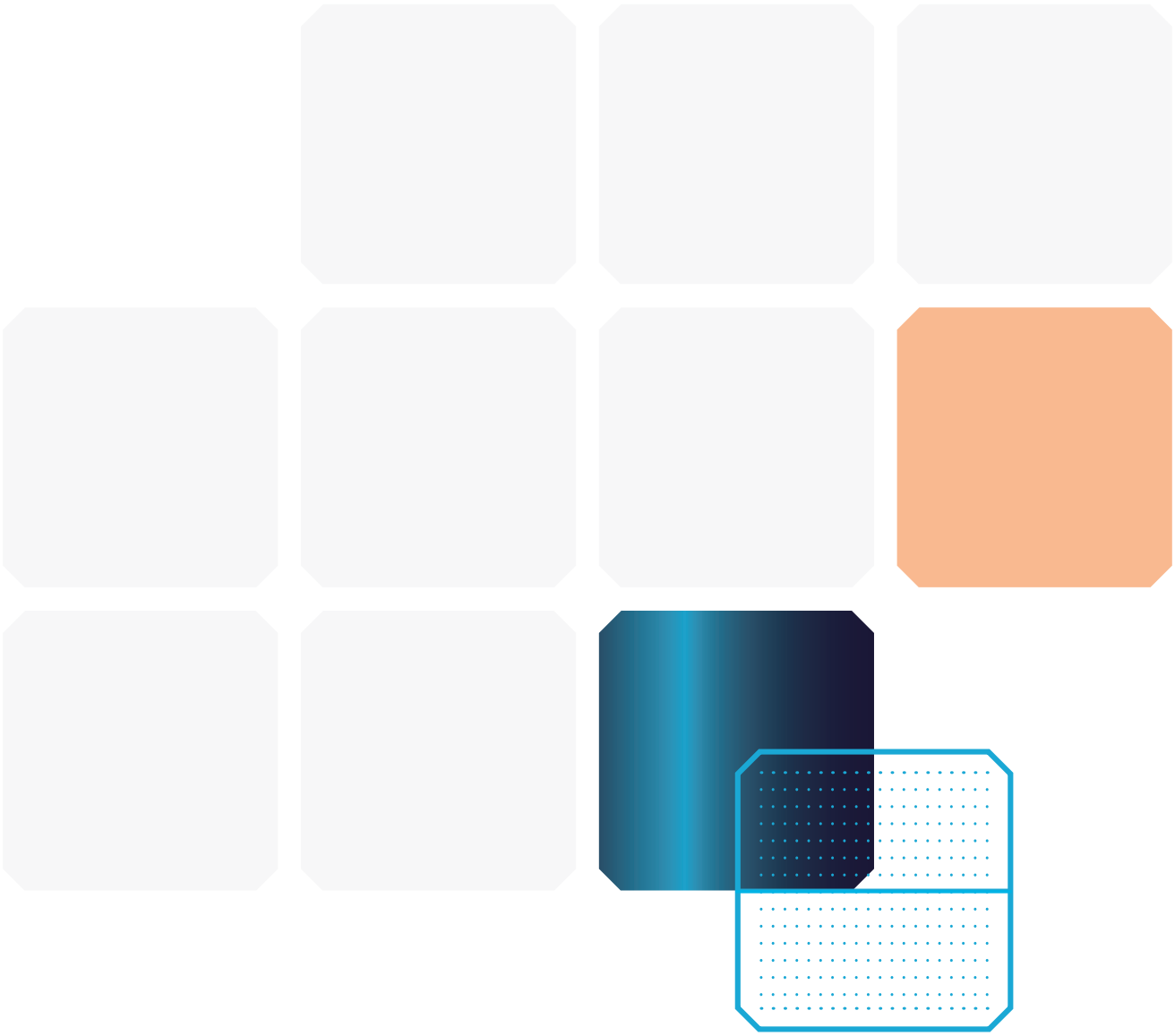


FUSION-R

REA POWER AC MODULE

PRODUCT BROCHURE

REA POWER™ +

FUSION-R

TECHNOLOGY

FUSION R

- Fused cell structure
- Uniform appearance
- Safest AC system
- Independent panel performance
- Optical absorption enhancement
- N - Type Fusion R Module
- Revolutional 0BB cell

REA

Overview

REA Power delivers precise-engineered and market-leading solar modules for those who refuse to settle — relentless performance, uncompromising reliability, and more energy.

