

TRANSMITTAL FORM

TO: LAWRENCE BAKER

PROJECT: 2607 MELKSHAM

FOR THE ATTENTION OF: DESIGN
MANAGER

SUBMITTAL NO: 2607-HCL-ZZ-XX-TS-E-0205

DATE: 04/12/25

Please find enclosed the following:

Drawings ☐ Samples ☐ Specifications ☒ Technical submittal ☒Change Order ☐ Other ☐Please find attached for your comments/approval manufacturers Information
and technical data associated with the:Photovoltaic Panels

☒ FOR APPROVAL☐ FOR MANUFACTURE/CONSTRUCTION☐ RESUBMIT COPIES FOR APPROVAL☒ AS REQUESTED☐ RETURNED FOR CORRECTIONS☐ APPROVED AS NOTED☒ FOR YOUR COMMENTS☐ FOR YOUR INFORMATION☐ SUBMIT COPIES FOR DISTRIBUTION

PREPARED BY:

Kevin Powell

FOR HARNISS CONTRACTING LTD

Please acknowledge safe receipt of the above-mentioned transmittal(s) with your comments/approval by
signing below:

Acknowledgement required no later than: 18/12/25

REMARKS

SIGNED BY:
(CLIENT)

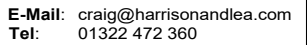
DATE:

PROJECT DESCRIPTION:	
SYSTEM SIZE	61.48KW DC STC & 60.00 KW AC
MODULE TYPE	(116) JA SOLAR JAM60D42-530/LB
INVERTER TYPE	(01) GINLONG (SOLIS) S5-GC60K INVERTER

INVERTER TYPE	(01) GINLONG (SOLIS) S5-GC60K INVERTER
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S.00	STRING LAYOUT
S.01	FRAMING LAYOUT
E.00	ELECTRICAL LINE DIAGRAM
D.00-D.03	SPECIFICATION SHEET

D.00-D.03	SPECIFICATION SHEET
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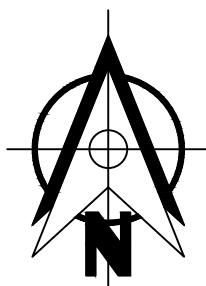


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DATE	REV.	DESCRIPTION
05/08/2025	1	Layout Change
19/09/2025	2	Update Roof Plan
23/10/2025	3	Update Roof Plan

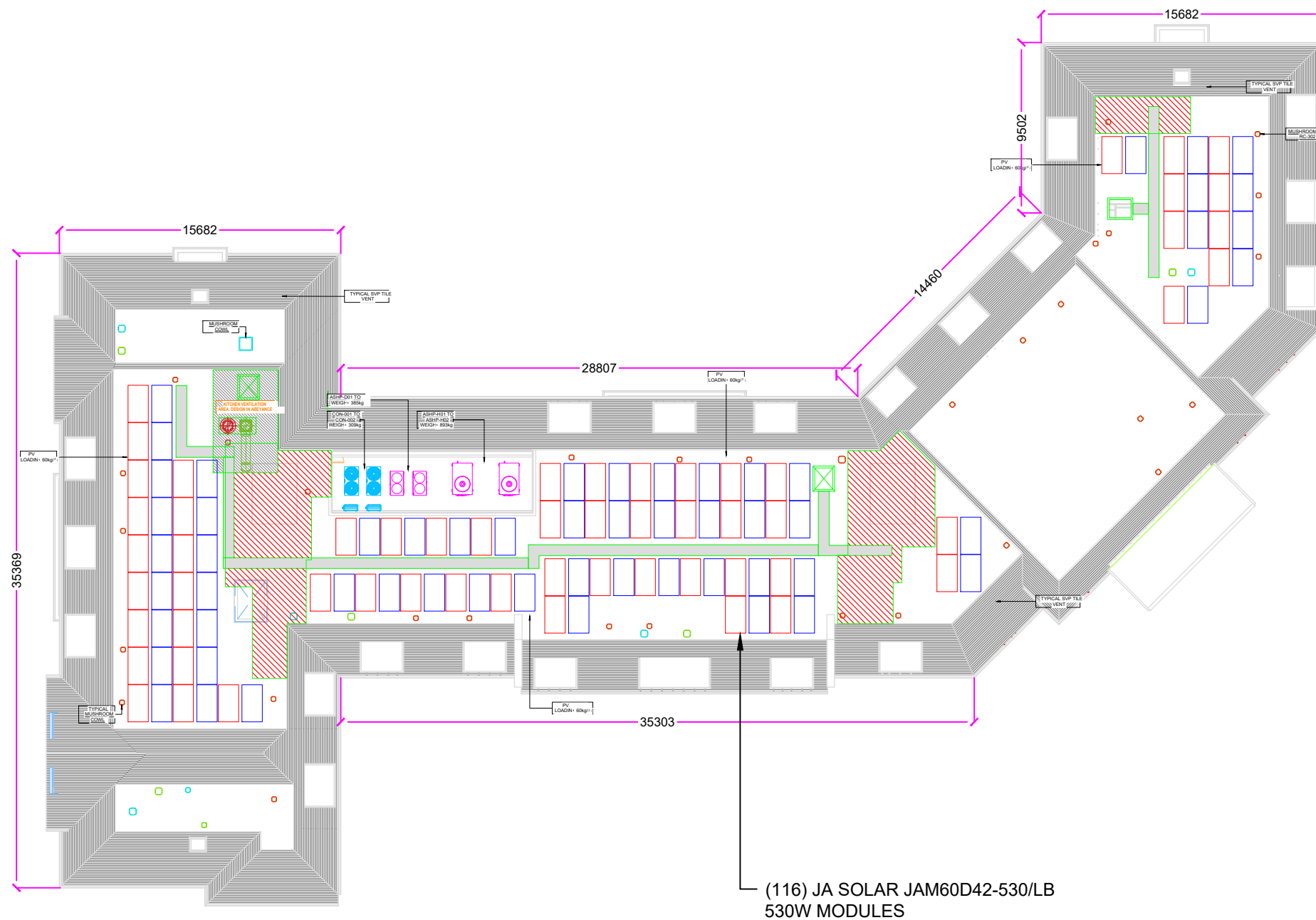
MELKSHAM CAREHOME

A.00



1 SITE PLAN

SCALE: 1:300



- (116) JA SOLAR JAM60D42-530/LB
530W MODULES



MODULES AREA & ROOF AREA CALC'S			
# OF MODULES	MODULES AREA (Sq. Meter)	ROOF AREA (Sq. Meter)	ROOF AREA COVERED BY MODULES (%)
116	270.28	1275.41	21.19

