

FAO - Rachel Richardson - Application No DM/26/0412 -

Barrington House, Portsmouth Wood Drive, Lindfield, RH16 2DW

In your email of 8 April you asked for a tree survey, Arboricultural impact assessment and method statement which are attached.

At your request I am also attaching details of the proposed solar panel unit including the ground level mounting. I have provided some explanation about the installation below.

You also mentioned the representations from nearby houses and that these would form a “material consideration” for you. Please see some relevant explanation of the proposal below.

Solar panels

The application is for 22 solar panels laid in five lines in a 4-5-5-5-3 formation. Please see page 5 of for the layout plan. The layout has been changed to accommodate putting the panels into landscape orientation to suit the mounts and moving them into four rows designed to maximise distance from rooting area of T1/T2 per the Tree Constraints Plan.

The detailed specifications of the panels may be found at pages 6-7. The panels are as follows:

- Hengdian Group DMEGC Magnetics
- 500 Watt Panels (DM500M10RT-B60HBB)
- Dimensions 1,950 x 1,134 x 30 mm

Solar panel mounting

The panels will be low profile, ground mounted on standard 1.1m wide tubs in landscape orientation. The supplier has provided the following image showing the tubs deployed with a twin row of panels. The proposed installation would have a single row of panels rather than the two shown here.



The detailed specifications of the mounting tubs may be found at pages 8-9.

Key points regarding the mounting are as follows:

- The tubs are not dug in, they sit on the ground and will be anchored using rods. They do not need foundations that might interfere with the rooting areas of nearby trees and shrubs.
- They will have gravel on top to provide ballasting and resist wind and, along with additional holes in their base, to allow easy passage of water down the hill.
- The ground will be prepared with a mild terracing so that the tubs may be installed on a level surface running east to west.
- The panels surfaces will be angled 10-15 degrees off the horizontal with the southern edge down. Were they to be viewed from Barrington Wood they would be seen close to edge on.
- The tubs are assembled in sections along a line of flexible length and are 1,100mm wide and 390mm high.
- The height of the panels will be:
 - Front/lowest edge: around 100–150mm off the surface they are mounted on,
 - Rear/highest edge: around 300–400mm off the surface.

Representations

Although there were five representations on the system please note that three were from one household, Middle Barrington (10 Barrington Wood), and of those two are identical except for the Stance. The third Middle Barrington submission repeats points from the duplicated one.

Heritage status of Barrington House

Barrington House does not have non-designated heritage asset (NDHA) status. NDHA status was rejected by the planning inspector on appeal in 2024 (APP/D3830/D/23/3332694). Among other things the inspector said that *“the property has not been cited as such during planning history less than ten years ago”*. The Edwardian building already has a modern extension to Middle Barrington on the facia that is most visible to local residents and passers by.

Nestled out of sight the other side of the garage from the house, this proposed scheme will have no impact on the aesthetics of the Edwardian house. There is no heritage consideration in respect of the modern garage.

The MSDC Conservation Officer said in response to the previous application (DM/23/0632) *“...a more modest extension/remodelling of the garage building may be acceptable in principle...”*. This proposal does not constitute anything as substantial as an extension or a remodelling of the garage, and is more modest than either could be.

Being a period property Barrington House is difficult to insulate and heat so a renewable source of energy such as solar is particularly helpful for reducing its carbon footprint.

From the south east:



From the south:



Visual amenity

It is not the case that the proposal will be intrusive to the neighbourhood or will harm local amenity.

The planned panels will be low profile and immediately screened from the east by the garage, from the north by an existing wall, from the west by the hedge that runs adjacent to Portsmouth Wood Drive (the hedge being retained), and from the south west by a high existing hedge (also being retained).

There are two temporary gaps in screening of the higher part of the slope, both apparent from the first photograph on the previous page:

- from its south east (from Barrington Wood). The blue line on the first photograph on the previous page shows the level that the newly planted laurels need to grow to in order to screen the entirety of the planned installation from this direction (the photo is from the perspective of a standing person 192cm in height). Because of the differences in elevation this hedge can grow to sufficient height to screen all of the panels from view from Barrington Wood without obstructing the sun from reaching the panels. 80cm of new growth is required which equates to around two seasons for this species and so about 16 months.
- from its north west, through a small gap (from Portsmouth Wood Drive). The two saplings there will be potted while the works are conducted and replanted at the end. The gap made available will be sufficient for access for the site works. The two saplings will be placed so that with some further growth they screen the view of the panels from this direction.

