



Product Selection Guide

Size and Performance Data F-AW-2

Features and Options F-AW-3

Glazing Performance

Vent - Dual-Pane F-AW-4

Vent - Dual Pane Laminated F-AW-12

Vent - Impact-Resistant Dual Pane Laminated F-AW-13

Vent - Triple-Pane F-AW-14

Grille Types F-AW-15

Size Tables F-AW-16

Design Data - Special Sizes and Dimensions F-AW-17

Impact-Resistant Certifications and Approvals F-AW-18

Detailed Product Descriptions F-AW-21

Unit Sections

Dual-Pane Block Frame F-AW-23

Dual-Pane Integral Nailing Fin F-AW-24

Triple-Pane Block Frame F-AW-26

Triple-Pane Integral Fin F-AW-27

Impact-Resistant Laminate Glazing Block Frame F-AW-28

Laminate Glazing Integral Fin F-AW-29

Supporting documents for this product:

Test Reports:

https://media.pella.com/professional/adm/CertificationReports/Test_Reports_IMP.pdf?utm_source=pdfdoc

CSI Specs (readable using Microsoft Word or other text editing application):

https://media.pella.com/professional/adm/Fiberglass-CSI_Specs/08572_CMAW.rtf?utm_source=pdfdoc

AIA Masterspec (readable using Microsoft Word or other text editing application):

https://media.pella.com/professional/adm/Fiberglass-CSI_Specs/085413_fl.doc?utm_source=pdfdoc

Detailed Product Description (readable using Microsoft Word or other text editing application):

https://media.pella.com/professional/adm/Fiberglass/F2-AW.rtf?utm_source=pdfdoc

Size Tables (requires appropriate CAD software to read and use):

https://media.pella.com/professional/adm/Fiberglass/IMP-AW-LA-Elev_D.dwg?utm_source=pdfdoc

CAD cross sections (requires appropriate CAD software to read and use):

https://media.pella.com/professional/adm/Fiberglass/IMP-AW-LA-Detail_D.dwg?utm_source=pdfdoc

3D & BIM (requires appropriate software to read and use):

https://media.pella.com/professional/adm/RevitFiles/Imp-Revit/Window-Awning-Pella-Impervia.zip?utm_source=pdfdoc

Sketchup (requires appropriate software to read and use):

https://media.pella.com/professional/adm/Fiberglass/PellaSKP_Impervia_Awning.zip?utm_source=pdfdoc

Combination Recommendations:

https://media.pella.com/professional/adm/Fiberglass/F2_Combinations.pdf?utm_source=pdfdoc

Installation Details:

https://media.pella.com/professional/adm/Fiberglass/Pella-Impervia_InstallationDetails.pdf?utm_source=pdfdoc

Microsoft and Microsoft Word are registered trademarks of Microsoft Corp.



Size and Performance Data

	Awning
Sizes	
Standard Vent/Fixed	●
Standard Fixed Companion Sizes	●
Special Sizes	●
Performance₁	
Meets or Exceeds AAMA / WDMA Ratings	AP-LC30 - LC+50/-60 Hallmark Certified
Air Infiltration (cfm/ft ² of frame @ 1.57 psf wind pressure)	0.05
Water Resistance	4.5 - 7.5 psf
Design Pressure	30 - 50 psf
Products with Impact-Resistant Glass	AP- LC+50/-50
Meets or Exceeds AAMA / WDMA Ratings	Missile C, Windzone 2 Hallmark Certified
Other Performance Criteria	
Forced Entry Resistance Level (Minimum Security Grade) ₂	40
Roto-Operator Maximum Operating Force (lb) Initiate Motion/Maintain Motion	15 / 6
Easy-Slide Operator Maximum Operating Force (lb) Initiate Motion/Maintain Motion	10/7
Easy-Slide Operator with Accessibility Lock Lever - Operating Force (lb) Initiate Motion/Maintain Motion (Available for select sizes only)	5/5
Size requirements: Frame Width is ≤ 59.5" and Frame Height is ≤ 59.5" (Limited opening if FW > 26.75"). Review Local and Federal requirements for guidance on install height and other considerations to meet ADA compliance.	

Sound Transmission Class / Outdoor-Indoor Transmission Class

Product	Frame Size Tested ₃	Glazing System				STC Rating	OITC Rating
		Overall Glazing Thickness	Exterior Glass Thickness	Middle Glass Thickness	Interior Glass Thickness		
VENT	59" x 23-1/2"	11/16"	3mm	—	3mm	29	25
	59" x 23-1/2"	11/16"	4mm	—	4mm	31	26
	59" x 23-1/2"	11/16"	5mm	—	3mm	32	27
	59" x 23-1/2"	1"	3mm	3mm	3mm	29	24
	59" x 23-1/2"	1"	4mm	—	6mm	35	28
	59" x 23-1/2"	1"	5mm	—	3mm	34	28
	59" x 23-1/2"	1"	5mm	—	5mm	30	24
	59" x 23-1/2"	1"	6mm	—	6mm	33	27
	59" x 23-1/2"	1"	4mm	—	7mm PVB Laminated	36	29
	59" x 23-1/2"	1"	5mm	—	10mm PVB Laminated	37	31
FIXED	47" x 59"	11/16"	3mm	—	3mm	28	24
	47" x 59"	11/16"	4mm	—	4mm	29	25
	47" x 59"	11/16"	5mm	—	3mm	31	26
	47" x 59"	1"	3mm	3mm	3mm	29	24
	47" x 59"	1"	4mm	4mm	4mm	30	26
	47" x 59"	1"	4mm	—	6mm	33	28
	47" x 59"	1"	5mm	—	3mm	32	27
	47" x 59"	1"	5mm	—	5mm	30	25
	47" x 59"	1"	6mm	—	6mm	30	24
	47" x 59"	1"	4mm	—	7mm PVB Laminated	34	29
	47" x 59"	1"	5mm	—	10mm PVB Laminated	36	31

(1) See Design Data pages in this section for specific product performance class and grade values.

(2) The higher the level, the greater the product's ability to resist forced entry.

(3) ASTM E 1425 defines standard sizes for acoustical testing. Ratings achieved at that size are representative of all sizes of the same configuration.

All sizes and glass types are tested for air/water/structural and impact-resistance. Florida Product Approval System number not needed if Miami-Dade County approved.



	Block Frame	Integral Nailing Fin
Glazing		
Glazing Type		
Dual-pane Insulating Glass	S	S
Triple-pane Insulating Glass	O	O
Insulated Glass Options / Low-E Types		
Clear Insulating Glass (no Low-E coating)	S	S
Advanced Low-E Insulating Glass	O	O
SunDefense™ Low-E Insulating Glass	O	O
SunDefense+ Low-E Insulating Glass	O	O
AdvancedComfort Low-E Insulating Glass	O	O
NaturalSun Low-E Insulating Glass	O	O
NaturalSun+ Low-E Insulating Glass	O	O
Additional Glass Options		
Annealed Glass	S	S
Tempered Glass	O	O
Impact-Resistant Laminated Glass	O	—
Noise reduction glass (5/3mm, 4/6mm combinations)	O	O
Noise reduction laminated glass (non-impact)	O	O
Tinted glass (Bronze, Gray, Green) Advanced Low-E	O	O
Obscure Glass ₁	O	O
Gas Fill / High Altitude		
Argon	S	S
High Altitude	O	O
High Altitude with argon	O	O
Exterior / Interior Factory Pre-finish Colors		
Powder-Coat White	S	S
Powder-Coat Brown, Black, Tan or Morning Sky Gray	O	O
Powder-Coat Dual-color (Brown, Black, Tan or Morning Sky Gray Exterior with White interior)	O	—
Hardware		
Match interior finish	S	S
Tan, Morning Sky Gray, Satin Nickel ₂	O	O
Operator		
Easy-Slide Operator	S	S
Fold Away Crank	O	O
Sash Locks		
Accessibility Lock Handle	O	O
Screens		
InView™ screen	O	O
Grilles		
Grilles-Between-the-Glass		
Traditional, Prairie, Top Row and Custom - Equally Divided	O	O

S = Standard; O = Optional; (—) = Not available

(1) Contact your local Pella sales representative for current offering.

(2) Satin Nickel is not available for Easy-Slide operator.



Glazing Performance - Total Unit

Glazing Thickness	Type of Glazing	NFRC Certified Product #	Glass (mm)		Gap Fill	Performance Values ₁				Shaded Areas Meet ENERGY STAR® Performance Criteria in Zones Shown					
			Ext.	Int.		U-Factor	SHGC	VLT	CR	U. S.				Canada ₂	
										Zone				ER	Zone
Vent										N	NC	SC	S	CA	
11/16"	Clear IG	PEL-N-278-00225-00001	3	3	air	0.45	0.55	0.58	43						
	with grilles-between-the-glass	PEL-N-278-00226-00001				0.45	0.50	0.52	43						
11/16"	Clear IG	PEL-N-278-00229-00001	4	4	air	0.46	0.53	0.57	42						
	with grilles-between-the-glass	PEL-N-278-00230-00001				0.46	0.49	0.52	42						
1"	Clear IG	PEL-N-278-00001-00001	5	5	air	0.44	0.53	0.57	44						
	with grilles-between-the-glass	PEL-N-278-00002-00001				0.44	0.48	0.51	44						
1"	Clear IG	PEL-N-278-00005-00001	6	6	air	0.44	0.51	0.56	44						
	with grilles-between-the-glass	PEL-N-278-00006-00001				0.44	0.46	0.50	44						
11/16"	Advanced Low-E IG	PEL-N-278-00235-00001	3	3	argon	0.29	0.26	0.49	58						
	with grilles-between-the-glass	PEL-N-278-00236-00001				0.29	0.24	0.44	58						
11/16"	Advanced Low-E IG	PEL-N-278-00239-00001	4	4	argon	0.30	0.26	0.48	56						
	with grilles-between-the-glass	PEL-N-278-00240-00001				0.31	0.24	0.44	56						
1"	Advanced Low-E IG	PEL-N-278-00019-00001	5	5	argon	0.29	0.26	0.48	55						
	with grilles-between-the-glass	PEL-N-278-00020-00001				0.29	0.24	0.43	55						
1"	Advanced Low-E IG	PEL-N-278-00023-00001	6	6	argon	0.29	0.25	0.47	57						
	with grilles-between-the-glass	PEL-N-278-00024-00001				0.29	0.23	0.43	57				S		
11/16"	SunDefense™ IG	PEL-N-278-00243-00001	3	3	argon	0.28	0.20	0.45	59			SC	S		
	with grilles-between-the-glass	PEL-N-278-00244-00001				0.29	0.18	0.41	58				S		
11/16"	SunDefense™ IG	PEL-N-278-00247-00001	4	4	argon	0.30	0.20	0.45	57				S		
	with grilles-between-the-glass	PEL-N-278-00248-00001				0.30	0.18	0.41	57				S		
11/16"	SunDefense+ IG	PEL-N-278-00299-00001	3	3	argon	0.25	0.19	0.44	46		NC	SC	S		
	with grilles-between-the-glass	PEL-N-278-00300-00001				0.26	0.18	0.40	46			SC	S		
11/16"	SunDefense+ IG	PEL-N-278-00303-00001	4	4	argon	0.27	0.19	0.44	44			SC	S		
	with grilles-between-the-glass	PEL-N-278-00304-00001				0.27	0.18	0.40	44			SC	S		
1"	SunDefense™ IG	PEL-N-278-00059-00001	5	5	argon	0.29	0.20	0.44	56				S		
	with grilles-between-the-glass	PEL-N-278-00060-00001				0.29	0.18	0.40	56				S		
1"	SunDefense™ IG	PEL-N-278-00063-00001	6	6	argon	0.28	0.20	0.44	58			SC	S		
	with grilles-between-the-glass	PEL-N-278-00064-00001				0.28	0.18	0.40	58			SC	S		
1"	SunDefense+ IG	PEL-N-278-00867-00001	5	5	argon	0.25	0.19	0.43	44		NC	SC	S		
	with grilles-between-the-glass	PEL-N-278-00868-00001				0.25	0.18	0.39	44		NC	SC	S		
1"	SunDefense+ IG	PEL-N-278-00871-00001	6	6	argon	0.25	0.19	0.43	46		NC	SC	S		
	with grilles-between-the-glass	PEL-N-278-00872-00001				0.25	0.18	0.39	46		NC	SC	S		
11/16"	AdvancedComfort Low-E IG	PEL-N-278-00259-00001	3	3	argon	0.26	0.26	0.48	46						
	with grilles-between-the-glass	PEL-N-278-00260-00001				0.26	0.24	0.43	46						
11/16"	AdvancedComfort Low-E IG	PEL-N-278-00263-00001	4	4	argon	0.27	0.26	0.47	44						
	with grilles-between-the-glass	PEL-N-278-00264-00001				0.27	0.23	0.43	44			SC	S		
1"	AdvancedComfort Low-E IG	PEL-N-278-00859-00001	5	5	argon	0.26	0.25	0.47	43						
	with grilles-between-the-glass	PEL-N-278-00860-00001				0.26	0.23	0.42	43			SC	S		
1"	AdvancedComfort Low-E IG	PEL-N-278-00863-00001	6	6	argon	0.26	0.25	0.46	45						
	with grilles-between-the-glass	PEL-N-278-00864-00001				0.26	0.23	0.42	45			SC	S		
11/16"	NaturalSun Low-E IG	PEL-N-278-00251-00001	3	3	argon	0.30	0.48	0.55	58						
	with grilles-between-the-glass	PEL-N-278-00252-00001				0.30	0.44	0.50	58						
11/16"	NaturalSun Low-E IG	PEL-N-278-00255-00001	4	4	argon	0.31	0.47	0.55	56						
	with grilles-between-the-glass	PEL-N-278-00256-00001				0.32	0.43	0.50	56						
11/16"	NaturalSun+ Low-E IG	PEL-N-278-00819-00001	3	3	argon	0.26	0.44	0.54	45	N					
	with grilles-between-the-glass	PEL-N-278-00820-00001				0.26	0.40	0.49	45	N					
11/16"	NaturalSun+ Low-E IG	PEL-N-278-00823-00001	4	4	argon	0.27	0.43	0.54	44						
	with grilles-between-the-glass	PEL-N-278-00824-00001				0.27	0.39	0.49	43						
1"	NaturalSun Low-E IG	PEL-N-278-00075-00001	5	5	argon	0.30	0.47	0.54	55						
	with grilles-between-the-glass	PEL-N-278-00076-00001				0.30	0.43	0.49	55						
1"	NaturalSun Low-E IG	PEL-N-278-00079-00001	6	6	argon	0.30	0.45	0.54	57						
	with grilles-between-the-glass	PEL-N-278-00080-00001				0.30	0.41	0.49	57						
1"	NaturalSun+ Low-E IG	PEL-N-278-00851-00001	5	5	argon	0.26	0.43	0.53	43	N					
	with grilles-between-the-glass	PEL-N-278-00852-00001				0.26	0.39	0.48	43						
1"	NaturalSun+ Low-E IG	PEL-N-278-00855-00001	6	6	argon	0.26	0.41	0.52	45	N					
	with grilles-between-the-glass	PEL-N-278-00856-00001				0.26	0.38	0.47	45						

(1) Glazing performance values are calculated based on NFRC 100, NFRC 200 and NFRC 500.

ENERGY STAR® values are updated to 2023 (Version 7) criteria.

(2) The values shown are based on Canada's updated ENERGY STAR® 2020 initiative.

For center-glass values, see the Product Performance section. Visit www.energystar.gov for Energy Star guidelines.

