



EBULEN CONSULT

SOLAR PV ROOF-MOUNT RACKING FRAME ENGINEERING CERTIFICATE

GOOMAX TILT LEG SYSTEM WITH PENETRATIVE FIXING

Prepared for:

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Xiamen, China

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Ref: E22040532

OVERVIEW

This structural engineering certificate is issued for Goomax Tilt Leg racking system, which is assessed against relevant Australian Standards and regulations. The assessment is carried out based on sound engineering methodologies. Assessment specifications and findings are given in the following sections.

AUSTRALIAN STANDARDS

- AS/NZS 1170.0:2002 – Structural design actions, Part 0: General principles
- AS/NZS 1170.1:2002 (R2016) – Structural design actions, Part 1: Permanent, imposed and other actions
- AS/NZS 1170.2:2021 – Structural design actions, Part 2: Wind actions
- AS/NZS 1664:1997 – Aluminum Structures
- AS/NZS 4600:2018 – Cold-Formed Steel Structures
- AS1720.1:2010 – Timber structures – Design methods
- AS3600:2018 – Concrete Structures
- AS4312-2019 - Atmospheric corrosivity zones in Australia and the detailed calculations referred to:
 - (1) ISO9224:2012 - Corrosion of metals and alloys Corrosivity of atmospheres - Guiding values for the corrosivity categories
 - (2) ISO9223:2012 - Corrosion of metals and alloys - Corrosivity of atmospheres - Classification, determination and estimation

ASSESSED PV RACKING FRAME COMPONENTS

The following products by Xiamen Goomax Energy Technology Co., Ltd. are assessed against relevant Australian Standards and building regulations based on the specified conditions.

Assessed Components	Component Number	Material
Goomax Rail 1	GM-R56	AL 6005-T5
Goomax Rail 2	GM-R69 (GM-R69-B)	AL 6005-T5
Rail Splice 1	GM-RS-51-AZ	AL 6005-T5
Rail Splice 2	GM-RS-51-AZ-1	AL 6005-T5
Rail Splice 3	GM-RS-56-AZ (GM-RS-56-AZ-B)	AL 6005-T5
Tilt Leg Kits – Front	GM-AS-200/400/600-AZ; GM-AS-400-AZ-02	AL 6005-T5
Tilt Leg Kits – Rear	GM-AS-B01-AZ; GM-AS-B01-AZ-02	AL 6005-T5
Goomax Adjustable Middle Panel Clamp	GM-MC-30(35)-AZ GM-MC-30(40)-AZ GM-MC-35(40)-AZ GM-MC-35(40)-AZ-1	AL 6005-T5

	GM-MC-35(40)-AZ-2 GM-MC-30(35)-AZ-1 GM-MC-30(35)-AZ-2 (GM-MC-30(35)-AZ-B) GM-MC-35(50)-AZ GM-MC-200-TF2-AZ GM-MC-X(30-50)-AZ	
Goomax Adjustable End Panel Clamp	GM-EC-30/35/40/45/50-AZ GM-EC-35(40)-AZ GM-EC-30(35)-AZ (GM-EC-30(35)-AZ-B) GM-EC-200-TF2-AZ	AL 6005-T5
Goomax Thin Film Panel Middle Clamp	GM-MC-60-TF2-AZ	AL 6005-T5
Goomax Thin Film Panel End Clamp	GM-EC-60-TF2-AZ	AL 6005-T5
Bolt and Nut	GM-BN-25-AZ	AL 6005-T5, SUS304
Other Required but Non-structural Components	GM-CT-AZ, GM-E-EL-AZ, GM-EK-AZ, GM-SL-XJ-AZ, GM-XJ-AZ	SUS 304, Plastic

Note: the materials listed in the table refer to the main components and members of the racking frame, other accessories such as nuts, bolts, washers, and sockets are made of SUS 304.

