



## RECOGNIZED COMPONENT Constructional Data Report (CDR)

| 1.0 Reference and Address |   |                              |   |
|---------------------------|---|------------------------------|---|
| Report Number             | 102066127MPK-003  | Original Issued: 30-Jun-2015 | Revised: None   |
| Standard(s)               | UL Subject 2703 Outline of Investigation for Rack Mounting Systems and Clamping Devices for Flat-Plate Photovoltaic Modules and Panels, Issue Number:2, November 13, 2012 |                              |   |
| Applicant                 | Quick Mount PV  | Manufacturer                 | <b>Quick Mount PV</b>   |
| Address                   | 2700 Mitchell Dr. Bldg. 2<br>Walnut Creek, CA 94598   | Address                      | 2700 Mitchell Dr. Bldg. 2<br>Walnut Creek, CA 94598   |
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| Legal Name                | Wencon Development, Inc.  |                              |   |

| <b>2.0 Product Description</b> |   |
|--------------------------------|---|
| Product                        | Accessory Frame Bracket   |
| Brand name                     | Accessory Frame Bracket   |
| Description                    | <p>The product covered by this report is the “Accessory Frame Bracket” from Quick Mount PV. The Accessory Frame Bracket is used to mount module level electronics to standard PV module frames. The Accessory Frame Bracket provides a mounting option for the module level electronic to the module frame for Quick Mount PV’s Quick Rack rail-free solar mounting system, as well as other rail-less racking systems, ground-mounted and ballasted systems.</p> <p>The Accessory Frame Bracket is used to mount and bond a module level electronic to a PV module that complies with UL 1703 when used with a module level electronic and PV module that has been evaluated for grounding and/ or mounting in compliance with the instructions provided. The Accessory Frame Bracket is intended to be used with the following module level electronics: SolarEdge Power Optimizers; and PV modules from the following manufacturers: BenQ, ET Solar, LG Electronics, Trina Solar, Yingli Solar, Suniva, Hanwha Solar, Canadian Solar, ReneSola, Hyundai Heavy Industries, Phono Solar, Q Cells, SolarWorld and Jinko Solar PV modules with frames of profile as shown in illustration No. 1.</p> <p>Accessory Frame Bracket Assembly bonds the module level electronic with bonding pins that pierce the module frame and module level electronics case when the bracket attachment bolts are torqued to 13 ft-lbs using the provided serrated flange bolt. The Accessory Frame Bracket assembly is made from 5000 series aluminum, including 18-8 stainless steel hardware with 316 stainless steel bonding pins. The module frame must be grounded by a UL2703 racking system, e.g. Quick Rack rail free racking system from Quick Mount PV. The system is to be installed in accordance with the latest National Electrical Code, ANSI/NFPA 70, including NEC 250: Grounding and Bonding, and NEC 690: Solar Photovoltaic Systems. Any local electrical codes must be adhered in addition to the national electrical codes. System maximum series fuse rating shall not exceed 20 Amps.</p> <p>The Accessory Frame Bracket have only been tested for bonding only and no mechanical load was performed.</p> |
| Models                         | QMAFB Accessory Frame Bracket   |
| Model Similarity               | NA  |
| Ratings                        | Maximum Series Fuse Rating: 20A<br>Torque for Accessory Frame Bracket: 11-13 ft-lbs   |