For over 15 years of dedicated solar R&D, we've pushed the limits of solar technology to give every Australian home and business the freedom of true energy independence.

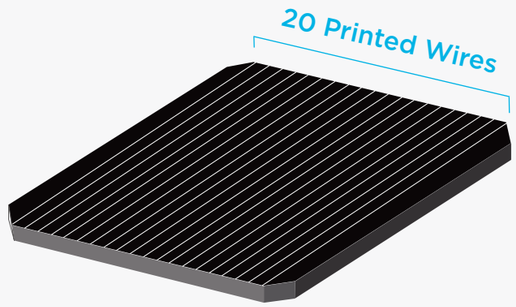
Introducing our most advanced module yet: FUSION R.

Powered by next-generation Multi-layer Zero-busbar Cell Technology, it delivers upgraded efficiency, exceptional low-light and heat performance, and up to 97% bifaciality — all in our signature sleek, dual-sided AC Module (ACM) design with integrated Enphase IQ8HC Microinverters.

Developed in partnership with Central Queensland University and The University of Queensland for continuous innovation. Backed by a 25-year product warranty plus a 30-year performance warranty.

When it comes to powering your energy future, only the best will do.

20-Wire Cell Connection



FUSION R Technology

0BB High-Efficiency Cell
Zero-busbar with smarter printing technology for higher voltage, efficiency, and power output.

Advanced Pre-Lamination Welding
Stronger soldering, lower resistance, and fewer hot spots for lasting performance and reliability.

Optimised Light Capture
Reduced rear metal shadowing boosts light intake, enabling up to 97% bifacial performance.

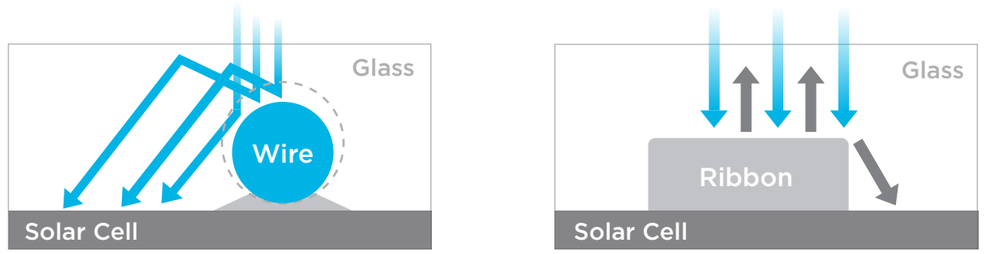
Thinner, Flexible Silicon Wafers
No main grid and thinner ribbons reduce mechanical stress and fragmentation for stronger, more flexible wafers.

FUSION-R Encapsulation
Downshifting light conversion and PIB edge sealing increase energy yield and extend module lifespan.

Versatile Application
Built for dependable performance across utility, commercial, industrial, and residential rooftops.

Improved Light Absorption

FUSION Technology improves light absorption through circular-shaped wires that scatter sunlight more effectively. FUSION R takes this further with a zero-busbar design and smart-printed ultra-thin ribbons, reducing front and rear metal coverage so more sunlight reaches the silicon for higher energy capture.

