



PERLIGHT
smart.black

PERLIGHT IRT

INTEGRATED ROOF TILE



DIRECTLY MOUNTED



**SEAMLESS SMART INTEGRATED ROOF
SOLAR PANELS FOR YOUR HOME**



PRODUCT OVERVIEW

- ✓ Solar roof tiles
- ✓ Fully integrated solar roof solution
- ✓ Light-weight & compact
- ✓ Unique shingled design mimics roof tile effect
- ✓ Easy and fast to install under one minute per tile!
- ✓ No clips, clamps or plastic
- ✓ Aesthetic all black design
- ✓ MCS 012 certified
- ✓ BROOF (t4) fire rated
- ✓ Online layout and materials calculator tool

18.2% MAX MODULE EFFICIENCY
AFTER INSTALLED

12 YEARS LIMITED
PRODUCT WARRANTY

25 YEARS PERFORMANCE
WARRANTY

WHY CHOOSE THE PERLIGHT IRT?

Seamlessly integrated solar. The Perlight IRT - Integrated Roof Tile is more than a solar panel. It is a solar roof. No trays or complicated and unsightly mounting systems, IRT is installed directly to the roof.

“Stop thinking of solar as an addition to your roof. Start thinking of solar as your roof. Perlight IRT sets a new standard for the modern roof that embraces the traditional style of shingled tiles, updated for the 21st century”

IT LOOKS GREAT

Perlight IRT interlocking design provides supreme protection from the elements as well as peerless precision, clean lines and innovative appearance. Thanks to its shingled design, which mimics roof tiles, the timeless character of the traditional tiled roof is not only maintained but updated for modern times.

GAME CHANGING

Perlight's IRT design is truly game-changing in its combination of strength & simplicity. Each IRT weighs only 8.95kg and can be installed or removed in under one minute per tile, whilst the interlocking design provides superior strength and wind rating.

THE SOLAR ROOF

Solar is no longer an addition to your roof, Solar is your roof.

Perlight IRT sets a new standard for the modern roof that embraces traditional style of shingled tiles updated for the 21st century.

UNIVERSAL FLASHING

Interlocking aluminium flashings, no plastic. Designed to last for over 25 years.

Works with all common roof tiles, including slate, concrete and rosemary.

IT'S QUICK TO INSTALL

Installation times of less than 1 minute per module can be easily achieved. The simple connection, installation and flashing system allows the installer to locate panels by simply pushing together to create a weather-tight, neat and secure fixing and finish.

SAFETY FIRST

Perlight IRT is fire rated to BROOF (t4) standard, the highest possible European fire rating for roofs. Directly mounted, IRT wind-resistance exceeds the rating of any on-roof solar mounting system. IRT innovative interlocking design is durable, weather-tight and built to last for over 25 years.

PROUD TO BE SA8000® STANDARD



Knowing where your products come from and how those who make them are treated should matter. Perlight recognise that sustainability is about more than products and profits but also the people who make them. SA8000 certification is a global standard for organizations to demonstrate their dedication to the fair treatment of workers, however, few organisations even attempt to achieve this standard. Therefore you can be assured that buying Perlight products is a sound ethical choice.



ELECTRICAL PERFORMANCE

Module type	PLM-125MB-24 SERIES		
Power output	P_{max}	Wp	125
Voltage at Pmax	V_{mpp}	V	13.33
Current at Pmax	I_{mpp}	A	9.38
Open-circuit voltage	V_{oc}	V	16.22
Short-circuit current	I_{sc}	A	9.79
Module Efficiency	Eff.	%	18.2

STC: 1000W/m² irradiance, 25°C cell temperature, AM 1.5g spectrum according to EN 60904-3.
Power measurement uncertainty is within -/+ 3%

THERMAL CHARACTERISTICS

Nominal operating cell temperature	NOCT	°C	45±2
Temperature coefficient of Pmax	ν	%/°C	-0.40
Temperature coefficient of Voc	β_{Voc}	%/°C	-0.30
Temperature coefficient of Isc	α_{Isc}	%/°C	0.06

OPERATING CONDITIONS

Max. system voltage	1000V _{DC}
Limiting reverse current	15A
Operating temperature range	-40°C to 85°C
Max. static load front (e.g., snow)	5400Pa
Max. static load back (e.g., wind)	3420Pa

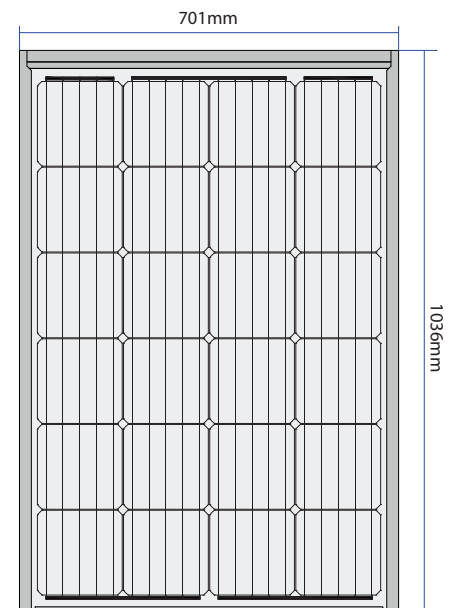
MECHANICAL CHARACTERISTICS

Front cover (material / thickness)	low-iron tempered glass / 3.2mm
Backsheet (color)	black
Cell (quantity / material / dimensions)	24 / monocrystalline silicon / 156.75×156.75mm
Frame (material / color)	anodized aluminum alloy / black
Junction box (protection degree)	≥ IP67
Cables & Plug connectors	900mm / 4mm ² & MC4 compatible / IP67
Module Dimensions (L / W / H)	1036mm×701mm×24.5mm
Module Weight	8.95kg

PACKING DETAILS

Container	40'GP
Pieces per pallet	120
Pallets per container	14
Pieces per container	1680

MODULE DIAGRAM



ELECTRICAL CURVES

