

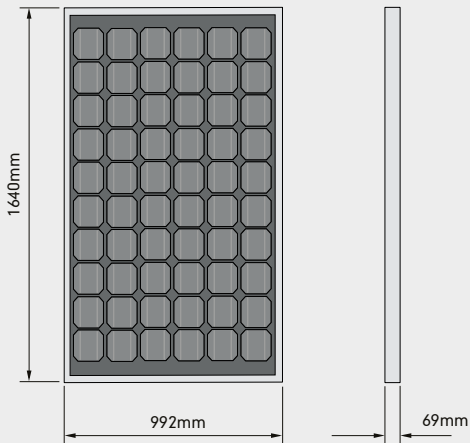
Marley SolarTile®



Marley SolarTile® photovoltaic panels offer the genuine cost-saving benefits of using renewable energy to help power our homes, along with sleek aesthetics and long-lasting, maintenance-free performance.



- ▲ Integrated with full Marley roof system and all tile types
- ▲ Renewable energy to reduce household bills
- ▲ Very low profile and unobtrusive
- ▲ Lightweight, compact and simple to install
- ▲ Market-leading fire performance*
- ▲ Exceptional industry leading wind resistance performance
- ▲ 15 year guarantee



* Marley SolarTile® is Clearline Fusion a Viridian Solar product and the only roof-integrated solar system accredited with the highest resistance to spread of flame and fire penetration in all European fire tests.

PITCHED ROOF INTEGRATION

Sleek, low-profile integrated solar that replaces the roof covering for an improved aesthetic and for simple roof maintenance, now at similar cost to above-roof panels.

WIND RESISTANCE

The certified wind resistance for Marley SolarTile®* is more than four times higher than competitor products and suitable for even the most exposed locations.

FIRE

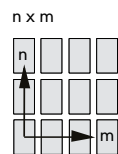
Marley SolarTile®* is the only roof-integrated solar system accredited with the highest resistance to spread of flame and fire penetration in all European fire safety tests, achieving B_{ROOF} T1, T2, T3 and T4.

TECHNICAL DATA

Size of PV16 panel	992mm wide x 1640mm high
Aperture area	1.6m ²
Minimum pitch	20°
Maximum pitch	60°
Body thickness (nominal)	69mm
Weight	21kg
Static roof loading	12.9kg/m ² (distributed)
Characteristic wind resistance	5.32kPa
Ultimate design load**	5.32kPa
Positive design load (IEC 61215)	5.4kPa
Fire rating EN 13501-5	B _{ROOF} (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

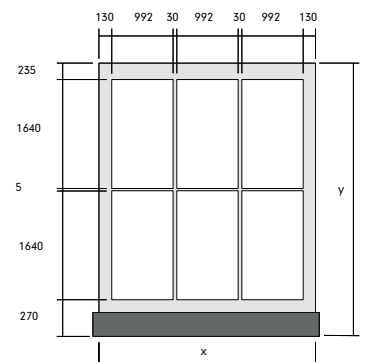
** Design resistance to ultimate loads includes a partial material safety factor of 1.0

