



Anglian Renewables[®]

Renewable Energy Providers

sola

Prepared for

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9FL

Assessor

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Performance Estimate	
Description of Goods	
Estimated Annual Solar Generation (kWh) SUBJECT TO SURVEY	2938
Number of Panels	10
Size Solar Panels (kW)	2.46
Roof Pitch (° from horizontal)	10
Orientation (° from south)	20
Shading Factor	0.67
Irradiance (kk)	892

Solar Package Quotation		
Description of Goods & Services		
Monocrystalline Solar Panels	410 W	10
Enphase_Inverter	Single-Phase Inverter	10
Foxess_Battery	Foxess 2.5kW	0
	Smart Wifi	1
	Bird Protection	0
	Van der Valk Flat-Roof Brackets	10
	Tigo Optimizers	0
	Zappie 7kW Car Charger	0
	Scaffolding Lifts	1
	Installation, Commissioning & Certification	1
	Goods and Services Total	£9,200.00
	VAT 0%	£0.00
Grand Total		£9,200

Our Governing Body



Microgeneration Certification Scheme (MCS) is a nationally recognised quality assurance scheme, supported by the Department for Business, Energy & Industrial Strategy.

MCS certifies microgeneration technologies used to produce electricity and heat from renewable sources.

MCS is also a eligibility requirement for the Government's financial Incentives, which include the Feed-in-Tariff and the Renewable Heat Incentive.



hies

Home Insulation & Energy Systems
Quality Assured Contractors Scheme



Why I strongly recommend using a HIES member....

“With HIES you get accredited installers, independently backed guarantees (even if the firm refuses to help you or goes out of business), free access to industry inspectors at HIES discretion, professional mediators and – if you're unsatisfied – a highly regarded Ombudsman service who can settle your dispute with the power of the law behind them. There are lots of confusing trade association logos in the building and home improvement sectors, but few offer complete consumer protection. HIES is the real deal. And you don't pay extra for the safeguards.”

Nick Ross

(Former BBC Watchdog and Crimewatch presenter)



Real consumer protection

Join Thousands Of Consumers Using A HIES Member



Since our inception, we have seen over

81,000

consumers use a HIES member



81,559

consumers protected



Over

£650m

worth of contract value insured



Over

£42m

worth of deposits protected

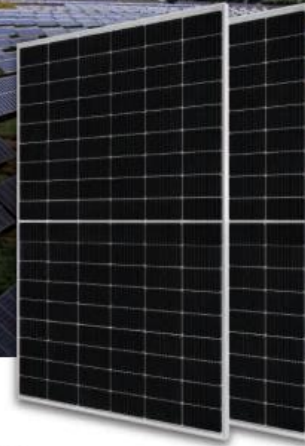


DEEP BLUE 3.0 Light

Mono 415W MBB Half-cell Module
JAM54S30 390-415/MR Series

Introduction

Assembled with 118B PERC cells, the half-cell configuration of the modules offers the advantages of higher power output, better temperature-dependent performance, reduced shading effect on the energy generation, lower risk of hot spot, as well as enhanced tolerance for mechanical loading.



Higher output power



Lower LCOE



Less shading and lower resistive loss



Better mechanical loading tolerance

Superior Warranty

- 12-year product warranty
- 25-year linear power output warranty



Comprehensive Certificates

- IEC 61215, IEC 61730, UL 61215, UL 61730
- ISO 9001: 2015 Quality management systems
- ISO 14001: 2015 Environmental management systems
- ISO 45001: 2018 Occupational health and safety management systems
- IEC TS 62941: 2016 Terrestrial photovoltaic (PV) modules – Guidelines for increased confidence in PV module design qualification and type approval



JA_410w



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Electrical Characteristics

STC	STPXXS-C54/Uhm			
Maximum Power at STC (P _{max})	405W	400W	395W	390W
Optimum Operating Voltage (V _{mp})	31.38V	31.18V	30.98V	30.76V
Optimum Operating Current (I _{mp})	12.91A	12.83A	12.76A	12.69A
Open Circuit Voltage (V _{oc})	37.24V	37.04V	36.84V	36.62V
Short Circuit Current (I _{sc})	13.81A	13.73A	13.66A	13.59A
Module Efficiency	20.7%	20.5%	20.2%	19.9%
Operating Module Temperature	-40 °C to +85 °C			
Maximum System Voltage	1500 V DC (IEC)			
Maximum Series Fuse Rating	25 A			
Power Tolerance	0/+5 W			