R-Value = 1/U-Factor

SHGC = Solar Heat Gain Coefficient

VLT % = Visible Light Transmission

CR = Condensation Resistance

ER = Canadian Energy Rating



Glazing Performance - Total Unit

Glazing Thickness	Type of Glazing	NFRC Certified Product #	Glass (mm)		Gap Fill	Performance Values ₁				Shaded Areas Meet ENERGY STAR® Performance Criteria in Zones Shown					
			Ext.	Int.		U-Factor	SHGC	VLT	CR	U. S.				Canada ₂	
										Zone				ER	Zone
										Vent – with Foam Insulation					
11/16"	Advanced Low-E IG	PEL-N-278-00567-00001	3	3	argon	0.28	0.26	0.49	58						
	with grilles-between-the-glass	PEL-N-278-00568-00001				0.28	0.24	0.44	58						
11/16"	Advanced Low-E IG	PEL-N-278-00571-00001	4	4	argon	0.29	0.26	0.48	56						
	with grilles-between-the-glass	PEL-N-278-00572-00001				0.30	0.24	0.44	56						
1"	Advanced Low-E IG	PEL-N-278-00351-00001	5	5	argon	0.28	0.26	0.48	55						
	with grilles-between-the-glass	PEL-N-278-00352-00001				0.28	0.24	0.43	55						
1"	Advanced Low-E IG	PEL-N-278-00355-00001	6	6	argon	0.28	0.25	0.47	58						
	with grilles-between-the-glass	PEL-N-278-00356-00001				0.28	0.23	0.43	58			SC	S		
11/16"	SunDefense IG	PEL-N-278-00575-00001	3	3	argon	0.27	0.20	0.45	59			SC	S		
	with grilles-between-the-glass	PEL-N-278-00576-00001				0.28	0.18	0.41	59			SC	S		
11/16"	SunDefense IG	PEL-N-278-00579-00001	4	4	argon	0.29	0.20	0.45	57				S		
	with grilles-between-the-glass	PEL-N-278-00580-00001				0.29	0.18	0.41	57				S		
11/16"	SunDefense+ IG	PEL-N-278-01667-00001	3	3	argon	0.25	0.19	0.44	47		NC	SC	S		
	with grilles-between-the-glass	PEL-N-278-01668-00001				0.25	0.18	0.40	47		NC	SC	S		
11/16"	SunDefense+ IG	PEL-N-278-01671-00001	4	4	argon	0.26	0.19	0.44	45			SC	S		
	with grilles-between-the-glass	PEL-N-278-01672-00001				0.26	0.18	0.40	45			SC	S		
1"	SunDefense™ IG	PEL-N-278-00391-00001	5	5	argon	0.27	0.20	0.44	56			SC	S		
	with grilles-between-the-glass	PEL-N-278-00392-00001				0.27	0.18	0.40	56			SC	S		
1"	SunDefense™ IG	PEL-N-278-00395-00001	6	6	argon	0.27	0.20	0.44	58			SC	S		
	with grilles-between-the-glass	PEL-N-278-00396-00001				0.27	0.18	0.40	58			SC	S		
1"	SunDefense+ IG	PEL-N-278-01699-00001	5	5	argon	0.25	0.19	0.43	44		NC	SC	S		
	with grilles-between-the-glass	PEL-N-278-01700-00001				0.25	0.18	0.39	44		NC	SC	S		
1"	SunDefense+ IG	PEL-N-278-01703-00001	6	6	argon	0.25	0.19	0.43	46		NC	SC	S		
	with grilles-between-the-glass	PEL-N-278-01704-00001				0.25	0.18	0.39	46		NC	SC	S		
11/16"	AdvancedComfort Low-E IG	PEL-N-278-01659-00001	3	3	argon	0.25	0.26	0.48	46		NC				
	with grilles-between-the-glass	PEL-N-278-01660-00001				0.25	0.24	0.43	46		NC				
11/16"	AdvancedComfort Low-E IG	PEL-N-278-01663-00001	4	4	argon	0.26	0.26	0.47	44						
	with grilles-between-the-glass	PEL-N-278-01664-00001				0.26	0.23	0.43	44			SC	S		
1"	AdvancedComfort Low-E IG	PEL-N-278-01691-00001	5	5	argon	0.25	0.25	0.47	43		NC				
	with grilles-between-the-glass	PEL-N-278-01692-00001				0.25	0.23	0.42	43		NC	SC	S		
1"	AdvancedComfort Low-E IG	PEL-N-278-01695-00001	6	6	argon	0.25	0.25	0.46	46		NC				
	with grilles-between-the-glass	PEL-N-278-01696-00001				0.25	0.23	0.42	46		NC	SC	S		
11/16"	NaturalSun Low-E IG	PEL-N-278-00583-00001	3	3	argon	0.29	0.48	0.55	58						
	with grilles-between-the-glass	PEL-N-278-00584-00001				0.29	0.44	0.50	58						
11/16"	NaturalSun Low-E IG	PEL-N-278-00587-00001	4	4	argon	0.30	0.47	0.55	56						
	with grilles-between-the-glass	PEL-N-278-00588-00001				0.31	0.43	0.50	56						
11/16"	NaturalSun+ Low-E IG	PEL-N-278-01651-00001	3	3	argon	0.26	0.44	0.54	45	N					
	with grilles-between-the-glass	PEL-N-278-01652-00001				0.26	0.40	0.49	45	N					
11/16"	NaturalSun+ Low-E IG	PEL-N-278-01655-00001	4	4	argon	0.27	0.43	0.54	44						
	with grilles-between-the-glass	PEL-N-278-01656-00001				0.27	0.39	0.49	44						
1"	NaturalSun Low-E IG	PEL-N-278-00407-00001	5	5	argon	0.29	0.47	0.54	55						
	with grilles-between-the-glass	PEL-N-278-00408-00001				0.29	0.43	0.49	55						
1"	NaturalSun Low-E IG	PEL-N-278-00411-00001	6	6	argon	0.29	0.45	0.54	57						
	with grilles-between-the-glass	PEL-N-278-00412-00001				0.29	0.41	0.49	57						
1"	NaturalSun+ Low-E IG	PEL-N-278-01683-00001	5	5	argon	0.26	0.43	0.53	43	N					
	with grilles-between-the-glass	PEL-N-278-01684-00001				0.26	0.39	0.48	43						
1"	NaturalSun+ Low-E IG	PEL-N-278-01687-00001	6	6	argon	0.26	0.41	0.52	45	N					
	with grilles-between-the-glass	PEL-N-278-01688-00001				0.26	0.38	0.47	45						

R-Value = 1/U-Factor
SHGC = Solar Heat Gain Coefficient
VLT % = Visible Light Transmission
CR = Condensation Resistance
ER = Canadian Energy Rating

(1) Glazing performance values are calculated based on NFRC 100, NFRC 200 and NFRC 500.

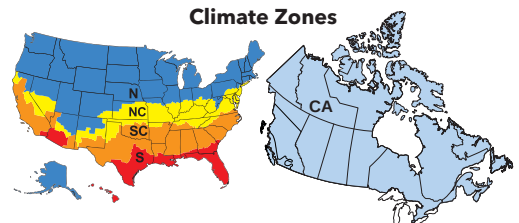
ENERGY STAR® values are updated to 2023 (version 7) criteria.

(2) The values shown are based on Canada's updated ENERGY STAR® 2020 initiative.

For center-glass values, see the Product Performance section.

See the Product Performance section for more detailed information or visit www.energystar.gov for Energy Star guidelines.

Climate Zones





Glazing Thickness	Type of Glazing	NFRC Certified Product #	Glass (mm)		Gap Fill	Performance Values ₁				Shaded Areas Meet ENERGY STAR® Performance Criteria in Zones Shown							
			Ext.	Int.		U-Factor	SHGC	VLT	CR	U. S.				Canada ₂			
										Zone				ER	Zone		
Vent – High Altitude Glazing										N	NC	SC	S	CA			
11/16"	(HA) Advanced Low-E IG	PEL-N-278-00233-00001	3	3	air	0.32	0.27	0.49	54								
	with grilles-between-the-glass	PEL-N-278-00234-00001				0.33	0.24	0.44	54								
11/16"	(HA) Advanced Low-E IG	PEL-N-278-00237-00001	4	4	air	0.34	0.27	0.48	52								
	with grilles-between-the-glass	PEL-N-278-00238-00001				0.35	0.24	0.44	52								
1"	(HA) Advanced Low-E IG	PEL-N-278-00017-00001	5	5	air	0.32	0.26	0.48	52								
	with grilles-between-the-glass	PEL-N-278-00018-00001				0.32	0.24	0.43	52								
1"	(HA) Advanced Low-E IG	PEL-N-278-00021-00001	6	6	air	0.32	0.26	0.47	54								
	with grilles-between-the-glass	PEL-N-278-00022-00001				0.32	0.24	0.43	54								
11/16"	(HA) SunDefense IG	PEL-N-278-00241-00001	3	3	air	0.32	0.20	0.45	54				S				
	with grilles-between-the-glass	PEL-N-278-00242-00001				0.33	0.19	0.41	54								
11/16"	(HA) SunDefense IG	PEL-N-278-00245-00001	4	4	air	0.34	0.20	0.45	52								
	with grilles-between-the-glass	PEL-N-278-00246-00001				0.35	0.19	0.41	52								
11/16"	(HA) SunDefense+ IG	PEL-N-278-00297-00001	3	3	air	0.28	0.20	0.44	42			SC	S				
	with grilles-between-the-glass	PEL-N-278-00298-00001				0.29	0.18	0.40	42				S				
11/16"	(HA) SunDefense+ IG	PEL-N-278-00301-00001	4	4	air	0.30	0.20	0.44	40					S			
	with grilles-between-the-glass	PEL-N-278-00302-00001				0.30	0.18	0.40	40					S			
1"	(HA) SunDefense IG	PEL-N-278-00057-00001	5	5	air	0.32	0.20	0.44	52					S			
	with grilles-between-the-glass	PEL-N-278-00058-00001				0.32	0.18	0.40	52					S			
1"	(HA) SunDefense IG	PEL-N-278-00061-00001	6	6	air	0.32	0.20	0.44	54					S			
	with grilles-between-the-glass	PEL-N-278-00062-00001				0.32	0.18	0.40	54					S			
1"	(HA) SunDefense+ IG	PEL-N-278-00865-00001	5	5	air	0.28	0.19	0.43	43			SC	S				
	with grilles-between-the-glass	PEL-N-278-00866-00001				0.28	0.18	0.39	43			SC	S				
1"	(HA) SunDefense+ IG	PEL-N-278-00869-00001	6	6	air	0.28	0.19	0.43	42			SC	S				
	with grilles-between-the-glass	PEL-N-278-00870-00001				0.28	0.18	0.39	42			SC	S				
11/16"	(HA) AdvancedComfort Low-E IG	PEL-N-278-00257-00001	3	3	air	0.29	0.26	0.48	42								
	with grilles-between-the-glass	PEL-N-278-00258-00001				0.29	0.24	0.43	42								
11/16"	(HA) AdvancedComfort Low-E IG	PEL-N-278-00261-00001	4	4	air	0.30	0.26	0.47	40								
	with grilles-between-the-glass	PEL-N-278-00262-00001				0.30	0.24	0.43	40								
1"	(HA) AdvancedComfort Low-E IG	PEL-N-278-00857-00001	5	5	air	0.28	0.25	0.47	43								
	with grilles-between-the-glass	PEL-N-278-00858-00001				0.28	0.23	0.42	43			SC	S				
1"	(HA) AdvancedComfort Low-E IG	PEL-N-278-00861-00001	6	6	air	0.28	0.25	0.46	42								
	with grilles-between-the-glass	PEL-N-278-00862-00001				0.28	0.23	0.42	42			SC	S				
11/16"	(HA) NaturalSun Low-E IG	PEL-N-278-00249-00001	3	3	air	0.33	0.48	0.55	54								
	with grilles-between-the-glass	PEL-N-278-00250-00001				0.33	0.44	0.50	54								
11/16"	(HA) NaturalSun Low-E IG	PEL-N-278-00253-00001	4	4	air	0.35	0.47	0.55	52								
	with grilles-between-the-glass	PEL-N-278-00254-00001				0.36	0.43	0.50	52								
11/16"	(HA) NaturalSun+ Low-E IG	PEL-N-278-00817-00001	3	3	air	0.29	0.44	0.54	41								
	with grilles-between-the-glass	PEL-N-278-00818-00001				0.29	0.40	0.49	41								
11/16"	(HA) NaturalSun+ Low-E IG	PEL-N-278-00821-00001	4	4	air	0.30	0.43	0.54	40								
	with grilles-between-the-glass	PEL-N-278-00822-00001				0.30	0.39	0.49	40								
1"	(HA) NaturalSun Low-E IG	PEL-N-278-00073-00001	5	5	air	0.33	0.47	0.54	52								
	with grilles-between-the-glass	PEL-N-278-00074-00001				0.33	0.42	0.49	52								
1"	(HA) NaturalSun Low-E IG	PEL-N-278-00077-00001	6	6	air	0.33	0.45	0.54	54								
	with grilles-between-the-glass	PEL-N-278-00078-00001				0.33	0.41	0.49	54								
1"	(HA) NaturalSun+ Low-E IG	PEL-N-278-00849-00001	5	5	air	0.29	0.42	0.53	42								
	with grilles-between-the-glass	PEL-N-278-00850-00001				0.29	0.39	0.48	42								
1"	(HA) NaturalSun+ Low-E IG	PEL-N-278-00853-00001	6	6	air	0.28	0.41	0.52	41								
	with grilles-between-the-glass	PEL-N-278-00854-00001				0.28	0.37	0.47	41								

R-Value = 1/U-Factor
SHGC = Solar Heat Gain Coefficient
VLT % = Visible Light Transmission
CR = Condensation Resistance
ER = Canadian Energy Rating

(1) Glazing performance values are calculated based on NFRC 100, NFRC 200 and NFRC 500.

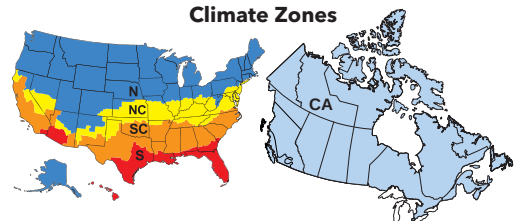
ENERGY STAR® values are updated to 2023 (version 7) criteria.

(2) The values shown are based on Canada's updated ENERGY STAR® 2020 initiative.

For center-glass values, see the Product Performance section.

Visit www.energystar.gov for Energy Star guidelines.

Climate Zones



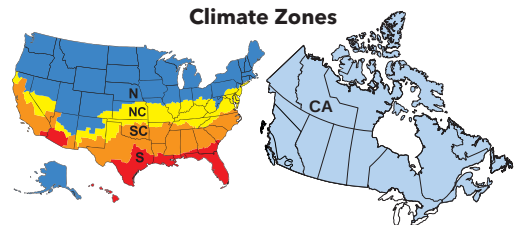


Glazing Thickness	Type of Glazing	NFRC Certified Product #	Glass (mm)		Gap Fill	Performance Values ₁				Shaded Areas Meet ENERGY STAR® Performance Criteria in Zones Shown					
			Ext.	Int.		U-Factor	SHGC	VLT	CR	U. S.				Canada ₂	
										Zone				ER	Zone
Vent – High Altitude Glazing – with Foam Insulation										N	NC	SC	S	CA	
11/16"	(HA) Advanced Low-E IG	PEL-N-278-00565-00001	3	3	air	0.31	0.27	0.49	54						
	with grilles-between-the-glass	PEL-N-278-00566-00001				0.32	0.24	0.44	54						
11/16"	(HA) Advanced Low-E IG	PEL-N-278-00569-00001	4	4	air	0.33	0.27	0.48	52						
	with grilles-between-the-glass	PEL-N-278-00570-00001				0.34	0.24	0.44	52						
1"	(HA) Advanced Low-E IG	PEL-N-278-00349-00001	5	5	air	0.31	0.26	0.48	52						
	with grilles-between-the-glass	PEL-N-278-00350-00001				0.31	0.24	0.43	52						
1"	(HA) Advanced Low-E IG	PEL-N-278-00353-00001	6	6	air	0.31	0.26	0.47	54						
	with grilles-between-the-glass	PEL-N-278-00354-00001				0.31	0.24	0.43	54						
11/16"	(HA) SunDefense IG	PEL-N-278-00573-00001	3	3	air	0.31	0.20	0.45	55				S		
	with grilles-between-the-glass	PEL-N-278-00574-00001				0.32	0.19	0.41	54				S		
11/16"	(HA) SunDefense IG	PEL-N-278-00577-00001	4	4	air	0.33	0.20	0.45	53						
	with grilles-between-the-glass	PEL-N-278-00578-00001				0.34	0.19	0.41	52						
11/16"	(HA) SunDefense+ IG	PEL-N-278-01665-00001	3	3	air	0.28	0.20	0.44	42			SC	S		
	with grilles-between-the-glass	PEL-N-278-01666-00001				0.28	0.18	0.40	42			SC	S		
11/16"	(HA) SunDefense+ IG	PEL-N-278-01669-00001	4	4	air	0.29	0.20	0.44	41				S		
	with grilles-between-the-glass	PEL-N-278-01670-00001				0.29	0.18	0.40	41				S		
1"	(HA) SunDefense IG	PEL-N-278-00389-00001	5	5	air	0.31	0.20	0.44	53				S		
	with grilles-between-the-glass	PEL-N-278-00390-00001				0.31	0.18	0.40	53				S		
1"	(HA) SunDefense IG	PEL-N-278-00393-00001	6	6	air	0.30	0.20	0.44	55				S		
	with grilles-between-the-glass	PEL-N-278-00394-00001				0.30	0.18	0.40	55				S		
1"	(HA) SunDefense+ IG	PEL-N-278-01697-00001	5	5	air	0.27	0.19	0.43	43			SC	S		
	with grilles-between-the-glass	PEL-N-278-01698-00001				0.27	0.18	0.39	43			SC	S		
1"	(HA) SunDefense+ IG	PEL-N-278-01701-00001	6	6	air	0.27	0.19	0.43	42			SC	S		
	with grilles-between-the-glass	PEL-N-278-01702-00001				0.27	0.18	0.39	42			SC	S		
11/16"	(HA) AdvancedComfort Low-E IG	PEL-N-278-01657-00001	3	3	air	0.28	0.26	0.48	42						
	with grilles-between-the-glass	PEL-N-278-01658-00001				0.28	0.24	0.43	42						
11/16"	(HA) AdvancedComfort Low-E IG	PEL-N-278-01661-00001	4	4	air	0.29	0.26	0.47	41						
	with grilles-between-the-glass	PEL-N-278-01662-00001				0.29	0.24	0.43	40						
1"	(HA) AdvancedComfort Low-E IG	PEL-N-278-01689-00001	5	5	air	0.28	0.25	0.47	43						
	with grilles-between-the-glass	PEL-N-278-01690-00001				0.28	0.23	0.42	43			SC	S		
1"	(HA) AdvancedComfort Low-E IG	PEL-N-278-01693-00001	6	6	air	0.27	0.25	0.46	42						
	with grilles-between-the-glass	PEL-N-278-01694-00001				0.27	0.23	0.42	42			SC	S		
11/16"	(HA) NaturalSun Low-E IG	PEL-N-278-00581-00001	3	3	air	0.32	0.48	0.55	54						
	with grilles-between-the-glass	PEL-N-278-00582-00001				0.32	0.44	0.50	54						
11/16"	(HA) NaturalSun Low-E IG	PEL-N-278-00585-00001	4	4	air	0.34	0.47	0.55	52						
	with grilles-between-the-glass	PEL-N-278-00586-00001				0.35	0.43	0.50	52						
11/16"	(HA) NaturalSun+ Low-E IG	PEL-N-278-01649-00001	3	3	air	0.29	0.44	0.54	41						
	with grilles-between-the-glass	PEL-N-278-01650-00001				0.29	0.40	0.49	41						
11/16"	(HA) NaturalSun+ Low-E IG	PEL-N-278-01653-00001	4	4	air	0.30	0.43	0.54	40						
	with grilles-between-the-glass	PEL-N-278-01654-00001				0.30	0.39	0.49	40						
1"	(HA) NaturalSun Low-E IG	PEL-N-278-00405-00001	5	5	air	0.32	0.47	0.54	52						
	with grilles-between-the-glass	PEL-N-278-00406-00001				0.32	0.42	0.49	52						
1"	(HA) NaturalSun Low-E IG	PEL-N-278-00409-00001	6	6	air	0.32	0.45	0.54	54						
	with grilles-between-the-glass	PEL-N-278-00410-00001				0.32	0.41	0.49	54						
1"	(HA) NaturalSun+ Low-E IG	PEL-N-278-01681-00001	5	5	air	0.28	0.42	0.53	42						
	with grilles-between-the-glass	PEL-N-278-01682-00001				0.28	0.39	0.48	42						
1"	(HA) NaturalSun+ Low-E IG	PEL-N-278-01685-00001	6	6	air	0.28	0.41	0.52	42						
	with grilles-between-the-glass	PEL-N-278-01686-00001				0.28	0.37	0.47	42						

R-Value = 1/U-Factor
 SHGC = Solar Heat Gain Coefficient
 VLT % = Visible Light Transmission
 CR = Condensation Resistance
 ER = Canadian Energy Rating

(1) Glazing performance values are calculated based on NFRC 100, NFRC 200 and NFRC 500.
 ENERGY STAR® values are updated to 2023 (version 7) criteria.
 (2) The values shown are based on Canada's updated ENERGY STAR® 2020 initiative.
 For center-glass values, see the Product Performance section.
 Visit www.energystar.gov for Energy Star guidelines.

