

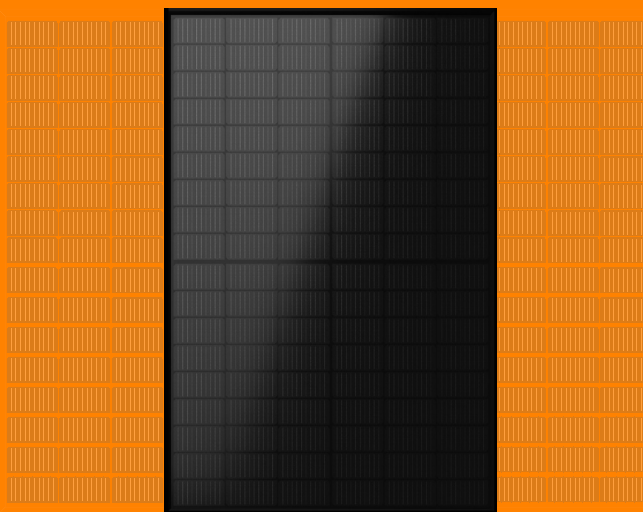


45% Uplift Approved Panel

InstaGen 435W panels

182mm Half cell series 108-cell
TOPCon Bifacial all black
monocrystalline solar module

435W



22.3%

Module Efficiency

435W

Highest power output

25 years

Product Guarantee

30 years

Linear Power
Warranty

-1.00% First year power degradation

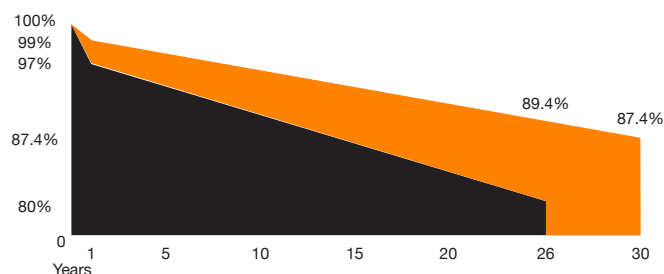
-0.40% Annual degradation

Key features

- ★ **High module conversion efficiency**
Module efficiency up to 22.3% achieved through advanced cell technology and manufacturing process
- ★ **Lower operating temperature**
Lower operating temperature and temperature coefficient increase the power output
- ★ **Excellent weak light performance**
More power output in weak light condition, such as cloudy, morning and sunset
- ★ **Extended wind and snow load tests**
Module certified to withstand extreme wind (2400 Pascal) and snow loads(5400 Pascal)
- ★ **IP68 junction box**
High waterproof and dustproof level

Warranty

- Our Linear power guarantee
- Standard linear power guarantee



Guarantees

25 years

Enhanced product
guarantee on panels

30 years

Linear power output
warranty

Product Certificates



For InstaGen enquiries email productsales@instagroup.co.uk

InstaGen Solar PV Panels

ELECTRICAL DATA		435
Maximum Power Watts-Pmax*(Wp)*		435W
Maximum Power Voltage-Vmp (V)		32.7
Maximum Power Current-Imp (A)		13.31
Open Circuit Voltage (Voc/V)		39.3
Short Circuit Current (Isc/A)		14.10
Module Efficiency ηm (%)		22.3
Power Tolerance (W)		0~+5
STC: Irradiance 1000W/m², module temperature 25°C, AM=1.5; *Measuring tolerance: ±3%		

ELECTRICAL CHARACTERISTICS WITH DIFFERENT REAR SIDE POWER GAIN	
Peak Power Pmax (Wp)*	525
Max Power Voltage-Vmp (V)	32.1
Max power Current-Imp (A)	16.36
Open-Circuit Voltage-Voc (V)	38.7
Short-Circuit Current-Isc (A)	17.26
Pmax gain	25%
Power Bifaciality: 70±5%	

ELECTRICAL DATA (NMOT)		435
Maximum Power Watts-Pmax*(Wp)*		333
Maximum Power Voltage-Vmp (V)		30.8
Maximum Power Current-Imp (A)		10.82
Open Circuit Voltage (Voc/V)		37.2
Short Circuit Current (Isc/A)		11.41
NMOT: Irradiance 800W/m², module temperature 20°C, AM=1.5; wind speed 1m/s		

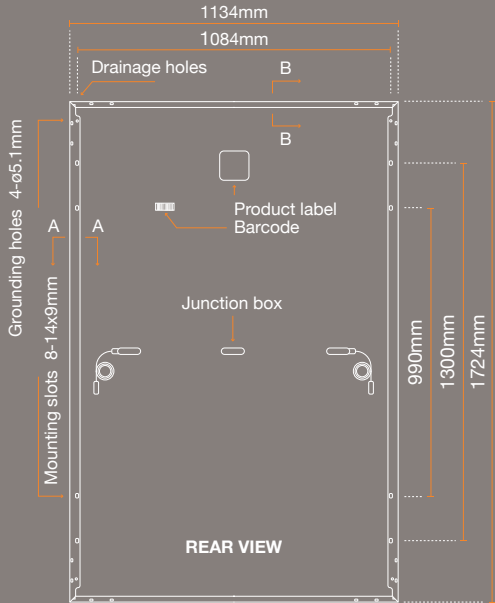
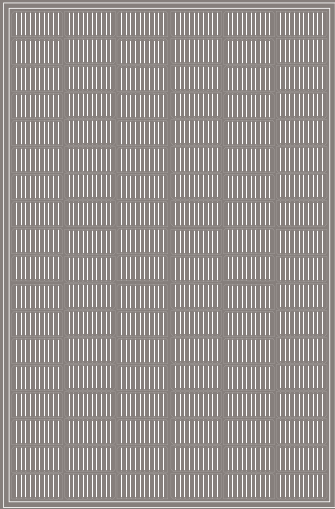
MECHANICAL SPECIFICATION	
Solar Cells	N-Type TOPCon Monocrystalline 182x91 mm
Cell Orientation	108 cells (6x18)
Module Dimensions	1724x1134x30mm
Weight	25.1 kg
Front Glass	2.0mm tempered glass
Encapsulant Material	POE/EVA
Back Glass	2.0mm semi-tempered glass
Frame	30mm Anodized Aluminium Alloy
No. of Bypass Diodes	3/6
Frame	Anodized Aluminium Alloy
Junction Box	IP68
Cables	Photovoltaic Technology cable 4.0mm² Cable length 350mm or customised length
*Please refer to regional datasheet for specified connector	

TEMPERATURE RATINGS	
NMOT	42°C (±2%)
Temperature Coefficient Pmax	-0.30%/°C
Temperature Coefficient Voc	-0.25%/°C
Temperature Coefficient Isc	+0.045%/°C
(Do not connect Fuse in Combiner box with two or more strings in parallel connection)	

MAXIMUM RATINGS	
Operating Temperature	-40°C to +85°C
Maximum System Voltage	1500V DC (IEC)
Max Series Fuse Rating	25A

Packing configuration - 36 pcs/carton, 936 pcs/container

TECHNICAL DIAGRAMS



IV CURVE