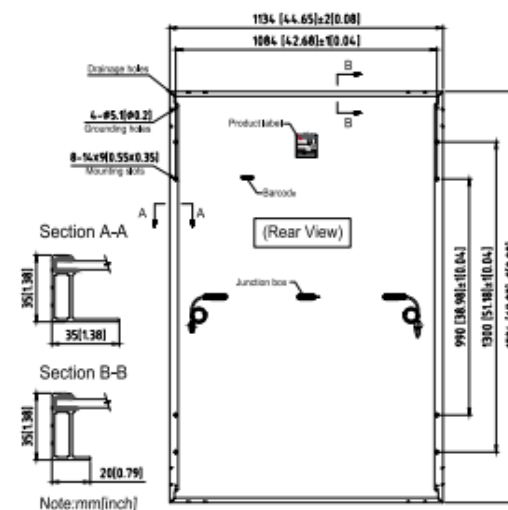
STC: Irradiance 1000 W/m², module temperature 25 °C, AM=1.5;
Tolerance of P_{max} is within +/- 3%;

Temperature Characteristics

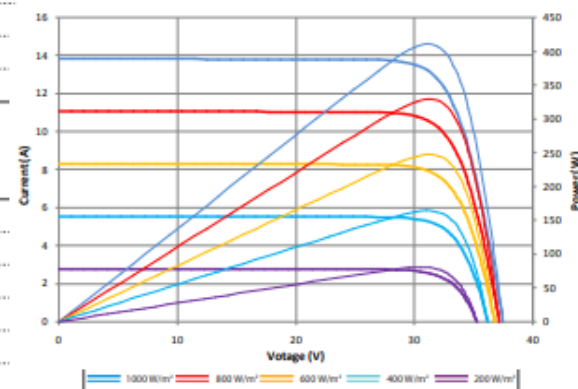
Nominal Module Operating Temperature (NMOT)	42 ± 2 °C
Temperature Coefficient of P _{max}	-0.36%/°C
Temperature Coefficient of V _{oc}	-0.304%/°C
Temperature Coefficient of I _{sc}	0.050%/°C

Mechanical Characteristics

Solar Cell	Monocrystalline silicon 182 mm
No. of Cells	108 (6 × 18)
Dimensions	1724 × 1134 × 35 mm (67.9 × 44.6 × 1.4 inches)
Weight	22.1 kgs (48.7 lbs.)
Front Glass	3.2 mm (0.13 inches) fully tempered glass
Frame	Anodized aluminium alloy
Junction Box	IP68 rated (3 bypass diodes)
Output Cables	4.0 mm ² , (-) 350 mm and (+) 160 mm in length or customized length
Connectors	MC4 EVO2, Cable 015



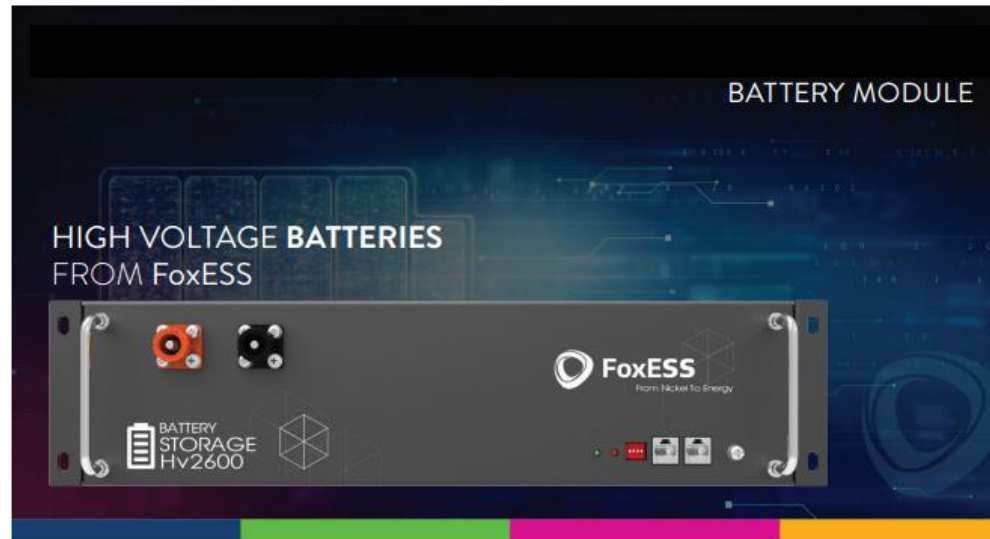
Current-Voltage & Power-Voltage Curve (410S)





