montage

Rooftop Photovoltaic Mounting System

Installation Manual

www.montagesystem.com.au

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TOP ENERGY

INDUSTRY STANDARD COMPLIANT AS/NZS1170.2

WARRANTY 12 YEAR WARRANTY

MONTAGE Rooftop Photovoltaic Mounting System
www.montagesystem.com.au

Installation Manual
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Contents

Overview

Thank you for choosing Montage Rooftop Photovoltaic Mounting System, which has been developed using excellent engineering expertise and quality materials.

Montage system can be used in a wide range of applications, from urban to rural, from residential to commercial and industrial. It has been engineered for almost all wind regions and terrains in Australia and New Zealand.

All Montage products are backed by 12 year limited warranty.

Safety

Montage products are intended to be installed by professionally trained installers only. Any attempt to install the products by an untrained or unqualified individual could result in injury or death.

Do not modify. Modification or substitute of Montage components could hinder the performance and create safety hazard.

Handle with care to avoid damage to Montage components and other materials (e.g. the photovoltaic modules).

Installer Responsibilities

The installer is solely responsible for:

- Ensuring that all products chosen are appropriate for the particular installation.
- Verifying the integrity and load bearing capacity of the structure on which Montage system is to be installed.
- Maintaining the watertightness of the roof.
- Complying with all applicable local and national building codes.
- Taking all precautions and safety measures during the whole installation process.

Features

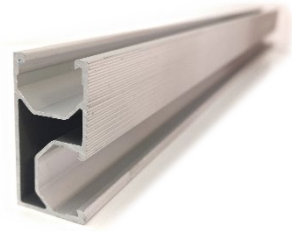
Montage products have been engineered in accordance with AS/NZS1170:2011(R2016) for wide range of application scenario:

- Wind region A, B, C, D and W
- Wind Terrain category 2 and 3
- Wind average recurrence interval of 200 years
- Building height up to 20 metres
- Photovoltaic module up to 2,274 x 1,134 (mm)
- Photovoltaic module weight up to 15kg / m2
- Tile roof and tin roof
- Flush and tilted installation

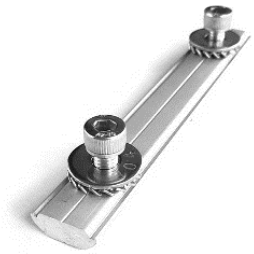
Materials

- Extruded aluminium: 6005-T5 with clear or black anodized finish
- Stainless Steel: SUS304
- Fastener: SUS304, A2-70 grade

Key Components



Standard Rail



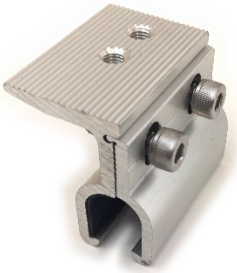
Rail Splicer Assembly

Mid-Clamp Assembly

End-Clamp Assembly

L-Feet Assembly for Tin Roof

Tile Hook Assembly



KL406 Clamp Assembly

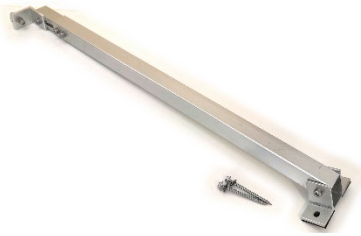
KL700 Clamp Assembly

D-Nut Assembly

Adjustable
Front Leg Assembly

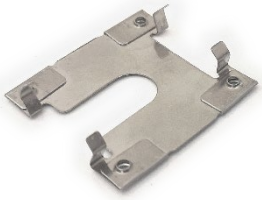
10-15 Degrees Adjustable
Rear Leg Assembly

15-30 Degrees Adjustable
Rear Leg Assembly



30-60 Degree Adjustable
Rear Leg Assembly

Ground Lug Assembly



Ground Clip

Planning

Montage rooftop photovoltaic mounting system has been developed in accordance with the AS/NZS1170.2:2011(R2016) to suit a wide range of applications. Guidelines for installation of various configurations are provided in this manual. Should any element of a project fall outside of the guidelines provided herein, or you have any doubt, please consult with your supplier or a qualified engineer.

Site Assessment

For each installation, it is essential to assess the location and properties of the installation site.

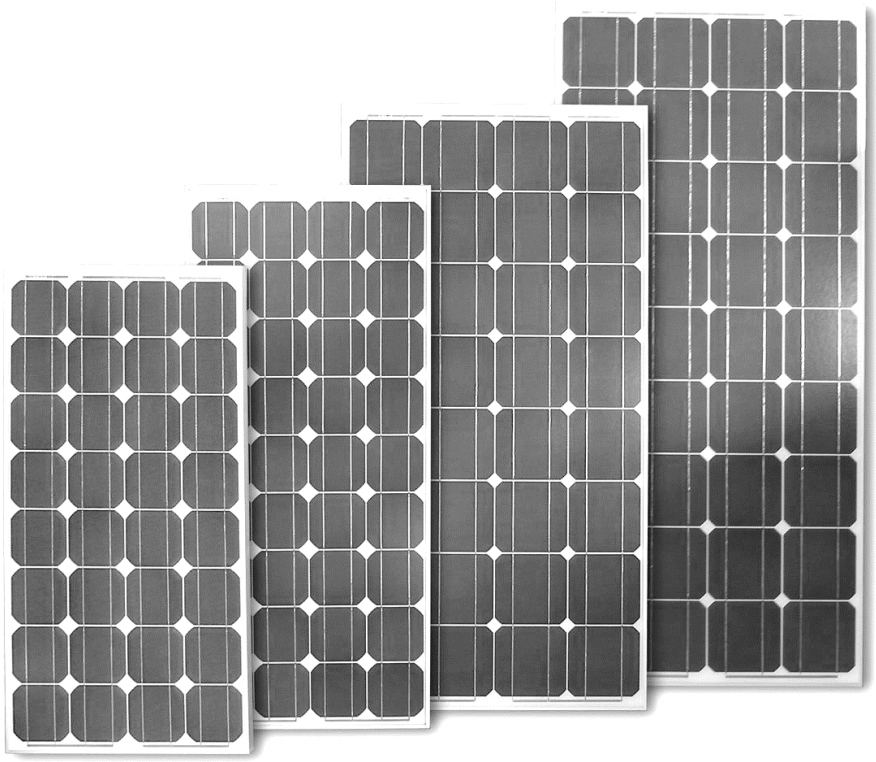
- Wind Region and Terrain: wind region A, B, C, D or W, wind terrains 2 or 3
- Building Height and aspect ratio: consult with your supplier or qualified engineer should building height exceeds 20 metres
- Roof Type: tile roof or tin roof, tin roof type

The gathered information can be used, in conjunction with module type, layout and others, to look up the appropriate spacing table (*see Appendix A*) for the maximum spacing and determine the types and quantities of components required.

Module Type and Layout

The photovoltaic modules' type and layout are also important determinants of components and spacing.

- Module dimensions: length and width and thickness
- Number of rows and columns
- Tilt angle to roof surface



General Notes

- Spacing calculations for pierced fix installation in Appendix A are based on 1.9mm steel purlin or 35mm screw embedment into JD4 seasoned timber. Please consult with qualified engineer should the actual structure be of less strength.
- Each Photovoltaic panel must be supported at least two rails in all circumstances.
- The distance between the underside of the Photovoltaic module and the roof surface (the *Gap*) should be from 50mm to 300mm.
- No photovoltaic module should be installed within 2 x *Gap* or 200mm, whichever is greater, from edges and ridge.
- All M8 bolts should be fastened with a torque of 24Nm.

Tools

You will need the following tools for installing Montage rooftop photovoltaic mounting system.

