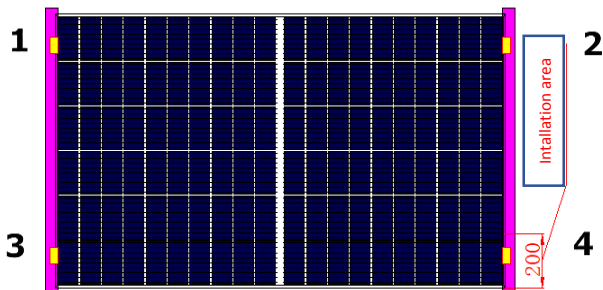


Amendment to "User Manual" with additional mounting options for Trina Solar PV modules

This document is intended to add mounting options in addition to the already existing and described methods within the Trina Solar User Manuals.

Clamp shall be designed or selected according to project requirements. Clamps used in a system shall not deform in any circumstance. Trina solar recommends a minimum clamp length of 40mm for both high-strength steel metal clamp and aluminum clamp

Option 1: short side clamping with 4 clamps AND rail underneath the module short side



Clamp position can be within the range 0 – xxx mm (clamping range refer to the table below) for all 4 clamps attached to the module short side; clamping range can be asymmetrical, clamp 1&2 can have a different position from the module edge compared to clamp 3 & 4

Product Code	Maximum Test Load* (Front side +)	Maximum Test Load* (Back side -)	Clamping range
DE09 DE09.08 DE09.05	2400Pa Aluminum clamp 2400Pa Steel clamp	1600Pa Aluminum clamp 2000Pa Steel clamp	0 – 200mm
DE08M(II), DE08M.08(II)	2000Pa	1800Pa	0 – 200mm
DEG8MC.20(II)	1800Pa	1600Pa	0 – 200mm
DE06M.08(II), DE06M(II), DD06M.05(II)	2200Pa	1800Pa	0 – 200mm
DE15M(II)	1600Pa	1000Pa	0 – 200mm
DEG15MC.20(II) PEG15H.20	1600Pa	1000Pa	0 – 200mm
DE17M(II)	1600Pa	1000Pa	0 – 200mm
DEG17MC.20(II)	1600Pa	1000Pa	0 – 200mm
DE18M(II)	500Pa	500Pa	0 – 200mm
DEG18MC.20(II)	700Pa	700Pa	0 – 200mm



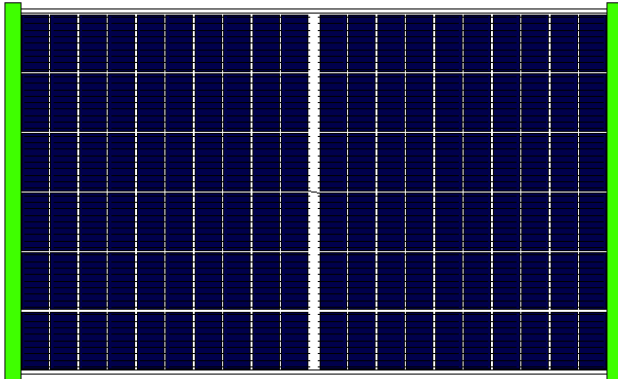
Solid mounting rail under the module which fully supports the module frame from underneath and is also used to fix the clamps into



Module clamp which has to fulfill Trina's minimum requirements in terms of grip length and grip depth

Option 2: short side slide-in/insertion

Module short sides are inserted in slide-in rails completely.

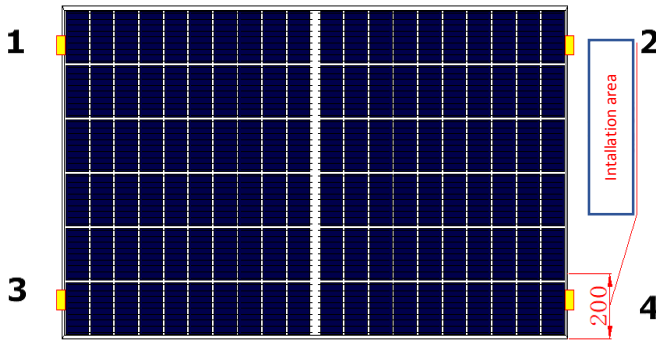


Product Code	Maximum Test Load* (Front side +)	Maximum Test Load* (Back side -)
DE09, DE09.08, DE09.05	2400Pa	2000Pa
DE08M(II), DE08M.08(II)	2000Pa	1800Pa
DEG8MC.20(II)	1800Pa	1600Pa
DE06M.08(II), DE06M(II), DD06M.05(II)	2200Pa	1800Pa
DE15M(II)	1200Pa	1200Pa
DEG15MC.20(II) PEG15H.20	1000Pa	1000Pa
DE17M(II)	1000Pa	1000Pa
DEG17MC.20(II)	800Pa	800Pa
DE18M(II)	500Pa	500Pa
DEG18MC.20(II)	700Pa	700Pa



