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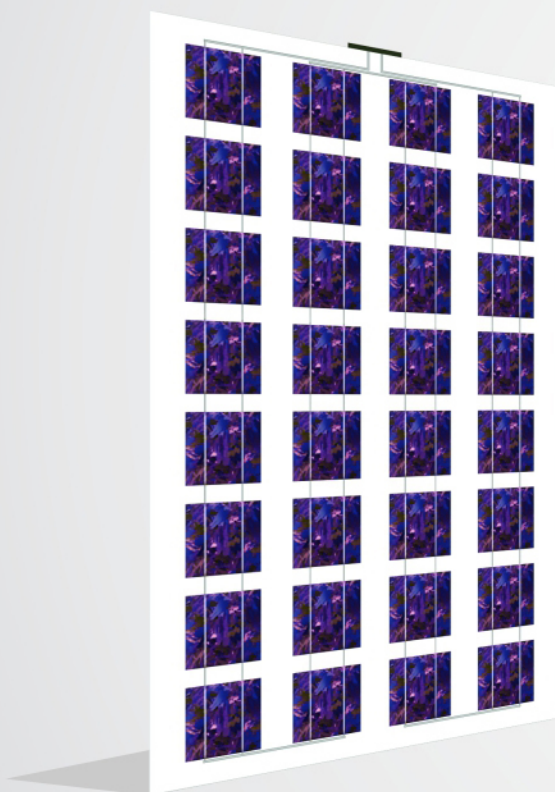
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**Solar Panel Guide**

**Specification Data Sheet**

Learn more at [energypal.com/best-solar-panels-for-homes](https://energypal.com/best-solar-panels-for-homes)



# Sapphire Series

## Building Integrated Photovoltaic Module

- Glass to Glass Module
- Transparent Back Sheet

Navitas Solar's BIPV Modules are best in class in terms of Performance and Reliability.

Our meticulous product design and stringent quality control ensures our modules deliver an exceptionally high PV yield.

### Positive Power Tolerance

Up to 3W

10 Years

Product Warranty

25 Years

Performance Warranty



Aesthetically Designed



Highly Reliable Due to Stringent Quality Control

- 100% EL Tested Before and After Lamination
- Over 30 In-house Tests



Tailor-made solutions

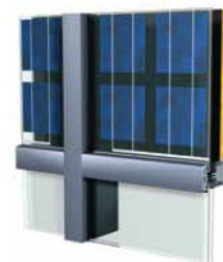
- Solutions are all tailor-made to fit specific Project requirements.

## Opaque Panels

- Incorporation of opaque, crystalline high performance sun panels in the facade allows coverage of the building structure and concrete walls. Insulation behind the opaque panels ensures the necessary thermal barrier. Both see-through and opaque panels can be combined in the same facade.

## See-Through Panels

- Transparent crystalline photovoltaic panels, in combination with aluminium profiles, can easily be integrated in facades and roofs. See-through panels are available in a large range of applications, dimensions, shapes, colours and transparency. The panels can also be thermally insulated, laminated and tempered for security reasons. By adjusting the distance between cells, it is possible to regulate the light transmittance and the shade effect inside the building.