Impact Driver

6mm Allen Key or Hex Bit

10mm Nutsetter Bit

Angle Grinder

Spirit Level

Tape Measure

Chalk Line and Marker

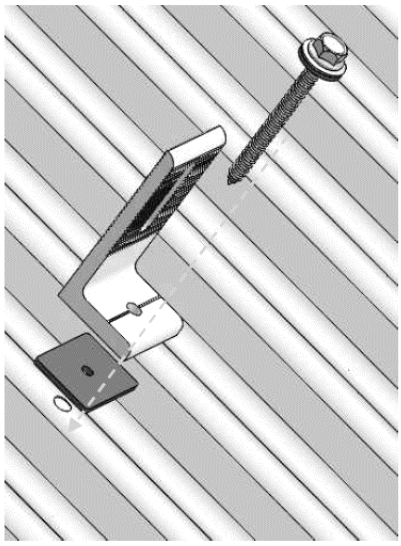
Gloves

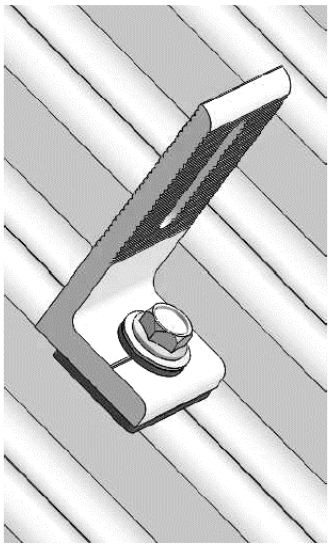
Safety Goggles

Installation

L-Feet on Tin Roof

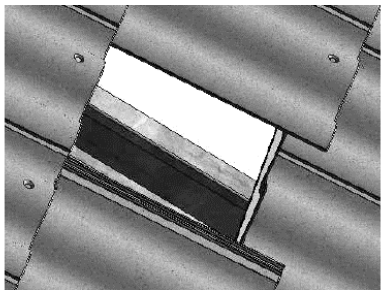
- Mark the installation points of the L-feet in accordance with the spacing guidelines and ensure the L-feet are positioned over the centre of the purlins.
- Drill pilot holes in the metal roof sheet and steel rafter for the roofing screw.
- Ensure the EPDM (rubber) sealer pad is attached on the base of the L-feet.
- Secure the L-feet with the roofing screw supplied.

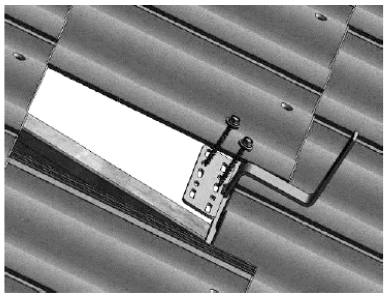


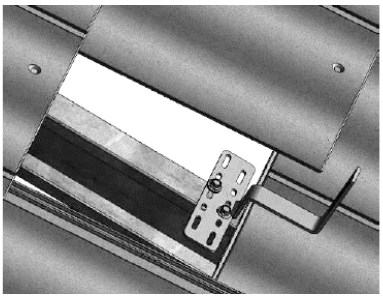


Tile Hook for Tile Roof

- Mark the installation points over the centre of the rafters in accordance with the spacing guidelines.
- Remove the tile from the roof
- Position of the tile hook so that the tile hook lies in the valley of the lower tile. Ensure that the tile hook is located against the upslope edge of the lower tile.
- Fix the tile hook to the exposed rafter using a minimum of 2 of the supplied roofing screws.
- Replace the tile over the Tile Hook flat against the lower tiles. If necessary, cut recesses into the inner face of the tile to accommodate the tile hook and ensure watertightness.

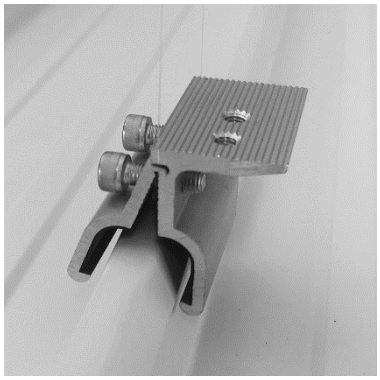
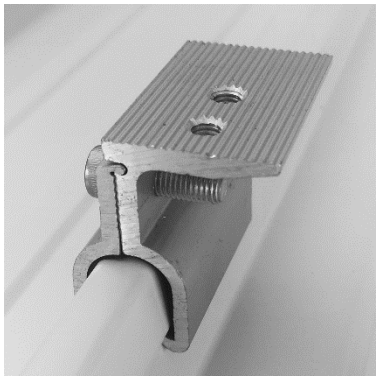






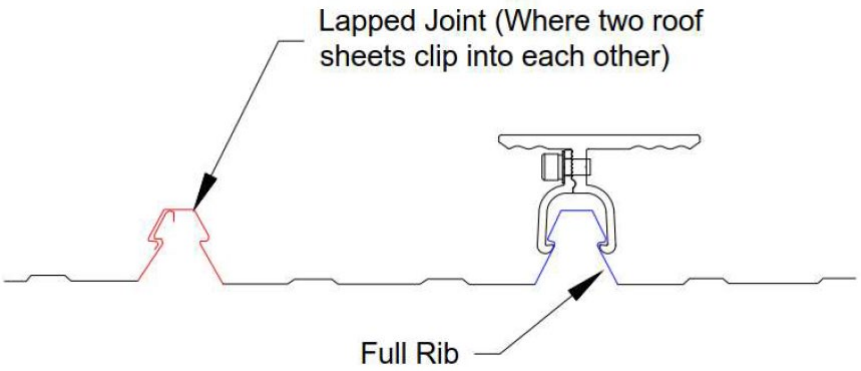
Coupling Clamp for Tin Roof

- Mark the installation points over the centre of the purlin in accordance with the spacing guidelines.
- Loosen the side fasteners so the coupling clamp can be clasped around the full rib of the roof.
- Ensure that the EPDM spacer pad is placed between the coupling clamp and the roof.
- Tighten the side fasteners to secure the coupling clamp on the roof.
- Install an L-feet on the top of the coupling clamp.

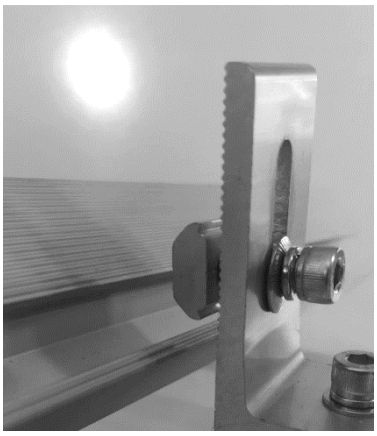

The illustration above shows coupling clamp assembly for Lysaght KL406 as example. More coupling clamp assemblies are available for other roof types.

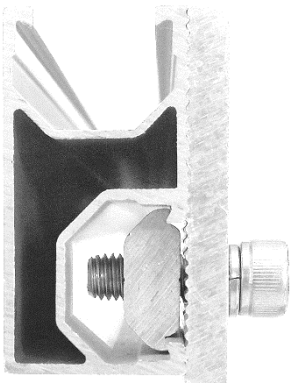
Coupling clamps are only intended to be fixed to the full rib of roof sheeting on the top of the purlins. No coupling clamp should be fixed to the lapped ribs.



Rail

- Attach the mounting rail to the roof bracket (L-feet, tile hook or others) as shown.
- Ensure the corrugated side of the rail corresponds with the corrugated side on the roof bracket.
- Position the rail to the desired height on each of the roof brackets, align the ends of the rails and fasten the rail connector bolts.





