



## Site Assessment report

### Project Details

Order booking No :

Client name : ABC

Contact : E -ABC@arssolartech.com, M - \*\*\*\*\*

Site :

Date order received : Thursday, 6 July 2017

Date completion : Thursday, 20 July 2017

Order ID : HFDesign -sample-001

## EXECUTIVE SUMMARY

### Location Details

- Site Location
- Technical details

### Design

- Module layout
- Site Feasibility Report
- Shade Report
- Electrical details
- SLD
- Production report

### Offering from Heliofix

- Suitable structure Proposal

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 ARS SOLARTECH PVT. LTD.

## EXECUTIVE SUMMARY

ARS SolarTech Pvt. Ltd is a leading provider of Solar mounting Systems. Our experience in successful partnerships with firms in the Solar Energy industry means that we understand the challenges you face in your business, and deliver products and services to aid you in reaching your objectives.

## Site Location

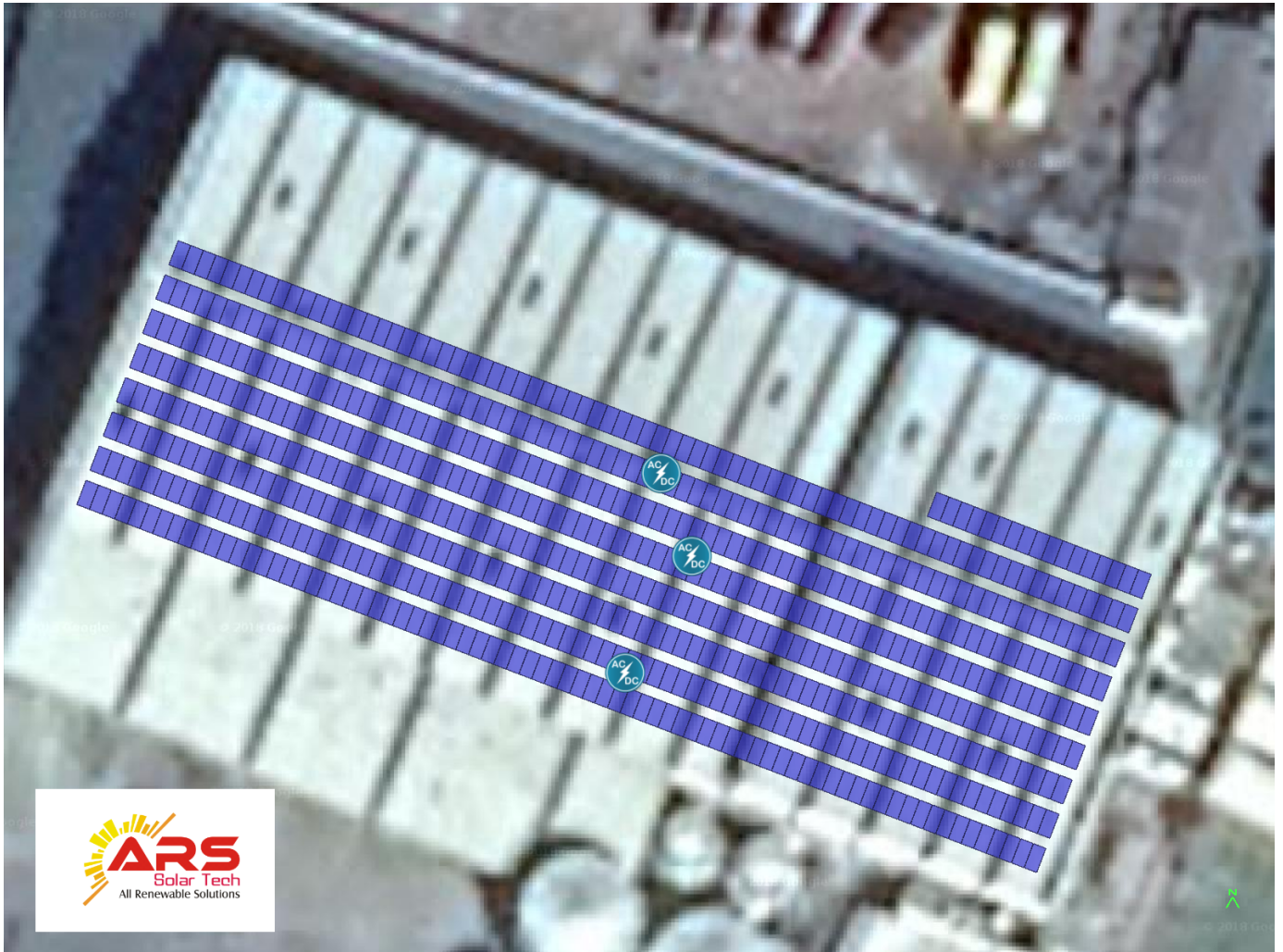


Project Name	Wilmor nagpur
Project Address	21.360776,78.97388980
Roof type	Industrial Roof ( trapeze)
Capacity	120 Kwp
Contact	ABC <a href="mailto:xyz@heliofix.com">xyz@heliofix.com</a> 888800088800

## Technical Details

☁ Condition Set												
Description	Condition Set 1											
Weather Dataset	<a href="#">TMY, 10km Grid, meteonorm (meteonorm)</a>											
Solar Angle Location	Meteo Lat/Lng											
Transposition Model	Perez Model											
Temperature Model	Sandia Model											
Temperature Model Parameters	Rack Type	a			b			Temperature Delta				
	Fixed Tilt	-3.56			-0.075			3°C				
	Flush Mount	-2.81			-0.0455			0°C				
Soiling (%)	J	F	M	A	M	J	J	A	S	O	N	D
	2	2	2	2	2	2	2	2	2	2	2	2
Irradiation Variance	5%											
Cell Temperature Spread	4° C											
Module Binning Range	-2.5% to 2.5%											
AC System Derate	0.50%											
Module Characterizations	Module						Characterization					
	TSM-PD14 320 (May16) (Trina Solar)						Spec Sheet Characterization, PAN					
Component Characterizations	Device						Characterization					
	Sunny Tripower Core1 CEC (SMA)						Default Characterization					

