

SKY-FRAME

HURRICANE

FACTSHEET.

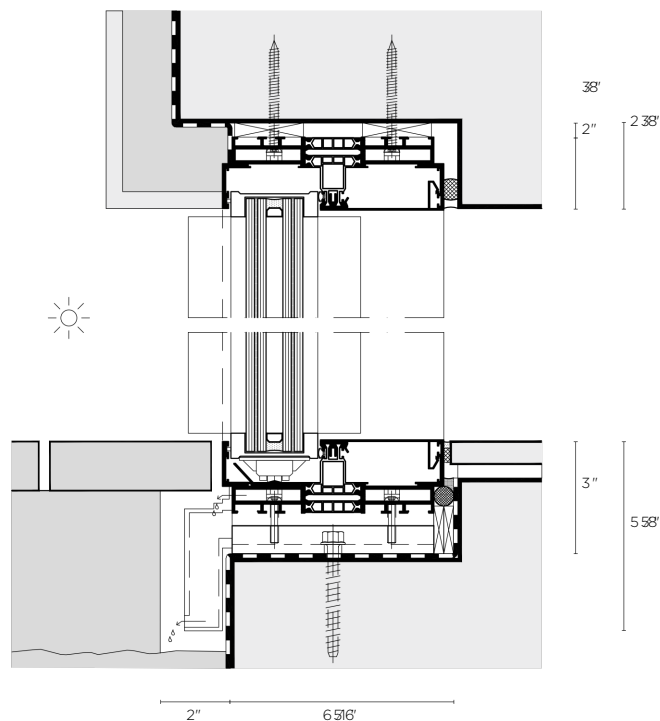
EN



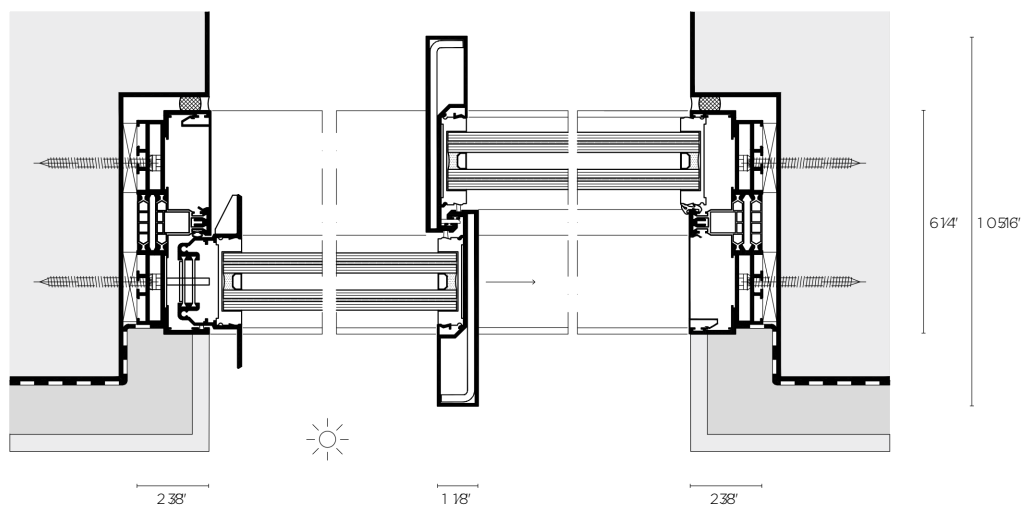
SKY-FRAME

Sky-Frame Hurricane sliding doors have exceeded the most stringent hurricane impact tests, and are compliant with the High Velocity Hurricane Zone (HVHZ) criteria as defined by the Florida Building Code - considered to be the gold standard in the industry. Fulfilling the requirements of Miami-Dade County, Sky-Frame's 91-inch x 138-inch panels are one of the largest hurricane-rated frameless sliding doors on the world market. The values of 1050 Pa (22 psf) reached during the driving-rain tests are the world's highest, and greatly contribute to the water-resistance of the windows. The sliding doors can be motorized or manually operated with a wide range of opening options and a slim 1 1/8-inch sight line offers an unbounded spatial experience for exceptional architecture. Multi-tracks allow an unlimited number of sliding doors to be installed next to each other.