Solid mounting rail supporting the module frame from underneath and from the top (C-shape type of rail) in which the module frame is held, no clamp needed

Option 3: short side clamping with 4 clamps AND only punctual support underneath module frame



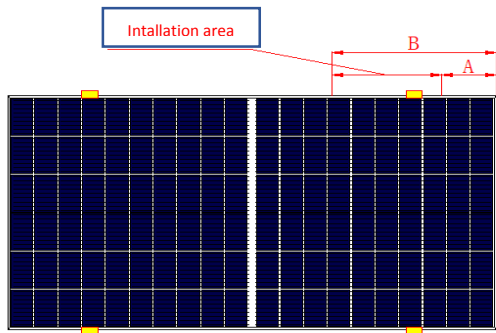
Clamp position can be within the range 0 – xxx mm (clamping range refer to the table below) for all 4 clamps attached to the module short side, clamping range can be asymmetrical, clamp 1&2 can have a different position form the module edge compared to clamp 3 & 4

Product Code	Maximum Test Load* (Front side +)	Maximum Test Load* (Back side -)	Clamping range
DE09, DE09.08, DE09.05	2000Pa Aluminum clamp 2400Pa Steel clamp	1600Pa Aluminum clamp 1800Pa Steel clamp	0 – 200mm
DE08M(II), DE08M.08(II)	1800Pa	1800Pa	0 – 200mm
DEG8MC.20(II)	1700Pa	1700Pa	0 – 200mm
DE06M.08(II), DE06M(II), DD06M.05(II)	2000Pa	2000Pa	0 – 200mm
DE15M(II)	1600Pa	1000Pa	0 – 200mm
DEG15MC.20(II) PEG15H.20	1600Pa	1000Pa	0 – 200mm
DE17M(II)	1600Pa	1000Pa	0 – 200mm
DEG17MC.20(II)	1600Pa	1000Pa	0 – 200mm
DE18M	1200Pa	1200Pa	0 – 200mm
DEG18MC.20	1300Pa	1300Pa	0 – 200mm



Module clamp which has to fulfill Trina’s minimum requirements in terms of grip length and grip depth

Option4: long side clamping AND only punctual support underneath module frame



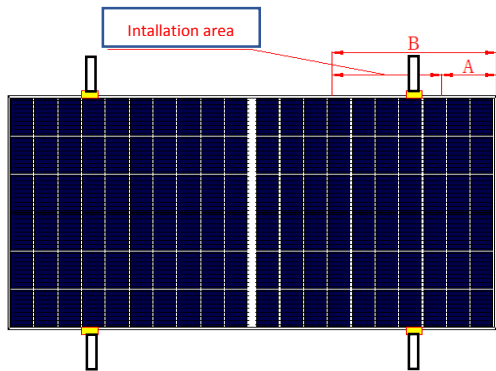
Clamp position can be within the range xxx – xxx mm (clamping range refer to the table below) for all 4 clamps attached to the module long side

Product Code	Front side Load	Back side Load	Clamping range	
			A	B
DE09, DE09.08, DE09.05	2400Pa Steel clamp	2000Pa Steel clamp	100	600
DE09, DE09.08, DE09.05	3600Pa Steel clamp	3000Pa Steel clamp	200	500
DE08M(II), DE08M.08(II)	2400Pa	2400Pa	100	600
DEG8MC.20(II)	2400Pa	2400Pa	100	600
DE06M.08(II) DE06M(II) DD06M.05(II)	2400Pa	2400Pa	100	600
DE15M(II)	1800Pa	1800Pa	200	600
DEG15MC.20(II)	1800Pa	1800Pa	200	600
DE17M(II)	1800Pa	1800Pa	200	600
DEG17MC.20(II)	1800Pa	1800Pa	200	600
DE18M(II)	1700Pa	1700Pa	200	600
DEG18MC.20(II)	1700Pa	1700Pa	200	600



Module clamp which has to fulfill Trina's minimum requirements in terms of grip length and grip depth

Option5: long side 4 points clamping with crossbeam



Clamp position can be within the range xxx – xxx mm (clamping range refer to the table below) for all 4 clamps attached to the module long side

Product Code	Front side Load	Back side Load	Clamping range	
			A	B
DE09, DE09.08, DE09.05	2400Pa Steel clamp	2000Pa Steel clamp	100	600
DE09, DE09.08, DE09.05	3600Pa Steel clamp	3000Pa Steel clamp	200	500



Module clamp which has to fulfill Trina's minimum requirements in terms of grip length and grip depth