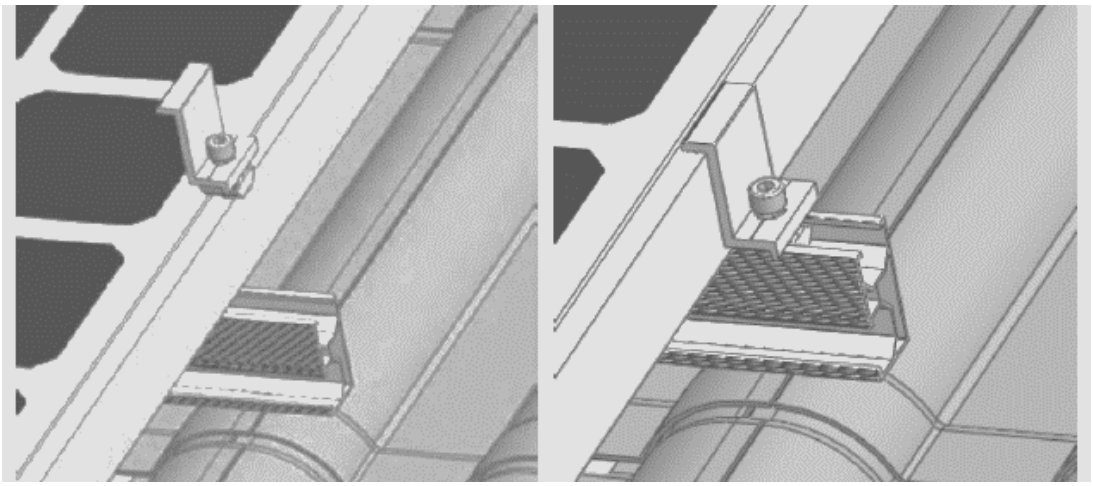
Rail Splicer

- Loosen the bolts on the splicer and insert the splicer in the side pocket of the rails. Pull the two rails so their ends meet.
- Centre the splicer to the seam and tighten the bolts.

The optimal position of the rail splice joint is at quarter length of the spacing of the roof brackets. No splice joint should be position at the centre of the spacing or over the roof bracket.

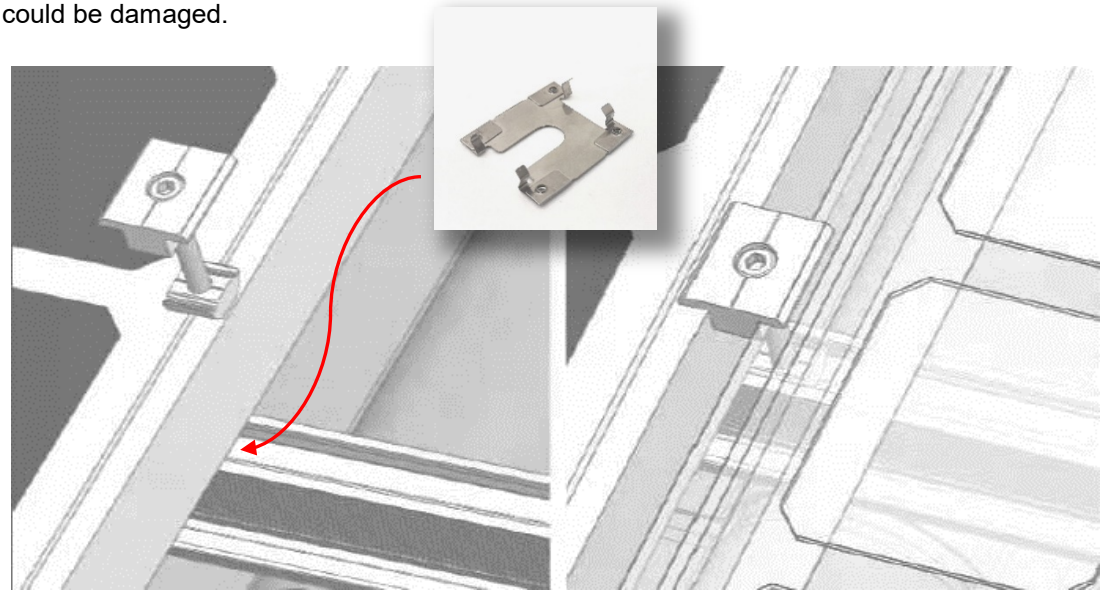
End Clamp

- Choose the appropriate end clamp assembly according to the thickness of your photovoltaic module.
- Attach the end clamp to the rails.
- Tighten the end clamp firmly against the photovoltaic module.



Mid Clamp

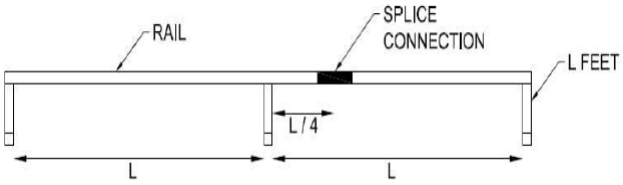
- Choose the appropriate mid clamp assembly according to the thickness of your photovoltaic module.
- Place the mid clamp to the rail and position it firmly against the already-fixed module.
- Place a grounding clip between the module and the rail.
- Pull the next module to intimate contact with the mid clamp.
- Tighten the mid clamp firmly against the modules. Do not over tighten the end clamp or the modules could be damaged.



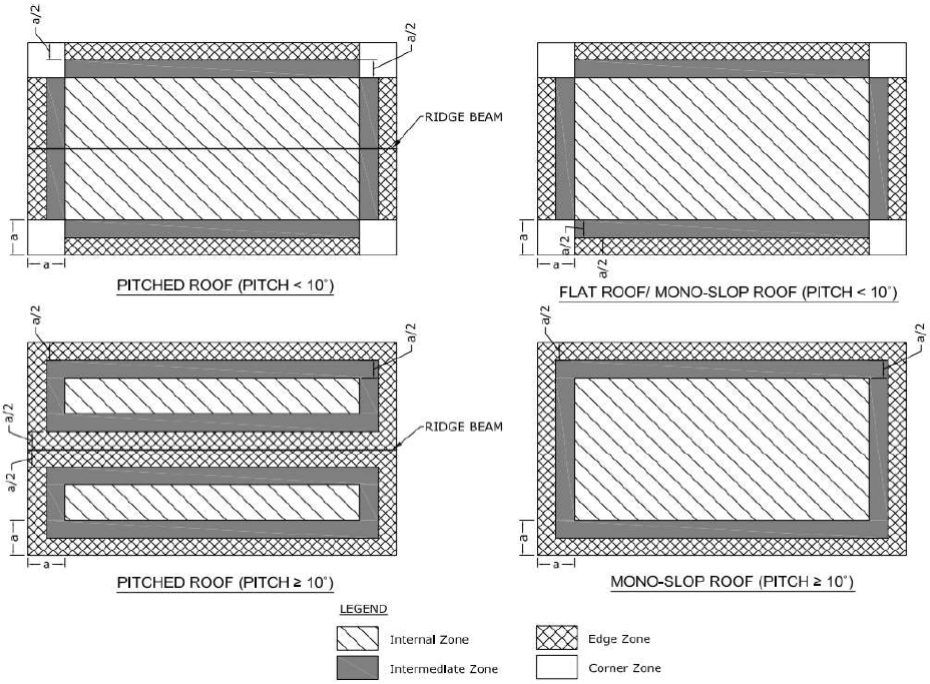
Appendix A Spacing Tables

Notes

- Maximum uplift wind pressure is limited to 5 kPa. "--" states more uplift pressure.
- Rail deflection is limited to Minimum of L/120 and 15mm.