Vertical section, two track



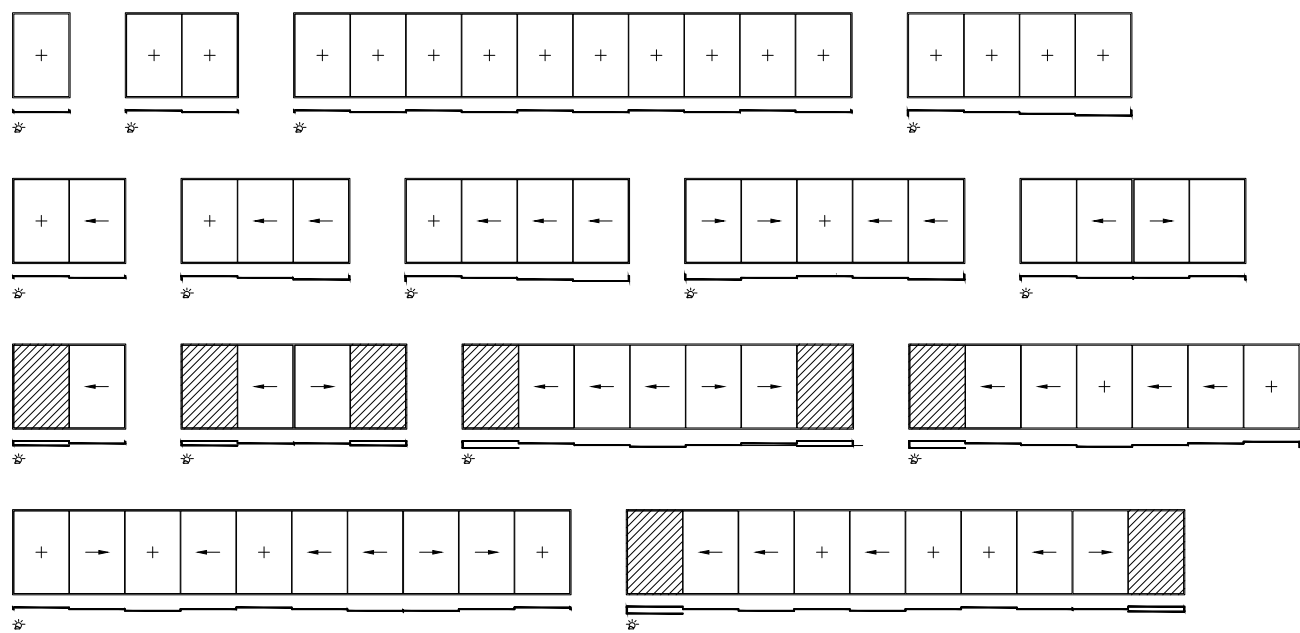
Horizontal section



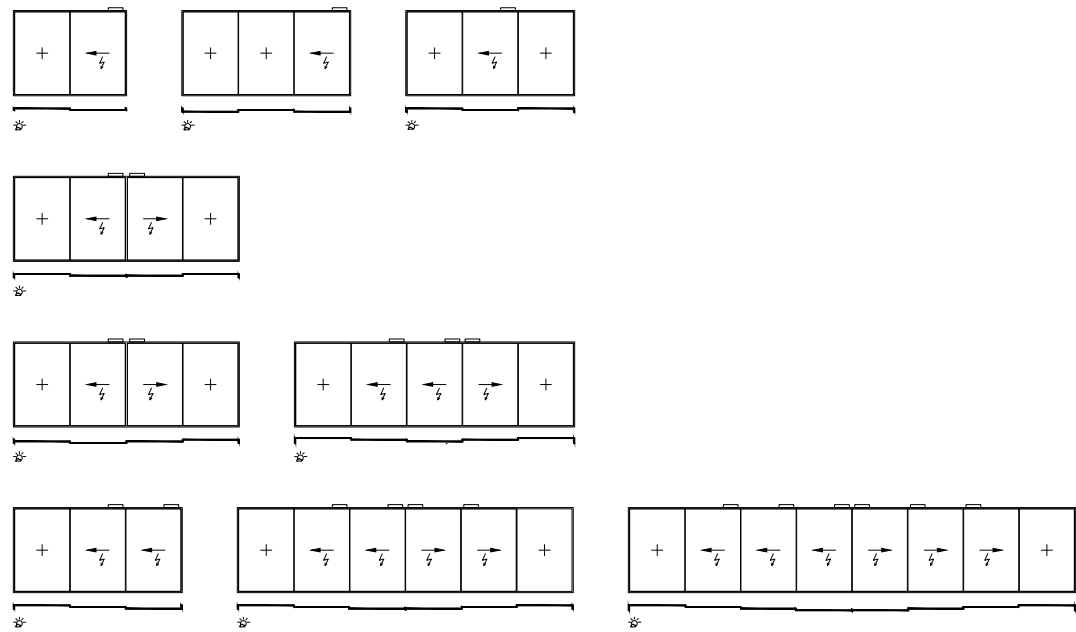
SKY-FRAME HURRICANE

CONFIGURATIONS

Possible configurations with Sky-Frame Hurricane.



Configurations with Sky-Frame Hurricane/Drive



SKY-FRAME HURRICANE

DIMENSIONS AND DETAILS

Characteristics	Sky-Frame 3 Hurricane	Sky-Frame 3 Hurricane
Design pressure	65 psf 3.1 kN/m ²	75 psf 3.6 kN/m ²
Sliding or fixed panel <small>(max. width x height)</small>	*7'7" x 11'6" 2,311 mm X 3,505 mm	*5' x 11'6" 1,524 x 3,505 mm
Maximum panel area <small>* All possible dimensions on request.</small>	87 ft ² 8.1 m ²	75 ft ² 6.9 m ²
Clear opening (width)	depending on the configuration	
Clear opening (height)	= panel height - 1" = panel height - 24 mm	

Maximum dimensions based on design pressure

			Panel width					
			1,524	1,676	1,829	1,981	2,134	2,286
			60	66	72	78	84	90
Panel height	3,505	138				Dimensions for 65 psf		
	3,353	132						
	3,200	126						
	3,048	120						
	2,896	114	Dimensions for 75 psf					
	2,743	108						
	2,591	102						
	2,438	96						
	2,286	90						