# Module Layout

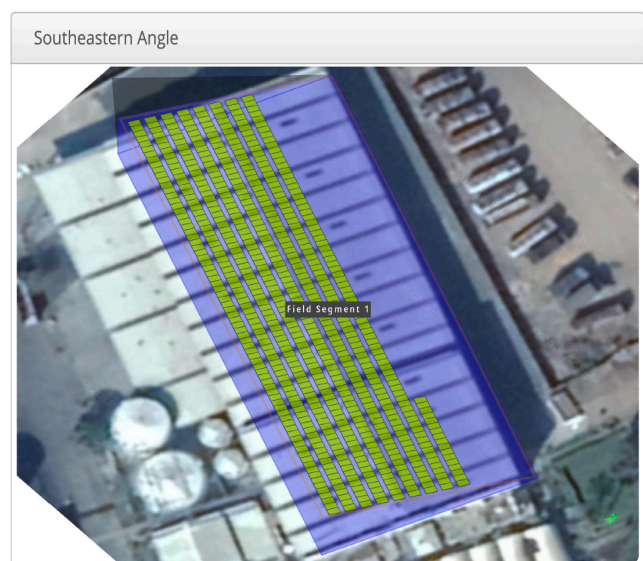
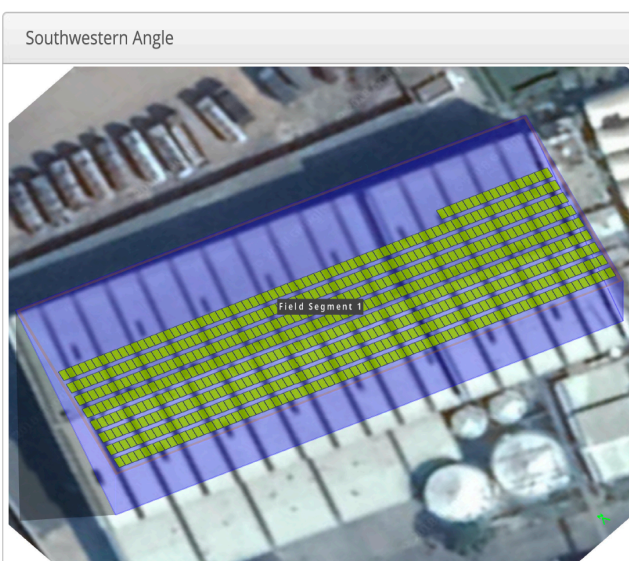
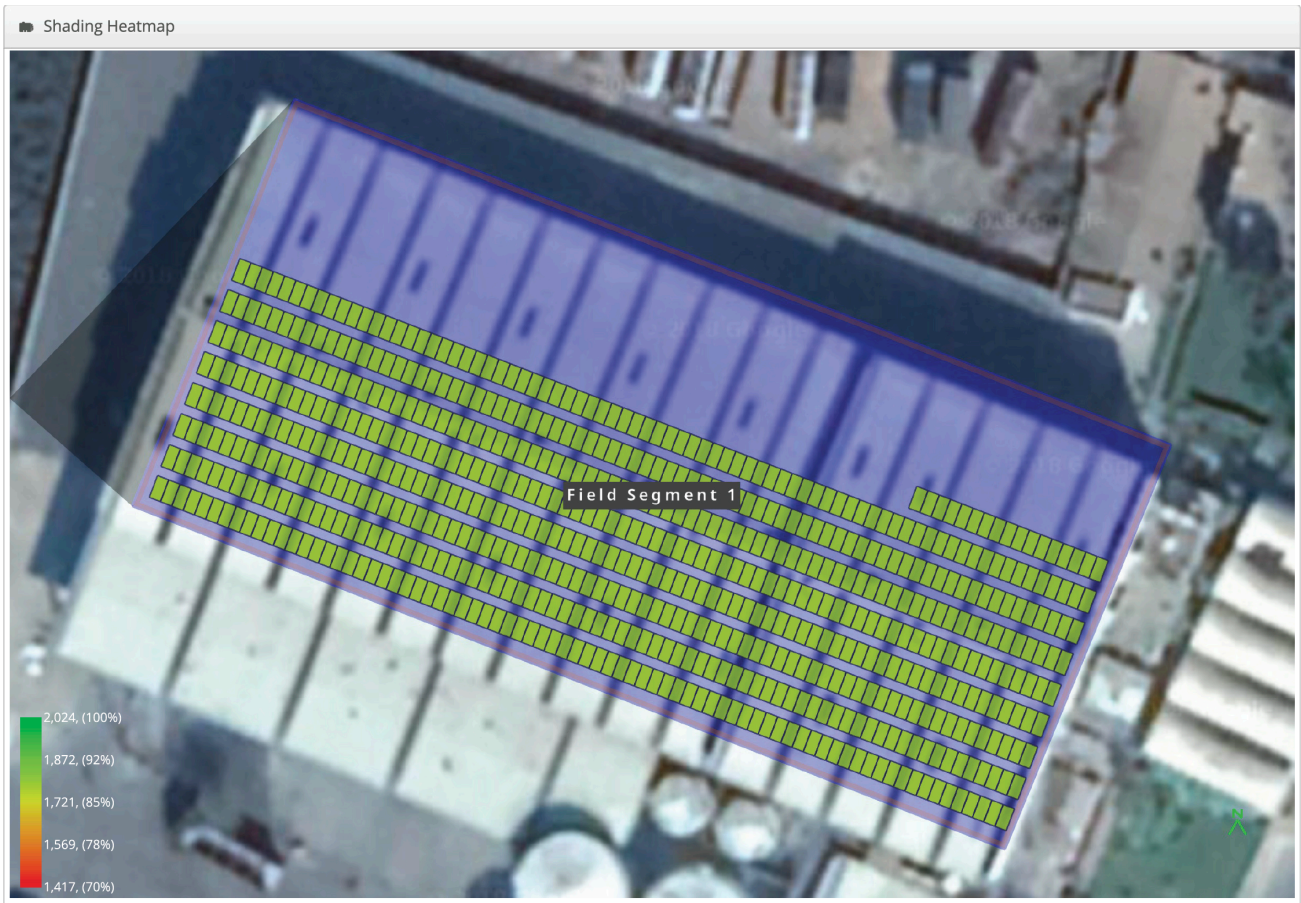