Climate Zones





Glazing Thickness	Type of Glazing	NFRC Certified Product #	Glass (mm)		Gap Fill	Performance Values ₁				Shaded Areas Meet ENERGY STAR® Performance Criteria in Zones Shown							
			Ext.	Int.		U-Factor	SHGC	VLT	CR	U. S.				Canada ₂			
										Zone				ER	Zone		
Vent – 5mm/3mm Glass										N	NC	SC	S	CA			
1"	Clear IG	PEL-N-278-00009-00001	5	3	air	0.44	0.53	0.57	44								
	with grilles-between-the-glass	PEL-N-278-00010-00001				0.44	0.48	0.52	44								
1"	Advanced Low-E IG	PEL-N-278-00051-00001	5	3	argon	0.29	0.26	0.48	56								
	with grilles-between-the-glass	PEL-N-278-00052-00001				0.29	0.24	0.44	56								
1"	SunDefense™ IG	PEL-N-278-00067-00001	5	3	argon	0.29	0.20	0.45	56					S			
	with grilles-between-the-glass	PEL-N-278-00068-00001				0.29	0.18	0.41	56					S			
1"	SunDefense+ IG	PEL-N-278-00891-00001	5	3	argon	0.26	0.19	0.44	45			SC	S				
	with grilles-between-the-glass	PEL-N-278-00892-00001				0.26	0.18	0.40	45			SC	S				
1"	AdvancedComfort Low-E IG	PEL-N-278-00887-00001	5	3	argon	0.26	0.25	0.47	44								
	with grilles-between-the-glass	PEL-N-278-00888-00001				0.26	0.23	0.43	44			SC	S				
1"	NaturalSun Low-E IG	PEL-N-278-00083-00001	5	3	argon	0.30	0.47	0.55	56								
	with grilles-between-the-glass	PEL-N-278-00084-00001				0.30	0.43	0.50	56								
1"	NaturalSun+ Low-E IG	PEL-N-278-00883-00001	5	3	argon	0.27	0.43	0.54	44								
	with grilles-between-the-glass	PEL-N-278-00884-00001				0.27	0.39	0.48	44								
Vent – 5mm/3mm Glass with Foam Insulation																	
1"	Advanced Low-E IG	PEL-N-278-00383-00001	5	3	argon	0.28	0.26	0.48	56								
	with grilles-between-the-glass	PEL-N-278-00384-00001				0.28	0.24	0.44	56								
1"	SunDefense IG	PEL-N-278-00399-00001	5	3	argon	0.28	0.20	0.45	57				SC	S			
	with grilles-between-the-glass	PEL-N-278-00400-00001				0.28	0.18	0.41	57				SC	S			
1"	SunDefense+ IG	PEL-N-278-01723-00001	5	3	argon	0.25	0.19	0.44	45		NC	SC	S				
	with grilles-between-the-glass	PEL-N-278-01724-00001				0.25	0.18	0.40	45		NC	SC	S				
1"	AdvancedComfort Low-E IG	PEL-N-278-01719-00001	5	3	argon	0.26	0.25	0.47	44								
	with grilles-between-the-glass	PEL-N-278-01720-00001				0.26	0.23	0.43	44				SC	S			
1"	NaturalSun Low-E IG	PEL-N-278-00415-00001	5	3	argon	0.29	0.47	0.55	56								
	with grilles-between-the-glass	PEL-N-278-00416-00001				0.29	0.43	0.50	56								
1"	NaturalSun+ Low-E IG	PEL-N-278-01715-00001	5	3	argon	0.26	0.43	0.54	44		N						
	with grilles-between-the-glass	PEL-N-278-01716-00001				0.26	0.39	0.48	44								
Vent – 5mm/3mm Glass High Altitude Glazing																	
1"	(HA) Advanced Low-E IG	PEL-N-278-00049-00001	5	3	air	0.32	0.26	0.48	53								
	with grilles-between-the-glass	PEL-N-278-00050-00001				0.32	0.24	0.44	53								
1"	(HA) SunDefense IG	PEL-N-278-00065-00001	5	3	air	0.32	0.20	0.45	53					S			
	with grilles-between-the-glass	PEL-N-278-00066-00001				0.32	0.18	0.41	53					S			
1"	(HA) SunDefense+ IG	PEL-N-278-00889-00001	5	3	air	0.28	0.19	0.44	41				SC	S			
	with grilles-between-the-glass	PEL-N-278-00890-00001				0.28	0.18	0.40	41				SC	S			
1"	(HA) AdvancedComfort Low-E IG	PEL-N-278-00885-00001	5	3	air	0.28	0.25	0.47	41								
	with grilles-between-the-glass	PEL-N-278-00886-00001				0.28	0.23	0.43	41				SC	S			
1"	(HA) NaturalSun Low-E IG	PEL-N-278-00081-00001	5	3	air	0.33	0.47	0.55	53								
	with grilles-between-the-glass	PEL-N-278-00082-00001				0.33	0.43	0.50	53								
1"	(HA) NaturalSun+ Low-E IG	PEL-N-278-00881-00001	5	3	air	0.29	0.43	0.54	40								
	with grilles-between-the-glass	PEL-N-278-00882-00001				0.29	0.39	0.48	40								
Vent – 5mm/3mm Glass High Altitude Glazing — with Foam Insulation																	
1"	(HA) Advanced Low-E IG	PEL-N-278-00381-00001	5	3	air	0.31	0.26	0.48	53								
	with grilles-between-the-glass	PEL-N-278-00382-00001				0.31	0.24	0.44	53								
1"	(HA) SunDefense IG	PEL-N-278-00397-00001	5	3	air	0.31	0.20	0.45	53					S			
	with grilles-between-the-glass	PEL-N-278-00398-00001				0.31	0.18	0.41	53					S			
1"	(HA) SunDefense+ IG	PEL-N-278-01721-00001	5	3	air	0.28	0.19	0.44	41				SC	S			
	with grilles-between-the-glass	PEL-N-278-01722-00001				0.28	0.18	0.40	41				SC	S			
1"	(HA) AdvancedComfort Low-E IG	PEL-N-278-01717-00001	5	3	air	0.28	0.25	0.47	41								
	with grilles-between-the-glass	PEL-N-278-01718-00001				0.28	0.23	0.43	41				SC	S			
1"	(HA) NaturalSun Low-E IG	PEL-N-278-00413-00001	5	3	air	0.32	0.47	0.55	53								
	with grilles-between-the-glass	PEL-N-278-00414-00001				0.32	0.43	0.50	53								
1"	(HA) NaturalSun+ Low-E IG	PEL-N-278-01713-00001	5	3	air	0.28	0.43	0.54	41								
	with grilles-between-the-glass	PEL-N-278-01714-00001				0.28	0.39	0.48	41								

(1) Glazing performance values are calculated based on NFRC 100, NFRC 200 and NFRC 500.

ENERGY STAR® values are updated to 2023 (version 7) criteria.

(2) The values shown are based on Canada's updated ENERGY STAR® 2020 initiative.

For center-glass values, see the Product Performance section.

Visit www.energystar.gov for Energy Star guidelines.

R-Value = 1/U-Factor

SHGC = Solar Heat Gain Coefficient

VLT % = Visible Light Transmission

CR = Condensation Resistance

ER = Canadian Energy Rating



Glazing Thickness	Type of Glazing	NFRC Certified Product #	Glass (mm)		Gap Fill	Performance Values ₁				Shaded Areas Meet ENERGY STAR® Performance Criteria in Zones Shown					
			Ext.	Int.		U-Factor	SHGC	VLT	CR	U. S.				Canada ₂	
										Zone				ER	Zone
Vent – 4 mm/6mm Glass										N	NC	SC	S	CA	
1"	Clear IG	PEL-N-278-00013-00001	4	6	air	0.44	0.53	0.56	44						
	with grilles-between-the-glass	PEL-N-278-00014-00001				0.44	0.48	0.51	44						
1"	Advanced Low-E IG	PEL-N-278-00055-00001	4	6	argon	0.29	0.26	0.48	55						
	with grilles-between-the-glass	PEL-N-278-00056-00001				0.29	0.24	0.43	55						
1"	SunDefense™ IG	PEL-N-278-00071-00001	4	6	argon	0.29	0.20	0.44	55					S	
	with grilles-between-the-glass	PEL-N-278-00072-00001				0.29	0.18	0.40	55					S	
1"	SunDefense+ IG	PENDING	4	6	argon										
	with grilles-between-the-glass	PENDING													
1"	AdvancedComfort Low-E IG	PEL-N-278-00103-00001	4	6	argon	0.25	0.25	0.47	44		NC				
	with grilles-between-the-glass	PEL-N-278-00104-00001				0.25	0.23	0.42	44		NC	SC	S		
1"	NaturalSun Low-E IG	PEL-N-278-00087-00001	4	6	argon	0.30	0.47	0.54	55						
	with grilles-between-the-glass	PEL-N-278-00088-00001				0.30	0.43	0.49	55						
1"	NaturalSun+ Low-E IG	PENDING	4	6	argon										
	with grilles-between-the-glass	PENDING													
Vent – 4 mm/6mm Glass with Foam Insulation															
1"	Advanced Low-E IG	PEL-N-278-00387-00001	4	6	argon	0.28	0.26	0.48	55						
	with grilles-between-the-glass	PEL-N-278-00388-00001				0.28	0.24	0.43	55						
1"	SunDefense IG	PEL-N-278-00403-00001	4	6	argon	0.27	0.20	0.44	55				SC	S	
	with grilles-between-the-glass	PEL-N-278-00404-00001				0.27	0.18	0.40	55				SC	S	
1"	SunDefense+ IG	PENDING	4	6	argon										
	with grilles-between-the-glass	PENDING													
1"	AdvancedComfort Low-E IG	PEL-N-278-00435-00001	4	6	argon	0.24	0.25	0.47	44		NC				
	with grilles-between-the-glass	PEL-N-278-00436-00001				0.24	0.23	0.42	44		NC	SC	S		
1"	NaturalSun Low-E IG	PEL-N-278-00419-00001	4	6	argon	0.29	0.47	0.54	55						
	with grilles-between-the-glass	PEL-N-278-00420-00001				0.29	0.43	0.49	55						
1"	NaturalSun+ Low-E IG	PENDING	4	6	argon										
	with grilles-between-the-glass	PENDING													
Vent – 4 mm/6mm Glass High Altitude Glazing															
1"	(HA) Advanced Low-E IG	PEL-N-278-00053-00001	4	6	air	0.32	0.26	0.48	52						
	with grilles-between-the-glass	PEL-N-278-00054-00001				0.32	0.24	0.43	52						
1"	(HA) SunDefense IG	PEL-N-278-00069-00001	4	6	air	0.32	0.20	0.44	52					S	
	with grilles-between-the-glass	PEL-N-278-00070-00001				0.32	0.18	0.40	52					S	
1"	(HA) SunDefense+ IG	PENDING	4	6	air										
	with grilles-between-the-glass	PENDING													
1"	(HA) AdvancedComfort Low-E IG	PEL-N-278-00101-00001	4	6	air	0.28	0.25	0.47	43						19
	with grilles-between-the-glass	PEL-N-278-00102-00001				0.28	0.23	0.42	43				SC	S	18
1"	(HA) NaturalSun Low-E IG	PEL-N-278-00085-00001	4	6	air	0.33	0.47	0.54	52						25
	with grilles-between-the-glass	PEL-N-278-00086-00001				0.33	0.43	0.49	52						CA
1"	(HA) NaturalSun+ Low-E IG	PENDING	4	6	air										
	with grilles-between-the-glass	PENDING													
Vent – 4 mm/6mm Glass High Altitude Glazing – with Foam Insulation															
1"	(HA) Advanced Low-E IG	PEL-N-278-00385-00001	4	6	air	0.31	0.26	0.48	52						
	with grilles-between-the-glass	PEL-N-278-00386-00001				0.31	0.24	0.43	52						
1"	(HA) SunDefense IG	PEL-N-278-00401-00001	4	6	air	0.31	0.20	0.44	52					S	
	with grilles-between-the-glass	PEL-N-278-00402-00001				0.31	0.18	0.40	52					S	
1"	(HA) SunDefense+ IG	PENDING	4	6	air										
	with grilles-between-the-glass	PENDING													
1"	(HA) AdvancedComfort Low-E IG	PEL-N-278-00433-00001	4	6	air	0.27	0.25	0.47	43						20
	with grilles-between-the-glass	PEL-N-278-00434-00001				0.27	0.23	0.42	43				SC	S	19
1"	(HA) NaturalSun Low-E IG	PEL-N-278-00417-00001	4	6	air	0.32	0.47	0.54	52						27
	with grilles-between-the-glass	PEL-N-278-00418-00001				0.32	0.43	0.49	52						CA
1"	(HA) NaturalSun+ Low-E IG	PENDING	4	6	air										
	with grilles-between-the-glass	PENDING													

(1) Glazing performance values are calculated based on NFRC 100, NFRC 200 and NFRC 500.

ENERGY STAR® values are updated to 2023 (version 7) criteria.

(2) The values shown are based on Canada's updated ENERGY STAR® 2020 initiative.

For center-glass values, see the Product Performance section.

Visit www.energystar.gov for Energy Star guidelines.

R-Value = 1/U-Factor

SHGC = Solar Heat Gain Coefficient

VLT % = Visible Light Transmission

CR = Condensation Resistance

ER = Canadian Energy Rating



Glazing Thickness	Type of Glazing	NFRC Certified Product #	Glass (mm)		Gap Fill	Performance Values ₁				Shaded Areas Meet ENERGY STAR® Performance Criteria in Zones Shown					
			Ext.	Int.		U-Factor	SHGC	VLT	CR	U. S.		Canada ₂			
										Zone	ER	Zone			
Vent – with Tinted Glazing										N	NC	SC	S		CA
11/16"	Bronze Advanced Low-E IG	PEL-N-278-00275-00001	5	3	argon	0.30	0.24	0.32	57						
	with grilles-between-the-glass	PEL-N-278-00276-00001				0.31	0.22	0.29	57				S		
1"	Bronze Advanced Low-E IG	PEL-N-278-00027-00001	5	5	argon	0.29	0.23	0.31	56				S		
	with grilles-between-the-glass	PEL-N-278-00028-00001				0.29	0.21	0.28	56				S		
1"	Bronze Advanced Low-E IG	PEL-N-278-00039-00001	6	6	argon	0.29	0.22	0.28	58				S		
	with grilles-between-the-glass	PEL-N-278-00040-00001				0.29	0.20	0.25	58				S		
11/16"	Gray Advanced Low-E IG	PEL-N-278-00279-00001	5	3	argon	0.30	0.22	0.27	57				S		
	with grilles-between-the-glass	PEL-N-278-00280-00001				0.31	0.20	0.25	57				S		
1"	Gray Advanced Low-E IG	PEL-N-278-00031-00001	5	5	argon	0.29	0.21	0.27	56				S		
	with grilles-between-the-glass	PEL-N-278-00032-00001				0.29	0.19	0.24	56				S		
1"	Gray Advanced Low-E IG	PEL-N-278-00043-00001	6	6	argon	0.29	0.19	0.24	58				S		
	with grilles-between-the-glass	PEL-N-278-00044-00001				0.29	0.18	0.21	58				S		
11/16"	Green Advanced Low-E IG	PEL-N-278-00283-00001	5	3	argon	0.30	0.27	0.43	57						
	with grilles-between-the-glass	PEL-N-278-00284-00001				0.31	0.24	0.39	57						
1"	Green Advanced Low-E IG	PEL-N-278-00035-00001	5	5	argon	0.29	0.26	0.42	56						
	with grilles-between-the-glass	PEL-N-278-00036-00001				0.29	0.24	0.38	56						
1"	Green Advanced Low-E IG	PEL-N-278-00047-00001	6	6	argon	0.29	0.25	0.41	58						
	with grilles-between-the-glass	PEL-N-278-00048-00001				0.29	0.23	0.37	58				S		
Vent — with Foam Insulation and Tinted Glazing															
11/16"	Bronze Advanced Low-E IG	PEL-N-278-00607-00001	5	3	argon	0.29	0.24	0.32	57						
	with grilles-between-the-glass	PEL-N-278-00608-00001				0.30	0.22	0.29	57					S	
1"	Bronze Advanced Low-E IG	PEL-N-278-00359-00001	5	5	argon	0.28	0.23	0.31	56			SC		S	
	with grilles-between-the-glass	PEL-N-278-00360-00001				0.28	0.21	0.28	56			SC		S	
1"	Bronze Advanced Low-E IG	PEL-N-278-00371-00001	6	6	argon	0.28	0.22	0.28	58			SC		S	
	with grilles-between-the-glass	PEL-N-278-00372-00001				0.28	0.20	0.25	58			SC		S	
11/16"	Gray Advanced Low-E IG	PEL-N-278-00611-00001	5	3	argon	0.29	0.22	0.27	57					S	
	with grilles-between-the-glass	PEL-N-278-00612-00001				0.30	0.20	0.25	57					S	
1"	Gray Advanced Low-E IG	PEL-N-278-00363-00001	5	5	argon	0.28	0.21	0.27	56			SC		S	
	with grilles-between-the-glass	PEL-N-278-00364-00001				0.28	0.19	0.24	56			SC		S	
1"	Gray Advanced Low-E IG	PEL-N-278-00375-00001	6	6	argon	0.28	0.19	0.24	58			SC		S	
	with grilles-between-the-glass	PEL-N-278-00376-00001				0.28	0.18	0.21	58			SC		S	
11/16"	Green Advanced Low-E IG	PEL-N-278-00615-00001	5	3	argon	0.29	0.27	0.43	57						
	with grilles-between-the-glass	PEL-N-278-00616-00001				0.30	0.24	0.39	57						
1"	Green Advanced Low-E IG	PEL-N-278-00367-00001	5	5	argon	0.28	0.26	0.42	56						
	with grilles-between-the-glass	PEL-N-278-00368-00001				0.28	0.24	0.38	56						
1"	Green Advanced Low-E IG	PEL-N-278-00379-00001	6	6	argon	0.28	0.25	0.41	58						
	with grilles-between-the-glass	PEL-N-278-00380-00001				0.28	0.23	0.37	58			SC		S	

R-Value = 1/U-Factor
SHGC = Solar Heat Gain Coefficient
VLT % = Visible Light Transmission
CR = Condensation Resistance
ER = Canadian Energy Rating

(1) Glazing performance values are calculated based on NFRC 100, NFRC 200 and NFRC 500.