	2,134	84						
	2,032	80						

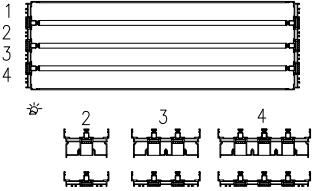

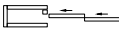
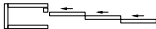


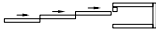

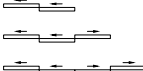

SKY-FRAME HURRICANE

RULES OF CONFIGURATION

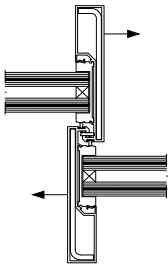
Characteristics	Sky-Frame 3 Hurricane
Insulating glass (double glazing)	1 58' 40.5 mm LSG-TSG 6/6.6 SGP / 12 / LSG-TSG 6/6.6 SGP
Rating <small>(Tas 201/202/203)</small>	HVHZ, wind zone 4, large and small missile impact
NFRC	available
Configuration	
Number of tracks	2-4
Number of panels	no limit
Configuration restrictions	no slider on the inner track
Steel-reinforced labyrinth	available
Centre opening offset	available
Centre opening on same level	available
Edge opening	available
Corner opening	not available
Fixed corner glazing	not available
Inline	not available
Features	
Sky-Frame Pocket	available
Sky-Frame Fly	available
Sky-Frame Drive	available
Sky-Frame Guard	available
<small>Connection to alarm system: - Deadbolt monitoring - Position monitoring</small>	





