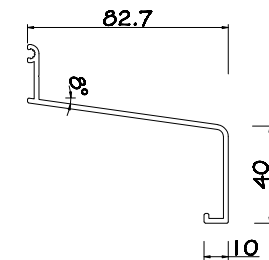


Other Cill Options

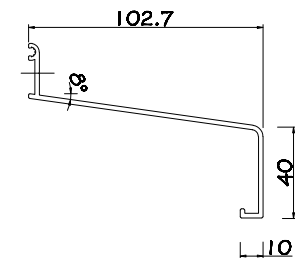
Typical Add on Cill Detail



030.0030 83mm Add on Cill

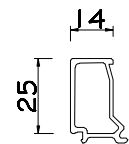


030.0031 103mm Add On Cill

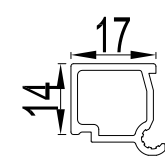


Common Profiles

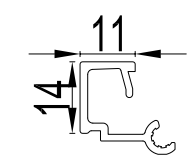
030.3648 28mm Bead (69mm Interlock only)



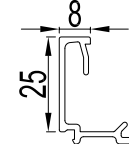
002.0679 28mm Glazing Bead²



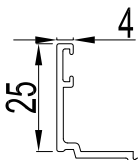
002.0677 36mm Glazing Bead^{1,2}



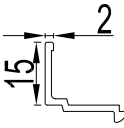
030.3646 36mm Glazing Bead (69mm Interlock only)¹



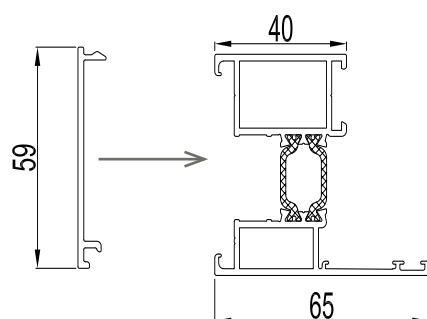
030.3200 44mm Glazing Bead (69mm Interlock only)¹



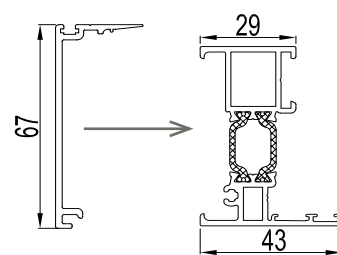
004.3399 44mm Glazing Bead^{1,2}



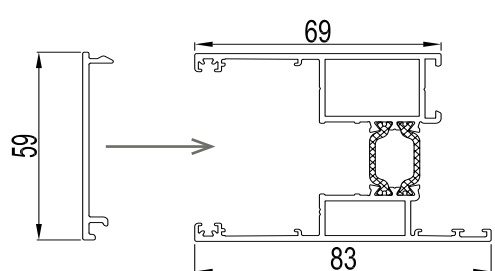
006.1987 69mm Interlock Profile



00S.7331 48mm Interlock Profile



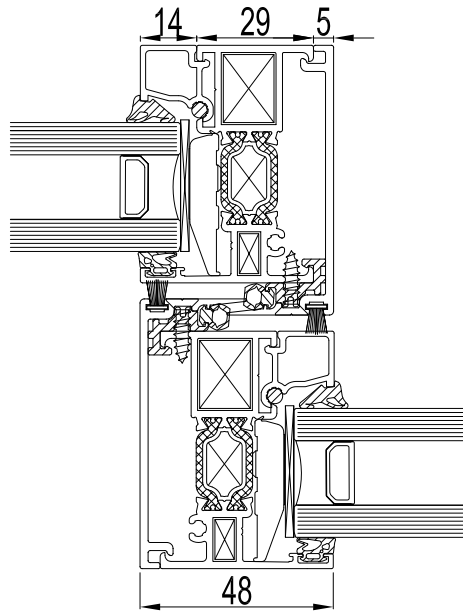
00S.7327 83mm Sash Profile



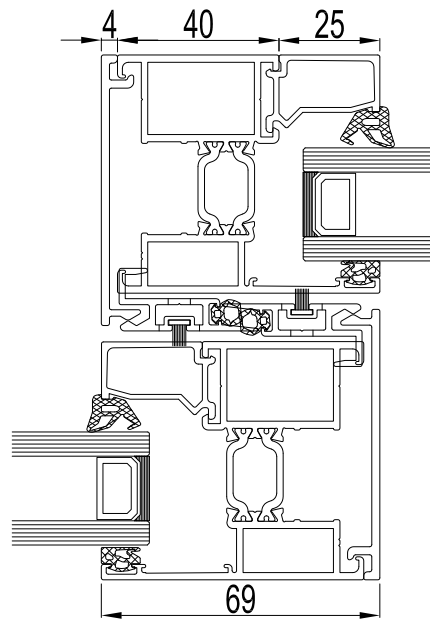
- 1 Extended lead times apply
- 2 For 48mm interlock and/or 83mm sash

