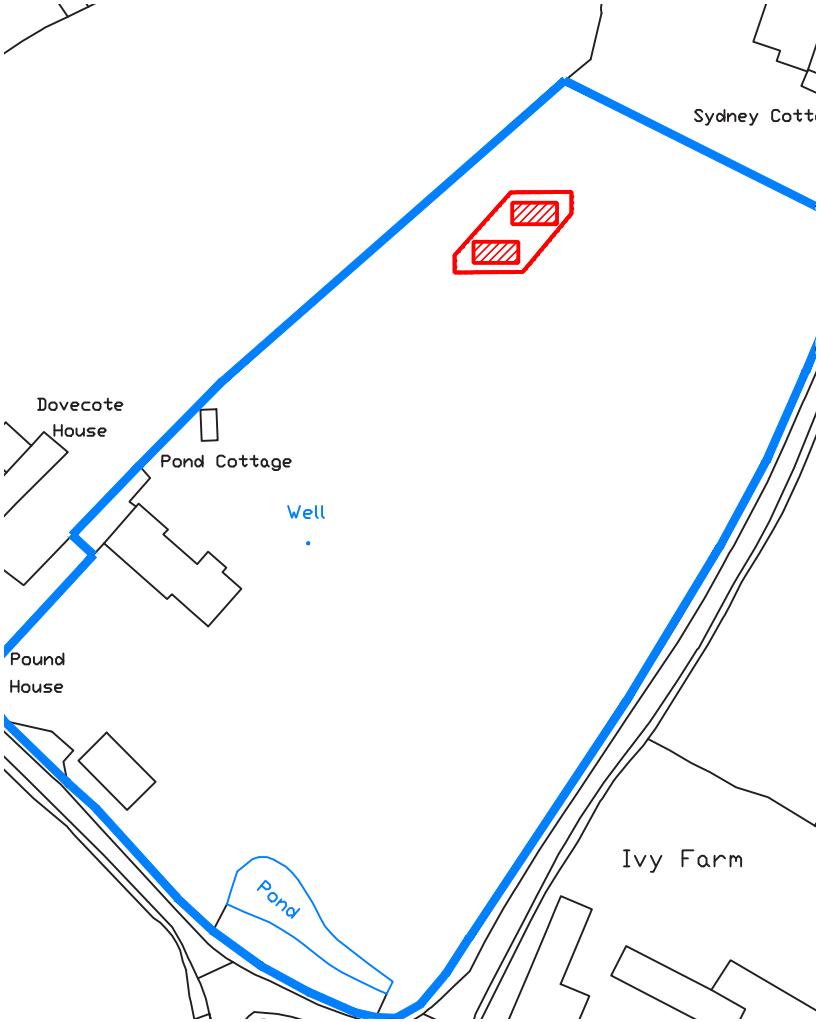
RIBA STAGE 3 - SUPPORTING STATEMENT FOR
FULL PLANNING PERMISSION APPLICATION
11kW ground-mounted solar array at Pond Cottage, West Yatton, Wiltshire, SN14 7EW

Rev A Issued March 2023



SITE LOCATION & CONTEXT

Pond Cottage lies on the Upper Castle Coombe Road of West Yatton, with neighbouring farmland the property to the west and south boundaries.

A 11.76kW ground-mounted domestic solar array has been proposed to the north-west boundary of the property (please see appendix 3 for details of the proposed panels). These will be arranged in 2No arrays of 14 modules each.

The two rows of solar arrays will be located in the NW corner of the field that borders the north west of the property, facing due south (an ideal location which will maximise solar generation). As the field is some distance back from the nearest main road, and as there are multiple lines of trees between the field and the main road, the solar array will be completely hidden to passing traffic.

