



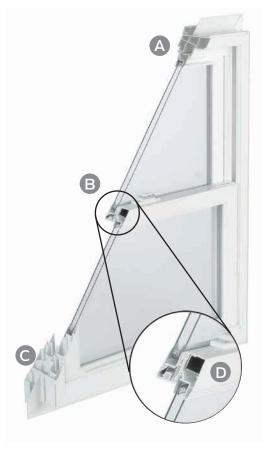
Vinyl Windows and Sliding Patio Doors



Competitively priced, easy-care vinyl. Encompass by Pella® vinyl windows and sliding patio doors feature low-maintenance, high-grade vinyl that looks great for years. Best of all, you get quality products backed by Pella for years to come.

- A Pella's precision welding process makes stronger and more durable windows that help prevent the frame from warping and twisting over time.
- B Pella's exclusive weather-repel system on double-hung windows guards against air and water infiltration. Three points of protection channel water away from your home:
  - · Sloped sill and sill interlocker
  - Triple weatherstrip design
  - Offset weep system
- All products are made of high-quality vinyl that resists fading and yellowing and stays looking great for years with no more painting!
  - Solid color throughout the vinyl keeps minor dings and scratches virtually invisible.
- Steel-reinforced sash provides excellent structural integrity and resistance to wind.
  - Products are tested in state-of-the-art facilities.





	Cross Section	Frame / Install	Wall Depth Range	Performance Range
Double-Hung Vent		Block Frame Nail Fin	Base Frame Depth: 3-1/4" Fin Setback: 1-1/8" Base Wall Depth: 2-1/8" Jamb Extended Wall Depth: 4-9/16" or 6-9/16"	R20 - R50 U: 0.24 - 0.47 SHGC: 0.19 - 0.60 STC: up to 26
Single-Hung		Block Frame Nail Fin Nail Fin with J-Channel Flush Flange	Base Frame Depth: 2-11/16" Fin Setback: 1-1/8" Base Wall Depth: 1-9/16" Jamb Extended Wall Depth: 4-9/16" or 6-9/16"	R20 - R50 U: 0.24 - 0.47 SHGC: 0.20 - 0.65 STC: up to 26
Sliding Window		Block Frame Nail Fin Nail Fin with J-Channel Flush Flange	Base Frame Depth: 2-11/16" Fin Setback: 1-1/8" Base Wall Depth: 1-9/16" Jamb Extended Wall Depth: 4-9/16" or 6-9/16"	R20 - R35 U: 0.23 - 0.47 SHGC: 0.20 - 0.64 STC: up to 26
Fixed Frame Direct Set		Block Frame Nail Fin Flush Flange	Base Frame Depth: 2-11/16" Fin Setback: 1-1/8" Base Wall Depth: 1-9/16" - or - Base Frame Depth: 3-1/4" Fin Setback: 1-1/8" Base Wall Depth: 2-1/8" Jamb Extended Wall Depth: 4-9/16" or 6-9/16"	R25 - R55 U: 0.21 - 0.49 SHGC: 0.20 - 0.66 STC: up to 26
Sliding Patio Door		Nail Fin Flush Flange	Base Frame Depth: 4-1/2" Fin Setback: 1-7/16" Base Wall Depth: 3-1/16"	R25 - R50 U: 0.23 - 0.48 SHGC: 0.20 - 0.61 STC: up to 25
Fin Setback  Base Frame Dep	Nail Fin  Base Wall Depth  Jamb Extended Wall Depth  Jamb Extended Frame Depth	Fin Setback Base Frame D	Block Fram  Block Fram  Base Wall Depth  Jamb Extended Wall Depth  Jamb Extended Frame Depth	th Rese Wall Dooth

East Region New Construction Frames shown. Flush Flange available in West Region only.

Performance ranges shown are for single-units and do not account for composite units (integral mullion) or combinations (multiple units mulled together).

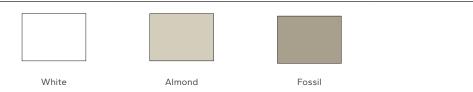
Encompass by Pella® vinyl window products are intended only for use less than 40 feet above ground level.

Drawings are not to scale.

#### **Finishes**

Maintenance-free vinyl frames are available in White, Almond or Fossil.

#### Colors



#### Hardware

#### Window Locks 1

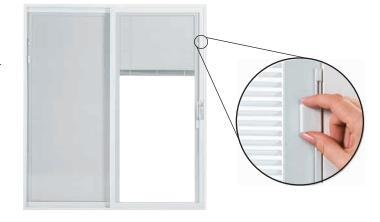


#### Sliding patio doors 2



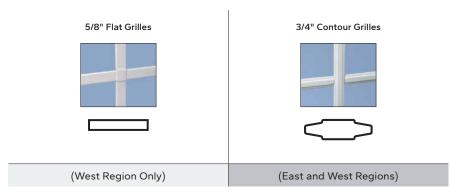
#### Patio Door Blinds-Between-the-Glass 3

- · White blinds-between-the-glass on patio doors.
- Blinds are protected from dust and damage.
- Cordless design is safer for children and pets.
- Easy-to-operate levers raise, lower and tilt the blinds.
- Low-E glass coating maintains energy efficiency, without sacrificing convenience.



