

From: Chris Dennison
Sent: 23 February 2023 15:25
To: Jill Bastow
Cc: Planning
Subject: RE: NYM/2022/0887 Beacon Farm, Sneaton

Dear Jill,

Please find attached the revised proposed plan including the biodiversity additional of the tree mounted bat box and infill hedgerow to the north side of the site with local native species.

The applicant's current annual electricity consumption is 135,000kwh's and the proposed solar installation is estimated to provide 82,540kwh's per year.

Please also find attached a detail sheet for the Renusol floor crates which the solar panels will be mounted too.

Regards

Chris Dennison
Associate



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Mono

375W MBB Half-Cell Black Module JAM60S21 355-375/MR 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



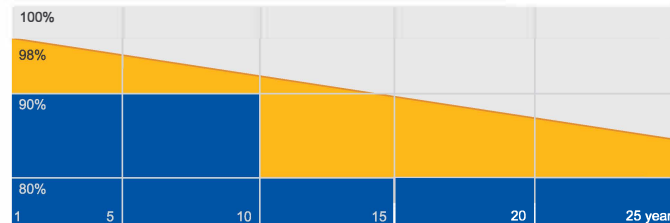
Less shading and lower resistive loss



Better mechanical loading tolerance

Superior Warranty

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



■ JA Linear Power Warranty ■ Industry Warranty

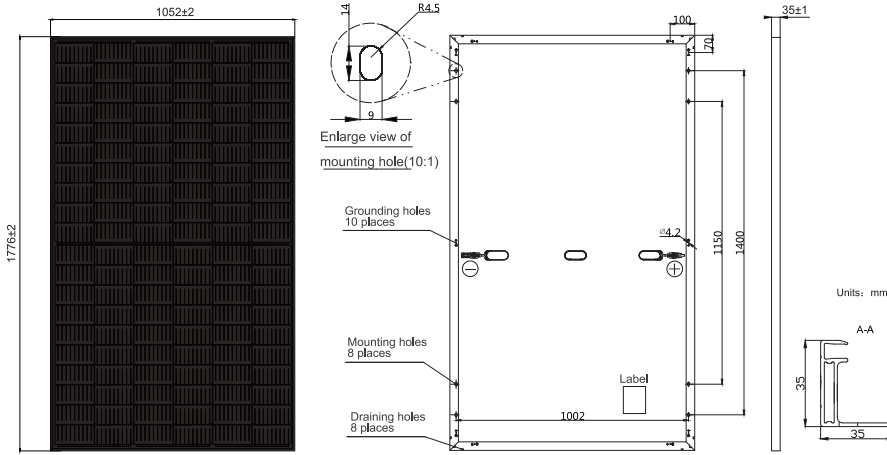
Comprehensive Certificates

- IEC 61215, IEC 61730, UL 61215, UL 61730
- ISO 9001: 2015 Quality management systems
- ISO 14001: 2015 Environmental management systems
- OHSAS 18001: 2007 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

SPECIFICATIONS



Cell	Mono
Weight	20.7kg±3%
Dimensions	1776±2mm×1052±2mm×35±1mm
Cable Cross Section Size	4mm ² (IEC) ,12 AWG(UL)
No. of cells	120(6×20)
Junction Box	IP68, 3 diodes
Connector	MC4
Cable Length (Including Connector)	Portrait:300mm(+)/400mm(-); Landscape:1000mm(+)/1000mm(-)
Packaging Configuration	31pcs/Pallet 744pcs/40ft Container

Remark: customized frame color and cable length available upon request

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 [%]	19.0	19.3	19.5	19.8	20.1
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/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.