ASSESSMENT CONDITIONS

- Solar PV system design life of 25 years
- Wind region A, B, C, D
- Terrain category 2 & 3
- Ultimate wind recurrence interval of 200 years
- Maximum average roof height of 30m
- Maximum panel tilt angle to roof surface is 30°
- Solar PV panel assessed: 2000mm x 1200mm, 2274mm x 1200mm, 2400mm x 1200mm and 1670mm x 1000mm
- Self-weight of solar PV panel and racking frame is 0.15kPa-0.19kPa
- Solar PV panel is supported by minimum 2 rails
- Screw fixing pull-out has been checked with insert into minimum 35mm JD4 timber structure and steel structure with thicknesses of 1.2mm, 1.5mm, 1.9mm and 2.4mm
- Concrete anchor fixing has been checked with chemical and mechanical anchoring options
- Product details are taken from the drawing set provided by Xiamen Goomax Energy Technology Co., Ltd. as listed in the above component table
- Installation to be carried out strictly in accordance with the manufacturer's installation guidelines

IMPORTANT NOTES

- ***This certification is issued based on assessments of solar PV racking frame system and its fixing connection to building roof. It has not considered the structural capacity of building structure and solar PV panel due to uncertainty of generic application. The installer must use the data tables as references only.***
- ***The aluminum material adopted for the solar racking frame system has been specified as AL6005-T5 by Goomax. The material used in the manufacturing process shall achieve the minimum strength requirements in AS/NZS 1664: 1997 – Aluminum Structures.***
- ***The attached spacing tables must be read in conjunction with foot notes and general notes.***
- ***The non-structural components are only certified structurally using the deem-to-comply method as they do not contribute to the system's structural capacity.***
- ***The certificate shall be read as a whole. Any section, text, image, table extracted from this certification is not valid stand-alone.***
- ***This certification shall be reviewed and revalidated by the structural engineer after two years from the date of issue or if any applicable standard is updated.***

CONCLUSION

The above-mentioned solar PV roof-mount racking frame system by Xiamen Goomax Energy Technology Co., Ltd. is found structurally sound against relevant Australian Standards following the engineering recommendations in this certification. Installation shall be conducted following the manufacturer's guidelines.

Certified by:



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APPENDIX A – INSTALLATION GUIDELINE FOR 2M X 1.2M PV PANEL

Interface Spacing Table for Roof Height $H \leq 5m$, Terrain Category 3 (Unit: mm)					
Wind Region	Panel Tilt Angle		$0^\circ < \Phi \leq 15^\circ$	$15^\circ < \Phi \leq 25^\circ$	$25^\circ < \Phi \leq 30^\circ$
	Roof Zone				
A	Internal Zone		1501	855	757
	Intermediate Zone		958	556	493
	Edge Zone		703	412	366
	Corner Zone		459	271*	241*
B	Internal Zone		985	571	507
	Intermediate Zone		638	374	333
	Edge Zone		472	278*	248*
	Corner Zone		310	184*	164*
C	Internal Zone		630	370	329
	Intermediate Zone		412	244*	217*
	Edge Zone		306	182*	162*
	Corner Zone		202*	120*	107*
D	Internal Zone		404	239*	213*
	Intermediate Zone		266*	158*	141*
	Edge Zone		198*	118*	105*
	Corner Zone		131*	78*	70*

NOTES:

- * denotes the situations where the wind load is more than 5KPa and the installation safety is compromised.
- Definition of Terrain Category is given in General Note 1.
- Notion of Roof Zone is given in General Note 2.
- Panel tilt angle is given in reference to roof surface
- The spacing table is based on the fixing condition specified in General Note 7.

Interface Spacing Table for Roof Height $5m < H \leq 10m$, Terrain Category 3 (Unit: mm)					
Wind Region	Panel Tilt Angle		$0^\circ < \Phi \leq 15^\circ$	$15^\circ < \Phi \leq 25^\circ$	$25^\circ < \Phi \leq 30^\circ$
	Roof Zone				
A	Internal Zone		1501	855	757
	Intermediate Zone		958	556	493
	Edge Zone		703	412	366
	Corner Zone		459	271*	241*
B	Internal Zone		985	571	507
	Intermediate Zone		638	374	333
	Edge Zone		472	278*	248*
	Corner Zone		310	184*	164*
C	Internal Zone		630	370	329
	Intermediate Zone		412	244*	217*
	Edge Zone		306	182*	162*
	Corner Zone		202*	120*	107*
D	Internal Zone		404	239*	213*
	Intermediate Zone		266*	158*	141*
	Edge Zone		198*	118*	105*
	Corner Zone		131*	78*	70*

NOTES:

- * denotes the situations where the wind load is more than 5KPa and the installation safety is compromised.
- Definition of Terrain Category is given in General Note 1.
- Notion of Roof Zone is given in General Note 2.
- Panel tilt angle is given in reference to roof surface
- The spacing table is based on the fixing condition specified in General Note 7.