LEGENDS

EAST FACING MODULE

WEST FACING MODULE

 **HARRISON & LEA**
RENEWABLE ENERGY SPECIALISTS

HARRISON & LEA LTD
30 EAST HILL, SOUTH DARENTH,
KENT, DA4 9AN

E-Mail: craig@harrisonandlea.com
Tel: 01322 472 360

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PROJECT NAME

MELKSHAM CAREHOME

SHEET NAME

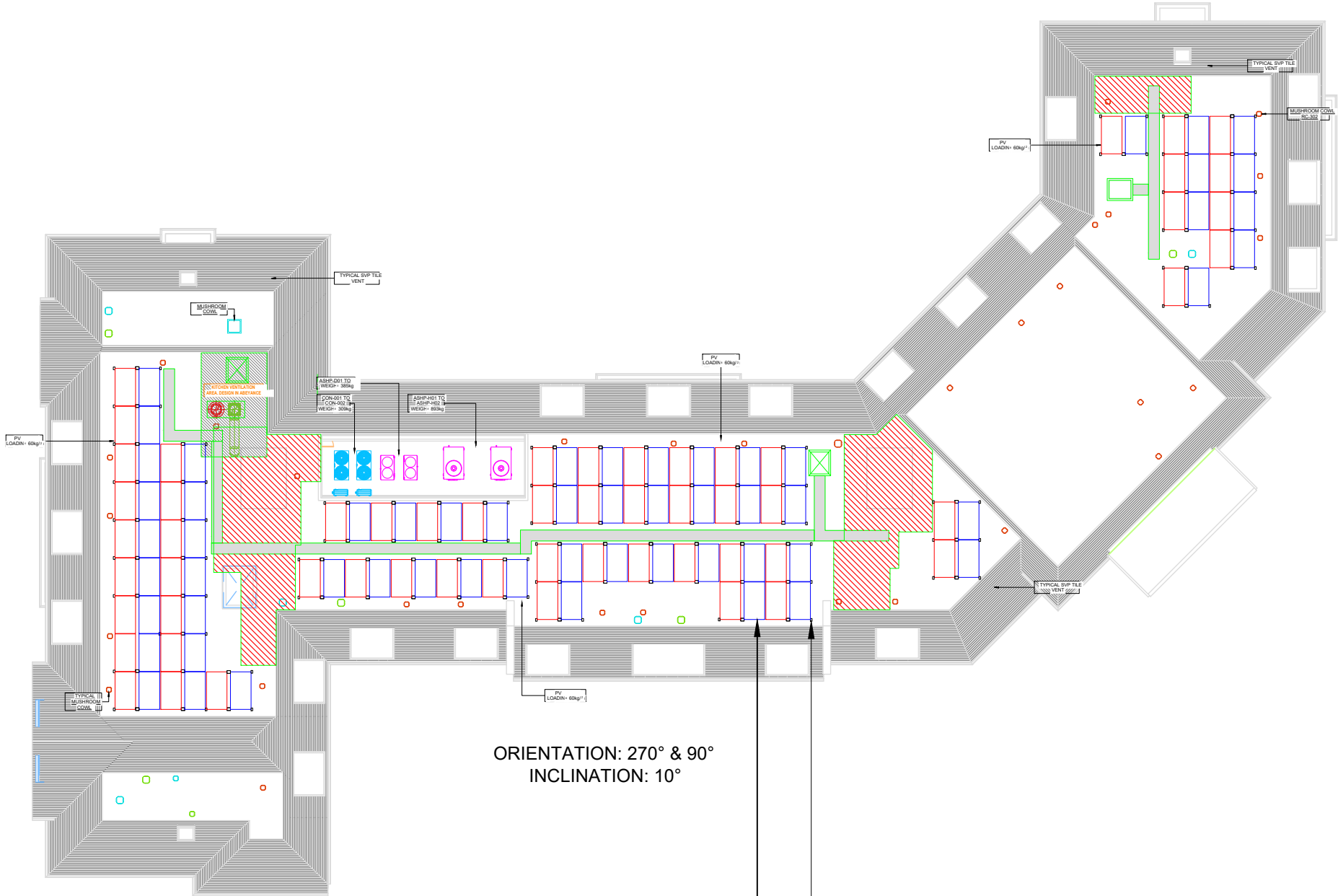
LAYOUT PLAN

SHEET SIZE

ANSI D
610 x 914

SHEET NUMBER

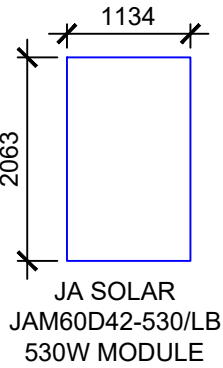
A.01

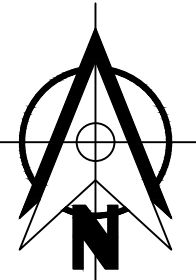


ORIENTATION: 270° & 90°
INCLINATION: 10°

RENUSOL FS PRO EAST/WEST
ATTACHMENT(TYP.)