SKY-FRAME HURRICANE

INSTALLATION RULES

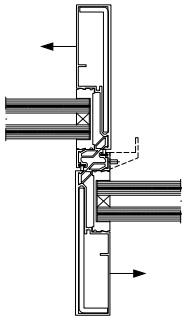
	TRACK 1	TRACK 2	TRACK 3	TRACK 4
FIXED PANEL	YES	YES	YES	YES
SLIDING PANEL	NO	YES	YES	YES
POCKET	FIXATION			
POCKET	FIXATION			
DRIVE	NO	YES 	YES 	YES 





STEEL REINFORCED
LABYRINTH



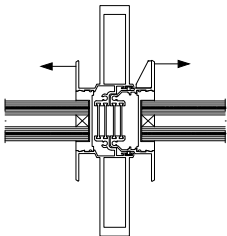
	YES
	YES
	YES
	YES





CENTRE OPENING
OFFSET



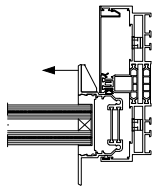
	NO
	YES
	YES
	YES

CENTRE OPENING
ON SAME LEVEL
(NOT ON INNER TRACK)



	NO
	YES
	YES
	YES

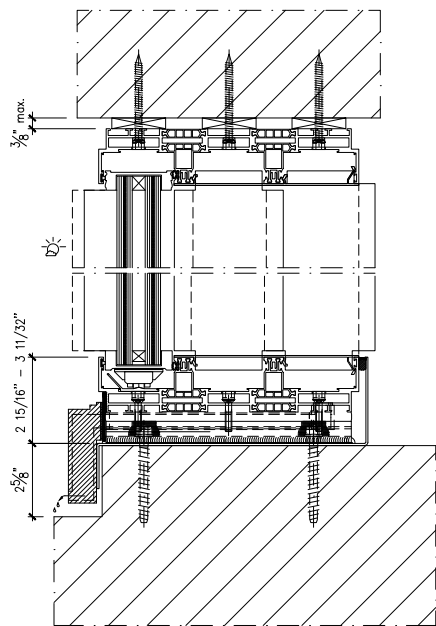
EDGE OPENING
(NOT ON INNER TRACK)



