

For: Rafik
Stoney Court, Talaton

Valid for 30 days from date of issue



Solar Energy System Proposal

Dear Rafik,

I am pleased to present our bespoke proposal to supply and fit a renewable energy technology to your property.

This quotation includes details on the equipment we propose to install, an estimate of the performance you can expect from the system and other information that will enable you to make an informed decision on whether a solar panel installation is right for you and your project.

We hope you find this document informative, beneficial and insightful, but if you have queries at all, please do not hesitate to get in touch.

We look forward to helping you save money whilst contributing to a safer, more sustainable future.

Best Regards,
Neutral Energy Solutions Limited

Proposed Design

5.265 kW

System Size

£1,112

Estimated Annual
Electricity Bill Savings

9.8

Payback (Years)



Your Solution

Solar Panels Black with silver frame

JA Solar

5.265kW Total Solar Power

13 x 405 (JAM54S30-405/MR)

4,663

Inverter

SOLIS - Ningbo Ginlong Technologies

5.000 kW Total Inverter Rating

1 x RHI-1P5K-HVES-5G

Battery

PylonTech

7.104 kWh Total Battery Storage

2 x US3000C

Please note that currently we do not operate under MIS 3012 for EESS (energy storage).

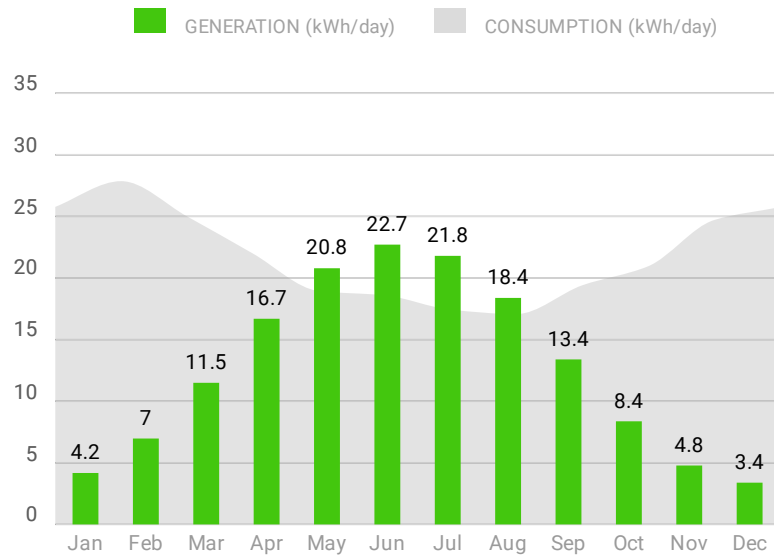
The performance of solar PV systems is impossible to predict with certainty due to the variability in the amount of solar radiation (sunlight) from location to location and from year to year. This estimate is based upon the standard MCS procedure is given as guidance only. It should not be considered as a guarantee of performance.

A. Installation data		
Installed capacity of PV system - kWp (stc)	5.26	kWp
Orientation of the PV system - degrees from South	Group 1: 10 panels with Orientation: 85 ° Group 2: 3 panels with Orientation: 90 °	°
Inclination of system - degrees from South	Group 1: 10 panels with Tilt: 35° Group 2: 3 panels with Tilt: 20°	°
Postcode region	EX5 2RJ	
B. Performance calculations		
kWh/kWp (Kk) from table	Group 1: 884 Group 2: 891	kWh/kWp
Shade Factor (SF)	1.00	
Estimated annual output (kWp x Kk x SF)	4,663	kWh
C. Estimated PV self-consumption - PV Only		
Assumed occupancy archetype	In Half Day	
Assumed annual electricity consumption, kWh	8,000.00	kWh
Assumed annual electricity generation from solar PV system, kWh	4,663	kWh
Expected solar PV self-consumption (PV Only)	2,541.16	kWh
Grid electricity independence / Self-sufficiency (PV Only)	31.76	%
D. Estimated PV self-consumption - with EESS		
Assumed usable capacity of electricity energy storage device, which is used for self-consumption, kWh	6.74	kWh
Expected solar PV self-consumption (with EESS)	3,998.72	kWh