- 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 10m. 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.
- Definition of roof zones



In the figure, the value of dimensions "a" is the minimum of 0.2b, 0.2d and h. (b and d are building dimensions and h is its height.

Flush Mount for Tin Roof (Pierced Fix)

1.840m x 0.998m Module

Terrain Category 2

Wind Region	Building Height – H (m); Aspect ratio H/d ≤ 0.5 & H/b ≤ 0.5															
	H≤5				5<H≤10				10<H≤15				15<H≤20			
	Corner	Edge	Intermediate	Internal	Corner	Edge	Intermediate	Internal	Corner	Edge	Intermediate	Internal	Corner	Edge	Intermediate	Internal
A	965	1490	1720	1955	790	1215	1600	1840	710	1090	1485	1780	675	1030	1405	1750
B	645	990	1345	1885	530	810	1100	1705	480	730	990	1530	--	690	930	1440
C	--	510	690	1065	--	420	565	870	--	380	510	785	--	--	485	740
D	--	--	445	680	--	--	--	555	--	--	--	505	--	--	--	475
W	730	1120	1530	1775	600	920	1250	1670	540	825	1120	1605	515	780	1060	1570

Wind Region	Building Height – H (m); Aspect ratio H/d > 0.5 or H/b > 0.5															
	H≤5				5<H≤10				10<H≤15				15<H≤20			
	Corner	Edge	Intermediate	Internal	Corner	Edge	Intermediate	Internal	Corner	Edge	Intermediate	Internal	Corner	Edge	Intermediate	Internal
A	655	1005	1365	1740	535	820	1115	1625	485	740	1000	1550	--	700	945	1465
B	--	670	910	1405	--	550	745	1145	--	500	675	1030	--	470	635	970
C	--	--	470	720	--	--	385	590	--	--	--	535	--	--	--	505
D	--	--	--	465	--	--	--	380	--	--	--	--	--	--	--	--
W	500	760	1030	1555	--	625	845	1300	--	565	760	1170	--	535	720	1105

Terrain Category 3

Wind Region	Building Height – H (m); Aspect ratio H/d ≤ 0.5 & H/b ≤ 0.5															
	H≤5				5<H≤10				10<H≤15				15<H≤20			
	Corner	Edge	Intermediate	Internal	Corner	Edge	Intermediate	Internal	Corner	Edge	Intermediate	Internal	Corner	Edge	Intermediate	Internal
A	1170	1655	1820	2000	1170	1655	1820	2000	1005	1560	1745	1985	900	1385	1680	1910
B	780	1200	1640	2000	780	1200	1640	2000	675	1035	1410	1915	605	920	1255	1850
C	405	620	840	1300	405	620	840	1300	--	535	725	1115	--	475	645	990
D	--	400	540	825	--	400	540	825	--	--	465	710	--	--	415	635
W	885	1365	1645	1880	885	1365	1645	1880	765	1175	1560	1800	680	1045	1425	1740

Wind Region	Building Height – H (m); Aspect ratio H/d > 0.5 or H/b > 0.5															
	H≤5				5<H≤10				10<H≤15				15<H≤20			
	Corner	Edge	Intermediate	Internal	Corner	Edge	Intermediate	Internal	Corner	Edge	Intermediate	Internal	Corner	Edge	Intermediate	Internal
A	795	1220	1605	1840	795	1220	1605	1840	685	1050	1430	1765	610	935	1275	1705
B	535	815	1100	1710	535	815	1100	1710	--	705	950	1470	--	625	845	1305
C	--	425	570	875	--	425	570	875	--	--	490	755	--	--	440	670
D	--	--	--	560	--	--	--	560	--	--	--	485	--	--	--	430
W	605	920	1255	1670	605	920	1255	1670	525	795	1080	1580	465	710	960	1485

2.274m x 1.134m Module

Terrain Category 2

Wind Region	Building Height – H (m); Aspect ratio H/d ≤ 0.5 & H/b ≤ 0.5															
	H≤5				5<H≤10				10<H≤15				15<H≤20			
	Corner	Edge	Intermediate	Internal	Corner	Edge	Intermediate	Internal	Corner	Edge	Intermediate	Internal	Corner	Edge	Intermediate	Internal
A	705	1205	1605	1850	585	980	1340	1745	465	880	1205	1685	380	800	1135	1645
B	525	800	1090	1705	320	655	890	1380	--	590	800	1240	--	555	755	1165
C	--	415	560	865	--	--	460	705	--	--	415	635	--	--	390	595
D	--	--	--	550	--	--	--	450	--	--	--	405	--	--	--	385
W	465	905	1240	1675	--	650	1010	1555	--	595	905	1410	--	570	775	1330

Wind Region	Building Height – H (m); Aspect ratio H/d > 0.5 or H/b > 0.5															
	H≤5				5<H≤10				10<H≤15				15<H≤20			
	Corner	Edge	Intermediate	Internal	Corner	Edge	Intermediate	Internal	Corner	Edge	Intermediate	Internal	Corner	Edge	Intermediate	Internal
A	335	755	1105	1630	--	605	900	1400	--	565	755	1255	--	455	690	1185
B	--	545	735	1135	--	445	605	925	--	280	545	835	--	220	510	785
C	--	--	380	580	--	--	--	475	--	--	--	430	--	--	--	405
D	--	--	--	370	--	--	--	--	--	--	--	--	--	--	--	--
W	--	560	745	1290	--	--	600	1050	--	--	560	945	--	--	450	890

Terrain Category 3

Wind Region	Building Height – H (m); Aspect ratio H/d ≤ 0.5 & H/b ≤ 0.5															
	H≤5				5<H≤10				10<H≤15				15<H≤20			
	Corner	Edge	Intermediate	Internal	Corner	Edge	Intermediate	Internal	Corner	Edge	Intermediate	Internal	Corner	Edge	Intermediate	Internal
A	945	1475	1725	1975	945	1475	1725	1975	775	1260	1635	1880	660	1125	1540	1815
B	630	970	1325	1900	630	970	1325	1900	545	835	1140	1785	485	745	1015	1580
C	--	500	680	1055	--	500	680	1055	--	430	585	905	--	385	520	800
D	--	--	435	665	--	--	435	665	--	--	375	575	--	--	--	515
W	630	1105	1515	1785	630	1105	1515	1785	560	955	1300	1705	355	765	1155	1630

Wind Region	Building Height – H (m); Aspect ratio H/d > 0.5 or H/b > 0.5															
	H≤5				5<H≤10				10<H≤15				15<H≤20			
	Corner	Edge	Intermediate	Internal	Corner	Edge	Intermediate	Internal	Corner	Edge	Intermediate	Internal	Corner	Edge	Intermediate	Internal
A	595	985	1345	1745	595	985	1345	1745	440	845	1155	1660	--	685	1030	1590
B	320	655	890	1385	320	655	890	1385	--	570	770	1190	--	505	685	1055
C	--	--	460	705	--	--	460	705	--	--	395	610	--	--	--	540
D	--	--	--	455	--	--	--	455	--	--	--	390	--	--	--	--
W	--	650	1015	1555	--	650	1015	1555	--	575	870	1355	--	435	675	1200

Flush Mount for Tile Roof (Pierced Fix)