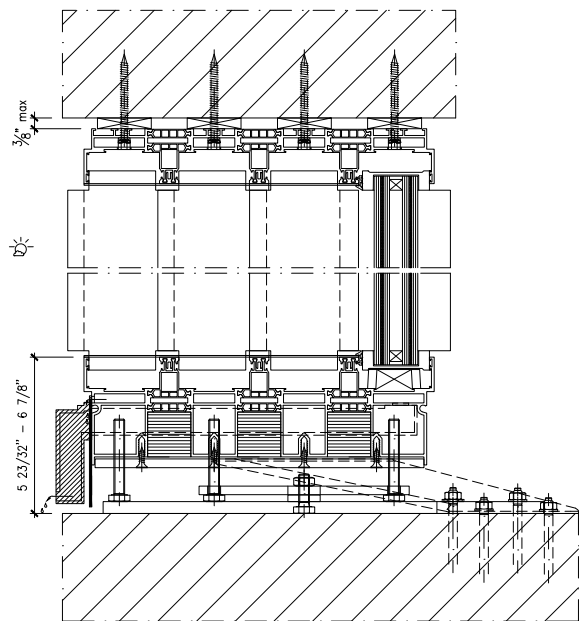
SKY-FRAME HURRICANE

INSTALLATION RULES

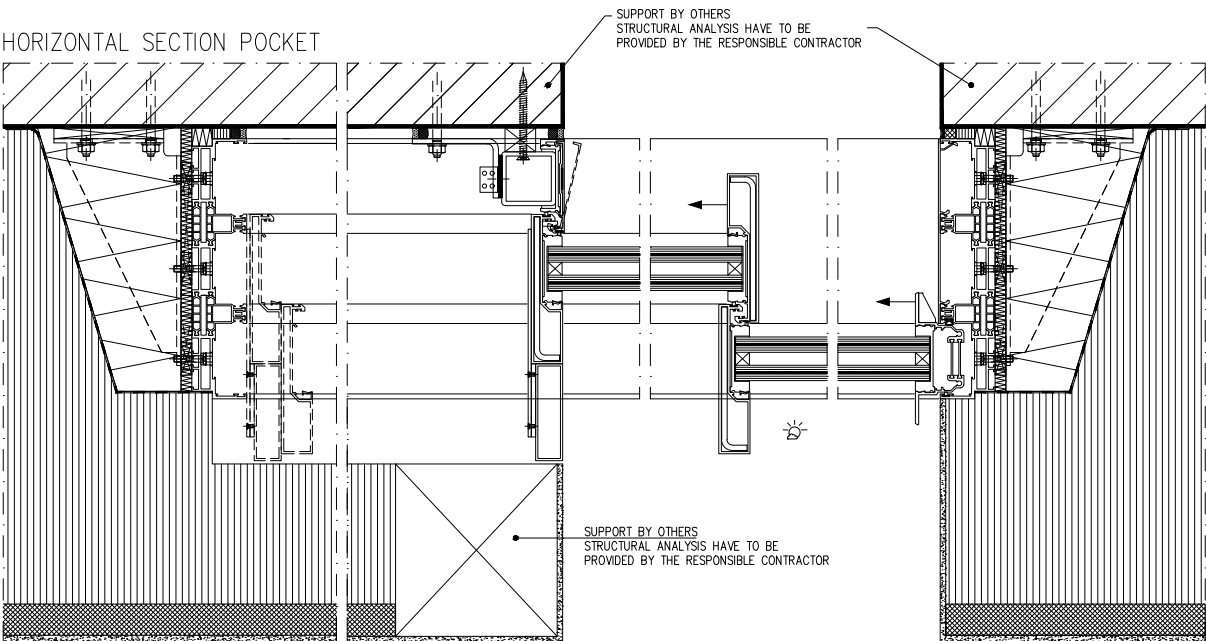
VERTICAL SECTION 3 TRACK WITH
BASE PROFILE 75 AND SILL PAN



VERTICAL SECTION 4 TRACK WITH
STANDARD BASE PROFILE AND STANDARD SILL



HORIZONTAL SECTION POCKET



SKY-FRAME HURRICANE

SELLING POINTS

Main selling point

One of the largest frameless sliding doors with hurricane approval in the world

Attractive features

- Approval for design pressure of 65 psf and 75 psf
- Water resistance up to 22 psf
- Modular construction possible
- Unlimited number of elements
- Vertical profiles with minimal visible width of 1 1/8"
- Electric drive
- Two base assembly options
- Protected running gears

Sales prices

On request

Institute/authority



SKY-FRAME HURRICANE

FAQ

Which certifications does the product comply with?

- We executed the Florida Product Approval according to the requirements of the Florida Building Code (FBC) for High Velocity Hurricane Zones (HVHZ).
- In a second phase, we will submit a test report to NAMI in order to receive a Hurricane and a Non-Impact Certificate, which will be applicable throughout the entire USA.

What is a Dade NOA approval?

A Miami-Dade Notice of Acceptance (NOA) is a local product approval for products that are compliant with the High Velocity Hurricane Zone (HVHZ) criteria as defined in the Florida Building Code (FBC).

What is a Florida Product Approval?

According to the law of the federal state of Florida, building envelope components like roofs, window shutters, doors and windows must provide product approval from Florida that proves that the product is suitable for application in the federal state of Florida, based on the standards stipulated in the applicable Florida Building Code (FBC).

What is the HVHZ?

