PV20/330 PV30/500
Solar Photovoltaic Panels

Clearline® PV

- Simple roof integration with clean, low-profile aesthetic for new build and retrofit
- Range of sizes can be joined or spaced apart on the roof
- Compatible with the widest range of roof coverings
- Fitted during the normal roofing programme, enabling clarity of responsibility and safe working practices
- Properly tested as a building material
- Combines seamlessly with Clearline heating panels

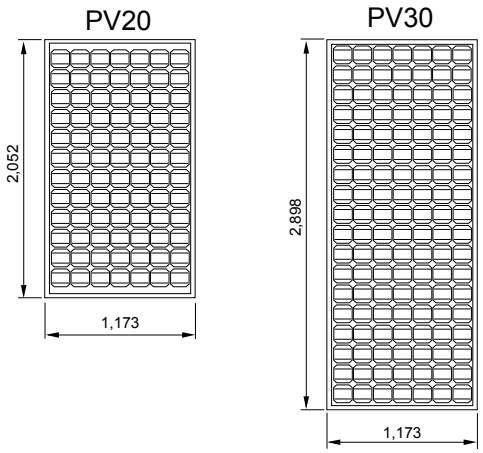
Mechanical Specification

Model	PV	20/330	30/500
Aperture Area	m^2	2.1	3.0
Width (across roof)	mm	1,173	1,173
Height (up roof)	mm	2,052	2,898
Thickness	mm	82	82
Weight	kg	41.0	57.0
Static roof loading (distributed)	kg / m^2	17.0	16.8
Characteristic Wind Resistance	kPa	3.4	
Ultimate Design Load [1]	kPa	2.4	
Fire Rating to BS 476-3		AA	
Power Warranty	% rated	90%10 years, 80% 25 years	
Standards		IEC61215, 61730, TUV, MCS, BBA	

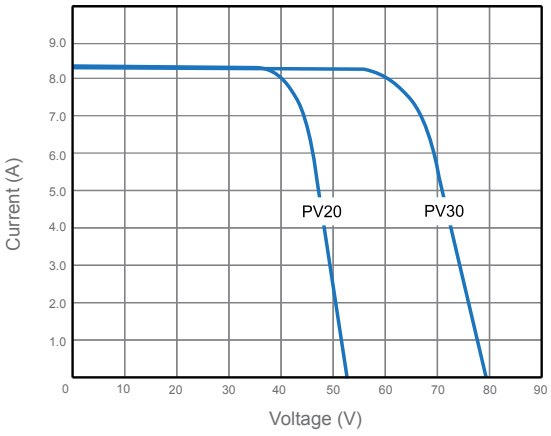
Clearline PV solar panels have been thoroughly tested, not only as energy generating equipment, but also as a building component and were the first solar pv panel to achieve a BBA certificate.

Electrical Specification

Model	PV	20/330	30/500
Peak Power [2]	Wp	330	500
Module Efficiency [3]	%	15.7	16.7
Number of Cells		84	126
Maximum Power Voltage (V_{mpp})	V	42.5	63.3
Maximum Power Current (I_{mpp})	A	7.8	7.9
Open Circuit Voltage (V_{oc})	V	53.0	79.5
Short Circuit Current (I_{sc})	A	8.4	8.5
NOCT [4]	°C	44.6	44.6
Cell Type		Monocrystalline Silicon	
Maximum System Voltage	V_{DC}	1,000	
Power Temperature Coefficient	% / °C	-0.509	-0.509
Current Temperature Coefficient	% / °C	0.043	0.043
Voltage Temperature Coefficient	% / °C	-0.337	-0.337
Safety Classification		Class II	



I-V Curves



Also available

Clearline Fusion

Clearline
Solar heating panels

Pod PV

1 Design resistance to ultimate loads includes a partial material safety factor of 1.44
2 Subject to a manufacturing tolerance of +0 /+3%.
3 Based on aperture area.
4 Nominal Operating Cell Temperature
Electrical specification measured under standard test conditions: Irradiation 1 kW/m^2 with light spectrum AM 1.5 and a cell temperature of 25°C.

viridian® solar

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Clearline® PV

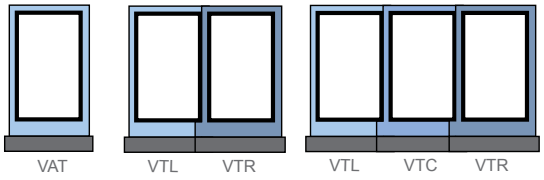
Pitched Roof Integration

Clearline solar panels are only 82mm thin and fit over tile battens with no modification to the roof structure. When integrated with rolling tiles, the panels finish flush with the tile surface. Connections are neatly tucked away behind and hidden from sight. The choice of panel sizes, together with options to install either joined together or spaced apart on the roof, gives a wide range of options to integrate renewable energy and remain in harmony with the building design.