LOW VISUAL IMPACT

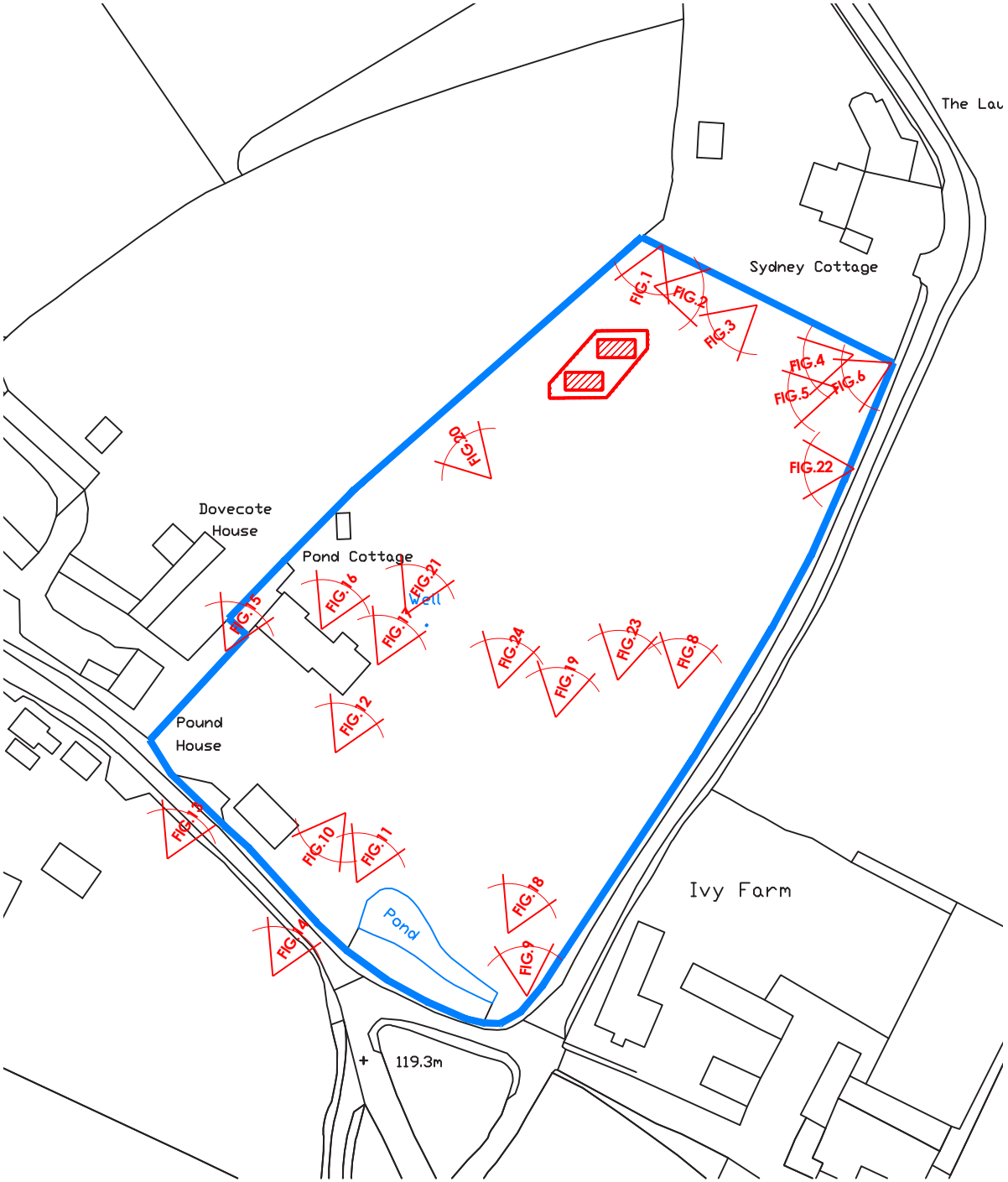
The proposed solar panels are black with no bright edging, which will assist with minimising their visual impact. They will be mounted on a series of ground-based racks, with each rack comprising two rows of 14 panels mounted in portrait style. When mounted at 25 degrees, the maximum height of each rack will be around 1.6m.

The 2No arrays will be located out of sight from the nearest public road which runs to the south / on the other side of the main house. Farmland separates the arrays from public access and vantage points to the west, south and east.

A mature hedge forms the north and west boundary, immediately next to the array, there are also mature trees which provides a substantial sight barrier to the neighbouring properties to the north and west.