Nature of vegetation on the site

The established hedges around the site will remain. The proposed installation would be placed on an open area of slope that was mown grass under the last but one owners of Barrington House. Scrappy grass is still present. The last owners of Barrington House, starting from around 2010, allowed the area to gradually become overgrown, mainly with brambles, which have now been cleared.

Two trees (maples) towards the north west of the site were labelled T1 and T2 in the Arboricultural Impact Assessment ("AIA", 29 September 2022) for the earlier planning application (DM/23/0632) and are labelled T7 and T8 in the new AIA (12 May 2026). They have been felled consistent with the directions given in the AIA of 29 September 2022.

Other siting options

One of the representations suggests putting the panels within the main garden area next to Barrington House. This is not a practical proposition and appears mainly motivated by concerns about visual amenity in regards to the current proposed site that are anyway not well grounded.

The main garden area does not afford a south facing slope in the same way as the proposed site does and developing it in this way would impinge significantly on the original frontage of the period house which the proposed development would not. It would be likely to be in clear conflict with policy DP26 which the present proposal is not.

The roof of the house was considered as a possible site for solar panels but had to be rejected, as was the roof of the garage which has faces that are too small for a minimum panel grouping. Access for installation and maintenance would be extremely difficult in both cases.



Residential / Commercial



N-Type

Bifacial Module with Double Glass

Type: DMxxxM10RT-B60HBB

Power Range: 490 - 505 W

Max. Efficiency : 22.8 %



Bifacial Module Application

Up to 25 % higher electricity yields due to active cell technology in bifacial glass/glass modules on both sides.



Better Performance

Our modules perform better on sunny and hot days thanks to its optimized temperature coefficient.



Excellent Low Light Performance

Our modules can also provide higher power output under low light conditions, such as sunset, cloudy, or dawn.



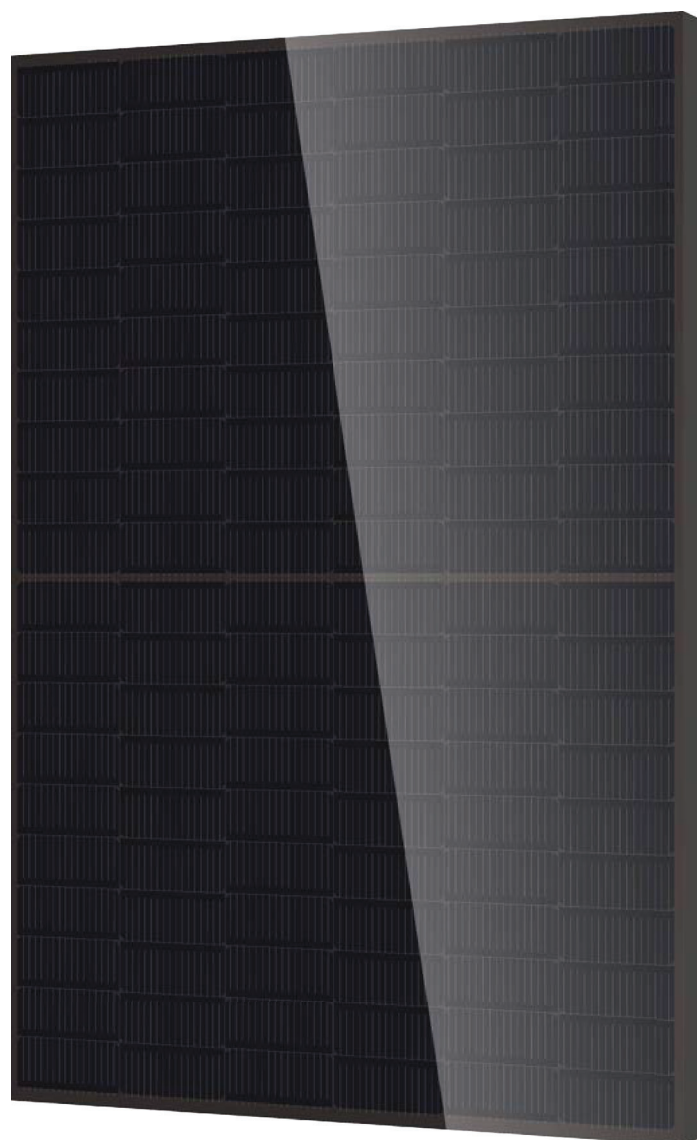
Excellent Quality

More than 40 years' experience of manufacturing and intensive quality tests above the IEC standard ensures reliable modules and a secured investment.