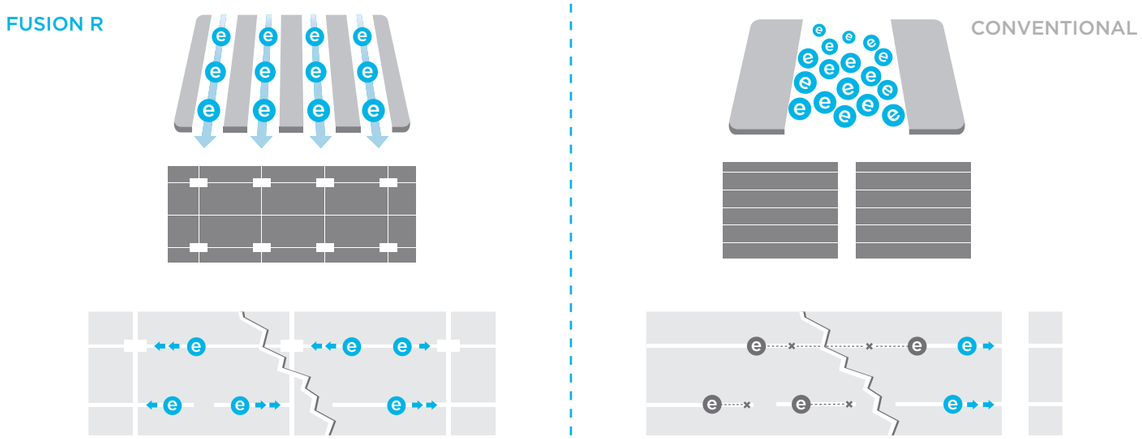


FUSION R

CONVENTIONAL

Reduced Electrical Loss

FUSION R reduces electrical losses by spreading the current across 20 wires rather than the standard 12 wires. Even when micro crack or finger electrode erosion happens by natural degradation of mechanisms in the outskirts of the solar cell, FUSION R minimises under-performance by blocking the electrical path thanks to its tighter layout of wires.

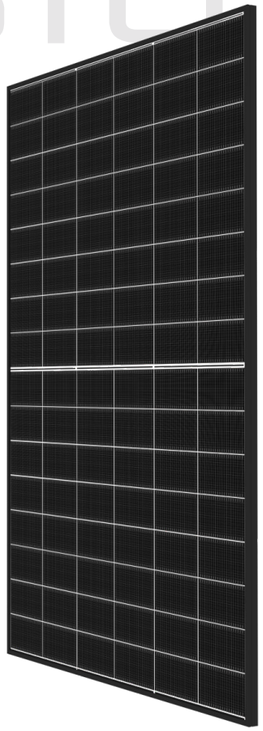


INTRODUCING THE NEW

FUSION-R

BNPI

515 W



Up To **30** %

More Energy

Specifications

Wattage
STC 460W, BNPI 515W

Dimensions
L x W x D
1762 mm x 1134 mm x 30 mm

Design
1.6mm Dual glass
Anodized aluminum alloy frame
Fusion black solar cells

Cell Type
FUSION R

Inverters
Enphase IQ8HC ACM

Certifications
IEC / UL 61730,
CEC Listed,
IEC 61215

Fusion N-type Technology

Extremely Low LID

FUSION R incorporates N-type cells that are doped in phosphorus instead of boron. Phosphorus is immune to boron-oxygen defects which cause decreased efficiency and purity in P-type structures. That is why FUSION R is more efficient and not affected by Light-Induced Degradation (LID).

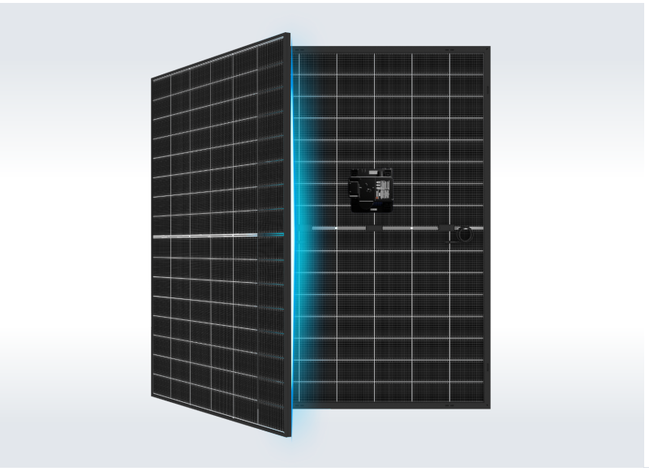
FUSION R

CONVENTIONAL P-TYPE MODULE

Fusion. Beyond.