1.840m x 0.998m Module

Terrain Category 2

Wind Region	Building Height – H (m); Aspect ratio H/d ≤ 0.5 & H/b ≤ 0.5															
	H≤5				5<H≤10				10<H≤15				15<H≤20			
	Corner	Edge	Intermediate	Internal	Corner	Edge	Intermediate	Internal	Corner	Edge	Intermediate	Internal	Corner	Edge	Intermediate	Internal
A	--	475	650	1040	--	385	525	835	--	345	475	745	--	325	445	700
B	--	--	430	670	--	--	350	545	--	--	--	485	--	--	--	455
C	--	--	--	425	--	--	--	345	--	--	--	--	--	--	--	--
D	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
W	--	355	485	765	--	--	395	620	--	--	355	555	--	--	335	525

Wind Region	Building Height – H (m); Aspect ratio H/d > 0.5 or H/b > 0.5															
	H≤5				5<H≤10				10<H≤15				15<H≤20			
	Corner	Edge	Intermediate	Internal	Corner	Edge	Intermediate	Internal	Corner	Edge	Intermediate	Internal	Corner	Edge	Intermediate	Internal
A	--	220	435	680	--	--	355	550	--	--	220	495	--	--	--	465
B	--	--	--	445	--	--	--	365	--	--	--	325	--	--	--	--
C	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
D	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
W	--	--	325	505	--	--	--	415	--	--	--	370	--	--	--	350

Terrain Category 3

Wind Region	Building Height – H (m); Aspect ratio H/d ≤ 0.5 & H/b ≤ 0.5															
	H≤5				5<H≤10				10<H≤15				15<H≤20			
	Corner	Edge	Intermediate	Internal	Corner	Edge	Intermediate	Internal	Corner	Edge	Intermediate	Internal	Corner	Edge	Intermediate	Internal
A	370	580	805	1300	370	580	805	1300	220	495	685	1095	--	440	605	965
B	--	380	520	825	--	380	520	825	--	325	450	705	--	--	400	620
C	--	--	335	520	--	--	335	520	--	--	--	445	--	--	--	395
D	--	--	--	325	--	--	--	325	--	--	--	--	--	--	--	--
W	--	435	595	945	--	435	595	945	--	375	510	805	--	330	455	710

Wind Region	Building Height – H (m); Aspect ratio H/d > 0.5 or H/b > 0.5															
	H≤5				5<H≤10				10<H≤15				15<H≤20			
	Corner	Edge	Intermediate	Internal	Corner	Edge	Intermediate	Internal	Corner	Edge	Intermediate	Internal	Corner	Edge	Intermediate	Internal
A	--	385	530	840	--	385	530	840	--	335	455	715	--	--	405	630
B	--	--	350	545	--	--	350	545	--	--	--	465	--	--	--	415
C	--	--	--	345	--	--	--	345	--	--	--	--	--	--	--	--
D	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
W	--	--	400	620	--	--	400	620	--	--	345	535	--	--	--	470

2.274m x 1.134m Module

Terrain Category 2

Wind Region	Building Height – H (m); Aspect ratio H/d ≤ 0.5 & H/b ≤ 0.5															
	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	--	385	525	845	--	--	425	675	--	--	380	600	--	--	250	565
B	--	--	--	540	--	--	--	440	--	--	--	395	--	--	--	345
C	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
D	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
W	--	--	395	620	--	--	--	500	--	--	--	450	--	--	--	420

Wind Region	Building Height – H (m); Aspect ratio H/d > 0.5 or H/b > 0.5															
	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	--	--	--	550	--	--	--	445	--	--	--	400	--	--	--	375
B	--	--	--	250	--	--	--	--	--	--	--	--	--	--	--	--
C	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
D	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
W	--	--	--	410	--	--	--	--	--	--	--	--	--	--	--	--

Terrain Category 3

Wind Region	Building Height – H (m); Aspect ratio H/d ≤ 0.5 & H/b ≤ 0.5															
	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	--	470	650	1055	--	470	650	1055	--	400	555	885	--	225	490	780
B	--	--	420	665	--	--	420	665	--	--	250	570	--	--	--	505
C	--	--	--	420	--	--	--	420	--	--	--	--	--	--	--	--
D	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
W	--	--	480	765	--	--	480	765	--	--	415	655	--	--	255	575

Wind Region	Building Height – H (m); Aspect ratio H/d > 0.5 or H/b > 0.5															
	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	--	--	430	675	--	--	430	675	--	--	265	575	--	--	--	510
B	--	--	--	440	--	--	--	440	--	--	--	380	--	--	--	--
C	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
D	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
W	--	--	--	505	--	--	--	505	--	--	--	430	--	--	--	380

Tilt Mount for Tin Roof (Pierced Fix)

1.840m x 0.998m Module

Terrain Category 2

Tilt angle to roof surface (α) – α ≤ 15°

Wind Region	Building Height – H (m)															
	H≤5				5<H≤10				10<H≤15				15<H≤20			
	Corner	Edge	Intermediate	Internal	Corner	Edge	Intermediate	Internal	Corner	Edge	Intermediate	Internal	Corner	Edge	Intermediate	Internal
A	620	945	1285	1710	505	775	1050	1590	460	695	945	1455	435	660	895	1375
B	--	635	855	1320	--	520	705	1075	--	470	635	970	--	445	595	915
C	--	--	445	680	--	--	365	555	--	--	--	500	--	--	--	475
D	--	--	--	435	--	--	--	360	--	--	--	--	--	--	--	--
W	470	715	970	1500	--	590	795	1225	--	530	715	1100	--	505	680	1040

Tilt angle to roof surface (α) – 15° < α ≤ 30°

Wind Region	Building Height – H (m)															
	H≤5				5<H≤10				10<H≤15				15<H≤20			
	Corner	Edge	Intermediate	Internal	Corner	Edge	Intermediate	Internal	Corner	Edge	Intermediate	Internal	Corner	Edge	Intermediate	Internal
A	--	470	630	965	--	--	520	790	--	--	465	710	--	--	445	675
B	--	--	425	645	--	--	--	530	--	--	--	480	--	--	--	455
C	--	--	--	335	--	--	--	--	--	--	--	--	--	--	--	--
D	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
W	--	--	480	730	--	--	--	600	--	--	--	545	--	--	--	515

Terrain Category 3

Tilt angle to roof surface (α) – α ≤ 15°

Wind Region	Building Height – H (m)															
	H≤5				5<H≤10				10<H≤15				15<H≤20			
	Corner	Edge	Intermediate	Internal	Corner	Edge	Intermediate	Internal	Corner	Edge	Intermediate	Internal	Corner	Edge	Intermediate	Internal
A	745	1145	1565	1810	745	1145	1565	1810	645	990	1345	1735	575	885	1200	1665
B	505	765	1040	1605	505	765	1040	1605	435	665	895	1385	--	590	800	1230
C	--	400	535	825	--	400	535	825	--	345	465	710	--	--	415	630
D	--	--	345	530	--	--	345	530	--	--	--	455	--	--	--	405
W	570	870	1180	1635	570	870	1180	1635	495	750	1020	1550	440	670	905	1395

Tilt angle to roof surface (α) – 15° < α ≤ 30°

Wind Region	Building Height – H (m)															
	H≤5				5<H≤10				10<H≤15				15<H≤20			
	Corner	Edge	Intermediate	Internal	Corner	Edge	Intermediate	Internal	Corner	Edge	Intermediate	Internal	Corner	Edge	Intermediate	Internal
A	--	565	765	1175	--	565	765	1175	--	490	660	1010	--	440	590	900
B	--	--	515	785	--	--	515	785	--	--	445	675	--	--	--	605
C	--	--	--	405	--	--	--	405	--	--	--	350	--	--	--	--
D	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
W	--	430	580	885	--	430	580	885	--	--	505	770	--	--	450	685

