



PERLIGHT SOLAR
Powering Possibilities

PERLIGHT DELTA

Truly All-black, high efficiency, busbarless solar



PERLIGHT DELTA BENEFITS



TECHNOLOGY

Innovative structure, high density cell layout.



BEAUTIFUL APPEARANCE

Ultra-sleek with consistent tone, providing a modernised look.



SAFETY AND RELIABILITY

Lower operating temperature and high pressure-resistance.



LOW SYSTEM COST

High module efficiency, reducing system cost.



LOW HOT SPOT EFFECT

Prolong module lifetime. Reduce electricity loss during generation.



LOWER SHADING LOSS

Parallel layout reduces shading effect compared to conventional modules.



BETTER FOR THE ENVIRONMENT

More environmentally friendly, Fluorine-free and low Pb levels.

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BUSBARLESS MODULE BENEFITS

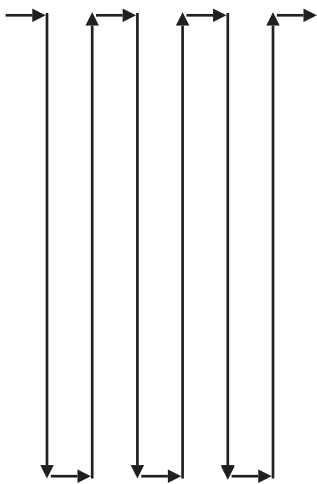
Busbarless shingled panels conduct the current differently from conventional modules. The solar cells are cut into strips and conduct direct current to neighbouring cells without busbar ribbons.

Zero busbar technology has many advantages compared to conventional panels. It increases overall efficiency, decreases the amount of materials used, and it even improves the aesthetics of PV modules.

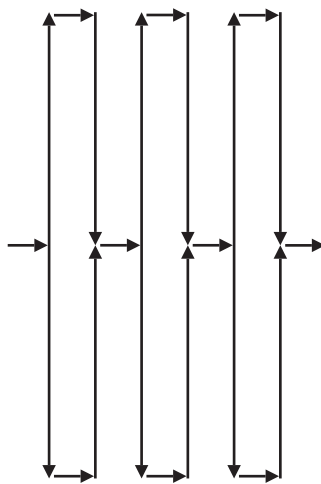
Circuit Design

The busbarless Delta module has a parallel circuit design which is more effective in shaded conditions than the regular half-cell module circuit. While conventional modules are wired in series, the Delta module only has 2 bypass diodes, and the 10 strings are wired in parallel in two groups.

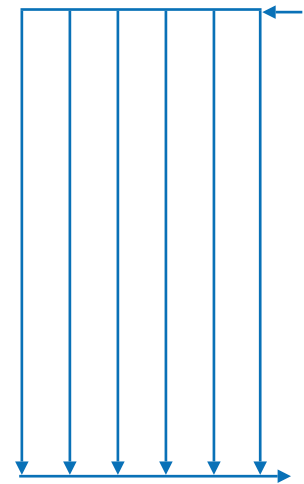
Full-cell module circuit



Half-cell module circuit



Delta module circuit

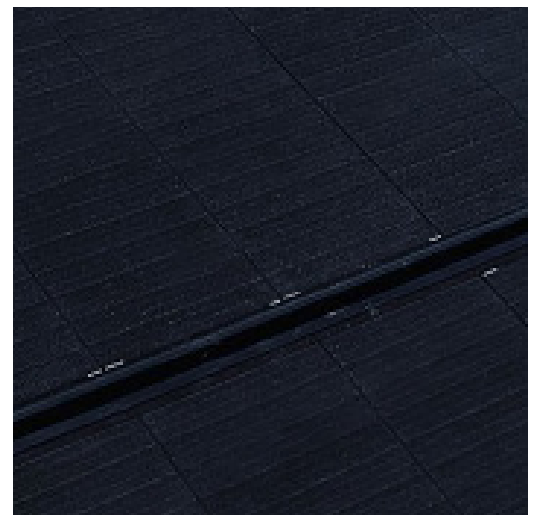
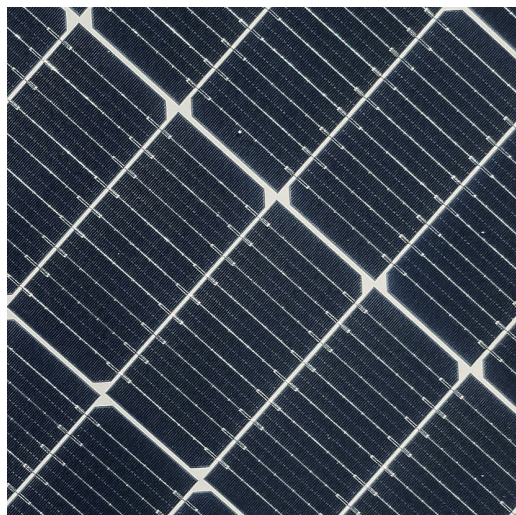


Note: the arrows represent the direction of the current.