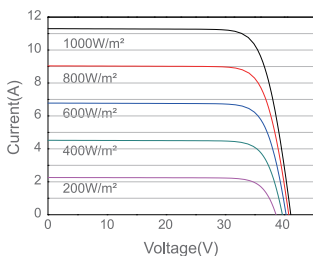
ELECTRICAL PARAMETERS AT NOCT

OPERATING CONDITIONS

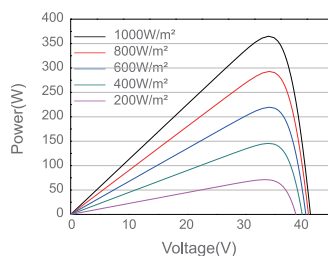
TYPE	JAM60S21 -355/MR	JAM60S21 -360/MR	JAM60S21 -365/MR	JAM60S21 -370/MR	JAM60S21 -375/MR
Rated Max Power(Pmax) [W]	268	272	276	280	284
Open Circuit Voltage(Voc) [V]	37.95	38.18	38.41	38.65	38.89
Max Power Voltage(Vmp) [V]	31.58	31.82	32.05	32.30	32.55
Short Circuit Current(Isc) [A]	9.05	9.10	9.15	9.20	9.25
Max Power Current(Imp) [A]	8.50	8.55	8.61	8.66	8.71
NOCT	Irradiance 800W/m ² , ambient temperature 20°C, wind speed 1m/s, AM1.5G				
Maximum System Voltage	1000V/1500V DC				
Operating Temperature	-40°C~+85°C				
Maximum Series Fuse	20A				
Maximum Static Load,Front	5400Pa (112 lb/ft ²)				
Maximum Static Load,Back	2400Pa (50 lb/ft ²)				
NOCT	45±2°C				
Safety Class	Class II				
Fire Performance	UL Type 1				

CHARACTERISTICS

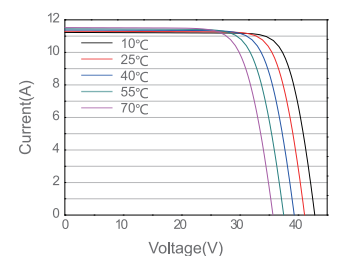
Current-Voltage Curve JAM60S21-365/MR



Power-Voltage Curve JAM60S21-365/MR

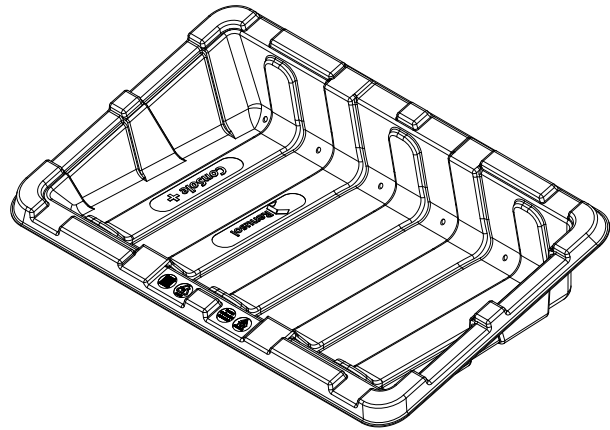


Current-Voltage Curve JAM60S21-365/MR



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

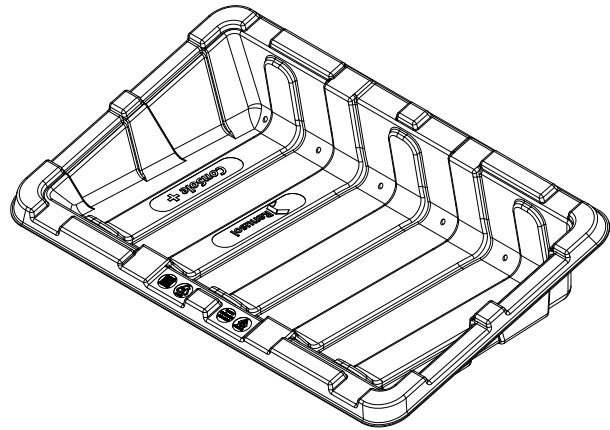
TÜV	ID1111212485 according to 2PFG
Wind loads	Determined in wind tunnel tests by Ruscheweyh Consult GmbH
Fire resistance	MPA Dresden
UV resistance	KIMW Kunststoff Institut Lüdenscheid