Interlocks

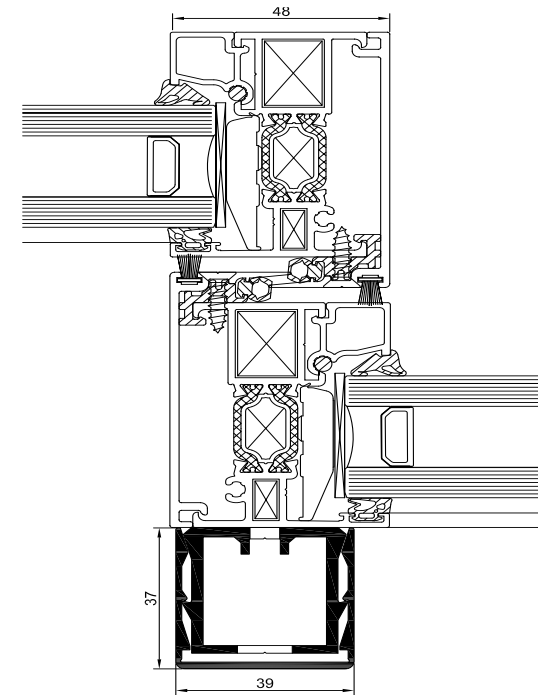
00S.7331 48mm Interlock (Option 1)¹



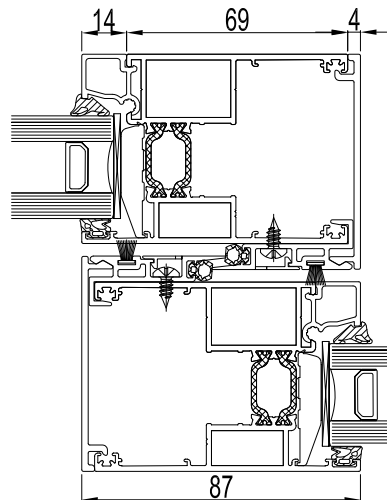
006.1987 69mm Interlock (Option 2)¹