According to section 202 of the Florida Building Code, the HVHZ (High Velocity Hurricane Zone) is defined as follows: "This zone consists of Broward and Miami-Dade County."

Is the test for the HVHZ the same as for a NOA?

Yes, the evaluation criteria and the applicable standards are identical.

Are the labels of Florida Product Approval and Miami-Dade County of equal value?

Yes, Florida Product Approval and Miami-Dade are of equal value if the approval includes application in the HVHZ. The Florida Product Approval is, however, valid in the entire state and a Miami-Dade NOA is only valid for the counties of Miami-Dade and Broward.

Application for residential or commercial use?

Both are approved, the only relevant criteria is the design pressure.

What can be applied in the non-impact regions in Florida?

- The same as with impact regions, with regard to the dimensions and technical options
- Standard glass types are permitted based on structural specifications
- Maximum dimensions can vary based on differing wind loads and must be calculated

Which hurricane wind zones are covered?

The certificate covers +/-65 psf and with smaller dimensions +/-75 psf.

SKY-FRAME HURRICANE

FAQ

Which certificates are there besides the Sky-Frame 3 Hurricane Certificate?

- NFRC
- Hurricane for Sky-Frame 2 (only XO) (NOA Miami-Dade and Florida Building Approval)
- Non-Impact Florida Approval for Sky-Frame 2 (only XO)

Which certifications will be available in the future, due to the Hurricane test?

- Energy Star
- Non-Impact Florida Approval for Sky-Frame 3
- NAMI certificate for all tests executed (airtightness, watertightness, wind load) -> validity in the entire USA
- Hurricane Certificate from NAMI
- We will communicate when the certificates are available

Which values were determined in the tests?

Impact rating: (TAS 201)

large missile

Water penetration: (TAS 202)

9.75 psf (467 Pa) -> required by the standard

22 psf (1053 Pa) -> maximum has been reached

Wind pressure loading: (TAS 203)

65 psf (3.1 kN) -> target value

75 psf (3.6 kN) -> was reached through additional cycle tests

Is there a requirement for hurricane shutters?

No, they are not required.

Are the Arc, Slope, Plain and Pivot systems also Hurricane certified?

No, at the moment only Classic is available.

Feasibility of glass corners? Edge opening? Inline?

No, not tested at this time.

Are thinner profiles for small elements available?

No, only the following profiles have been certified:

- SF3 Laby XL St
- SF3 MVv XL St
- SF3 MVe XL

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FAQ

Is there a solution for oversized elements?

Depending upon requirements, an object-specific approval can be made by a certified engineer in the USA.
Important: always plan far in advance so that the customers wishes can be adapted.

What is the solution if the customer wishes more than four tracks?

This cannot be offered as the technical feasibility is not clarified and the certificate is created for two to four tracks.

Is one track possible?

No.

Are there height adjustments against lowering of the ceiling?

For the Hurricane System, the soffit frame must be hard shifted with screws when installed, therefore it cannot be readjusted. The approved values for dynamic ceiling deflection of $\pm 1/8"$ (± 3 mm) apply.

How is it guaranteed that the product meets the architect's requirements?

Specifications must be verified and released by Sky-Frame in an early phase.

What is the right approach with specific enquiries?

- To fill required dimensions and configurations in Sky-Frame calculation tool as Sky-Frame 3 Classic version
- To define if impact or non-impact is required
- To inform about required wind zone
- To define the factored design pressure per window (respecting dependency on location of window, square footage of window and reduction factor)
- To define further requirements

What must be considered during the consultation process with the customer?

- Only the configurations and dimensions as shown on the fact sheet can be applied.
- What are the effective requirements regarding wind (wind zone, reduction factor, design pressure)?

Is the delivery time the same as with Classic?

No, the delivery time is longer as the production of the special glass construction is much more time-consuming. In addition, the time required for preparing the work and the production takes more time than with Classic.

**A VIEW,
NOT A
WINDOW.**

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