



PA621 Series Lightweight Solar Panel

Built to Move.Made for Power.

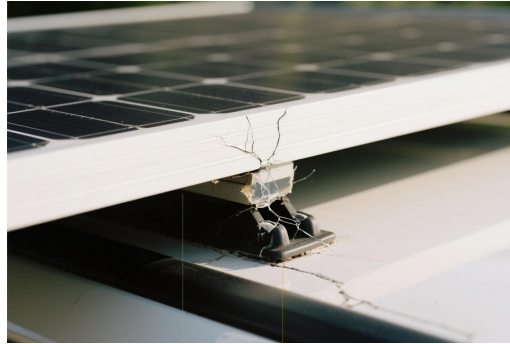
Sungold Product Innovation





PA621: Born from the Demands of the Field

Field conditions expose the same weaknesses — vibration, shading, impact, and structural stress.



PA621: purpose-built for mobile, off-grid, and high-demand environments.



PA621: Designed for Shade and Motion, Made to Move

Anti-Vibration Design

Lightweight Construction

Slow Heat Transfer

Reinforced Composite Backsheet

Shadow-Resistant Performance

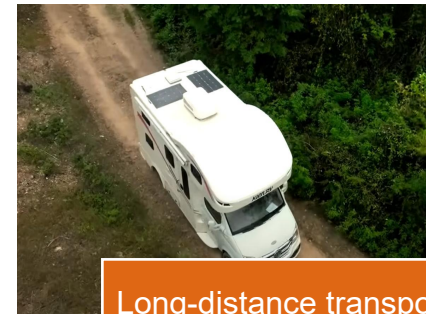
Long-Term Weather Durability

PA621



Anti-Vibration Design

Tested to resist vibrations in the 10–60 Hz range, PA621 maintains structural integrity during transit, ensuring reliable performance for mobile applications.



Long-distance transport



Roof exposed to wind



Road vibrations

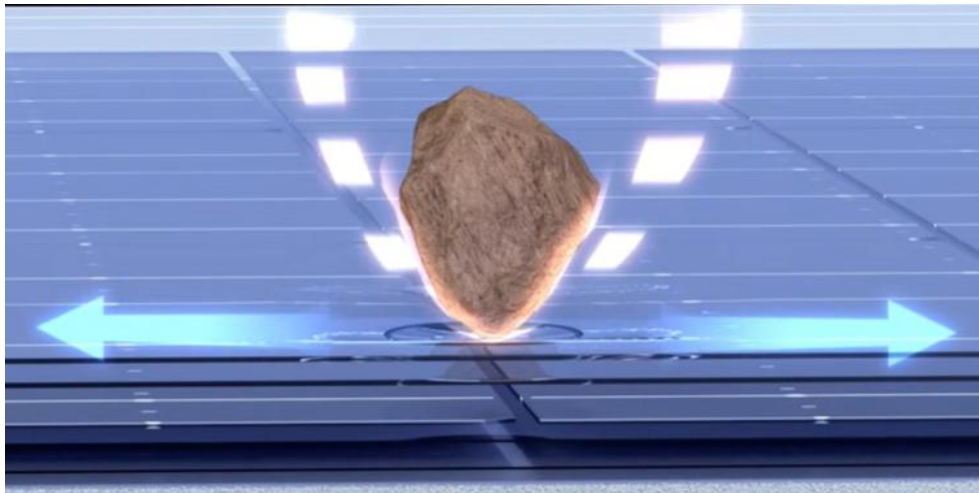


Balcony windproofing



Reinforced Composite Backsheet

Flexible, non-glass construction disperses force from drops, bumps, or impacts — protecting cells from breakage in mobile and rugged environments.



Disperse shock across the surface



Maintain integrity

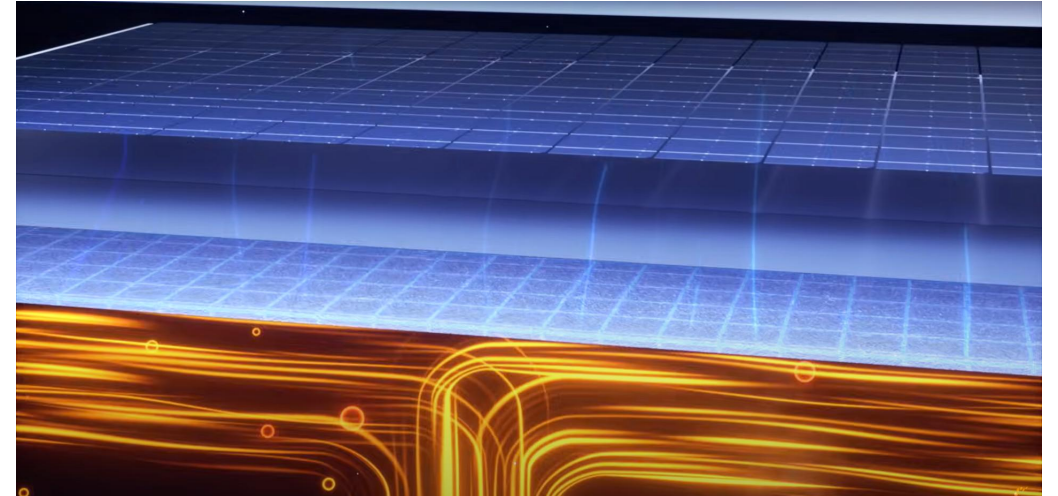


Slow Heat Transfer

PA621 uses composite materials with lower thermal conductivity, which slows the rate of surface-to-base heat transfer, helping to buffer temperature buildup on rooftops, vehicle cabins, or balcony railings during intense sunlight.