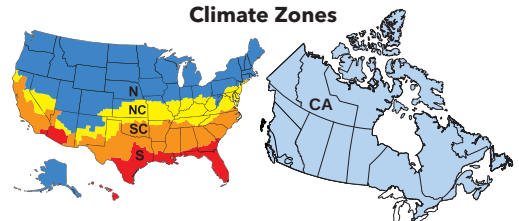
ENERGY STAR® values are updated to 2023 (version 7) criteria.

(2) The values shown are based on Canada's updated ENERGY STAR® 2020 initiative.

For center-glass values, see the Product Performance section.

See the Product Performance section for more detailed information or visit www.energystar.gov for Energy Star guidelines.

Climate Zones





Glazing Thickness	Type of Glazing	NFRC Certified Product #	Glass (mm)		Gap Fill	Performance Values ₁				Shaded Areas Meet ENERGY STAR® Performance Criteria in Zones Shown					
			Ext.	Int.		U-Factor	SHGC	VLT	CR	U. S.		Canada ₂			
										Zone		ER	Zone		
Vent – High Altitude Glazing – with Tinted Glazing										N	NC	SC	S		CA
11/16"	Bronze Advanced Low-E IG	PEL-N-278-00273-00001	5	3	air	0.34	0.24	0.32	53						
	with grilles-between-the-glass	PEL-N-278-00274-00001				0.35	0.22	0.29	53						
1"	Bronze Advanced Low-E IG	PEL-N-278-00025-00001	5	5	air	0.32	0.24	0.31	53						
	with grilles-between-the-glass	PEL-N-278-00026-00001				0.32	0.22	0.28	53				S		
1"	Bronze Advanced Low-E IG	PEL-N-278-00037-00001	6	6	air	0.32	0.22	0.28	55				S		
	with grilles-between-the-glass	PEL-N-278-00038-00001				0.32	0.20	0.25	55				S		
11/16"	Gray Advanced Low-E IG	PEL-N-278-00277-00001	5	3	air	0.34	0.22	0.27	53						
	with grilles-between-the-glass	PEL-N-278-00278-00001				0.35	0.21	0.25	53						
1"	Gray Advanced Low-E IG	PEL-N-278-00029-00001	5	5	air	0.32	0.22	0.27	53				S		
	with grilles-between-the-glass	PEL-N-278-00030-00001				0.32	0.20	0.24	53				S		
1"	Gray Advanced Low-E IG	PEL-N-278-00041-00001	6	6	air	0.32	0.20	0.24	55				S		
	with grilles-between-the-glass	PEL-N-278-00042-00001				0.32	0.18	0.21	55				S		
11/16"	Green Advanced Low-E IG	PEL-N-278-00281-00001	5	3	air	0.34	0.27	0.43	53						
	with grilles-between-the-glass	PEL-N-278-00282-00001				0.35	0.25	0.39	53						
1"	Green Advanced Low-E IG	PEL-N-278-00033-00001	5	5	air	0.32	0.26	0.42	53						
	with grilles-between-the-glass	PEL-N-278-00034-00001				0.32	0.24	0.38	53						
1"	Green Advanced Low-E IG	PEL-N-278-00045-00001	6	6	air	0.32	0.25	0.41	55						
	with grilles-between-the-glass	PEL-N-278-00046-00001				0.32	0.23	0.37	55				S		
Vent – High Altitude Glazing – with Foam Insulation and Tinted Glazing															
11/16"	Bronze Advanced Low-E IG	PEL-N-278-00605-00001	5	3	air	0.33	0.24	0.32	53						
	with grilles-between-the-glass	PEL-N-278-00606-00001				0.34	0.22	0.29	53						
1"	Bronze Advanced Low-E IG	PEL-N-278-00357-00001	5	5	air	0.31	0.24	0.31	53						
	with grilles-between-the-glass	PEL-N-278-00358-00001				0.31	0.22	0.28	53				S		
1"	Bronze Advanced Low-E IG	PEL-N-278-00369-00001	6	6	air	0.31	0.22	0.28	55				S		
	with grilles-between-the-glass	PEL-N-278-00370-00001				0.31	0.20	0.25	55				S		
11/16"	Gray Advanced Low-E IG	PEL-N-278-00609-00001	5	3	air	0.33	0.22	0.27	53						
	with grilles-between-the-glass	PEL-N-278-00610-00001				0.34	0.21	0.25	53						
1"	Gray Advanced Low-E IG	PEL-N-278-00361-00001	5	5	air	0.31	0.22	0.27	53				S		
	with grilles-between-the-glass	PEL-N-278-00362-00001				0.31	0.20	0.24	53				S		
1"	Gray Advanced Low-E IG	PEL-N-278-00373-00001	6	6	air	0.31	0.20	0.24	55				S		
	with grilles-between-the-glass	PEL-N-278-00374-00001				0.31	0.18	0.21	55				S		
11/16"	Green Advanced Low-E IG	PEL-N-278-00613-00001	5	3	air	0.33	0.27	0.43	53						
	with grilles-between-the-glass	PEL-N-278-00614-00001				0.34	0.25	0.39	53						
1"	Green Advanced Low-E IG	PEL-N-278-00365-00001	5	5	air	0.31	0.26	0.42	53						
	with grilles-between-the-glass	PEL-N-278-00366-00001				0.31	0.24	0.38	53						
1"	Green Advanced Low-E IG	PEL-N-278-00377-00001	6	6	air	0.31	0.25	0.41	55						
	with grilles-between-the-glass	PEL-N-278-00378-00001				0.31	0.23	0.37	55				S		

R-Value = 1/U-Factor
SHGC = Solar Heat Gain Coefficient
VLT % = Visible Light Transmission
CR = Condensation Resistance
ER = Canadian Energy Rating

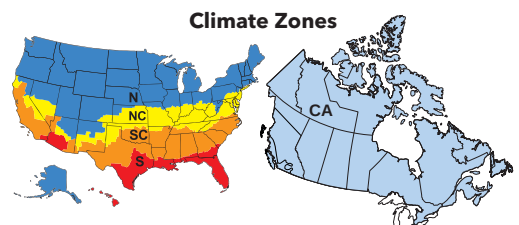
(1) Glazing performance values are calculated based on NFRC 100, NFRC 200 and NFRC 500.

ENERGY STAR® values are updated to 2023 (version 7) criteria.

(2) The values shown are based on Canada's updated ENERGY STAR® 2020 initiative.

For center-glass values, see the Product Performance section.

See the Product Performance section for more detailed information or visit www.energystar.gov for Energy Star guidelines.





Glazing Thickness	Type of Glazing	NFRC Certified Product #	Glass (mm)		Gap Fill	Performance Values ₁				Shaded Areas Meet ENERGY STAR® Performance Criteria in Zones Shown					
			Ext.	Int.		U-Factor	SHGC	VLT	CR	U. S.				Canada ₂	
										Zone				ER	Zone
Vent – with Laminated for Sound Glazing										N	NC	SC	S	CA	
1"	Advanced Low-E IG	PEL-N-278-00139-00001	4	7	argon	0.29	0.26	0.48	58						
	with grilles-between-the-glass	PEL-N-278-00140-00001				0.29	0.24	0.43	58						
1"	Advanced Low-E IG	PEL-N-278-00151-00001	5	10	argon	0.28	0.26	0.47	56						
	with grilles-between-the-glass	PEL-N-278-00152-00001				0.28	0.24	0.42	56						
1"	SunDefense™ IG	PEL-N-278-00135-00001	4	7	argon	0.28	0.20	0.44	59			SC	S		
	with grilles-between-the-glass	PEL-N-278-00136-00001				0.28	0.18	0.40	59			SC	S		
1"	SunDefense™ IG	PEL-N-278-00147-00001	5	10	argon	0.28	0.20	0.44	57			SC	S		
	with grilles-between-the-glass	PEL-N-278-00148-00001				0.28	0.18	0.39	57			SC	S		
Vent – with Foam insulation and Laminated for Sound Glazing															
1"	Advanced Low-E IG	PEL-N-278-00471-00001	4	7	argon	0.28	0.26	0.48	58						
	with grilles-between-the-glass	PEL-N-278-00472-00001				0.28	0.24	0.43	58						
1"	Advanced Low-E IG	PEL-N-278-00483-00001	5	10	argon	0.27	0.26	0.47	57						
	with grilles-between-the-glass	PEL-N-278-00484-00001				0.27	0.24	0.42	57						
1"	SunDefense™ IG	PEL-N-278-00467-00001	4	7	argon	0.27	0.20	0.44	59			SC	S		
	with grilles-between-the-glass	PEL-N-278-00468-00001				0.27	0.18	0.40	59			SC	S		
1"	SunDefense™ IG	PEL-N-278-00479-00001	5	10	argon	0.27	0.20	0.44	57			SC	S		
	with grilles-between-the-glass	PEL-N-278-00480-00001				0.27	0.18	0.39	57			SC	S		
Vent – High Altitude Glazing – with Laminated for Sound Glazing															
1"	Advanced Low-E IG	PEL-N-278-00137-00001	4	7	air	0.32	0.26	0.48	55						
	with grilles-between-the-glass	PEL-N-278-00138-00001				0.32	0.24	0.43	55						
1"	Advanced Low-E IG	PEL-N-278-00149-00001	5	10	air	0.31	0.26	0.47	53						
	with grilles-between-the-glass	PEL-N-278-00150-00001				0.31	0.24	0.42	53						
1"	SunDefense IG	PEL-N-278-00133-00001	4	7	air	0.31	0.20	0.44	55				S		
	with grilles-between-the-glass	PEL-N-278-00134-00001				0.31	0.18	0.40	55				S		
1"	SunDefense IG	PEL-N-278-00145-00001	5	10	air	0.31	0.20	0.44	53				S		
	with grilles-between-the-glass	PEL-N-278-00146-00001				0.31	0.18	0.39	53				S		
Vent – High Altitude Glazing – with Foam Insulation and Laminated for Sound Glazing															
1"	Advanced Low-E IG	PEL-N-278-00469-00001	4	7	air	0.31	0.26	0.48	55						
	with grilles-between-the-glass	PEL-N-278-00470-00001				0.31	0.24	0.43	55						
1"	Advanced Low-E IG	PEL-N-278-00481-00001	5	10	air	0.30	0.26	0.47	53						
	with grilles-between-the-glass	PEL-N-278-00482-00001				0.30	0.24	0.42	53						
1"	SunDefense IG	PEL-N-278-00465-00001	4	7	air	0.30	0.20	0.44	55				S		
	with grilles-between-the-glass	PEL-N-278-00466-00001				0.30	0.18	0.40	55				S		
1"	SunDefense IG	PEL-N-278-00477-00001	5	10	air	0.30	0.20	0.44	53				S		
	with grilles-between-the-glass	PEL-N-278-00478-00001				0.30	0.18	0.39	53				S		

R-Value = 1/U-Factor
SHGC = Solar Heat Gain Coefficient
VLT % = Visible Light Transmission
CR = Condensation Resistance
ER = Canadian Energy Rating

(1) Glazing performance values are calculated based on NFRC 100, NFRC 200 and NFRC 500.

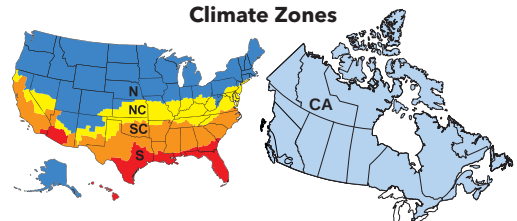
ENERGY STAR® values are updated to 2023 (version 7) criteria.

(2) The values shown are based on Canada's updated ENERGY STAR® 2020 initiative.

For center-glass values, see the Product Performance section.

Visit www.energystar.gov for Energy Star guidelines.

Climate Zones





Glazing Performance - Total Unit

Glazing Thickness	Type of Glazing	NFRC Certified Product #	Glass (mm)		Gap Fill	Performance Values ₁				Shaded Areas Meet ENERGY STAR® Performance Criteria in Zones Shown						
			Ext.	Int.		U-Factor	SHGC	VLT	CR	U. S.				Canada ₂		
										Zone				ER	Zone	
										Vent – with Impact-Resistant Laminated Glazing						
11/16"	Clear IG (PVB)	PEL-N-278-00665-00001	3	7.6	air	0.48	0.52	0.56	41							
	with grilles-between-the-glass	PEL-N-278-00666-00001				0.49	0.47	0.51	41							
1"	Clear IG (PVB)	PEL-N-278-00913-00001	3	8.6	air	0.43	0.52	0.56	44							
	with grilles-between-the-glass	PEL-N-278-00914-00001				0.43	0.47	0.51	44							
11/16"	Advanced Low-E IG (PVB)	PEL-N-278-00699-00001	3	7.6	argon	0.34	0.26	0.47	53							
	with grilles-between-the-glass	PEL-N-278-00700-00001				0.35	0.24	0.43	53							
1"	Advanced Low-E IG (PVB)	PEL-N-278-00963-00001	3	8.6	argon	0.28	0.26	0.47	58							
	with grilles-between-the-glass	PEL-N-278-00964-00001				0.28	0.24	0.43	58							
11/16"	SunDefense™ IG (PVB)	PEL-N-278-00683-00001	3	7.6	argon	0.33	0.20	0.44	54							
	with grilles-between-the-glass	PEL-N-278-00684-00001				0.35	0.18	0.40	54							
1"	SunDefense™ IG (PVB)	PEL-N-278-00939-00001	3	8.6	argon	0.28	0.19	0.44	58			SC	S			
	with grilles-between-the-glass	PEL-N-278-00940-00001				0.28	0.18	0.40	58			SC	S			
11/16"	Bronze Advanced Low-E IG (PVB)	PEL-N-278-00703-00001	3	7.6	argon	0.33	0.25	0.35	54							
	with grilles-between-the-glass	PEL-N-278-00704-00001				0.35	0.23	0.31	54							
1"	Bronze Advanced Low-E IG (PVB)	PEL-N-278-00975-00001	3	8.6	argon	0.28	0.25	0.35	59							
	with grilles-between-the-glass	PEL-N-278-00976-00001				0.28	0.23	0.31	59			SC	S			
Vent – with Foam Insulation and Impact-Resistant Laminated Glazing																
11/16"	Advanced Low-E IG (PVB)	PEL-N-278-01531-00001	3	7.6	argon	0.33	0.26	0.47	53							
	with grilles-between-the-glass	PEL-N-278-01532-00001				0.35	0.24	0.43	53							
1"	Advanced Low-E IG (PVB)	PEL-N-278-01795-00001	3	8.6	argon	0.28	0.26	0.47	58							
	with grilles-between-the-glass	PEL-N-278-01796-00001				0.28	0.24	0.43	58							
11/16"	SunDefense™ IG (PVB)	PEL-N-278-01515-00001	3	7.6	argon	0.33	0.20	0.44	54							
	with grilles-between-the-glass	PEL-N-278-01516-00001				0.35	0.18	0.40	54							
1"	SunDefense™ IG (PVB)	PEL-N-278-01771-00001	3	8.6	argon	0.28	0.19	0.44	59			SC	S			
	with grilles-between-the-glass	PEL-N-278-01772-00001				0.28	0.18	0.40	59			SC	S			
11/16"	Bronze Advanced Low-E IG (PVB)	PEL-N-278-01535-00001	3	7.6	argon	0.33	0.25	0.35	54							
	with grilles-between-the-glass	PEL-N-278-01536-00001				0.35	0.23	0.31	54							
1"	Bronze Advanced Low-E IG (PVB)	PEL-N-278-01807-00001	3	8.6	argon	0.28	0.25	0.35	59							
	with grilles-between-the-glass	PEL-N-278-01808-00001				0.28	0.23	0.31	59			SC	S			

R-Value = 1/U-Factor
SHGC = Solar Heat Gain Coefficient
VLT % = Visible Light Transmission
CR = Condensation Resistance
ER = Canadian Energy Rating

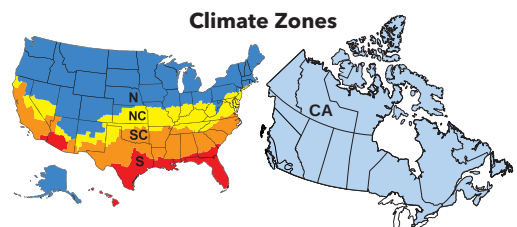
(1) Glazing performance values are calculated based on NFRC 100, NFRC 200 and NFRC 500.

