

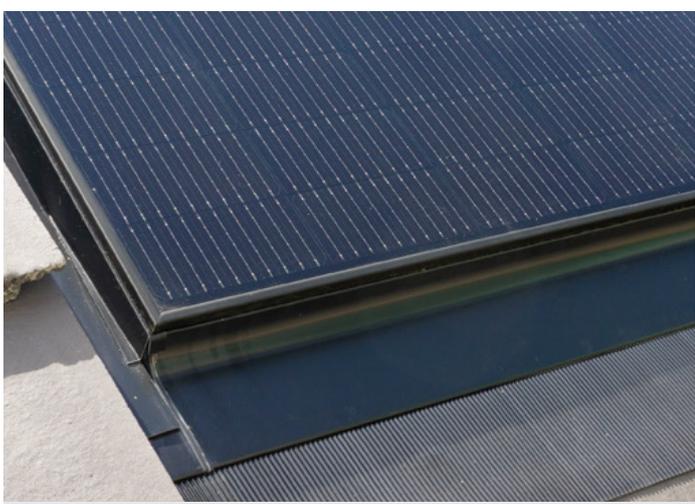
NEW

# Data sheet

# Marley SolarTile®



Marley SolarTile® 445Wp photovoltaic panels feature the latest in solar cell technology. N-type TOPCon cells are encapsulated between glass sheets - to the front and rear, to improve panel lifetime and offer a higher power output guarantee.

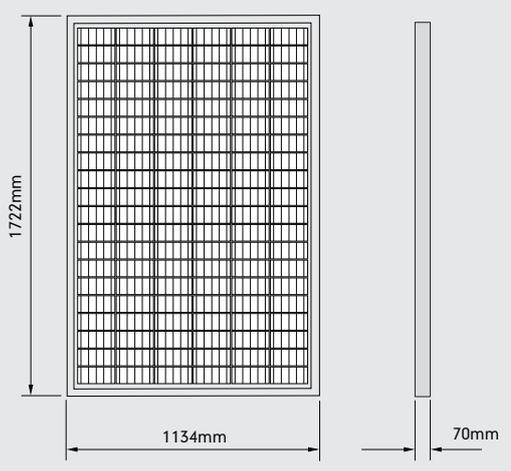


- ▲ Integrated with full Marley roof system and all tile types
- ▲ Renewable energy to reduce household bills
- ▲ Very low profile and unobtrusive
- ▲ Large panel size means rapid installation
- ▲ Certified fire and flame performance
- ▲ Exceptional wind resistance performance
- ▲ 15 year guarantee as part of a Marley full roof system

**15 YEAR**  
MARLEY ROOF SYSTEM WARRANTY

**30 YEAR**  
87% EFFICIENCY GUARANTEE

**60 YEAR**  
EXPECTED PANEL LIFESPAN



## PITCHED ROOF INTEGRATION

Sleek, low-profile integrated solar that replaces the roof covering for an improved aesthetic and simple roof maintenance.

## WIND RESISTANCE

The certified wind resistance for Marley SolarTile® makes it a suitable solution for even the most exposed locations.

## FIRE

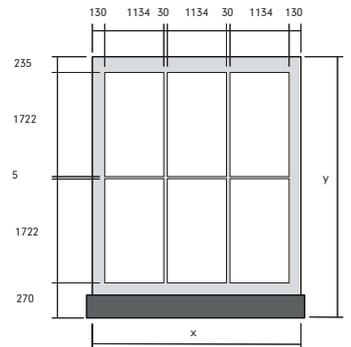
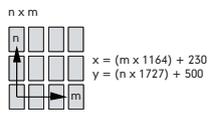
Marley SolarTile® is a roof-integrated solar system accredited with high resistance to spread of flame and fire penetration in all European fire safety tests, achieving B<sub>ROOF</sub> T1, T2, T3 and T4.

## TECHNICAL DATA

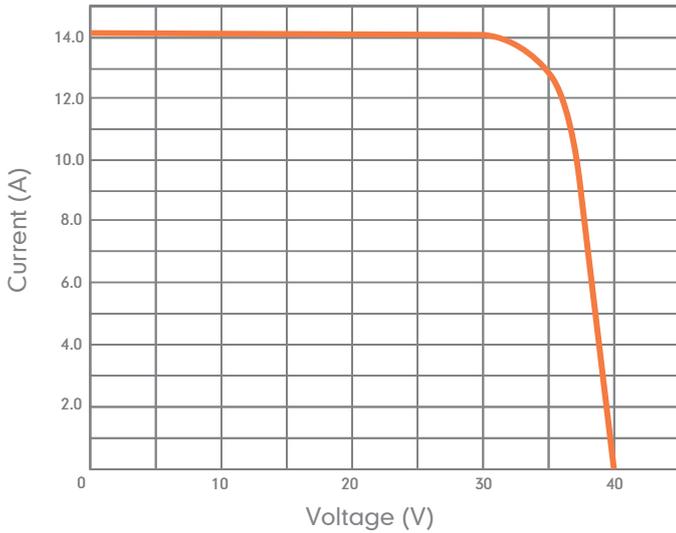
Size of 445Wp panel	1134mm wide x 1722mm high
Aperture area	1.885m <sup>2</sup>
Minimum pitch	20°
Maximum pitch	60°
Body thickness (nominal)	70mm
Weight	28.3kg
Static roof loading	14.5kg/m <sup>2</sup> (distributed)
Characteristic wind resistance	4.65kPa
Ultimate design load**	4.65kPa
Positive design load (IEC 61215)	5.4kPa
Fire rating EN 13501-5	B <sub>ROOF</sub> (T1, T2, T3, T4)
Authority*	IEC 61215, 61730, TUV, MCS05, MCS12
Compatible roof coverings	All Marley concrete and clay plain, and interlocking tiles. Also compatible with tiles and slates of other manufacturers

