



SOLAR ROOF MOUNTING SYSTEM INSTALLATION MANUAL

>>> **MODEL NAME: TTS CLIPLOK**

JIANGYIN TITANERGY CO.,LTD.
Model Name: TTS CLIPLOK

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Our Ref: 10038-01-TTS/BL
28 July 2021

JIANGYIN TITANERGY CO. LTD
No.11 Wuxiang Road
Yunting Street, Jiangyin
China 214422

PV Array Frame Engineering Certification

RE: AS/N Z 1170.2 Certification for Titanergy Flush Mounted System on Lysaght Klip Lok 406, Lysaght Klip Lok 700 Classic, Lysaght Klip Lok 700 Hi-Strength, Stramit Speed Deck Ultra 700 (Concealed Fix Roof) with TTS Rails

Gamcorp (Melbourne) Pty Ltd, being Structural Engineers within the meaning of Australian Building Regulations, have carried out a structural design check of Titanergy Flush Mounted System on Lysaght Klip Lok 406, Lysaght Klip Lok 700 Classic, Lysaght Klip Lok 700 Hi-Strength, Stramit Speed Deck Ultra 700 (Concealed Fix Roof) with TTS rails within Australia. The design check is based on the information and test reports provided by Jiangyin Titanergy Co. LTD.

For the indicative location of **full rib** in the roof sheeting, please see **Figure 1**.

This certificate is **only valid** for Titanergy Flush Mounted System on the Concealed Fix Roof themselves. The roof structure or the building structure and PV panels shall be assessed separately and accordingly.

This certificate is **only valid** when roof clamp fixing to the **full rib** of roof sheeting on the top of the purlins. If the fixing condition is different from those conditions, interface spacing shall be reviewed and validated.

This certificate is **only valid** as a whole. Any information extracted from this certificate is not valid if standing alone.

We find the Installation of Flush Mounted System on these Concealed Fix Roof for Australian use to be structurally sufficient based on the following conditions:

- Wind loads to AS/NZ1170.2:2011(R2016) Wind actions
- Wind region **A, B, C, D**
- Wind terrain category **2 & 3**
- Wind average recurrence interval of **200 years**
- Maximum building height **20m**
- The maximum assessed PV panel dimensions are **1800mm x 1100mm, 2000mm x 1100mm, 2200mm x 1200mm, 2400mm x 1200mm**
- Weight of the PV panel and array frame to be 15 kg/m²
- Rails to be **TTS Rails**
- Roof clamp to be Cliplok **460 and 700**
- Material of rails and tilt roof system to be **AL6005-T5 UNO**

ISO 9001:2015 Registered Firm
Certificate No: AU1222

10038-01-TTS General Certificate - Flush Mount Solar System on Concealed Fix Roof with TTS rails.odt

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- Each PV panel to be installed using **2 rails** minimum in all circumstances
- Roof clamps to be fixed only to the **full rib** of roof sheeting on the top of the purlins (See **Figure 1**)
- No PV panel to be installed within 2xs from edges and ridge. “s” is the maximum gap between the underside of the panel and the roof surface when installed on the roof ($50\text{mm} \leq s \leq 300\text{mm}$)
- Installation of PV panels to be done in accordance with the PV panels installation manual
- The certification **excludes** assessment of roof structure and PV panels

Refer to attached summary table for interface spacing (Unit: mm)

NOTES:

- The recommended spacing nominated in this certification is based on the capacity of the array frame and the fixing of array frames to the roof, not the roof structure and PV panels. It is the responsibility of the installer to adopt the most critical spacing.
- If any of the above conditions cannot be met, the structural engineer must be notified immediately.
- The capacity of roof clamp was obtained from test report no. 10038/Acha, dated 16th July 2021 and provided by Gamcorp (Melbourne) Pty Ltd.
- The capacities of tilt legs were obtained from test report no. 21-0685, dated 12th August 2021 and provided by Melbourne Testing Service(MTS).
- The spacing shown in the interface tables shall be adjusted based on the assessment and requirement of the roof structures.

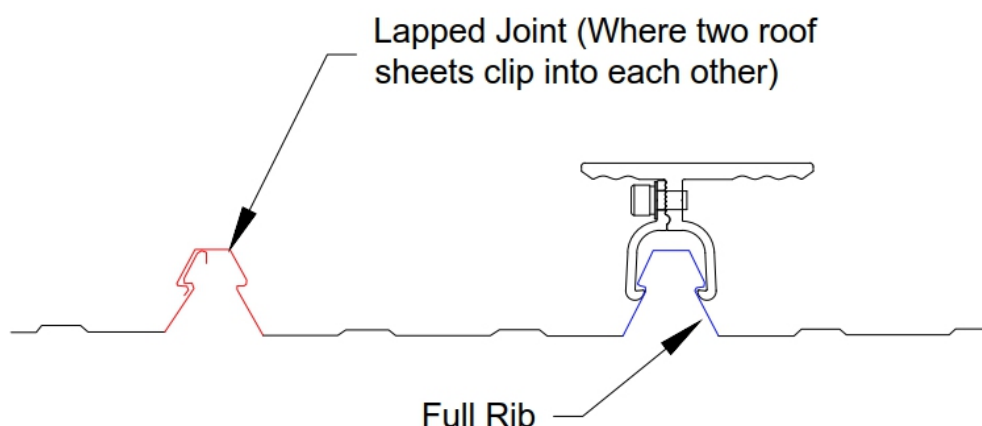


Figure 1 – Full Rib Location For Indicative

ISO 9001:2015 Registered Firm
 Certificate No: AU1222

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Construction is to be carried out strictly in accordance with the manufacturers instructions. This work was designed by **Bianca Liu** in accordance with the provisions of Australian Building Regulations and in accordance with sound, widely accepted engineering principles. This certificate is only valid till 01/08/2023. Gamcorp should be contacted for future validation. Contact Gamcorp for customised system or if the site conditions are not covered by this assessment.

Yours faithfully,
Gamcorp (Melbourne) Pty Ltd



L. Van Spaandonk
Principal Engineer
FIEAust CPEng NER 5038980
NT Registration: 244137ES
QLD Registration: 18703
VIC Registration: PE0001956
TAS Registration: CC7366

Attachments:

- Titanergy Tilt Array Frame System Spacing Tables with TTS rail on Lysaght Klip Lok 406, Lysaght Klip Lok 700 Classic, Lysaght Klip Lok 700 Hi-Strength, Stramit Speed Deck Ultra 700

*ISO 9001:2015 Registered Firm
Certificate No: AU1222*

10038-01-TTS General Certificate - Flush Mount Solar System on Concealed Fix Roof with TTS rails.odt

Structural Design Documentation

Titanergy Tilt Array Frame System Spacing Table

According to AS/NZS 1170.2-2011 (R2016)

with TTS Rail -LYSAGHT Klip-Lok 406

within Australia

Terrain Category 2 & 3

For: JIANGYIN TITANERGY CO.,LTD
No.11 Wuxiang Road
Yunting Street, Jiangyin
China 214422

Job Number: 10038-01-TTS
Date: Jul-21



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Relationships built on trust

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ISO 9001:2015 Registered Firm
Certificate No: AU1222

Job No: 10038-01-TTS
Client: JIANGYIN TITANERGY CO.,LTD
Project: Titanergy Flush Array Frame System Spacing Table
with TTS Rail – LYSAGHT Klip-Lok 406
Address: within Australia

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 1170.2:2011 (R2016) – Structural design actions, Part 2: Wind actions
AS/NZS 1664.1:1997 – Aluminium structures - Limit state design
AS 4100:2020 – Steel Structures
AS/NZS 4600:2018 – Cold-Formed Steel Structures

Wind Terrain Category: WTC 2 & 3

Designed: BL

Checked: AA

Date: Jul-21

Flush Array Frame System Spacing Table for LYSAGHT Klip-Lok 406 roof sheeting – mm

Type of Roof: LYSAGHT Klip-Lok 406 roof sheeting
Type of Rail: TTS Rail
Type of Interface: Cliplok 406
Solar Panel Dimension: 1800x1100
Terrain category: 2

h/d≤0.5* - Refer to Note 5 for definition of h and d

Wind Region	Building Height – H (m)															
	H≤5				5<H≤10				10<H≤15				15<H≤20			
	Corner	Edge	Interme diate	Internal	Corner	Edge	Interme diate	Internal	Corner	Edge	Interme diate	Internal	Corner	Edge	Interme diate	Internal
A	610	940	1295	1720	--	765	1045	1590	--	690	940	1475	--	650	885	1390
B	--	625	850	1330	--	510	695	1075	--	--	625	965	--	--	590	910
C	--	--	545	845	--	--	--	685	--	--	--	620	--	--	--	585
D	--	--	--	535	--	--	--	--	--	--	--	--	--	--	--	--

h/d≥1* - Refer to Note 5 for definition of h and d

Wind Region	Building Height – H (m)															
	H≤5				5<H≤10				10<H≤15				15<H≤20			
	Corner	Edge	Interme diate	Internal	Corner	Edge	Interme diate	Internal	Corner	Edge	Interme diate	Internal	Corner	Edge	Interme diate	Internal
A	--	635	865	1350	--	520	705	1090	--	--	635	980	--	--	600	925
B	--	--	575	885	--	--	--	725	--	--	--	650	--	--	--	610
C	--	--	--	570	--	--	--	--	--	--	--	--	--	--	--	--
D	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

*For intermediate values of h/d ratios, linear interpolation shall be used.
*Refer to Note 7- Figure 2 for roof zone definition.