The FUSION cell uses multi-layer Heterojunction Technology (HJT), combining amorphous silicon (a-Si) and crystalline silicon (c-Si) layers. It involves creating a heterojunction at the interface between these two silicon materials. This process improves the overall efficiency of solar cells by minimising recombination losses and enhancing the cell's ability to capture sunlight and convert it into electricity.

Bifacial Cell Structure

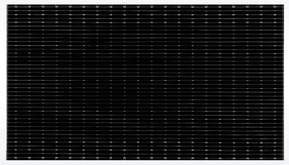


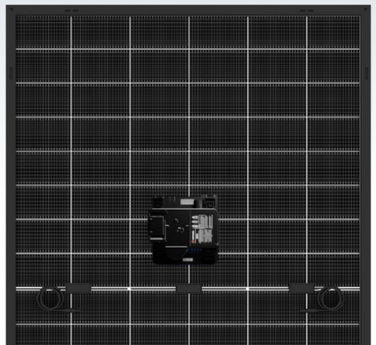
Power On Both Sides

FUSION R cells capture energy from both the front and rear. maximising total energy yield throughout the day, even as the angle of sunlight changes.

Front

The front of FUSION R cells absorbs more sunlight than conventional modules, delivering higher efficiency and superior energy output.

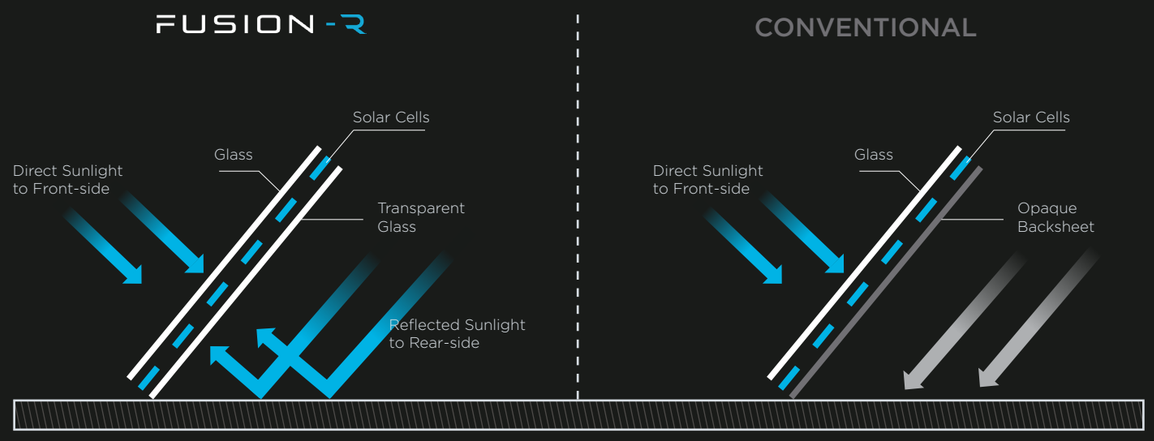




And Rear

Featuring transparent dual glass and minimal rear-side shadowing, FUSION R harnesses reflected light from the back, achieving up to 97% bifacial performance for added energy gains.

How It Works?



30% More Energy in Optimal Conditions

FUSION R is able to produce up to 30% additional yield by install conditions, compared to conventional monofacial modules with the same nominal power.

Ground Albedo (%)	Surface Conditions	Module mounting height from ground/roof surface (m)				
		0.2	0.3	0.5	0.7	1
15	Dark or wet soil, old concrete	8.6%	9.0%	9.3%	9.7%	10.0%
30	Grass, dry soil	11.3%	11.9%	12.5%	13.4%	13.9%
50	Dry sand, new concrete	14.7%	15.6%	16.6%	18.2%	19.0%
70	Old snow	17.9%	19.3%	20.6%	22.7%	23.8%
85	Fresh snow, white paint	20.3%	21.9%	23.5%	26.0%	30.0%

* Consideration: flat roof/free field, modules mounted in single rows facing north, tilt 30°