- (1) Standard lock hardware is finished to match the interior of the window or door frame.
- (2) Finish of exterior hardware matches color of exterior door frame.
- (3) See your local Pella representative for availability.

#### Grilles-Between-the-Glass<sub>1</sub>



	Hung	Sliding Window	Sliding Door	Guidelines
Traditional			,	Specify number of lites in each panel (wide and high).  Grilles must be equally divided on visible glass.  Minimum 6" x 6" center-to-center.  Specify upper or both sash (Hung only).
9-Lite Prairie		•	<b>)</b>	Windows  Approximately 4" from edge of sash to center of bar.  Minimum actual glass is 13".
6-Lite Prairie				Specify upper or both sash (Hung only).  Sliding Door Approximately 6" from edge of panel to center of bar.
Top Row				Standard visible glass to separator bar must be ≤1/2 upper actual glass.

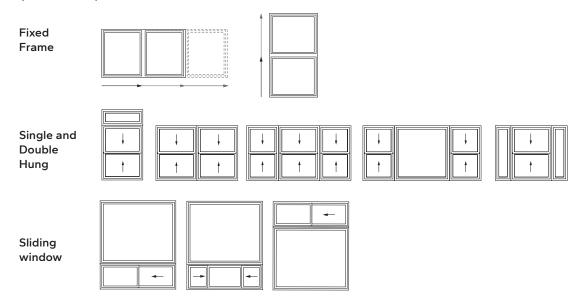


#### **Combination Assemblies**

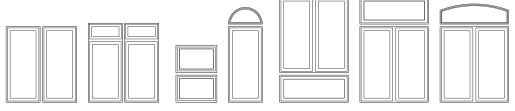
A combination is an assembly formed by two or more separate windows or doors whose frames are mulled together by a combination or reinforcing mullion. A composite is an assembly of windows inside a single, continuous frame.

Encompass by Pella\* products are available in many common configurations. Refer to the Product Application section of this book, Pella.com or your local Pella sales representative for information on performance and availability.

#### Window Composite Examples



#### Window Combination Examples

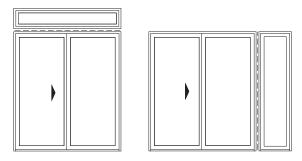


Factory or Site Assembled Combination Parameters

Max. of 3 windows per opening and 50 sq ft.

Mullion reinforcing may be required.

#### Door and Window Combination Examples



<sup>\*</sup>Actual mullion span and combination size availability depends on design pressure requirements. Consider combination size, weight and job-site handling during design. Encompass by Pella\* vinyl window products are intended only for use less than 40 feet above ground level.



Double-Hung Window



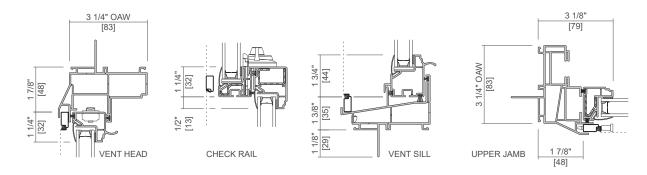
Air, Water, & Structural	Performance Class & Grade Rating	Water Penetration Resistance	Air Infiltration	Design Pressure	Forced Entry
Performance	H-R20 - R50	3.0 - 7.5 psf	0.24	20 - 50 psf	10

Thermal Performance	Type of Glazing (Argon fill)	U-Factor	SHGC	VLT %	CR	EnergyStar <sup>®</sup> Capable
3/4" Overall Glass	Advanced Low-E IG	0.28 - 0.33	0.25 - 0.29	0.47 - 0.53	53 - 57	_
Thickness	NaturalSun Low-E IG	0.29 - 0.34	0.44 - 0.50	0.53 - 0.60	53 - 56	_
2.5mm/2.5mm	NaturalSun+ Low-E IG	0.25 - 0.27	0.43 - 0.48	0.52 - 0.59	44 - 45	CA, N
Standard and High Performance options	SunDefense™ Low-E IG	0.28 - 0.33	0.19 - 0.21	0.44 - 0.49	53- 57	SC, S
	SunDefense+ Low-E IG	0.24 - 0.26	0.19 - 0.21	0.43 - 0.48	45- 46	NC, SC, S

Sound Performance	Frame Size Tested	Type of	Glazing	STC	ОІТС
	3-1/4" Frame Depth, 36" x 60"	3/4" Overall Glass	3mm / 3mm glass	26	22
	3-1/4" Frame Depth, 36" x 60"	Thickness	2.5mm / 2.5mm glass	25	22

Code Approvals: AAMA Certified; FPAS#: FL11152; TDI#: WIN-333

Performance varies based on actual product attributes. See the Performance section earlier in this manual to learn more about performance standards and ratings.



East Region New Construction Frame shown.

Other frame types are available.

Not to scale. All dimensions are approximate.