Flush Array Frame System Spacing Table for LYSAGHT Klip-Lok 406 roof sheeting – mm

Type of Roof: LYSAGHT Klip-Lok 406 roof sheeting
Type of Rail: TTS Rail
Type of Interface: Cliplok 406
Solar Panel Dimension: 1800x1100
Terrain category: 3

h/d≤0.5* - Refer to Note 5 for definition of h and d

Wind Region	Building Height – H (m)															
	H≤5				5<H≤10				10<H≤15				15<H≤20			
	Corner	Edge	Interme diate	Internal	Corner	Edge	Interme diate	Internal	Corner	Edge	Interme diate	Internal	Corner	Edge	Interme diate	Internal
A	740	1150	1590	1835	740	1150	1570	1835	635	985	1355	1745	570	875	1205	1675
B	--	760	1035	1635	--	760	1035	1635	--	655	890	1395	--	585	790	1235
C	--	--	665	1030	--	--	665	1030	--	--	570	880	--	--	510	785
D	--	--	--	650	--	--	--	650	--	--	--	565	--	--	--	--

h/d≥1* - Refer to Note 5 for definition of h and d

Wind Region	Building Height – H (m)															
	H≤5				5<H≤10				10<H≤15				15<H≤20			
	Corner	Edge	Interme diate	Internal	Corner	Edge	Interme diate	Internal	Corner	Edge	Interme diate	Internal	Corner	Edge	Interme diate	Internal
A	--	770	1055	1595	--	770	1055	1595	--	665	905	1415	--	590	805	1255
B	--	515	695	1080	--	515	695	1080	--	--	600	930	--	--	535	825
C	--	--	--	690	--	--	--	690	--	--	--	595	--	--	--	530
D	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

*For intermediate values of h/d ratios, linear interpolation shall be used.
*Refer to Note 7- Figure 2 for roof zone definition.

Flush Array Frame System Spacing Table for LYSAGHT Klip-Lok 406 roof sheeting – mm

Type of Roof: LYSAGHT Klip-Lok 406 roof sheeting
Type of Rail: TTS Rail
Type of Interface: Cliplok 406
Solar Panel Dimension: 2000x1100
Terrain category: 2

h/d≤0.5* - Refer to Note 5 for definition of h and d

Wind Region	Building Height – H (m)															
	H≤5				5<H≤10				10<H≤15				15<H≤20			
	Corner	Edge	Interme diate	Internal	Corner	Edge	Interme diate	Internal	Corner	Edge	Interme diate	Internal	Corner	Edge	Interme diate	Internal
A	510	785	1085	1625	--	640	875	1385	--	575	785	1235	--	545	740	1165
B	--	525	710	1115	--	--	580	900	--	--	525	810	--	--	--	760
C	--	--	--	705	--	--	--	575	--	--	--	515	--	--	--	--
D	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

h/d≥1* - Refer to Note 5 for definition of h and d

Wind Region	Building Height – H (m)															
	H≤5				5<H≤10				10<H≤15				15<H≤20			
	Corner	Edge	Interme diate	Internal	Corner	Edge	Interme diate	Internal	Corner	Edge	Interme diate	Internal	Corner	Edge	Interme diate	Internal
A	--	530	720	1130	--	--	590	915	--	--	530	820	--	--	--	775
B	--	--	--	740	--	--	--	605	--	--	--	545	--	--	--	510
C	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
D	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

*For intermediate values of h/d ratios, linear interpolation shall be used.

*Refer to Note 7- Figure 2 for roof zone definition.

Flush Array Frame System Spacing Table for LYSAGHT Klip-Lok 406 roof sheeting – mm

Type of Roof: LYSAGHT Klip-Lok 406 roof sheeting
Type of Rail: TTS Rail
Type of Interface: Cliplok 406
Solar Panel Dimension: 2000x1100
Terrain category: 3

h/d≤0.5* - Refer to Note 5 for definition of h and d

Wind Region	Building Height – H (m)															
	H≤5				5<H≤10				10<H≤15				15<H≤20			
	Corner	Edge	Interme diate	Internal	Corner	Edge	Interme diate	Internal	Corner	Edge	Interme diate	Internal	Corner	Edge	Interme diate	Internal
A	620	965	1335	1755	620	965	1335	1755	530	825	1135	1660	--	735	1005	1580
B	--	635	865	1370	--	635	865	1370	--	545	745	1165	--	--	660	1035
C	--	--	555	860	--	--	555	860	--	--	--	735	--	--	--	655
D	--	--	--	545	--	--	--	545	--	--	--	--	--	--	--	--

h/d≥1* - Refer to Note 5 for definition of h and d

Wind Region	Building Height – H (m)															
	H≤5				5<H≤10				10<H≤15				15<H≤20			
	Corner	Edge	Interme diate	Internal	Corner	Edge	Interme diate	Internal	Corner	Edge	Interme diate	Internal	Corner	Edge	Interme diate	Internal
A	--	645	880	1390	--	645	880	1390	--	555	755	1185	--	--	670	1050
B	--	--	580	905	--	--	580	905	--	--	505	775	--	--	--	690
C	--	--	--	580	--	--	--	580	--	--	--	--	--	--	--	--
D	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

*For intermediate values of h/d ratios, linear interpolation shall be used.

*Refer to Note 7- Figure 2 for roof zone definition.

Flush Array Frame System Spacing Table for LYSAGHT Klip-Lok 406 roof sheeting – mm

Type of Roof: LYSAGHT Klip-Lok 406 roof sheeting
Type of Rail: TTS Rail
Type of Interface: Cliplok 406
Solar Panel Dimension: 2200x1200
Terrain category: 2

h/d≤0.5* - Refer to Note 5 for definition of h and d

Wind Region	Building Height – H (m)															
	H≤5				5<H≤10				10<H≤15				15<H≤20			
	Corner	Edge	Interme diate	Internal	Corner	Edge	Interme diate	Internal	Corner	Edge	Interme diate	Internal	Corner	Edge	Interme diate	Internal
A	–	605	940	1505	–	–	675	1205	–	–	605	1070	–	–	580	1010
B	–	–	620	965	–	–	505	785	–	–	–	705	–	–	–	660
C	–	–	–	610	–	–	–	–	–	–	–	–	–	–	–	–
D	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–

h/d≥1* - Refer to Note 5 for definition of h and d

Wind Region	Building Height – H (m)															
	H≤5				5<H≤10				10<H≤15				15<H≤20			
	Corner	Edge	Interme diate	Internal	Corner	Edge	Interme diate	Internal	Corner	Edge	Interme diate	Internal	Corner	Edge	Interme diate	Internal
A	–	–	570	980	–	–	–	700	–	–	–	630	–	–	–	595
B	–	–	–	645	–	–	–	525	–	–	–	–	–	–	–	–
C	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
D	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–

*For intermediate values of h/d ratios, linear interpolation shall be used.
*Refer to Note 7- Figure 2 for roof zone definition.

Flush Array Frame System Spacing Table for LYSAGHT Klip-Lok 406 roof sheeting – mm

Type of Roof: LYSAGHT Klip-Lok 406 roof sheeting
Type of Rail: TTS Rail
Type of Interface: Cliplok 406
Solar Panel Dimension: 2200x1200
Terrain category: 3

h/d≤0.5* - Refer to Note 5 for definition of h and d

Wind Region	Building Height – H (m)															
	H≤5				5<H≤10				10<H≤15				15<H≤20			
	Corner	Edge	Interme diate	Internal	Corner	Edge	Interme diate	Internal	Corner	Edge	Interme diate	Internal	Corner	Edge	Interme diate	Internal
A	–	775	1155	1685	–	775	1155	1685	–	640	985	1580	–	575	875	1395
B	–	550	755	1190	–	550	755	1190	–	–	645	1015	–	–	575	895
C	–	–	–	745	–	–	–	745	–	–	–	640	–	–	–	570
D	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–

h/d≥1* - Refer to Note 5 for definition of h and d

Wind Region	Building Height – H (m)															
	H≤5				5<H≤10				10<H≤15				15<H≤20			
	Corner	Edge	Interme diate	Internal	Corner	Edge	Interme diate	Internal	Corner	Edge	Interme diate	Internal	Corner	Edge	Interme diate	Internal
A	–	–	675	1210	–	–	675	1210	–	–	595	1030	–	–	–	910
B	–	–	505	785	–	–	505	785	–	–	–	675	–	–	–	600
C	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
D	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–

*For intermediate values of h/d ratios, linear interpolation shall be used.
*Refer to Note 7- Figure 2 for roof zone definition.

Flush Array Frame System Spacing Table for LYSAGHT Klip-Lok 406 roof sheeting – mm

Type of Roof: LYSAGHT Klip-Lok 406 roof sheeting
Type of Rail: TTS Rail
Type of Interface: Cliplok 406
Solar Panel Dimension: 2400x1200
Terrain category: 2

h/d≤0.5* - Refer to Note 5 for definition of h and d

Wind Region	Building Height – H (m)															
	H≤5				5<H≤10				10<H≤15				15<H≤20			
	Corner	Edge	Interme diate	Internal	Corner	Edge	Interme diate	Internal	Corner	Edge	Interme diate	Internal	Corner	Edge	Interme diate	Internal
A	–	–	575	1420	–	–	–	820	–	–	–	700	–	–	–	670
B	–	–	–	905	–	–	–	695	–	–	–	645	–	–	–	–
C	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
D	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–

h/d≥1* - Refer to Note 5 for definition of h and d

Wind Region	Building Height – H (m)															
	H≤5				5<H≤10				10<H≤15				15<H≤20			
	Corner	Edge	Interme diate	Internal	Corner	Edge	Interme diate	Internal	Corner	Edge	Interme diate	Internal	Corner	Edge	Interme diate	Internal
A	–	–	–	655	–	–	–	–	–	–	–	–	–	–	–	–
B	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
C	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
D	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–

*For intermediate values of h/d ratios, linear interpolation shall be used.
*Refer to Note 7- Figure 2 for roof zone definition.

