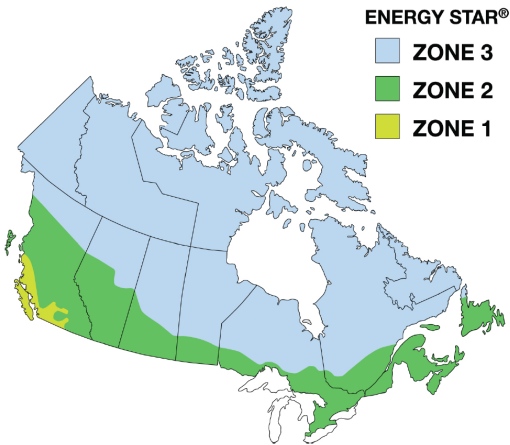


**Total Window Performance**

Total window performance measures the centre of glass, the largest area for heat gain and loss, as well as the edge of the glass and the window's frame to provide an overall U-factor, solar heat gain coefficient and condensation resistance rating.

**Note:** Information presented is based on 3mm glazing. Number may vary when other glass thicknesses and tinted glazings are used. Please consult your sales representative for more details. Data for grids < 25mm are based on grilles between glass. Data for grids ≥ 25mm are based on SDL's with shadow bars between glass. U-Factor<sup>1</sup>: Btu/h-ft<sup>2</sup>·F (imperial) U-Factor<sup>2</sup>: W/m<sup>2</sup>·K (metric).



FEBRUARY 2015 - QUALIFYING CRITERIA							
WINDOWS							
Zone	Heating Degree-Day Range	COMPLIANCE PATHS					
		Energy Rating (ER)	Max Air Leakage	or	U-Factor		Max Air Leakage
		Minimum ER (Dimensionless) Maximum U-Factor 2.00 W/m <sup>2</sup> ·K (0.35 Btu/h·ft <sup>2</sup> ·F)			Maximum U-Factor W/m <sup>2</sup> ·K (0.35 Btu/h·ft <sup>2</sup> ·F)	Minimum ER (Unitless)	
1	< 3500	25	1.5	or	1.60 (0.28)	16	1.5
2	≥3500 to < 6000	29	1.5	or	1.40 (0.25)	20	1.5
3	≥6000	34	1.5	or	1.20 (0.21)	24	1.5

For more information visit [www.nrcan.gc.ca](http://www.nrcan.gc.ca)

Dual Glazed Low E		Dual Glazed 3MM																		
		Low E 180 Argon							Low E 272 Argon							Low E 366 Argon				
TYPE	GRILLES	U <sup>1</sup>	U <sup>2</sup>	SHGC	VT	ER	ESTAR ZONE 2015	U <sup>1</sup>	U <sup>2</sup>	SHGC	VT	ER	ESTAR ZONE 2015	U <sup>1</sup>	U <sup>2</sup>	SHGC	VT	ER	ESTAR ZONE 2015	
Awning DF3113	Without	0.28	1.59	0.45	0.51	31	2	0.27	1.53	0.27	0.46	22	1	0.27	1.53	0.18	0.42	16	1	
	With < 25 mm	0.29	1.65	0.40	0.46	27	1	0.28	1.59	0.25	0.42	19	1	0.27	1.53	0.16	0.38	15	1	
	With ≥ 25 mm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Casement DF3103	Without	0.28	1.59	0.45	0.51	31	2	0.27	1.53	0.27	0.46	22	1	0.26	1.48	0.48	0.42	18	1	
	With < 25 mm	0.29	1.65	0.40	0.46	27	1	0.28	1.59	0.25	0.42	19	1	0.27	1.53	0.16	0.38	15	NO	
	With ≥ 25 mm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Picture DF3103	Without	0.27	1.53	0.59	0.68	41	3	0.27	1.53	0.36	0.62	27	1	0.26	1.48	0.24	0.55	21	1	
	With < 25 mm	0.29	1.65	0.53	0.61	34	3	0.28	1.59	0.32	0.55	24	1	0.27	1.53	0.21	0.50	19	1	
	With ≥ 25 mm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Radius Picture DF3103	Without	0.29	1.65	0.58	0.67	37	3	0.28	1.59	0.35	0.61	25	1	0.27	1.53	0.23	0.55	20	1	
	With < 25 mm	0.31	1.76	0.52	0.60	31	2	0.29	1.65	0.32	0.55	22	NO	0.29	1.65	0.21	0.49	16	NO	
	With ≥ 25 mm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fixed DF3103	Without	0.27	1.53	0.53	0.61	37	3	0.26	1.48	0.32	0.55	26	1	0.26	1.48	0.21	0.50	20	1	
	With < 25 mm	0.29	1.65	0.47	0.54	31	2	0.27	1.53	0.29	0.49	23	1	0.27	1.53	0.19	0.44	17	1	
	With ≥ 25 mm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Double Slider DF3304	Without	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	With < 25 mm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	With ≥ 25 mm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Single Hung DF3613	Without	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	With < 25 mm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	With ≥ 25 mm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Double Hung DF3604	Without	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	With < 25 mm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	With ≥ 25 mm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

U-Factor<sup>1</sup>: Btu/h-ft<sup>2</sup>·F (imperial)  
 U-Factor<sup>2</sup>: W/m<sup>2</sup>·K (metric)

