

InstaGenONE

Plug In Solar Kit

Let's light up an easier path to home solar.



Plug-in PV tech is the simplest way into home solar and energy savings. InstaGroup brings the expertise to take you there when you're ready.

1 Set it up

Unbox with care and mount it in an ideal spot, pitched at around 35 degrees. Choose an area in the garden that receives the most sunshine, and position accordingly.



2 Plug it in

Connect to a standard socket to start generating and saving.



3 Watch it go to work

Track performance from the palm of your hand on the dedicated app.

Simply connect your microinverter and go!



InstaGen ONE Plug-in solar is the easiest way to start generating your own electricity, our certified kits can connect straight to a household socket. **It's solar you can start with today.**

Most plug-in solar tech comes in a box and leaves you to it. Not with InstaGroup.

When you're ready to go even further with a full roof system, battery storage, or a heat pump, the same experts guide you every step of the way, with government-backed finance available on qualifying installed systems. **Start small and grow when you're ready.**

One partner the whole way.

Boxed product dimensions / 1820mm x 1190mm x 125mm

Approx. product weight / 63kg



instagen.co.uk



435W Solar Panel



Key features

High module conversion efficiency

Module efficiency up to 22.3% achieved through advanced cell technology and manufacturing processes.

Lower operating temperature

Lower operating temperature and temperature coefficient increase the power output.

Excellent weak light performance

More power output in weak light conditions, such as cloudy, morning and sunset.

Extended wind and snow load tests

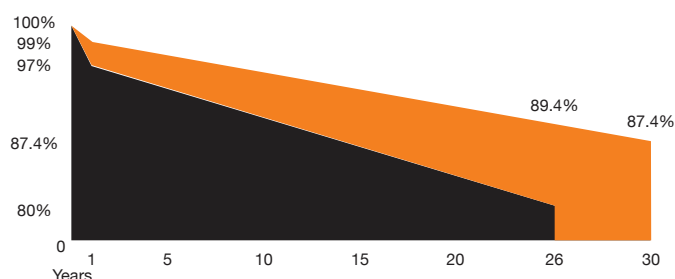
Module certified to withstand extreme wind (2400 Pascal) and snow loads (5400 Pascal).

IP68 junction box

High waterproof and dustproof level.

Warranty

- Our linear power guarantee
- Standard linear power guarantee



22.3%

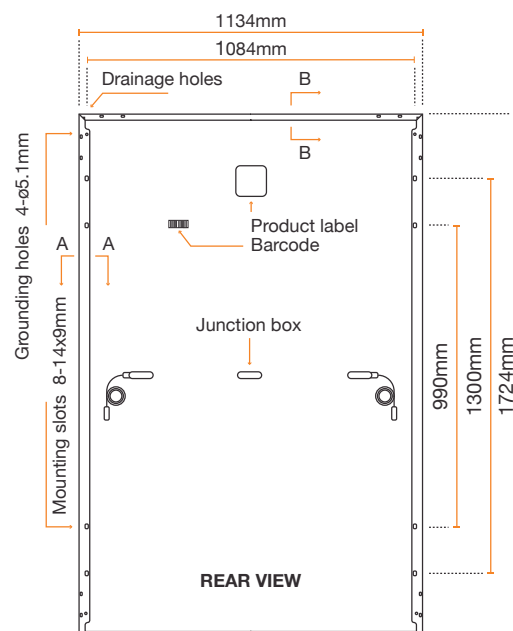
Module efficiency

1 Year

Product guarantee

10 Year

Linear power warranty





Electrical data

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 η_m (%)	22.3
Power Tolerance (W)	0~+5

STC: Irradiance 1000W/m², module temperature 25°C, AM=1.5;
*Measuring tolerance: $\pm 3\%$

Electrical characteristics with different rear side power gain

Peak Power Pmax (Wp)*	525
Maximum Power Voltage-Vmp (V)	32.1
Maximum 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 $\pm$ 5%

Electrical data (NMOT)

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

Temperature ratings

NMOT	42°C ($\pm 2\%$)
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)	
Operating temperature	42°C ($\pm 2\%$)
Maximum System Voltage	-0.30%/°C
Max Series Fuse Rating	-0.25%/°C

