

SIMPLE**RACK**[®]

RAIL-LESS RACKING FOR CONCRETE ROOFS

INSTALLATION GUIDE

REVISION DATE: 12/02/22

VERSION: v1.9



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SIMPLERACK

The rail-less SimpleRack System is engineered specifically for use in flat concrete roofing applications. The system is ideal for fast, easy fixed-positioning mounting. SimpleRack provides integrated bonding and conforms to UL 2703.

FEATURES

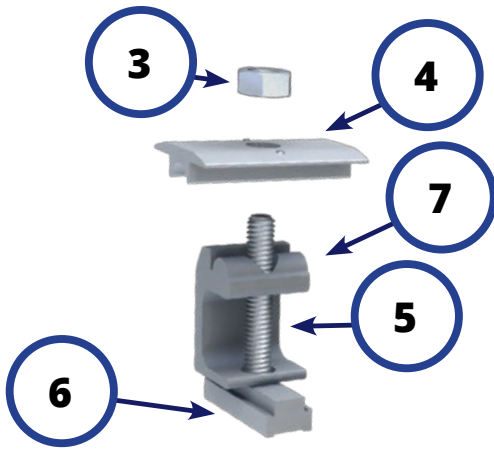
- Rail-less racking that conforms to UL 2703
- 10° fixed-position mounting solution
- Integrated bonding
- Tested to 170 mph winds (Exposure D)

SYSTEM COMPONENTS REQUIRED



SIMPLERACK LEG KIT:

1. Short Leg
2. Tall Leg
3. Flange Nut
4. Mid-Clamp
5. Socket Set Screw
6. T-Nut



CONCRETE ANCHOR
SOLD SEPARATELY

ADDITIONAL REQUIRED COMPONENT

7. End Spacer (see below)

AVAILABLE END SPACER HEIGHTS



32MM



35MM



40MM

ACCESSORIES



FRAME MLPE
MOUNT

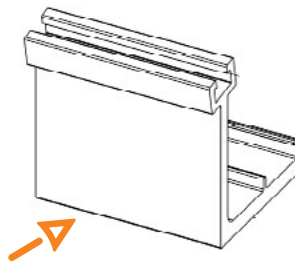
COMPONENTS

RATINGS

Fire Ratings*	Class A System Fire Rating
Max System Voltage	1500
Max Fuse Rating	40A
Certification	Conforms to UL STD 2703
Warranty	25 Year Material and Workmanship
Markings	Product listing label is located on Short Leg
Roof Pitch	1/2:12 - 12:12
UL 2703 Allowable Design Load Rating	30 psf downward, 30 psf upward and 5 psf lateral
Max Module Size	25.6 sq. ft.
Single use Rated Components	Mid-Clamp
Multiple Use Rated, Position Independent	Frame MLPE Mount
Module Orientation	Portrait Only

*Class A for Low Slope Tilt-Mount (Asymmetrical) Applications when using Type 1, 2, 3 and 29, Listed Photovoltaic Module when installed over non-combustible roofs. This product can be installed at any tilt or any module to roof gap.

UL 2703 MARKING EXAMPLE:

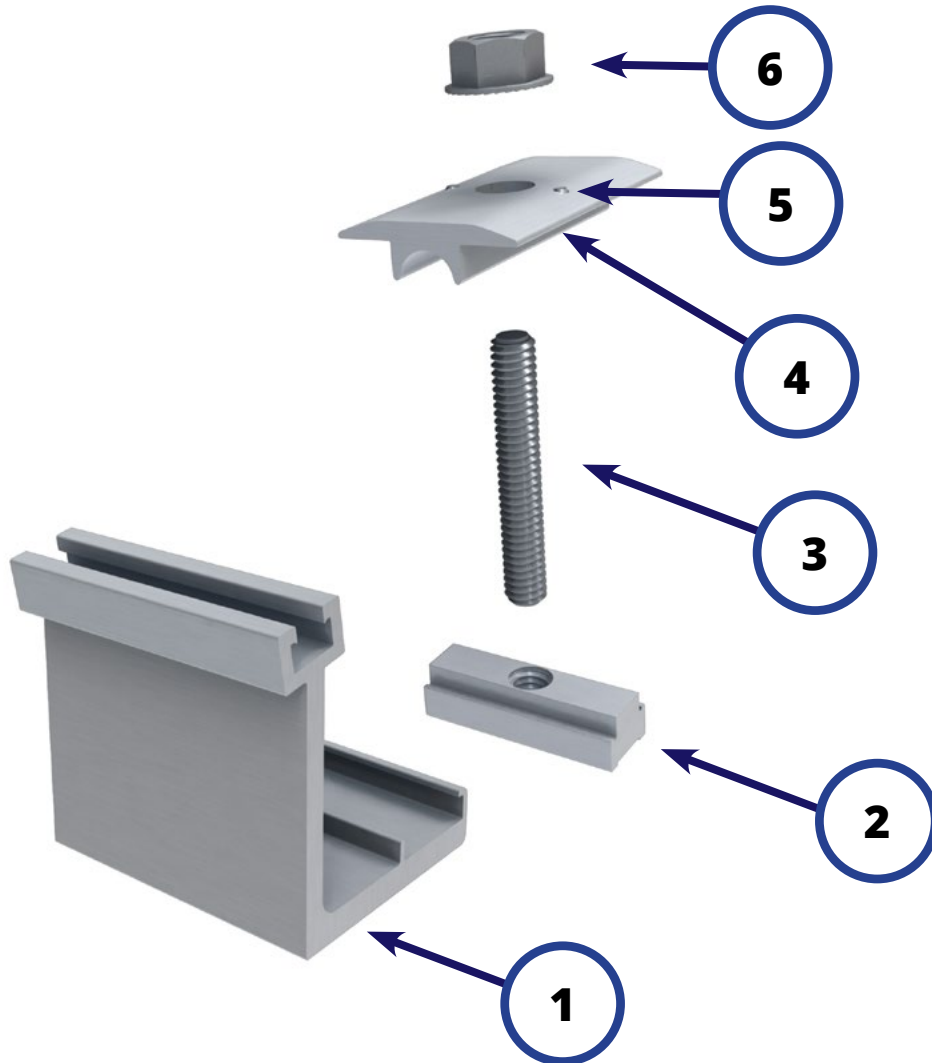


TORQUE SPECIFICATIONS

Component	Torque (in-lb)
Mid Clamp	150
Socket Set Screw	150
Frame MLPE Mount	144

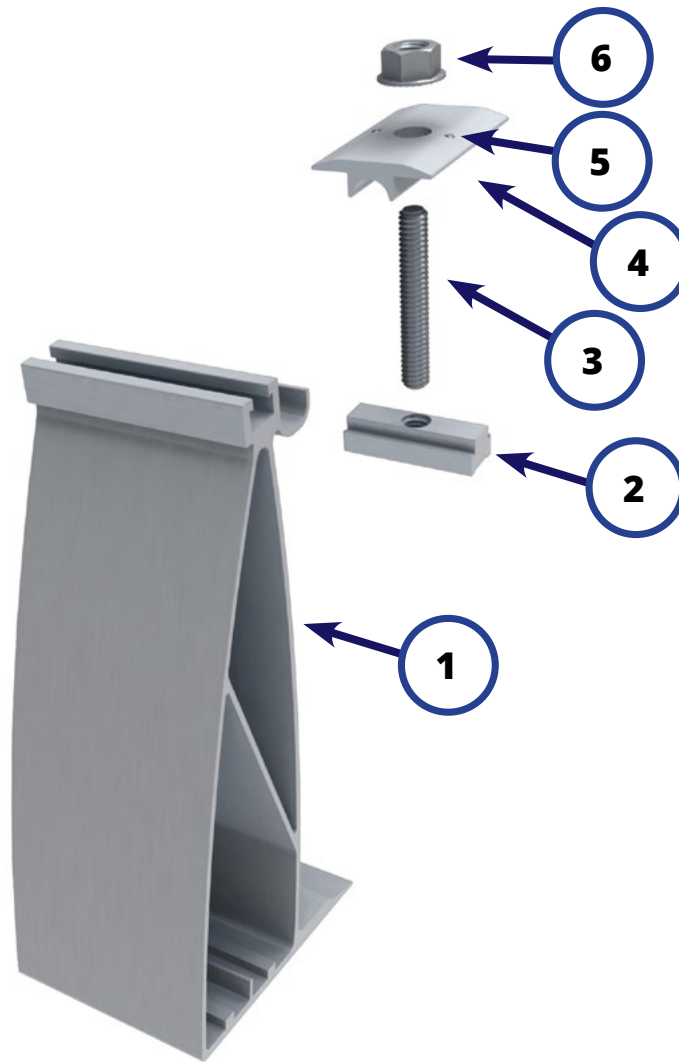
Periodic reinspection of components shall be performed to verify that there is no corrosion detrimental to system strength and electrical conductivity, no loose bolts, and/or other variables that could compromise array safety. Any corroded or damaged components shall be immediately replaced

PLEASE NOTE: Review module and any third-party manufacturer's documentation for compatibility and compliance with warranty terms and conditions.