Interface Spacing Table for Roof Height $10m < H \leq 15m$, Terrain Category 3 (Unit: mm)					
Wind Region	Panel Tilt Angle		$0^\circ < \Phi \leq 15^\circ$	$15^\circ < \Phi \leq 25^\circ$	$25^\circ < \Phi \leq 30^\circ$
	Roof Zone				
A	Internal Zone		1283	736	653
	Intermediate Zone		824	480	427
	Edge Zone		607	356	317
	Corner Zone		397	235*	209*
B	Internal Zone		847	493	438
	Intermediate Zone		551	324	288*
	Edge Zone		408	241*	215*
	Corner Zone		268*	159*	142*
C	Internal Zone		544	320	285*
	Intermediate Zone		357	211*	188*
	Edge Zone		265*	157*	140*
	Corner Zone		175*	104*	93*
D	Internal Zone		350	207*	184*
	Intermediate Zone		231*	137*	122*
	Edge Zone		172*	102*	91*
	Corner Zone		114*	68*	60*

NOTES:

- * denotes the situations where the wind load is more than 5KPa and the installation safety is compromised.
- Definition of Terrain Category is given in General Note 1.
- Notion of Roof Zone is given in General Note 2.
- Panel tilt angle is given in reference to roof surface
- The spacing table is based on the fixing condition specified in General Note 7.

Interface Spacing Table for Roof Height $15m < H \leq 20m$, Terrain Category 3 (Unit: mm)					
Wind Region	Panel Tilt Angle		$0^\circ < \Phi \leq 15^\circ$	$15^\circ < \Phi \leq 25^\circ$	$25^\circ < \Phi \leq 30^\circ$
	Roof Zone				
A	Internal Zone		1137	655	582
	Intermediate Zone		733	428	381
	Edge Zone		541	318	283*
	Corner Zone		355	210*	187*
B	Internal Zone		753	440	391
	Intermediate Zone		491	289*	258*
	Edge Zone		364	215*	192*
	Corner Zone		240*	143*	127*
C	Internal Zone		485	286*	255*
	Intermediate Zone		319	189*	168*
	Edge Zone		237*	141*	126*
	Corner Zone		157*	93*	83*
D	Internal Zone		312	185*	165*
	Intermediate Zone		206*	123*	109*
	Edge Zone		154*	92*	82*
	Corner Zone		102*	61*	54*

NOTES:

- * denotes the situations where the wind load is more than 5KPa and the installation safety is compromised.
- Definition of Terrain Category is given in General Note 1.
- Notion of Roof Zone is given in General Note 2.
- Panel tilt angle is given in reference to roof surface
- The spacing table is based on the fixing condition specified in General Note 7.

Interface Spacing Table for Roof Height $20m \leq H \leq 30m$, Terrain Category 3 (Unit: mm)				
Wind Region	Panel Tilt Angle			
	Roof Zone	$0^\circ < \Phi \leq 15^\circ$	$15^\circ < \Phi \leq 25^\circ$	$25^\circ < \Phi \leq 30^\circ$
A	Internal Zone	993	575	511
	Intermediate Zone	643	377	335
	Edge Zone	475	280*	249*
	Corner Zone	312	185*	165*
B	Internal Zone	660	387	344
	Intermediate Zone	432	255*	227*
	Edge Zone	320	190*	169*
	Corner Zone	211*	126*	112*
C	Internal Zone	427	252*	224*
	Intermediate Zone	281*	166*	148*
	Edge Zone	209*	124*	111*
	Corner Zone	138*	82*	73*
D	Internal Zone	275*	163*	146*
	Intermediate Zone	182*	108*	96*
	Edge Zone	136*	81*	72*
	Corner Zone	90*	54*	48*

NOTES:

1. * denotes the situations where the wind load is more than 5KPa and the installation safety is compromised.
2. Definition of Terrain Category is given in General Note 1.
3. Notion of Roof Zone is given in General Note 2.
4. Panel tilt angle is given in reference to roof surface
5. The spacing table is based on the fixing condition specified in General Note 7.