## DIFFERENT BIPV POSSIBILITIES

### DOUBLE SHEET, SEE-THROUGH



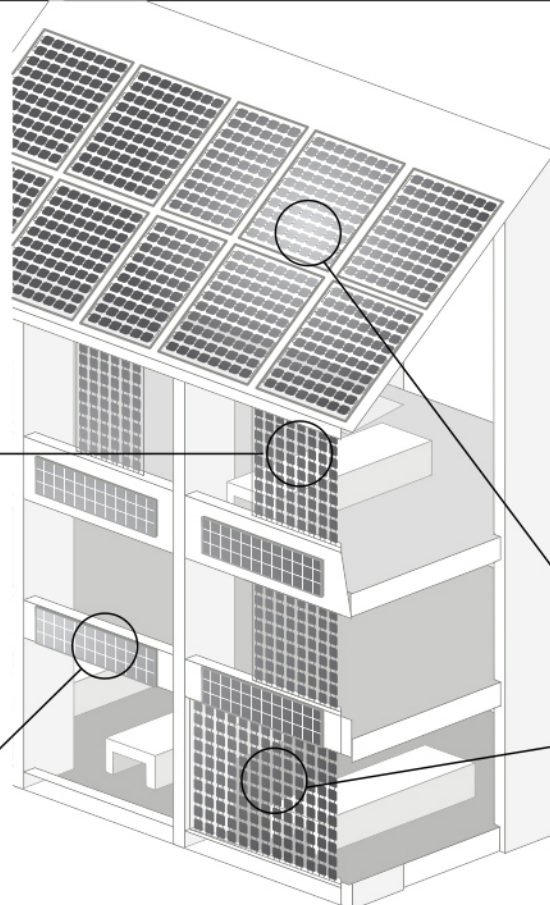
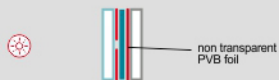
### TRIPLE SHEET, SEE-THROUGH



### SINGLE SHEET, OPAQUE

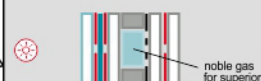


### SINGLE SHEET, OPAQUE



- glass
- low iron toughened glass
- spacer
- noble gas
- PVB foil
- tedlar foil
- solar cell
- low emission coating

### DOUBLE SHEET, SEE-THROUGH WITH SAFETY INTERNAL GLASS



### TRIPLE SHEET, SEE-THROUGH WITH SAFETY INTERNAL GLASS



## ELECTRICAL DATA\*

Peak Power Watts (Pmax)	300W	280W	250W	230W	200W	180W	150W
Maximum Power Voltage (Vmp)	36.1	35.6	30.1	29.5	26.74	29	28.8
Maximum Power Current (Imp)	8.3	7.86	8.3	7.82	7.48	6.2	5.2
Open-circuit Voltage (Voc)	44.6	44.2	37.2	36.6	32.65	36.6	36.6
Short-circuit Current (Isc) (A)	8.87	8.42	8.87	8.6	8.1	6.82	5.73
Operating Temperature (°C)	-40°C~+85°C						
Maximum system Voltage	1000V						
Maximum series fuse rating	15A						

### Temperature Characteristics

Specification	Data
Temperature Co-efficient (Pmx)	- 0.41%
Temperature Co-efficient (Voc)	- 0.34%
Temperature Co-efficient (Isc)	+ 0.06%
Nominal Operating Cell Temperature	45 ± 2°C

### Mechanical Data

Specification	Data	
Cell Type	Mono / Multi Crystalline	
Cell Arrangement	Custom Designed	
Dimensions	1949 x 977 x 8mm	1639 x 977 x 8mm
Weight	39Kgs	33Kgs
Front Cover	3.2mm Glass	
Junction Box	IP 65	
Cable	2.5mm <sup>2</sup> / 4mm <sup>2</sup> & 12 AWG 1000V	
Connectors	MC4 Compatible	
Standard Packaging	20 Pcs 780Kg	20 Pcs 660Kg (Qty & weight per pallet)
Module Pieces Per Container	520 Pcs (40 HQ)	560 Pcs (40 HQ)

## STC



Irradiance 1000W/m<sup>2</sup>

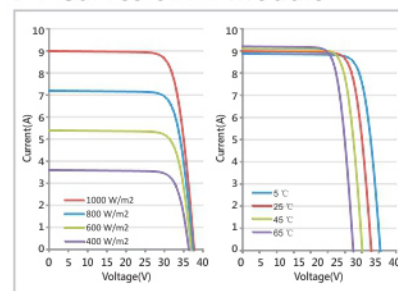


Cell Temperature 25°C



AM = 1.5

## I-V Curves of PV Module



\*The above data liable to change without prior notice.