ENERGY STAR® values are updated to 2023 (version 7) criteria.

(2) The values shown are based on Canada's updated ENERGY STAR® 2020 initiative.

For center-glass values, see the Product Performance section.

Visit www.energystar.gov for Energy Star guidelines.





Glazing Thickness	Type of Glazing	NFRC Certified Product #	Glass (mm)			Gap Fill	Performance Values ₁				Shaded Areas Meet ENERGY STAR® Performance Criteria in Zones Shown					
			Est.	Middle	Int.		U-Factor	SHGC	VLT	CR	U. S.				Canada ₂	
											Zone	ER	Zone	CA		
Vent - Triple Pane											N	NC	SC	S		
1"	Advanced Low-E IG	PEL-N-278-00167-00001	3	3	3	argon	0.23	0.24	0.43	68		NC				
	with grilles-between-the-glass	PEL-N-278-00168-00001					0.24	0.22	0.39	68		NC	SC	S		
1"	SunDefense™ Low-E IG	PEL-N-278-00179-00001	3	3	3	argon	0.23	0.18	0.40	68		NC	SC	S		
	with grilles-between-the-glass	PEL-N-278-00180-00001					0.24	0.17	0.36	68		NC	SC	S		
1"	NaturalSun Low-E IG	PEL-N-278-00155-00001	3	3	3	argon	0.24	0.40	0.49	67	N	NC				
	with grilles-between-the-glass	PEL-N-278-00156-00001					0.24	0.36	0.44	67	N	NC				
Vent - Triple Pane with Foam Insulation																
1"	Advanced Low-E IG	PEL-N-278-00499-00001	3	3	3	argon	0.22	0.24	0.43	68	N	NC				
	with grilles-between-the-glass	PEL-N-278-00500-00001					0.23	0.22	0.39	68		NC	SC	S		
1"	SunDefense™ Low-E IG	PEL-N-278-00511-00001	3	3	3	argon	0.22	0.18	0.40	68	N	NC	SC	S		
	with grilles-between-the-glass	PEL-N-278-00512-00001					0.23	0.17	0.36	68		NC	SC	S		
1"	NaturalSun Low-E IG	PEL-N-278-00487-00001	3	3	3	argon	0.23	0.40	0.49	67	N	NC			34	CA
	with grilles-between-the-glass	PEL-N-278-00488-00001					0.23	0.36	0.44	67	N	NC				
Vent - Triple Pane with High Altitude Glazing																
1"	Advanced Low-E IG	PEL-N-278-00165-00001	3	3	3	air	0.27	0.24	0.43	64						
	with grilles-between-the-glass	PEL-N-278-00166-00001					0.27	0.22	0.39	64			SC	S		
1"	SunDefense Low-E IG	PEL-N-278-00177-00001	3	3	3	air	0.27	0.18	0.40	64			SC	S		
	with grilles-between-the-glass	PEL-N-278-00178-00001					0.27	0.17	0.36	64			SC	S		
1"	NaturalSun Low-E IG	PEL-N-278-00153-00001	3	3	3	air	0.27	0.40	0.49	63						
	with grilles-between-the-glass	PEL-N-278-00154-00001					0.27	0.36	0.44	64						
Vent - Triple Pane with High Altitude Glazing and Foam Insulation																
1"	Advanced Low-E IG	PEL-N-278-00497-00001	3	3	3	air	0.26	0.24	0.43	64						
	with grilles-between-the-glass	PEL-N-278-00498-00001					0.26	0.22	0.39	64			SC	S		
1"	SunDefense Low-E IG	PEL-N-278-00509-00001	3	3	3	air	0.26	0.18	0.40	64			SC	S		
	with grilles-between-the-glass	PEL-N-278-00510-00001					0.26	0.17	0.36	64			SC	S		
1"	NaturalSun Low-E IG	PEL-N-278-00485-00001	3	3	3	air	0.26	0.40	0.49	64	N					
	with grilles-between-the-glass	PEL-N-278-00486-00001					0.26	0.36	0.44	64						

R-Value = 1/U-Factor
SHGC = Solar Heat Gain Coefficient
VLT % = Visible Light Transmission
CR = Condensation Resistance
ER = Canadian Energy Rating

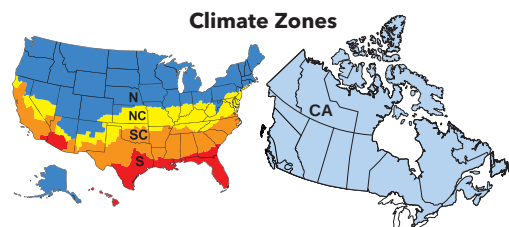
(1) Glazing performance values are calculated based on NFRC 100, NFRC 200 and NFRC 500.

ENERGY STAR® values are updated to 2023 (version 7) criteria.

(2) The values shown are based on Canada's updated ENERGY STAR® 2020 initiative.

For center-glass values, see the Product Performance section.

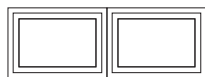
Visit www.energystar.gov for Energy Star guidelines.



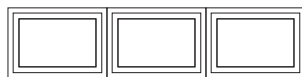


A combination is defined as an assembly formed by two or more separate windows or doors whose frames are mulled together utilizing a combination mullion or reinforcing mullion.

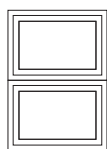
Below are available factory-assembled combinations. See the Combination section for requirements and limitations related to mulling various combinations plus configuration size range information.



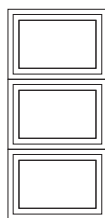
2-Wide



3-Wide



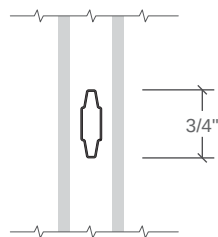
2-High



3-High

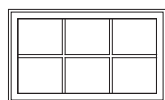
Grille Profiles

Grilles-Between-the-Glass

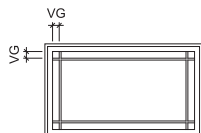


3/4" Contour

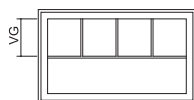
Grille Patterns



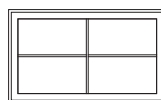
Traditional



9-Lite
Prairie



Top Row



Special

Standard corner lite dimension for Prairie patterns = 4" visible glass (VG).

(1) Standard visible glass to center line of separator bar dimension = 14" or half of total visible glass height, whichever is smaller.

Multiple rows are available up to 50% glass size.

Pattern availability may vary depending on size of unit.



Size Tables

Vent and Fixed Units

		(521) (508)	(610) (597)	(711) (699)	(762) (749)	(813) (800)	(914) (902)	(1 067) (1 054)	(1 219) (1 207)	(1 372) (1 359)	(1 524) (1 511)
Opening		1' 8 1/2"	2' 0"	2' 4"	2' 6"	2' 8"	3' 0"	2' 6"	4' 0"	4' 6"	5' 0"
Frame		1' 8"	1' 11 1/2"	2' 3 1/2"	2' 5 1/2"	2' 7 1/2"	2' 11 1/2"	3' 5 1/2"	3' 11 1/2"	4' 5 1/2"	4' 11 1/2"
SPECIAL NARROWER SIZES AVAILABLE											
SPECIAL SHORTER AND TALLER SIZES AVAILABLE	1' 6"	1-8.5/1-6	2-0/1-6	2-4/1-6	2-6/1-6	2-8/1-6	3-0/1-6	3-6/1-6	4-0/1-6	4-6/1-6	5-0/1-6
	2' 0"	1-8.5/2-0	2-0/2-0	2-4/2-0	2-6/2-0	2-8/2-0	3-0/2-0	3-6/2-0	4-0/2-0	4-6/2-0	5-0/2-0
	2' 6"	1-8.5/2-6	2-0/2-6	2-4/2-6	2-6/2-6	2-8/2-6	3-0/2-6	3-6/2-6	4-0/2-6	4-6/2-6	5-0/2-6
	3' 0"	1-8.5/3-0	2-0/3-0	2-4/3-0	2-6/3-0	2-8/3-0	3-0/3-0	3-6/3-0	4-0/3-0	4-6/3-0	5-0/3-0
	3' 6"	1-8.5/3-6	2-0/3-6	2-4/3-6	2-6/3-6	2-8/3-6	3-0/3-6	3-6/3-6	4-0/3-6	4-6/3-6	5-0/3-6
	4' 0"	1-8.5/4-0	2-0/4-0	2-4/4-0	2-6/4-0	2-8/4-0	3-0/4-0	3-6/4-0	4-0/4-0	4-6/4-0	5-0/4-0
	4' 6"	1-8.5/4-6	2-0/4-6	2-4/4-6	2-6/4-6	2-8/4-6	3-0/4-6	3-6/4-6	4-0/4-6	4-6/4-6	5-0/4-6
	5' 0"	1-8.5/5-0	2-0/5-0	2-4/5-0	2-6/5-0	2-8/5-0	3-0/5-0	3-6/5-0	4-0/5-0	4-6/5-0	5-0/5-0

Not to scale.
Keep frame dimensions to the nearest 1/8" increment.
Traditional grille patterns shown. See Grilles in the Overview section for additional patterns and profiles.



Special Size Frame Dimensions*

	Minimum	Maximum
Vent	1'8" W x 1'5-1/2" H (20" x 17-1/2") (508 x 444)	4'11-1/2" W x 4'11-1/2" H (59-1/2" x 59-1/2") (1 511 x 1 511)
Fixed	1'1-1/2" W x 11-1/2" H (13-1/2" x 11-1/2") (342 x 292)	5'11-1/2" W x 6'7-1/2" H (71-1/2" x 79-1/2") (1 816 x 2 019)

Miscellaneous Formulas - Awning

	Formula
Visible Glass	Width = Frame Width - 5-7/16" Height = Frame Height - 5-7/16"
Actual Glass	Width = Frame Width - 4-3/8" Height = Frame Height - 4-3/8"
Vent Area	Sill Opening x (FW - 2.562 + FH - 2.562) ÷ 144

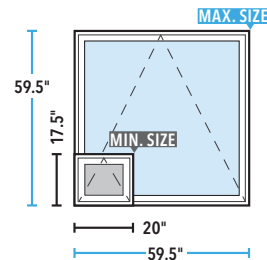
Easy Slide Operator units Frame Width < 26.75, Sill Opening = 3"

Easy Slide Operator units Frame Width ≥ 26.75, Sill Opening = 5.75"

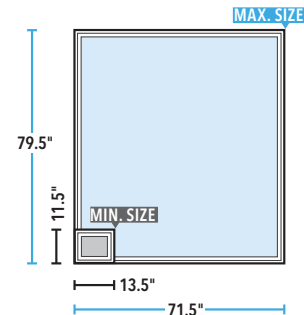
All Roto Operator units, Sill Opening = 5.25"

Awning

Vent Sizes

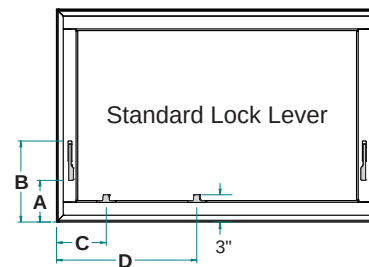


Fixed Sizes



Lock Handle Operator Height

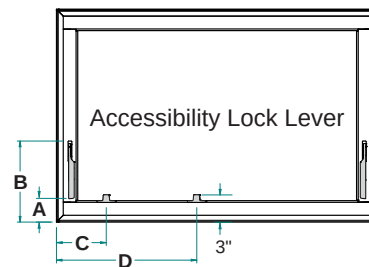
Frame Height	Standard Locked Location (A)	Standard Unlocked Location (B)	Accessibility Locked Location (A)	Accessibility Unlocked Location (B)
≥ 17.50" to < 24"	9-5/8"	14-3/8"	7-1/2"	14-7/8"
≥ 24" to ≤ 59.5"	4-5/8"	9-3/8"	2-1/2"	9-7/8"



Easy-Slide Operator Travel

Frame Width	Closed Location (C)	Open Location (D)
≥ 23.5" to < 34.75"	3-7/8"	15-1/2"
≥ 34.75" to ≤ 59.5"	3-7/8"	19-7/8"

Height is measured from the bottom of the frame, proper installation height is required for ADA compliance.



* Available within size range shown.

See Impervia Casement section for additional fixed window standard size tables and performance information.



Impact-Resistant - Certifications and Approvals

Impact-resistant laminated glass will only be available on Block Frame with a Prep for Screw Through Frame or Installation Clips attachment methods. See FPAS documents or Pella Installation Instructions for required anchor layout and details. All hardware types including Easy-Slide operator are qualified for the sizes and performance shown.

Impact-Resistant Special Size Frame Dimensions

	Minimum	Maximum PVB	Maximum SGP
Vent	1' 5-1/2" W x 1' 8" H (17-1/2" x 20") (445 x 508)	4' 5-1/2" W x 2' 11-1/2" H (53-1/2" x 35-1/2") (1 359 x 902)	NA
Fixed	1' 1-1/2" W x 11-1/2" H (13-1/2" x 11-1/2") (343 x 292)	2' 11-1/2" W x 6' 1-1/2" H (35-1/2" x 73-1/2") (902 x 1 867)	4' 8-1/2" W x 6' 1-1/2" H (56-1/2" x 73-1/2") (1 435 x 1 867)

Available within size range shown.
Keep frame dimensions to the nearest 1/8" increment. Frame width cannot exceed frame height on special size vent units.

Vent Awning								
Insulated Glass 11/16" PVB			Insulated Glass 1" SGP			Insulated Glass 1" PVB		
Design Pressure	FPAS / TDI	Hallmark Certified	Design Pressure	FPAS / TDI	Hallmark Certified	Design Pressure	FPAS / TDI	Hallmark Certified
+50 / -50	FL 35281	411-H-1511	—	—	—	+50 / -50	FL 35281	411-H-1511
Fixed Awning								
+50 / -50	FL 35281	411-H-1511	+50 / -50	FL 35281	411-H-1511	+50 / -50	FL 35281	411-H-1511

All vent sizes and glass types are tested for air/water/structural and impact-resistance, and are certified for wind zone 2, large missile rating C (Non-HVHZ).