\*\* Design resistance to ultimate loads includes a partial material safety factor of 1.0

## TYPICAL CONFIGURATION



## IV CURVE



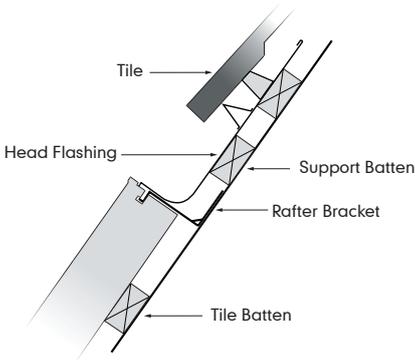
## 445 PANEL - ELECTRICAL DATA

Model	MAPV445AG-M10
Peak power	445Wp
Efficiency*	23.6%
No. of cells	54x2
Max. power voltage ( $V_{mpp}$ )	33.02V
Max. power current ( $I_{mpp}$ )	13.48A
Open circuit voltage ( $V_{oc}$ )	39.90V
Short circuit current ( $I_{sc}$ )	14.18A
NOCT**	42°C
Cell type	N-Type TOPCon
Power temperature co-efficient	-0.29%/°C
Current temperature co-efficient	0.04%/°C
Voltage temperature co-efficient	-0.25%/°C
Max. system voltage	1000 $V_{DC}$
Max. fuse rating (A)	30
Safety classification	Class II
Electrical connectors	Genuine Stäubli MC4 PV-KST4, PV-KBT4

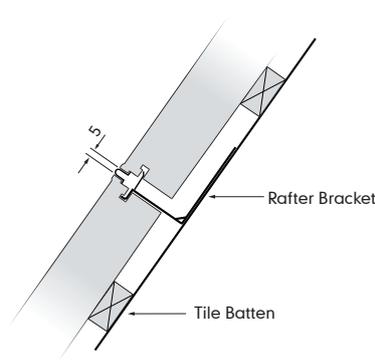
\* Based on aperture area

\*\* Nominal Operating Cell Temperature Electrical specification measured under standard test conditions: Irradiation 1 kW/m<sup>2</sup> with light spectrum AM 1.5 and a cell temperature of 25°C.

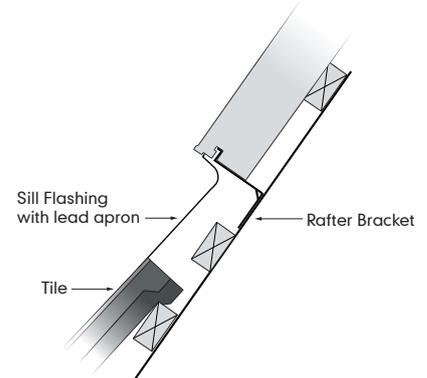
### HEAD DETAIL



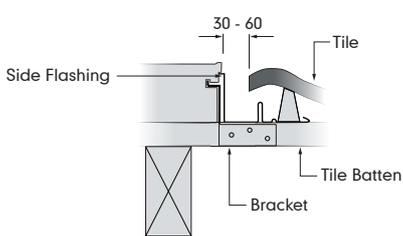
### JOIN DETAIL



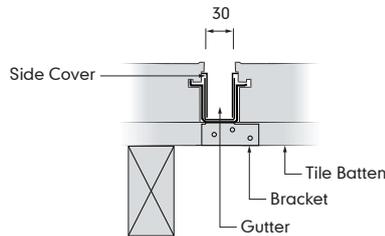
### SILL DETAIL



### SIDE DETAIL



### GUTTER DETAIL



## Specification toolkit

Marley provides a comprehensive technical service and a range of online tools to ensure design performance and compliance to the latest Building Regulations and NHBC Technical Standards.

- ▲ Fixing specifications
- ▲ NBS clause
- ▲ CAD details

Visit [marley.co.uk/specifying](https://www.marley.co.uk/specifying)

# Tell me more

Call 01283 722588

Email [info@marley.co.uk](mailto:info@marley.co.uk)

Or visit [marley.co.uk/solar](https://www.marley.co.uk/solar)

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