

Our Ref: 1499 – 5 / LvS
6 January 2015

Clenergy Australia
18/20 Duerdin Street
Clayton, VIC 3168

Array Frame Engineering Certificate

RE: Postmount PM8-A Installation

Gamcorp (Melbourne) Pty Ltd, being Structural Engineers within the meaning of Australian and NZ Building Regulations, have carried out a structural design check of the PV-ezRack Postmount PM8-A within Australia and New Zealand. The design check has been based on the information in the *PV-ezRack PM8-A Planning and Installation Guide* and schematic drawings of the system components, provided by Clenergy Australia.

Barcode	Part number	Description
13-11011-004	ER-EC-ST	PV-ezRack Standard End clamps
13-11010-004	ER-IC-ST	PV-ezRack Standard Inter clamps
13-10015-009	ER-R-ST4200	PV-ezRack Standard Rail 4200mm
13-15011-037	ER-RT-70/2600	PV-ezRack PM6-A&PM8-A, Rectangular Tube-Landscape 70*70*2600mm
13-15011-038	ER-RT-100/2900	PV-ezRack PM8-A, Rectangular Tube-Master 100*100*2900mm
13-16011-019	ER-RT-100/576	PV-ezRack Postmount 6-A&8-A, Adjustable Tube 100*50*576mm
13-16011-018	ER-SC-PM6-A/PM8-A	PV-ezRack PM6-A,PM8-A, Steel Cap Assembly
13-16011-027	ER-AP-PM6/8/A	PV-ezRack PM6-A&PM8-A, Accessory Package
13-15010-051	ER-P-152/3000	PV-ezRack, Pipe \varnothing 152*3000mm(PM6-A,8-A Pole)

We find the Postmount PM8-A to be structurally sufficient for Australian and New Zealand use, based on the following conditions:

- Wind Loads to AS/NZ1170.2:2011, Amendment 3-2012;
- Wind Terrain Categories 2, 3 & 4;
- Wind average recurrence interval of 100 years — for ultimate state, 20 years — serviceability;
- Wind region A, B, C & D;
- Max. Solar Panel length 1.65m, width 1m;
- Steel yield strength 300 MPa, aluminium 240 MPa;
- Maximum tilt angle and footing options: (refer tables on page 2)

Maximum Tilt Angle and Footing Options:

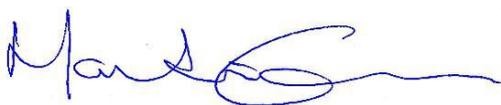
	Wind Region			
	Region A	Region B	Region C	Region D
Wind speed (m/s)	41	48	59	73
Maximum tilt angle (°)	40	20	10	N/A
Soil Type	Post embedded in concrete pier: 300 mm diameter concrete piers minimum depth (m)			
Hard class soil	1.60	1.30	1.00	N/A
Very Firm class soil	1.70	1.55	1.40	N/A
Firm class soil	1.85	2.35	2.10	N/A
Soft class soil	2.90	3.90	3.50	N/A

Notes:

1. Other piers dimensions are possible, contact Gamcorp, if required.
2. Panel weight calculated: 20kg.
3. Embedment depth is relevant for adhesive soils, in other cases contact Gamcorp.
4. For concrete piers foundation, use 25 MPa strength concrete (minimum). It is recommended to insert N12 bar 200mm long at the bottom of the post into the concrete piers.

Construction is to be carried out strictly on accordance with the instruction manual. This work was designed in accordance with the provisions of Australian Building Regulations and in accordance with sound, widely accepted engineering principles.

Yours faithfully,
 Gamcorp (Melbourne) Pty Ltd



Martin Gamble
 Managing Director
 MAICD



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