Grid electricity independence / Self-sufficiency (with EESS)	50.0%	%
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System Performance

58%
Energy From Solar



System Performance Assumptions: System Total losses: 0%, Inverter losses: 0%, Optimizer losses: 0%, Shading losses: 0%, Performance Adjustment: 0%, Output Calculator: MCS. Panel Orientations: 10 panels with Azimuth 94 and Slope 35, 3 panels with Azimuth 92 and Slope 20.

Environmental Benefits

Solar has no emissions. It just silently generates pure, clean energy.



Each Year

58%
Of CO₂, SO_x & NO_x

1 tons
Avoided CO₂ per year

Over System Lifetime

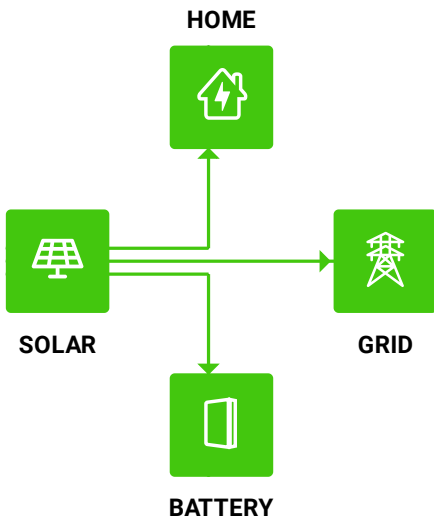
34,803
Car km avoided

224
Trees planted

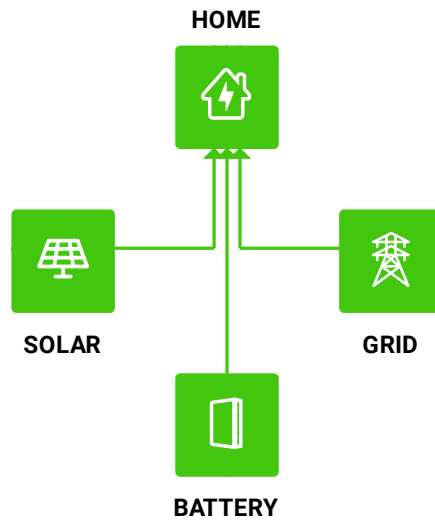
25
Long haul flights avoided

How Your System Works

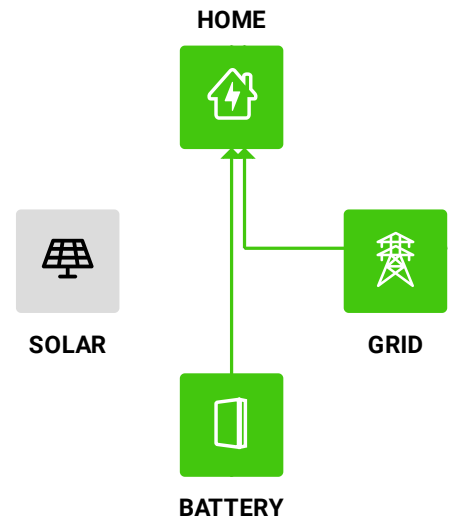
Generating Excess Solar



Partially Offset Usage

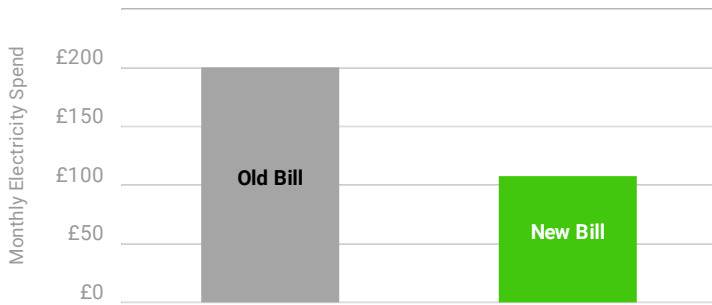


Night

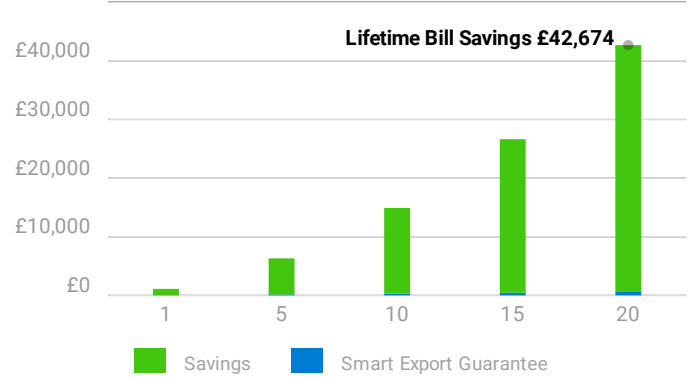


Electricity Bill Savings

First Year Monthly Bill Savings



Lifetime Bill Savings



Month	Solar Generation (kWh)	Electricity Consumption before solar (kWh)	Electricity Imported after solar (kWh)	Electricity Exported after solar (kWh)	Export Credit (£)	Utility Bill before solar (£)	Utility Bill after solar (£)	Estimated Savings (£)
Jan	129	799	670	0	0	237	201	36
Feb	195	780	586	0	0	232	178	54
Mar	356	775	429	0	0	231	134	97
Apr	501	660	203	23	1	198	69	129
May	645	587	113	148	7	178	38	140
Jun	681	558	85	187	9	170	28	142
Jul	676	540	75	189	9	165	25	140
Aug	570	529	94	112	6	162	34	128
Sep	402	582	203	4	0	177	70	106
Oct	259	649	397	0	0	196	125	71
Nov	143	741	598	0	0	221	181	40
Dec	105	798	693	0	0	237	208	29