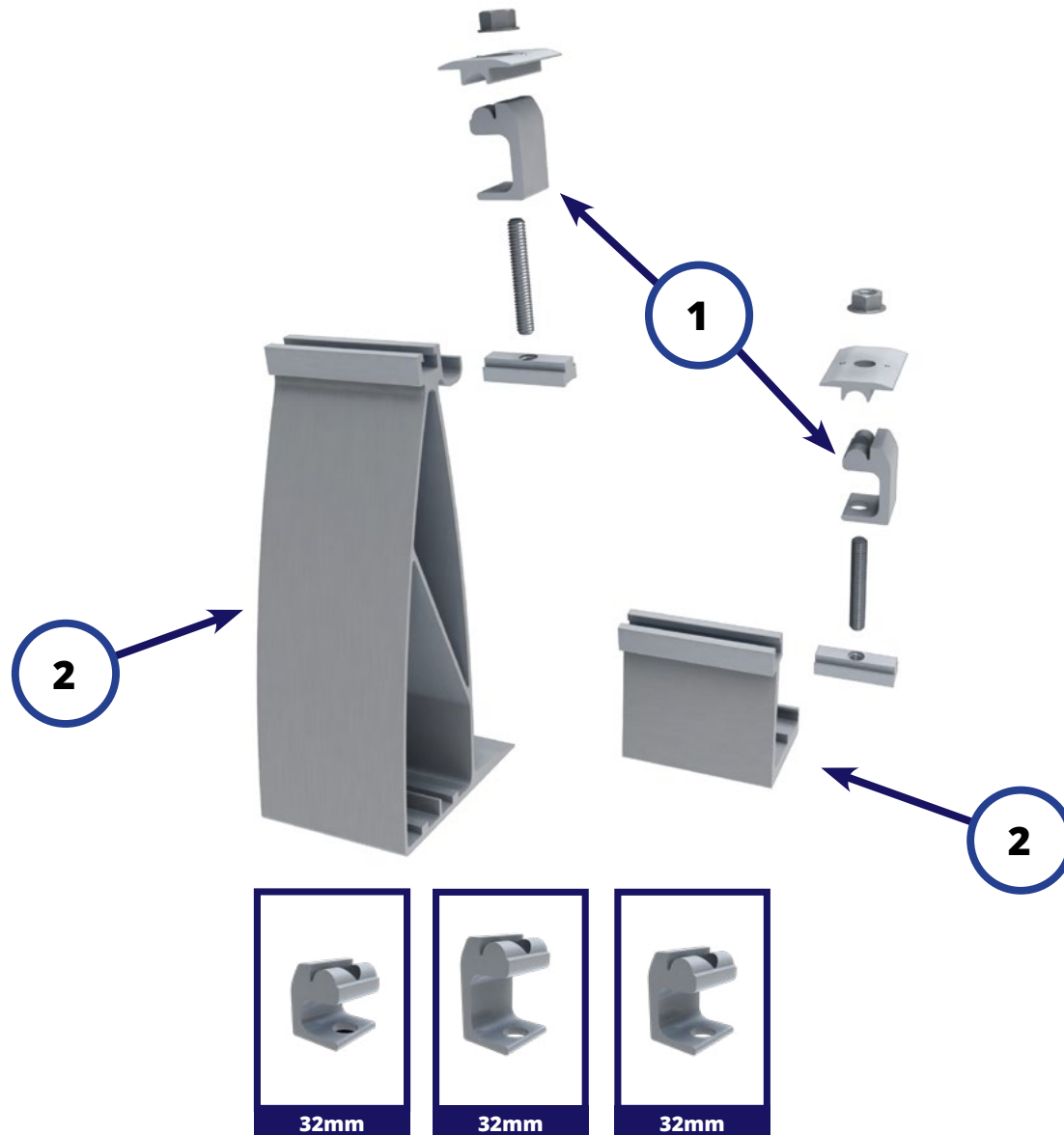
SIMPLERACK SHORT LEG ASSEMBLY

1. SimpleRack Short Leg
2. T-Nut
3. Set Screw
4. Mid-Clamp
5. Bonding Pin
6. 3/8" -16 Serrated Flange Nut



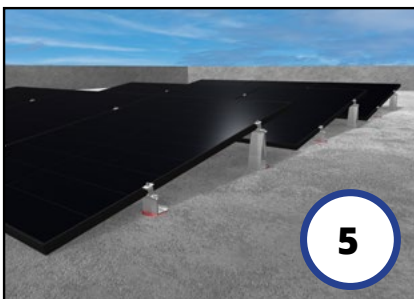
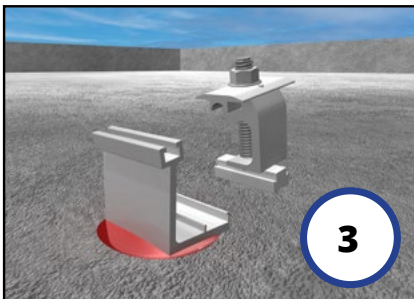
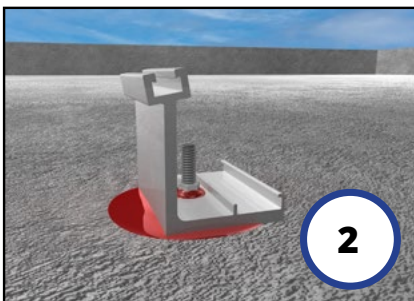
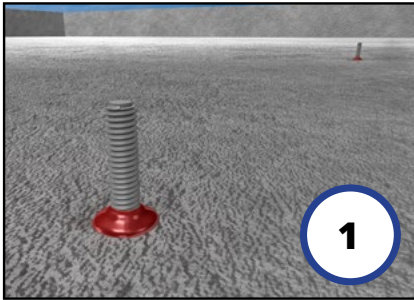
SIMPLERACK TALL LEG ASSEMBLY

1. SimpleRack Tall Leg
2. SR-X T Nut
3. Socket Set Screw
4. SR-X Mid-Clamp
5. Bonding Pin
6. 3/8"-16 Serrated Flange Nut



SIMPLERACK END SPACER ASSEMBLY

1. END SPACER 32MM, END SPACER 35MM, END SPACER 40MM
2. TALL LEG, SHORT LEG



1 SYSTEM LAYOUT

- Layout and install roof compatible concrete anchors using epoxy/construction adhesive.
- E-W anchor spacing is equal to module width plus 1/2".

2 INSTALL ALL LEGS

- Tall Leg is always installed at the back of the module to ensure the proper slant (see image 5 for reference).
- Spacing between Short Leg and Tall Leg will be approximately 38" in portrait orientation, depending on module size and mounting locations.
- Epoxy should be applied on the bottom of each leg and placed over the anchors.
- Place bonded washer and flange nut over anchor. Torque to 150 in-lb.
- Epoxy should be used around flange nut.

3 INSTALL END SPACERS AND CLAMPS

Once all legs are installed, install a End Spacer (32MM, 35MM or 40MM) on the end of the first row, clamping to the modules as you go. Torque to 150 in-lb.