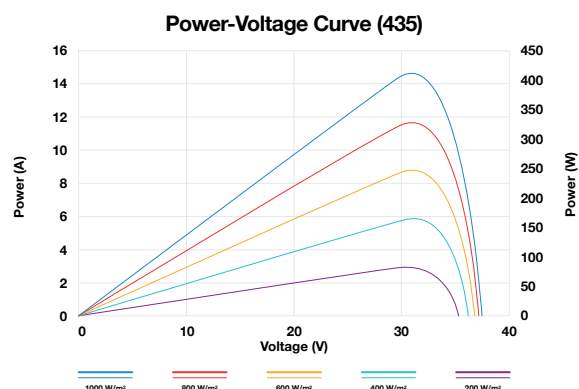
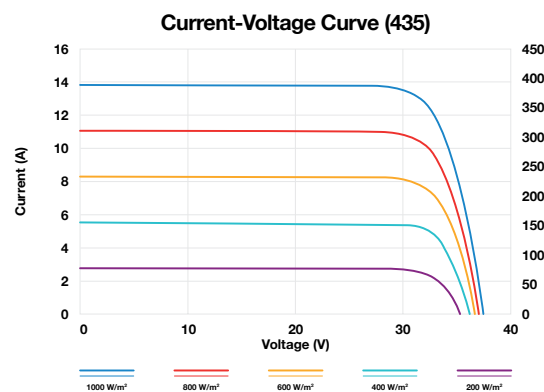
Packing configuration - 36 pcs/carton, 936 pcs/container

Mechanical specification

Solar cells	N-Type TOPCon Monocrystalline 182x91 mm
Cell orientation	108 cells (6x18)
Module Dimensions (mm)	1724 x 1134 x 30
Weight (kg)	25.1
Front glass	2.0mm tempered glass
Encapsulant material	POE/EVA
Back glass	2.0mm semi-tempered glass
No. of Bypass Diodes	3/6
Frame	Anodized Aluminium Alloy
Junction Box	IP68
Cables	Photovoltaic Technology cable 4.0mm ² - Cable length 350mm or customised length

*Please refer to regional datasheet for specified connector

IV Curve



InstaGenONE

800VA Microinverter



Key features

Easy installation and configuration

Plug-and-play connectivity with built-in Wi-Fi and Bluetooth enables quick setup and registration-free device management.

Rugged long-term reliability

IP67 protection, -40°C to 65°C operation, and a 12-year warranty ensures dependable performance in all environments.

Maximum energy optimisation

97% peak efficiency and 99.8% MPPT efficiency maximise solar energy utilisation and power generation performance.

Advanced integration protection

GDPR and RED-EN 18031 compliance with one-second voltage shutdown delivers enhanced electrical and data security.

800VA

Maximum
output

97%

Peak
efficiency

99.8%

MPPT
efficiency

Input data (DC)

Commonly used module power (W)	320 to 520+
Maximum input voltage (V)	100
MPPT voltage range (V)	16 to 96
Peak MPPT voltage range (V)	54 to 80
Min./Max. start voltage (V)	22/96
Maximum input current (A)	16
Maximum input short circuit current (A)	25
Peak short-circuit current (A)	5.8
Number of MPPTs	1
Number of inputs per MPP	1
Maximum inverter backfeed current to the array (A)	0
DC overvoltage category	II

Output data (AC)

Rated output power (VA)	800
Rated output current (A)	3.48

Output data (AC) (cont.)