East Region Only

#### 1-Wide Vent

		(610) (597)	(710) (699)	(762) (749)	(813) (800)	(914) (902)	(965) (953)	(1 016) (1 003)
	Opening	2' 0"	2' 4"	2' 6"	2' 8"	3' 0"	3' 2"	3' 4"
	Frame	23 1/2"	27 1/2"	29 1/2"	31 1/2"	35 1/2"	37 1/2"	39 1/2"
(914)	35 1/2"	35 50	35 50	35 50	35 50	35 50	25 50	25 50
(965) (953)	3'2" 37 1/2"	2-0/3-0 35 50	2-4/3-0 35 50	2-6/3-0 35 50	2-8/3-0 35 50	3-0/3-0 35 50	3-2/3-0 <b>25</b> <b>50</b>	3-4/3-0 <b>25</b> <b>50</b>
		2-0/3-2	2-4/3-2	2-6/3-2	2-8/3-2	3-0/3-2	3-2/3-2	3-4/3-2
(1 067) (1 054)	3'6"	35 50	35 50	35 50	35 50	35 50	25 50	50
30)	10"	2-0/3-6 <b>35</b>	2-4/3-6 <b>35</b>	2-6/3-6 35	2-8/3-6 <b>35</b>	3-0/3-6 <b>35</b>	3-2/3-6 <b>25</b>	3-4/3-6 <b>25</b>
(1 160) (1 156)	3' 1	<b>50</b> 2-0/3-10	<b>50</b> 2-4/3-10	2-6/3-10	2-8/3-10	3-0/3-10	3-2/3-10	3-4/3-10
(1 219) (1 207)	1/2"	35	35	35	35	35	25	25
$\Sigma \Sigma$	47	2-0/4-0	2-4/4-0	2-6/4-0	2-8/4-0	3-0/4-0	3-2/4-0	3-4/4-0
21) 08)	1/2"	35	35	35	35	35	25	25
(1 321)	51	50	50	50	50	50	50	50
		2-0/4-4	2-4/4-4	2-6/4-4	2-8/4-4	3-0/4-4	3-2/4-4	3-4/4-4
(1 372) (1 359)	4' 6" 53 1/2"	35 50	35 50	35 50	35 50	35 50	25 50	25 50
		2-0/4-6	2-4/4-6	2-6/4-6	2-8/4-6	3-0/4-6	3-2/4-6	3-4/4-6
(1 524) (1 511)	5' 0"	35 50	35 50	35 50	35	35 50	25 50	25 50
22	59					E1	E1	E
		2-0/5-0	2-4/5-0	2-6/5-0	2-8/5-0	3-0/5-0	3-2/5-0	3-4/5-0
(1 575) (1 562)	5'2"	35 50	35 50	35 50	35 50	35 50	<u>25</u> 50	25 50
		2-0/5-2	2-4/5-2	2-6/5-2	2-8/5-2	3-0/5-2 E <sub>1</sub>	3-2/5-2 E	3-4/5-2 E
(9. <del>(</del> 4.	6"	35	35	35	35	35	25	25
(1 676) (1 664)	5' 6	50	50	50	50	50	50	50
		2-0/5-6	2-4/5-6	2-6/5-6	2-8/5-6	3-0/5-6	3-2/5-6	3-4/5-6
29) 16)	1/2"	35	35	35	35	35	25	25
(1829)	6' (71	50	50	50	50	50	50	50
		2-0/6-0	2-4/6-0	2-6/6-0 E <sub>1</sub>	2-8/6-0 E <sub>1</sub>	3-0/6-0 E	3-2/6-0 E	3-4/6-0 E

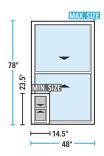
## **Special Sizes**

Special sizes are available in 1/8" increments.

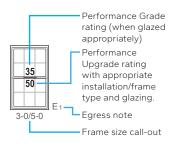
Up to Three-wide composites are available in standard sizes, up to Three-wide combinations are also available.

Transoms and Companion fixed windows available for combinations or singles, see Fixed Window section for availability.

#### Vent (Equal Sash)



48 sq. ft. maximum.



#### Egress Notes:

- E = Window meets minimum clear opening of 24" height, 20" width, and 5.7 ft².
- E1 = Window meets minimum clear opening of 24" height, 20" width, and 5.0 ft².

Check all applicable local codes for emergency egress requirements.





Fixed Frame Window



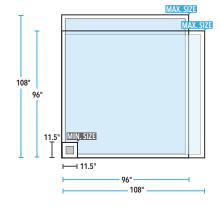
Frame dimensions

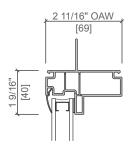
# Fixed Rectangular

Sizes are available in 1/8" increments.

Up to Three-wide composites or combinations are available for Rectangular windows.

Maximum of 108" in one direction; 40 sq. ft. maximum.





East Region 2-11/16" New Construction Frame shown.

Other frame types are available.

Not to scale. All dimensions are approximate.