Services

PV layout	Provided by Renusol
Ballast plan	Provided by Renusol

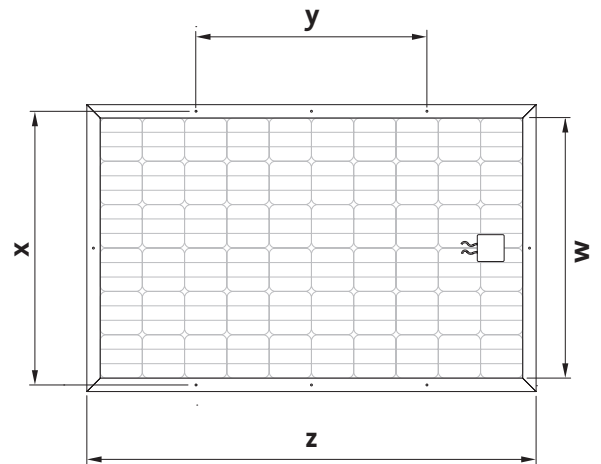
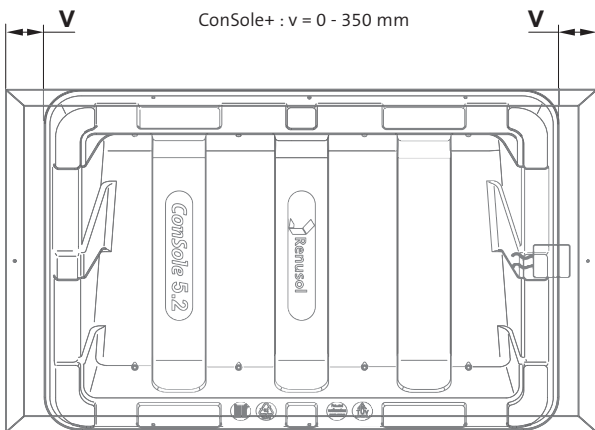
System Datasheet

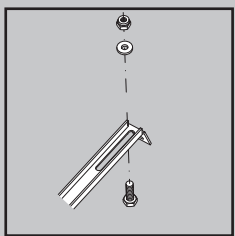
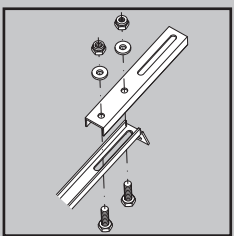
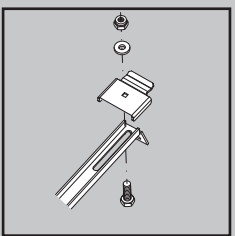
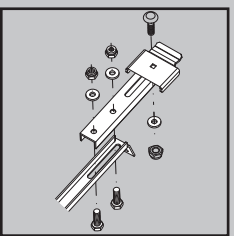
CS+