The innovative cell design of the Delta module creates a more homogenous appearance.

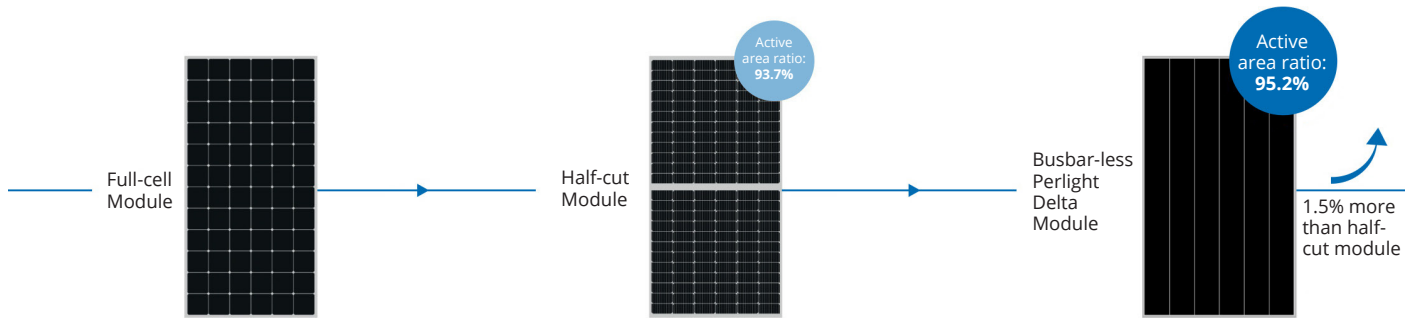
Left: half-cell

Right: Delta



Active Surface Area

In the busbarless module, there is no distance between cells, and busbars don't take up space on the module. This way, a larger surface area is used for producing solar energy. 1.5% improvement in active area ratio from half-cut module which leads to higher efficiency and better safety..



BEAUTIFUL APPEARANCE



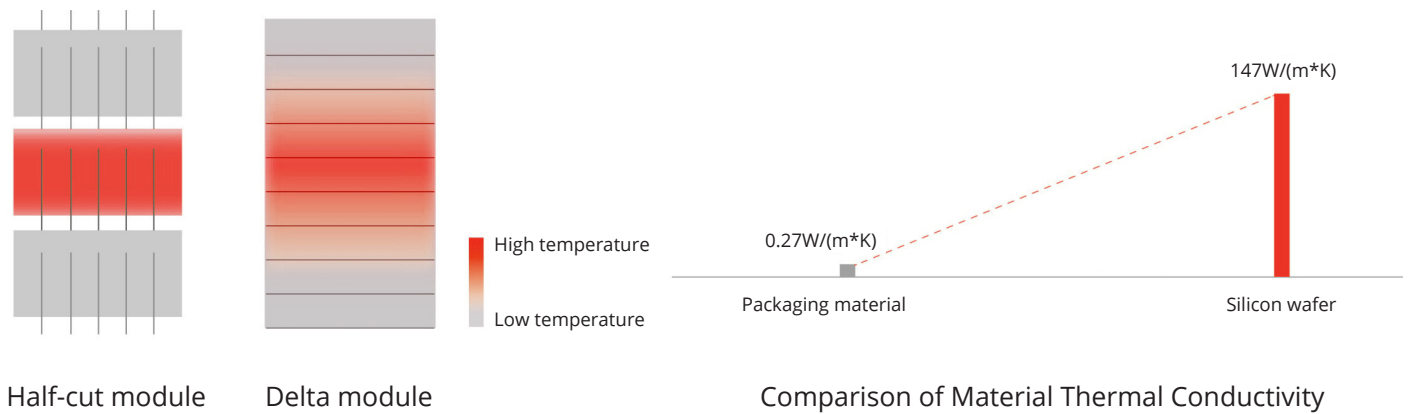
IMPROVED PERFORMANCE

Improved Thermal Characteristics

The cell design of the Delta panels distributes temperature more evenly on the module, contrary to the conventional cell design. The improved thermal characteristics reduce the risk of hot spots and prolong module lifetime.