(116) JA SOLAR JAM60D42-530/LB
530W MODULES





LAYOUT PLAN
SCALE: 1:300

SYSTEM SIZE 61.48KW DC STC & 60.00KW AC
(116) JA SOLAR JAM60D42-530/LB 530W MODULES

2*16 PANELS CONNECTED IN STRING TO MPPT #1

1*16 PANELS CONNECTED IN STRING TO MPPT #2

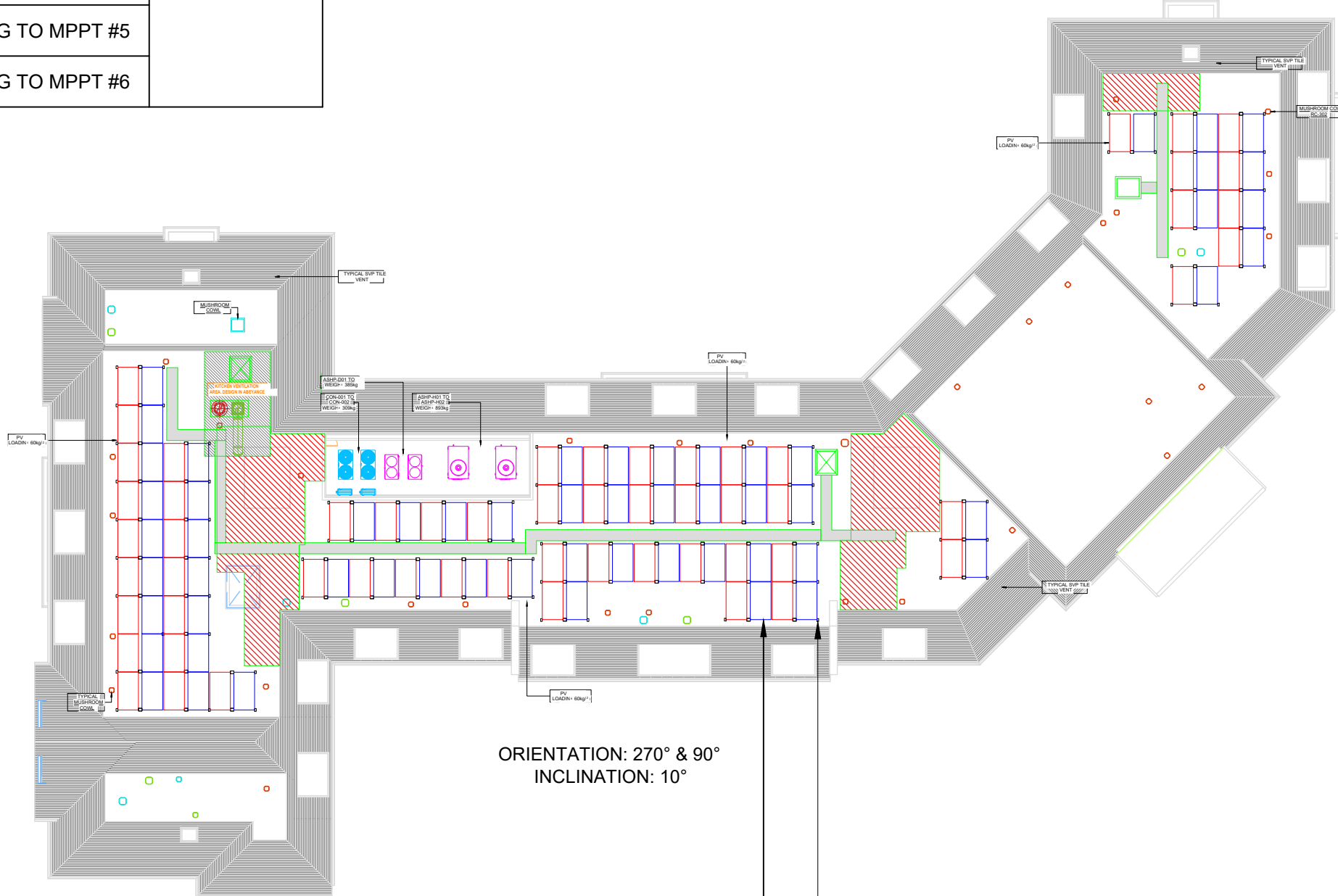
1*10 PANELS CONNECTED IN STRING TO MPPT #3

2*16 PANELS CONNECTED IN STRING TO MPPT #4

1*16 PANELS CONNECTED IN STRING TO MPPT #5

1*10 PANELS CONNECTED IN STRING TO MPPT #6

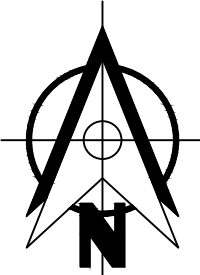
INVERTER: #1
(S5-GC60K)



ORIENTATION: 270° & 90°
INCLINATION: 10°

RENUSOL FS PRO EAST/WEST
ATTACHMENT(TYP.)

(116) JA SOLAR JAM60D42-530/LE
530W MODULES



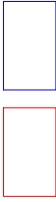
1 LAYOUT PLAN

SCALE: 1:300

LEGENDS

EAST FACING MODULE

WEST FACING MODULE



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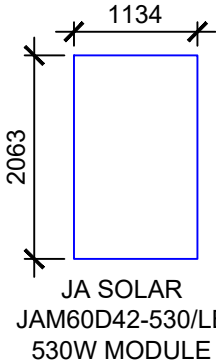
STRING LAYOUT