Flush Array Frame System Spacing Table for LYSAGHT Klip-Lok 406 roof sheeting – mm

Type of Roof: LYSAGHT Klip-Lok 406 roof sheeting
Type of Rail: TTS Rail
Type of Interface: Cliplok 406
Solar Panel Dimension: 2400x1200
Terrain category: 3

h/d≤0.5* - Refer to Note 5 for definition of h and d

Wind Region	Building Height – H (m)															
	H≤5				5<H≤10				10<H≤15				15<H≤20			
	Corner	Edge	Interme diate	Internal	Corner	Edge	Interme diate	Internal	Corner	Edge	Interme diate	Internal	Corner	Edge	Interme diate	Internal
A	–	–	750	1655	–	–	750	1655	–	–	660	1495	–	–	–	1315
B	–	–	675	1125	–	–	675	1125	–	–	–	960	–	–	–	800
C	–	–	–	695	–	–	–	695	–	–	–	–	–	–	–	–
D	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–

h/d≥1* - Refer to Note 5 for definition of h and d

Wind Region	Building Height – H (m)															
	H≤5				5<H≤10				10<H≤15				15<H≤20			
	Corner	Edge	Interme diate	Internal	Corner	Edge	Interme diate	Internal	Corner	Edge	Interme diate	Internal	Corner	Edge	Interme diate	Internal
A	–	–	–	–	–	–	–	–	–	–	–	685	–	–	–	555
B	–	–	–	700	–	–	–	700	–	–	–	505	–	–	–	–
C	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
D	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–

*For intermediate values of h/d ratios, linear interpolation shall be used.
*Refer to Note 7- Figure 2 for roof zone definition.

General Notes

Note 1 Following components are satisfied to use according to AS/NZS 1170.2-2011(R2016)

Components	Part number	Comments
Inter Clamp Kit	Inter Clamp Kit 25-50mm	as per drawing provided by client
End Clamp Kit	End Clamp Kit 25-50mm	as per drawing provided by client
Roof Clamp	Cliplok 406 & 700	as per drawing provided by client
TTS Rail	TTS Rail	as per drawing provided by client

Note 2 Maximum uplift wind pressure is limited to 5.0 KPa for panels of 1800x1100mm and 2000x1100mm
Maximum uplift wind pressure is limited to 4.37KPa for panel of 2200x1200mm
Maximum uplift wind pressure is limited to 3.6KPa for panel of 2400x1200mm

Note 3 Deflection is limited to minimum of $L/120$ and 15mm

Note 4 Terrain Category 2 (TC2) refers to open terrain, including grassland, with well-scattered obstructions having heights generally from 1.5 m to 5 m, with no more than two obstructions per hectare, e.g. farmland and cleared subdivisions with isolated trees and uncut grass.
Terrain Category 3 (TC3) refers to terrain with numerous closely spaced obstructions having heights generally from 3 m to 10 m. The minimum density of obstructions shall be at least the equivalent of 10 house-size obstructions per hectare, e.g. suburban housing, light industrial estates or dense forests.

Note 5 Refer to Figure 1 for definition of h and d.

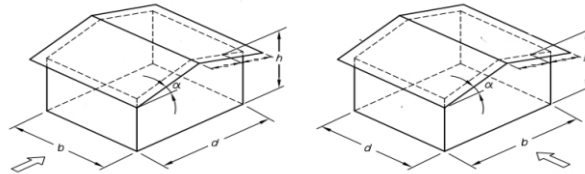
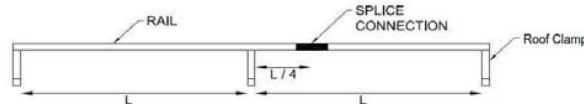


Figure 1 – h and d definition

Note 6 The optimised location of rail splice connection is at quarter length of the spacing of the interface. No Splice connection should be placed at the centre of spacing or over the interface.



Note 7 Refer Figure 2 for definition of roof zones.

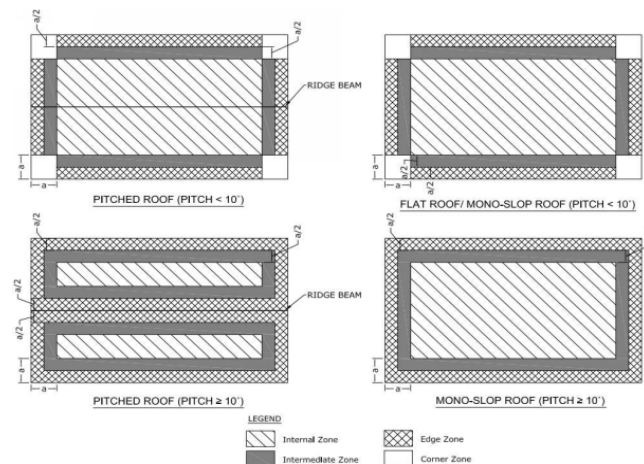


Figure 2 - Roof Zones Definition

In Figure 2, the value of dimension "a" is the minimum of 0.2b, 0.2d and h. (b & d are building dimensions and h is its height)

Structural Design Documentation

Titanergy Tilt Array Frame System Spacing Table

According to AS/NZS 1170.2-2011 (R2016)

with TTS Rail – LYSAGHT Klip-Lok Classic 700

within Australia

Terrain Category 2 & 3

For: JIANGYIN TITANERGY CO.,LTD
 No.11 Wuxiang Road
 Yunting Street, Jiangyin
 China 214422



Job Number: 10038-01-TTS
Date: Jul-21

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Job No: 10038-01-TTS
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Project: Titanergy Flush Array Frame System Spacing Table
with TTS Rail – LYSAGHT Klip-Lok Classic 700
Address: within Australia

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 1170.2:2011 (R2016) – Structural design actions, Part 2: Wind actions
AS/NZS 1664.1:1997 – Aluminium structures - Limit state design
AS 4100:2020 – Steel Structures
AS/NZS 4600:2018 – Cold-Formed Steel Structures

Wind Terrain Category: WTC 2 & 3

Designed: BL

Checked: AA

Date: Jul-21

Flush Array Frame System Spacing Table for LYSAGHT Klip-Lok Classic 700 roof sheeting – mm

Type of Roof: LYSAGHT Klip-Lok Classic 700 roof sheeting
Type of Rail: TTS Rail
Type of Interface: Cliplok 700
Solar Panel Dimension: 1800x1100
Terrain category: 2

h/d≤0.5* - Refer to Note 5 for definition of h and d

Wind Region	Building Height – H (m)															
	H≤5				5<H≤10				10<H≤15				15<H≤20			
	Corner	Edge	Interme diate	Internal	Corner	Edge	Interme diate	Internal	Corner	Edge	Interme diate	Internal	Corner	Edge	Interme diate	Internal
A	860	1300	1455	1720	560	1080	1350	1590	515	970	1300	1525	--	915	1250	1490
B	575	880	1200	1645	--	720	980	1515	--	650	880	1365	--	615	830	1280
C	--	570	770	1185	--	--	630	965	--	--	570	870	--	--	535	825
D	--	--	--	755	--	--	--	620	--	--	--	560	--	--	--	530

h/d≥1* - Refer to Note 5 for definition of h and d

Wind Region	Building Height – H (m)															
	H≤5				5<H≤10				10<H≤15				15<H≤20			
	Corner	Edge	Interme diate	Internal	Corner	Edge	Interme diate	Internal	Corner	Edge	Interme diate	Internal	Corner	Edge	Interme diate	Internal
A	--	895	1215	1475	--	580	990	1370	--	530	890	1320	--	510	845	1290
B	--	600	810	1250	--	--	665	1020	--	--	600	915	--	--	565	865
C	--	--	525	800	--	--	--	655	--	--	--	595	--	--	--	560
D	--	--	--	515	--	--	--	--	--	--	--	--	--	--	--	--

*For intermediate values of h/d ratios, linear interpolation shall be used.
*Refer to Note 7- Figure 2 for roof zone definition.

Flush Array Frame System Spacing Table for LYSAGHT Klip-Lok Classic 700 roof sheeting – mm

Type of Roof: LYSAGHT Klip-Lok Classic 700 roof sheeting
Type of Rail: TTS Rail
Type of Interface: Cliplok 700
Solar Panel Dimension: 1800x1100
Terrain category: 3

h/d≤0.5* - Refer to Note 5 for definition of h and d

Wind Region	Building Height – H (m)															
	H≤5				5<H≤10				10<H≤15				15<H≤20			
	Corner	Edge	Interme diate	Internal	Corner	Edge	Interme diate	Internal	Corner	Edge	Interme diate	Internal	Corner	Edge	Interme diate	Internal
A	1040	1395	1570	1835	1040	1395	1570	1835	895	1325	1480	1745	680	1235	1415	1675
B	695	1070	1460	1765	695	1070	1460	1765	600	920	1255	1680	535	820	1115	1600
C	--	690	935	1450	--	690	935	1450	--	595	805	1240	--	530	715	1105
D	--	--	600	920	--	--	600	920	--	--	520	795	--	--	--	705

h/d≥1* - Refer to Note 5 for definition of h and d

Wind Region	Building Height – H (m)															
	H≤5				5<H≤10				10<H≤15				15<H≤20			
	Corner	Edge	Interme diate	Internal	Corner	Edge	Interme diate	Internal	Corner	Edge	Interme diate	Internal	Corner	Edge	Interme diate	Internal
A	570	1085	1355	1595	570	1085	1355	1595	500	935	1270	1505	390	835	1130	1440
B	--	725	980	1525	--	725	980	1525	--	625	845	1310	--	560	755	1160
C	--	--	635	975	--	--	635	975	--	--	545	835	--	--	--	745
D	--	--	--	625	--	--	--	625	--	--	--	540	--	--	--	--

*For intermediate values of h/d ratios, linear interpolation shall be used.
*Refer to Note 7- Figure 2 for roof zone definition.