Intense sunlight



Slows down heat transfer

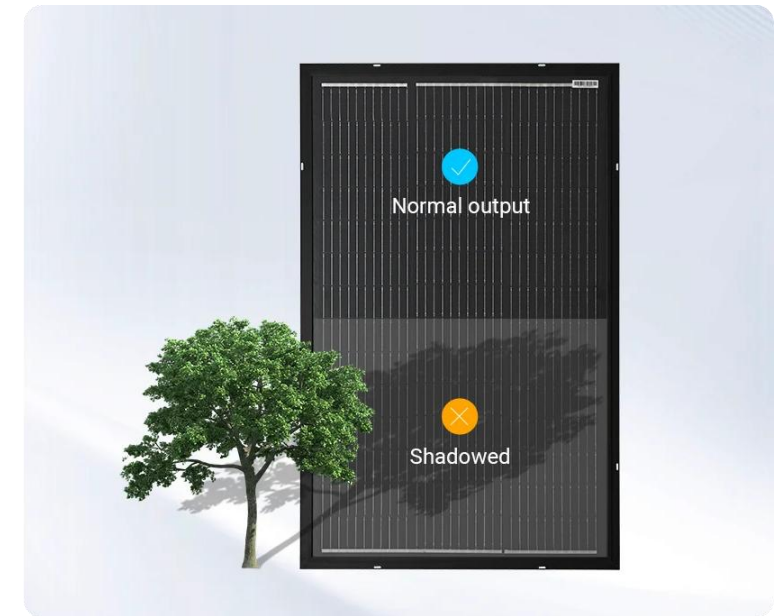


Shadow-Resistant Performance

Smart circuitry intelligently reroutes current to bypass shaded areas, ensuring stable output and preventing hotspot formation.



Cell-level shadow management tech



50% shaded , 50% output



Lightweight Construction

Weighs only 2–3 kg per panel thanks to a fiberglass-reinforced design — easy to lift, mount, and transport for RV rooftops, balconies, and mobile setups.

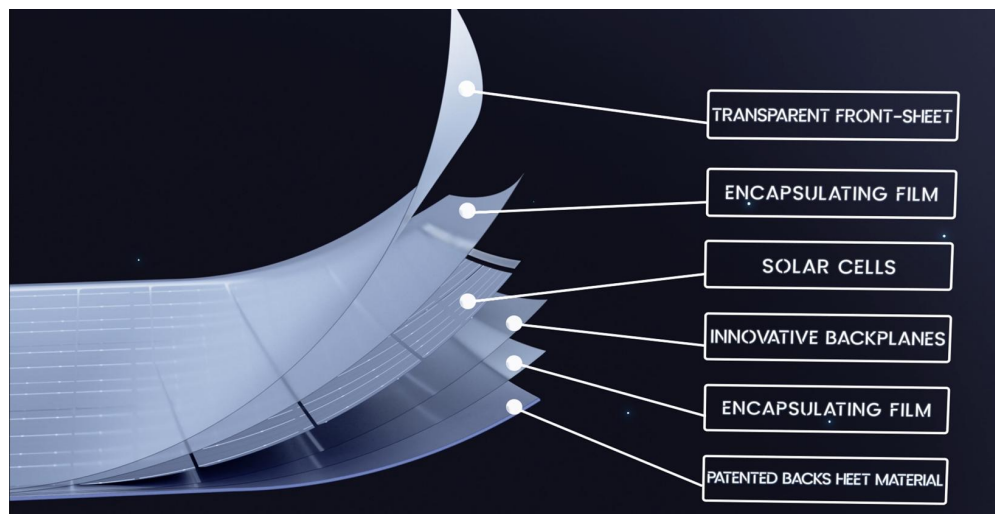




Long-Term Weather Durability

Built with UV- and moisture-resistant materials, PA621 maintains structural and visual integrity over time — tested to resist yellowing ($\Delta b \leq 3$) after 2000 hours of DH85 exposure.

Featuring a **full-black appearance** and **customizable** frame design, PA621 offers not only reliable performance but also a clean, modern aesthetic.



