DESIGN AND ACCESS STATEMENT FOR SOLAR PANEL INSTALLATION

19 PROVOST ROAD, LONDON, NW3 4ST

The purpose of this statement is to explain the design and access considerations for the proposed solar photovoltaic (PV) system to be installed at 19 Provost Road, London, NW3 4ST

Design

The proposed solar PV system will consist of 15 modules installed on the flat roof and pitched roofs of the property. The panels on the flat roof will be angled as such to not be visible from street level as shown on the accompanying designs. The panels on the pitched roof will be located on the rear roof overlooking the garden and will therefore not be visible from the street.

The panels to be installed are manufactured by JA Solar. The panels specifically come from the JAM60 series (a technical specification is appended to the Planning Statement). The panels will be all-black monocrystalline modules with high cell efficiency optimising the space available and reducing their visual impact where possible.

The panels on the flat roof will be secured using a standing seam mounting system consisting of clamps fixed to the roof covering. This system does not penetrate the roof and can be removed if necessary at a later date. The panels on the pitched roof will be fixed to rails with roof hooks installed underneath the roof tiles and secured to the rafters below.

Access

The solar PV system will be installed on the roof and does not require access to the general public. The installation will not affect any highway scenarios, transport authorities or members of the public.

Harvest the Sunshine

Mono

390W MBB Half-Cell Black Module

JAM60S21 365-390/MR/1000V Series

Introduction

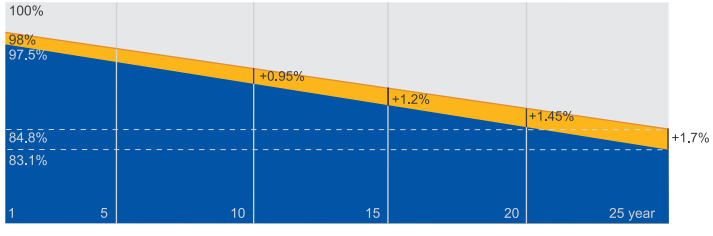
Assembled with multi-busbar PERC cells, the half-cell configuration of the modules offers the advantages of higher power output, better temperature-dependent performance, reduced shading effect on the energy generation, lower risk of hot spot, as well as enhanced tolerance for mechanical loading.

- 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
- ISO 9001: 2015 Quality management systems
- ISO 14001: 2015 Environmental management systems
- ISO 45001: 2018 Occupational health and safety management systems

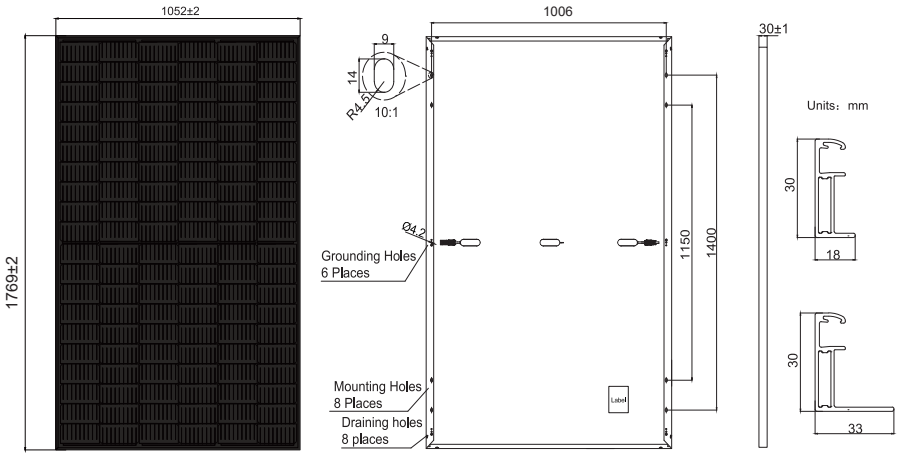
JA SOLAR

www.jasolar.com

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

Shanghai JA Solar Technology Co., Ltd.

MECHANICAL DIAGRAMS



Remark: customized frame color and cable length available upon request

SPECIFICATIONS

Cell	Mono
Weight	18.8kg or 20.2kg
Dimensions	1769±2mm×1052±2mm×30±1mm
Cable Cross Section Size	4mm²（IEC）
No. of cells	120(6×20）
Junction Box	IP68, 3 diodes
Connector	Stäubli MC4 QC Solar QC 4.10
Cable Length (Including Connector)	Portrait:300mm(+)/400mm(-); Landscape:1000mm(+)/1000mm(-)
Country of Manufacturer	China/Vietnam
Front Glass	2.8mm or 3.2mm

ELECTRICAL PARAMETERS AT STC

TYPE	JAM60S21 -365/MR/1000V	JAM60S21 -370/MR/1000V	JAM60S21 -375/MR/1000V	JAM60S21 -380/MR/1000V	JAM60S21 -385/MR/1000V	JAM60S21 -390/MR/1000V
Rated Maximum Power(Pmax) [W]	365	370	375	380	385	390
Open Circuit Voltage(Voc) [V]	41.13	41.30	41.45	41.62	41.78	41.94
Maximum Power Voltage(Vmp) [V]	33.96	34.23	34.50	34.77	35.04	35.33
Short Circuit Current(Isc) [A]	11.30	11.35	11.41	11.47	11.53	11.58
Maximum Power Current(Imp) [A]	10.75	10.81	10.87	10.93	10.99	11.04
Module Efficiency [%]	19.6	19.9	20.2	20.4	20.7	21.0
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.
Measurement tolerance at STC: Pmax ±3 %, Voc ±3% and Isc ±4%.

ELECTRICAL PARAMETERS AT NOCT

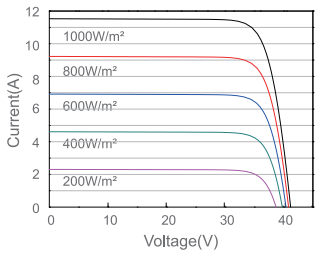
TYPE	JAM60S21-365 /MR/1000V	JAM60S21-370 /MR/1000V	JAM60S21-375 /MR/1000V	JAM60S21-380 /MR/1000V	JAM60S21-385 /MR/1000V	JAM60S21-390 /MR/1000V
Rated Max Power(Pmax) [W]	276	280	284	287	291	295
Open Circuit Voltage(Voc) [V]	38.41	38.65	38.89	39.14	39.38	39.63
Max Power Voltage(Vmp) [V]	32.05	32.30	32.55	32.72	32.96	33.20
Short Circuit Current(Isc) [A]	9.15	9.20	9.25	9.30	9.35	9.40
Max Power Current(Imp) [A]	8.61	8.66	8.71	8.78	8.83	8.88
NOCT	Irradiance 800W/m², ambient temperature 20°C, wind speed 1m/s, AM1.5G					

OPERATING CONDITIONS

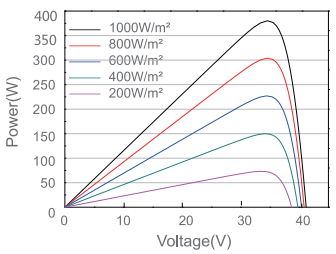
Maximum System Voltage	1000V DC
Operating Temperature	-40°C~+85°C
Maximum Series Fuse	20A
Maximum Static Load,Front	3600Pa, 1.5
Maximum Static Load,Back	1600Pa, 1.5
NOCT	45±2°C
Safety Class	Class II
Fire Safety Class	Class C

CHARACTERISTICS

Current-Voltage Curve JAM60S21-380/MR/1000V



Power-Voltage Curve JAM60S21-380/MR/1000V



Current-Voltage Curve JAM60S21-380/MR/1000V