Interface Spacing Table for Roof Height $H \leq 5m$, Terrain Category 2 (Unit: mm)				
Wind Region	Panel Tilt Angle			
	Roof Zone	$0^\circ < \phi \leq 15^\circ$	$15^\circ < \phi \leq 25^\circ$	$25^\circ < \phi \leq 30^\circ$
A	Internal Zone	1221	702	623
	Intermediate Zone	786	458	407
	Edge Zone	579	340	303*
	Corner Zone	379	224*	200*
B	Internal Zone	807	471	418
	Intermediate Zone	525	309	275*
	Edge Zone	389	230*	205*
	Corner Zone	256*	152*	136*
C	Internal Zone	519	306	272*
	Intermediate Zone	341	202*	180*
	Edge Zone	254*	151*	134*
	Corner Zone	168*	100*	89*
D	Internal Zone	334	198*	176*
	Intermediate Zone	220*	131*	117*
	Edge Zone	164*	98*	87*
	Corner Zone	109*	65*	58*

NOTES:

- * denotes the situations where the wind load is more than 5KPa and the installation safety is compromised.
- Definition of Terrain Category is given in General Note 1.
- Notion of Roof Zone is given in General Note 2.
- Panel tilt angle is given in reference to roof surface
- The spacing table is based on the fixing condition specified in General Note 7.

Interface Spacing Table for Roof Height $5m < H \leq 10m$, Terrain Category 2 (Unit: mm)				
Wind Region	Panel Tilt Angle			
	Roof Zone	$0^\circ < \phi \leq 15^\circ$	$15^\circ < \phi \leq 25^\circ$	$25^\circ < \phi \leq 30^\circ$
A	Internal Zone	993	575	511
	Intermediate Zone	643	377	335
	Edge Zone	475	280*	249*
	Corner Zone	312	185*	165*
B	Internal Zone	660	387	344
	Intermediate Zone	432	255*	227*
	Edge Zone	320	190*	169*
	Corner Zone	211*	126*	112*
C	Internal Zone	427	252*	224*
	Intermediate Zone	281*	166*	148*
	Edge Zone	209*	124*	111*
	Corner Zone	138*	82*	73*
D	Internal Zone	275*	163*	146*
	Intermediate Zone	182*	108*	96*
	Edge Zone	136*	81*	72*
	Corner Zone	90*	54*	48*

NOTES:

- * denotes the situations where the wind load is more than 5KPa and the installation safety is compromised.
- Definition of Terrain Category is given in General Note 1.
- Notion of Roof Zone is given in General Note 2.
- Panel tilt angle is given in reference to roof surface
- The spacing table is based on the fixing condition specified in General Note 7.

Interface Spacing Table for Roof Height 10m <math>H \leq 15m</math>, Terrain Category 2 (Unit: mm)					
Wind Region	Panel Tilt Angle		$0^\circ < \phi \leq 15^\circ$	$15^\circ < \phi \leq 25^\circ$	$25^\circ < \phi \leq 30^\circ$
	Roof Zone				
A	Internal Zone		893	519	461
	Intermediate Zone		580	341	303*
	Edge Zone		429	253*	226*
	Corner Zone		282*	168*	149*
B	Internal Zone		596	350	311
	Intermediate Zone		390	231*	205*
	Edge Zone		290*	172*	153*
	Corner Zone		191*	114*	102*
C	Internal Zone		385	228*	203*
	Intermediate Zone		254*	151*	134*
	Edge Zone		189*	113*	100*
	Corner Zone		125*	75*	67*
D	Internal Zone		249*	148*	132*
	Intermediate Zone		165*	98*	87*
	Edge Zone		123*	73*	65*
	Corner Zone		81*	49*	43*

NOTES:

- * denotes the situations where the wind load is more than 5KPa and the installation safety is compromised.
- Definition of Terrain Category is given in General Note 1.
- Notion of Roof Zone is given in General Note 2.
- Panel tilt angle is given in reference to roof surface
- The spacing table is based on the fixing condition specified in General Note 7.