# **Fixed Shapes**

	Wi	dth	Height	
Description	Min.	Max.	Min.	Max.
Half Circle	29.5"	95.5"	14.5"	47.5"
Full Cord (West Region Only)	29.5"	_	11.5"	_
Arch Head	17.5"	95.5"	17.5"	108"
Springline	29.5"	95.5"	20.5"	95.5"
Partial Arch Head	17.5"	95.5"	17.5"	108"
Quarter Circle	23.5"	73.5"	23.5"	73.5"
Full Circle	29.5"	73.5"	29.5"	73.5"

Both width and height can not be > than 73-1/2"

All shapes are available up to a maximum of 40 sq. ft. when measured as a rectangle.

Bronze glass - limited to 22 sq. ft.

	Wie	dth	Height		
Description	Min.	Max.	Min.	Max.	
Left & Right Gable	14.5"	108"	14.5"	108"	
House Top	23.5"	108"	14.5"	108"	
Left & Right 90° Triangle	23.5"	108"	11.5"	108"	
Octagon	17.5"	73.5"	17.5"	73.5"	

Frame Dimensions

All shapes are available up to a maximum of 40 sq. ft. when measured as a rectangle.

Both width and height cannot be > than 73-1/2"

Bronze glass: limited to 22 sq. ft.

If long side is  $\leq 95-1/2$ ", width and height ratio  $\leq 8:1$ 

If long side is > 95-1/2", width and height ratio < 5:1

Minimum overall width plus overall height is 29"

Maximum frame width with 9-Lite Prairie grille = 72"

Minimum leg length is 5-1/2"

Minimum corner angle is 40°

If glass width/height ratio is > 5:1, then glass must be tempered

# Fixed Frame - Rectangular and Radius Shapes

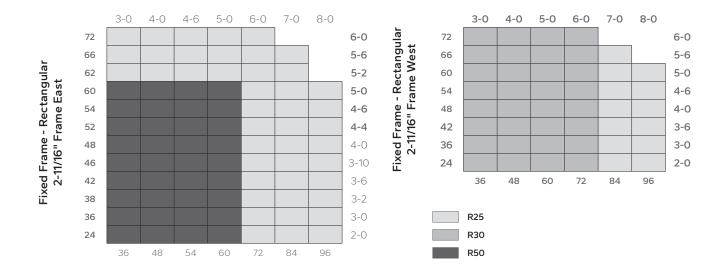
Air, Water, & Structural	Performance Class & Grade Rating	Water Penetration Resistance	Air Infiltration	Design Pressure
Performance	FW-R25 - R50	5.25 - 7.5 psf	0.01	25 - 50 psf

Thermal Performance	Frame	Type of Glazing (Argon fill)	U-Factor	SHGC	VLT %	CR	EnergyStar® Capable
3/4" Overall Glass		Advanced Low-E IG	0.27 - 0.31	0.30 - 0.33	0.56 - 0.62	56 - 60	_
Thickness	0.44.4011.5	NaturalSun Low-E IG	0.28 - 0.31	0.52 - 0.57	0.63 - 0.70	56 - 59	CA
3mm/3mm	2-11/16" Frame East Region Only	NaturalSun+ Low-E IG	0.23	.50 - 0.55	0.62 - 0.69	46	CA, N
	Last Region Only	SunDefense™ Low-E IG	0.26 - 0.30	0.22 - 0.25	0.51 - 0.57	57 - 60	SC, S
		SunDefense+ Low-E IG	0.22	0.22 - 0.24	0.50 - 0.56	48	N, NC, SC, S
		Advanced Low-E IG	0.27 - 0.31	0.27 - 0.31	0.51 - 0.57	57 - 61	_
		NaturalSun Low-E IG	0.28 - 0.31	0.47 - 0.52	0.58 - 0.64	56 - 60	CA
	3-1/4" Frame East Region Only	NaturalSun+ Low-E IG	0.23	0.46 - 0.51	0.56 - 0.63	47	CA, N
	Last Region Only	SunDefense™ Low-E IG	0.26 - 0.30	0.20 - 0.23	0.47 - 0.53	51 - 57	SC, S
		SunDefense+ Low-E IG	0.22	0.20 - 0.22	0.46 - 0.52	49	N, NC, SC, S
		Advanced Low-E IG	0.26 - 0.30	0.30 - 0.33	0.56 - 0.62	57 - 61	_
		NaturalSun Low-E IG	0.27 - 0.31	0.52 - 0.58	0.63 - 0.70	56 - 60	CA
	2-11/16" Frame West Region Only	NaturalSun+ Low-E IG	0.22	0.50 - 0.56	0.62 - 0.69	47	CA, N
	vvest Region Only	SunDefense™ Low-E IG	0.26 - 0.30	0.22 - 0.25	0.52 - 0.58	57 - 61	SC, S
		SunDefense+ Low-E IG	0.21	0.22 - 0.24	0.51 - 0.56	48	CA, N, NC, SC, S

Sound	Frame Size Tested	Туре о	STC	OITC	
Performance (East Region,	2-11/16" Frame Depth (New Construction), 48" x 48"	3/4" Overall Glass Thickness	25	21	
Rectangular only)	3-1/4" Frame Depth (Replacement), 48" x 48"	3/4" Overall Glass Thickness	3mm / 3mm glass	25	21

Rectangular only: Code Approvals: AAMA Certified; FPAS#: FL6694; TDI#: WIN-358

Performance varies based on actual product attributes. See the Performance section earlier in this manual to learn more about performance standards and ratings.



