

# PV16 Solar Photovoltaic Panels



(PV16-250)

- Simple roof integration with clean, low-profile aesthetic for new build and retrofit
- Rapid installation times of less than 1hour/kWp easily achieved
- Compatible with the widest range of slate and tile including special fixings for Scottish slate roofs
- Fitted during the normal roofing programme, enabling clarity of responsibility and safe working practices
- Achieves highest fire rating and wind resistance without modifications to the roof

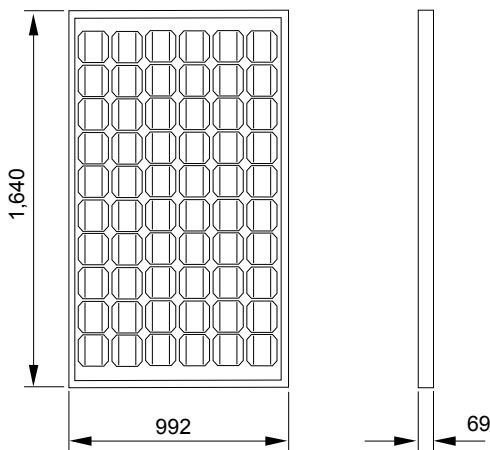
## Mechanical Specification

Model		<b>PV16</b>
Aperture Area	m <sup>2</sup>	1.6
Width (across roof)	mm	992
Height (up roof)	mm	1,640
Thickness	mm	69
Weight	kg	21.0
Static roof loading (distributed)	kg / m <sup>2</sup>	12.9
Characteristic Wind Resistance	kPa	5.32
Ultimate Design Load <sup>1</sup>	kPa	5.32
Fire Rating to BS 476-3		AA
Power Warranty	% rated	90% 10 years, 80% 25 years
Standards		IEC61215, 61730, TUV, MCS05, MCS12

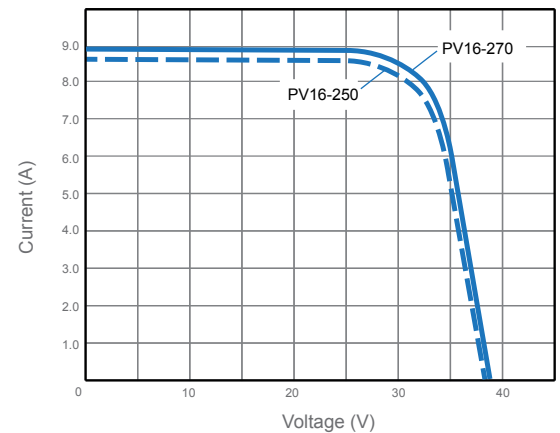
Clearline PV solar panels have been thoroughly tested, not only as energy generating equipment, but also as a building component.

## Electrical Specification

Model	<b>PV16-</b>	<b>260P</b>	<b>250</b>	<b>270</b>
Peak Power <sup>2</sup>	Wp	260	250	270
Module Efficiency <sup>3</sup>	%	16.6	16.0	17.3
Number of Cells		60	60	60
Maximum Power Voltage (V <sub>mpp</sub> )	V	30.0	30.4	31.7
Maximum Power Current (I <sub>mpp</sub> )	A	8.7	8.2	8.5
Open Circuit Voltage (V <sub>oc</sub> )	V	37.8	38.0	38.4
Short Circuit Current (I <sub>sc</sub> )	A	9.0	8.7	9.0
NOCT <sup>4</sup>	°C	43.4	45.0	
Cell Type ( -crystalline Silicon)		Poly-	Mono-	
Power Temperature Coefficient	% / °C	-0.403	-0.450	
Current Temperature Coefficient	% / °C	0.054	0.060	
Voltage Temperature Coefficient	% / °C	-0.296	-0.340	
Maximum System Voltage	V <sub>DC</sub>	1,000		
Safety Classification		Class II		