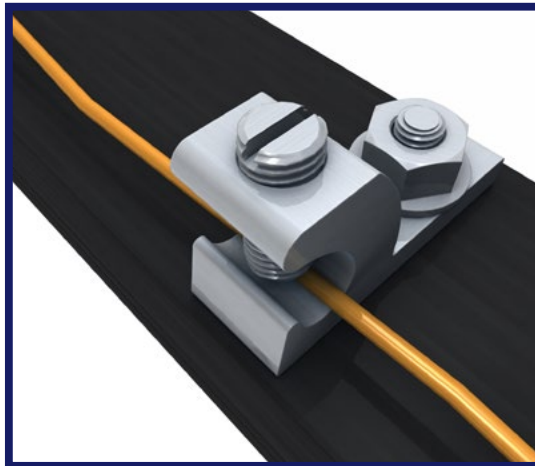
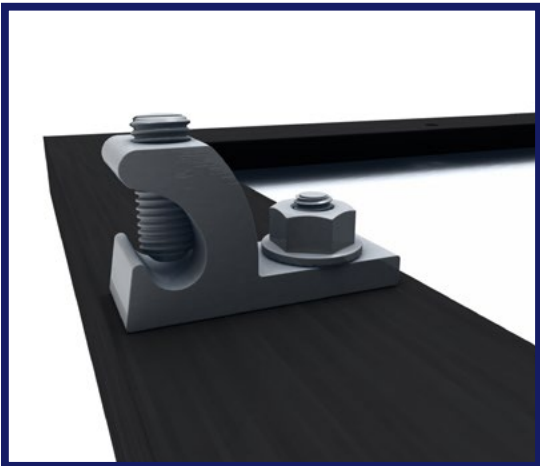
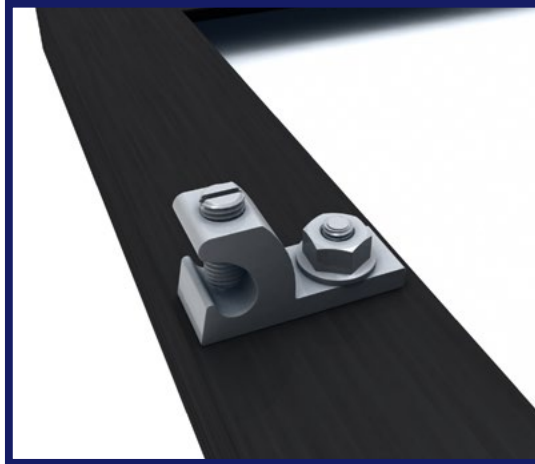
4 INSTALL MID-CLAMPS

- Mid-clamps are to be placed between adjacent modules. Torque to 150 in-lb.
- Mid-clamps are compatible with all module frames.

5 INSTALL END SPACERS AND MID-CLAMPS ON OPPOSITE END OF ROW

- Repeat step 3.
- Follow the above steps for each subsequent row.

GROUNDING LUG INSTALLATION



Install ground lug on the module per ground lug and module manufacturer's instructions.

NECESSARY COMPONENTS:

One of the following ground lugs (or any UL 2703 compliant ground lug):

- Burndy CL50-1TN Ground Lug (UL 2703 - E3514343 / UL 467-E9999)
- ILSCO SGB-4 Ground Lug (UL 2703 - E354420 / UL 467 - E34440)
- ILSCO GBL-4DBT (UL2703 - E354420 / UL467 - E34440)
- ILSCO GBL-4DBTH (UL 2703 - E354420 / UL 467 - E34440)
- ILSCO GBL-4SS (UL 2703 - E354420 / UL 467 - E34440)

This system needs to be grounded in accordance with the National Electrical Code, ANSI/NFPA 70.

Copper wire should not come in direct contact with aluminum at any point on the array

FRAME MLPE MOUNT



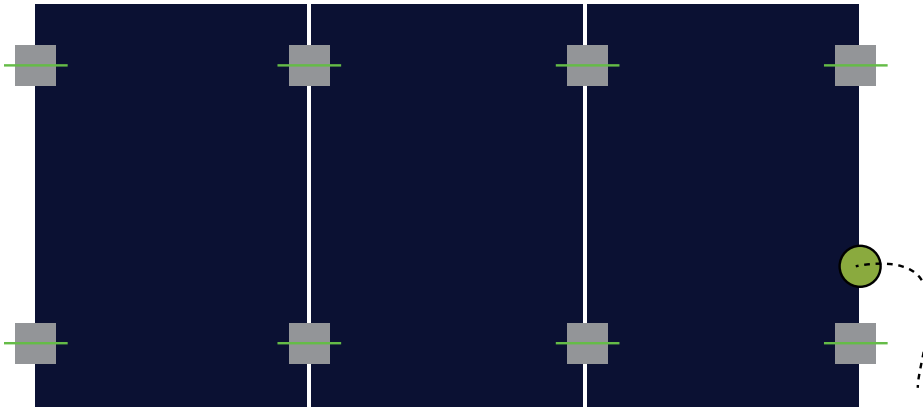
INSTALL FRAME MLPE MOUNT ACCESSORY:

- Install the Frame MLPE Mount
- Slide the Frame MLPE Mount onto the lip of the micro-inverter/power optimizer.
- Slide the micro-inverter/power optimizer into the opposite lip of the module frame.
- Tighten the bolt to 144 in-lb to clamp the Frame MLPE Mount to the module frame and the micro-inverter/power optimizer to the Frame MLPE Mount.
- Ensure that the lip on the clip is tight against the frame and that the micro-inverter/power optimizer flange is tight against the clip flange to avoid rotation during tightening.

