



Heliene Advanced Frame Design: Engineered for Extreme Conditions

Exceeds industry standards for mechanical load performance



Aluminum alloy with required temper and surface coating

Reinforced wall and flange thicknesses

Deeper laminate pocket geometry

35mm frame height



Heliene's robust frame design is not merely a feature—it's a performance enabler. With reinforced structural parameters across all dimensions, Heliene modules offer unparalleled mechanical resilience, ensuring long-term system performance even in the most challenging environments.



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Advantages of Heliene's Frame Architecture

Deep Laminate Pocket

Heliene's frame incorporates a deeper pocket that extends the lip coverage over both the glass front and backsheet/rear glass.



- Superior glass encapsulation
- Minimized risk of delamination or edge stress fractures
- Enhanced corner stability and torsional rigidity

35mm Frame Height

A taller frame height increases the module's moment of inertia, improving bending resistance under static and dynamic loads.



- Better Performance with heavy snow loads
- Withstands high wind uplift conditions in wind load areas

Increased Wall and Flange Thickness

A thicker aluminum wall reduces flex and prevents long-term fatigue under mechanical cycling (e.g., snow melt/freezing cycles).



- Reinforced flanges provide stronger mounting anchorage and better clamping force distribution, especially in portrait mounting orientations.

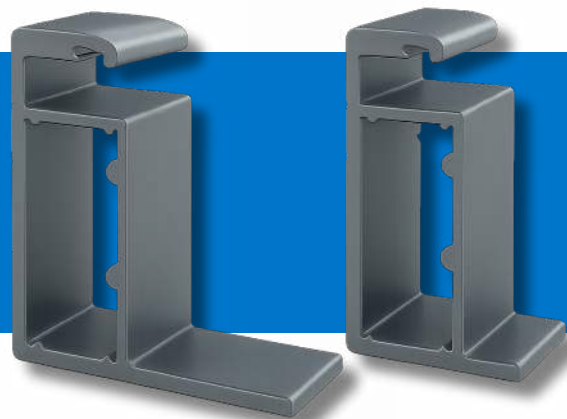
Wider Frame Channel

A broader channel offers a more stable interface with the laminate and allows better adhesive bonding



- Prevents slippage or laminate movement
- Enhances long-term seal integrity
- Reduced Microcrack Risk: protection during shipping and installation
- Improved Lifetime Reliability: Structural resilience contributes to lower degradation rates over 25+ years.

Enhanced Certification Margin:
Outperforms IEC mechanical load test thresholds, providing **higher system bankability and insurability.**



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