Modules

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

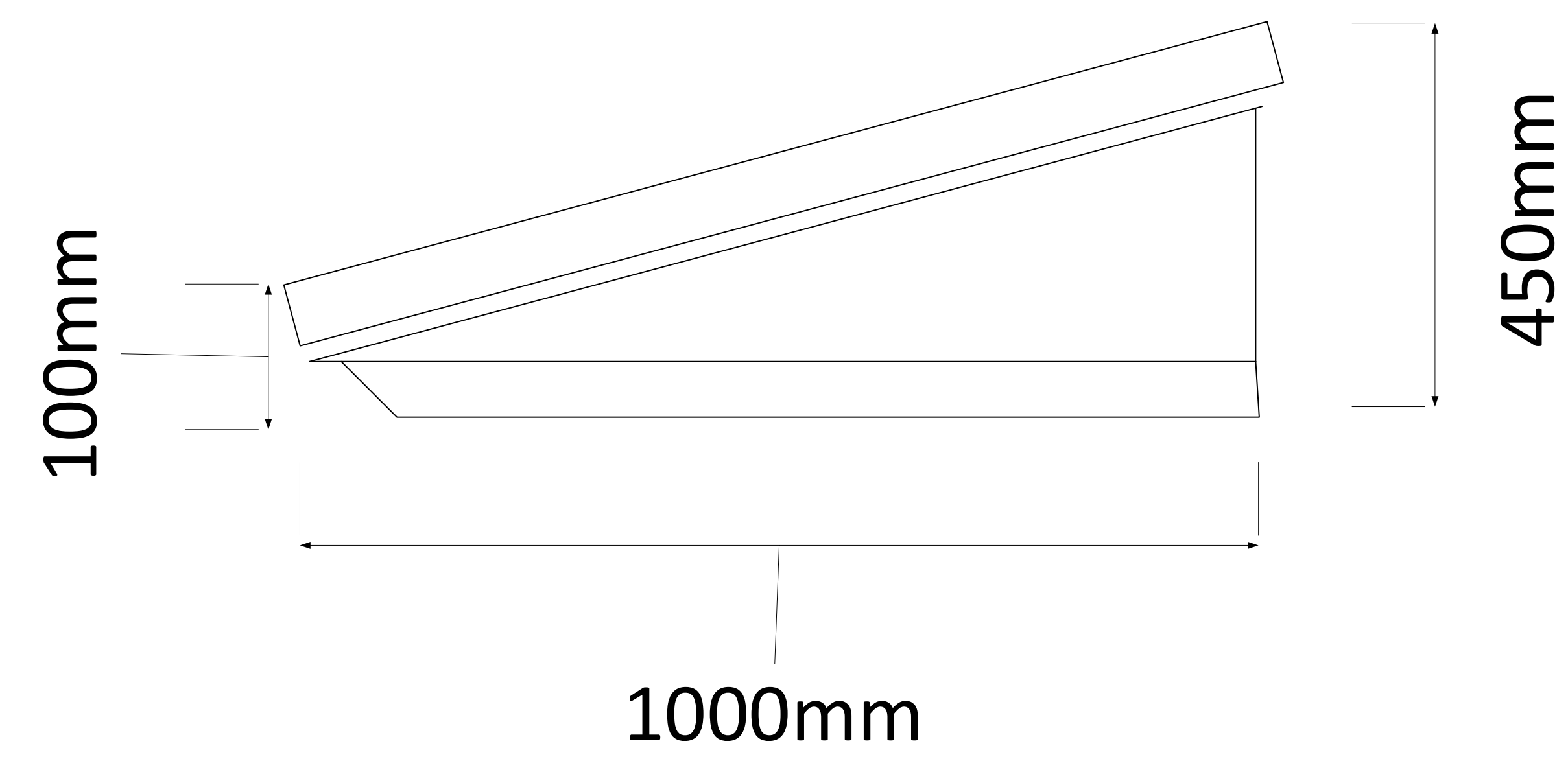


				
Article No.	R520075-K	R520075-K + R460001	R520075-K + R420023	R520075-K + R460001 + R420023
Modul min. w:	-	-	933 mm	996 mm
Modul max. w:	-	-	995 mm	1075 mm
Modul min. x:	895 mm	1016 mm	-	-
Modul max. x:	1015 mm	1085 mm	-	-
Modul min. y:	690 mm	690 mm	-	-
Modul max. y:	1180 mm	1180 mm	-	-
Modul min. z:	1550 mm	1550 mm	1550 mm	1550 mm
Modul max. z:	2400 mm	2400 mm	2400 mm	2400 mm

