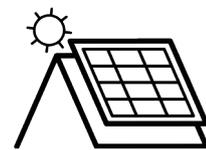




Case Study — Quindalup Residence Western Australia



PVKIT® | S-5-HR™ Clamp

At-A-Glance

Project Name

Quindalup Residence

Location

Margaret River Region,
Western Australia

Architect

Naked Architecture

Engineer

Cotan Engineering

General Contractor

Phil Kelleher Homes

Solar Installer

Green Wave Solar Pty Ltd

Solar Modules

Q Cells Q Peak Duo All Black 405W

Inverter

Fronius GEN24 10 Plus hybrid
inverter

Battery Storage

BYD 11.0 kWh Home Storage Battery
System

Roofing Contractor

CB Roofing

Roof Profile

Metroll Mac Distinction

Metal Wall Panels

Europlus Interlocking Panels

Industry

Rural Residential

The Situation

The homeowner sought a high-quality solar mounting solution that would offset the total energy needs of the home, while preserving the integrity of the roof by avoiding roof penetrations.

The Result

The S-5! rail-less solar mounting solution paired with the S-5-HR clamp provided the low-profile, aesthetic solution the homeowner desired, making the process quick and easy for installers compared to a traditional rail-based mounting system.

Project Stats

- **Roof Measured:** Approximately 640m²
- **Roof Pitch:** 8-20 degrees
- **Project Size:** 15kW
- **S-5! Products Supplied:**
 - PVKIT® EdgeGrab (44)
 - PVKIT® MidGrab (52)
 - S-5-HR™ Clamp (96)



The Project

Dunsborough is a town 248km south of Perth in the Margaret River Region of Western Australia. The region is known for its premium wine, unspoilt coastline, world-class surf breaks, scenic rivers, towering forests and ancient underground caves.

With a strong connection to its natural surroundings, the region is also a leader in sustainability. Local government and community initiatives, like the Climate Action Plan, aim to reduce emissions and achieve carbon neutrality for a more sustainable future.

Aligned with this commitment to sustainability, a new rural build in Dunsborough features a Metroll Mac Distinction concealed-fix metal roof, equipped with a 37-panel, 15kW solar array. The system uses the innovative PVKIT® rail-less mounting solution, combining energy with modern design.

The Challenge

The homeowner aimed to reduce the home's energy needs through a combination of solar and battery storage. Given the rural location and frequent network outages, reliable energy for essential circuits was a must.



How Did the S-5! Products Help?

- Cut material costs significantly, including freight costs
- Cut installation costs in half by eliminating the assembly and installation required by traditional racking
- Minimised the amount of time workers must spend in harness on a steep roof
- Improved aesthetics
- Eliminated the risk of a voided roof manufacturer warranty—no holes/no damage

Aesthetics was also a key priority. The homeowner wanted a low-profile system that would preserve the clean, architectural lines of the home’s charcoal grey roof constructed with Colorbond Maxline sheeting. Avoiding roof penetrations was essential to maintain both performance and warranties.

Adding to the challenge, the coastal environment exposed the site to harsh conditions, including salt air and sea spray, which can accelerate corrosion. This demanded a solar mounting system capable of withstanding the region’s tough environmental factors while maintaining structural integrity over time.

The Solution

Solar Installer, Green Wave Solar, recommended the **PVKIT DirectAttach™** rail-less solar mounting solution paired with **S-5-HR** clamps to provide a penetration-free attachment

that aligned with the home’s architectural style.

Featuring just three components, the PVKIT enabled solar installers to fix solar panels directly onto the metal roof, eliminating the need for an elaborate and bulky rail system. Its pre-assembled design significantly reduces installation time and cost while reducing the total system weight by 85% compared to rail-based mountings. Paired with the S-5-HR clamp – designed specifically for this roof profile – the system offers superior load distribution into the roof and substructure. Like all S-5! clamps, the S-5-HR is tested to load-to-failure with holding strength unmatched in the industry.

Given the home’s coastal location, corrosion resistance was a top priority. S-5!’s components are made from high-tensile aluminium and A2-70 stainless steel, both salt-fog tested to ASTM B117 standards for long-term durability in marine environments.



Long-term Outlook

The homeowner has successfully offset the home’s energy consumption with a penetration-free, aesthetic solution that complements the home’s modern design and aligns with the region’s sustainability goals.

“We always prioritize using high-quality products like S-5! because they truly make a difference — for both our team and our clients. The S-5! rail-less system made for a safer installation, eliminating the trip hazards common with traditional rails. It was faster, more efficient and far simpler than expected — cleaner, safer and easier all around. Thanks to S-5!, the entire process was smooth, streamlined, and stress-free from start to finish.”

—Chris Reagan, Managing Director, Green Wave Solar Pty Ltd



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