2.274m x 1.134m Module

Terrain Category 2

Tilt angle to roof surface (α) – α ≤ 15°

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	1040	1595	--	585	845	1315	--	450	690	1180	--	345	655	1115
B	--	515	695	1070	--	310	570	870	--	--	515	785	--	--	485	740
C	--	--	--	550	--	--	--	450	--	--	--	405	--	--	--	385
D	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
W	--	450	685	1215	--	--	575	990	--	--	450	890	--	--	345	755

Tilt angle to roof surface (α) – 15° < α ≤ 30°

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	--	--	--	710	--	--	--	585	--	--	--	465	--	--	--	390
B	--	--	--	525	--	--	--	320	--	--	--	--	--	--	--	--
C	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
D	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
W	--	--	--	465	--	--	--	--	--	--	--	--	--	--	--	--

Terrain Category 3

Tilt angle to roof surface (α) – α ≤ 15°

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	930	1265	1715	570	930	1265	1715	320	745	1085	1625	--	650	970	1510
B	295	620	840	1300	295	620	840	1300	--	535	725	1120	--	480	645	995
C	--	--	435	665	--	--	435	665	--	--	370	575	--	--	--	510
D	--	--	--	425	--	--	--	425	--	--	--	345	--	--	--	--
W	--	615	955	1485	--	615	955	1485	--	550	720	1275	--	--	640	1130

Tilt angle to roof surface (α) – 15° < α ≤ 30°

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	950	--	--	575	950	--	--	345	775	--	--	--	660
B	--	--	305	635	--	--	305	635	--	--	--	545	--	--	--	490
C	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
D	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
W	--	--	--	630	--	--	--	630	--	--	--	560	--	--	--	355

Flush Mount for Lysaght KL406

1.840m x 0.998m Module

Terrain Category 2

Wind Region	Building Height – H (m); Aspect ratio H/d ≤ 0.5 & H/b ≤ 0.5															
	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	810	1250	1720	1955	660	1015	1390	1840	595	915	1245	1780	565	865	1175	1750
B	540	830	1130	1765	445	680	920	1430	405	615	830	1285	--	575	780	1205
C	--	535	725	1120	--	440	595	910	--	400	535	820	--	--	505	775
D	--	--	465	715	--	--	--	585	--	--	--	525	--	--	--	500
W	615	940	1285	1775	505	770	1045	1630	455	695	940	1460	430	655	890	1375

Wind Region	Building Height – H (m); Aspect ratio H/d > 0.5 or H/b > 0.5															
	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	550	840	1145	1740	450	690	935	1450	405	620	840	1300	--	585	795	1225
B	--	565	765	1175	--	465	625	960	--	420	565	865	--	395	530	815
C	--	--	495	755	--	--	405	620	--	--	--	560	--	--	--	525
D	--	--	--	485	--	--	--	400	--	--	--	--	--	--	--	--
W	420	635	865	1335	--	525	705	1090	--	470	635	980	--	445	605	925

Terrain Category 3

Wind Region	Building Height – H (m); Aspect ratio H/d ≤ 0.5 & H/b ≤ 0.5															
	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	980	1525	1820	2000	980	1525	1820	2000	845	1305	1745	1985	755	1165	1595	1910
B	655	1005	1375	2000	655	1005	1375	2000	565	870	1185	1855	505	775	1050	1640
C	425	650	880	1365	425	650	880	1365	--	560	760	1170	--	500	675	1040
D	--	420	565	865	--	420	565	865	--	--	490	745	--	--	435	665
W	745	1145	1570	1880	745	1145	1570	1880	645	985	1350	1800	570	875	1195	1740

Wind Region	Building Height – H (m); Aspect ratio H/d > 0.5 or H/b > 0.5															
	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	1020	1395	1840	665	1020	1395	1840	575	880	1200	1765	515	785	1065	1665
B	445	680	925	1435	445	680	925	1435	--	590	800	1235	--	525	710	1095
C	--	445	600	915	--	445	600	915	--	--	515	790	--	--	460	705
D	--	--	--	585	--	--	--	585	--	--	--	510	--	--	--	455
W	505	775	1050	1640	505	775	1050	1640	440	670	905	1405	390	595	805	1245

2.274m x 1.134m Module

Terrain Category 2

Wind Region	Building Height – H (m); Aspect ratio H/d ≤ 0.5 & H/b ≤ 0.5															
	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	1010	1390	1850	535	825	1125	1745	375	740	1010	1585	335	700	955	1490
B	440	670	915	1430	250	550	745	1155	--	495	670	1040	--	465	630	975
C	--	435	585	905	--	225	480	735	--	--	435	665	--	--	410	625
D	--	--	375	575	--	--	--	475	--	--	--	425	--	--	--	405
W	385	760	1040	1635	--	625	845	1320	--	560	760	1180	--	530	720	1115

Wind Region	Building Height – H (m); Aspect ratio H/d > 0.5 or H/b > 0.5															
	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	290	680	925	1450	--	555	755	1175	--	495	680	1050	--	365	640	990
B	--	455	615	950	--	370	505	775	--	--	455	700	--	--	430	655
C	--	--	400	610	--	--	--	500	--	--	--	450	--	--	--	425
D	--	--	--	390	--	--	--	--	--	--	--	--	--	--	--	--
W	--	515	700	1080	--	--	575	880	--	--	515	790	--	--	375	745

Terrain Category 3

Wind Region	Building Height – H (m); Aspect ratio H/d ≤ 0.5 & H/b ≤ 0.5															
	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	795	1235	1710	1975	795	1235	1710	1975	685	1055	1455	1880	610	940	1290	1815
B	530	815	1115	1755	530	815	1115	1755	460	705	955	1500	410	625	850	1325
C	--	525	715	1105	--	525	715	1105	--	455	615	945	--	405	545	840
D	--	--	455	700	--	--	455	700	--	--	395	605	--	--	--	535
W	600	925	1270	1785	600	925	1270	1785	515	800	1090	1705	315	710	965	1515

Wind Region	Building Height – H (m); Aspect ratio H/d > 0.5 or H/b > 0.5															
	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	535	825	1130	1745	535	825	1130	1745	350	710	970	1520	220	635	865	1345
B	250	550	745	1160	250	550	745	1160	--	475	645	995	--	425	575	885
C	--	--	485	740	--	--	485	740	--	--	415	640	--	--	370	570
D	--	--	--	475	--	--	--	475	--	--	--	410	--	--	--	255
W	--	625	850	1325	--	625	850	1325	--	540	735	1135	--	370	650	1005

Tilt Mount for Lysaght KL406

1.840m x 0.998m Module

Terrain Category 2

Tilt angle to roof surface (α) – α ≤ 15°

Wind Region	Building Height – H (m)															
	H≤5				5<H≤10				10<H≤15				15<H≤20			
	Corner	Edge	Intermediate	Internal	Corner	Edge	Intermediate	Internal	Corner	Edge	Intermediate	Internal	Corner	Edge	Intermediate	Internal
A	520	795	1080	1685	425	650	880	1365	385	585	790	1220	365	555	750	1155
B	--	530	720	1105	--	435	590	905	--	395	530	815	--	370	500	765
C	--	--	465	710	--	--	385	585	--	--	--	525	--	--	--	495
D	--	--	--	455	--	--	--	375	--	--	--	--	--	--	--	--
W	395	600	815	1255	--	495	665	1025	--	445	600	920	--	420	570	870