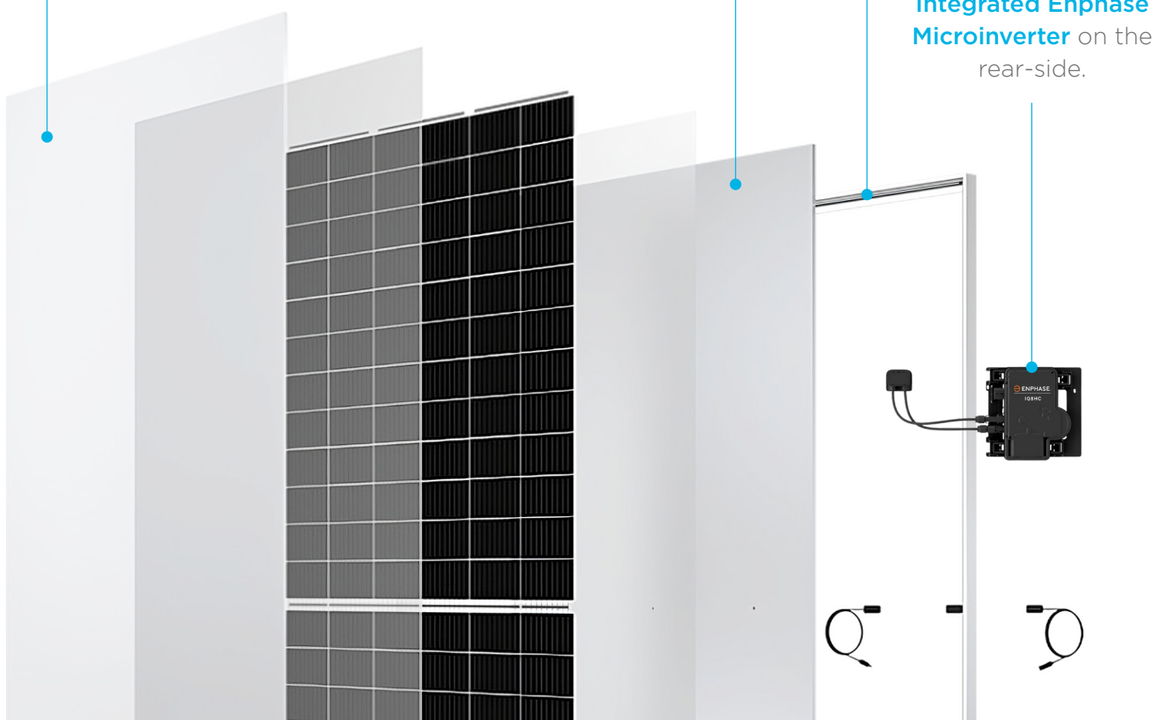
Built to Last

FUSION R is designed in the world's harshest environment to handle all weather conditions. Its dual glass construction provides enhanced protection, ensuring maximum durability against extreme weather, temperature fluctuations, and UV exposure. The reinforced frame adds an extra layer of strength, enabling the solar panel to withstand high winds, hailstorms, and other challenging elements unique to the Australian climate.

1.6 mm Dual Glass for increased robustness and safety.

Reinforced Frame Design that can endure a front load of up to 5400 Pa and a rear load of up to 2400 Pa.

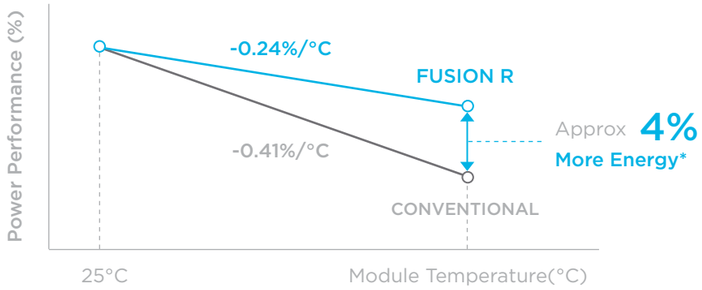
Integrated Enphase Microinverter on the rear-side.