SHEET SIZE

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SHEET NUMBER

S.00



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FRAMING
DETAILS

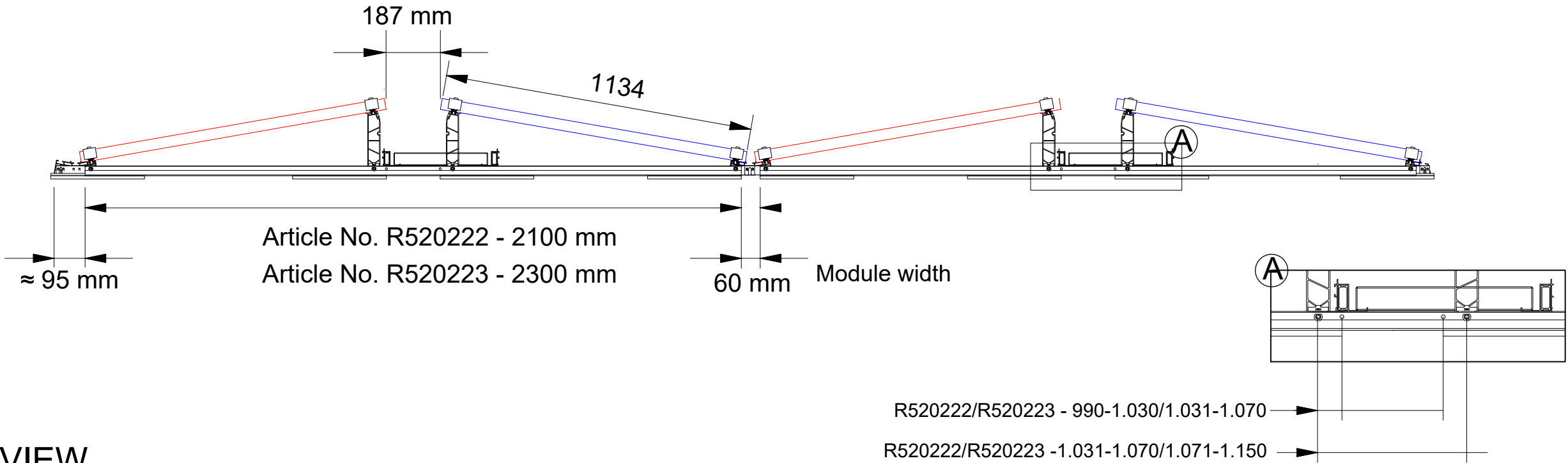
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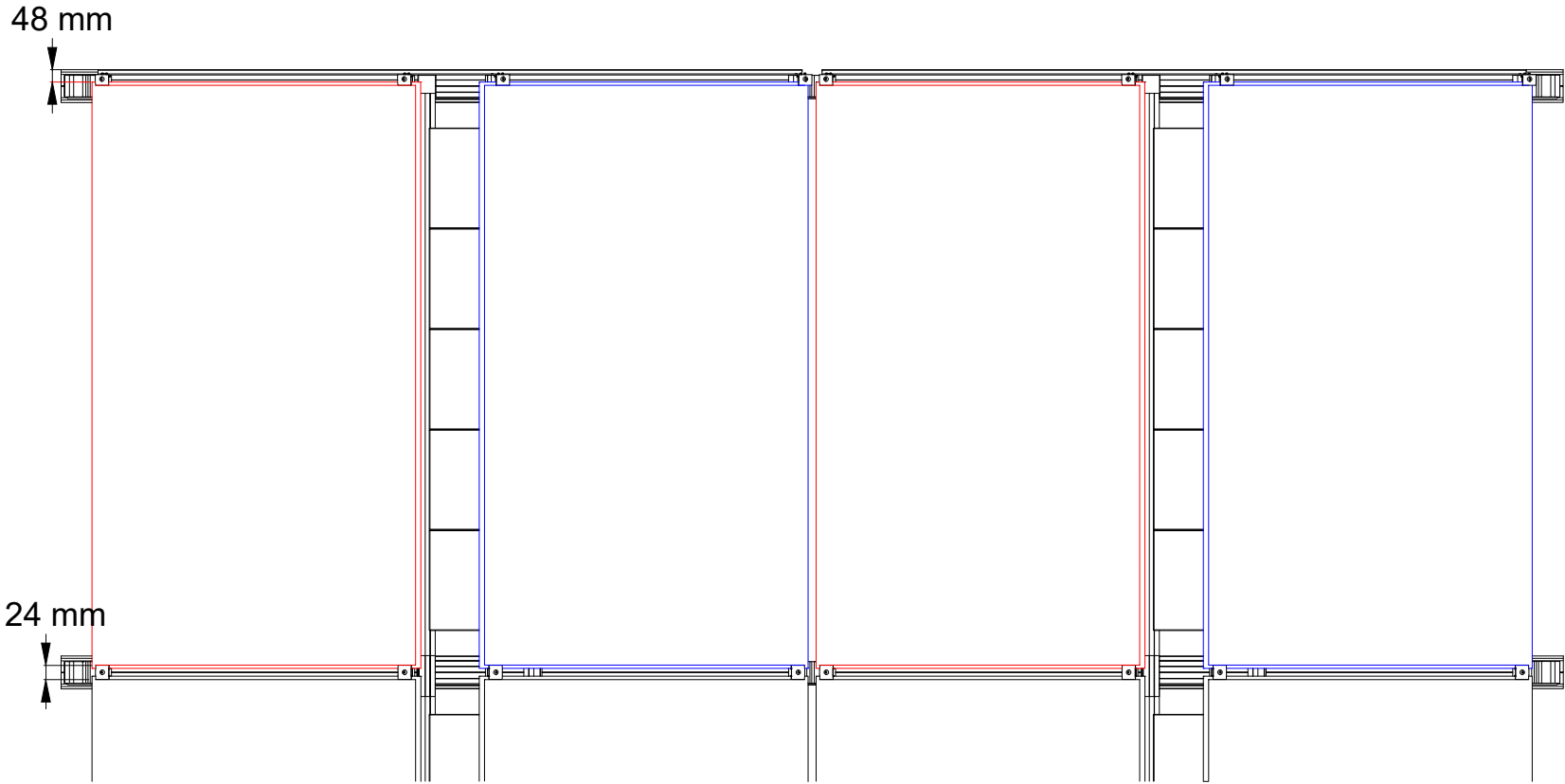
SHEET NUMBER