Rate not specified specified, using Average Residential Rate based on location.

Your projected energy cost is calculated by considering a 7.0% increase in energy cost each year, due to trends in the raising cost of energy. This estimate is based on your selected preferences, current energy costs and the position and orientation of your roof to calculate the efficiency of the system. Projections are based on estimated usage of 8000 kWh per year, assuming Average Residential Rate Electricity Tariff.

Your electricity tariff rates may change as a result of installing the system. You should contact your electricity retailer for further information.

Proposed Tariff Details - London Average Residential Rate	
Energy Charges (£/kWh)	
Usage Charge	Tier 1 (> 0 kWh): £0.28
Feed-in Tariff (£/kWh)	
Smart Export Guarantee (SEG)	Tier 1 (> 0 kWh): £0.05

Fixed Charges	
Fixed Charge	£13.69 / month

Quotation

Payment Option: Bank Transfer

13 x JAM54S30-405/MR 405 Watt Panels (JA Solar) 1 x RHI-1P5K-HVES-5G (SOLIS - Ningbo Ginlong Technologies) 2 x US3000C (PylonTech)	
Total System Price	£14,583.59
Purchase Price	£14,583.59
Deposit Payable	£3,645.90

This proposal is valid for 30 days from date of issue.

Note on VAT: Homeowners are currently subject to 0% VAT on solar PV installations. Business purchases and installations are subject to 20% VAT which is **NOT** included in these prices.

Payment Milestones

Initial Deposit Due before order is confirmed	3,645.90
Advanced Payment Due before installation and delivery	5,104.26
Final Payment Due upon completion	5,833.43
Total	14,583.59

Signature _____	
Name _____	Date _____
Payment Details: Offline Payment	
Contact your sales representative regarding payment.	