TYPICAL CONFIGURATION

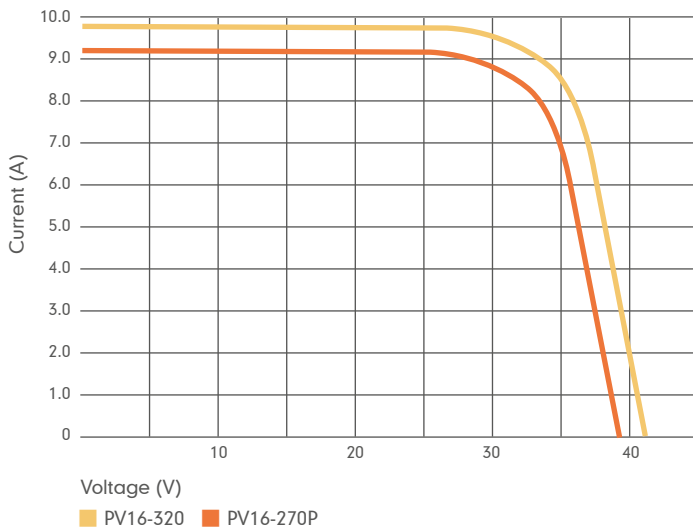


$$x = 260 + (m \times 992) + ((m-1) \times 30)$$

$$y = 505 + (n \times 1640) + ((n-1) \times 5)$$



IV CURVES

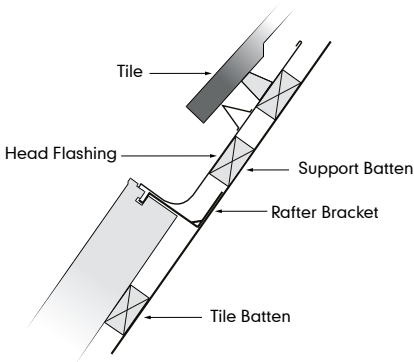


ELECTRICAL DATA

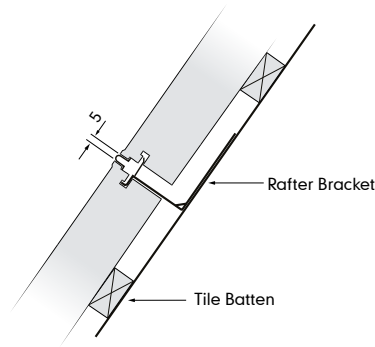
Model	PV16-270P	PV16-300	PV16-320
Peak power	270W _p	300W _p	320W _p
Efficiency	17.3%	19.2%	20.5%
No. of cells	60	60	60
Max. power voltage (V_{mpp})	30.7V	33.1V	34.0V
Max. power current (I_{mpp})	8.8A	9.1A	9.4A
Open circuit voltage (V_{oc})	37.3V	40.1V	41.6V
Short circuit current (I_{sc})	9.3A	9.6A	9.8A
NOCT*	45°C	45°C	45°C
Cell type	Poly	Mono	Mono
Power temperature co-efficient	-0.4%/°C	-0.45%/°C	-0.45%/°C
Current temperature co-efficient	0.06%/°C	0.06%/°C	0.06%/°C
Voltage temperature co-efficient	-0.30%/°C	-0.34%/°C	-0.34%/°C
Max. system voltage	1000 V _{DC}	1000 V _{DC}	1000 V _{DC}
Safety classification	Class II	Class II	Class II

*Nominal operating cell temperature

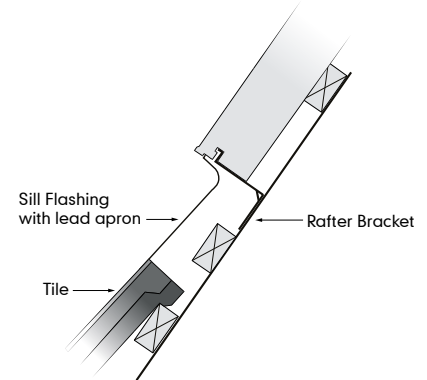
HEAD DETAIL



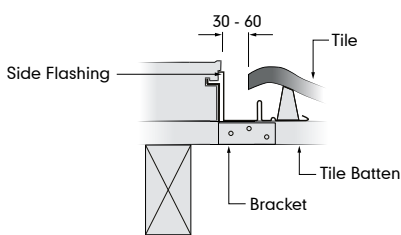
JOIN DETAIL



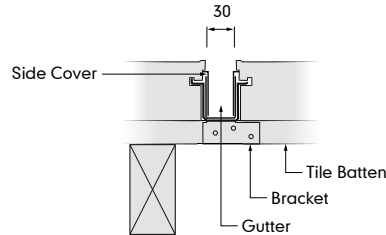
SILL DETAIL



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 clauses
- ▲ CAD details
- ▲ BIM models

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