S.01

R520222/R520223 - 990-1.030/1.031-1.070



1 SIDE VIEW
SCALE: NTS



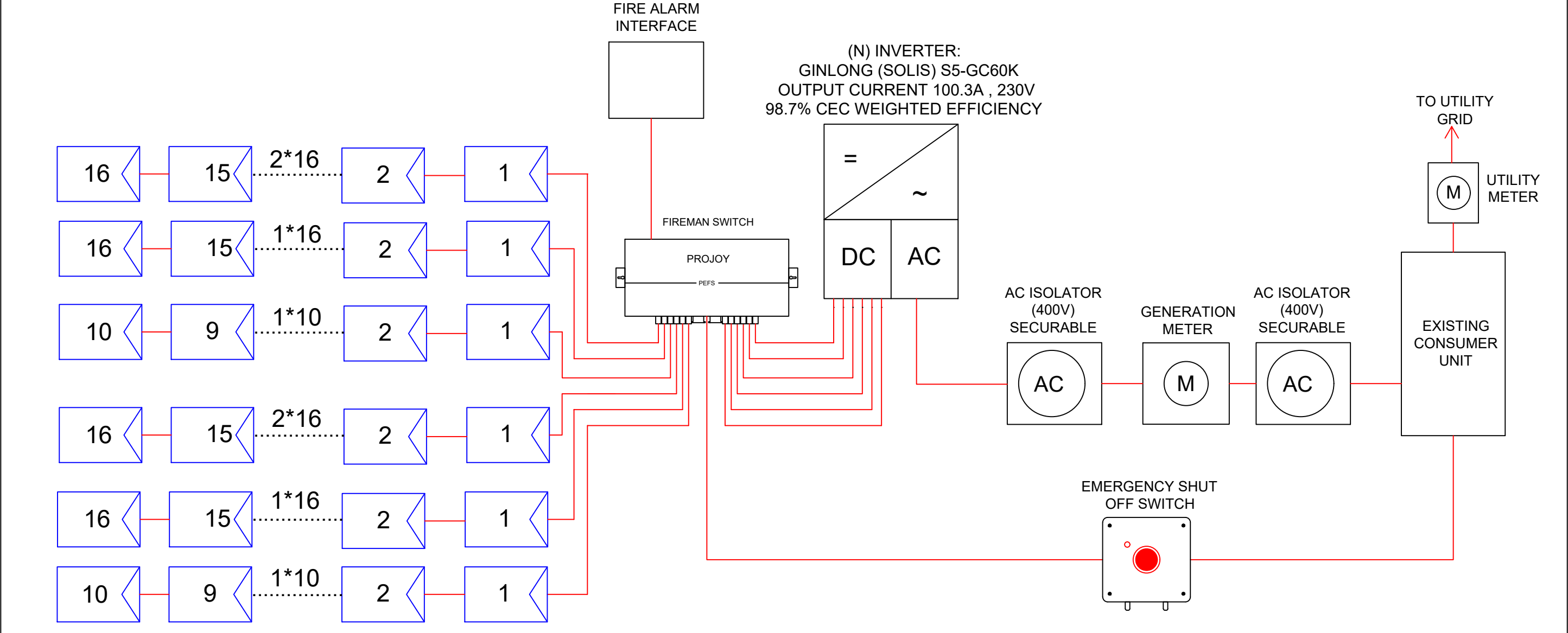
2 TOP VIEW
SCALE: NTS

SYSTEM SIZE 61.48KW DC STC & 60.00KW AC (116) JA SOLAR JAM60D42-530/LB 530W MODULES	SYSTEM SIZE	ORIENT.	ARRAY INCLINATION
2*16 PANELS CONNECTED IN STRING TO MPPT #1	16.96 KW	90° & 270°	10°
1*16 PANELS CONNECTED IN STRING TO MPPT #2	8.48 KW	90° & 270°	10°
1*10 PANELS CONNECTED IN STRING TO MPPT #3	5.30 KW	90° & 270°	10°
2*16 PANELS CONNECTED IN STRING TO MPPT #4	16.96 KW	90° & 270°	10°
1*16 PANELS CONNECTED IN STRING TO MPPT #5	8.48 KW	90° & 270°	10°
1*10 PANELS CONNECTED IN STRING TO MPPT #6	5.30 KW	90° & 270°	10°

SOLAR MODULE SPECIFICATIONS	
MANUFACTURER / MODEL #	JA SOLAR JAM60D42-530/LB
VMP	36.81 V
IMP	14.40 A
VOC	43.93 V
ISC	15.26 A
MODULE DIMENSION	2063 (L) x 1134 (W) x 30 (D) (in mm)
MODULE EFFICIENCY (%)	22.6
OUTPUT DETAILS INVERTER	
RATED MAX. POWER- POINT CURRENT (Imp)	115.20 A
RATED MAX. POWER-POINT VOLTAGE (Vmp)	588.96 V
MAX. SYSTEM-VOLTAGE (Voc)	702.88V
SHORT CIRCUIT-CURRENT (Isc)	122.08 A

NOTES	
1	THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL RELEVANT DOCUMENTS AND SPECIFICATIONS.
2	INFORMATION AND SETTING OUT ON THIS DRAWING IS BASED LARGELY ON INFORMATION TAKEN FROM CAD DRAWINGS PREPARED BY OTHERS AND GIVEN IN GOOD FAITH. NO RESPONSIBILITY CAN BE ACCEPTED FOR ERRORS RESULTING FROM INACCURACIES IN THESE ORIGINAL DRAWINGS
3	LAYOUT SUBJECT TO CHANGE DEPENDANT ON SITE CONDITIONS.