Nominal output voltage/range (V)*	230/184 to 276
Nominal frequency/range (Hz)*	50/45 to 55
Adjustable power factor (@nominal power)	>0.99 default 0.8 leading ... 0.8 lagging
Total harmonic distortion (@nominal power)	<3%
AC port backfeed under single fault (A)	0
AC overvoltage category	II



Plug and Play Cable

Connector type	Flex-S3 AC connector
Cable size (mm ²)	1
Cable length (m)	5
Plug type	BS 1363-1 plug with BS 1362 5A fuse

Efficiency

Peak efficiency	97.0%
European weighted efficiency	96.0%
Nominal MPPT efficiency	99.8%
Night power consumption (mW)	<50

Mechanical data

Ambient temperature range (°C)	-40 to +65
Storage temperature range (°C)	-40 to +85
Dimensions (W × H × D [mm])	213 × 182.5 × 36.5 (Excluding Connectors and Brackets)
Weight (kg)	2.1
Enclosure rating	Outdoor - IP67
Cooling	Natural convection – No fans

Features

Communication with cloud	2.4 GHz Wi-Fi
Communication with local app	BLE
Topology	Galvanically Isolated HF Transformer
Monitoring	S-Miles Cloud (Hoymiles Monitoring Platform)

Compliance

Standards	VDE-AR-N 4105: 2018, EN 50549-1: 2019, VFR 2019, IEC/EN 62109-1/-2, IEC/EN 61000-6-1/-2/-3/-4, IEC/EN 61000-3-2/-3
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* Nominal voltage/frequency range can vary depending on local requirements.

** Refer to local requirements for exact number of microinverters per branch.



Universal Solar Bracket

A sturdy metal frame that lets you position your panel exactly where you need it.

No tools or professional fitting required.

Key features

Cost-friendly, easy solar solution

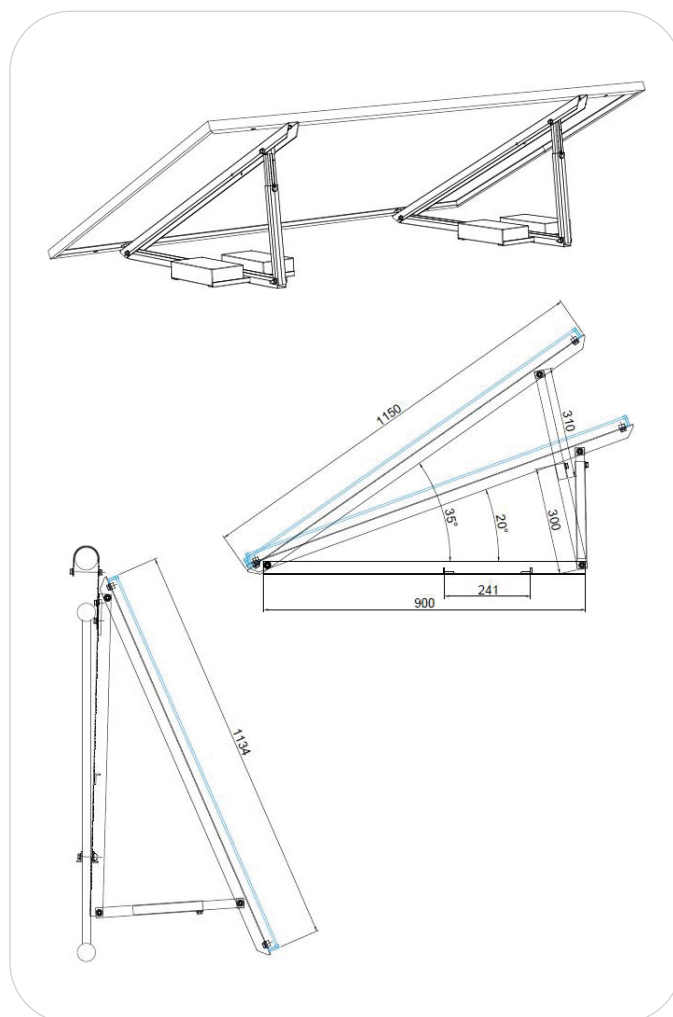
Adjustable angle for more power generation

Suits multiple scenarios

Set up in as little as 10 minutes



Basic Layout



Parameters

Panel Specification	1722mm * 1134mm * 30mm
Panel layout	1 x 1 = 1
Panel Array	Landscape
Weight of panel	23 kg/pcs
Tilt angle	55 °
Wind load	0.56 kN/m2 (V0=30m/s)
Snow load	1.20 kN/m ²
Technical standard	EN 1991-1-4:2005
Terrain category	III