FRAME MLPE MOUNT IS COMPATIBLE WITH:

- **ENPHASE:** M250-72, 250-60, M215-60, C250-72, S230, S280, IQ 6, IQ 6+, IQ7, IQ 7A, IQ 7+, IQ7 PD, IQ 7X, Q Aggregator; IQ8-60, IQ8PLUS-72, IQ8A-72, IQ8H-208-72, IQ8H-240-72, IQ8M-72, may be followed by -2-US
- **NEP:** BDM-300, BDM-300X2 and BDM-800
- **SOLAREEDGE:** M1600, P300, P320, P340, P370, P400, P401, P405, P485, P505, P600, P700, P730, P750, P800p, P800s, P801, P850, P860, P950, P960, P1100, P1101, S440, S500, S1200, S1201
- **SEE PAGE 13 FOR COMPATIBLE MODULE LIST**

BONDING ASSEMBLY & BONDING PATH



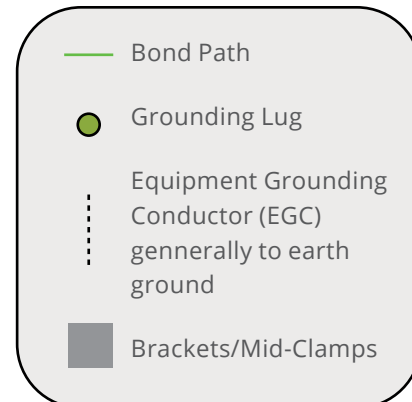
GROUNDING INFORMATION

The SimpleRack System may be used to mount and ground PV modules that comply with UL 1703 or UL 61730, only when that specific module has been evaluated for mounting and grounding, in compliance with the included installation instructions.

NOTE: Grounding lug must be visible to inspectors from the entire perimeter of the PV array.