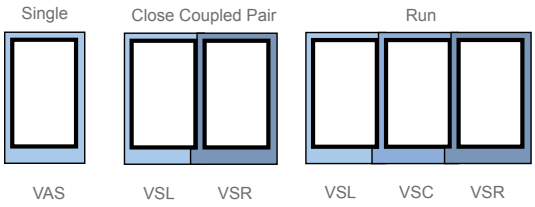
T Series
Tiled Roof

Interlocking and plain tiles
thickness>19mm
Pitch 20-60°

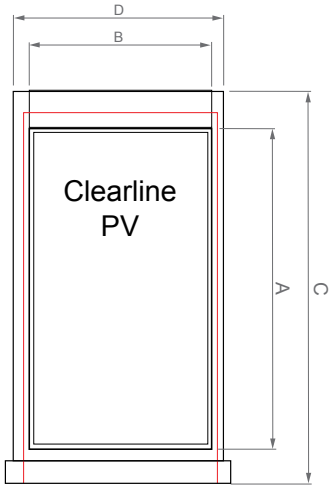


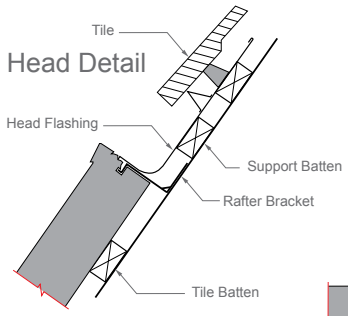
S Series
Slate Roof

Natural and artificial slates
thickness<10mm
Pitch 20-60°

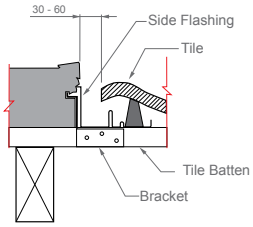


T Series Flashings

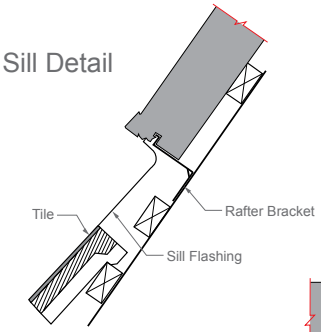


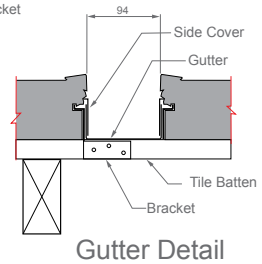


		PV20	PV30
A	mm	2,052	2,898
B	mm	1,173	1,173
C	mm	2,543	3,389
D	mm	1,362	1,362



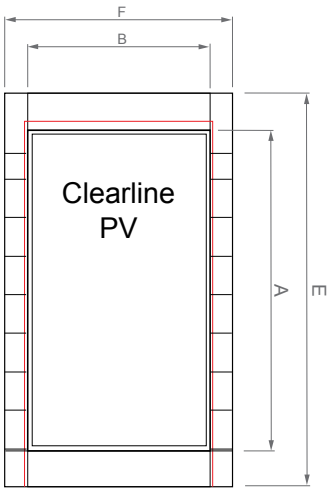
Side Detail

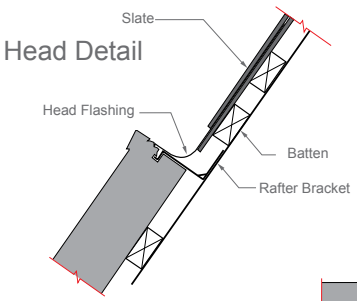




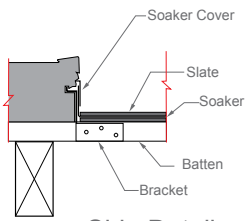
Gutter Detail
(joined flashings)

S Series Flashings

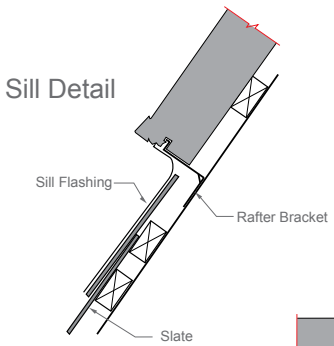


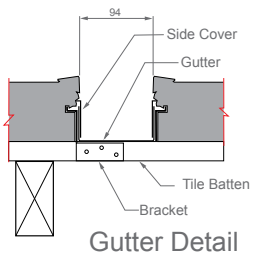


		PV20	PV30
A	mm	2,052	2,898
B	mm	1,173	1,173
E	mm	2,543	3,389
F	mm	1,449	1,449



Side Detail





Gutter Detail
(joined flashings)

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