Lamination material



Real-world performance



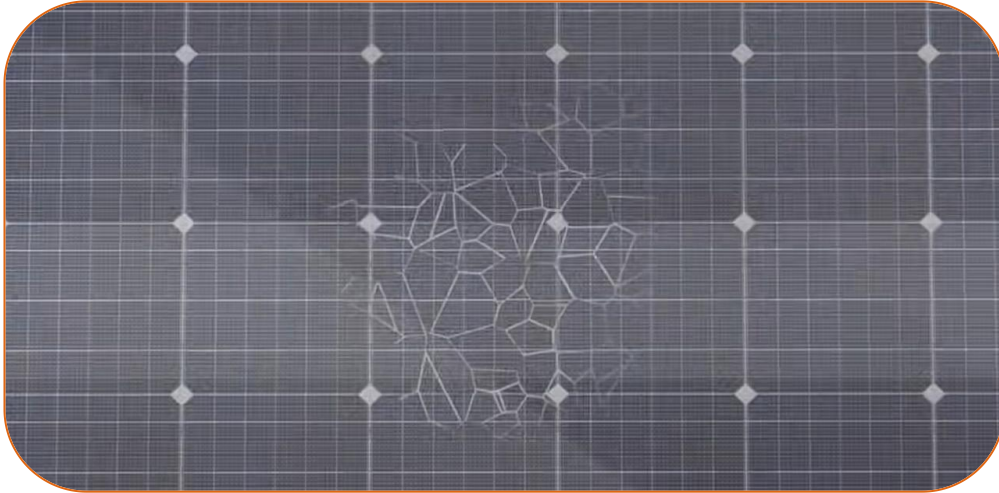
Real-world Testing

Tested to IEC 61215 standards, PA621 demonstrates proven durability across environmental and mechanical stress tests — including hail impact with only 0.12% power loss.





Application Scenario: RV Solar Power



Pain Point



- Road vibrations causing panel damage
- Weight load limits on the roof
- Partial shading from roof racks or trees



Sungold PA621



- Anti-vibration structure ensures stability on the move.
- Weighing only 2-3kg, PA621 reduces stress on vehicle rooftops and is easy to install and relocate as needed.
- Cell-level shadow management ensures power output under shading.



Application Scenario: Urban Balcony Solar Setup



Pain Point



- Limited installation space and strict weight limits on railings or building facades
- Frequent partial shading from nearby walls, trees, or architectural structures
- Exposure to sun, rain, and pollution degrades panel surfaces



Sungold PA621



- Ultra-lightweight design (only 2–3 kg) makes PA621 easy to install on balconies without structural reinforcement
- Shadow-resistant output ensures consistent power generation even in partially shaded conditions
- The layer resists UV, corrosion, and dirt, ensuring long-term performance in harsh urban conditions.



Application Scenario: Cold Chain Vehicle Solar Power



Pain Point



- Long-distance vibration leads to cracks or mounting failures
- Cargo height and curved roofs limit rigid panel use
- HVAC or railing shading causes frequent power loss
- Prolonged rooftop exposure leads to heat buildup and wear



Sungold PA621



- Shock-absorbing backsheet resists road vibration
- 2–3 kg flexible panel installs without structural strain
- Cell-level shadow management ensures stable output
- Slower heat transfer reduces rooftop thermal stress



PA621 — What It Delivers for Your Business

Ultra-lightweight (2–3 kg) design eliminates the need for heavy-duty mounting or roof reinforcement.

Vibration- and impact-resistant structure protects against cracks and failures during transport or use.

All-black appearance with customizable frames suits rooftops, balconies, and visible customer-facing installs.

Lower Installation Costs

More Uptime, Less Loss

Shadow-resistant architecture ensures stable output even with partial shading — reducing energy loss.

Fewer Replacements Over Time

Faster Project Turnaround

Easy to transport, lift, and mount — ideal for rapid deployment in mobile and urban solar setups.

Clean Design, Higher Acceptance



Technical Specifications

Model	SG-PA621-100W	SG-PA621-120W	SG-PA621-130W	SG-PA621-145W	SG-PA621-170W
Max Power Voltage	24.4V	19.1V	20.9V	23.2V	20.9V
Max Power Current	4.10A	6.29A	6.46A	6.47A	8.62A
Open Circuit Voltage	28.5V	22.3V	20.9V	23.2V	20.9V
Short Circuit Current	4.30A	6.60A	6.78A	6.79A	9.04A
Cell Efficiency	>22.70%				
Max System Voltage	1000V DC				
Cell Type	Monocrystalline				
Front Material	HPC				
Color	Black				
Product Size	1080*620*12mm	1230*620*12mm	1305*622*12mm	1115*807*12mm	1315*807*12mm
Weight	3.72KG	4.12KG	4.37KG	4.75KG	5.42KG



End-to-End Off-Grid Solar Solutions

Sungold has a professional service team that can design off-grid solar solutions tailored to your business needs, from sample testing production and transportation to installation and maintenance, providing one-stop service for your project requirements.



Solar Customizer for SMEs

Energy Tailored, Future Empowered



CE, RoHS, REACH, ISO 9001, ISO 14001, ISO 45001, IEC 61215, IEC 61730

Solar Customizer for SMEs

ENERGY TAILORED, FUTURE EMPOWERED

2008 Manufacturer Since	10,000m² Factory Area	300+ Employees	1,000MW Global Shipments
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Sungold is committed to becoming a specialized expert in energy brand customization for small and medium enterprises, focusing on delivering tailored solar energy branding solutions.

Leveraging the advantages of flexible and efficient small-batch customization services, we empower businesses to create distinctive, independent brand identities.



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