| <b>2.0 Product Description</b>  |  |
|---|--|
| <b>Module Level Electronics Tested with QMAFB Accessory Frame Bracket</b>   |  |
| <b>Manufacturer</b>   | <b>Part No</b>   |
| SolarEdge   | P300, P320, P400, P405, P600, P700   |
| <b>PV Modules frames tested for bonding only</b>  |  |
| <b>Module manufacturer</b>  | <b>Model Tested</b>  |
| Suniva Optimus  | OPT 60   |
| <b>PV Modules added based on evaluation for bonding only<br/>(List of evaluated and approved modules and module level electronics for use with<br/>Accessory Frame Bracket)</b> |  |
| <b>Module manufacturer</b>  | <b>Model numbers</b>   |
| Note: Module wattage is represented by XXX in product codes   |  |
| BenQ Green Triplex  | PM060M02-XXX, PM060P00-XXX,<br>PM245P00-XXX, PM250M01-XXX,<br>PM245P03-XXX   |
| ET Solar  | ET-P660BB, ET-P660WB, ET-P660WW,<br>ET-M660BB, ET-M660WW, ET-M672WW,<br>ET-M672BB, ETP672BB, Anti-glare  |
| LG Solar Mono X   | LGXXXS1C-G3, LGXXXS1C-A3,<br>LGXXXS1C-B3, LGXXXS1K-G3,<br>LGXXXS1K-A3, LGXXXS1K-B3,<br>LGXXXS1C-G4   |
| LG Solar Mono X NeON  | LGXXN1C-G3, LGXXN1C-A3,<br>LGXXN1C-B3, LGXXN1K-G4,<br>LGXXN1C-G4   |
| Trina Solar   | TSM-XXX-PA05.05, TSM-XXX-PA05.08,<br>TSM-XXX-PD05.05, TSM-XXX-PD05.08,<br>TSM-XXX-PD14   |
| Yingli Solar YGE 60 Cell & YGE 72 Cell  | YLXXXP-29b 40mm, YLXXXP-29b 35mm,<br>YLXXXP-35b 40mm   |
| Suniva Optimus & MV Series  | Black OPT XXX-60-4-1B0,<br>Silver OPT XXX-60-4-100,<br>MVX XXX-60-5-100  |
| Hanwha Solar HSL 60 & HSL 72  | HSL60P6-PB-0-XXXT,<br>HSL60P6-PB-0-XXXTW,<br>HSL60P6-PB-0-XXXTB,<br>HSL60P6-PB-4-XXXT,<br>HSL60P6-PB-4-XXXTW,<br>HSL60P6-PB-4-XXXTB, HSL60P6-PB-1-XXX,<br>HSL60P6-PB-1-XXXB, HSL72S-4BB-1-XXXB |
| Canadian Solar  | CS6P-XXXP, CS6P-XXXM, CS6P-XXXM All<br>Black, CS6X-XXXP  |

Other Ratings

| <b>2.0 Product Description</b> |   |  |
|--------------------------------|---|--|
|                                | Renesola 156 Series   | JCXXXS-24/Bb, JCXXXF-24/Bb-b, JCXXXS-24/Bb-b                             |
|                                | Renesola Clarus, Virtus, & Virtus II  | JCXXXM-24/Bb, JXXXM-24/Bbv, JCXXXM-24/Bb, JCXXXM-24/Bbh                  |
|                                | Hyundai Solar RG-Series   | HiS-MXXXRG, HiS-SXXXRG   |
|                                | Hyundai Solar MF-Series & MG Series   | HiS-SXXXMF, HiS-MXXXMG, HiS-SXXXMG                                       |
|                                | Phono Solar Diamond Series  | PSXXXP-20/U, PSXXXM-20/U   |
|                                | Phono Solar Onyx Series   | PSXXXP-20/U, PSXXXM-20/U   |
|                                | Q Cells   | Q.Peak-G3 XXX, Q.Peak blk-G3 XXX, Q.Plus-G3 XXX                          |
|                                | SolarWorld Sun Module Pro Poly & Plus Mono  | SWXXX POLY, SWXXX-MONO, SWXXX-MONO BLACK, SWXXX-XL MONO BLACK            |
|                                | Jinko Solar Standard, Eagle, & Smart  | JKMXXXP-60, JKMXXXP-72, JKMXXXPP-60, JKMXXXPP-72, JKMXXXM-60, JKMXXXM-72 |
|                                | <b>Module Level Electronics</b>   |  |
| <b>Manufacturer</b>            | <b>Part No</b>  |  |
| SolarEdge                      | P300, P320, P400, P405, P600, P700  |  |
| Conditions of Acceptability    | The product covered in this report is not a complete UL 2703 listed racking system. The Accessory Frame Brackets is intended for use with a UL 2703 listed racking system. Consideration should be given to the following when the component is used in or with another (Typical Conditions of Acceptability to be considered for recognized component products follow:)  |  |
|                                | <ol style="list-style-type: none"> <li>1. Complete racking system must be grounded and bonded to the required UL 2703.</li> <li>2. Module frame section meet requirements outlined in illustration No. 1.</li> <li>3. Installed with evaluated PV module and module level electronic outlined in other ratings above.</li> <li>4. The module frame must be grounded using a UL 2703 listed racking system, e.g. the Quick Rack rail free racking system from Quick Mount PV. The system is to be installed in accordance with the latest National Electrical Code, ANSI/NFPA 70, including NEC 250: Grounding and Bonding, and NEC 690: Solar Photovoltaic Systems. Any local electrical codes must be adhered in addition to the national electrical codes.</li> <li>5. System maximum series fuse rating shall not exceed 20 Amps.</li> </ol> |  |