Flush Array Frame System Spacing Table for LYSAGHT Klip-Lok Classic 700 roof sheeting – mm

Type of Roof: LYSAGHT Klip-Lok Classic 700 roof sheeting
Type of Rail: TTS Rail
Type of Interface: Cliplok 700
Solar Panel Dimension: 2000x1100
Terrain category: 2

h/d≤0.5* - Refer to Note 5 for definition of h and d

Wind Region	Building Height – H (m)															
	H≤5				5<H≤10				10<H≤15				15<H≤20			
	Corner	Edge	Interme diate	Internal	Corner	Edge	Interme diate	Internal	Corner	Edge	Interme diate	Internal	Corner	Edge	Interme diate	Internal
A	570	1110	1370	1625	--	905	1235	1500	--	805	1105	1435	--	620	1045	1405
B	--	735	1005	1550	--	605	820	1270	--	545	735	1140	--	515	695	1070
C	--	--	645	995	--	--	525	810	--	--	--	730	--	--	--	690
D	--	--	--	630	--	--	--	520	--	--	--	--	--	--	--	--

h/d≥1* - Refer to Note 5 for definition of h and d

Wind Region	Building Height – H (m)															
	H≤5				5<H≤10				10<H≤15				15<H≤20			
	Corner	Edge	Interme diate	Internal	Corner	Edge	Interme diate	Internal	Corner	Edge	Interme diate	Internal	Corner	Edge	Interme diate	Internal
A	--	600	1015	1390	--	505	830	1285	--	--	600	1155	--	--	565	1090
B	--	--	675	1045	--	--	555	850	--	--	500	765	--	--	--	720
C	--	--	--	670	--	--	--	550	--	--	--	--	--	--	--	--
D	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

*For intermediate values of h/d ratios, linear interpolation shall be used.
*Refer to Note 7- Figure 2 for roof zone definition.

Flush Array Frame System Spacing Table for LYSAGHT Klip-Lok Classic 700 roof sheeting – mm

Type of Roof: LYSAGHT Klip-Lok Classic 700 roof sheeting
Type of Rail: TTS Rail
Type of Interface: Cliplok 700
Solar Panel Dimension: 2000x1100
Terrain category: 3

h/d≤0.5* - Refer to Note 5 for definition of h and d

Wind Region	Building Height – H (m)															
	H≤5				5<H≤10				10<H≤15				15<H≤20			
	Corner	Edge	Interme diate	Internal	Corner	Edge	Interme diate	Internal	Corner	Edge	Interme diate	Internal	Corner	Edge	Interme diate	Internal
A	870	1315	1480	1755	870	1315	1480	1755	600	1160	1395	1660	540	1035	1335	1580
B	580	895	1220	1680	580	895	1220	1680	505	770	1050	1580	--	685	935	1455
C	--	575	780	1210	--	575	780	1210	--	--	675	1040	--	--	600	925
D	--	--	500	770	--	--	500	770	--	--	--	665	--	--	--	590

h/d≥1* - Refer to Note 5 for definition of h and d

Wind Region	Building Height – H (m)															
	H≤5				5<H≤10				10<H≤15				15<H≤20			
	Corner	Edge	Interme diate	Internal	Corner	Edge	Interme diate	Internal	Corner	Edge	Interme diate	Internal	Corner	Edge	Interme diate	Internal
A	--	905	1240	1500	490	905	1240	1500	--	635	1065	1420	--	560	945	1355
B	--	605	820	1275	--	605	820	1275	--	525	710	1095	--	--	630	970
C	--	--	530	815	--	--	530	815	--	--	--	700	--	--	--	625
D	--	--	--	520	--	--	--	520	--	--	--	--	--	--	--	--

*For intermediate values of h/d ratios, linear interpolation shall be used.
*Refer to Note 7- Figure 2 for roof zone definition.

Flush Array Frame System Spacing Table for LYSAGHT Klip-Lok Classic 700 roof sheeting – mm

Type of Roof: LYSAGHT Klip-Lok Classic 700 roof sheeting
Type of Rail: TTS Rail
Type of Interface: Cliplok 700
Solar Panel Dimension: 2200x1200
Terrain category: 2

h/d≤0.5* - Refer to Note 5 for definition of h and d

Wind Region	Building Height – H (m)															
	H≤5				5<H≤10				10<H≤15				15<H≤20			
	Corner	Edge	Interme diate	Internal	Corner	Edge	Interme diate	Internal	Corner	Edge	Interme diate	Internal	Corner	Edge	Interme diate	Internal
A	–	605	1305	1550	--	--	1075	1430	--	--	605	1370	--	--	580	1340
B	--	560	765	1365	--	--	605	1105	--	--	560	990	--	--	--	930
C	--	--	--	860	--	--	--	630	--	--	--	575	--	--	--	--
D	--	--	--	550	--	--	--	--	--	--	--	--	--	--	--	–

h/d≥1* - Refer to Note 5 for definition of h and d

Wind Region	Building Height – H (m)															
	H≤5				5<H≤10				10<H≤15				15<H≤20			
	Corner	Edge	Interme diate	Internal	Corner	Edge	Interme diate	Internal	Corner	Edge	Interme diate	Internal	Corner	Edge	Interme diate	Internal
A	–	–	570	1325	--	--	–	1120	--	--	–	635	--	--	–	595
B	--	--	–	905	--	--	--	630	--	--	--	575	--	--	--	525
C	--	--	--	–	--	--	--	--	--	--	--	--	--	--	--	--
D	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	–

*For intermediate values of h/d ratios, linear interpolation shall be used.
*Refer to Note 7- Figure 2 for roof zone definition.

Flush Array Frame System Spacing Table for LYSAGHT Klip-Lok Classic 700 roof sheeting – mm

Type of Roof: LYSAGHT Klip-Lok Classic 700 roof sheeting
Type of Rail: TTS Rail
Type of Interface: Cliplok 700
Solar Panel Dimension: 2200x1200
Terrain category: 3

h/d≤0.5* - Refer to Note 5 for definition of h and d

Wind Region	Building Height – H (m)															
	H≤5				5<H≤10				10<H≤15				15<H≤20			
	Corner	Edge	Interme diate	Internal	Corner	Edge	Interme diate	Internal	Corner	Edge	Interme diate	Internal	Corner	Edge	Interme diate	Internal
A	–	1175	1410	1685	--	1175	1410	1685	--	645	1330	1580	--	575	1230	1505
B	--	660	1060	1605	--	660	1060	1605	--	575	915	1430	--	--	685	1265
C	--	--	605	1055	--	--	605	1055	--	--	--	905	--	--	--	710
D	--	--	--	665	--	--	--	665	--	--	--	575	--	--	--	510

h/d≥1* - Refer to Note 5 for definition of h and d

Wind Region	Building Height – H (m)															
	H≤5				5<H≤10				10<H≤15				15<H≤20			
	Corner	Edge	Interme diate	Internal	Corner	Edge	Interme diate	Internal	Corner	Edge	Interme diate	Internal	Corner	Edge	Interme diate	Internal
A	–	--	1075	1430	--	--	1075	1430	--	--	595	1355	--	--	--	1285
B	--	--	605	1105	--	--	605	1105	--	--	--	950	--	--	--	720
C	--	--	--	630	--	--	--	630	--	--	--	560	--	--	--	--
D	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	–

*For intermediate values of h/d ratios, linear interpolation shall be used.
*Refer to Note 7- Figure 2 for roof zone definition.

Flush Array Frame System Spacing Table for LYSAGHT Klip-Lok Classic 700 roof sheeting – mm

Type of Roof: LYSAGHT Klip-Lok Classic 700 roof sheeting
Type of Rail: TTS Rail
Type of Interface: Cliplok 700
Solar Panel Dimension: 2400x1200
Terrain category: 2

h/d≤0.5* - Refer to Note 5 for definition of h and d

Wind Region	Building Height – H (m)															
	H≤5				5<H≤10				10<H≤15				15<H≤20			
	Corner	Edge	Interme diate	Internal	Corner	Edge	Interme diate	Internal	Corner	Edge	Interme diate	Internal	Corner	Edge	Interme diate	Internal
A	–	--	630	1520	--	--	--	1405	--	--	--	1345	--	--	--	1315
B	--	--	--	1290	--	--	--	695	--	--	--	645	--	--	--	555
C	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
D	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	–

h/d≥1* - Refer to Note 5 for definition of h and d

Wind Region	Building Height – H (m)															
	H≤5				5<H≤10				10<H≤15				15<H≤20			
	Corner	Edge	Interme diate	Internal	Corner	Edge	Interme diate	Internal	Corner	Edge	Interme diate	Internal	Corner	Edge	Interme diate	Internal
A	–	--	--	1305	--	--	--	--	--	--	--	--	--	--	--	--
B	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
C	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
D	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	–

*For intermediate values of h/d ratios, linear interpolation shall be used.

*Refer to Note 7- Figure 2 for roof zone definition.

Flush Array Frame System Spacing Table for LYSAGHT Klip-Lok Classic 700 roof sheeting – mm

Type of Roof: LYSAGHT Klip-Lok Classic 700 roof sheeting
Type of Rail: TTS Rail
Type of Interface: Cliplok 700
Solar Panel Dimension: 2400x1200
Terrain category: 3

h/d≤0.5* - Refer to Note 5 for definition of h and d

Wind Region	Building Height – H (m)															
	H≤5				5<H≤10				10<H≤15				15<H≤20			
	Corner	Edge	Interme diate	Internal	Corner	Edge	Interme diate	Internal	Corner	Edge	Interme diate	Internal	Corner	Edge	Interme diate	Internal
A	–	--	1385	1655	--	--	1385	1655	--	--	1310	1550	--	--	525	1480
B	--	--	675	1575	--	--	675	1575	--	--	--	1355	--	--	--	1195
C	--	--	--	695	--	--	--	695	--	--	--	555	--	--	--	--
D	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	–

h/d≥1* - Refer to Note 5 for definition of h and d

Wind Region	Building Height – H (m)															
	H≤5				5<H≤10				10<H≤15				15<H≤20			
	Corner	Edge	Interme diate	Internal	Corner	Edge	Interme diate	Internal	Corner	Edge	Interme diate	Internal	Corner	Edge	Interme diate	Internal
A	–	--	--	1405	--	--	--	1405	--	--	--	1330	--	--	--	595
B	--	--	--	700	--	--	--	700	--	--	--	700	--	--	--	--
C	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
D	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	–

*For intermediate values of h/d ratios, linear interpolation shall be used.

*Refer to Note 7- Figure 2 for roof zone definition.