## I-V Curves



250/270

260P-B

260P-W

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

2 Subject to a manufacturing tolerance of +0 /+3%.

3 Based on aperture area.

4 Nominal Operating Cell Temperature

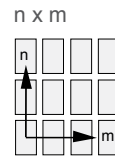
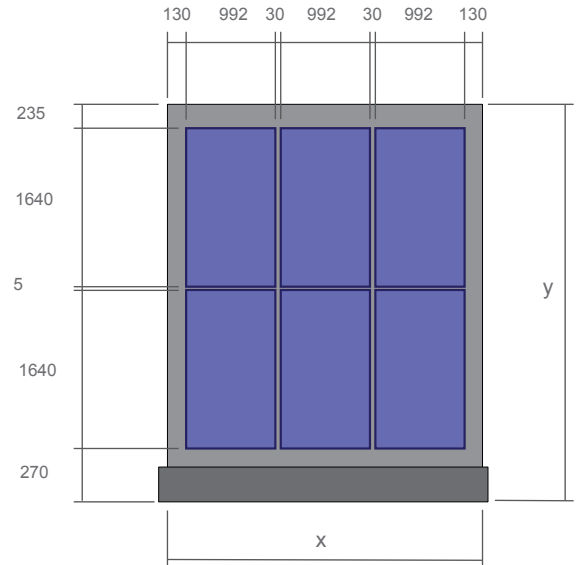
Electrical specification measured under standard test conditions: Irradiation 1 kW/m<sup>2</sup> with light spectrum AM 1.5 and a cell temperature of 25°C.



### Pitched Roof Integration

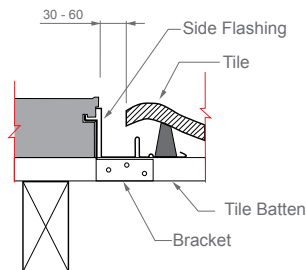
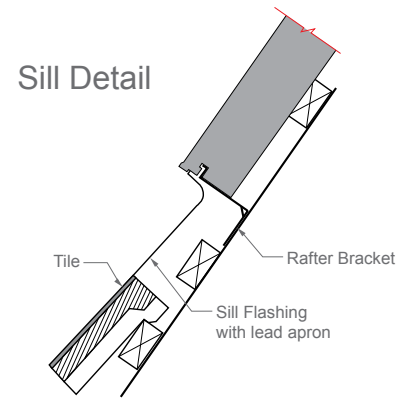
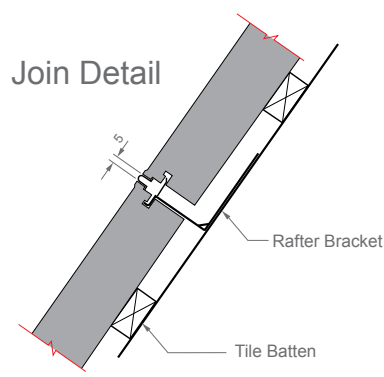
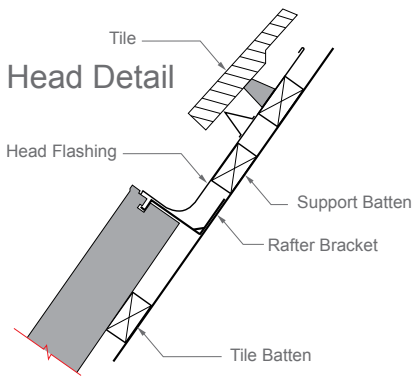
Sleek, low-profile integrated solar that replaces the roof covering for an improved aesthetic and for simple roof maintenance, now at similar cost to above-roof panels. Simple, beautiful, durable.

Solar never looked so good.

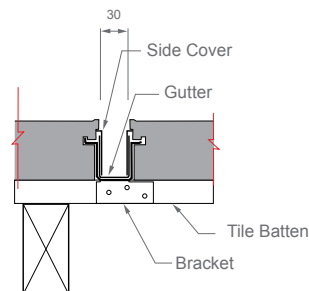


$$x = 260 + (m \times 992) + ((m-1) \times 30)$$

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



Side Detail



Gutter Detail  
(joined flashings)