Tilt angle to roof surface (α) – 15° < α ≤ 30°

Wind Region	Building Height – H (m)															
	H≤5				5<H≤10				10<H≤15				15<H≤20			
	Corner	Edge	Intermediate	Internal	Corner	Edge	Intermediate	Internal	Corner	Edge	Intermediate	Internal	Corner	Edge	Intermediate	Internal
A	--	395	530	810	--	--	435	665	--	--	390	595	--	--	370	565
B	--	--	355	545	--	--	--	445	--	--	--	405	--	--	--	380
C	--	--	--	355	--	--	--	--	--	--	--	--	--	--	--	--
D	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
W	--	--	405	615	--	--	--	505	--	--	--	455	--	--	--	430

Terrain Category 3

Tilt angle to roof surface (α) – α ≤ 15°

Wind Region	Building Height – H (m)															
	H≤5				5<H≤10				10<H≤15				15<H≤20			
	Corner	Edge	Intermediate	Internal	Corner	Edge	Intermediate	Internal	Corner	Edge	Intermediate	Internal	Corner	Edge	Intermediate	Internal
A	625	960	1315	1810	625	960	1315	1810	540	830	1125	1735	485	740	1005	1565
B	420	645	870	1350	420	645	870	1350	365	555	750	1160	--	495	670	1030
C	--	420	565	865	--	420	565	865	--	360	485	745	--	--	435	665
D	--	--	365	555	--	--	365	555	--	--	--	480	--	--	--	425
W	475	730	990	1540	475	730	990	1540	415	630	855	1325	370	560	760	1170

Tilt angle to roof surface (α) – 15° < α ≤ 30°

Wind Region	Building Height – H (m)															
	H≤5				5<H≤10				10<H≤15				15<H≤20			
	Corner	Edge	Intermediate	Internal	Corner	Edge	Intermediate	Internal	Corner	Edge	Intermediate	Internal	Corner	Edge	Intermediate	Internal
A	--	475	640	985	--	475	640	985	--	410	555	845	--	365	495	755
B	--	--	430	655	--	--	430	655	--	--	375	565	--	--	--	505
C	--	--	--	425	--	--	--	425	--	--	--	370	--	--	--	--
D	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
W	--	355	485	745	--	355	485	745	--	--	420	645	--	--	375	575

2.274m x 1.134m Module

Terrain Category 2

Tilt angle to roof surface (α) – α ≤ 15°

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	220	640	870	1360	--	525	710	1105	--	365	640	990	--	300	605	935
B	--	430	580	895	--	--	475	730	--	--	430	660	--	--	405	620
C	--	--	375	575	--	--	--	470	--	--	--	425	--	--	--	400
D	--	--	--	345	--	--	--	--	--	--	--	--	--	--	--	--
W	--	375	660	1015	--	--	540	830	--	--	375	745	--	--	300	705

Tilt angle to roof surface (α) – 15° < α ≤ 30°

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	--	--	245	655	--	--	--	535	--	--	--	375	--	--	--	335
B	--	--	--	440	--	--	--	250	--	--	--	--	--	--	--	--
C	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
D	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
W	--	--	--	385	--	--	--	--	--	--	--	--	--	--	--	--

Terrain Category 3

Tilt angle to roof surface (α) – α ≤ 15°

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	505	780	1065	1675	505	780	1065	1675	280	670	910	1425	--	600	815	1265
B	--	520	705	1090	--	520	705	1090	--	450	610	935	--	400	540	835
C	--	--	455	700	--	--	455	700	--	--	395	600	--	--	--	535
D	--	--	--	445	--	--	--	445	--	--	--	385	--	--	--	--
W	--	590	800	1245	--	590	800	1245	--	505	690	1070	--	280	615	945

Tilt angle to roof surface (α) – 15° < α ≤ 30°

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	--	--	515	795	--	--	515	795	--	--	315	685	--	--	--	610
B	--	--	--	530	--	--	--	530	--	--	--	460	--	--	--	410
C	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
D	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
W	--	--	--	600	--	--	--	600	--	--	--	520	--	--	--	315

Flush Mount for Lysaght KL700

1.840m x 0.998m Module

Terrain Category 2

Wind Region	Building Height – H (m); Aspect ratio H/d ≤ 0.5 & H/b ≤ 0.5															
	H≤5				5<H≤10				10<H≤15				15<H≤20			
	Corner	Edge	Intermediate	Internal	Corner	Edge	Intermediate	Internal	Corner	Edge	Intermediate	Internal	Corner	Edge	Intermediate	Internal
A	685	1060	1460	1955	560	865	1180	1840	505	775	1060	1660	480	735	1000	1565
B	460	705	960	1500	375	575	780	1215	340	520	705	1090	--	490	665	1025
C	--	455	615	950	--	375	505	775	--	340	455	695	--	--	430	655
D	--	--	395	605	--	--	--	495	--	--	--	445	--	--	--	425
W	520	800	1090	1715	425	655	890	1385	385	590	800	1240	365	555	755	1170

Wind Region	Building Height – H (m); Aspect ratio H/d > 0.5 or H/b > 0.5															
	H≤5				5<H≤10				10<H≤15				15<H≤20			
	Corner	Edge	Intermediate	Internal	Corner	Edge	Intermediate	Internal	Corner	Edge	Intermediate	Internal	Corner	Edge	Intermediate	Internal
A	465	715	970	1525	385	585	795	1230	345	525	715	1105	--	500	675	1040
B	--	480	645	1000	--	395	530	815	--	355	480	735	--	335	450	690
C	--	--	420	640	--	--	345	525	--	--	--	475	--	--	--	445
D	--	--	--	410	--	--	--	340	--	--	--	--	--	--	--	--
W	355	540	735	1135	--	445	600	925	--	400	540	830	--	380	510	785

Terrain Category 3

Wind Region	Building Height – H (m); Aspect ratio H/d ≤ 0.5 & H/b ≤ 0.5															
	H≤5				5<H≤10				10<H≤15				15<H≤20			
	Corner	Edge	Intermediate	Internal	Corner	Edge	Intermediate	Internal	Corner	Edge	Intermediate	Internal	Corner	Edge	Intermediate	Internal
A	835	1295	1795	2000	835	1295	1795	2000	715	1110	1525	1985	640	985	1355	1910
B	555	855	1170	1845	555	855	1170	1845	480	735	1005	1575	430	655	890	1390
C	360	550	745	1160	360	550	745	1160	--	475	645	995	--	425	575	885
D	--	355	480	735	--	355	480	735	--	--	415	635	--	--	370	565
W	630	970	1335	1880	630	970	1335	1880	545	840	1145	1800	485	745	1015	1590

Wind Region	Building Height – H (m); Aspect ratio H/d > 0.5 or H/b > 0.5															
	H≤5				5<H≤10				10<H≤15				15<H≤20			
	Corner	Edge	Intermediate	Internal	Corner	Edge	Intermediate	Internal	Corner	Edge	Intermediate	Internal	Corner	Edge	Intermediate	Internal
A	565	865	1185	1840	565	865	1185	1840	485	745	1015	1595	435	665	905	1415
B	380	580	785	1220	380	580	785	1220	--	500	675	1045	--	445	605	930
C	--	375	505	780	--	375	505	780	--	--	435	670	--	--	390	595
D	--	--	--	500	--	--	--	500	--	--	--	430	--	--	--	385
W	430	655	890	1390	430	655	890	1390	370	565	770	1195	330	505	685	1055

2.274m x 1.134m Module

Terrain Category 2

Wind Region	Building Height – H (m); Aspect ratio H/d ≤ 0.5 & H/b ≤ 0.5															
	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	555	855	1180	1850	455	700	955	1510	335	625	855	1345	270	595	810	1265
B	370	570	775	1215	--	465	630	980	--	420	570	880	--	395	535	830
C	--	265	500	765	--	--	405	625	--	--	265	565	--	--	--	530
D	--	--	--	490	--	--	--	400	--	--	--	250	--	--	--	--
W	310	645	880	1385	--	530	720	1120	--	475	645	1005	--	450	610	945