INVERTER SPECIFICATIONS	
MANUFACTURER / MODEL #	S5-GC60K
MAX. DC INPUT POWER	1100 V
MAX. APPARENT OUTPUT POWER	66 KW
MAX. OUTPUT CURRENT	100.3 A



1 ELECTRICAL LINE DIAGRAM & CALCULATION
SCALE:- NTS

HARRISON & LEA LTD
30 EAST HILL, SOUTH DARENTH, KENT, DA4 9AN

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Tel: 01322 472 360

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ELECTRICAL LINE DIAGRAM

SHEET SIZE

ANSI D
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SHEET NUMBER

E.00

Harvest the Sunshine

530W

JA SOLAR

JAM60D42 LB Black Frame
n-type Double Glass Bifacial Modules

Premium Cells

n-Bycium+
16BB

26%
Up To

MBB Half-Cell Technology

Cell Conversion Efficiency

Premium Modules

Higher power generation better LCOE

n-type with very Lower LID

Better Temperature Coefficient

Better low irradiance response

15-year product warranty

30-year linear power output warranty

99%

87.4%

83.1%

1% 1st-year Degradation

0.4% Annual Degradation Over 30 years

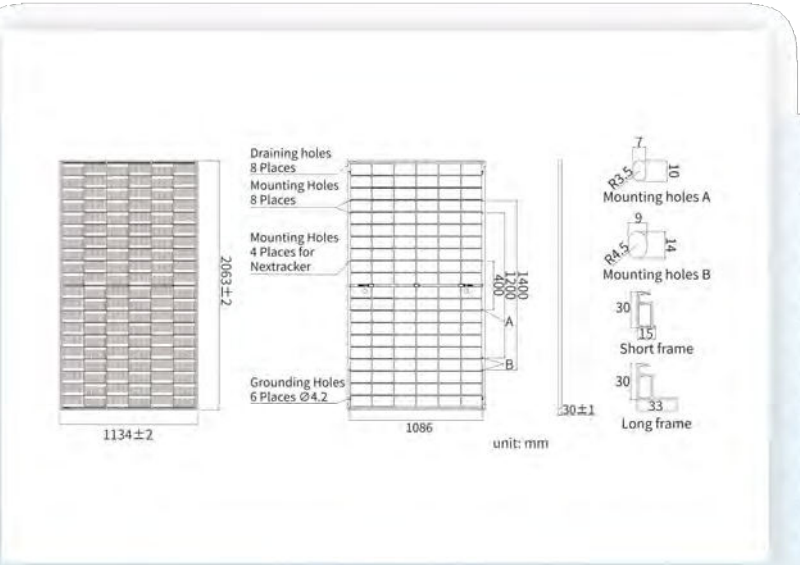
+6.3%

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



JAM60D42 LB n-type Double Glass Bifacial Modules



MECHANICAL PARAMETERS

Cell	Mono
Weight	28.8kg
Dimensions	2063±2mm×1134±2mm×30±1mm
Cable Cross Section Size	4mm²(IEC), 12 AWG(UL)
No. of cells	120(6×20)
Junction Box	IP68, 3diodes
Connector	QC 4.10-351/ MC4-EVO2A
Cable Length (Including Connector)	Portrait: 300mm(+)/400mm(-) Landscape: 1200mm(+)/1200mm(-)
Front Glass/Back Glass	2.0mm/2.0mm
Packaging Configuration	36pcs/Pallet, 792pcs/40HQ Container

Remark: customized frame color and cable length available upon request

ELECTRICAL PARAMETERS AT STC

TYPE	JAM60D42 505/LB	JAM60D42 510/LB	JAM60D42 515/LB	JAM60D42 520/LB	JAM60D42 525/LB	JAM60D42 530/LB
Rated Maximum Power(Pmax) [W]	505	510	515	520	525	530
Open Circuit Voltage (Voc) [V]	42.93	43.13	43.33	43.53	43.73	43.93
Maximum Power Voltage(Vmp) [V]	35.69	35.92	36.15	36.37	36.59	36.81
Short Circuit Current(Isc) [A]	15.01	15.06	15.11	15.16	15.21	15.26
Maximum Power Current(Imp) [A]	14.15	14.20	14.25	14.30	14.35	14.40
Module Efficiency [%]	21.6	21.8	22.0	22.2	22.4	22.7
Power Tolerance	0~+3%					
Temperature Coefficient of Isc(α_Isc)	+0.045%/°C					
Temperature Coefficient of Voc (β_Voc)	-0.250%/°C					
Temperature Coefficient of Pmax(γ_Pmp)	-0.290%/°C					
STC	Irradiance 1000W/m², cell temperature 25°C, AM1.5G					

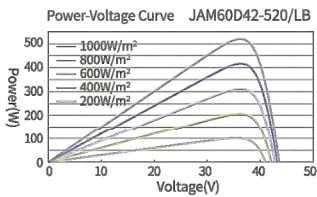
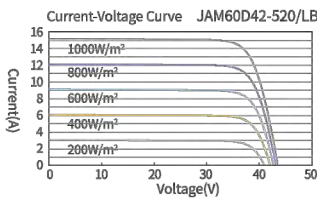
Remark: Electrical data in this catalog do not refer to a single module and they are not part of the offer. They only serve for comparison among different module types.