Table(s) above show nominal frame size in inches, equal to rough-opening size. Deduct 1/2" for actual frame size. Not all frame types are represented, see online ADM for complete information.

Standard sizes shown, unless noted otherwise. Special sizes are available in 1/8" increments.

Maximum performance when glazed with the appropriate glass. For special size units, use the performance class and grade for the next larger standard size unit.





Single-Hung Window



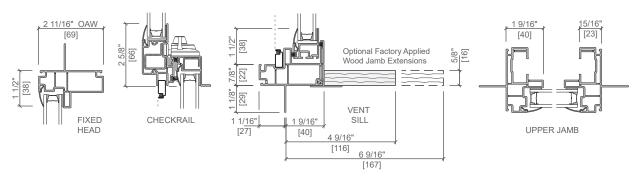
Air, Water, & Structural	Performance Class & Grade Rating	Water Penetration Resistance	Air Infiltration	Design Pressure	Forced Entry
Performance	H-R20 - R50	5.25 - 8.25 psf	0.12 - 0.22	20 - 50 psf	10 - 20

Frame		Type of Glazing (Argon fill)	U-Factor	SHGC	VLT %	CR	EnergyStar <sup>®</sup> Capable
3/4" Overall		Advanced Low-E IG	0.28 - 0.33	0.28 - 0.31	0.52 - 0.58	55 - 60	_
Glass Thickness, 2.5mm/2.5mm.	2 44/4011 5	NaturalSun Low-E IG	0.29 - 0.34	0.49 - 0.54	0.59 - 0.66	54 - 59	_
Standard and	2-11/16" Frame East Region Only	NaturalSun+ Low-E IG	0.25 - 0.26	0.47 - 0.52	0.57 - 0.64	46 - 47	CA, N
performance		SunDefense™ Low-E IG	0.28 - 0.33	0.21 - 0.23	0.48 - 0.54	55 - 60	SC, S
upgrade and foam options		SunDefense+ Low-E IG	0.24 - 0.25	0.20 - 0.22	0.47 - 0.52	48	NC, SC, S
options.		Advanced Low-E IG	0.28 - 0.33	0.27 - 0.30	0.51 - 0.57	55 - 60	_
	0.4440#.5	NaturalSun Low-E IG	0.29 - 0.34	0.48 - 0.53	0.57 - 0.64	54 - 59	_
	2-11/16" Frame West Region Only	NaturalSun+ Low-E IG	0.25 - 0.26	0.46 - 0.51	0.56 - 0.63	46 - 47	CA, N
		SunDefense™ Low-E IG	0.28 - 0.32	0.20 - 0.23	0.47 - 0.53	56 - 60	SC, S
		SunDefense+ Low-E IG	0.24 - 0.25	0.20 - 0.22	0.46 - 0.51	48	NC, SC, S

Sound	Frame Size Tested	Type of	STC	OITC	
Performance	East 2-11/16" Frame, 36" x 60"	3/4" Overall Glass Thickness	2.5mm / 2.5mm glass	25	21

Code Approvals: AAMA Certified; FPAS#: FL11206; TDI#: WIN-689

Performance varies based on actual product attributes. See the Performance section earlier in this manual to learn more about performance standards and ratings. Highest ratings may require performance upgrade or specific frame type.



East Region 2-11/16" New Construction Frame shown.

Other frame types are available.

Not to scale. All dimensions are approximate.