Vent - Awning													
Unit	Max Opening Angle			Sill Opening (in)			Vent Area Ft ²			Visible Glass Ft ²	Standard Glass Thickness (mm)		Performance Class & Grade ₁
	Roto Operator	Easy Slide Operator	ADA Easy Slide Operator	Roto Operator	Easy Slide Operator	ADA Easy Slide Operator	Roto Operator	Easy Slide Operator	ADA Easy Slide Operator		Annealed	Tempered	Vent
1-8/1-6	27°	-	-	5-1/4	-	-	1.2	-	-	1.2	3	3	LC+50/-60
1-8/2-0	19°	-	-	5-1/4	-	-	1.4	-	-	1.8	3	3	LC+50/-60
1-8/2-6	15°	-	-	5-1/4	-	-	1.6	-	-	2.4	3	3	LC+50/-60
1-8/3-0	12°	-	-	5-1/4	-	-	1.8	-	-	3.0	3	3	LC+50/-60
1-8/3-6	10°	-	-	5-1/4	-	-	2.1	-	-	3.6	3	3	LC+50/-60
1-8/4-0	9°	-	-	5-1/4	-	-	2.3	-	-	4.3	3	3	LC+50/-60
1-8/4-6	8°	-	-	5-1/4	-	-	2.5	-	-	4.9	3	3	LC+50/-60
1-8/5-0	7°	-	-	5-1/4	-	-	2.7	-	-	5.5	3	3	LC+50/-60
2-0/1-6	27°	18°	18°	5-1/4	3	3	1.3	0.7	0.7	1.5	3	3	LC+50/-60
2-0/2-0	19°	12°	12°	5-1/4	3	3	1.5	0.9	0.9	2.3	3	3	LC+50/-60
2-0/2-6	15°	10°	10°	5-1/4	3	3	1.7	1.0	1.0	3.0	3	3	LC+50/-60
2-0/3-0	12°	8°	8°	5-1/4	3	3	2.0	1.1	1.1	3.8	3	3	LC+50/-60
2-0/3-6	10°	7°	7°	5-1/4	3	3	2.2	1.2	1.2	4.5	3	3	LC+50/-60
2-0/4-0	9°	6°	6°	5-1/4	3	3	2.4	1.4	1.4	5.3	3	3	LC+50/-60
2-0/4-6	8°	5°	5°	5-1/4	3	3	2.6	1.5	1.5	6.0	3	3	LC+50/-60
2-0/5-0	7°	5°	5°	5-1/4	3	3	2.8	1.6	1.6	6.8	3	3	LC+50/-60
2-4/1-6	27°	29°	18°	5-1/4	5-3/4	3	1.5	1.6	0.8	1.8	3	3	LC+50/-60
2-4/2-0	19°	20°	12°	5-1/4	5-3/4	3	1.7	1.8	1.0	2.8	3	3	LC+50/-60
2-4/2-6	15°	16°	10°	5-1/4	5-3/4	3	1.9	2.1	1.1	3.7	3	3	LC+50/-60
2-4/3-0	12°	13°	8°	5-1/4	5-3/4	3	2.1	2.3	1.2	4.6	3	3	LC+50/-60
2-4/3-6	10°	11°	7°	5-1/4	5-3/4	3	2.3	2.6	1.3	5.5	3	3	LC+50/-60
2-4/4-0	9°	9°	6°	5-1/4	5-3/4	3	2.5	2.8	1.5	6.4	3	3	LC+50/-60
2-4/4-6	8°	8°	5°	5-1/4	5-3/4	3	2.8	3.0	1.6	7.4	3	3	LC+50/-60
2-4/5-0	7°	7°	5°	5-1/4	5-3/4	3	3.0	3.3	1.7	8.3	3	3	LC+50/-60
2-6/1-6	27°	29°	18°	5-1/4	5-3/4	3	1.5	1.7	0.9	2.0	3	3	LC+50/-60
2-6/2-0	19°	20°	12°	5-1/4	5-3/4	3	1.7	1.9	1.0	3.0	3	3	LC+50/-60
2-6/2-6	15°	16°	10°	5-1/4	5-3/4	3	2.0	2.2	1.1	4.0	3	3	LC+50/-60
2-6/3-0	12°	13°	8°	5-1/4	5-3/4	3	2.2	2.4	1.2	5.0	3	3	LC+50/-60
2-6/3-6	10°	11°	7°	5-1/4	5-3/4	3	2.4	2.6	1.4	6.0	3	3	LC+50/-60
2-6/4-0	9°	9°	6°	5-1/4	5-3/4	3	2.6	2.9	1.5	7.0	3	3	LC+50/-60
2-6/4-6	8°	8°	5°	5-1/4	5-3/4	3	2.8	3.1	1.6	8.0	3	3	LC+50/-60
2-6/5-0	7°	7°	5°	5-1/4	5-3/4	3	3.1	3.3	1.7	9.0	3	3	LC+50/-60
2-8/1-6	27°	29°	18°	5-1/4	5-3/4	3	1.6	1.8	0.9	2.2	3	3	LC+50/-60
2-8/2-0	19°	20°	12°	5-1/4	5-3/4	3	1.8	2.0	1.0	3.3	3	3	LC+50/-60
2-8/2-6	15°	16°	10°	5-1/4	5-3/4	3	2.0	2.2	1.2	4.4	3	3	LC+50/-60
2-8/3-0	12°	13°	8°	5-1/4	5-3/4	3	2.3	2.5	1.3	5.4	3	3	LC+50/-60
2-8/3-6	10°	11°	7°	5-1/4	5-3/4	3	2.5	2.7	1.4	6.5	3	3	LC+50/-60
2-8/4-0	9°	9°	6°	5-1/4	5-3/4	3	2.7	2.9	1.5	7.6	3	3	LC+50/-60
2-8/4-6	8°	8°	5°	5-1/4	5-3/4	3	2.9	3.2	1.7	8.7	3	3	LC+50/-60
2-8/5-0	7°	7°	5°	5-1/4	5-3/4	3	3.1	3.4	1.8	9.8	3	3	LC+50/-60

(1) Maximum performance when glazed with the appropriate glass thickness.

To convert areas to square meters (m²), multiply square feet by 0.0929.



Vent - Awning													
Unit	Max Opening Angle			Sill Opening (in)			Vent Area Ft ²			Visible Glass Ft ²	Standard Glass Thickness (mm)		Performance Class & Grade ₁
	Roto Operator	Easy Slide Operator	ADA Easy Slide Operator	Roto Operator	Easy Slide Operator	ADA Easy Slide Operator	Roto Operator	Easy Slide Operator	ADA Easy Slide Operator		Annealed	Tempered	Vent
3-0/1-6	27°	29°	18°	5-1/4	5-3/4	3	1.7	1.9	1.0	2.5	3	3	LC+50/-60
3-0/2-0	19°	20°	12°	5-1/4	5-3/4	3	2.0	2.2	1.1	3.8	3	3	LC+50/-60
3-0/2-6	15°	16°	10°	5-1/4	5-3/4	3	2.2	2.4	1.2	5.0	3	3	LC+50/-60
3-0/3-0	12°	13°	8°	5-1/4	5-3/4	3	2.4	2.6	1.4	6.3	3	3	LC+50/-60
3-0/3-6	10°	11°	7°	5-1/4	5-3/4	3	2.6	2.9	1.5	7.5	3	3	LC+50/-60
3-0/4-0	9°	9°	6°	5-1/4	5-3/4	3	2.8	3.1	1.6	8.8	3	3	LC+50/-60
3-0/4-6	8°	8°	5°	5-1/4	5-3/4	3	3.1	3.3	1.7	10.0	3	3	LC+50/-60
3-0/5-0	7°	7°	5°	5-1/4	5-3/4	3	3.3	3.6	1.9	11.3	3	3	LC+50/-60
3-6/1-6	27°	29°	18°	5-1/4	5-3/4	3	2.0	2.2	1.1	3.0	3	3	LC+50/-60
3-6/2-0	19°	20°	12°	5-1/4	5-3/4	3	2.2	2.4	1.2	4.5	3	3	LC+50/-60
3-6/2-6	15°	16°	10°	5-1/4	5-3/4	3	2.4	2.6	1.4	6.0	3	3	LC+50/-60
3-6/3-0	12°	13°	8°	5-1/4	5-3/4	3	2.6	2.9	1.5	7.5	3	3	LC+50/-60
3-6/3-6	10°	11°	7°	5-1/4	5-3/4	3	2.8	3.1	1.6	9.0	3	3	LC+50/-60
3-6/4-0	9°	9°	6°	5-1/4	5-3/4	3	3.1	3.3	1.7	10.5	3	3	LC+50/-60
3-6/4-6	8°	8°	5°	5-1/4	5-3/4	3	3.3	3.6	1.9	12.0	3	3	LC+50/-60
3-6/5-0	7°	7°	5°	5-1/4	5-3/4	3	3.5	3.8	2.0	13.5	3	3	LC+50/-60
4-0/1-6	27°	29°	18°	5-1/4	5-3/4	3	2.2	2.4	1.2	3.5	3	3	LC50
4-0/2-0	19°	20°	12°	5-1/4	5-3/4	3	2.4	2.6	1.4	5.3	3	3	LC50
4-0/2-6	15°	16°	10°	5-1/4	5-3/4	3	2.6	2.9	1.5	7.0	3	3	LC50
4-0/3-0	12°	13°	8°	5-1/4	5-3/4	3	2.8	3.1	1.6	8.8	3	3	LC50
4-0/3-6	10°	11°	7°	5-1/4	5-3/4	3	3.1	3.3	1.7	10.5	3	3	LC50
4-0/4-0	9°	9°	6°	5-1/4	5-3/4	3	3.3	3.6	1.9	12.3	3	3	LC50
4-0/4-6	8°	8°	5°	5-1/4	5-3/4	3	3.5	3.8	2.0	14.0	3	3	LC50
4-0/5-0	7°	7°	5°	5-1/4	5-3/4	3	3.7	4.1	2.1	15.8	3	3	LC50
4-6/1-6	27°	29°	18°	5-1/4	5-3/4	3	2.4	2.6	1.4	4.0	3	3	LC50
4-6/2-0	19°	20°	12°	5-1/4	5-3/4	3	2.6	2.9	1.5	6.0	3	3	LC50
4-6/2-6	15°	16°	10°	5-1/4	5-3/4	3	2.8	3.1	1.6	8.0	3	3	LC50
4-6/3-0	12°	13°	8°	5-1/4	5-3/4	3	3.1	3.3	1.7	10.0	3	3	LC50
4-6/3-6	10°	11°	7°	5-1/4	5-3/4	3	3.3	3.6	1.9	12.0	3	3	LC50
4-6/4-0	9°	9°	6°	5-1/4	5-3/4	3	3.5	3.8	2.0	14.0	3	3	LC50
4-6/4-6	8°	8°	5°	5-1/4	5-3/4	3	3.7	4.1	2.1	16.0	4	3	LC50
4-6/5-0	7°	7°	5°	5-1/4	5-3/4	3	3.9	4.3	2.2	18.0	4	4	LC50
5-0/1-6	27°	29°	18°	5-1/4	5-3/4	3	2.6	2.9	1.5	4.5	3	3	LC30
5-0/2-0	19°	20°	12°	5-1/4	5-3/4	3	2.8	3.1	1.6	6.8	3	3	LC30
5-0/2-6	15°	16°	10°	5-1/4	5-3/4	3	3.1	3.3	1.7	9.0	3	3	LC30
5-0/3-0	12°	13°	8°	5-1/4	5-3/4	3	3.3	3.6	1.9	11.3	3	3	LC30
5-0/3-6	10°	11°	7°	5-1/4	5-3/4	3	3.5	3.8	2.0	13.5	3	3	LC30
5-0/4-0	9°	9°	6°	5-1/4	5-3/4	3	3.7	4.1	2.1	15.8	3	3	LC30
5-0/4-6	8°	8°	5°	5-1/4	5-3/4	3	3.9	4.3	2.2	18.0	4	4	LC30
5-0/5-0	7°	7°	5°	5-1/4	5-3/4	3	4.2	4.5	2.4	20.3	4	4	LC30

(1) Maximum performance when glazed with the appropriate glass thickness.

To convert areas to square meters (m²), multiply square feet by 0.0929.



Detailed Product Descriptions

Frame

- Frame is Duracast® fiberglass composite — five-layer pultruded fiberglass material [with optional foam insulation], reinforced with a Pella® patented interlocking mat.
- Overall frame depth is 3-1/4".
- Nominal wall thickness of Duracast fiberglass composite members is .050" to .090" thick.
- Frame corners are mitered, joined and bonded with corner lock and injected sealant.
- Jambs contain factory-drilled (counter-bored) installation screw holes on block frame and flush flange only.
- Optional factory-applied jamb extensions available in 4-9/16" and 6-9/16".

Sash

- Sash is Duracast fiberglass composite — five-layer pultruded fiberglass material, reinforced with a Pella patented interlocking mat.
- All sash members have mitered corners bonded with corner lock and sealed with injected sealant.

Exterior / Interior

- Frame Interior cover made from a proprietary blend of mineral filled polyvinyl chloride (PVC) with an acrylic cap that matches the interior color of the product.
- Duracast fiberglass composite surfaces with powder-coat paint finish.
 - Color is [White] [Brown] [Black] [Tan] [Morning Sky Gray].
 - or -
 - Dual-color option [Brown] [Black] [Tan] [Morning Sky Gray] exterior with White interior.

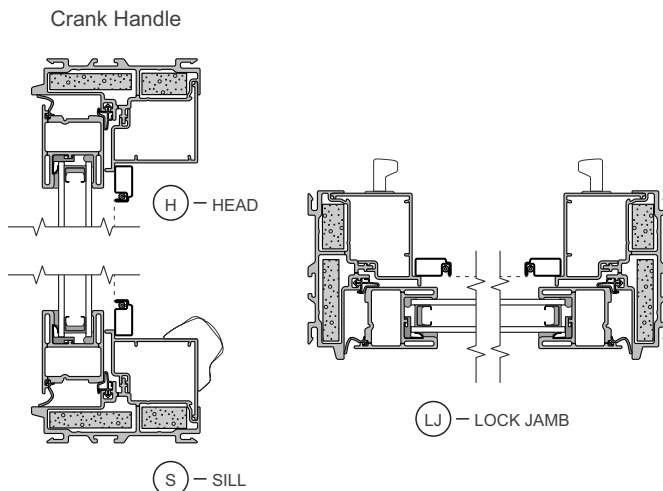
Glazing System

- Quality float glass complying with ASTM C 1036.
- 11/16" insulating glass [awning: [annealed] [tempered]] [large awning: tempered] [obscure₂] [clear] [[Advanced] [SunDefense™] [SunDefense+] [AdvancedComfort] [NaturalSun] [NaturalSun+] Low-E coated, [with argon]]] [[bronze] [gray] [green] Advanced Low-E [with Argon]] sealed and bonded to sash.
- or -
- 1" Triple-pane insulating glass [annealed] [tempered] [obscure₃] [clear] [[Advanced] [SunDefense™] [AdvancedComfort] [NaturalSun] Low-E coated, [with argon]]] [[bronze] [gray] [green] Advanced Low-E [with Argon] sealed and bonded to sash.
- High altitude glazing available.
- or -

Impact-Resistant

- Silicone-glazed 1" dual-seal impact-resistant insulating glass PVB. [[tempered] [annealed]] exterior light is [[Advanced Low-E] [SunDefense] [clear] [bronze]]. Laminated clear interior light.
- or -
- Silicone-glazed 11/16" dual-seal impact-resistant insulating glass [PVB]. [[tempered] [annealed]] exterior light is [[Advanced Low-E] [SunDefense] [clear]]. Laminated [clear] interior light, or [[tempered] [annealed]] exterior light is [multi-layer Low-E], Laminated bronze interior light.

Foam Insulation Inserts⁽¹⁾



Dual Weatherstripping

- Continuous, flexible ThermoPlastic Vulcanizate material in dual durometer design, compressed between frame and sash for positive seal on all four sides.
- Secondary ThermoPlastic Vulcanizate leaf-type weatherstrip between edge of sash and frame.

Hardware

- Easy-Slide operator assembly
 - Hardened nickel-coated Steel worm and wheel gears, 5 ball bearings.
 - Zinc-magnesium alloy hub and gearbox housing with a corrosion-protecting ultra-clear finish.
 - Stainless steel swing arm and hinge pin for extra corrosion protection of exposed components.
 - Kevlar-reinforced drive belt.
 - Harsh environment approved – ASTM B117 salt chamber and debris cycling, 20,000 life cycle test approved.
- Optional Easy-Slide operator with Accessibility Lock Lever assembly.
 - 6" elongated lock lever.
 - 5 lb operational forces available on sizes when FW is ≤ 59.5" and FH is ≤ 59.5".
- or -

- Roto operator assembly
 - Steel worm gear sash operator with hardened gears.
 - Operator base is zinc die cast with painted finish.
 - Operator linkage is 300 series stainless steel.
 - Exposed fasteners are stainless steel.
 - Hardware will exceed 1,000 hours salt spray exposure per ASTM B 117.
 - Hinge slide and hinge arms are 300 series stainless steel.
- Finish of integrated folding crank is [baked enamel [White] [Brown] [Tan] [Matte Black] [Morning Sky Gray]] [Satin Nickel (Roto operator only)].
- All vent units are available with operator located on the sill.
- Lock handle finish is [[baked enamel [White] [Brown] [Matte Black] [Tan] [Morning Sky Gray]] [Satin Nickel (roto operator only)]].

Optional Products

Screens

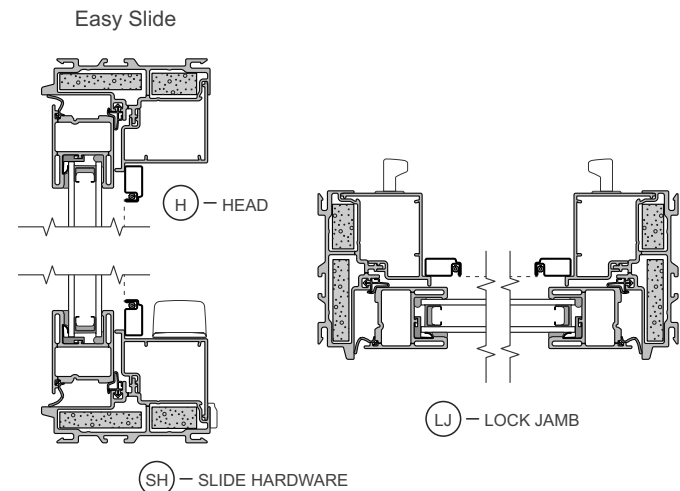
- InView™ screens
 - Vinyl-coated 18/18 mesh fiberglass screen cloth complying with SMA 1201, set in aluminum frame fitted to inside of window, supplied complete with all necessary hardware.
 - Screen frame finish is baked enamel, color to match interior.

Grilles

- Grilles-Between-the-Glass
 - Insulating glass contains 3/4" contoured aluminum grilles permanently installed between two panes of glass.
 - Grilles are factory prefinished [White] [Brown] [Black] [Tan] [Morning Sky Gray]. to match interior and exterior finish.

Hardware

- Optional limited opening hardware available for vent units in stainless steel; nominal 3" opening.



(1) Foam insulation inserts are not available with clear glazing. (2) Dual-color finish is not available on products with integral nailing fin.

(3) Obscure glazing is not available when AdvancedComfort Low-E coated IG is specified.