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The above statement does not apply to the CEC Approved Retailer (in Australia only) responsible for the sale of the solar PV system.

DEEP BLUE 3.0

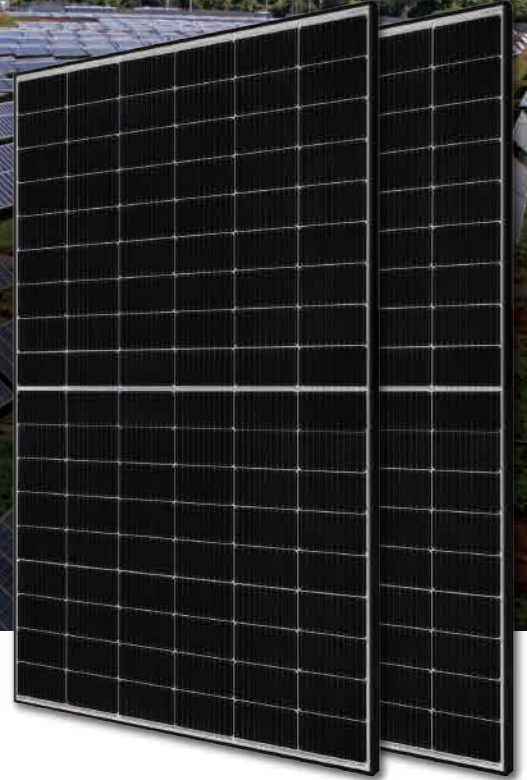
Mono

415W MBB Half-cell Module

JAM54S30 390-415/MR Series

Introduction

Assembled with 11BB 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

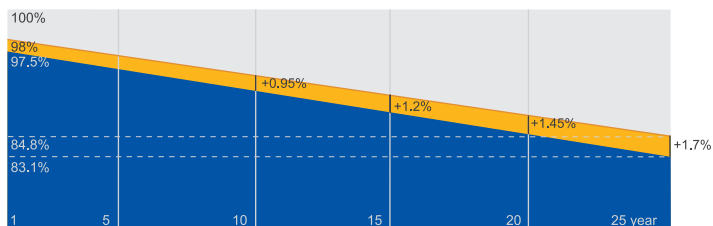


Better mechanical loading tolerance

Superior Warranty

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

0.55% Annual Degradation Over 25 years



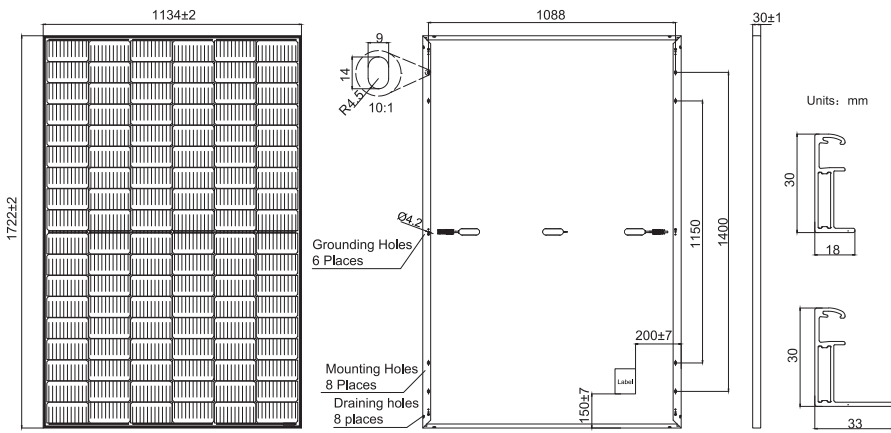
■ New linear power warranty ■ Standard module linear power warranty

