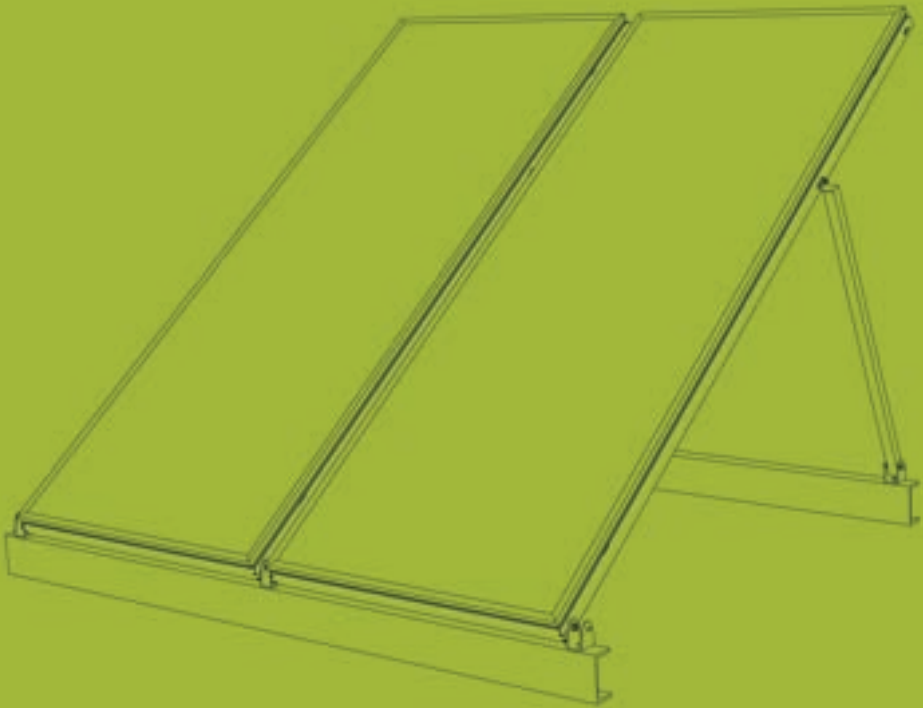
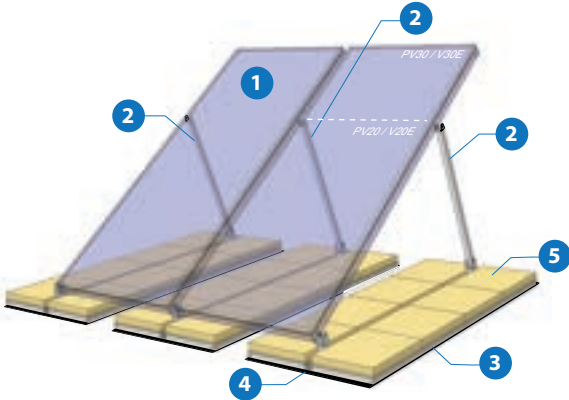


Flat Roofing Installation

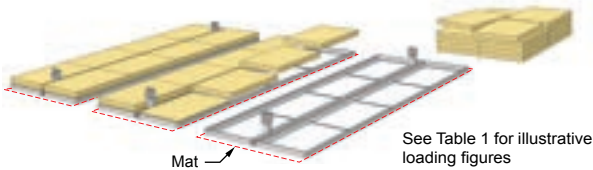


Ballast Weight

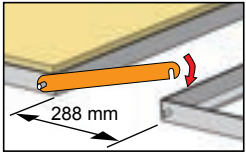


No.	Description
1	Solar Panel (V30E, V20E, PV30, PV20)
2	Mounting Leg
3	Ballast Tray
4	High Friction Protective Mat
5	450 x 600 x 50mm Paving Slab (not incl.)

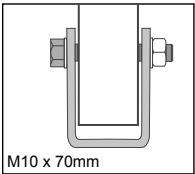
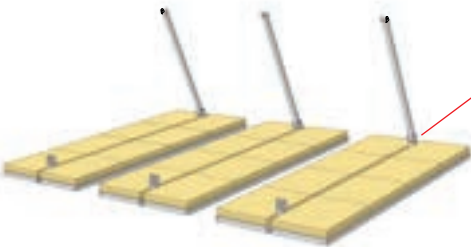
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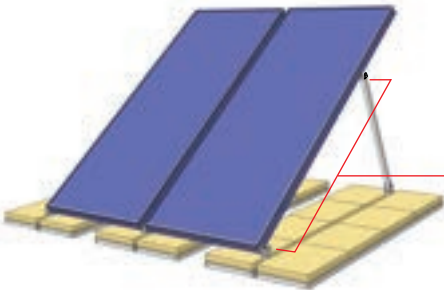
Spacer bar for setting out