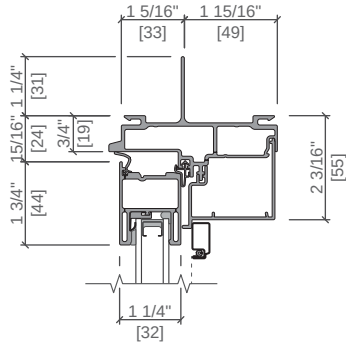


Impervia® Awning Windows

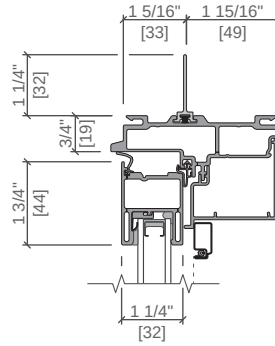
Unit Sections - Frame Types

NEW CONSTRUCTION FRAME

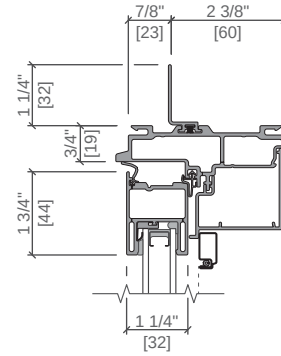
Integral Nailing Fin



Standard Block Frame with Standard Fin

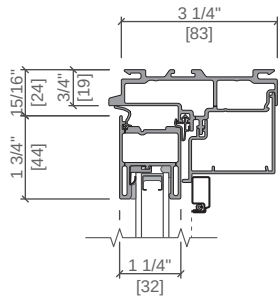


Standard Block Frame with Off Set Fin



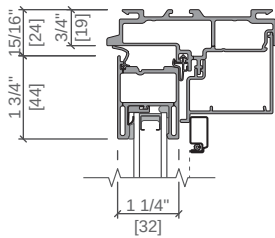
REPLACEMENT FRAME

Standard Block Frame

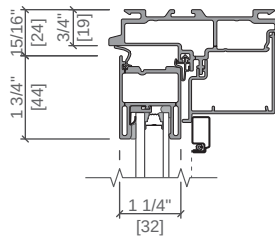


GLAZING OPTIONS

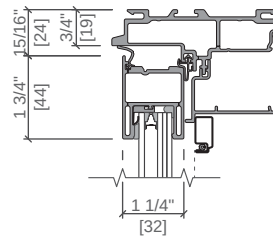
11/16\" Dual IG



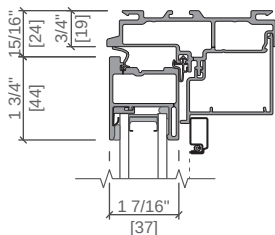
11/16\" Sound IG



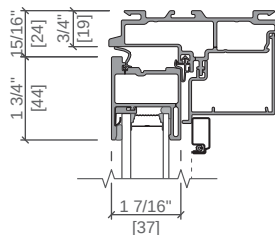
11/16\" Laminated IG



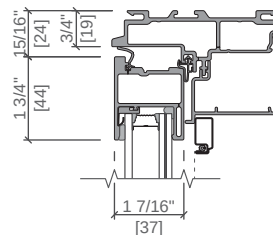
1\" Dual IG



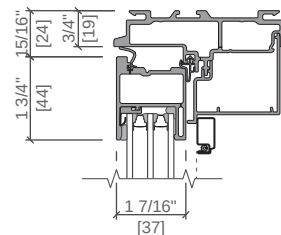
1\" Sound IG



1\" Laminated IG



1\" Triple IG



Scale 3\" = 1' 0"

All dimensions are approximate.

Rev. 08/16/2023

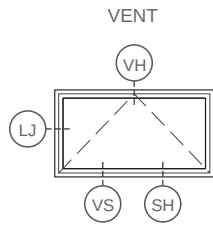
Pella 2025 Architectural Design Manual | Division 08 – Openings | Windows and Doors | www.Pella.com

F-AW-22

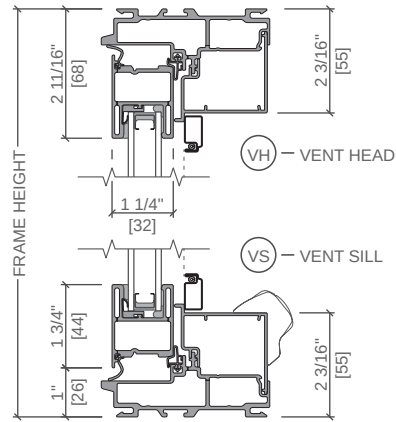


Impervia® Awning Windows

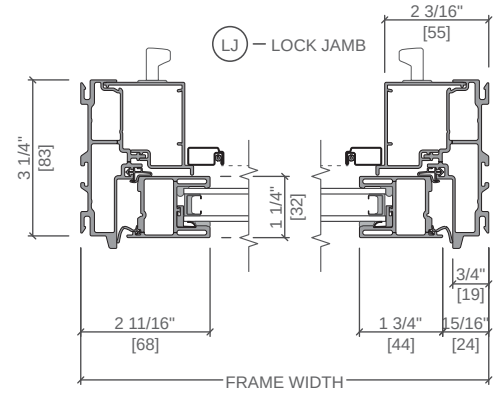
Unit Sections - Dual-Pane Block Frame



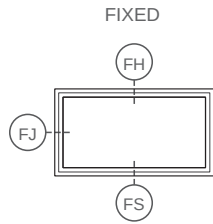
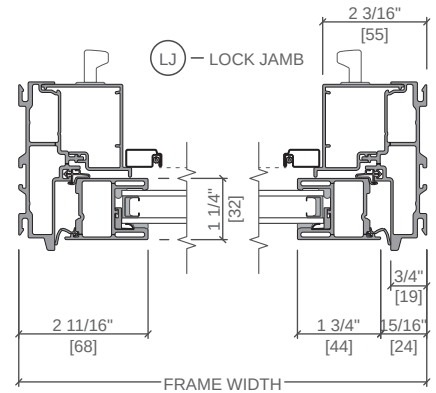
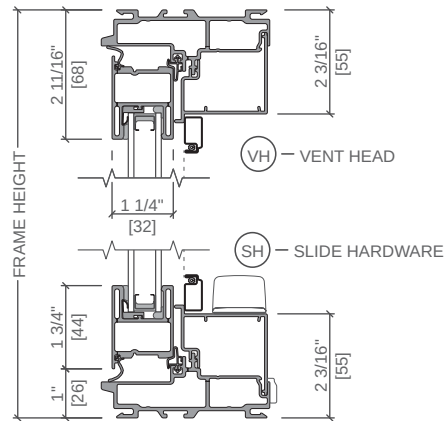
VENT



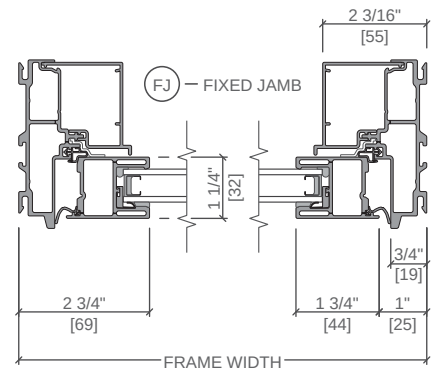
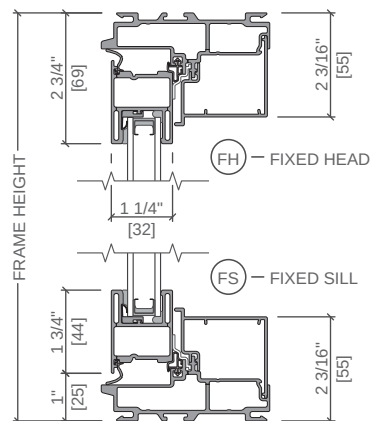
CRANK HARDWARE



EASY SLIDE HARDWARE

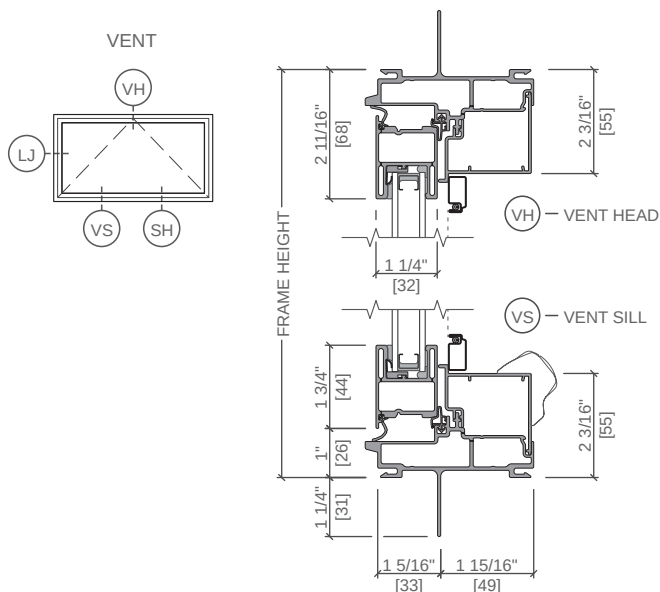


FIXED

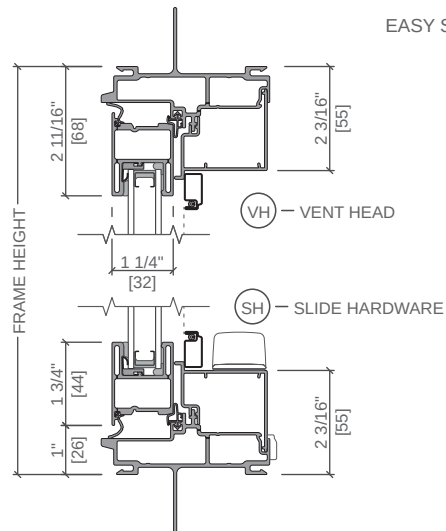
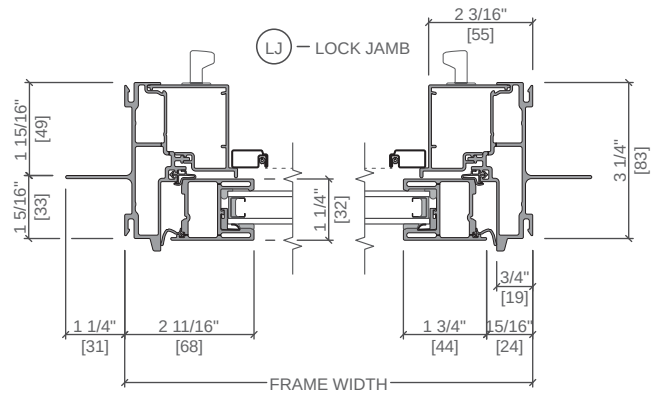


Scale 3" = 1' 0"

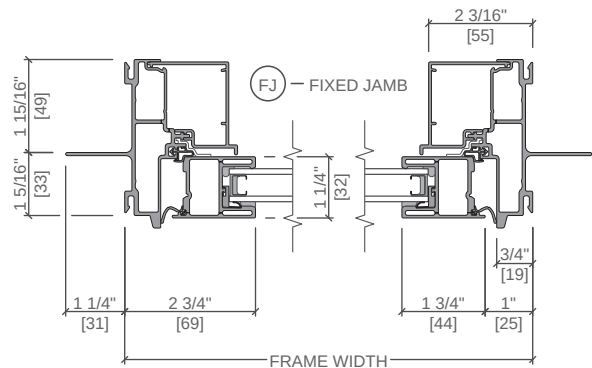
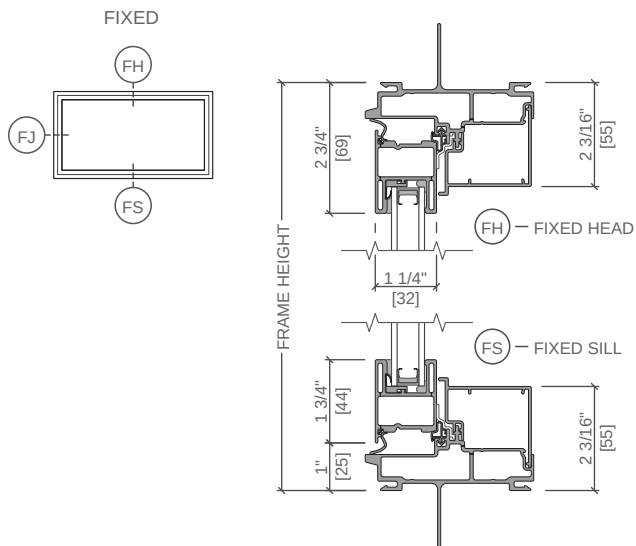
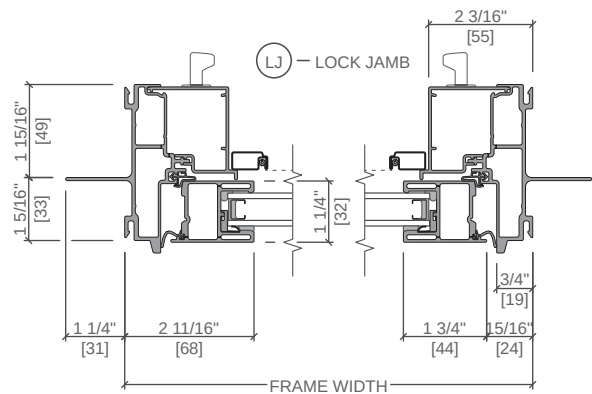
All dimensions are approximate.



CRANK HARDWARE



EASY SLIDE HARDWARE

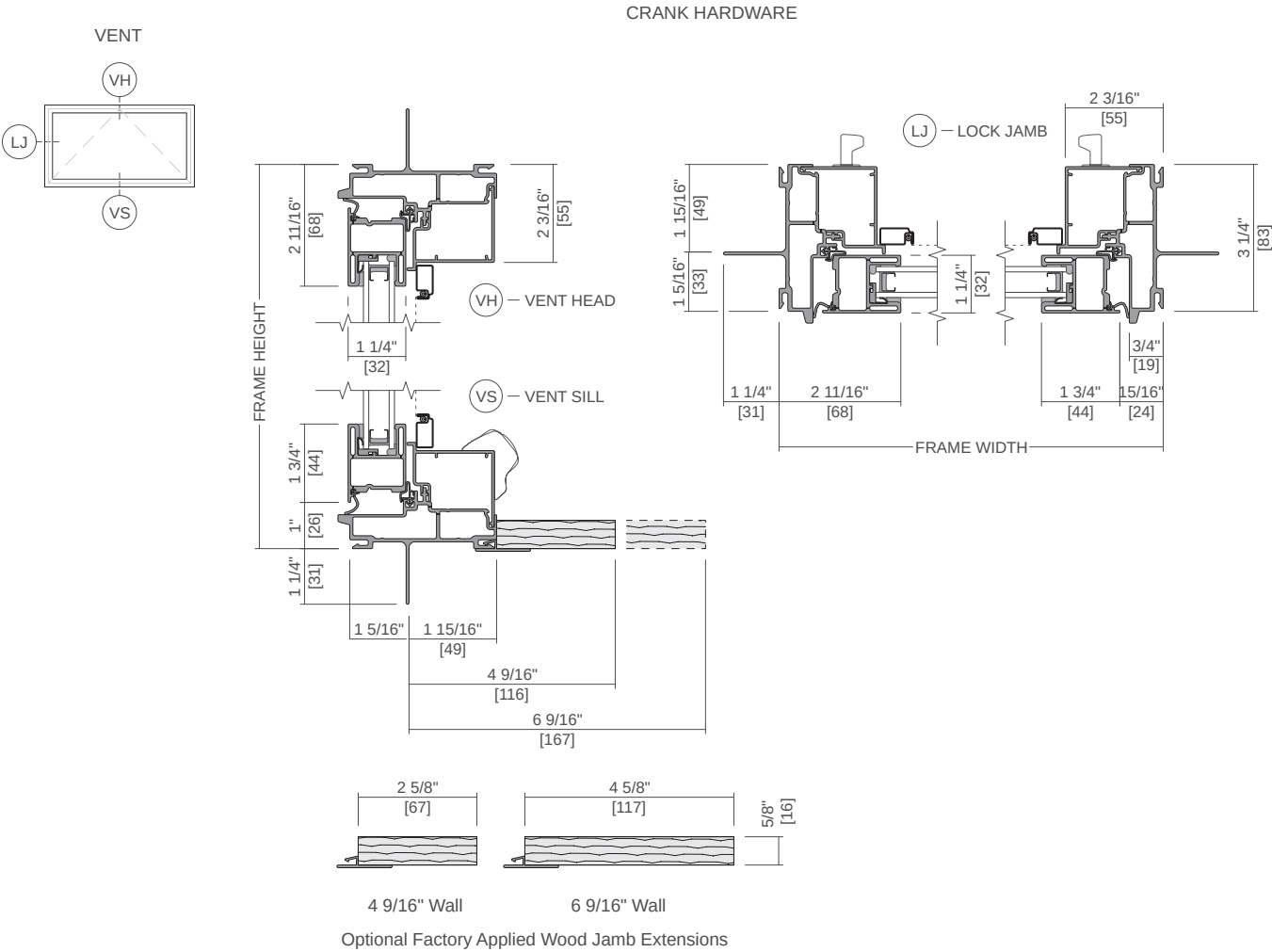


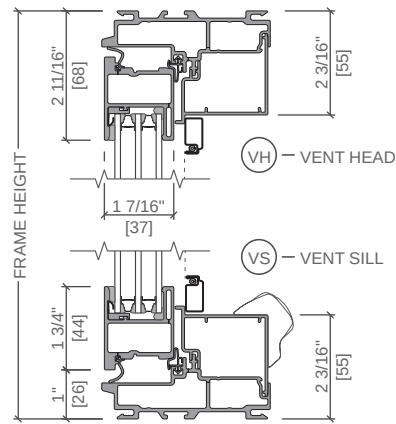
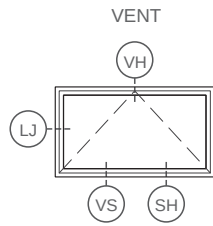
Scale 3" = 1' 0"

All dimensions are approximate.