IQ7 Series Microinverters





The Hv2600 is a high-performance, scalable battery storage module. The modular design allows for maximum flexibility, making it suitable for a broad range of storage applications.

Additional batteries can be installed in series, allowing for a maximum storage capacity of 20.8kWh. Installation is easy, with a plug and play solution that can save valuable time for installers.

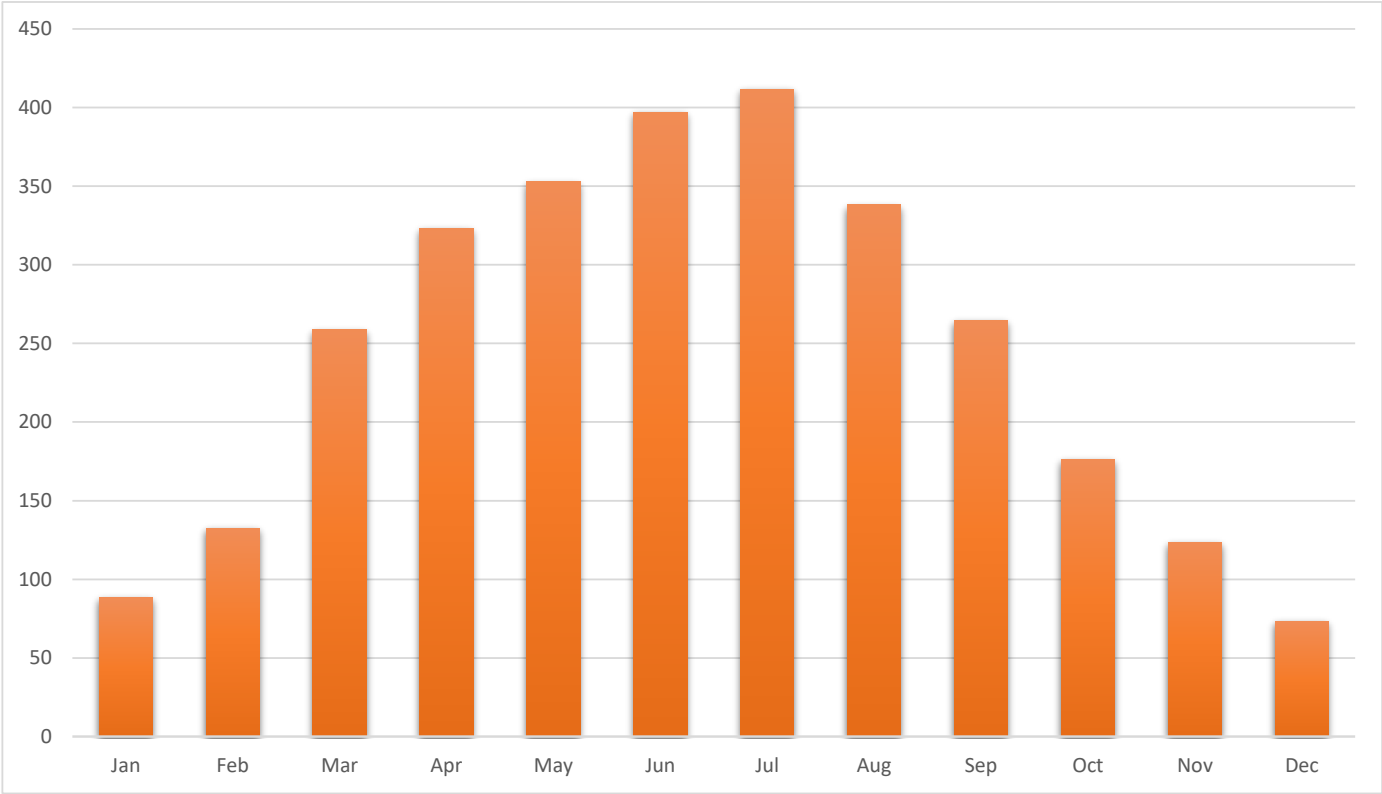


- Scalable to 20.8 kWh
- 98% Charge/Discharge Efficiency
- 90% Depth of Discharge
- Wide Temperature Tolerance
- Easy Installation
- CAN/RS485 Communication
- High Voltage



Estimated Solar Generation (kWh) SUBJECT TO SURVEY

2938



Jan	Feb	Mar	Apr	May	Jun
88 kWh	132 kWh	259 kWh	323 kWh	353 kWh	397 kWh
July	Aug	Sep	Oct	Nov	Dec
411 kWh	338 kWh	264 kWh	176 kWh	123 kWh	73 kWh