		(610) (597)	(711) (699)	(762) (749)	(813) (800)	(914) (902)	(1 016) (1 003)	(1 219) (1 207)
	Openin	g 2' 0"	2' 4"	2' 6"	2' 8"	3' 0"	3' 4"	4' 0"
	Fran	me 23 <sup>1/</sup> 2"	27 1/2"	29 1/2"	31 1/2"	35 1/2"	39 1/2"	47 1/2"
(914)	3' 0"	35 50 2-0/3-0	35 50 2-4/3-0	35 50 2-6/3-0	35 50 2-8/3-0	35 50 3-0/3-0	35 50 3-4/3-0	4-0/3-0
(965)	37 1/2"	35 50 2-0/3-2	35 50 2-4/3-2	35 50 2-6/3-2	35 50 2-8/3-2	35 50 3-0/3-2	35 50 3-4/3-2	4-0/3-2
(1 067) (1 054)	3'6"	35 50 2-0/3-6	35 50 2-4/3-6	35 50 2-6/3-6	35 50 2-8/3-6	35 50 3-0/3-6	35 50 3-4/3-6	4-0/3-6
(1 160) (1 156)	3' 10" 45 1/2"	35 50 2-0/3-10	35 50 2-4/3-10	35 50 2-6/3-10	35 50	35 50 3-0/3-10	35 50 3-4/3-10	35 4-0/3-10
(1 219)	4' 0"	35	35 50	35 50	35	35 50	35 50	35
(1 321) (1 308)	4'4"	2-0/4-0 35 50 2-0/4-4	2-4/4-0 35 50 2-4/4-4	2-6/4-0 35 50 2-6/4-4	2-8/4-0 35 50 2-8/4-4	3-0/4-0 35 50 3-0/4-4	3-4/4-0 35 50 3-4/4-4	4-0/4-0 35 4-0/4-4
(1 372) (1 359)	4'6" 53 1/2"	35 50 2-0/4-6	35 50 2-4/4-6	35 50 2-6/4-6	35 50 2-8/4-6	35 50 3-0/4-6	35 50 3-4/4-6	35
(1 524) (1 511)	5' 0"	35 50	35 50	35 50	35 50	35 50	35 50	35 E
(1 575) (1 562)	5' 2"	2-0/5-0 35 50	2-4/5-0 35 50	2-6/5-0 35 50	2-8/5-0 35 50	3-0/5-0 35 50	3-4/5-0 35 50	4-0/5-0 35
(1 676) (1 664)	5' 6"	2-0/5-2 35 50	2-4/5-2 35 50	2-6/5-2 35 50	2-8/5-2 35 50	3-0/5-2 35 50	3-4/5-2 35 50	4-0/5-2 35
(1 829) (1 816)	6' 0"	2-0/5-6 35 50	2-4/5-6 35 50	2-6/5-6 35 50	2-8/5-6 35 50	3-0/5-6 35 50	3-4/5-6 35 50	35
		2-0/6-0	2-4/6-0	2-6/6-0	2-8/6-0	3-0/6-0	3-4/6-0	4-0/6-0

#### 2-0 2-6 3-0 3-6 Vent (Equal Sash) West 72 6-0 66 5-6 60 5-0 60 4-6 4-0 54 48 3-6 36 3-0 24 30 36 42

Not to scale. Traditional grille patterns shown.

For special size units, use the performance class and grade for the next larger standard size unit.

R35

## **Special Sizes**

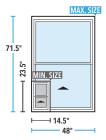
Special sizes are available in 1/8" increments.

Up to Three-wide composites or combinations are available.

Curved top shapes available for East Region, see online ADM for sizes and options.

Transoms and Companion fixed windows available for combinations or singles, see Fixed Window section for availability.

# Vent (Equal Sash) East Region



#### 24" Vent

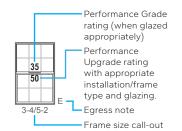
Min: 14-1/2" W x 47-1/2" H
Max: 48" W x 84" H

#### 30" Vent

Min: 14-1/2" W x 59-1/2" H Max: 48" W x 84" H

#### 36" Vent

Min: 14-1/2" W x 71-1/2" H
Max: 48" W x 84" H



#### Egress Notes:

E = Window meets minimum clear opening of 24" height, 20" width, and 5.7 ft².

E1 = Window meets minimum clear opening of 24" height, 20" width, and 5.0 ft<sup>2</sup>.

Check all applicable local codes for emergency egress requirements.





Sliding Window



Air, Water,
& Structural
Dorformance

Performance Class & Grade Rating	Water Penetration Resistance	Air Infiltration	Design Pressure	Forced Entry
HS-R20 - HS-R35	3.0 - 5.25 psf	0.09 - 0.18	20 - 35 psf	10 - 20

# **Thermal** Performance

3/4" Overall Glass Thickness, 2.5mm/2.5mm, optional foam insulation

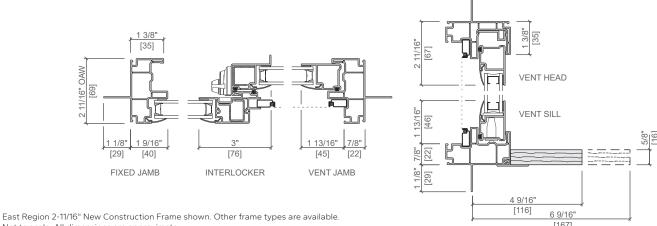
9	Frame	Type of Glazing (Argon fill)	U-Factor	SHGC	VLT %	CR	EnergyStar <sup>®</sup> Capable
		Advanced Low-E IG	0.28 - 0.29	0.27 - 0.30	0.51 - 0.57	56 - 60	_
	2-11/16" Frame	NaturalSun Low-E IG	0.29 - 0.34	0.48 - 0.53	0.57 - 0.64	56 - 59	_
		NaturalSun+ Low-E IG	0.25 - 0.26	0.46 - 0.51	0.56 - 0.63	47	CA, N
	East Region Only	SunDefense™ Low-E IG	0.28 - 0.33	0.20 - 0.23	0.47 - 0.52	57 - 60	SC, S
		SunDefense+ Low-E IG	0.24 - 0.25	0.20 - 0.22	0.46 - 0.51	48 - 49	NC, SC, S
		Advanced Low-E IG	0.28 - 0.33	0.27 - 0.30	0.51 - 0.57	56 - 60	_
	2-11/16" Frame	NaturalSun Low-E IG	0.29 - 0.34	0.48 - 0.53	0.57 - 0.64	55 - 59	_
		NaturalSun+ Low-E IG	0.25 - 0.26	0.46 - 0.51	0.56 - 0.63	46 - 47	CA, N
	West Region Only	SunDefense™ Low-E IG	0.27 - 0.32	0.20 - 0.23	0.47 - 0.53	56 - 60	SC, S
		SunDefense+ Low-E IG	0.23 - 0.25	0.20 - 0.22	0.46 - 0.51	48	NC, SC, S