Assumption of Environmental, Social and Governance Responsibility (ESG)

DMEGC stands for his responsibility. Production is certified according to SA 8000 (ILO standards).



Certifications

- SA 8000** ILO Standards. Social responsibility standards
- ISO 9001** Quality management system
- ISO 14001** Environmental management system
- ISO 45001** Occupational health and safety management system
- ISO 50001** Energy management system

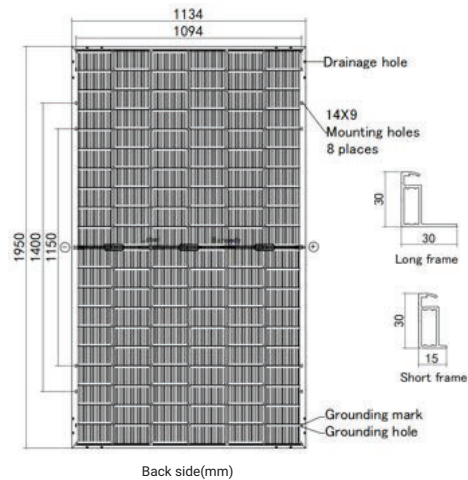


DMxxxM10RT-B60HBB



Module Specification

Cell Type	N-type Mono-crystalline , 120 (6x20)
Dimensions (mm)	1950 x 1134 x 30
Weight (kg)	26.8
Front Cover	2 mm heat strengthened glass with anti -reflective coating
Rear Cover	2 mm heat strengthened glass
Junction Box	3 Diodes, IP68 according to IEC 62790
Cables	4mm ² /Portrait: 350mm (+)/250mm(-) Landscape: 1300mm(+)/1300mm(-) Length can be customized
Connector Type	Sunter: PV-ZH202B; Stäubli: PV-KST4-EVO2/xy_UR, PV-KBT4-EVO2/xy_UR, PV-KST4-EVO2A/xy, PV-KBT4-EVO2A/xy



Electrical Specifications¹

Module Type	DM490M10RT-B60HBB		DM495M10RT-B60HBB		DM500M10RT-B60HBB		DM505M10RT-B60HBB	
Testing Condition	STC	BNPI	STC	BNPI	STC	BNPI	STC	BNPI
Maximum Power (Pmax/W)	490	539	495	545	500	550	505	556
Maximum Power Current (Imp/A)	13.44	14.50	13.50	14.58	13.56	14.65	13.62	14.72
Maximum Power Voltage (Vmp/V)	36.47	37.24	36.67	37.44	36.87	37.64	37.07	37.84
Short-circuit Current (Isc/A)	13.92	15.31	13.98	15.38	14.04	15.45	14.10	15.71
Open-circuit Voltage (Voc/V)	43.82	43.92	44.02	44.12	44.22	44.32	44.42	45.00
Module Efficiency STC (%)	22.2		22.4		22.6		22.8	

¹ Measurements according to IEC 60904-3, Measurement tolerance: Pmpp: ±3%, Isc: ±4%, Voc: ±3%, Bifaciality: Pmpp: 80% ± 10%, Isc: 80% ± 10%, Voc: 100% ± 10%

² STC (Standard Test Condition): Radiation 1000 W/m², Module temperature 25 °C, AM = 1.5

BIFACIAL OUTPUT - REAR SIDE POWER GAIN

10 %	Pmax (STC)	539	545	550	556
20 %	Pmax (STC)	588	594	600	606
30 %	Pmax (STC)	637	644	650	657

Certification and Warranty

Certification	IEC 61215, IEC 61730	
WEEE Registration No.	DE 50188598	
Product Warranty	25 years	*25 years product warranty is only valid for this type of modules installed in residential rooftop PV systems in Australia.
Peak Power Warranty	30 years linear warranty	
Fire Rating Class	IEC Class C	

1.) First year: min. 99 %. 2.) From the 2nd year: Max. 0.4 % degradation annually. 3.) Min. 87.4 % in the 30th year.

