



Application Note

FS Series 4 PV Module Mounting for UL Applications

First Solar's FS Series PV Modules maintain Underwriters Laboratories (UL) Listed status when used in conjunction with mounting method(s) and components that have been evaluated by UL to pass required mechanical tests and to meet the specifications documented. Mounting components which have completed this evaluation are listed at the end of this document. The First Solar Mounting System is comprised of a combination of these components.

Please see the appropriate First Solar FS Series PV Module User Guides (PD-5-200-xx)¹ for further information about the First Solar laminate PV module product in your region of application. This Document is a supplement of the application note PD-5-320-04, "FS Series PV Module Mounting". Please refer to this document for additional requirements.

Retaining Clips

Retaining Clips are single or dual flange metal clamps used to attach the module to a metal frame and come in various dimensions: 70mm, 80mm, 90mm, 100mm. These shall have a UV and fire resistant electrically insulating rubber material separating the glass from the metal flange. First Solar requires approved clip rubber insulator material to have a minimum volume resistivity of $1 \times 10^{14} \Omega \cdot \text{cm}$ (per ASTM D257).

Hardware

Fasteners must prevent galvanic corrosion, environmental corrosion, and provide electrical bonding between the clip and underlying structure as defined by UL 2703 Section 6.

Support Rails

Module support rails shall meet the requirements in PD-5-320-04 and shall provide a permanent electrical bond to the substructure per the UL 2703 requirements set forth in the National Electric Code (NEC).

¹ First Solar documents may be sourced by contacting the First Solar Technical Team at technicalsupport@firstsolar.com

Approved Retaining Clips

Clip Part Number	Supplier	First Solar Approval Document #

Approved Support Rails

Support Rail Part Number	Supplier

Approved Integrated Rail and Clip Systems

Support Rail and Clip Part Number	Supplier
FSMR-100 (Consists of FS #80004486 with FS #80003485 and FS#80003561)	First Solar Tempe, AZ info@firstsolar.com

Approved Cartridge Systems

Cartridge Part Number	Supplier

Approved Fixed Rack Systems

Racking Table Part Number	Supplier