General Notes

Note 1 Following components are satisfied to use according to AS/NZS 1170.2-2011(R2016)

Components	Part number	Comments
Inter Clamp Kit	Inter Clamp Kit 25-50mm	as per drawing provided by client
End Clamp Kit	End Clamp Kit 25-50mm	as per drawing provided by client
Roof Clamp	Cliplok 406 & 700	as per drawing provided by client
TTS Rail	TTS Rail	as per drawing provided by client

Note 2 Maximum uplift wind pressure is limited to 5.0 KPa for panels of 1800x1100mm and 2000x1100mm
Maximum uplift wind pressure is limited to 4.37KPa for panel of 2200x1200mm
Maximum uplift wind pressure is limited to 3.6KPa for panel of 2400x1200mm

Note 3 Deflection is limited to minimum of $L/120$ and 15mm

Note 4 Terrain Category 2 (TC2) refers to open terrain, including grassland, with well-scattered obstructions having heights generally from 1.5 m to 5 m, with no more than two obstructions per hectare, e.g. farmland and cleared subdivisions with isolated trees and uncut grass.
Terrain Category 3 (TC3) refers to terrain with numerous closely spaced obstructions having heights generally from 3 m to 10 m. The minimum density of obstructions shall be at least the equivalent of 10 house-size obstructions per hectare, e.g. suburban housing, light industrial estates or dense forests.

Note 5 Refer to Figure 1 for definition of h and d.

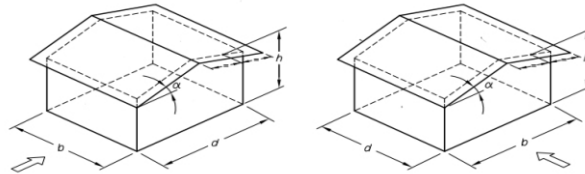
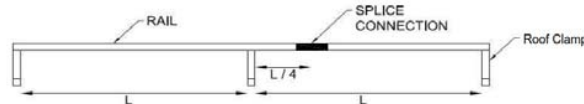


Figure 1 – h and d definition

Note 6 The optimised location of rail splice connection is at quarter length of the spacing of the interface. No Splice connection should be placed at the centre of spacing or over the interface.



Note 7 Refer Figure 2 for definition of roof zones.

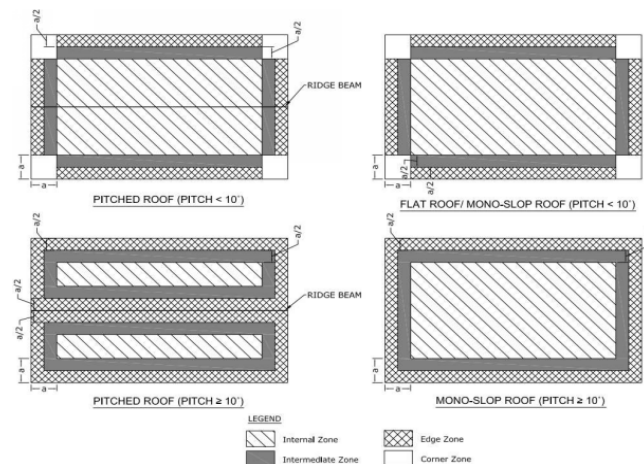


Figure 2 - Roof Zones Definition

In Figure 2, the value of dimension "a" is the minimum of $0.2b$, $0.2d$ and h . (b & d are building dimensions and h is its height)

Structural Design Documentation

Titanergy Tilt Array Frame System Spacing Table

According to AS/NZS 1170.2-2011 (R2016)

**with TTS Rail – LYSAGHT Klip-Lok 700 Hi-Strength
within Australia**

Terrain Category 2 & 3

For: JIANGYIN TITANERGY CO.,LTD
 No.11 Wuxiang Road
 Yunting Street, Jiangyin
 China 214422

Job Number: 10038-01-TTS
Date: Jul-21



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Project: Titanergy Flush Array Frame System Spacing Table
with TTS Rail – LYSAGHT Klip-Lok 700 Hi-Strength
Address: within Australia

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and other actions
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AS/NZS 1664.1:1997 – Aluminium structures - Limit state design
AS 4100:2020 – Steel Structures
AS/NZS 4600:2018 – Cold-Formed Steel Structures

Wind Terrain Category: WTC 2 & 3

Designed: BL

Checked: AA

Date: Jul-21

Flush Array Frame System Spacing Table for LYSAGHT Klip-Lok 700 Hi-Strength roof sheeting – mm

Type of Roof: LYSAGHT Klip-Lok Classic 700 roof sheeting
Type of Rail: TTS Rail
Type of Interface: Cliplok 700
Solar Panel Dimension: 1800x1100
Terrain category: 2

h/d≤0.5* - Refer to Note 5 for definition of h and d

Wind Region	Building Height – H (m)															
	H≤5				5<H≤10				10<H≤15				15<H≤20			
	Corner	Edge	Interme diate	Internal	Corner	Edge	Interme diate	Internal	Corner	Edge	Interme diate	Internal	Corner	Edge	Interme diate	Internal
A	820	1265	1455	1720	560	1030	1350	1590	515	925	1265	1525	--	875	1195	1490
B	550	840	1145	1645	--	690	935	1450	--	620	840	1300	--	585	790	1220
C	--	545	735	1135	--	--	600	925	--	--	545	835	--	--	515	785
D	--	--	--	720	--	--	--	595	--	--	--	535	--	--	--	505

h/d≥1* - Refer to Note 5 for definition of h and d

Wind Region	Building Height – H (m)															
	H≤5				5<H≤10				10<H≤15				15<H≤20			
	Corner	Edge	Interme diate	Internal	Corner	Edge	Interme diate	Internal	Corner	Edge	Interme diate	Internal	Corner	Edge	Interme diate	Internal
A	--	855	1160	1475	--	580	945	1370	--	530	850	1315	--	510	805	1245
B	--	570	775	1195	--	--	635	970	--	--	570	875	--	--	540	825
C	--	--	--	765	--	--	--	625	--	--	--	565	--	--	--	535
D	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

*For intermediate values of h/d ratios, linear interpolation shall be used.
*Refer to Note 7- Figure 2 for roof zone definition.

Flush Array Frame System Spacing Table for LYSAGHT Klip-Lok 700 Hi-Strength roof sheeting – mm

Type of Roof: LYSAGHT Klip-Lok Classic 700 roof sheeting
Type of Rail: TTS Rail
Type of Interface: Cliplok 700
Solar Panel Dimension: 1800x1100
Terrain category: 3

h/d≤0.5* - Refer to Note 5 for definition of h and d

Wind Region	Building Height – H (m)															
	H≤5				5<H≤10				10<H≤15				15<H≤20			
	Corner	Edge	Interme diate	Internal	Corner	Edge	Interme diate	Internal	Corner	Edge	Interme diate	Internal	Corner	Edge	Interme diate	Internal
A	995	1395	1570	1835	995	1395	1570	1835	855	1325	1480	1745	660	1180	1415	1675
B	665	1020	1395	1765	665	1020	1395	1765	575	880	1200	1680	515	785	1065	1600
C	--	660	895	1385	--	660	895	1385	--	570	770	1185	--	505	685	1055
D	--	--	570	875	--	--	570	875	--	--	--	755	--	--	--	675

h/d≥1* - Refer to Note 5 for definition of h and d

Wind Region	Building Height – H (m)															
	H≤5				5<H≤10				10<H≤15				15<H≤20			
	Corner	Edge	Interme diate	Internal	Corner	Edge	Interme diate	Internal	Corner	Edge	Interme diate	Internal	Corner	Edge	Interme diate	Internal
A	570	1035	1355	1595	570	1035	1355	1595	--	890	1215	1505	--	795	1080	1440
B	--	690	935	1455	--	690	935	1455	--	595	810	1250	--	535	720	1110
C	--	--	605	930	--	--	605	930	--	--	525	800	--	--	--	715
D	--	--	--	595	--	--	--	595	--	--	--	515	--	--	--	--

*For intermediate values of h/d ratios, linear interpolation shall be used.
*Refer to Note 7- Figure 2 for roof zone definition.

Flush Array Frame System Spacing Table for LYSAGHT Klip-Lok 700 Hi-Strength roof sheeting – mm

Type of Roof: LYSAGHT Klip-Lok Classic 700 roof sheeting
Type of Rail: TTS Rail
Type of Interface: Cliplok 700
Solar Panel Dimension: 2000x1100
Terrain category: 2

h/d≤0.5* - Refer to Note 5 for definition of h and d

Wind Region	Building Height – H (m)															
	H≤5				5<H≤10				10<H≤15				15<H≤20			
	Corner	Edge	Interme diate	Internal	Corner	Edge	Interme diate	Internal	Corner	Edge	Interme diate	Internal	Corner	Edge	Interme diate	Internal
A	570	1060	1370	1625	--	860	1180	1500	--	680	1055	1435	--	620	1000	1405
B	--	705	955	1495	--	575	780	1210	--	520	705	1090	--	--	660	1020
C	--	--	615	950	--	--	505	775	--	--	--	695	--	--	--	655
D	--	--	--	605	--	--	--	--	--	--	--	--	--	--	--	--

h/d≥1* - Refer to Note 5 for definition of h and d

Wind Region	Building Height – H (m)															
	H≤5				5<H≤10				10<H≤15				15<H≤20			
	Corner	Edge	Interme diate	Internal	Corner	Edge	Interme diate	Internal	Corner	Edge	Interme diate	Internal	Corner	Edge	Interme diate	Internal
A	--	600	970	1390	--	505	790	1230	--	405	600	1100	--	--	565	1040
B	--	--	645	995	--	--	530	815	--	--	--	735	--	--	--	690
C	--	--	--	640	--	--	--	525	--	--	--	--	--	--	--	--
D	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

*For intermediate values of h/d ratios, linear interpolation shall be used.
*Refer to Note 7- Figure 2 for roof zone definition.