Field Segments										
Description	Racking	Orientation	Tilt	Azimuth	Intrarow Spacing	Frame Size	Frames	Modules	Power	
Field Segment 1	Flush Mount	Portrait (Vertical)	10°	21°	0.8 m	1x	N/A	625	200.0 kW	

Module DC Nameplate	200.0 kW
Inverter AC Nameplate	150.0 kW Load Ratio: 1.33
Annual Production	263.5 MWh
Performance Ratio	74.3%
kWh/kWp	1,317.5
Weather Dataset	TMY, 10km Grid, meteonorm (meteonorm)

Components		
Component	Name	Count
Inverters	Sunny Tripower Core1 CEC (SMA)	3 (150.0 kW)
AC Panels	3 input AC Panel	1
AC Home Runs	35 mm2 (Copper)	3 (98.7 m)
AC Home Runs	150 mm2 (Aluminum)	1 (60.7 m)
Strings	4 mm2 (Copper)	33 (1,414.3 m)
Module	Trina Solar, TSM-PD14 320 (May16) (320W)	625 (200.0 kW)

# Shading Report

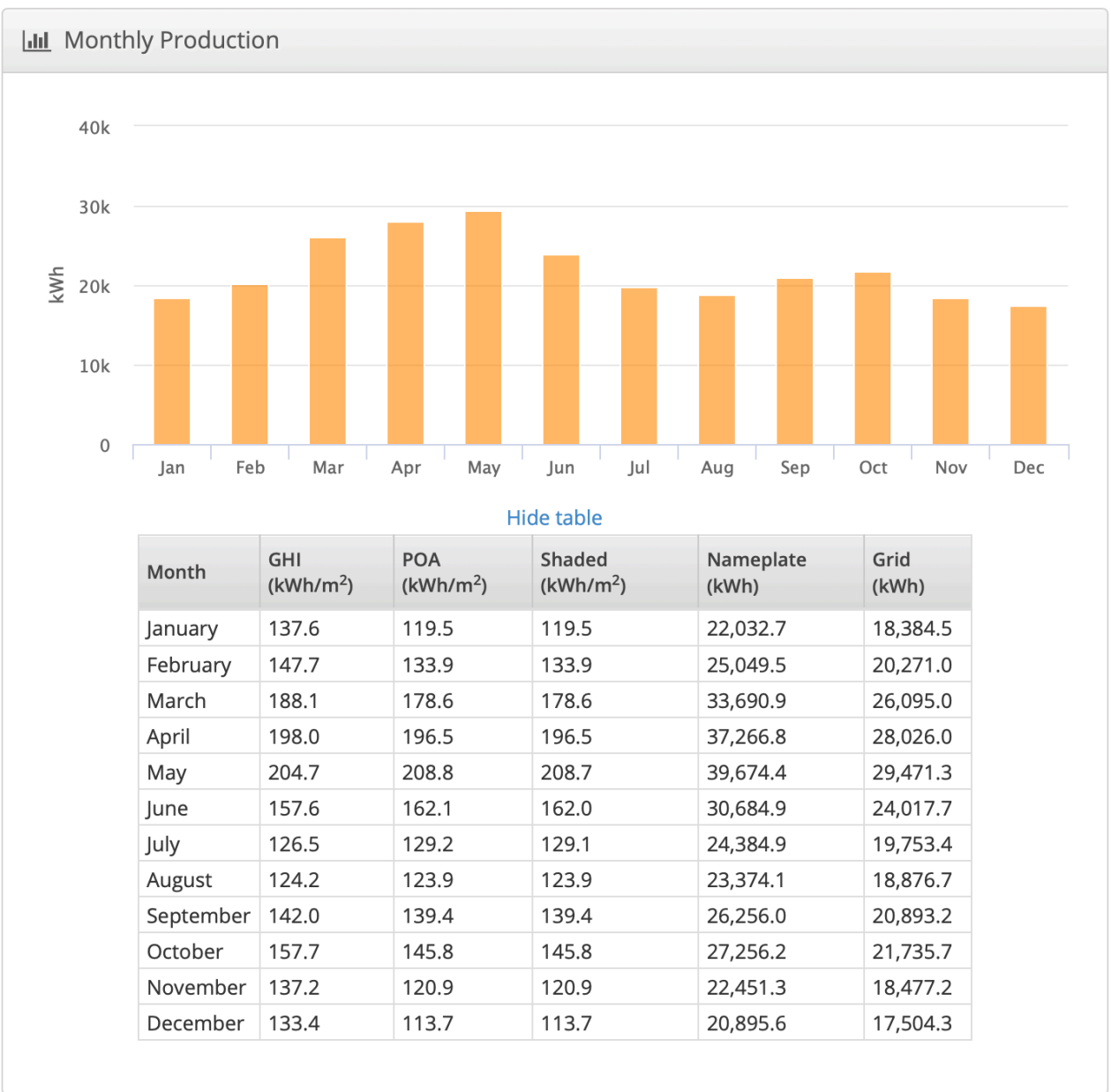


Shading by Field Segment									
Description	Tilt	Azimuth	Modules	Nameplate	Shaded Irradiance	AC Energy	TOF <sup>2</sup>	Solar Access	TSRF <sup>2</sup>
Field Segment 1	10.0°	21.0°	625	200.0 kWp	1,772.1kWh/m <sup>2</sup>	263.5 MWh <sup>1</sup>	87.6%	100.0%	87.5%
<b>Totals, weighted by kWp</b>			<b>625</b>	<b>200.0 kWp</b>	<b>1,772.1kWh/m<sup>2</sup></b>	<b>263.5 MWh</b>	<b>87.6%</b>	<b>100.0%</b>	<b>87.5%</b>

<sup>1</sup> approximate, varies based on inverter performance  
<sup>2</sup> based on location Optimal POA Irradiance of 2,024.2kWh/m<sup>2</sup> at 28.6° tilt and 175.0° azimuth