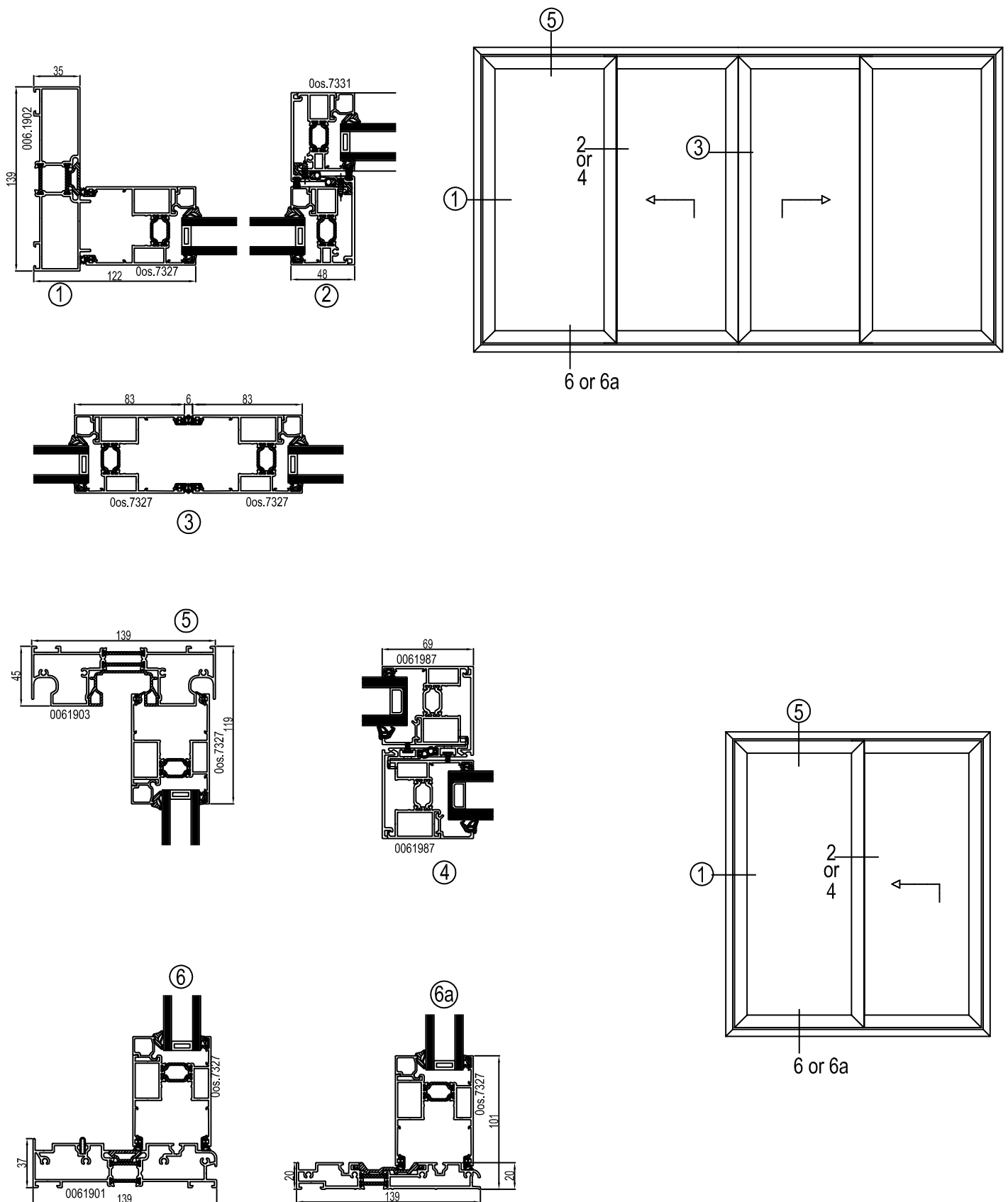
00S.7331 48mm Interlock with external reinforcement (Option 3. Special order, subject to extended lead times)³