Interface Spacing Table for Roof Height 15m <math>H \leq 20m</math>, Terrain Category 2 (Unit: mm)					
Wind Region	Panel Tilt Angle		$0^\circ < \phi \leq 15^\circ$	$15^\circ < \phi \leq 25^\circ$	$25^\circ < \phi \leq 30^\circ$
	Roof Zone				
A	Internal Zone		841	489	435
	Intermediate Zone		547	321	286*
	Edge Zone		405	239*	213*
	Corner Zone		267*	158*	141*
B	Internal Zone		561	330	294*
	Intermediate Zone		368	218*	194*
	Edge Zone		274*	162*	145*
	Corner Zone		181*	108*	96*
C	Internal Zone		364	215*	192*
	Intermediate Zone		240*	142*	127*
	Edge Zone		179*	106*	95*
	Corner Zone		118*	70*	63*
D	Internal Zone		235*	140*	124*
	Intermediate Zone		155*	93*	82*
	Edge Zone		116*	69*	62*
	Corner Zone		77*	46*	41*

NOTES:

- * denotes the situations where the wind load is more than 5KPa and the installation safety is compromised.
- Definition of Terrain Category is given in General Note 1.
- Notion of Roof Zone is given in General Note 2.
- Panel tilt angle is given in reference to roof surface
- The spacing table is based on the fixing condition specified in General Note 7.

Interface Spacing Table for Roof Height $20m \leq H \leq 30m$, Terrain Category 2 (Unit: mm)					
Wind Region	Panel Tilt Angle		$0^\circ < \Phi \leq 15^\circ$	$15^\circ < \Phi \leq 25^\circ$	$25^\circ < \Phi \leq 30^\circ$
	Roof Zone				
A	Internal Zone		777	454	403
	Intermediate Zone		506	298*	266*
	Edge Zone		375	222*	198*
	Corner Zone		247*	147*	131*
B	Internal Zone		520	306	273*
	Intermediate Zone		341	202*	180*
	Edge Zone		254*	151*	134*
	Corner Zone		168*	100*	89*
C	Internal Zone		337	200*	178*
	Intermediate Zone		222*	132*	118*
	Edge Zone		166*	99*	88*
	Corner Zone		110*	65*	58*
D	Internal Zone		218*	130*	116*
	Intermediate Zone		144*	86*	77*
	Edge Zone		108*	64*	57*
	Corner Zone		71*	43*	38*

NOTES:

1. * denotes the situations where the wind load is more than 5KPa and the installation safety is compromised.
2. Definition of Terrain Category is given in General Note 1.
3. Notion of Roof Zone is given in General Note 2.
4. Panel tilt angle is given in reference to roof surface
5. The spacing table is based on the fixing condition specified in General Note 7.