Triple Glazed Low E (1 coat)		Triple Glazed 3MM																		
		1 x Low E 180 Argon						1 x Low E 272 Argon						1 x Low E 366 Argon						
TYPE	GRILLES	U <sup>1</sup>	U <sup>2</sup>	SHGC	VT	ER	ESTAR ZONE 2015	U <sup>1</sup>	U <sup>2</sup>	SHGC	VT	ER	ESTAR ZONE 2015	U <sup>1</sup>	U <sup>2</sup>	SHGC	VT	ER	ESTAR ZONE 2015	
Awning DF3113	Without	0.22	1.25	0.40	0.47	35	3	0.22	1.25	0.31	0.42	30	2	0.22	1.25	0.25	0.38	27	2	
	With < 25 mm	0.22	1.25	0.36	0.42	33	2	0.22	1.25	0.28	0.38	28	2	0.21	1.19	0.22	0.34	26	3	
	With ≥ 25 mm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Casement DF3103	Without	0.22	1.25	0.40	0.47	35	3	0.22	1.25	0.31	0.42	30	2	0.21	1.19	0.25	0.38	28	3	
	With < 25 mm	0.22	1.25	0.36	0.42	33	2	0.22	1.25	0.28	0.38	28	2	0.21	1.19	0.22	0.34	26	3	
	With ≥ 25 mm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Picture DF3103	Without	0.21	1.19	0.53	0.62	45	3	0.20	1.14	0.40	0.56	38	3	0.20	1.14	0.32	0.51	34	3	
	With < 25 mm	0.21	1.19	0.48	0.56	42	3	0.20	1.14	0.36	0.50	36	3	0.20	1.14	0.29	0.45	32	3	
	With ≥ 25 mm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Radius Picture DF3103	Without	0.22	1.25	0.52	0.61	42	3	0.21	1.19	0.40	0.56	37	3	0.21	1.19	0.32	0.50	32	3	
	With < 25 mm	0.22	1.25	0.47	0.55	40	3	0.21	1.19	0.36	0.50	35	3	0.21	1.19	0.29	0.45	30	3	
	With ≥ 25 mm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fixed DF3103	Without	0.21	1.19	0.47	0.56	41	3	0.20	1.14	0.36	0.50	36	3	0.20	1.14	0.29	0.45	32	3	
	With < 25 mm	0.21	1.19	0.43	0.50	39	3	0.20	1.14	0.33	0.45	34	3	0.20	1.14	0.26	0.40	30	3	
	With ≥ 25 mm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Double Slider DF3304	Without	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	With < 25 mm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	With ≥ 25 mm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Single Hung DF3613	Without	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	With < 25 mm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	With ≥ 25 mm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Double Hung DF3604	Without	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	With < 25 mm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	With ≥ 25 mm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

U-Factor<sup>1</sup>: Btu/h-ft<sup>2</sup>-F (imperial)  
U-Factor<sup>2</sup>: W/m<sup>2</sup>-K (metric)

Triple Glazed Low E (2 coats)		Triple Glazed 3MM																		
		2 x Low E 180 Argon						2 x Low E 272 Argon						2 x Low E 366 Argon						
TYPE	GRILLES	U <sup>1</sup>	U <sup>2</sup>	SHGC	VT	ER	ESTAR ZONE 2015	U <sup>1</sup>	U <sup>2</sup>	SHGC	VT	ER	ESTAR ZONE 2015	U <sup>1</sup>	U <sup>2</sup>	SHGC	VT	ER	ESTAR ZONE 2015	
Awning DF3113	Without	0.19	1.08	0.37	0.45	37	3	0.18	1.02	0.23	0.37	31	3	0.18	1.02	0.16	0.30	27	3	
	With < 25 mm	0.19	1.08	0.33	0.41	35	3	0.18	1.02	0.21	0.33	29	3	0.18	1.02	0.14	0.27	25	3	
	With ≥ 25 mm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Casement DF3103	Without	0.19	1.08	0.37	0.45	37	3	0.18	1.02	0.23	0.37	31	3	0.18	1.02	0.16	0.30	27	3	
	With < 25 mm	0.19	1.08	0.33	0.41	35	3	0.19	1.02	0.21	0.33	28	3	0.18	1.02	0.14	0.27	25	3	
	With ≥ 25 mm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Picture DF3103	Without	0.16	0.91	0.48	0.60	48	3	0.16	0.91	0.30	0.49	37	3	0.15	0.85	0.20	0.40	33	3	
	With < 25 mm	0.17	0.97	0.43	0.54	44	3	0.16	0.91	0.27	0.44	36	3	0.16	0.91	0.19	0.36	31	3	
	With ≥ 25 mm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Radius Picture DF3103	Without	0.18	1.02	0.48	0.59	45	3	0.17	0.97	0.30	0.49	36	3	0.16	0.91	0.20	0.39	31	3	
	With < 25 mm	0.18	1.02	0.43	0.53	42	3	0.17	0.97	0.27	0.44	34	3	0.17	0.97	0.18	0.35	29	3	
	With ≥ 25 mm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fixed DF3103	Without	0.17	0.97	0.43	0.54	43	3	0.16	0.91	0.27	0.44	35	3	0.16	0.91	0.18	0.36	30	3	
	With < 25 mm	0.17	0.97	0.39	0.48	41	3	0.17	0.97	0.25	0.39	33	3	0.16	0.91	0.17	0.32	30	3	
	With ≥ 25 mm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Double Slider DF3304	Without	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	With < 25 mm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	With ≥ 25 mm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Single Hung DF3613	Without	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	With < 25 mm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	With ≥ 25 mm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Double Hung DF3604	Without	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	With < 25 mm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	With ≥ 25 mm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

U-Factor<sup>1</sup>: Btu/h-ft<sup>2</sup>-F (imperial)  
U-Factor<sup>2</sup>: W/m<sup>2</sup>-K (metric)

**Note:** Information presented is based on 3mm glazing. Number may vary when other glass thicknesses and tinted glazings are used. Please consult your sales representative for more details. Data for grids < 25mm are based on grilles between glass. Data for grids ≥ 25mm are based on SDLs with shadow bars between glass.