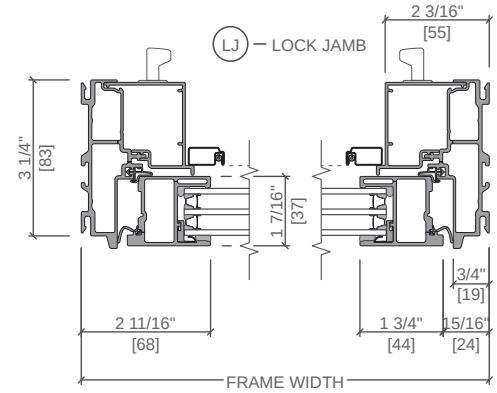


Unit Sections - Dual-Pane Integral Fin, Jamb Extensions

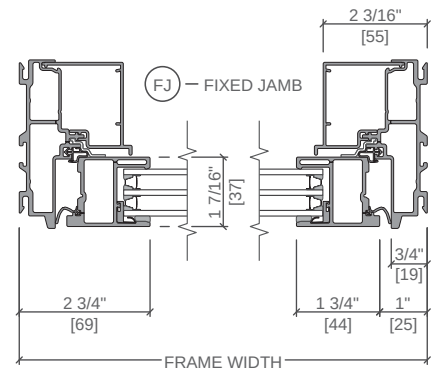
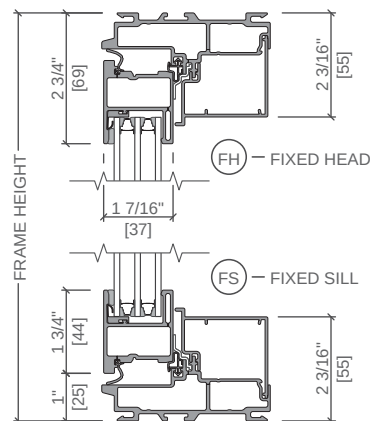
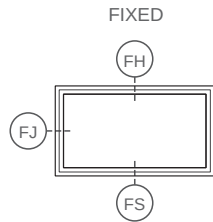
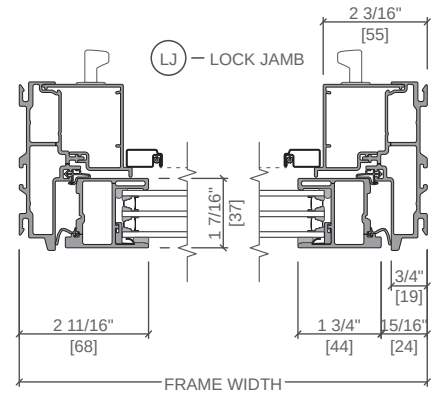
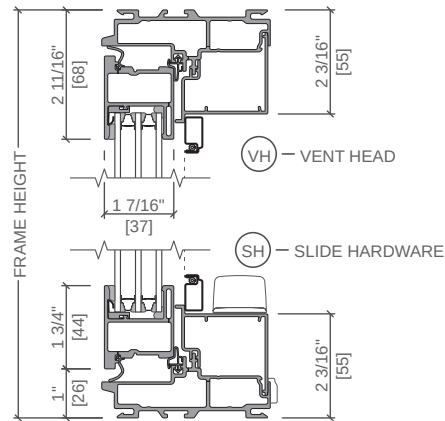




CRANK HARDWARE

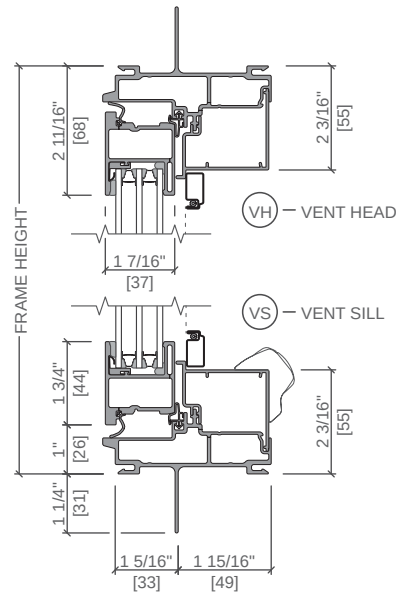
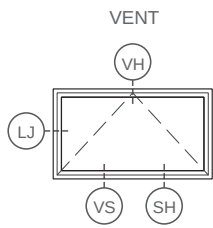


EASY SLIDE HARDWARE

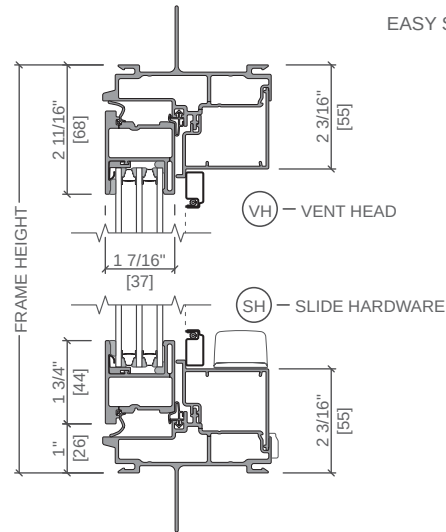
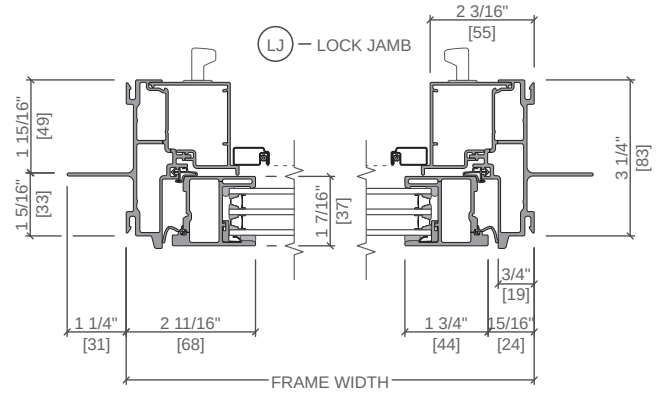


Scale 3" = 1' 0"

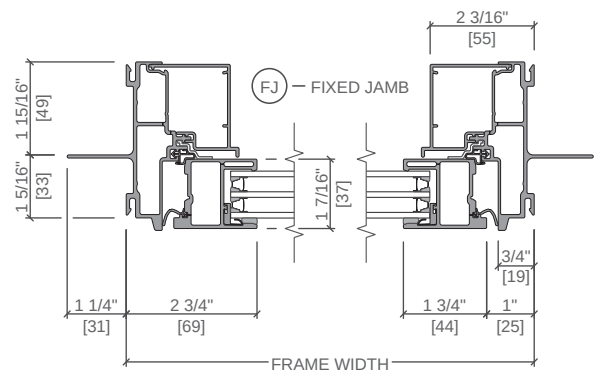
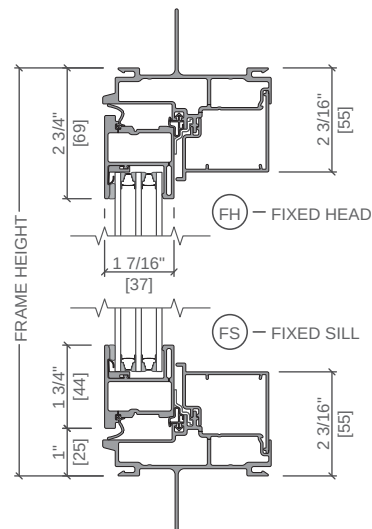
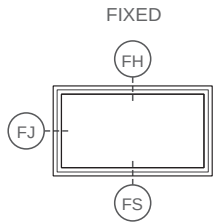
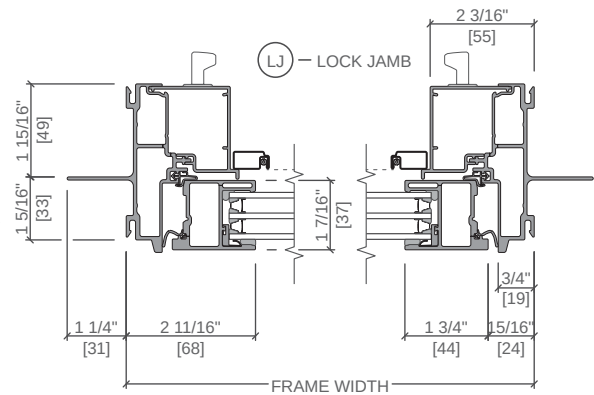
All dimensions are approximate.



CRANK HARDWARE



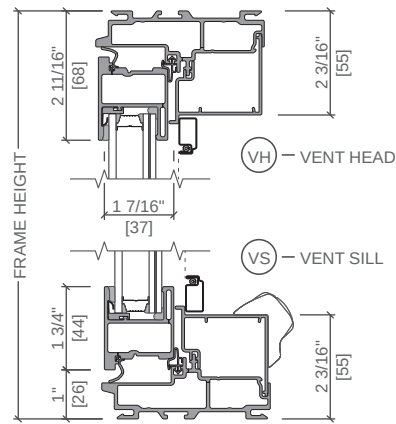
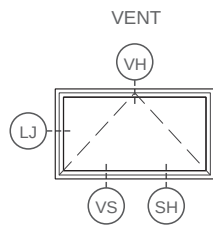
EASY SLIDE HARDWARE



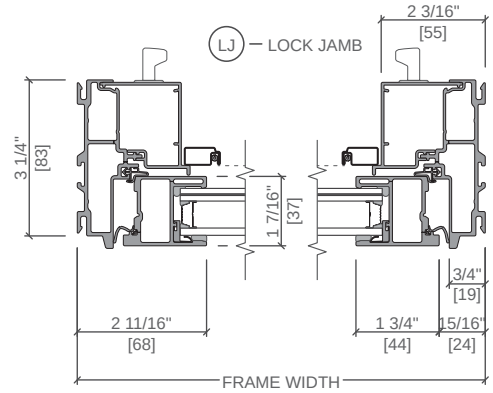
Scale 3" = 1' 0"

All dimensions are approximate.

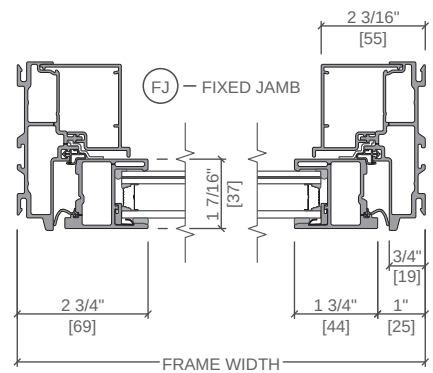
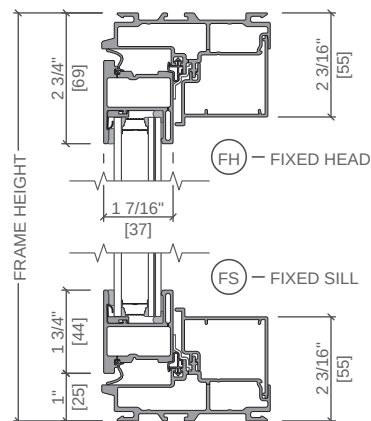
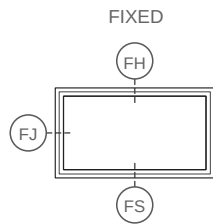
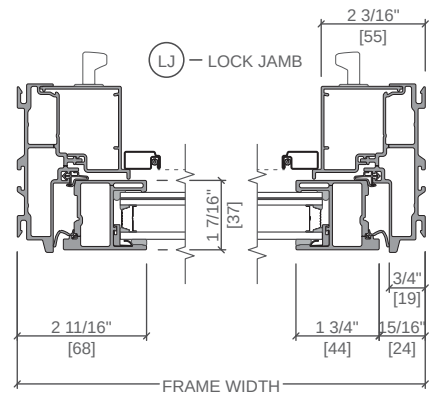
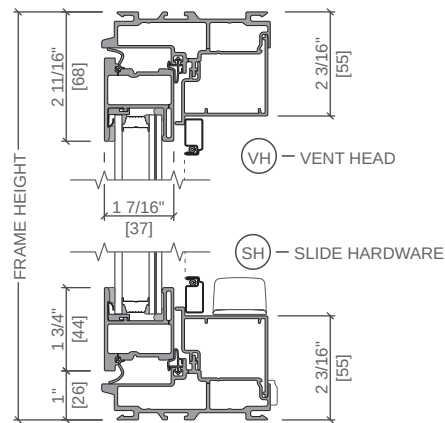
Rev. 08/16/2023



CRANK HARDWARE



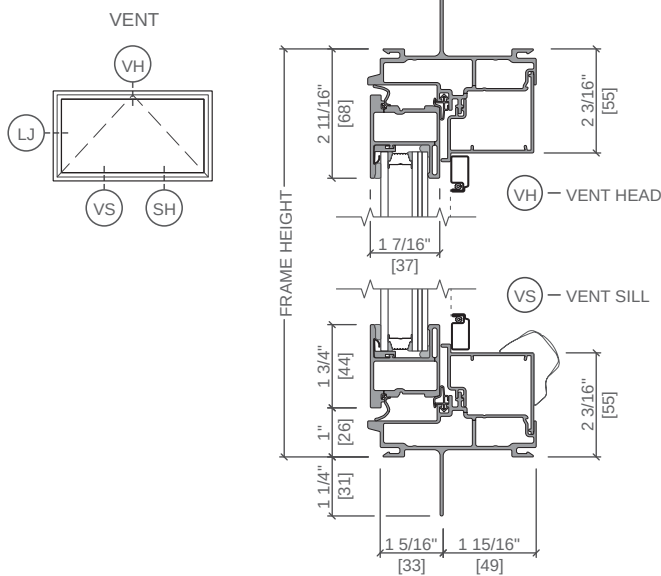
EASY SLIDE HARDWARE



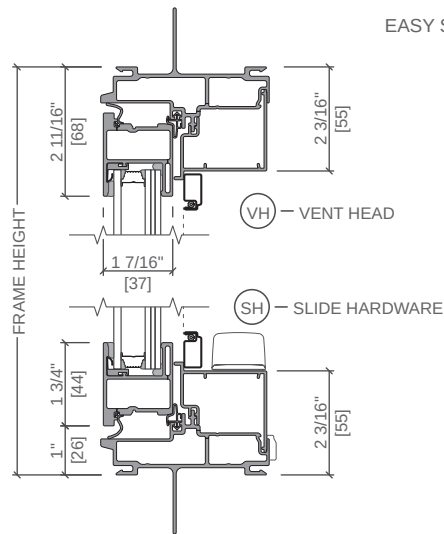
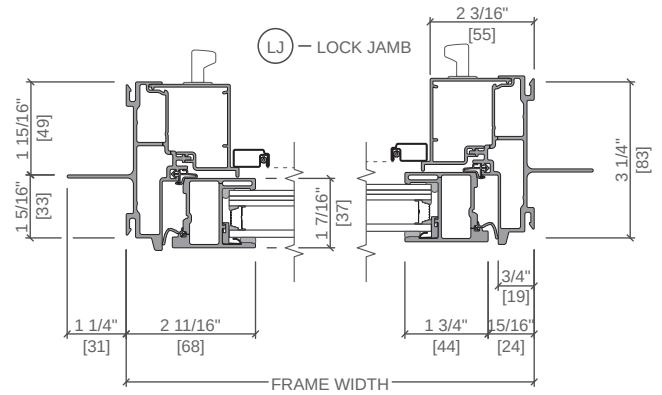
Scale 3" = 1' 0"

All dimensions are approximate.

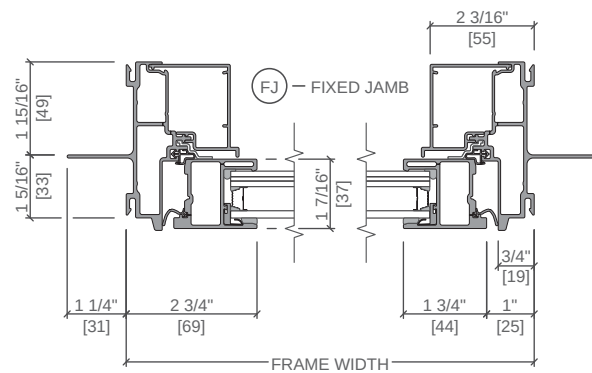
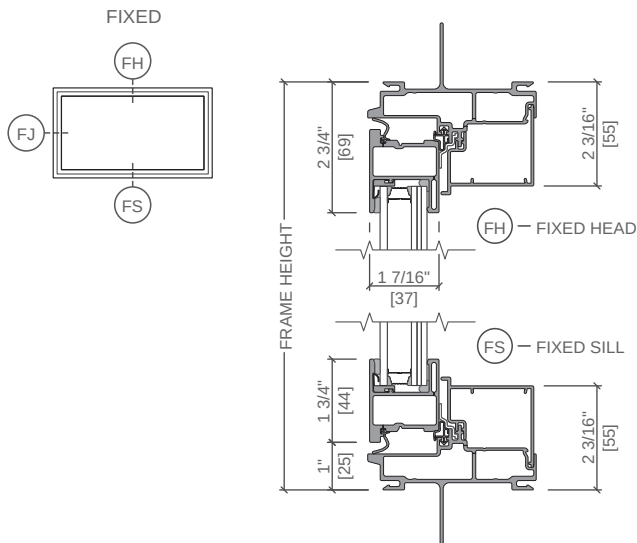
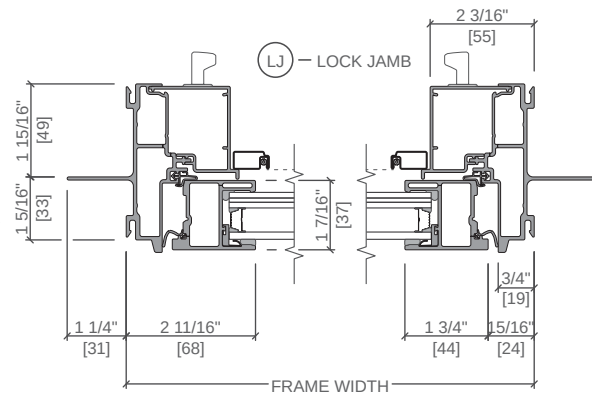
Rev. 08/16/2023



CRANK HARDWARE



EASY SLIDE HARDWARE



Scale 3" = 1' 0"

All dimensions are approximate.

Rev. 08/16/2023