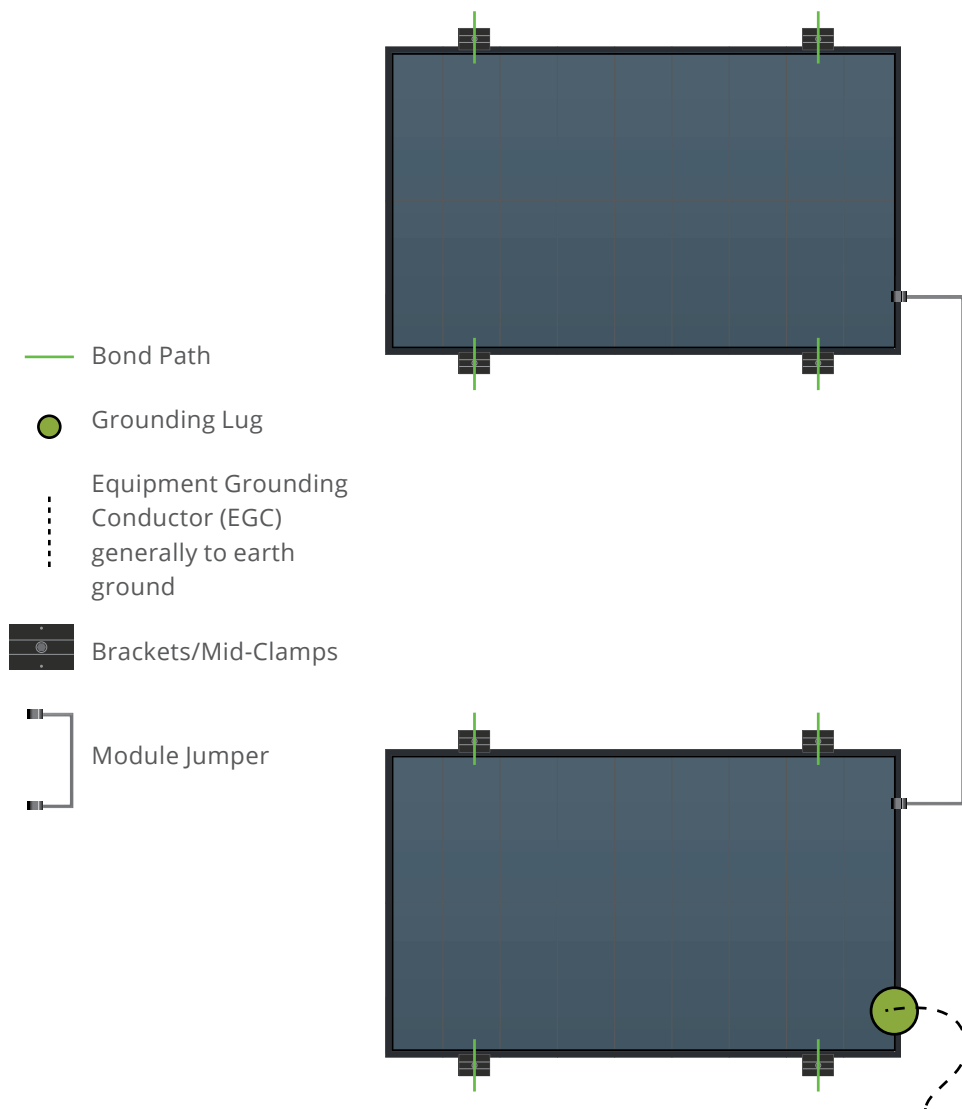
GROUNDING METHOD

Each row of modules bonds E-W through the Mid-Clamps and End-Clamps. One approved ground lug is required per row of modules, placed on long side of module frame.



MAINTENANCE JUMPER BONDING PATH

Routine maintenance of a PV module or mounting system, e.g. inspection or cleaning, shall not involve breaking or disturbing the bonding path of the system. Please see diagram below for ensuring the bond path has not been broken or disturbed prior to conducting any maintenance.



COMPATIBLE MODULES

The SimpleRack System has been tested and evaluated to UL 2703 for bonding, grounding, mechanical loading and fire classification, and may be used to ground and/or mount PV modules listed to UL 1703 or UL 61730.

A list of approved modules is included below.

Unless otherwise noted, “xxx” refers to the module power rating and both black and silver frames are included in the certification.

MANUFACTURER	LIST OF UL 2703 APPROVED MODULES
Adani	Adani modules with 35 and 40mm frames ASX-Y-ZZ-xxx Where “X” can be B, M or P, “Y” can be 6 or 7, and “ZZ” can be blank, PERC, B-PERC, or AB-PERC
AIONRISE	Aionrise modules with 35 and 40mm frames AIONyyG1-xxx Where “yy” can be 60 or 72
Amerisolar	Amerisolar modules with 35, 40 and 50 mm frames AS-bYxxxZ Where “b” can be 5 or 6; “Y” can be M, P, M27, P27, M30, or P30; and “Z” can be blank, W or WB
Aptos Solar	Aptos modules with 35 and 40 mm frames DNA-yy-zzaa-xxx Where “yy” can be 108, 120 or 144; “zz” can be MF or BF; and “aa” can be 10, 23 or 26
Astronergy Solar	Astronergy modules with 30, 35, 40, and 45 mm frames aaSMbbyC/zz-xxx Where “aa” can be CH or A; “bb” can be 60, 66, or 72; “yy” can be blank, 10 or 12; “C” can M, P, M(BL), M-HC, M(BL)-HC, P-HC, M(DG), or M(DGT); and “zz” can be blank, HV, F-B, or F-BH
ASUN	ASUN modules with 35 and 40 mm frames ASUN-xxx-YYZZ-aa Where “YY” can be 60 or 72; “ZZ” can be M, or MH5; and “aa” can be blank or BB
Auxin	Auxin modules with 40 mm frames AXN6y6zAxxxB Where “y” can be M or P; “z” can be 08, 09, 10, 11, or 12; and “A” can be F, M or T; and “B” can be blank, A, B or C