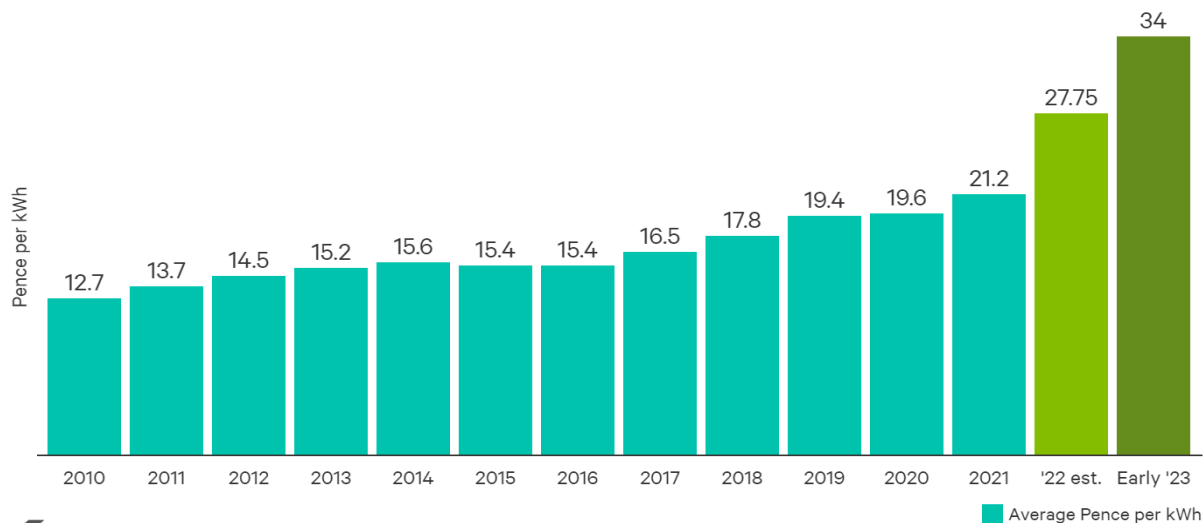


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Historical Variable Energy Prices in the UK

2010 to January 2023



Source: www.gov.uk. Note: the Department for Business, Energy & Industrial Strategy changed their calculation of bills from being based on fixed consumption levels of 3,800 kWh per year for standard electricity to 3,600 kWh per year. The data from 2010 to 2016 reflects 3,800 kWh per year consumption and from 2017 onwards reflects 3,600 kWh per year. The figure for 2022 is an estimate based on the average price cap unit rate for a customer with typical usage, paying by direct debit.

Order Form

Payment Terms		
Deposit	25% Deposit protected by HIES	£2,300.00
Advance Payment	Full balance minus the cost of batteries.	£6,900.00
Balance	Remaining amount for batteries.	£0.00