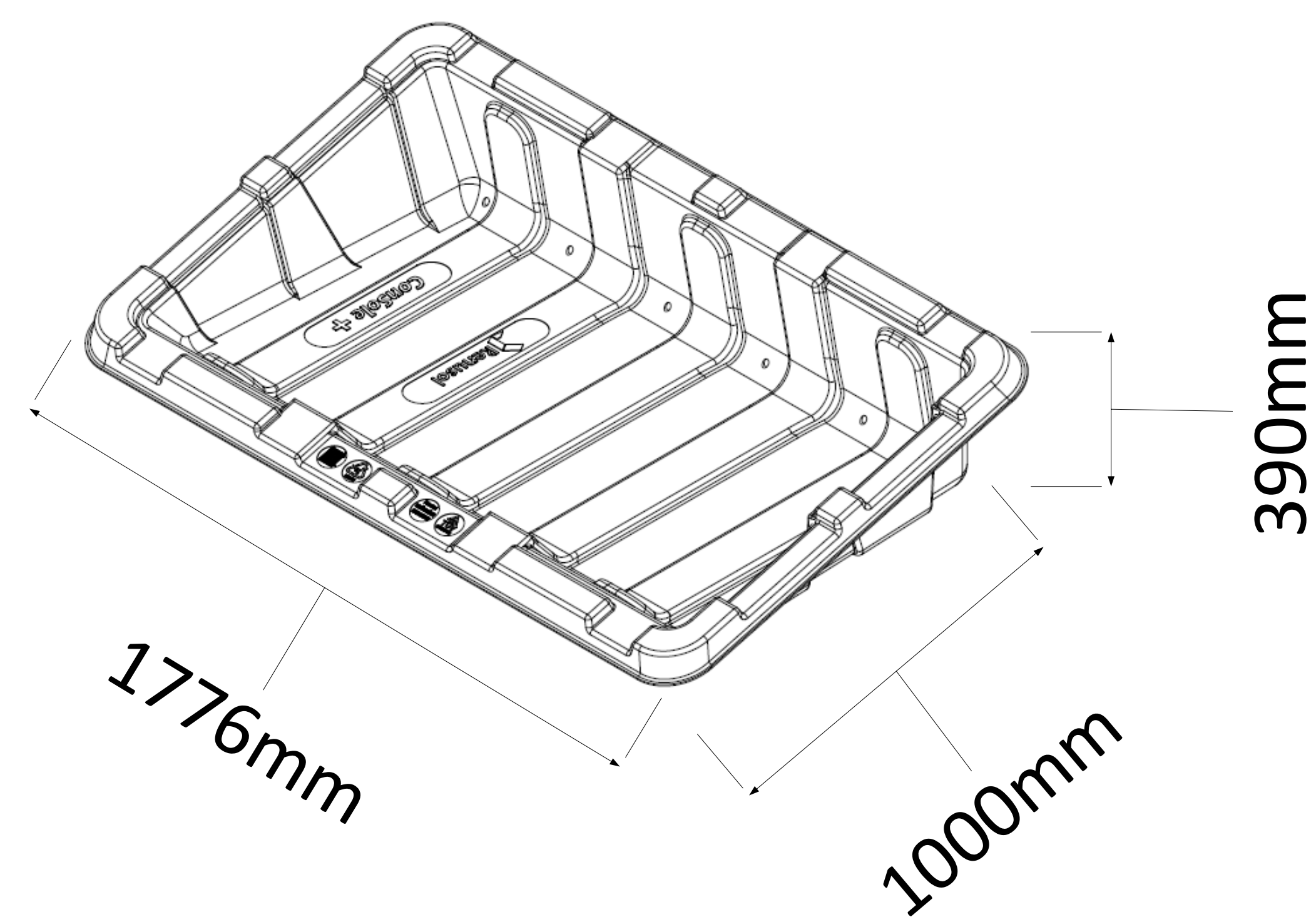
NYMNP
23/02/2023




Mount with module



Mount without module



Example of similar system installed in a 7 column x 5 row formation

Client:	Beacon Farm	Drawing Description:	Console+ information	Drawn By: PB	 Specialists in Renewable Heat & Power Technologies 01423 359600 info@duncanrenewables.co.uk
Site Address:				Issue date: 07/02/23 Revision: A	

NYMNPA

23/02/2023

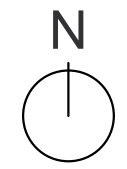
AMENDED



Existing Site Block Plan
1 : 500



VISUAL SCALE 1:500



DRAWING REVISIONS			
REV	DESCRIPTION	DATE	BY / CHK

NOTES
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CLIENT
Chris Shardlow

PROJECT
Beacon Farm Ice Cream

DRAWING TITLE
Existing Site Block Plan

DRAWING STATUS

SCALE (@ A3) 1 : 500	DATE 19/10/22	
DRAWN BY MB	CHECKED BY RT	
JOB NO. XXXX	DWG NO. SK(00)02	REV

PV Modules

Site Boundary

NYMNPA
23/02/2023

AMENDED

New infill hedge
Local native Species

Tree Mounted Bat Box

DRAWING REVISIONS			
REV	DESCRIPTION	DATE	BY / CHK

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CLIENT
Chris Shardlow

PROJECT
Beacon Farm Ice Cream

DRAWING TITLE
Proposed Plan

DRAWING STATUS

SCALE (@ A3) 1 : 200	DATE 10/19/22
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DRAWN BY Author	CHECKED BY Checker
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JOB NO. XXXX	DWG NO. SK(00)03	REV
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Proposed Plan
1 : 200



VISUAL SCALE 1:200