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



MECHANICAL DIAGRAMS



Remark: customized frame color and cable length available upon request

SPECIFICATIONS

Cell	Mono
Weight	21.5kg±3%
Dimensions	1722±2mm×1134±2mm×30±1mm
Cable Cross Section Size	4mm ² (IEC) , 12 AWG(UL)
No. of cells	108(6x18)
Junction Box	IP68, 3 diodes
Connector	MC4(1000V) MC4-EVO2(1500V)
Cable Length (Including Connector)	Portrait: 300mm(+)/400mm(-); Landscape: 1200mm(+)/1200mm(-)
Packaging Configuration	36pcs/Pallet, 936pcs/40ft Container

ELECTRICAL PARAMETERS AT STC

TYPE	JAM54S30 -390/MR	JAM54S30 -395/MR	JAM54S30 -400/MR	JAM54S30 -405/MR	JAM54S30 -410/MR	JAM54S30 -415/MR
Rated Maximum Power(Pmax) [W]	390	395	400	405	410	415
Open Circuit Voltage(Voc) [V]	36.85	36.98	37.07	37.23	37.32	37.45
Maximum Power Voltage(Vmp) [V]	30.64	30.84	31.01	31.21	31.45	31.61
Short Circuit Current(Isc) [A]	13.61	13.70	13.79	13.87	13.95	14.02
Maximum Power Current(Imp) [A]	12.73	12.81	12.90	12.98	13.04	13.13
Module Efficiency [%]	20.0	20.2	20.5	20.7	21.0	21.3
Power Tolerance	0~+5W					
Temperature Coefficient of Isc(α _{Isc})	+0.045%/°C					
Temperature Coefficient of Voc(β _{Voc})	-0.275%/°C					
Temperature Coefficient of Pmax(γ _{Pmp})	-0.350%/°C					
STC	Irradiance 1000W/m ² , cell temperature 25°C, AM1.5G					

Remark: Electrical data in this catalog do not refer to a single module and they are not part of the offer.They only serve for comparison among different module types.

ELECTRICAL PARAMETERS AT NOCT

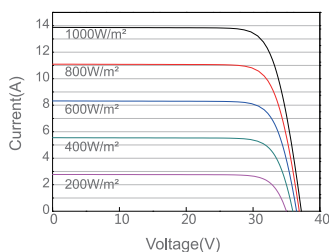
TYPE	JAM54S30 -390/MR	JAM54S30 -395/MR	JAM54S30 -400/MR	JAM54S30 -405/MR	JAM54S30 -410/MR	JAM54S30 -415/MR
Rated Max Power(Pmax) [W]	294	298	302	306	310	314
Open Circuit Voltage(Voc) [V]	34.62	34.75	34.88	35.12	35.23	35.37
Max Power Voltage(Vmp) [V]	28.87	29.08	29.26	29.47	29.72	29.89
Short Circuit Current(Isc) [A]	10.89	10.96	11.03	11.10	11.16	11.22
Max Power Current(Imp) [A]	10.18	10.25	10.32	10.38	10.43	10.50
NOCT	Irradiance 800W/m ² , ambient temperature 20°C,wind speed 1m/s, AM1.5G					

OPERATING CONDITIONS

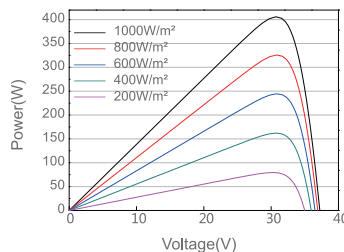
Maximum System Voltage	1000V/1500V DC
Operating Temperature	-40°C~+85°C
Maximum Series Fuse Rating	25A
Maximum Static Load,Front*	5400Pa(112lb/ft ²)
Maximum Static Load,Back*	2400Pa(50lb/ft ²)
NOCT	45±2°C
Safety Class	Class II
Fire Performance	UL Type 1

CHARACTERISTICS

Current-Voltage Curve JAM54S30-405/MR



Power-Voltage Curve JAM54S30-405/MR



Current-Voltage Curve JAM54S30-405/MR