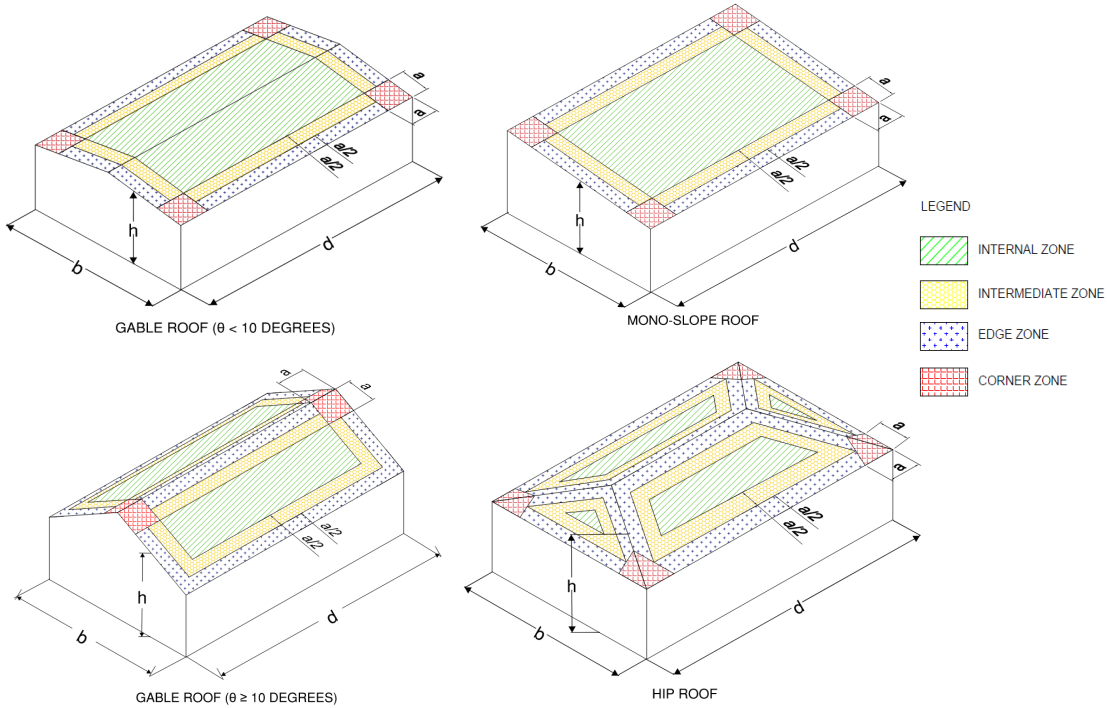
General Notes

Note 1 Terrain Category 3 (TC 3) denotes terrain with numerous closely spaced obstructions having heights generally from 3m to 10m. The minimum density of obstructions shall be at least the equivalent of 10 house-size obstructions per hectare.

Terrain Category 2 (TC 2) denotes open terrain, including grassland, with well-scattered obstructions having heights generally from 1.5m to 5m, with no more than two obstructions per hectare.

Refer to AS/NZS 1170.2:2021 - 4.2.1 for Terrain Category definitions.

Note 2 Notion of Roof Zones are as shown in the following figure.

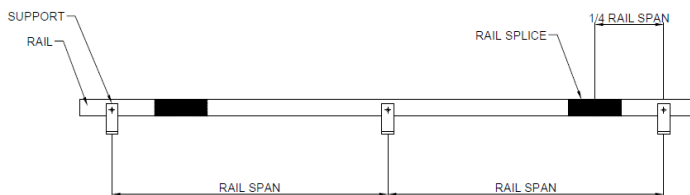


Refer to AS/NZS 1170.2:2021 – Chapter 5.4.4 for more accurate Roof Zone notion and cases.

To determine the zone dimension "a", follow the steps:

- 1) Determine building average height (h), building length (b) and building width (d).
- 2) Determine (h/d) and (h/b)
- 3) If (h/b) or (h/d) ≥ 0.2 , a is the minimum of 0.2b or 0.2d
- 4) If (h/b) and (h/d) < 0.2 , a is equal to 2h

Note 3 To ensure the fixing spacing in above tables are valid, rail splice connectors must not be installed at the support point or at the middle span point between two adjacent supports. It is recommended to install the connector at 1/4 span points from the supports.



Note 4-1 Number of panel clamps required per panel for installation on **maximum 15m** high building:

Tilt Angle	Terrain	Roof Zone	Region A	Region B	Region C	Region D
15°	TC3	Internal	4	4	6	8
		Intermediate	4	4	8	NA
		Edge	4	6	8	NA
		Corner	6	8	NA	NA
	TC2	Internal	4	4	6	NA
		Intermediate	4	6	NA	NA
		Edge	6	8	NA	NA
		Corner	8	NA	NA	NA
30°	TC3	Internal	4	6	NA	NA
		Intermediate	6	8	NA	NA
		Edge	8	NA	NA	NA
		Corner	NA	NA	NA	NA
	TC2	Internal	6	8	NA	NA
		Intermediate	8	NA	NA	NA
		Edge	NA	NA	NA	NA
		Corner	NA	NA	NA	NA

NOTES:

1. NA denotes the situations where an excessive amount of panel clamps are required and the installation is no longer practical.
2. A site-specific engineering assessment must be carried out to determine the number of panel clamps required for situations not covered in this table.