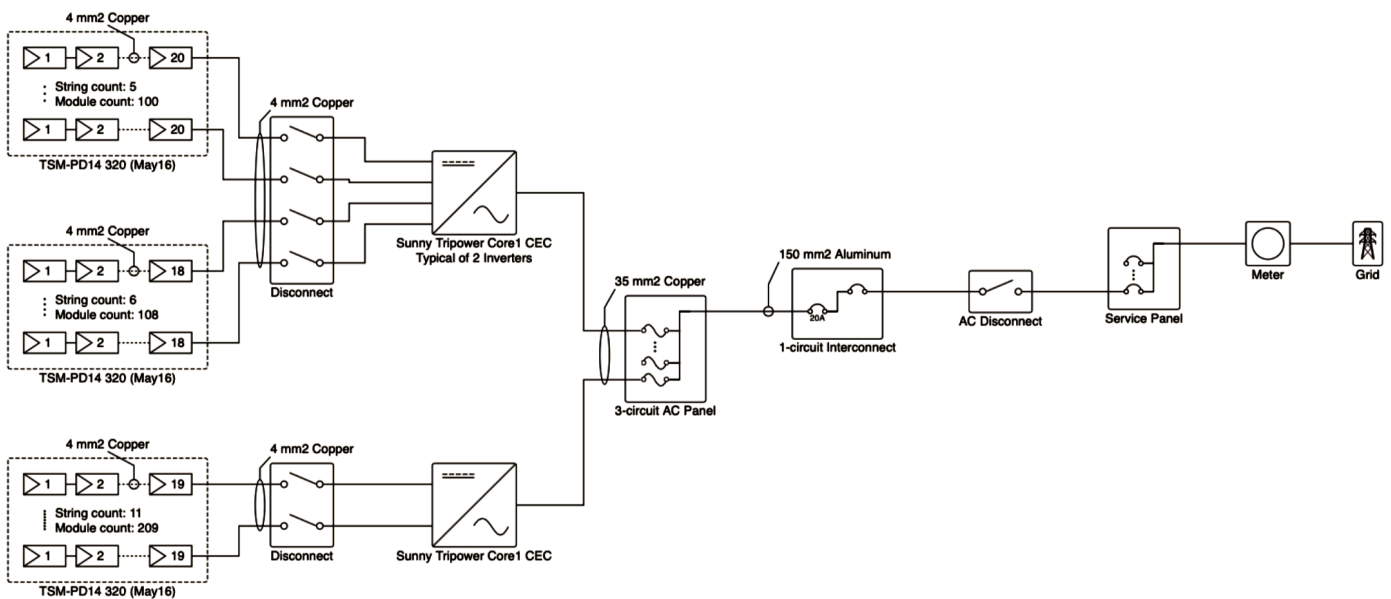
Solar Access by Month												
Description	jan	feb	mar	apr	may	jun	jul	aug	sep	oct	nov	dec
Field Segment 1	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
<b>Solar Access, weighted by kWp</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>
<b>AC Power (kWh)</b>	<b>18,384.5</b>	<b>20,271.0</b>	<b>26,095.0</b>	<b>28,026.0</b>	<b>29,471.3</b>	<b>24,017.7</b>	<b>19,753.4</b>	<b>18,876.7</b>	<b>20,893.2</b>	<b>21,735.7</b>	<b>18,477.2</b>	<b>17,504.3</b>

## Production Report



## Electrical Components & Sld

Components		
Component	Name	Count
Inverters	Sunny Tripower Core1 CEC (SMA)	3 (150.0 kW)
AC Panels	3 input AC Panel	1
AC Home Runs	35 mm2 (Copper)	3 (98.7 m)
AC Home Runs	150 mm2 (Aluminum)	1 (60.7 m)
Strings	4 mm2 (Copper)	33 (1,414.3 m)
Module	Trina Solar, TSM-PD14 320 (May16) (320W)	625 (200.0 kW)



Module Specifications	
625x Trina Solar TSM-PD14 320 (May16)	
STC Rating	320 W
Vmp	37.1 V
Imp	8.63 A
Voc	45.8 V
Isc	9.1 A