Temperature Characteristics

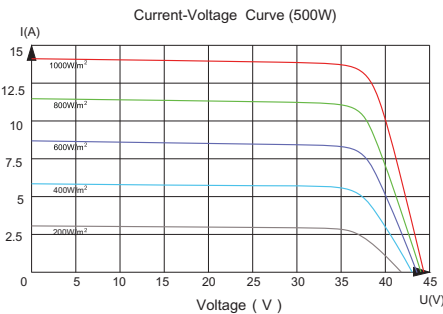
Nominal Module Operating Temperature (NMOT)	42 ± 2 °C
Temperature Coefficient of Pmax (%/ °C)	-0.29
Temperature Coefficient of Voc (%/ °C)	-0.25
Temperature Coefficient of Isc (%/ °C)	+0.048

Packaging

Container	40' HQ
Pallet Dimensions(mm)	2000 × 1140 × 1250
Pieces per Pallet	36
Pieces per Container	864

Operating conditions

Operating Temperature (°C)	-40 to +85
Maximum System Voltage(V)	1500 DC (IEC)
Overcurrent protection rating (A)	30
Power Binning Tolerance (W)	0 / +5
Protection class	II
Max. Test Load, Push/Pull (Pa)	Snow 5400 / Wind 3600
Max. Design Load, Push/Pull (Pa)	3600 / 2400
Country of Manufacture	China



Statement: The installation instructions and the warranty conditions must be followed. Due to technological progress, product parameters will be adjusted accordingly. When signing the contract, the latest data of the company shall prevail.



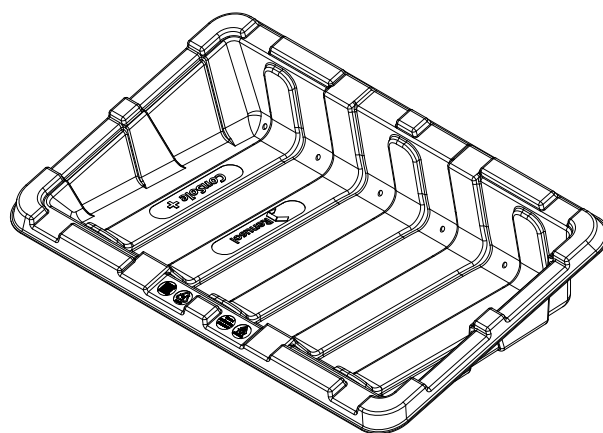
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E-mail: solar@dmegc.com.cn, Website: www.dmegcsolar.com

All information in this data sheet corresponds to EN 50380. Changes and errors excepted.
Status: 12/2023, Document: EN_DS-M10RT-B60HBB-202312_2

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System Datasheet

CS+



General

System	Freestanding ballasted PV mounting system
Scope of delivery	CS+ tub, mounting profiles and fixing material
System warranty	10 years
Application area	Flat roofs, landfills, open spaces, green areas (excluding hydrogen sulphide exposure)
Dimensions	Width: 1.730mm, depth: 1.100 mm, height: 390mm
Roof slope	max. 5° without additional measures
Ambient temperature range	-30°C to +50°C

System properties

System orientation	East-West, South
Material	HDPE, aluminium and stainless steel
Module tilt	15°
System weight approx.	≈ 7,9 kg
Friction coefficient	$\mu = 0,5$ is to be determined and ensured upon installation surface.
Minimum edge distance	1,5 m
Maximum snow load on the roof	2,5 kN/m ²