Power in Any Weather

Keeps Cool Under Pressure

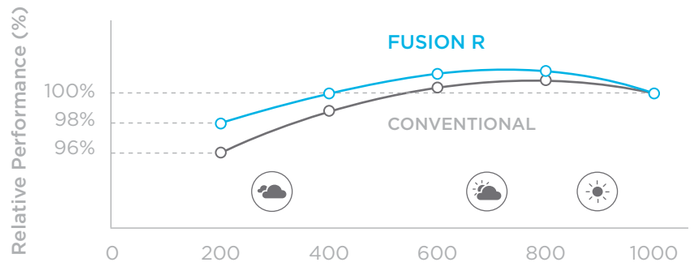
Solar panels gradually lose their ability to generate power as they heat up. FUSION R, however, features an improved temperature coefficient compared to standard modules, enabling higher energy output even in hot weather.



* Based on PV Syst simulation

Cloudy Day? No Worries.

FUSION R is not phased by a cloudy day and can continue to perform efficiently due to its superior low-light performance.



* Relative performance compared with the performance at 1000W/m²

AC Module Design

Ultimate Safety

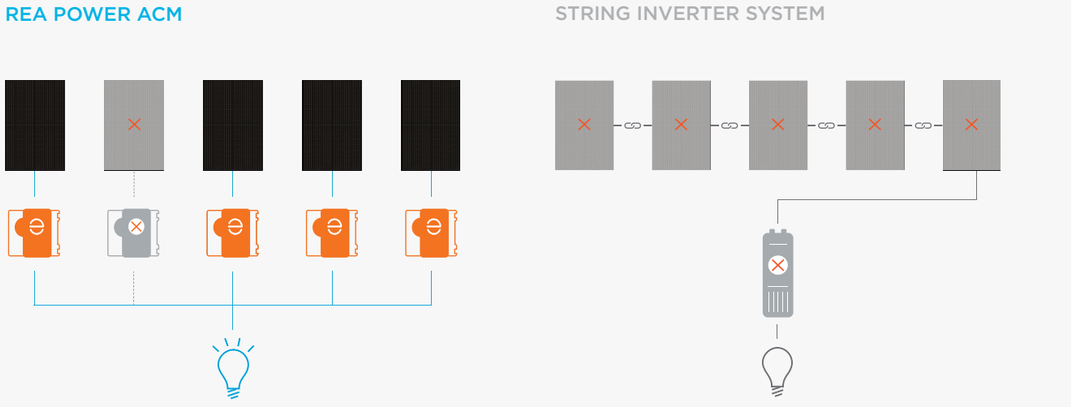
The FUSION R design makes it the safest choice for architecture. Each panel is seamlessly connected using the same AC trunking cable that powers your appliances, ensuring a smooth and secure energy flow throughout your home. FUSION R prioritises safety with complete circuit protection, eliminating the risks of high voltage DC and potential system fires.

The World's Highest Output ACM, Engineered with Enphase.