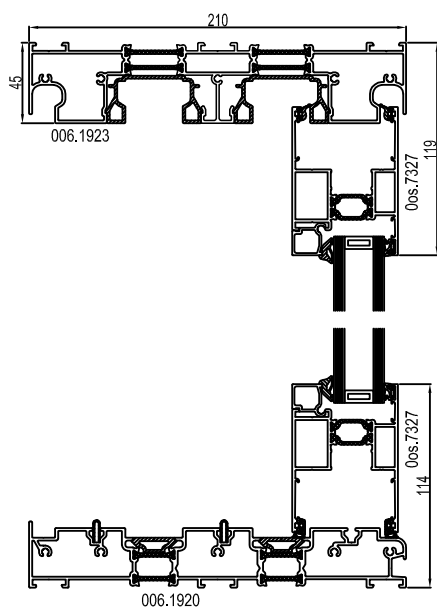
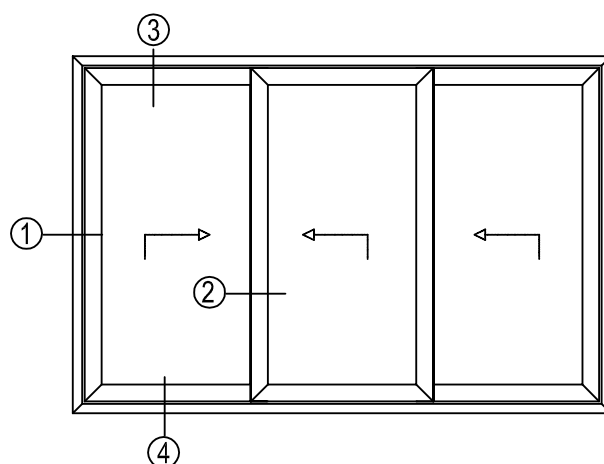
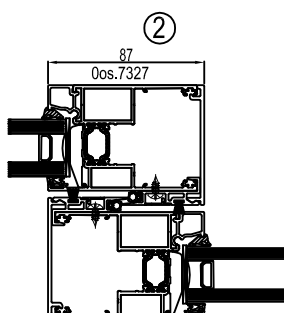
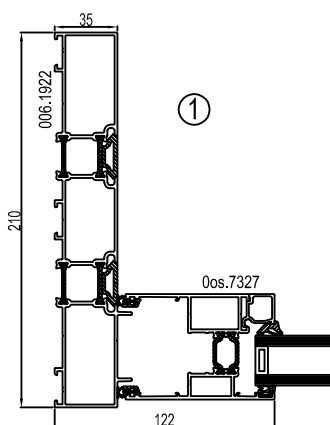
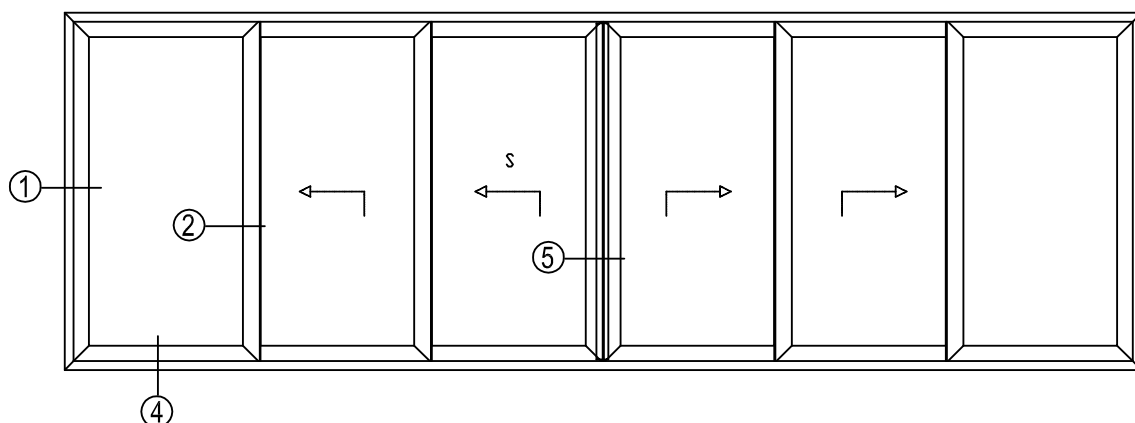


00S.7327 83mm Sash (Option 4)²



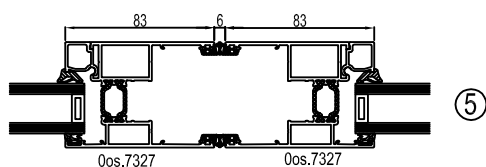
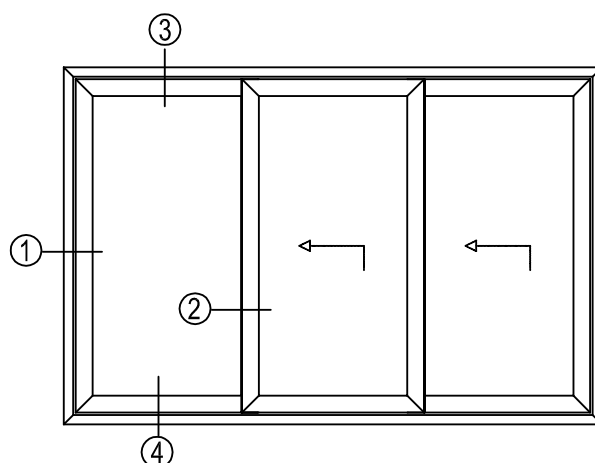
- 1 48mm and 69mm interlocks will be square joints
- 2 83mm sash will be mitre joints
- 3 Reinforcement will be factory fitted 15mm below bottom of head rail and 5mm above bottom of the sash