Certifications

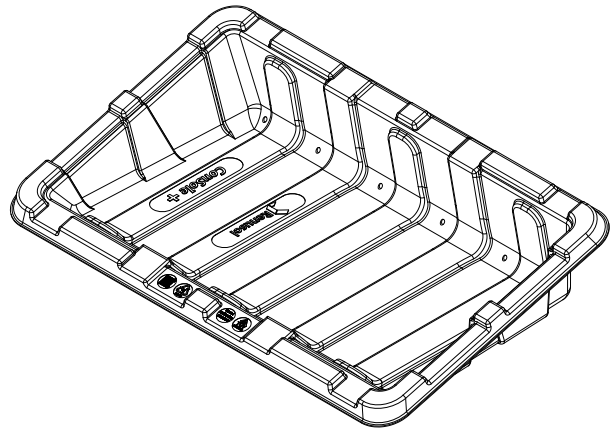
TÜV	ID1111212485 according to 2PfG
Wind loads	Determined in wind tunnel tests by Ruscheweyh Consult GmbH
Fire resistance	MPA Dresden
UV resistance	KIMW Kunststoff Institut Lüdenscheid

Services

PV layout	Provided by Renusol
Ballast plan	Provided by Renusol

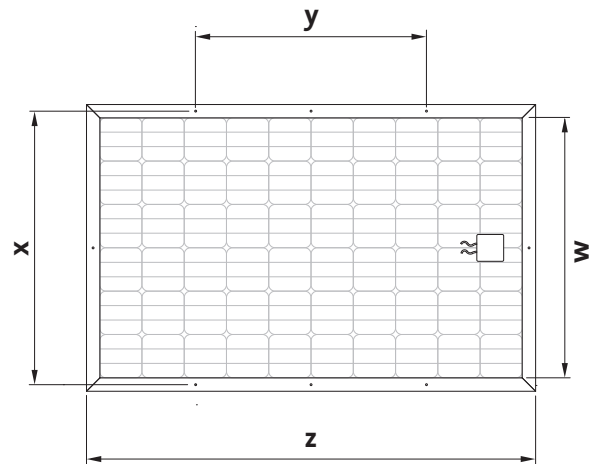
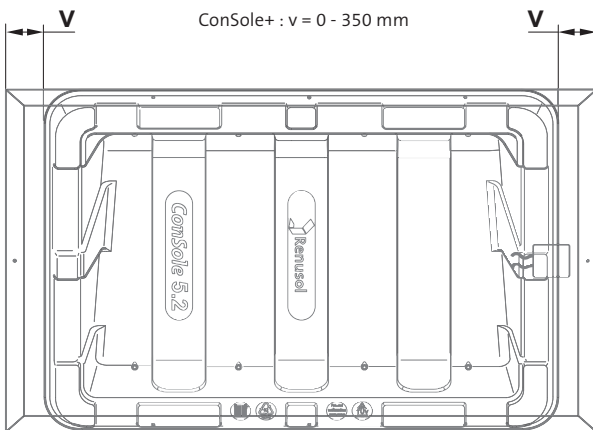
System Datasheet

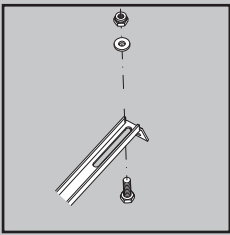
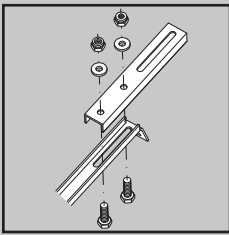
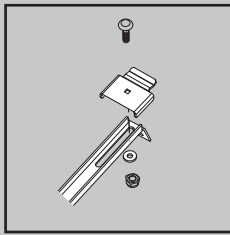
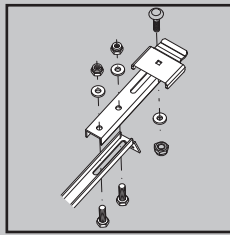
CS+



Modules

Type	Framed PV modules with mounting hole
Module length	1550 mm - 2400 mm
Module guidance	Horizontal/landscape format



				
Article No.	R520075-K	R520075-K + R460196	R520075-K + R420023	R520075-K + R460196 + R420023
Modul min. - max. w:	nicht benötigt / not required	nicht benötigt / not required	920 mm - 995 mm	996 mm - 1100 mm
Modul min. - max. x:	895 mm - 1015 mm	1016 mm - 1110 mm	nicht benötigt / not required	nicht benötigt / not required
Modul min. - max. y:	690 mm - 1180 mm	690 mm - 1180 mm	nicht benötigt / not required	nicht benötigt / not required
Modul min. - max. z:	1550 mm - 2400 mm	1550 mm - 2400 mm	1550 mm - 2400 mm	1550 mm - 2400 mm