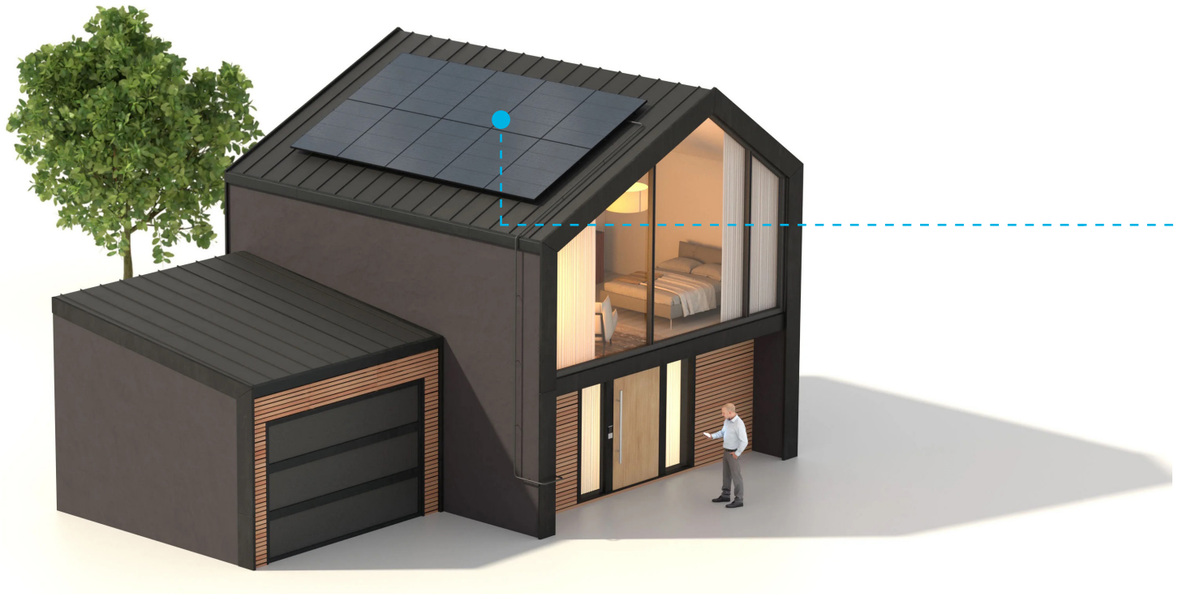
Independent Panel Performance

Unlike conventional DC systems with traditional string inverters, FUSION R creates a complete AC Module (ACM) system by integrating the Enphase IQ8HC Microinverter on each panel.

The microinverters function independently, converting solar-generated DC into usable AC power directly at each panel. The result is enhanced reliability and efficiency — if one panel slips into the shade, is obstructed or encounters a glitch, other panels remain unaffected and maintain peak solar production.

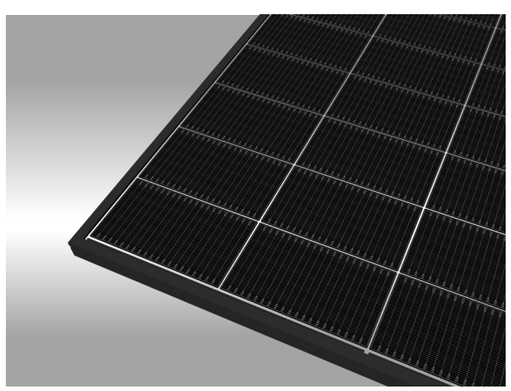


Efficiency Meets Aesthetics



Maximise Your Roof

REA FUSION R is the right solution for homeowners who want to get more electricity within a limited roof space. FUSION R maximises your solar power system capacity, producing more energy in the same area.

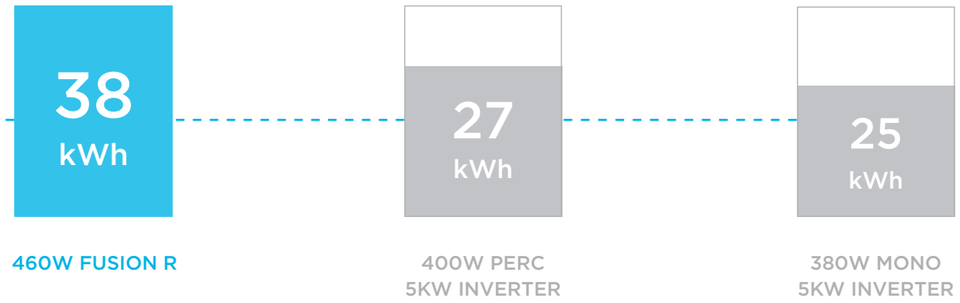


All-Black Sleekness

Sleek and sophisticated all-black design that is aesthetically pleasing for any rooftop.