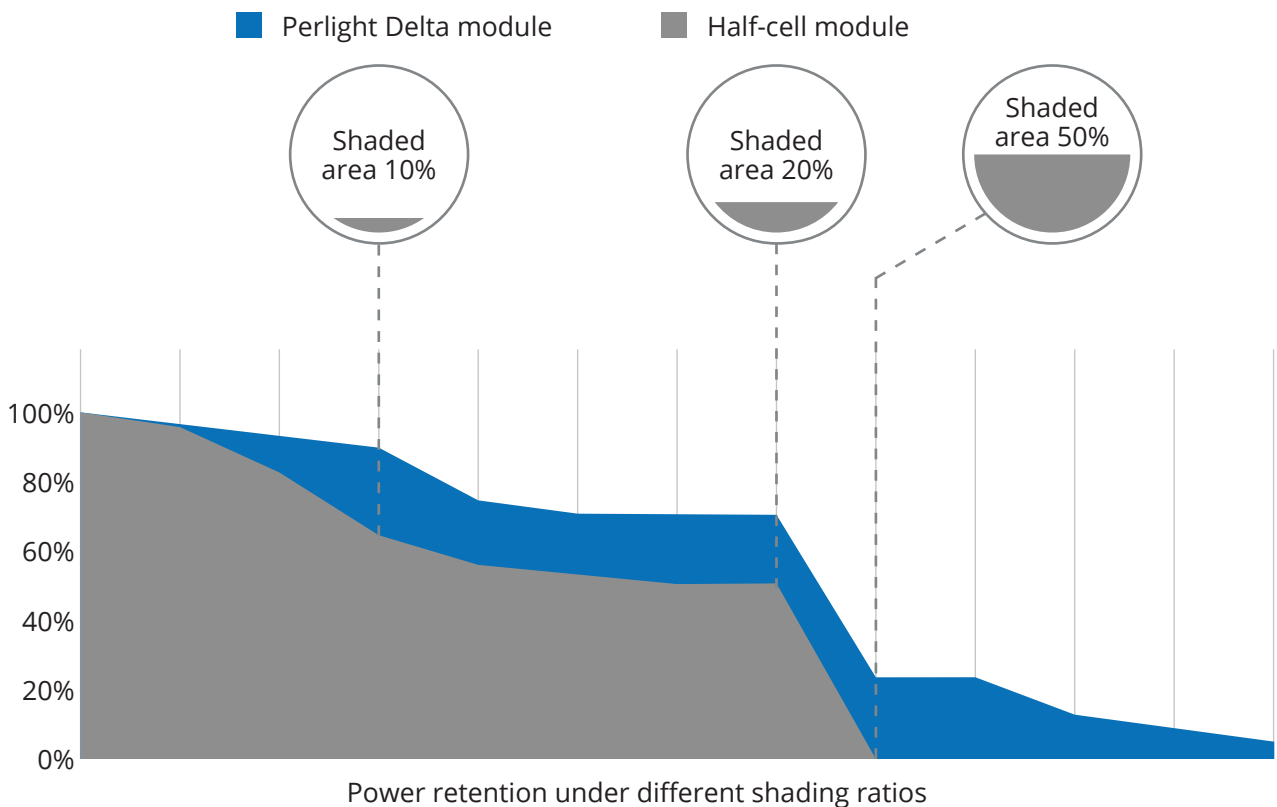
NOCT: 42.3°C (±2°C)