ELECTRICAL CHARACTERISTICS WITH 10% SOLAR IRRADIATION RATIO

TYPE	JAM60D42 505/LB	JAM60D42 510/LB	JAM60D42 515/LB	JAM60D42 520/LB	JAM60D42 525/LB	JAM60D42 530/LB
Rated Max Power(Pmax) [W]	545	551	556	562	567	572
Open Circuit Voltage(Voc) [V]	42.93	43.13	43.33	43.53	43.73	43.93
Max Power Voltage(Vmp) [V]	35.69	35.92	36.15	36.37	36.59	36.81
Short Circuit Current(Isc) [A]	16.21	16.26	16.32	16.37	16.43	16.48
Max Power Current(Imp) [A]	15.28	15.34	15.39	15.44	15.50	15.55
Irradiation Ratio (rear/front)	10%					

* Bifaciality=Pmax, rear/Rated Pmax, front

CHARACTERISTICS



OPERATING CONDITIONS

Maximum System Voltage	1500V DC
Operating Temperature	-40°C~+85°C
Maximum Series Fuse Rating	30A
Maximum Static Load, Front	5400Pa(112 lb/ft²)
Maximum Static Load, Back	2400Pa(50 lb/ft²)
NOCT	45±2°C
Bifaciality*	80%±10%
Safety Class	Class II
Fire Performance	UL Type 29/Class C



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E-mail: sales@jasolar.com marketing@jasolar.com www.jasolar.com

Specifications subject to technical changes and tests.
JA Solar reserves the right of final interpretation.
Version No.: Global-EN-20240620A



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SHEET NAME

SPECIFICATION SHEET

SHEET SIZE

ANSI D
610 x 914

SHEET NUMBER

D.00



S5-GC(50-70)K

Solis Three Phase Inverters



Model:

400V: S5-GC50K S5-GC60K 480V: S5-GC60K-HV S5-GC70K-HV



Efficient

- ▶ Max. efficiency 98.7%
- ▶ String current up to **16A**
- ▶ 5/6 MPPT design, supports multiple orientation system design
- ▶ Night time PID recovery function, increases overall system yield



Smart

- ▶ Night time SVG function
- ▶ Supports export power control
- ▶ Intelligent string monitoring, Smart I-V curve scan
- ▶ Scan to register on SolisCloud, supports remote upgrade and control



Safe

- ▶ IP66, C5 Anti-Corrosion Level
- ▶ Intelligent redundant fan-cooling
- ▶ Globally recognised branded componentry for longer life
- ▶ AFCI protection, proactively reduces fire risk



Economic

- ▶ Supports PLC/GPRS/WiFi communication with less wiring and reduced installation costs
- ▶ DC side supports "Y" connectors
- ▶ Supports aluminium wire access to reduce cost
- ▶ 10/12 string inputs allow for 150%+ DC oversizing.



Datasheet				
Model Name	S5-GC50K	S5-GC60K	S5-GC60K-HV	S5-GC70K-HV
Input DC				
Max. input voltage		1100 V		
Rated voltage	600 V			720 V
Start-up voltage		195 V		
MPPT voltage range		180-1000 V		
Max. input current	5*32 A		6*32 A	
Max. short circuit current	5*50 A		6*50 A	
MPPT number/Max. input strings number	5/10		6/12	
Output AC				
Rated output power	50 kW	60 kW	60 kW	70 kW
Max. apparent output power	55 kVA	66 kVA	66 kVA	77 kVA
Max. output power	55 kW	66 kW	66 kW	77 kW
Rated grid voltage	3/N/PE, 220 V / 380 V, 230 V / 400 V			3/PE, 480 V
Rated grid frequency		50 Hz / 60 Hz		
Rated grid current	76.0 A / 72.2 A	91.2 A / 86.6 A	72.2 A	84.2 A
Max. output current	83.6 A	100.3 A	79.4 A	92.6 A
Power Factor		>0.99 (0.8 leading - 0.8 lagging)		
THDi		<3%		
Efficiency				
Max. efficiency		98.7%		
CEC efficiency	98.3%			98.4%
Protection				
DC reverse-polarity protection		Yes		
Short circuit protection		Yes		
Output over current protection		Yes		
Surge protection		DC Type II / AC Type II		
Grid monitoring		Yes		
Anti-islanding protection		Yes		
Temperature protection		Yes		
Strings monitoring		Yes		
I/V Curve scanning		Yes		
Integrated AFCI (DC arc-fault circuit protection)		Optional		
Integrated PID recovery		Optional		
Intergarated AC switch		Optional		
Intergarated DC switch		Yes		
General Data				
Dimensions (W*H*D)		691*578*338 mm		
Weight		54.5 kg		
Topology		Transformerless		
Self consumption (night)		<1 W		
Operating ambient temperature range		-25 ~ +60°C		
Relative humidity		0-100%		
Ingress protection		IP66		
Cooling concept		Intelligent redundant fan-cooling		
Max. operation altitude		4000 m		
Grid connection standard		VDE-AR-N 4105, VDE V 0124, VDE V 0126-1-1, UTE C15-712-1, NRS 097-1-2, G98, G99, EN 50549-1/-2, NTS 631, UNE 206006, UNE 206007-1, IEC61727, DEWA		
Safety/EMC standard		IEC 62109-1/-2, IEC62116 & IEC 61000-6-1/-2/-3/-4		
Features				
DC connection		MC4 connector		
AC connection		OT terminal (max. 70 mm²)		
Display		LCD, Capacitive touch buttons		
Communication		RS485, USB, Optional: Wi-Fi, GPRS, PLC		



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SHEET NUMBER

D.01

System Datasheet

Renusol FS Pro 10-EW

General

System	Ballasted PV-mounting system
Content	Base rail with pre-assembled building protection, eaves support and ridge support, eaves support, module clamps
System warranty	10 years, 20 years with PV configurator design
Application area	Flat roof on industrial, agricultural (except hydrogen sulfide exposition) and residential buildings
Roof covering	Bitumen, concrete, foil, gravel, trapezoidal sheet metal
Roof slope	max. 5° without additional measures

Montagevariante

FS Pro 10-EW

You can find further mounting options at www.renusol.com. The Renusol FS Pro 10-EW is available as a system with three rails, as portrait mounting, with a clamp on the long side, as well as a fixed version on trapezoidal sheet metal and roof-penetrating with third-party products.