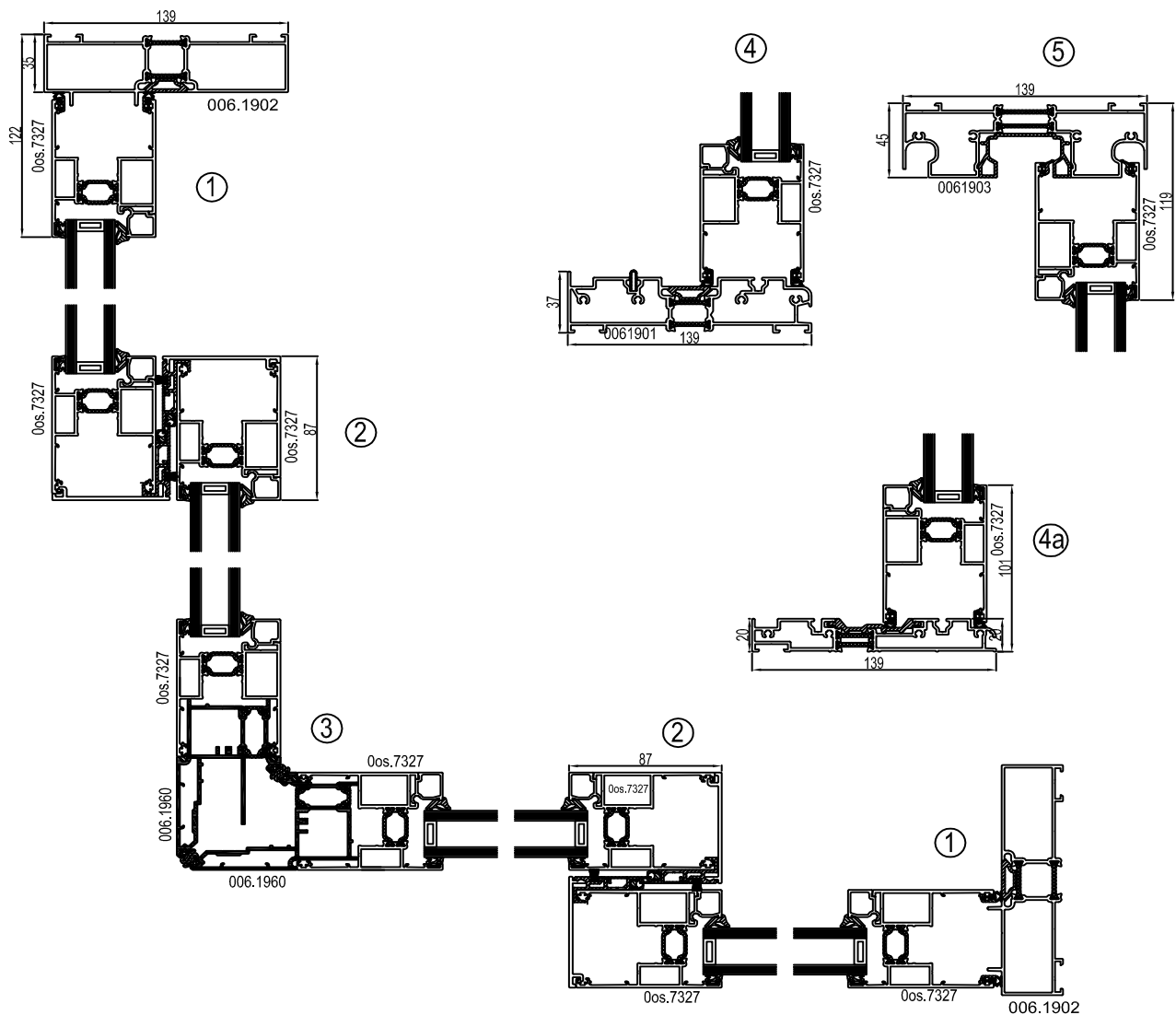
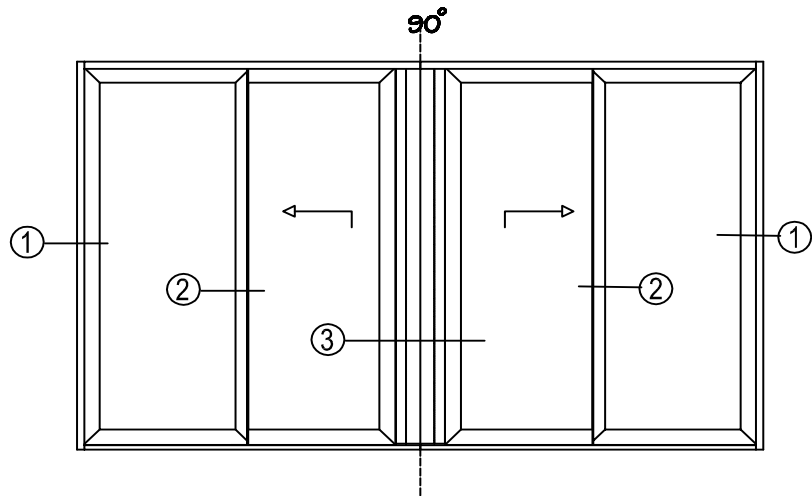