Sound	
Performance	•

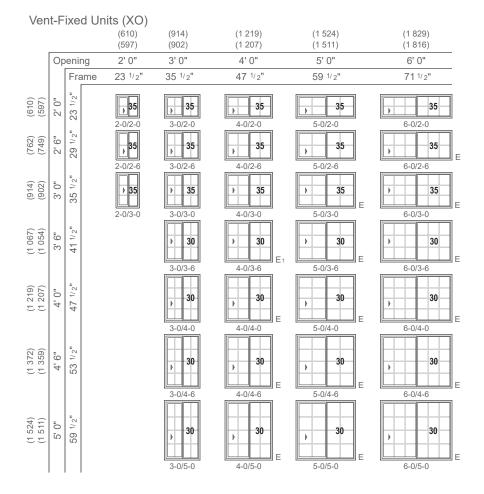
Frame Size Tested	Type of Glazing		STC	OITC
East, 2-11/16" Frame 72" x 48"	3/4" Overal Glass Thickness	2.5mm / 2.5mm glass	26	21
West, 2-11/16" Frame 72" x 48"	3/4 Overal Glass Thickness	2.511111 / 2.511111 glass	25	21

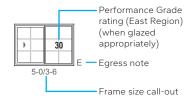
Code Approvals: AAMA Certified; FPAS#: 12606.4; TDI#: DR-235

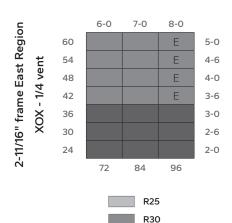
Performance varies based on actual product attributes. See the Performance section earlier in this manual to learn more about performance standards and ratings.



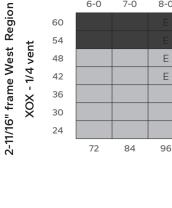
Not to scale. All dimensions are approximate.







R35 R30



6-0

7-0

8-0

5-0

4-6

4-0

3-6

3-0

2-6

2-0

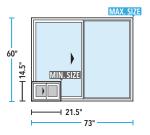
#### **Special Sizes**

Special sizes are available in 1/8" increments.

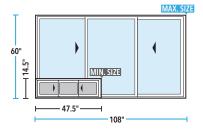
48 sq. ft. maximum frame area.

Fixed over XO / OX and fixed over XOX composites area available in standard and special sizes (combinations are also available).

#### Equal Vent (OX or XO) East Region



#### 1/4 Vent (XOX) East Region



#### XO/OX:

Maximum Frame Height ≤ Frame Width x 1.75.

#### XOX:

Maximum Frame Height  $\leq$  ((Frame Width/2) x 3.5)

#### OX / XO Special Sizes (West)

Min: 21-1/2" W x 9" H

Max: 73-1/2" W or 60" H or 40 ft<sup>2</sup>

#### XOX Special Sizes (West)

Min: 47-1/2" W x 11-1/2" H

Max: 97-1/2" W x 60" H

24" vent sash are available in units  $\geq$  71-1/2" and < 95-1/2".

Special sized XOX units >59-1/2" in height are not performance rated.

Multiple sash split variations are available performance will vary.

#### **Earess Notes:**

E = Window meets minimum clear opening of 24" height, 20" width, and  $5.7 \, \mathrm{ft^2}$ .

E1 = Window meets minimum clear opening of 24" height, 20" width, and 5.0 ft<sup>2</sup>

Check all applicable local codes for emergency egress requirements.

Not to scale.

Traditional grille patterns shown

Table(s) above show nominal frame size in inches, equal to rough-opening size. Deduct 1/2" for actual frame size





Sliding Patio Door



Air, Water,
& Structural
Performance

Performance Class & Grade Rating	Water Penetration Resistance	Air Infiltration	Design Pressure	Forced Entry
SGD-R25 - R50	4.5 - 7.5 psf	0.18 - 0.30 psf	25 - 50 psf	10 - 25