Temperature coefficient of Voc -0.27%/°C



Improved Performance in Shade

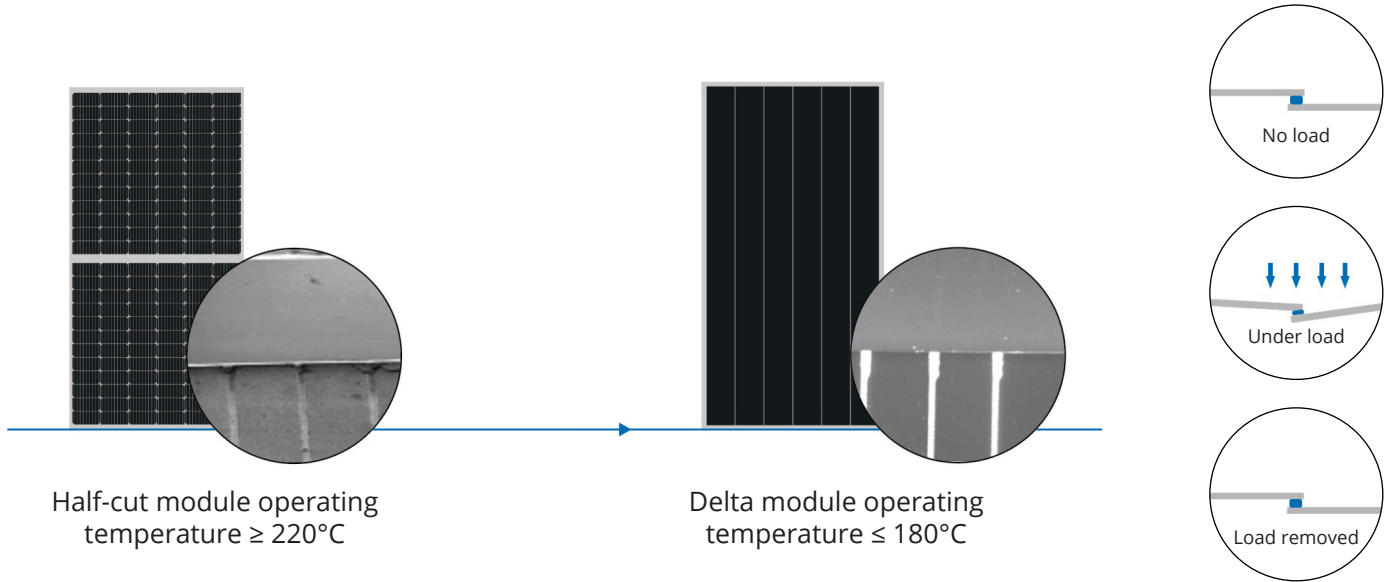
The Delta module outperforms half-cell modules in shaded conditions thanks to its parallel circuit design.