Note 4-2 Number of panel clamps required per panel for installation on **maximum 30m** high building:

Tilt Angle	Terrain	Roof Zone	Region A	Region B	Region C	Region D
15°	TC3	Internal	4	4	6	8
		Intermediate	4	6	8	NA
		Edge	6	8	NA	NA
		Corner	8	NA	NA	NA
	TC2	Internal	4	6	8	NA
		Intermediate	6	8	NA	NA
		Edge	6	NA	NA	NA
		Corner	NA	NA	NA	NA
30°	TC3	Internal	6	8	NA	NA
		Intermediate	8	NA	NA	NA
		Edge	NA	NA	NA	NA
		Corner	NA	NA	NA	NA
	TC2	Internal	6	8	NA	NA
		Intermediate	8	NA	NA	NA
		Edge	NA	NA	NA	NA
		Corner	NA	NA	NA	NA

NOTES:

1. NA denotes the situations where an excessive amount of panel clamps are required and the installation is no longer practical.
2. A site-specific engineering assessment must be carried out to determine the number of panel clamps required for situations not covered in this table.

Note 5 The provided installation spacing tables are based on maximum PV panel size of 2000mm x 1200mm with 2 rails per panel array. For other panel sizes and more rails, refer the below table for adjustment factors based on the given spacing tables.

Maximum Panel Size	Number of Rails	Spacing Adjustment Factor
1670x1000	2 rails	120%
2274x1000	2 rails	88%
2400x1200	2 rails	83%
1670x1000	3 rails	180%
2000x1200	3 rails	150%
2274x1200	3 rails	132%
2400x1200	3 rails	125%

The maximum allowable fixing spacing shall not exceed 1800mm after applying the adjustment factors.

Note 6 The spacing results in previous sections are given based on the corrosivity level C3. Corrosivity adjustment factor for corrosivity category C4 based on the corrosivity category C3 is 95%

Note 7 Fixing spacing in the above tables are based on 1 x 14 gauge penetrative screw fixing pull-out capacity into 1.9BMT steel and 35mm embedded into JD4 seasoned timber. The fixing spacing must be adjusted if the roof structure being fixed into a different substructure. The recommended typical penetrative fixings to be adopted are as following:

Steel purlin/batten	-	14g-10TPI Self-drilling Tek Metal Screw (Buildex recommended)
Timber purlin/batten	-	14g-10TPI Self-drilling T17s Timber Screw (Buildex recommended)

Larger diameter new screws (14 gauge typical) shall be used for solar installation to replace the old roof screws (12gauge typical). All self-drilling penetrative fixing must be in compliance with AS3566-2002(R2015).

For fixing into steel roof structure with different thicknesses, refer below for adjustment factors based on the given spacing tables.

1) 1.2mm BMT:	74%
2) 1.5mm BMT:	100%
3) 2.4mm BMT:	100%

When installing on concrete roof, adopt concrete chemical or mechanical anchor as per the anchor manufacturer's specifications. The recommended concrete fixing anchors are as below:

Chemical anchor	-	M8/M10 G5.8 galvanised anchor stud with Chemset Reo502 PLUS or approved equivalent; Minimum embedment depth 70mm
Mechanical anchor	-	M8/M10 DynaBolt PLUS DP08065SS or DP10075GH or approved equivalent; Minimum embedment depth 35mm/45mm

For fixing into concrete roofs, refer below for adjustment factors based on the given spacing tables.
100% for Region A&B; 160% for Region C&D

Note 8 All above-mentioned adjustment factors from different notes shall not be applied together to determine the final installation spacing. Factors from each note shall be applied independently. For example, when installing the racking frame with 2000mm x 1100mm panels and 3 rails fixed to 2.4mm BMT purlins in Region C, it is incorrect that spacing = original spacing x 150% x 100%. For multiple installation conditions change, please seek for the engineer's advice.

APPENDIX B – ASSESSED PV RACKING FRAME PART DRAWINGS

Note:

This certification is a public access version, it does not include part drawings because of Goomax's intellectual properties. Refer to the full version of the certification for part drawings