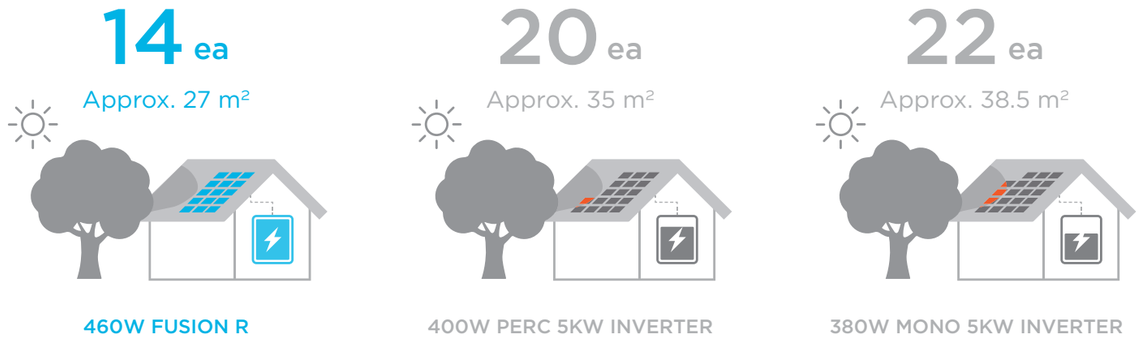
More Power Generation

*Comparison with conventional modules when installing a 6.3kW system on the roof



Environmental or Surrounding Constraints?

Shadow from the surroundings restricts the space available for system installations. With higher efficiency and smaller physical size, FUSION R makes it easier to build module arrays on the roof compared to larger footprint modules. This enables the maximisation of your rooftop potential.



* Comparison with conventional system space when generating 32kWh of usable energy on the roof

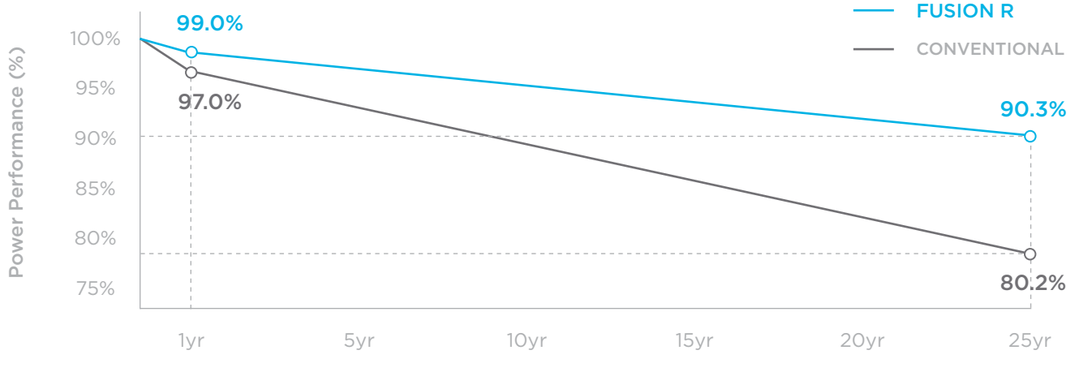
Protect Your Solar Investment

Industry-leading Warranty

FUSION R sets a new standard with its exceptional performance and reliability. Gain peace of mind and unwavering confidence in your solar investment with REA's impressive product and performance warranty. With an annual degradation rate below 0.3% per annum, FUSION R guarantees superior performance for years to come.

25 **YEAR**
Product Warranty

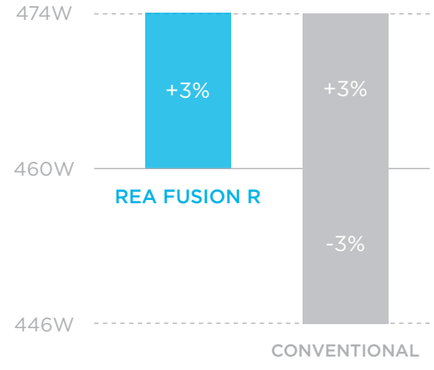
30 **YEAR**
Performance Warranty



Positive Tolerance

REA provides an extraordinary power output that exceeds the rated Wattage with a positive 3% tolerance. When you invest in an REA Power module, you receive full lab testing results to ensure its power class.

Unlike some conventional modules that come with a -/+ tolerance, FUSION R guarantees that you receive every single Watt you invest in. Experience the full potential of FUSION R — unmatched power, assured.



SOLAR POWER, MADE EASY.

reapower.com.au