New cabling would be run from the array to the house via a newly-excavated trench within the existing soft landscaping; this would be returned to its current state once the cable was installed.

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The Lau
Sydney Cottage
FIG.1
FIG.2
FIG.3
FIG.4
FIG.5
FIG.6
FIG.22
FIG.30
Dovecote
House
Pond Cottage
FIG.16
FIG.21
Well
FIG.15
FIG.17
FIG.24
FIG.19
FIG.23
FIG.8
FIG.12
Pound
House
FIG.10
FIG.11
FIG.18
Pond
FIG.9
FIG.14
Ivy Farm
119.3m



1



2



3



4



5



6



7



8



9

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10



11



12



13



14



15



16



17



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22



23



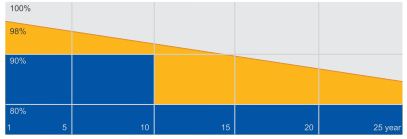
24



- 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



JA Linear Power Warranty ■ Industry 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 62941: 2019 Terrestrial photovoltaic (PV) modules - Quality system for PV module manufacturing

JA SOLAR

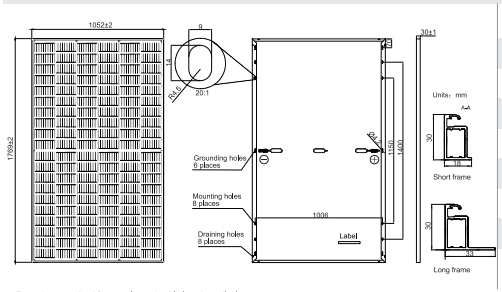
www.jasolar.com

Specifications subject to technical changes and tests.
JA Solar reserves the right of final interpretation.

JA SOLAR

JAM60S21 355-375/MR Series

MECHANICAL DIAGRAMS



Remark: customized frame color and cable length available upon request

SPECIFICATIONS

Cell	Mono
Weight	20.2kg
Dimensions	1769±2mm×1052±2mm×30±1mm
Cable Cross Section Size	4mm² (IEC) ,12 AWG(UL)
No. of cells	120(6×20)
Junction Box	IP68, 3 diodes
Connector	MC4-EVO2/ QC 4.10-35
Cable Length (Including Connector)	Portrait:200mm(+)/300mm(-); Landscape:1000mm(+)/1000mm(-)
Packaging Configuration	36pcs/Pallet 936pcs/40HQ Container

ELECTRICAL PARAMETERS AT STC

TYPE	JAM60S21 -355/MR	JAM60S21 -360/MR	JAM60S21 -365/MR	JAM60S21 -370/MR	JAM60S21 -375/MR
Rated Maximum Power(Pmax) [W]	355	360	365	370	375
Open Circuit Voltage(Voc) [V]	40.80	40.97	41.13	41.30	41.45
Maximum Power Voltage(Vmp) [V]	33.34	33.65	33.96	34.23	34.50
Short Circuit Current(Isc) [A]	11.20	11.25	11.30	11.35	11.41
Maximum Power Current(Imp) [A]	10.65	10.70	10.75	10.81	10.87
Module Efficiency [%]	19.1	19.3	19.6	19.9	20.2
Power Tolerance	0~+5W				
Temperature Coefficient of Isc(α_Isc)	+0.044%/°C				
Temperature Coefficient of Voc(β_Voc)	-0.272%/°C				
Temperature Coefficient of Pmax(γ_Pmp)	-0.350%/°C				
STC	Irradiance 1000W/m², 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

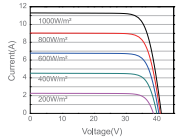
TYPE	JAM60S21 -355/MR	JAM60S21 -360/MR	JAM60S21 -365/MR	JAM60S21 -370/MR	JAM60S21 -375/MR
Rated Max Power(Pmax) [W]	268	272	276	280	284
Open Circuit Voltage(Voc) [V]	37.95	38.18	38.41	38.65	38.89
Max Power Voltage(Vmp) [V]	31.58	31.82	32.05	32.30	32.55
Short Circuit Current(Isc) [A]	9.05	9.10	9.15	9.20	9.25
Max Power Current(Imp) [A]	8.50	8.55	8.61	8.66	8.71
NOCT	Irradiance 800W/m², ambient temperature 20°C, wind speed 1m/s, AM1.5G				