# Thermal Performance

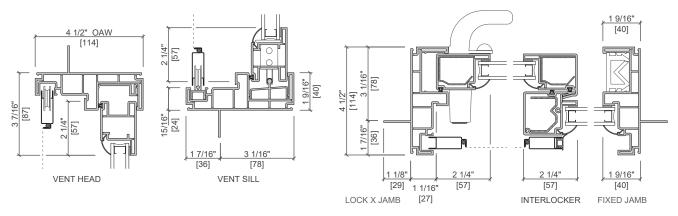
3/4" Overall Glass Thickness, 3mm/3mm, Vent units

e	Frame	Type of Glazing (Argon fill)	U-Factor	SHGC	VLT %	CR	EnergyStar <sup>®</sup> Capable
		Advanced Low-E IG	0.28 - 0.31	0.27 - 0.30	0.50 - 0.57	54 - 58	_
		NaturalSun Low-E IG	0.29 - 0.32	0.47 - 0.53	0.57 - 0.65	54 - 57	_
	Standard Sill East & West Region	NaturalSun+ Low-E IG	0.24	0.45 - 0.51	0.55 - 0.63	45	CA
Ec	East & West Region	SunDefense™ Low-E IG	0.27 - 0.31	0.20 - 0.23	0.46 - 0.53	55 - 58	SC, S
		SunDefense+ Low-E IG	0.23	0.20 - 0.22	0.45 - 0.52	47	N, NC, SC, S
		Advanced Low-E IG	0.28 - 0.31	0.27 - 0.30	0.50 - 0.57	54 - 57	Capable  CA SC, S
	= .	NaturalSun Low-E IG	0.29 - 0.32	0.47 - 0.53	0.57 - 0.65	53- 56	
	High Performance East Region	NaturalSun+ Low-E IG	0.24	0.45 - 0.51	0.55 - 0.63	45	CA
	Last Region	SunDefense™ Low-E IG	0.27 - 0.31	0.20 - 0.23	0.46 - 0.53	54 - 57	SC, S
		SunDefense+ Low-E IG	0.23	0.20 - 0.22	0.45 - 0.52	46	N, NC, SC, S

Sound	Frame Size Tested	Type of Glazing	STC	OITC
Performance	72" x 80"	3/4" with 3mm / 3mm glass	25	22
	72" x 80"	1" with 3mm / 3mm glass	25	22

 $\textbf{Code Approvals:} \ \text{AAMA Certified;} \ \textbf{FPAS\#:} \ \text{Fixed and Vent = FL2646;} \ \textbf{TDI\#:} \ \text{Fixed and Vent = DR-205.}$ 

Performance varies based on actual product attributes. See the Performance section earlier in this manual to learn more about performance standards and ratings. Highest ratings may require performance upgrade or specific glazing type.



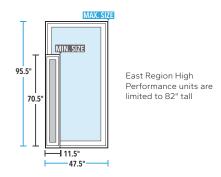
New Construction Frame shown. Other frame types are available. Not to scale. All dimensions are approximate.

#### Sidelights & Venting Units

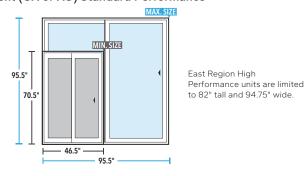
			(748) (735)	(894) (887)	(1 199) (1 192)	(1 505) (1 492)	(1 810) (1 797)	(2 419) (2 407)
	Opening		2' 5 <sup>7</sup> /16"	2' 11 3/16"	3' 11 <sup>3</sup> /16"	4' 11 1/4"	5' 11 <sup>1</sup> / <sub>4</sub> "	7' 11 <sup>1</sup> / <sub>4</sub> "
		Frame	28 <sup>15</sup> /16"	34 <sup>15</sup> / <sub>16</sub> "	46 <sup>15</sup> / <sub>16</sub> "	58 3/4"	70 3/4"	94 3/4"
(2 032) (2 019)		79 1/2"	50 2-6/6-8-O	50 3-0/6-8-O	-50 4-0/6-8-O	35 50 5-0/6-8-XO	35 50 6-0/6-8-XO	25 50 8-0/6-8-XO
(2 083) (2 070)	6' 10"	81 1/2"	<b>50</b> 2-6/6-10-O	<b>50</b> 3-0/6-10-O	<b>50</b> 4-0/6-10-O	35 50 5-0/6-10-XO	35 50 6-0/6-10-XO	25 50 8-0/6-10-XO
(2 438) (2 426)	8' 0"	95 1/2"	25	25	25	5-0/8-0-XO	) 25 6.0/8-0-XO	8-0/8-0-XO
			2-6/8-0-O	3-0/8-0-O	4-0/8-0-O	5-0/8-0-XO	6-0/8-0-XO	8-0/8-0-XC

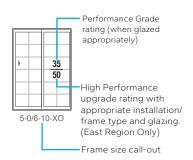
#### **Special Sizes**

### **Sidelights - Standard Performance**



#### Vent (OX or XO) Standard Performance





All doors are glazed with tempered glass. Larger units where actual glass is > 20  $\,\mathrm{ft^2}$  use 4mm or 5mm glass.

BBG = Available with Blinds-Between-the-Glass.

Not available on High Performance sizes 2-6/6-8-O and 5-0/6-8 XO/OX.



<sup>&</sup>quot;X" indicates venting or sliding panel and "O" indicates fixed panel as viewed from the exterior.

Doors shown as XO are also available as OX.

All doors and sidelights are glazed with tempered glass.