Wind Region	Building Height – H (m); Aspect ratio H/d > 0.5 or H/b > 0.5															
	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	260	575	785	1230	--	470	640	995	--	425	575	890	--	295	545	840
B	--	385	525	805	--	--	430	660	--	--	385	595	--	--	250	560
C	--	--	--	520	--	--	--	425	--	--	--	385	--	--	--	250
D	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
W	--	435	595	920	--	--	485	750	--	--	435	670	--	--	305	635

Terrain Category 3

Wind Region	Building Height – H (m); Aspect ratio H/d ≤ 0.5 & H/b ≤ 0.5															
	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	1050	1450	1975	675	1050	1450	1975	580	895	1235	1880	515	800	1095	1745
B	450	690	945	1490	450	690	945	1490	390	595	815	1275	--	530	720	1125
C	--	445	605	935	--	445	605	935	--	385	520	805	--	--	465	715
D	--	--	385	595	--	--	385	595	--	--	--	515	--	--	--	455
W	510	785	1080	1715	510	785	1080	1715	440	675	925	1460	280	600	820	1285

Wind Region	Building Height – H (m); Aspect ratio H/d > 0.5 or H/b > 0.5															
	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	455	700	960	1515	455	700	960	1515	285	605	825	1290	--	540	735	1145
B	--	465	635	985	--	465	635	985	--	405	545	845	--	250	485	750
C	--	--	410	630	--	--	410	630	--	--	--	540	--	--	--	485
D	--	--	--	405	--	--	--	405	--	--	--	--	--	--	--	--
W	--	530	720	1125	--	530	720	1125	--	460	620	965	--	295	555	855

Tilt Mount for Lysaght KL700

1.840m x 0.998m Module

Terrain Category 2

Tilt angle to roof surface (α) – α ≤ 15°

Wind Region	Building Height – H (m)															
	H≤5				5<H≤10				10<H≤15				15<H≤20			
	Corner	Edge	Intermediate	Internal	Corner	Edge	Intermediate	Internal	Corner	Edge	Intermediate	Internal	Corner	Edge	Intermediate	Internal
A	440	675	915	1430	360	550	745	1155	305	495	670	1035	--	470	635	980
B	--	450	610	940	--	370	500	765	--	335	450	690	--	--	425	650
C	--	--	395	605	--	--	285	495	--	--	--	445	--	--	--	420
D	--	--	--	390	--	--	--	220	--	--	--	--	--	--	--	--
W	335	510	690	1065	--	420	565	870	--	380	510	785	--	355	480	740

Tilt angle to roof surface (α) – 15° < α ≤ 30°

Wind Region	Building Height – H (m)															
	H≤5				5<H≤10				10<H≤15				15<H≤20			
	Corner	Edge	Intermediate	Internal	Corner	Edge	Intermediate	Internal	Corner	Edge	Intermediate	Internal	Corner	Edge	Intermediate	Internal
A	--	335	450	685	--	--	370	560	--	--	335	505	--	--	--	480
B	--	--	--	460	--	--	--	380	--	--	--	340	--	--	--	220
C	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
D	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
W	--	--	340	520	--	--	--	430	--	--	--	385	--	--	--	365

Terrain Category 3

Tilt angle to roof surface (α) – α ≤ 15°

Wind Region	Building Height – H (m)															
	H≤5				5<H≤10				10<H≤15				15<H≤20			
	Corner	Edge	Intermediate	Internal	Corner	Edge	Intermediate	Internal	Corner	Edge	Intermediate	Internal	Corner	Edge	Intermediate	Internal
A	530	815	1115	1755	530	815	1115	1755	460	705	955	1495	410	630	855	1325
B	355	545	740	1145	355	545	740	1145	--	470	635	985	--	420	570	875
C	--	355	480	735	--	355	480	735	--	--	415	630	--	--	370	560
D	--	--	--	470	--	--	--	470	--	--	--	405	--	--	--	365
W	405	620	840	1305	405	620	840	1305	350	535	725	1125	--	475	645	995

Tilt angle to roof surface (α) – 15° < α ≤ 30°

Wind Region	Building Height – H (m)															
	H≤5				5<H≤10				10<H≤15				15<H≤20			
	Corner	Edge	Intermediate	Internal	Corner	Edge	Intermediate	Internal	Corner	Edge	Intermediate	Internal	Corner	Edge	Intermediate	Internal
A	--	400	545	835	--	400	545	835	--	345	470	720	--	--	420	640
B	--	--	365	555	--	--	365	555	--	--	--	480	--	--	--	430
C	--	--	--	360	--	--	--	360	--	--	--	--	--	--	--	--
D	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
W	--	--	415	630	--	--	415	630	--	--	360	545	--	--	220	485

2.274m x 1.134m Module

Terrain Category 2

Tilt angle to roof surface (α) – α ≤ 15°

Wind Region	Building Height – H (m)															
	H≤5				5<H≤10				10<H≤15				15<H≤20			
	Corner	Edge	Intermediate	Internal	Corner	Edge	Intermediate	Internal	Corner	Edge	Intermediate	Internal	Corner	Edge	Intermediate	Internal
A	--	545	740	1155	--	445	605	935	--	295	545	840	--	270	515	795
B	--	250	495	760	--	--	405	620	--	--	250	560	--	--	--	525
C	--	--	--	490	--	--	--	400	--	--	--	250	--	--	--	--
D	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
W	--	305	560	865	--	--	455	705	--	--	305	635	--	--	270	595

Tilt angle to roof surface (α) – 15° < α ≤ 30°

Wind Region	Building Height – H (m)															
	H≤5				5<H≤10				10<H≤15				15<H≤20			
	Corner	Edge	Intermediate	Internal	Corner	Edge	Intermediate	Internal	Corner	Edge	Intermediate	Internal	Corner	Edge	Intermediate	Internal
A	--	--	--	555	--	--	--	455	--	--	--	365	--	--	--	270
B	--	--	--	370	--	--	--	--	--	--	--	--	--	--	--	--
C	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
D	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
W	--	--	--	310	--	--	--	--	--	--	--	--	--	--	--	--

Terrain Category 3

Tilt angle to roof surface (α) – α ≤ 15°

Wind Region	Building Height – H (m)															
	H≤5				5<H≤10				10<H≤15				15<H≤20			
	Corner	Edge	Intermediate	Internal	Corner	Edge	Intermediate	Internal	Corner	Edge	Intermediate	Internal	Corner	Edge	Intermediate	Internal
A	430	660	900	1420	430	660	900	1420	245	570	775	1210	--	510	690	1075
B	--	440	595	925	--	440	595	925	--	380	515	795	--	--	460	705
C	--	--	385	595	--	--	385	595	--	--	--	510	--	--	--	455
D	--	--	--	380	--	--	--	380	--	--	--	--	--	--	--	--
W	--	500	680	1055	--	500	680	1055	--	425	585	910	--	245	520	805

Tilt angle to roof surface (α) – 15° < α ≤ 30°

Wind Region	Building Height – H (m)															
	H≤5				5<H≤10				10<H≤15				15<H≤20			
	Corner	Edge	Intermediate	Internal	Corner	Edge	Intermediate	Internal	Corner	Edge	Intermediate	Internal	Corner	Edge	Intermediate	Internal
A	--	--	440	675	--	--	440	675	--	--	270	580	--	--	--	520
B	--	--	--	450	--	--	--	450	--	--	--	390	--	--	--	--
C	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
D	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
W	--	--	--	510	--	--	--	510	--	--	--	440	--	--	--	280

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