System properties

System orientation	East-West
Module tilt	10°
System weight approx.	1,15 kg/m²plus ballast (project specific)
Weight PV-module included approx.	11,8 kg/m²plus ballast (project specific)
Friction coefficient approx.	$\mu = 0,5$ is to be determined and ensured upon installation surface.
Material	Aluminium, stainless steel, galvanised sheet steel, PC, PE
Minimum edge distance	0,6 m
Max. Wind Dynamic Pressure	$q_p = 1,5 \text{ kN/m}^2$ (with simultaneously acting snow load of $s_k = 1,5 \text{ kN/m}^2$)
Max. Wind Dynamic Pressure	$q_p = 1,0 \text{ kN/m}^2$ (with simultaneously acting snow load of $s_k = 2,5 \text{ kN/m}^2$)
Maximum snow load	$s_d = 2,0 \text{ kN/m}^2$ for 2 floor rails
Maximum snow load	$s_d = 3,0 \text{ kN/m}^2$ for 3 floor rails

Modules

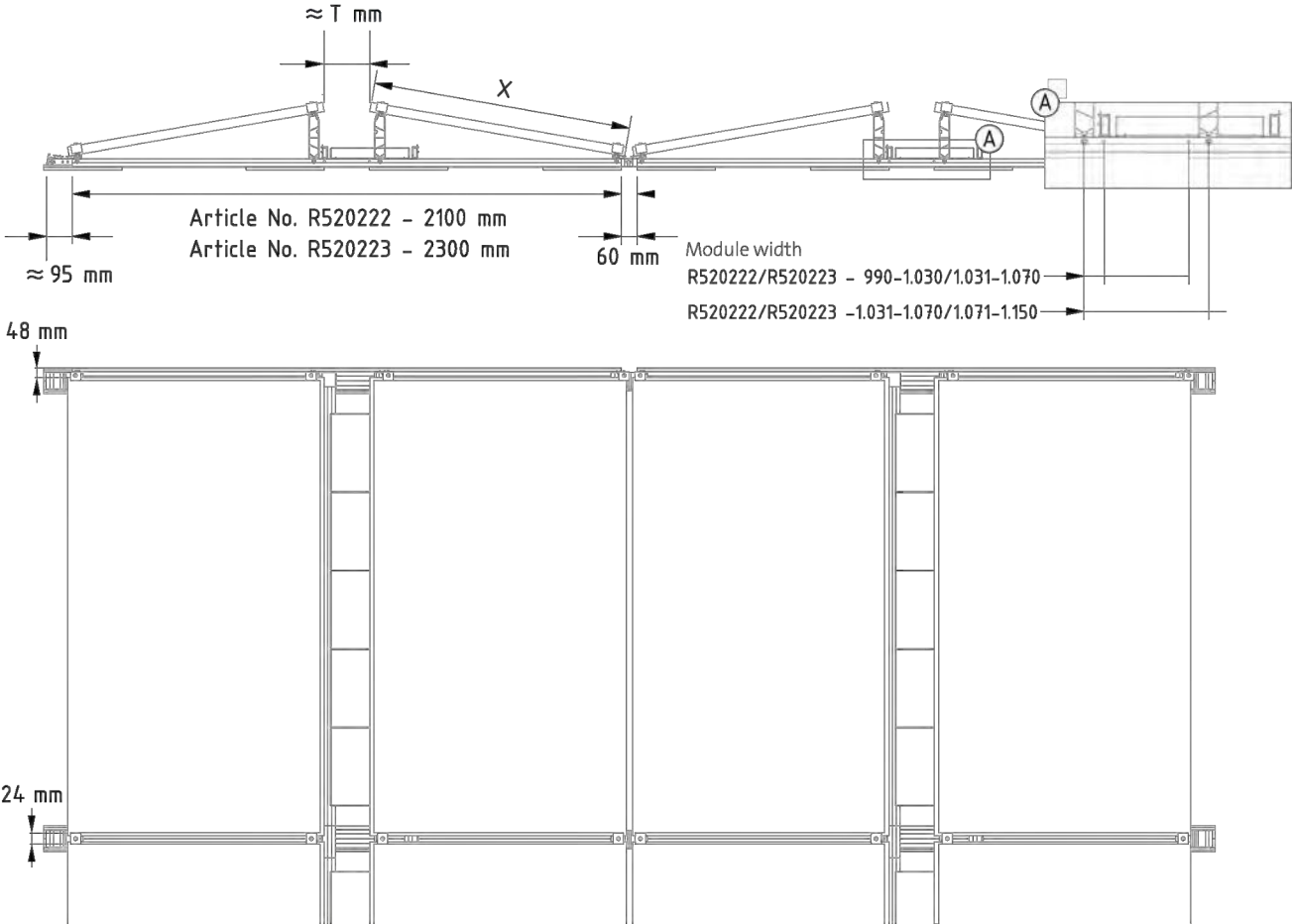
Type	Framed modules. Approval for clamping in the corner area to be provided by the customer.
Module width	R520222: 990-1.070 mm, R520223: 1.071-1.150 mm, R520229: 1.180-1.310 mm
Module guidance	Horizontal

Certifications& Services

Wind loads	Determined in wind tunnel tests by I.F.I Institut für Industrieaerodynamik GmbH
Fire behaviour	Classification: E (DIN EN 13 501-1) / Identification no. 0672
PV layout & Ballast plan	Provided by Renusol PV Configurator (www.pv-configurator.com)

System Datasheet

Renusol FS Pro 10 EW



Rail length		R520222 - 2100 mm
Row spacing		2160 mm
Module width	X:	Min: 990 mm
		Max: 1070 mm
Passageway	T:	Min: 17 mm
		Max: 187 mm
System width		Module length + 65 mm
Shading angle	S(X):	≈ Min: 8,7°

Rail length		R520223 - 2300 mm
Row spacing		2360 mm
Module width	X:	Min: 1071 mm
		Max: 1.150 mm
Passageway	T:	Min: 17 mm
		Max: 187 mm
System width		Module length + 65 mm
Shading angle	S:	≈ Min: 8,7°

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