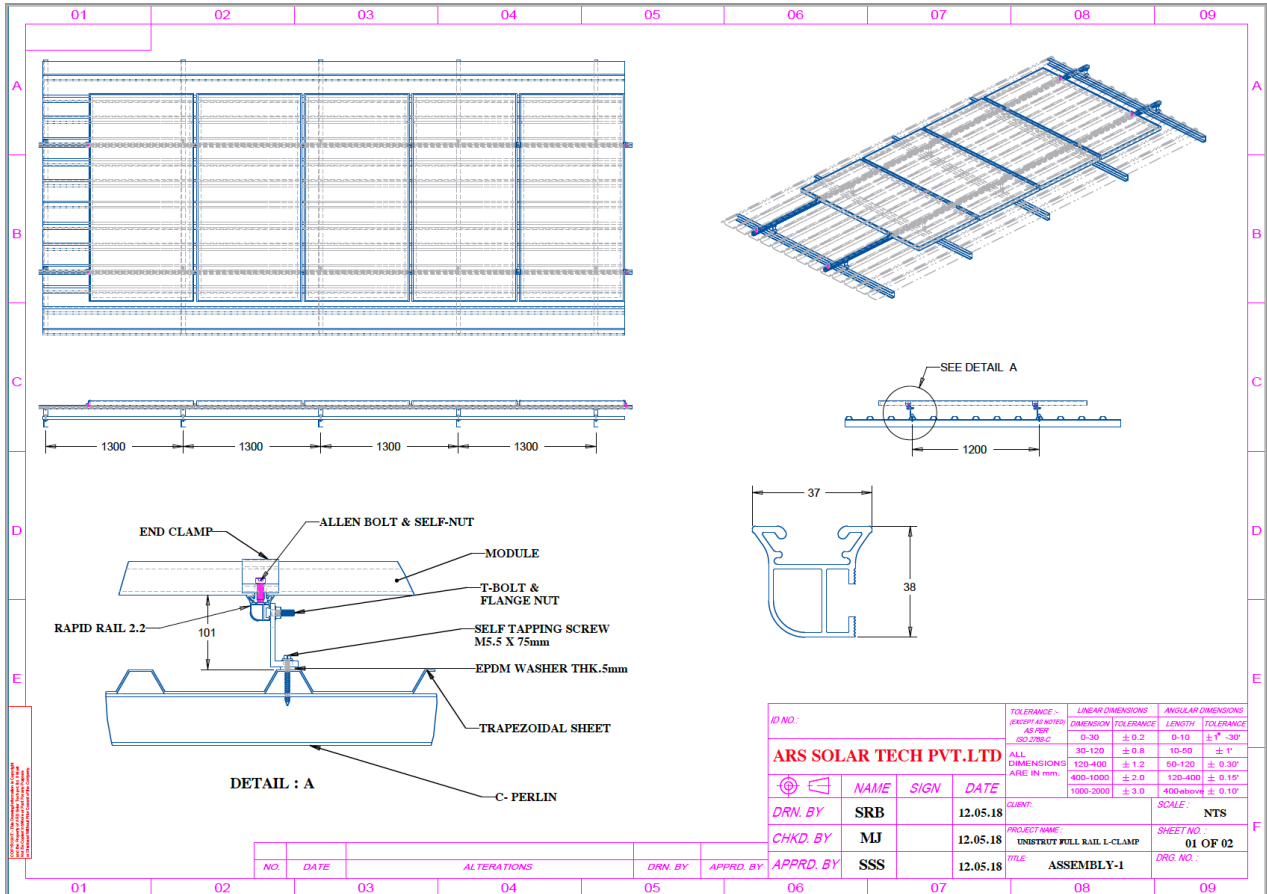
Inverter Specifications	
3x SMA Sunny Tripower Core1 CEC	
Max AC Power Rating	50 kW
Max Input Voltage	1,000 V
Min AC Power Rating	60 W
Min Input Voltage	150 V

Wire Schedule		
Tier	Wire	Length
AC Run	1x 150 mm2	61m
AC Branch	3x 35 mm2	99m
String	33x 4 mm2	1414m