SAFETY & RELIABILITY

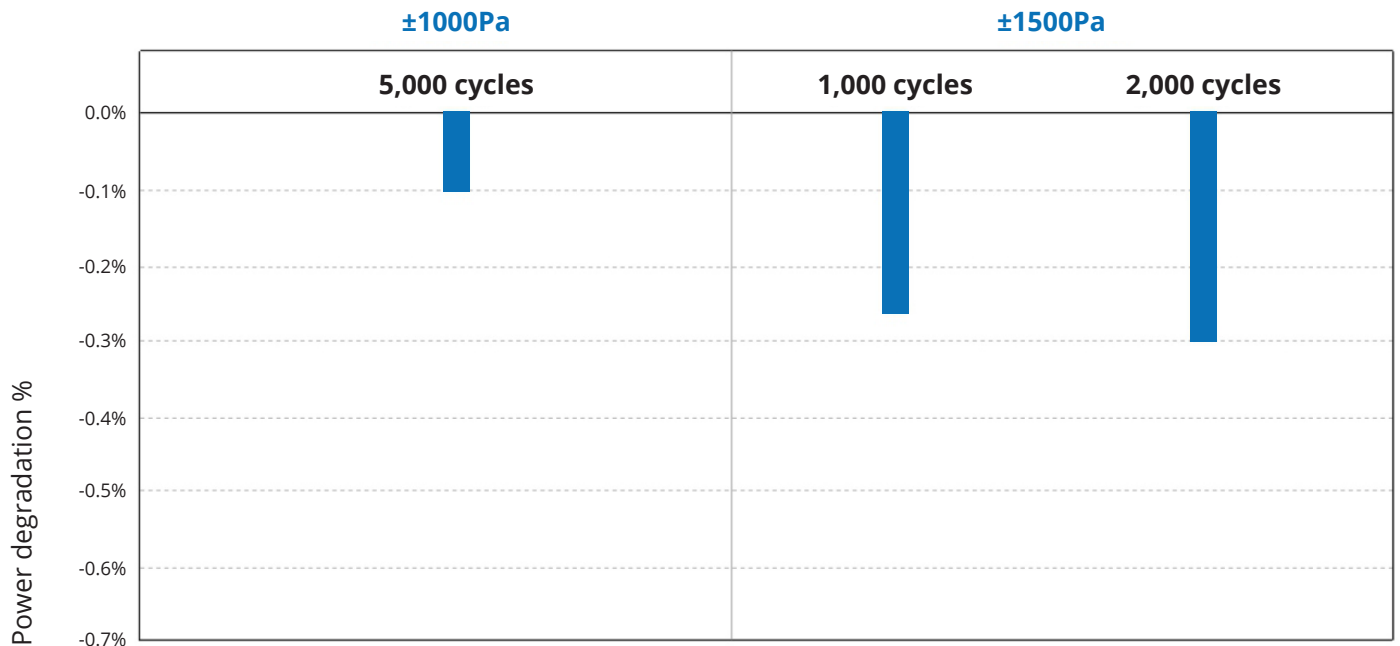
High Pressure-Resistance

The flexible connection between cells offers a better pressure-resistance and an improved performance under load.



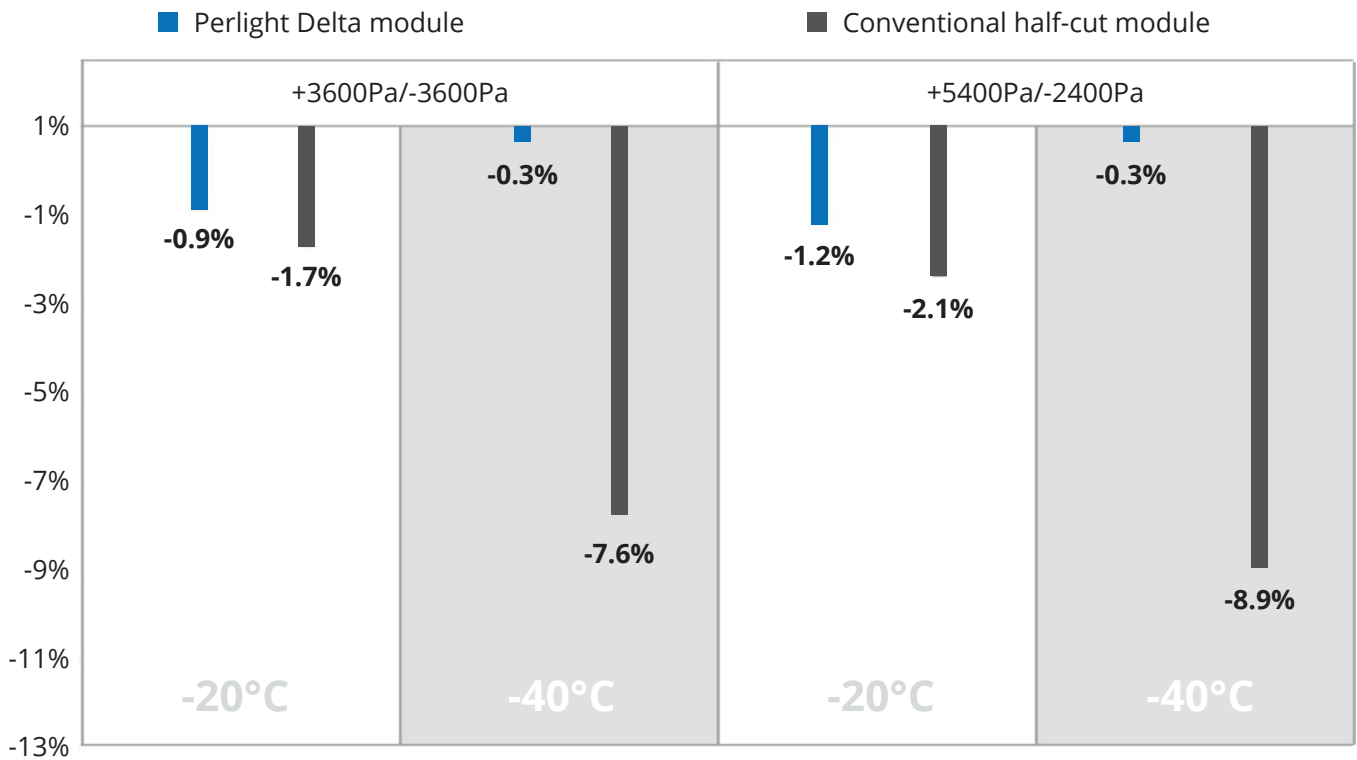
Superior Wind Rating

The high pressure-resistance also reduces power degradation of the Delta panels significantly, well below the industry standard.