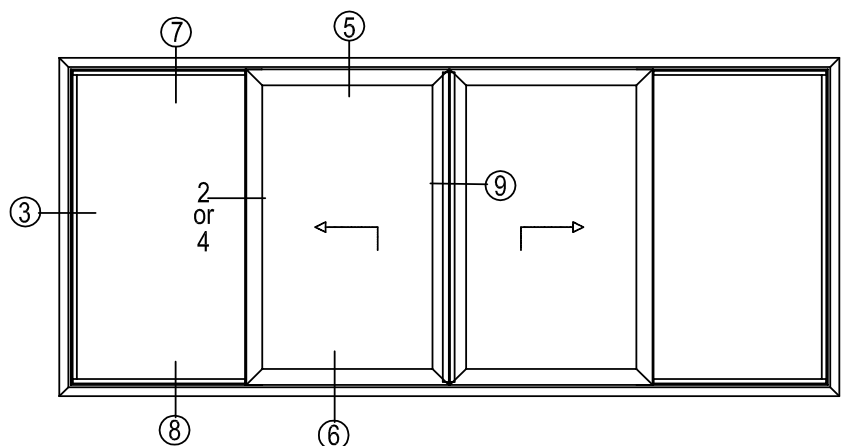
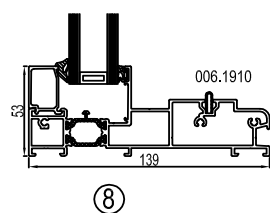
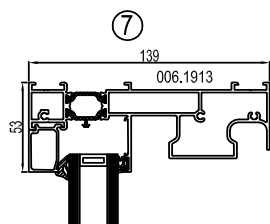
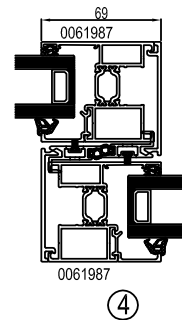
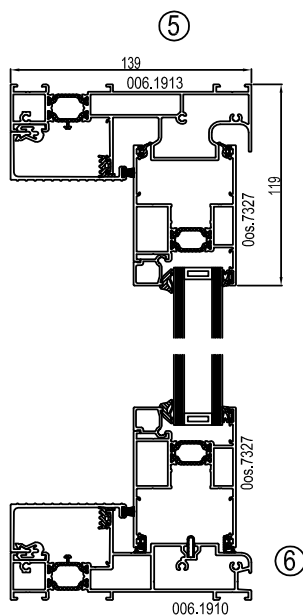
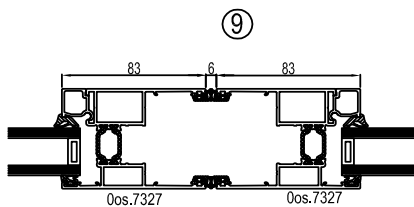
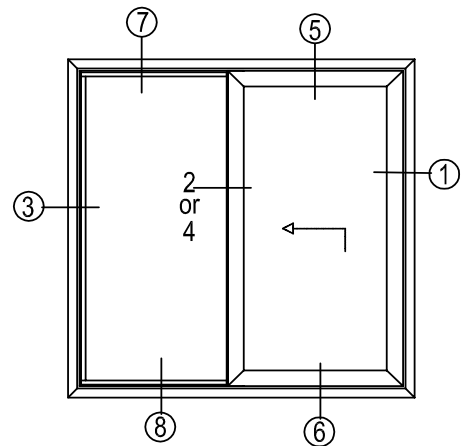
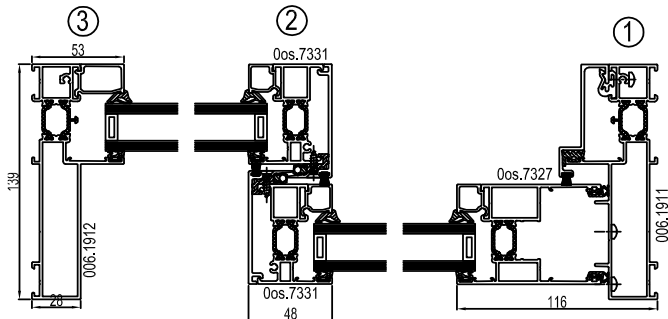
③

④



⑤





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