OPERATING CONDITIONS

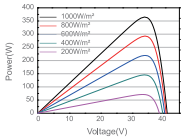
Maximum System Voltage	1000V/1500V DC
Operating Temperature	-40°C~+85°C
Maximum Series Fuse	20A
Maximum Static Load,Front	5400Pa (112 lb/ft²)
Maximum Static Load,Back	2400Pa (50 lb/ft²)
NOCT	45±2°C
Safety Class	Class II
Fire Performance	UL Type 1

CHARACTERISTICS

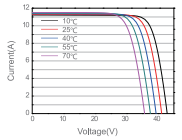
Current-Voltage Curve JAM60S21-365/MR



Power-Voltage Curve JAM60S21-365/MR



Current-Voltage Curve JAM60S21-365/MR



Premium Cells, Premium Modules

Version No. : Global_EN_20220613A

Mounting systems for solar technology

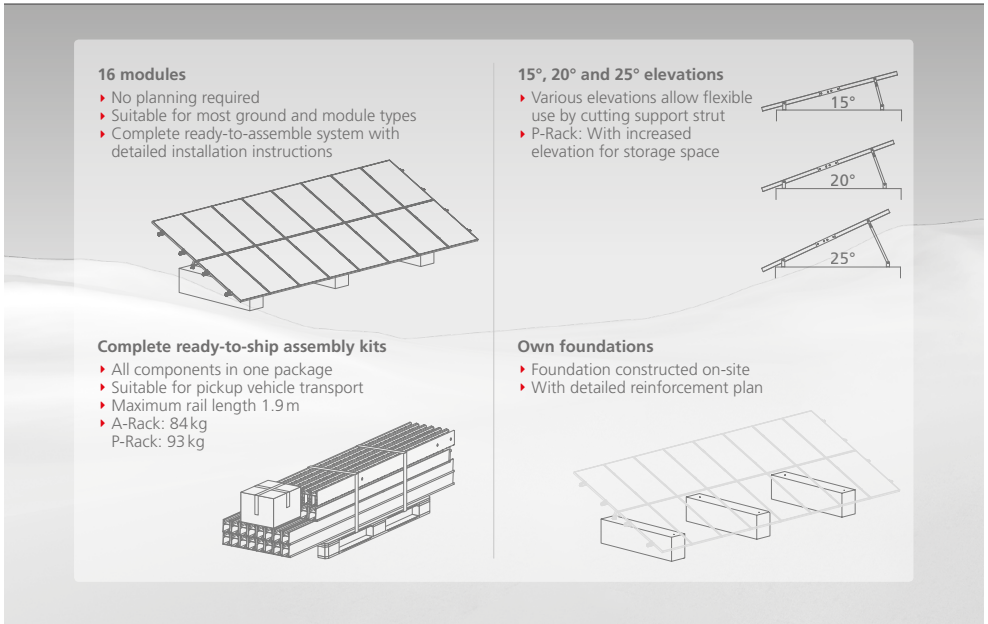
Ground mounted systems



www.k2-systems.com

A-Rack and P-Rack System

Solution for quick small installations

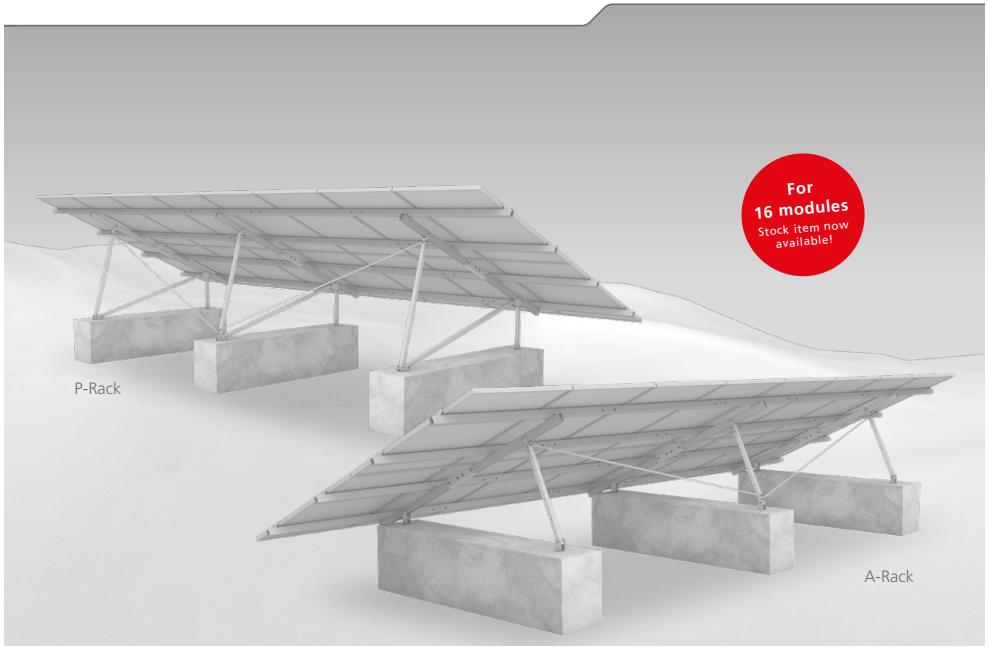