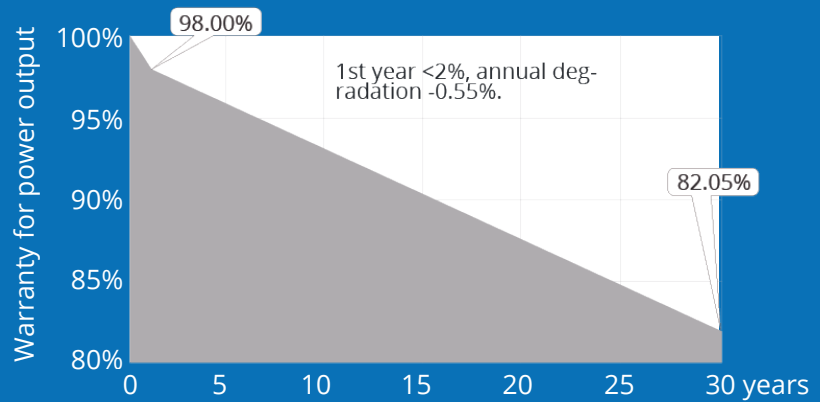
Note: Industry standard $\pm 1000\text{Pa}$, power degradation $\leq 5\%$ after 1,000 cycles.

Perlight Delta modules have significant advantages under load at low temperatures.



30-Year Warranty

Perlight Delta panels come with a 30-year product and a 30-year power output warranty.



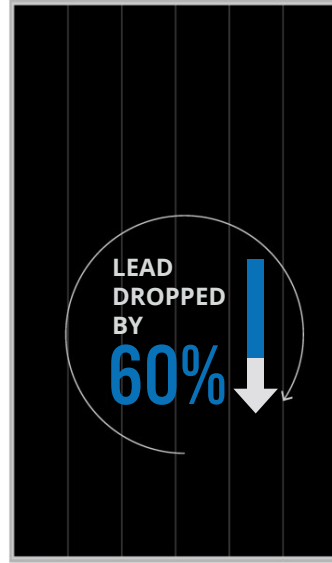
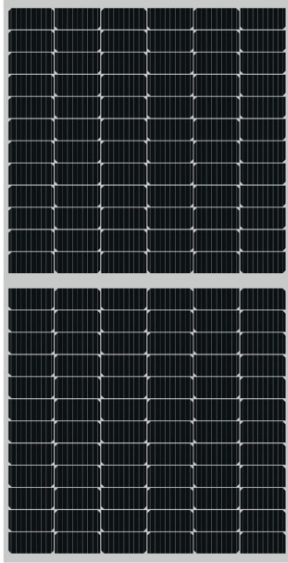
SOCIAL RESPONSIBILITY

SA8000

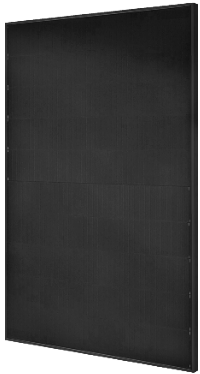
The SA8000® Certificate guarantees an internationally recognised standard of decent work. It confirms that the production of Perlight panels doesn't use child or forced labour, provides safe and healthy working conditions and a fair wage, and it is free from discrimination, unfair disciplinary practices, and extreme working hours.

More Eco-Friendly Composition

The busbarless Delta modules contain 60% less lead than average half-cell modules. Removing the busbars also saves 0.3kg of metal ribbon per module.



AVAILABLE MODULES



Perlight Delta 425W

Maximum power: 425W

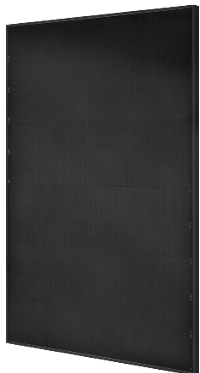
Module efficiency: 21.4%

Dimensions: 1812 x 1096 x 30 mm

Weight: 20.8 kg

NMOT: 42.3°C (±2°C)

Temperature coefficient of Voc: -0.27%/°C



Perlight Delta 445W

Maximum power: 445W

Module efficiency: 21.4%

Dimensions: 1899 x 1096 x 30 mm

Weight: 21.8 kg

NMOT: 42.3°C (±2°C)

Temperature coefficient of Voc: -0.27%/°C




PERLIGHT SOLAR
Powering Possibilities



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