



**POLAR**  
**WINDOWS™**

A GLASS COMPANY

# WINDOW ENERGY PERFORMANCE

Polar window systems uses cutting edge energy efficiency along with the latest in technological innovation. The combination of our low conductivity insulated frames, Tri-Seal™ warm edge spacer bars and our triple pane glass systems result in the best selection of Most Efficient ENERGY STAR qualified windows.



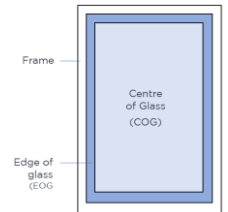
## VINYL

WINDOW POWERED™	U-Factor (Metric)	U-Factor (Imperial)	R-Value (Imperial)	Energy Rating	SHGC
Picture	1.10	0.19	5.16	47	0.53
Casement	1.15	0.20	4.94	37	0.44
Awning	1.15	0.20	5.00	37	0.39
<b>USB+</b> Ultra Solar Block +					
Picture	1.10	0.19	5.16	33	0.29
Casement	1.15	0.20	4.94	27	0.38
Awning	1.15	0.20	5.00	27	0.27
<b>RE-HC</b> Radiant Energy Heat Chamber					
Picture	0.90	0.16	6.31	50	0.51
Casement	1.00	0.18	5.68	40	0.43
Awning	1.00	0.18	5.68	40	0.43
<b>SEJHS</b> Solar Energy Heat Shield					
Picture	0.85	0.15	6.67	38	0.29
Casement	1.00	0.18	5.56	30	0.21
Awning	1.00	0.18	5.56	30	0.21



## FIBERGLASS

WINDOW POWERED™	U-Factor (Metric)	U-Factor (Imperial)	R-Value (Imperial)	Energy Rating	SHGC
Picture	1.19	0.21	4.76	45	0.51
Casement	1.19	0.21	4.76	36	0.41
Awning	1.25	0.22	4.55	36	0.41
<b>USB+</b> Ultra Solar Block +					
Picture	1.08	0.19	5.26	32	0.30
Casement	1.19	0.21	4.76	28	0.25
Awning	1.19	0.21	4.76	28	0.25
<b>RE-HC</b> Radiant Energy Heat Chamber					
Picture	0.91	0.16	6.25	48	0.56
Casement	1.02	0.18	5.56	40	0.38
Awning	1.02	0.18	5.56	40	0.38
<b>SEJHS</b> Solar Energy Heat Shield					
Picture	0.86	0.15	6.67	36	0.31
Casement	1.00	0.18	5.56	31	0.22
Awning	1.00	0.18	5.56	31	0.22



All values are overall **Total Window** values. Overall value based on the frame, edge of glass (EOG) and centre of glass (COG).

**U-Factor** is a measure of thermal transmittance, through conduction, convection, and radiation. The lower the value the better the window insulates.

**Energy Rating** is a value demonstrating the balance between U-factor, SHGC and air leakage. The higher the number, the more efficient.

**Solar Heat Gain Coefficient (SHGC)** is the fraction of solar radiation admitted through a window transmitted directly and/or absorbed, and subsequently released as heat inside a home. The lower the SHGC, the less solar heat it transmits and the greater its shading ability.



Windows that earn the ENERGY STAR are certified to save energy, save money and protect the climate. The two designations are the minimum qualification and Most Efficient Qualification.

### ENERGY STAR - Minimum Qualification

Must meet / exceed a minimum Energy (ER) or a maximum U-Factor

Minimum ER **34** or Maximum U-Factor **1.19**

### ENERGY STAR - Most Efficient Qualification

Must meet / exceed a minimum Energy (ER) or a maximum U-Factor

Minimum ER **40** or Maximum U-Factor **1.05**

