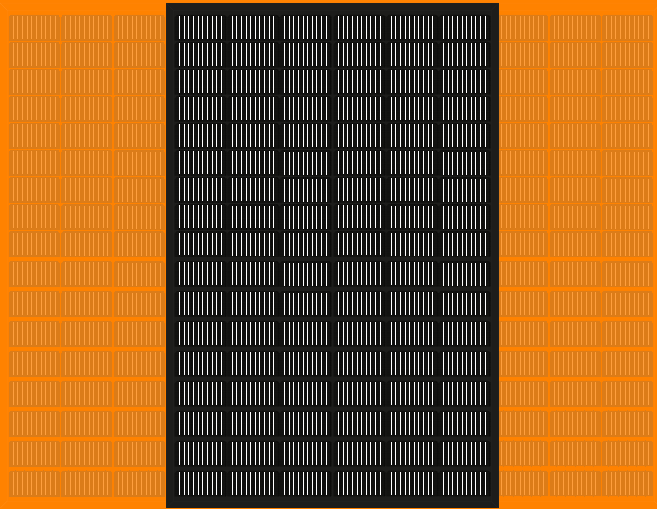




# 182mm Half Cell Series

182mm Half cell series 108-cell half cut monocrystalline solar module

# 410W



**21%**  
Module Efficiency

**410W**  
Power output

**12 years**  
Material & Workmanship  
Warranty

**25 years**  
Linear Power  
Warranty

-2.00% First year power degradation

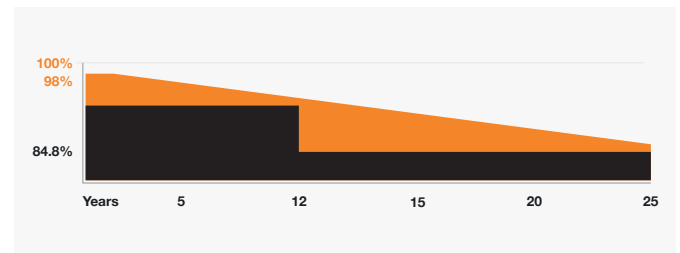
-0.55% Annual degradation

## Key features

- 10BB half-cut cell technology**  
 New circuit design, lower internal current, lower Rs loss Ga doped wafer, attenuation <2% (1st year) / ≤0.55% (Linear)
- Significantly lower the risk of hot spot**  
 Special circuit design with much lower hot spot temperature
- Lower LCOE**  
 2% more power generation, lower LCOE
- Excellent Anti-PID performance**  
 2 times of industry standard Anti-PID test by TUV SUD
- IP68 junction box**  
 High waterproof level

## Warranty

- Our Linear power guarantee
- Standard linear power guarantee



## Guarantees

**12 years**

Enhanced product guarantee on product and workmanship

**25 years**

Linear power output warranty

## Product Certificates



For InstaGen enquiries email [productsales@instagroup.co.uk](mailto:productsales@instagroup.co.uk)

# InstaGen Solar PV Panels

ELECTRICAL PARAMETERS		410
Maximum Power (Pmax)*		410W
Operating Voltage (Vmp/V)		31.6
Operating Current (Imp/A)		12.98
Open Circuit Voltage (Voc/V)		37.45
Short Circuit Current (Isc/A)		13.88
Module Efficiency $\eta_m$ (%)		21
Power Tolerance (W)		0~+5

STC: Irradiance 1000W/m<sup>2</sup>, module temperature 25°C, AM=1.5; \*Measuring tolerance: ±3%

PERFORMANCE AT NMOT		410
Maximum Power (Pmax/W)		309
Operating Voltage (Vmp/V)		29.2
Operating Current (Imp/A)		10.62
Open-Circuit Voltage (Voc/V)		35.2
Short-Circuit Current (Isc/A)		11.16

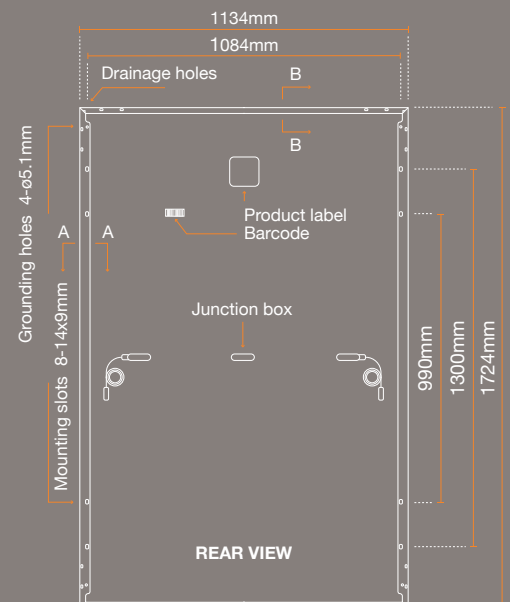
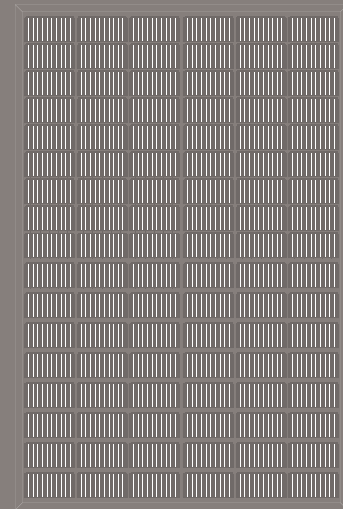
NMOT: Irradiance 800W/m<sup>2</sup>, ambient temperature 20°C, AM=1.5, wind speed 1m/s

MECHANICAL SPECIFICATION	
Cell Type	Monocrystalline
Cell Dimensions	182*182 mm
Cell Arrangement	108 (6*18)
Weight	21 kg
Module Dimensions	1724*1134*30 mm
Cable Length	350 mm or customized length
Cable Cross Section Size	TÜV: 4 mm <sup>2</sup>
Front Glass	3.2 mm AR Coating Tempered Glass
No. of Bypass Diodes	3/6
Packing Configuration	36 pcs/Carton, 936 pcs/40HQ
Frame	Anodized Aluminium Alloy
Junction Box	IP68

OPERATING CONDITIONS	
Maximum System Voltage	1500V/DC(IEC)
Operating Temperature	-40°C to +85°C
Maximum Series Fuse	25A
Static Loading	Snow Loading: 5400Pa / Wind Loading: 2400Pa
Conductivity at Ground	≤0.1Ω
Safety Class	II
Resistance	≥100MΩ
Connector	MC4 compatible

TEMPERATURE COEFFICIENT	
Temperature Coefficient Pmax	-0.34%/°C
Temperature Coefficient Voc	-0.25%/°C
Temperature Coefficient Isc	+0.040%/°C
NMOT	42±2°C

## TECHNICAL DIAGRAMS



## IV CURVE