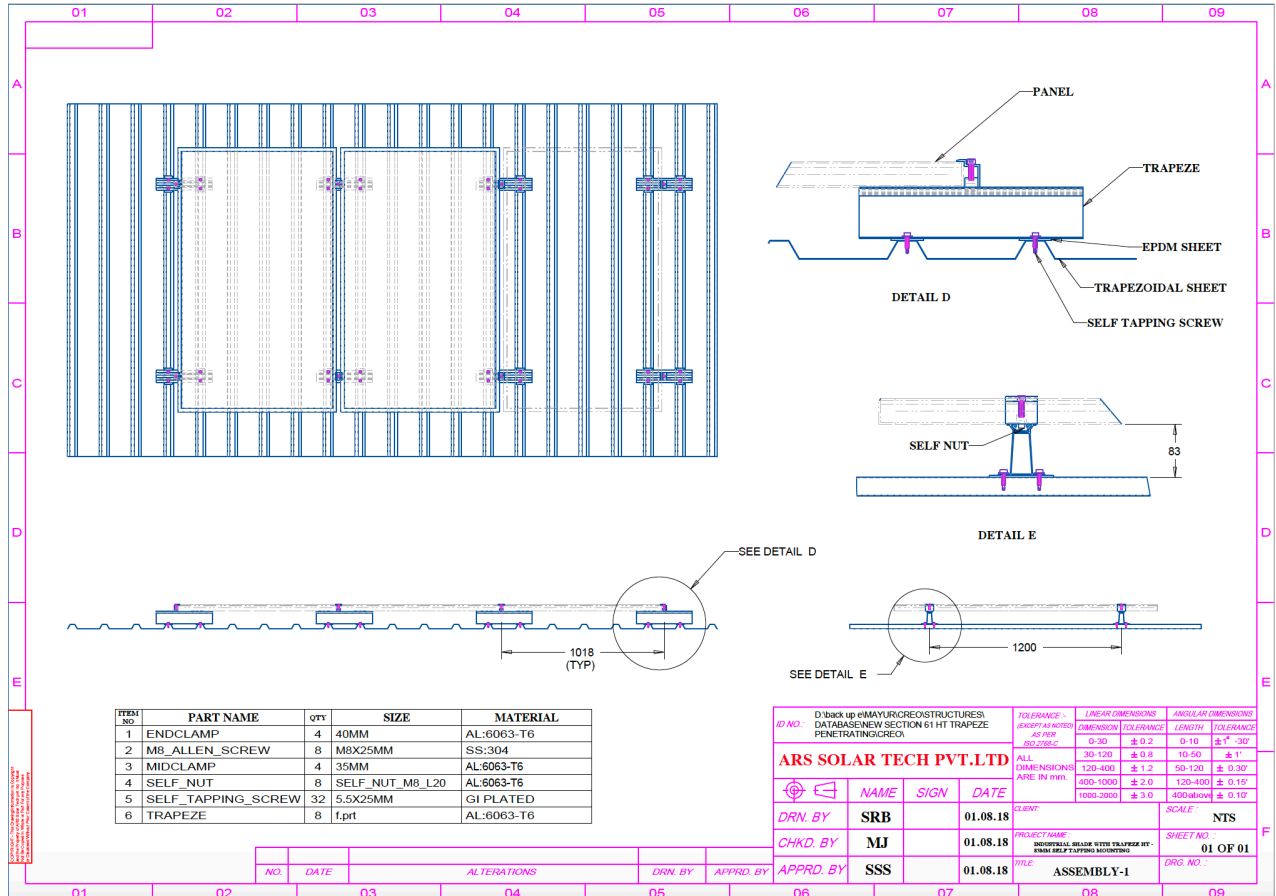
# Suitable Structure For Site

## 1. Heliofix Rapidrail System (Full Rail)



APPX COST OF STRUCTURE - 2.3/WP  
With all hardware and accessories

## 2. Heliofix Microrail System



APPX COST OF STRUCTURE - 1.3/WP  
 With all hardware and accessories

\* electrical BOM and BOS will be provide after confirmation of this design and actual site survey if required.

Thanks And Regards  
 Team Heliofix

For more Details Contract  
 Call - 020 25660151  
 Mobile - 8888806269  
 E - design@heliofix.com