Flush Array Frame System Spacing Table for LYSAGHT Klip-Lok 700 Hi-Strength roof sheeting – mm

Type of Roof: LYSAGHT Klip-Lok Classic 700 roof sheeting
Type of Rail: TTS Rail
Type of Interface: Cliplok 700
Solar Panel Dimension: 2000x1100
Terrain category: 3

h/d≤0.5* - Refer to Note 5 for definition of h and d

Wind Region	Building Height – H (m)															
	H≤5				5<H≤10				10<H≤15				15<H≤20			
	Corner	Edge	Interme diate	Internal	Corner	Edge	Interme diate	Internal	Corner	Edge	Interme diate	Internal	Corner	Edge	Interme diate	Internal
A	830	1295	1480	1755	830	1295	1480	1755	600	1110	1395	1660	540	985	1355	1580
B	555	855	1165	1680	555	855	1165	1680	--	735	1005	1570	--	655	890	1390
C	--	550	745	1155	--	550	745	1155	--	--	645	990	--	--	575	880
D	--	--	--	735	--	--	--	735	--	--	--	635	--	--	--	565

h/d≥1* - Refer to Note 5 for definition of h and d

Wind Region	Building Height – H (m)															
	H≤5				5<H≤10				10<H≤15				15<H≤20			
	Corner	Edge	Interme diate	Internal	Corner	Edge	Interme diate	Internal	Corner	Edge	Interme diate	Internal	Corner	Edge	Interme diate	Internal
A	--	865	1185	1500	--	865	1185	1500	--	630	1015	1420	--	560	905	1355
B	--	580	785	1215	--	580	785	1215	--	--	675	1045	--	--	600	930
C	--	--	505	775	--	--	505	775	--	--	--	670	--	--	--	595
D	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

*For intermediate values of h/d ratios, linear interpolation shall be used.
*Refer to Note 7- Figure 2 for roof zone definition.

Flush Array Frame System Spacing Table for LYSAGHT Klip-Lok 700 Hi-Strength roof sheeting – mm

Type of Roof: LYSAGHT Klip-Lok Classic 700 roof sheeting
Type of Rail: TTS Rail
Type of Interface: Cliplok 700
Solar Panel Dimension: 2200x1200
Terrain category: 2

h/d≤0.5* - Refer to Note 5 for definition of h and d

Wind Region	Building Height – H (m)															
	H≤5				5<H≤10				10<H≤15				15<H≤20			
	Corner	Edge	Interme diate	Internal	Corner	Edge	Interme diate	Internal	Corner	Edge	Interme diate	Internal	Corner	Edge	Interme diate	Internal
A	–	605	1265	1550	--	--	--	1430	--	--	605	1370	--	--	580	1340
B	--	560	765	1300	--	--	605	1055	--	--	560	945	--	--	--	890
C	--	--	--	825	--	--	--	630	--	--	--	575	--	--	--	--
D	--	--	--	525	--	--	--	--	--	--	--	--	--	--	--	–

h/d≥1* - Refer to Note 5 for definition of h and d

Wind Region	Building Height – H (m)															
	H≤5				5<H≤10				10<H≤15				15<H≤20			
	Corner	Edge	Interme diate	Internal	Corner	Edge	Interme diate	Internal	Corner	Edge	Interme diate	Internal	Corner	Edge	Interme diate	Internal
A	–	–	570	1320	--	--	–	1065	--	--	–	630	--	--	–	595
B	--	--	–	865	--	--	--	630	--	--	--	575	--	--	--	525
C	--	--	--	–	--	--	--	--	--	--	--	--	--	--	--	--
D	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	–

*For intermediate values of h/d ratios, linear interpolation shall be used.
*Refer to Note 7- Figure 2 for roof zone definition.

Flush Array Frame System Spacing Table for LYSAGHT Klip-Lok 700 Hi-Strength roof sheeting – mm

Type of Roof: LYSAGHT Klip-Lok Classic 700 roof sheeting
Type of Rail: TTS Rail
Type of Interface: Cliplok 700
Solar Panel Dimension: 2200x1200
Terrain category: 3

h/d≤0.5* - Refer to Note 5 for definition of h and d

Wind Region	Building Height – H (m)															
	H≤5				5<H≤10				10<H≤15				15<H≤20			
	Corner	Edge	Interme diate	Internal	Corner	Edge	Interme diate	Internal	Corner	Edge	Interme diate	Internal	Corner	Edge	Interme diate	Internal
A	–	1125	1410	1685	–	1125	1410	1685	–	640	1325	1580	–	575	1175	1505
B	--	660	1015	1600	--	660	1015	1600	--	575	870	1365	--	–	685	1205
C	--	--	650	1005	--	--	605	1005	--	--	–	860	--	--	--	710
D	--	--	--	635	--	--	--	635	--	--	--	550	--	--	--	–

h/d≥1* - Refer to Note 5 for definition of h and d

Wind Region	Building Height – H (m)															
	H≤5				5<H≤10				10<H≤15				15<H≤20			
	Corner	Edge	Interme diate	Internal	Corner	Edge	Interme diate	Internal	Corner	Edge	Interme diate	Internal	Corner	Edge	Interme diate	Internal
A	–	–	1030	1430	--	–	1030	1430	--	–	595	1355	--	–	--	1225
B	--	--	605	1055	--	--	605	1055	--	--	–	905	--	--	--	720
C	--	--	--	630	--	--	--	630	--	--	--	560	--	--	--	--
D	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	–

*For intermediate values of h/d ratios, linear interpolation shall be used.
*Refer to Note 7- Figure 2 for roof zone definition.

Flush Array Frame System Spacing Table for LYSAGHT Klip-Lok 700 Hi-Strength roof sheeting – mm

Type of Roof: LYSAGHT Klip-Lok Classic 700 roof sheeting
Type of Rail: TTS Rail
Type of Interface: Cliplok 700
Solar Panel Dimension: 2400x1200
Terrain category: 2

h/d≤0.5* - Refer to Note 5 for definition of h and d

Wind Region	Building Height – H (m)															
	H≤5				5<H≤10				10<H≤15				15<H≤20			
	Corner	Edge	Interme diate	Internal	Corner	Edge	Interme diate	Internal	Corner	Edge	Interme diate	Internal	Corner	Edge	Interme diate	Internal
A	–	--	615	1520	--	--	--	1405	--	--	--	1345	--	--	--	1285
B	--	--	--	1230	--	--	--	695	--	--	--	645	--	--	--	555
C	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
D	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	–

h/d≥1* - Refer to Note 5 for definition of h and d

Wind Region	Building Height – H (m)															
	H≤5				5<H≤10				10<H≤15				15<H≤20			
	Corner	Edge	Interme diate	Internal	Corner	Edge	Interme diate	Internal	Corner	Edge	Interme diate	Internal	Corner	Edge	Interme diate	Internal
A	–	--	--	665	--	--	--	--	--	--	--	--	--	--	--	675
B	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
C	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
D	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	–

*For intermediate values of h/d ratios, linear interpolation shall be used.
*Refer to Note 7- Figure 2 for roof zone definition.

Flush Array Frame System Spacing Table for LYSAGHT Klip-Lok 700 Hi-Strength roof sheeting – mm

Type of Roof: LYSAGHT Klip-Lok Classic 700 roof sheeting
Type of Rail: TTS Rail
Type of Interface: Cliplok 700
Solar Panel Dimension: 2400x1200
Terrain category: 3

h/d≤0.5* - Refer to Note 5 for definition of h and d

Wind Region	Building Height – H (m)															
	H≤5				5<H≤10				10<H≤15				15<H≤20			
	Corner	Edge	Interme diate	Internal	Corner	Edge	Interme diate	Internal	Corner	Edge	Interme diate	Internal	Corner	Edge	Interme diate	Internal
A	–	--	1385	1655	--	--	1385	1655	--	--	665	1550	--	--	--	1480
B	--	--	675	1515	--	--	675	1515	--	--	--	1290	--	--	--	1140
C	--	--	--	695	--	--	--	695	--	--	--	555	--	--	--	--
D	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	–

h/d≥1* - Refer to Note 5 for definition of h and d

Wind Region	Building Height – H (m)															
	H≤5				5<H≤10				10<H≤15				15<H≤20			
	Corner	Edge	Interme diate	Internal	Corner	Edge	Interme diate	Internal	Corner	Edge	Interme diate	Internal	Corner	Edge	Interme diate	Internal
A	–	--	--	1405	--	--	--	1405	--	--	--	1310	--	--	--	585
B	--	--	--	700	--	--	--	700	--	--	--	560	--	--	--	--
C	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
D	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	–

*For intermediate values of h/d ratios, linear interpolation shall be used.
*Refer to Note 7- Figure 2 for roof zone definition.

General Notes

Note 1 Following components are satisfied to use according to AS/NZS 1170.2-2011(R2016)

Components	Part number	Comments
Inter Clamp Kit	Inter Clamp Kit 25-50mm	as per drawing provided by client
End Clamp Kit	End Clamp Kit 25-50mm	as per drawing provided by client
Roof Clamp	Cliplok 406 & 700	as per drawing provided by client
TTS Rail	TTS Rail	as per drawing provided by client

Note 2 Maximum uplift wind pressure is limited to 5.0 KPa for panels of 1800x1100mm and 2000x1100mm
Maximum uplift wind pressure is limited to 4.37KPa for panel of 2200x1200mm
Maximum uplift wind pressure is limited to 3.6KPa for panel of 2400x1200mm

Note 3 Deflection is limited to minimum of $L/120$ and 15mm

Note 4 Terrain Category 2 (TC2) refers to open terrain, including grassland, with well-scattered obstructions having heights generally from 1.5 m to 5 m, with no more than two obstructions per hectare, e.g. farmland and cleared subdivisions with isolated trees and uncut grass.
Terrain Category 3 (TC3) refers to terrain with numerous closely spaced obstructions having heights generally from 3 m to 10 m. The minimum density of obstructions shall be at least the equivalent of 10 house-size obstructions per hectare, e.g. suburban housing, light industrial estates or dense forests.

Note 5 Refer to Figure 1 for definition of h and d.

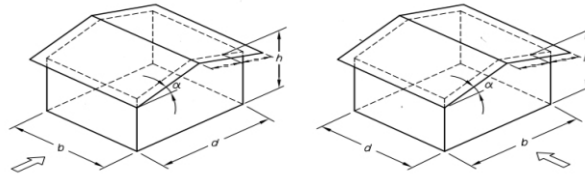
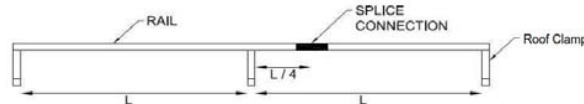


Figure 1 – h and d definition

Note 6 The optimised location of rail splice connection is at quarter length of the spacing of the interface. No Splice connection should be placed at the centre of spacing or over the interface.