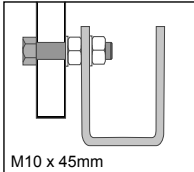
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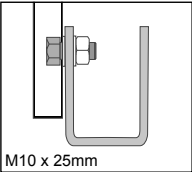
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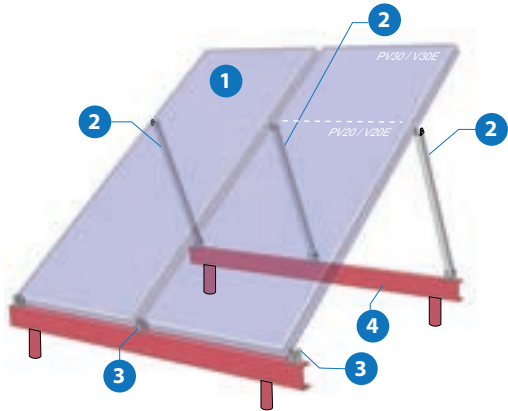
PV Series (Photovoltaic)



E Series (Heating)

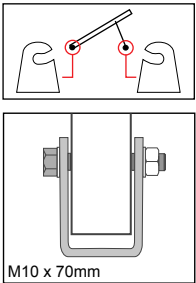
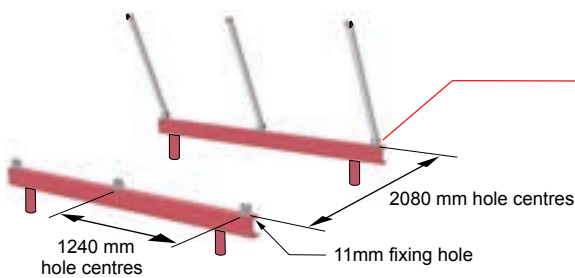


Mechanical Fix

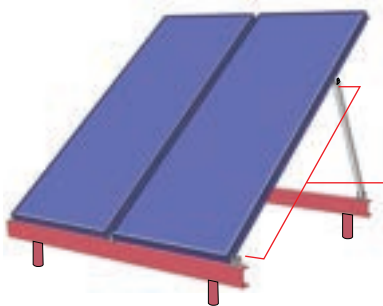


No.	Description
1	Solar Panel (V30E, V20E, PV30, PV20)
2	Mounting Leg
3	Fixing Bracket
4	Example Support Structure (not incl.)

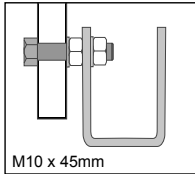
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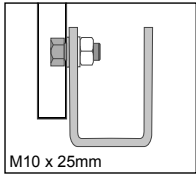
2



PV Series (Photovoltaic)



E Series (Heating)



See Table 2 for illustrative loading figures



V15E	37	PV15	29
V20E	50	PV20	40
V30E	71	PV30	56

Use mechanical lift to roof height where possible



The installation must comply with local regulations on lightning protection.

Illustrative Wind Loadings



Basic Wind Speed	Panel Pitch Angle
Zone I 21 m/s	10°
	16°
	35°
Zone II 23 m/s	10°
	16°
	35°
Zone III 25 m/s	10°
	16°
	35°

TABLE 1	
Paving Slabs / Tray	
V20/PV20	V30/PV30
7	10
8	12
11	17
8	13
10	15
14	21
10	15
12	18
17	25

TABLE 2			
Fv max/min (N)		Fh max (N)	
V20/PV20	V30/PV30	V20/PV20	V30/PV30
530/-360	780/-550	170	250
540/-370	800/-560	270	400
610/-450	900/-690	550	820
610/-450	900/-690	200	300
620/-470	920/-710	320	470
710/-570	1050/-860	650	980
700/-560	1030/-850	240	350
710/-570	1060/-870	370	560
810/-690	1200/-1050	770	1150

NOTES

The indicative values above are derived using BS 6399-2:1997 Loading for Buildings Part 2 : Code of Practice for wind loads. Site altitude is set to 10m, 10km from sea, and a building height of 10m. The primary failure mode is generally sliding and the coefficient of friction between frame and roof is assumed to be 0.4 (rubber/steel). The roof is assumed to have a parapet >200mm high and the panels are assumed to be located in the edge zone of the roof. Topography is assumed to be insignificant. Contact Viridian Solar for wind loading calculations specific to your site.



Forces shown are the maximum transient load on each fixing bracket due to self weight and wind pressure.

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