Our A- and P-Rack ground mounted systems are the ideal solution for small installations and off-grid projects that need to be built quickly and efficiently. Ready-to-assemble systems are equipped with all the necessary components.

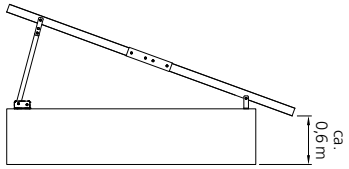
Both systems are suitable for standard modules. They can be mounted with 15°, 20° or 25° elevations. The support beam must only be shortened for modules with 15° and 20° elevations. Mounting holes are provided for all elevations.

All necessary connectors, small components, as well as universal module clamps are included.

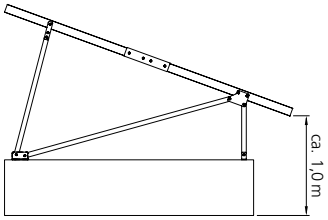
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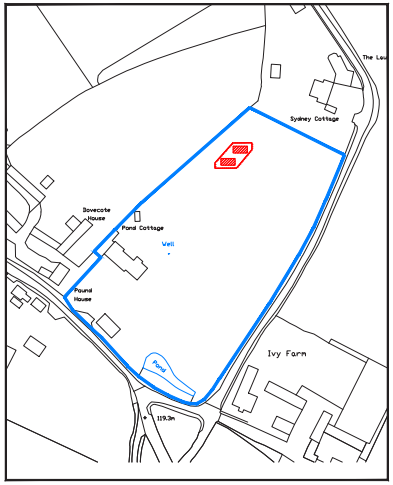


A-Rack
15°, 20° + 25°

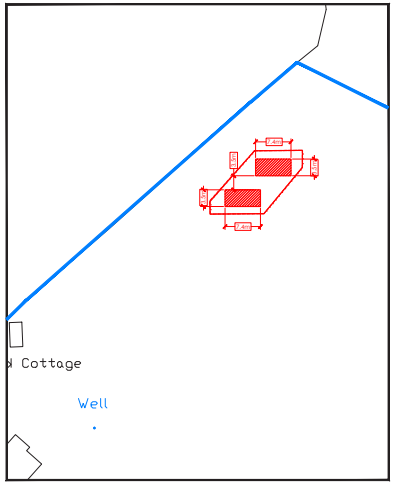


P-Rack
15°, 20° + 25°



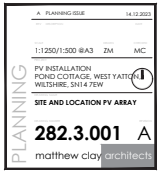


LOCATION PLAN 1:1250@A3



CONTEXT PLAN 1:500@A3





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