Note 7 Refer Figure 2 for definition of roof zones.

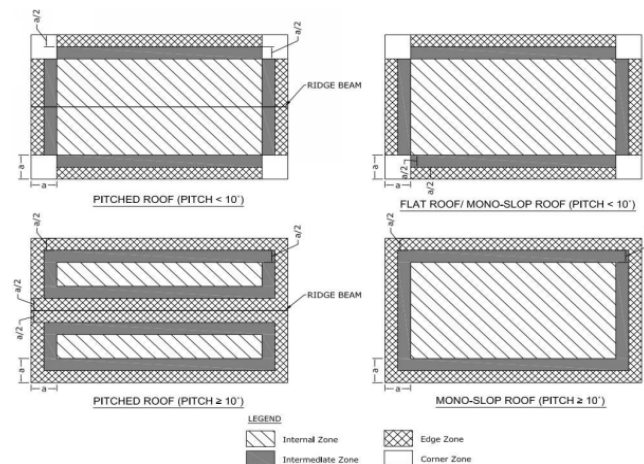


Figure 2 - Roof Zones Definition

In Figure 2, the value of dimension "a" is the minimum of $0.2b$, $0.2d$ and h . (b & d are building dimensions and h is its height)

Structural Design Documentation

Titanergy Tilt Array Frame System Spacing Table

According to AS/NZS 1170.2-2011 (R2016)

with TTS Rail –STRAMIT Speed Deck Ultra 700

within Australia

Terrain Category 2 & 3

For: JIANGYIN TITANERGY CO.,LTD
 No.11 Wuxiang Road
 Yunting Street, Jiangyin
 China 214422

Job Number: 10038-01-TTS
Date: Jul-21



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Job No: 10038-01-TTS
Client: JIANGYIN TITANERGY CO.,LTD
Project: Titanergy Flush Array Frame System Spacing Table
with TTS Rail –STRAMIT Speed Deck Ultra 700
Address: within Australia

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 1170.2:2011 (R2016) – Structural design actions, Part 2: Wind actions
AS/NZS 1664.1:1997 – Aluminium structures - Limit state design
AS 4100:2020 – Steel Structures
AS/NZS 4600:2018 – Cold-Formed Steel Structures

Wind Terrain Category: WTC 2 & 3

Designed: BL

Checked: AA

Date: Jul-21

Flush Array Frame System Spacing Table for STRAMIT Speed Deck Ultra 700 roof sheeting – mm

Type of Roof: STRAMIT Speed Deck Ultra 700 roof sheeting
Type of Rail: TTS Rail
Type of Interface: Cliplok 700
Solar Panel Dimension: 1800x1100
Terrain category: 2

h/d≤0.5* - Refer to Note 5 for definition of h and d

Wind Region	Building Height – H (m)															
	H≤5				5<H≤10				10<H≤15				15<H≤20			
	Corner	Edge	Interme diate	Internal	Corner	Edge	Interme diate	Internal	Corner	Edge	Interme diate	Internal	Corner	Edge	Interme diate	Internal
A	895	1300	1455	1720	560	1125	1350	1590	515	1010	1300	1525	--	955	1275	1490
B	600	915	1250	1645	--	750	1020	1520	--	675	915	1420	--	640	865	1335
C	--	595	800	1235	--	--	655	1005	--	--	595	910	--	--	560	855
D	--	--	515	785	--	--	--	645	--	--	--	585	--	--	--	550

h/d≥1* - Refer to Note 5 for definition of h and d

Wind Region	Building Height – H (m)															
	H≤5				5<H≤10				10<H≤15				15<H≤20			
	Corner	Edge	Interme diate	Internal	Corner	Edge	Interme diate	Internal	Corner	Edge	Interme diate	Internal	Corner	Edge	Interme diate	Internal
A	--	930	1265	1475	--	580	1030	1370	--	530	930	1320	--	510	875	1290
B	--	625	845	1300	--	510	690	1060	--	--	625	955	--	--	585	900
C	--	--	545	835	--	--	--	685	--	--	--	615	--	--	--	585
D	--	--	--	535	--	--	--	--	--	--	--	--	--	--	--	--

*For intermediate values of h/d ratios, linear interpolation shall be used.
*Refer to Note 7- Figure 2 for roof zone definition.

Flush Array Frame System Spacing Table for STRAMIT Speed Deck Ultra 700 roof sheeting – mm

Type of Roof: STRAMIT Speed Deck Ultra 700 roof sheeting
Type of Rail: TTS Rail
Type of Interface: Cliplok 700
Solar Panel Dimension: 1800x1100
Terrain category: 3

h/d≤0.5* - Refer to Note 5 for definition of h and d

Wind Region	Building Height – H (m)															
	H≤5				5<H≤10				10<H≤15				15<H≤20			
	Corner	Edge	Interme diate	Internal	Corner	Edge	Interme diate	Internal	Corner	Edge	Interme diate	Internal	Corner	Edge	Interme diate	Internal
A	1085	1395	1570	1835	1085	1395	1570	1835	935	1325	1480	1745	725	1270	1415	1675
B	725	1115	1500	1765	725	1115	1500	1765	625	960	1305	1680	560	855	1160	1600
C	--	720	975	1510	--	720	975	1510	--	620	835	1295	--	555	745	1150
D	--	--	625	955	--	--	625	955	--	--	540	825	--	--	--	735

h/d≥1* - Refer to Note 5 for definition of h and d

Wind Region	Building Height – H (m)															
	H≤5				5<H≤10				10<H≤15				15<H≤20			
	Corner	Edge	Interme diate	Internal	Corner	Edge	Interme diate	Internal	Corner	Edge	Interme diate	Internal	Corner	Edge	Interme diate	Internal
A	570	1130	1355	1595	570	1130	1355	1595	--	970	1285	1505	--	865	1180	1440
B	--	755	1020	1525	--	755	1020	1525	--	650	880	1365	--	580	785	1210
C	--	--	660	1015	--	--	660	1015	--	--	570	870	--	--	510	775
D	--	--	--	650	--	--	--	650	--	--	--	560	--	--	--	--

*For intermediate values of h/d ratios, linear interpolation shall be used.
*Refer to Note 7- Figure 2 for roof zone definition.

Flush Array Frame System Spacing Table for STRAMIT Speed Deck Ultra 700 roof sheeting – mm

Type of Roof: STRAMIT Speed Deck Ultra 700 roof sheeting
Type of Rail: TTS Rail
Type of Interface: Cliplok 700
Solar Panel Dimension: 2000x1100
Terrain category: 2

h/d≤0.5* - Refer to Note 5 for definition of h and d

Wind Region	Building Height – H (m)															
	H≤5				5<H≤10				10<H≤15				15<H≤20			
	Corner	Edge	Interme diate	Internal	Corner	Edge	Interme diate	Internal	Corner	Edge	Interme diate	Internal	Corner	Edge	Interme diate	Internal
A	570	1155	1370	1625	–	940	1275	1500	–	845	1150	1435	–	625	1090	1405
B	--	765	1045	1550	--	630	850	1320	--	565	765	1185	--	535	720	1115
C	--	--	670	1035	--	--	550	845	--	--	--	760	--	--	--	715
D	--	--	--	660	--	--	--	540	--	--	--	--	--	--	--	–

h/d≥1* - Refer to Note 5 for definition of h and d

Wind Region	Building Height – H (m)															
	H≤5				5<H≤10				10<H≤15				15<H≤20			
	Corner	Edge	Interme diate	Internal	Corner	Edge	Interme diate	Internal	Corner	Edge	Interme diate	Internal	Corner	Edge	Interme diate	Internal
A	–	600	1060	1390	--	505	865	1290	--	415	600	1200	--	–	565	1135
B	--	520	705	1085	--	--	575	885	--	--	520	800	--	--	--	750
C	--	--	--	700	--	--	--	570	--	--	--	515	--	--	--	--
D	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	–

*For intermediate values of h/d ratios, linear interpolation shall be used.
*Refer to Note 7- Figure 2 for roof zone definition.

Flush Array Frame System Spacing Table for STRAMIT Speed Deck Ultra 700 roof sheeting – mm

Type of Roof: STRAMIT Speed Deck Ultra 700 roof sheeting
Type of Rail: TTS Rail
Type of Interface: Cliplok 700
Solar Panel Dimension: 2000x1100
Terrain category: 3

h/d≤0.5* - Refer to Note 5 for definition of h and d

Wind Region	Building Height – H (m)															
	H≤5				5<H≤10				10<H≤15				15<H≤20			
	Corner	Edge	Interme diate	Internal	Corner	Edge	Interme diate	Internal	Corner	Edge	Interme diate	Internal	Corner	Edge	Interme diate	Internal
A	905	1315	1480	1755	905	1315	1480	1755	610	1210	1395	1660	540	1075	1335	1580
B	605	930	1275	1680	605	930	1275	1680	525	805	1095	1580	--	715	970	1515
C	--	600	815	1260	--	600	815	1260	--	520	700	1080	--	--	625	960
D	--	--	520	800	--	--	520	800	--	--	--	690	--	--	--	615

h/d≥1* - Refer to Note 5 for definition of h and d

Wind Region	Building Height – H (m)															
	H≤5				5<H≤10				10<H≤15				15<H≤20			
	Corner	Edge	Interme diate	Internal	Corner	Edge	Interme diate	Internal	Corner	Edge	Interme diate	Internal	Corner	Edge	Interme diate	Internal
A	–	945	1275	1500	–	945	1275	1500	–	655	1110	1420	–	560	985	1355
B	–	630	855	1325	–	630	855	1325	–	545	735	1140	--	–	655	1015
C	--	--	555	850	--	--	555	850	--	--	--	--	--	--	--	650
D	--	--	--	545	--	--	--	545	--	--	--	--	--	--	--	--

*For intermediate values of h/d ratios, linear interpolation shall be used.
*Refer to Note 7- Figure 2 for roof zone definition.

Flush Array Frame System Spacing Table for STRAMIT Speed Deck Ultra 700 roof sheeting – mm

Type of Roof: STRAMIT Speed Deck Ultra 700 roof sheeting
Type of Rail: TTS Rail
Type of Interface: Cliplok 700
Solar Panel Dimension: 2200x1200
Terrain category: 2

h/d≤0.5* - Refer to Note 5 for definition of h and d

Wind Region	Building Height – H (m)															
	H≤5				5<H≤10				10<H≤15				15<H≤20			
	Corner	Edge	Intermedate	Internal	Corner	Edge	Intermedate	Internal	Corner	Edge	Intermedate	Internal	Corner	Edge	Intermedate	Internal
A	--	615	1305	1550	--	--	1115	1430	--	--	615	1370	--	--	580	1340
B	--	560	795	1420	--	--	605	1150	--	--	560	1030	--	--	--	970
C	--	--	--	895	--	--	--	630	--	--	--	575	--	--	--	--
D	--	--	--	570	--	--	--	--	--	--	--	--	--	--	--	--

h/d≥1* - Refer to Note 5 for definition of h and d

Wind Region	Building Height – H (m)															
	H≤5				5<H≤10				10<H≤15				15<H≤20			
	Corner	Edge	Intermedate	Internal	Corner	Edge	Intermedate	Internal	Corner	Edge	Intermedate	Internal	Corner	Edge	Intermedate	Internal
A	--	--	570	1325	--	--	--	1165	--	--	--	650	--	--	--	595
B	--	--	--	945	--	--	--	630	--	--	--	575	--	--	--	525
C	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
D	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

*For intermediate values of h/d ratios, linear interpolation shall be used.
*Refer to Note 7- Figure 2 for roof zone definition.

Flush Array Frame System Spacing Table for STRAMIT Speed Deck Ultra 700 roof sheeting – mm

Type of Roof: STRAMIT Speed Deck Ultra 700 roof sheeting
Type of Rail: TTS Rail
Type of Interface: Cliplok 700
Solar Panel Dimension: 2200x1200
Terrain category: 3

h/d≤0.5* - Refer to Note 5 for definition of h and d

Wind Region	Building Height – H (m)															
	H≤5				5<H≤10				10<H≤15				15<H≤20			
	Corner	Edge	Intermedate	Internal	Corner	Edge	Intermedate	Internal	Corner	Edge	Intermedate	Internal	Corner	Edge	Intermedate	Internal
A	--	1225	1410	1685	--	1225	1410	1685	--	690	1330	1580	--	575	1275	1505
B	--	660	1105	1605	--	660	1105	1605	--	575	950	1490	--	--	685	1315
C	--	--	605	1095	--	--	605	1095	--	--	--	940	--	--	--	710
D	--	--	--	695	--	--	--	695	--	--	--	600	--	--	--	530

h/d≥1* - Refer to Note 5 for definition of h and d

Wind Region	Building Height – H (m)															
	H≤5				5<H≤10				10<H≤15				15<H≤20			
	Corner	Edge	Intermedate	Internal	Corner	Edge	Intermedate	Internal	Corner	Edge	Intermedate	Internal	Corner	Edge	Intermedate	Internal
A	--	--	1120	1430	--	--	1120	1430	--	--	595	1355	--	--	--	1295
B	--	--	605	1150	--	--	605	1150	--	--	--	990	--	--	--	720
C	--	--	--	630	--	--	--	630	--	--	--	560	--	--	--	--
D	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

*For intermediate values of h/d ratios, linear interpolation shall be used.
*Refer to Note 7- Figure 2 for roof zone definition.

Flush Array Frame System Spacing Table for STRAMIT Speed Deck Ultra 700 roof sheeting – mm

Type of Roof: STRAMIT Speed Deck Ultra 700 roof sheeting
Type of Rail: TTS Rail
Type of Interface: Cliplok 700
Solar Panel Dimension: 2400x1200
Terrain category: 2

h/d≤0.5* - Refer to Note 5 for definition of h and d

Wind Region	Building Height – H (m)															
	H≤5				5<H≤10				10<H≤15				15<H≤20			
	Corner	Edge	Interme diate	Internal	Corner	Edge	Interme diate	Internal	Corner	Edge	Interme diate	Internal	Corner	Edge	Interme diate	Internal
A	–	--	640	1520	--	--	--	1405	--	--	--	1345	--	--	--	1315
B	--	--	--	1340	--	--	--	695	--	--	--	645	--	--	--	555
C	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
D	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	–

h/d≥1* - Refer to Note 5 for definition of h and d

Wind Region	Building Height – H (m)															
	H≤5				5<H≤10				10<H≤15				15<H≤20			
	Corner	Edge	Interme diate	Internal	Corner	Edge	Interme diate	Internal	Corner	Edge	Interme diate	Internal	Corner	Edge	Interme diate	Internal
A	–	--	--	1305	--	--	--	--	--	--	--	--	--	--	--	--
B	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
C	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
D	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	–

*For intermediate values of h/d ratios, linear interpolation shall be used.
*Refer to Note 7- Figure 2 for roof zone definition.

Flush Array Frame System Spacing Table for STRAMIT Speed Deck Ultra 700 roof sheeting – mm

Type of Roof: STRAMIT Speed Deck Ultra 700 roof sheeting
Type of Rail: TTS Rail
Type of Interface: Cliplok 700
Solar Panel Dimension: 2400x1200
Terrain category: 3

h/d≤0.5* - Refer to Note 5 for definition of h and d

Wind Region	Building Height – H (m)															
	H≤5				5<H≤10				10<H≤15				15<H≤20			
	Corner	Edge	Interme diate	Internal	Corner	Edge	Interme diate	Internal	Corner	Edge	Interme diate	Internal	Corner	Edge	Interme diate	Internal
A	–	--	1385	1655	--	--	1385	1655	--	--	1310	1550	--	--	525	1480
B	--	--	675	1575	--	--	675	1575	--	--	–	1410	--	--	--	1245
C	--	--	--	695	--	--	--	695	--	--	--	555	--	--	--	--
D	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	–

h/d≥1* - Refer to Note 5 for definition of h and d

Wind Region	Building Height – H (m)															
	H≤5				5<H≤10				10<H≤15				15<H≤20			
	Corner	Edge	Interme diate	Internal	Corner	Edge	Interme diate	Internal	Corner	Edge	Interme diate	Internal	Corner	Edge	Interme diate	Internal
A	–	--	--	1405	--	--	--	1405	--	--	--	1330	--	--	--	610
B	--	--	--	700	--	--	--	700	--	--	--	575	--	--	--	--
C	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
D	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	–

*For intermediate values of h/d ratios, linear interpolation shall be used.
*Refer to Note 7- Figure 2 for roof zone definition.

General Notes

Note 1 Following components are satisfied to use according to AS/NZS 1170.2-2011(R2016)

Components	Part number	Comments
Inter Clamp Kit	Inter Clamp Kit 25-50mm	as per drawing provided by client
End Clamp Kit	End Clamp Kit 25-50mm	as per drawing provided by client
Roof Clamp	Cliplok 406 & 700	as per drawing provided by client
TTS Rail	TTS Rail	as per drawing provided by client

Note 2 Maximum uplift wind pressure is limited to 5.0 KPa for panels of 1800x1100mm and 2000x1100mm
Maximum uplift wind pressure is limited to 4.37KPa for panel of 2200x1200mm
Maximum uplift wind pressure is limited to 3.6KPa for panel of 2400x1200mm

Note 3 Deflection is limited to minimum of $L/120$ and 15mm

Note 4 Terrain Category 2 (TC2) refers to open terrain, including grassland, with well-scattered obstructions having heights generally from 1.5 m to 5 m, with no more than two obstructions per hectare, e.g. farmland and cleared subdivisions with isolated trees and uncut grass.
Terrain Category 3 (TC3) refers to terrain with numerous closely spaced obstructions having heights generally from 3 m to 10 m. The minimum density of obstructions shall be at least the equivalent of 10 house-size obstructions per hectare, e.g. suburban housing, light industrial estates or dense forests.

Note 5 Refer to Figure 1 for definition of h and d.

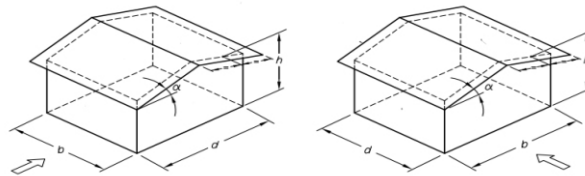
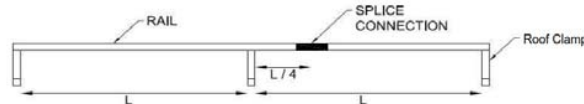


Figure 1 – h and d definition

Note 6 The optimised location of rail splice connection is at quarter length of the spacing of the interface. No Splice connection should be placed at the centre of spacing or over the interface.



Note 7 Refer Figure 2 for definition of roof zones.

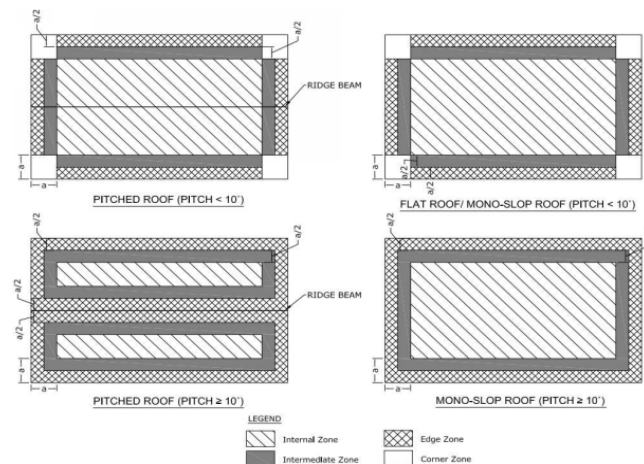


Figure 2 - Roof Zones Definition

In Figure 2, the value of dimension "a" is the minimum of $0.2b$, $0.2d$ and h . (b & d are building dimensions and h is its height)