MANUFACTURER	LIST OF UL 2703 APPROVED MODULES
Axitec	<p>Axitec Modules with 30, 35 and 40 mm frames AC-xxxY/aaZZb</p> <p>Where "Y" can be M, P, MH or MBT; "aa" can be blank, 125- or 156-; "ZZ" can be 54, 60, 72, 108, 120, or 144; "b" can be S, X, V, VB, XV, or MX</p>
Bluesun Solar	<p>Bluesun modules with 30 and 35mm frames BSMxxxM-AAA</p> <p>Where "AAA" can be 60HPH or 72HBD</p>
Boviet	<p>Boviet modules with 35 and 40mm frames BVM66aaYY-xxxBcc</p> <p>Where "aa" can be 9, 10 or 12; "YY" is M, or P; and "B" can be blank, L or S; and "cc" can be blank, H, H-BF, H-HC, HC-BF or H-HC-BF</p>
BYD	<p>BYD modules with 35 mm frames BYDxxxAY-ZZ</p> <p>Where "A" can be M6, P6, MH or PH; "Y" can be C or K; and "ZZ" can be 30 or 36</p>
Canadian Solar	<p>Canadian Solar modules with 30, 35 and 40 mm frames CSbY-xxxZ</p> <p>Where "b" can be 1, 3 or 6; "Y" can be H, K, L, N, P, R, U, V, W, X or Y; and "Z" can be M, P, MS, PX, M-SD, P-AG, P-SD, MB-AG, PB-AG, MS-AG, MS-HL, or MS-SD</p>
CertainTeed	<p>CertainTeed modules with 35 and 40mm frames CTxxxYZZ-AA</p> <p>Where "Y" can be M, P, or HC; "ZZ" can be 00, 01, 10, or 11; and "AA" can be 01, 02, 03, 04 or 06</p>
CSUN	<p>Csun modules with 35 and 40 mm frames YYxxx-zzAbb</p> <p>Where "YY" is CSUN or SST; "zz" is blank, 60, or 72; and "A" is blank, P or M or MM; "bb" is blank, BB, 5BB, BW, or ROOF</p>
Dehui	<p>Dehui modules with 35 and 40mm frames DH-MYYYY-xxx</p> <p>Where "YYY" can be 760, 772, 860, 872; and "Z" can be B or W</p>
Ecosolargy	<p>Ecosolargy modules with 35, 40, and 50 mm frames ECOxxxYzzA-bbD</p> <p>Where "Y" can be A, H, S, or T; "zz" can be 125 or 156; "A" can be M or P; "bb" can be 60 or 72; and "D" can be blank or B</p>

MANUFACTURER	LIST OF UL 2703 APPROVED MODULES
ET Solar	ET Solar modules with 35, 40, and 50 mm frames ET-YZZZxxxAA Where "Y" can be P, L, or M; "ZZZ" can be 660, 660BH, 672, 672BH, 754BH or 766BH; and "AA" can be TB, TW, WB, WW, BB, WBG, WWG, WBAC, WBCO, WWCO, WWBCO or BBAC
Flex	Flex modules with 35, 40, and 50 mm frames FXS-xxxYY-ZZ; Where "YY" can be BB or BC; and "ZZ" can be MAA1B, MAA1W, MAB1W, SAA1B, SAA1W, SAC1B, SAC1W, SAD1W, SBA1B, SBA1W, SBC1B, or SBC1W
Freedom Forever	Freedom Forever modules with 35mm frames FF-MPa-BBB-xxx Where "a" can be blank or 1
Freevolt	Freevolt modules with 35mm frames ECP-PVGRAF-144HC-xxx
GCL	GCL modules with 35 mm and 40 mm frames GCL-ab/YY xxx Where "a" can be M or P; "b" can be 3 or 6; and "YY" can be 60, 72, 72H, or 72DH
GigaWatt Solar	Gigawatt modules with 40 mm frames GWxxxYY Where "YY" can be either PB or MB
Hansol	Hansol modules with 35 and 40 frames HSxxxYY-zz Where "YY" can be PB, PD, PE, TB, TD, UB, UD, or UE; and "zz" can be AH2, AN1, AN3, AN4, HH2, HV1, or JH2
Hanwha Solar	Hanwha Solar modules with 40, 45, and 50 mm frames HSLaaP6-YY-1-xxxZ Where "aa" can be either 60 or 72; "YY" can be PA or PB; and "Z" can be blank or B

MANUFACTURER	LIST OF UL 2703 APPROVED MODULES
Hanwha Q CELLS	Hanwha Q CELLS Modules with 32, 35, 40, and 42mm frames aaYY-ZZ-xxx where “aa” can be Q. or B.; “YY” can be PLUS, PRO, PEAK, LINE PRO, LINE PLUS, PLUS DUO or PEAK DUO; and “ZZ” can be G3, G3.1, G4, G4.1, L-G2, L-G2.3, L-G3, L-G3.1, L-G3y, L-G4, L-G4.2, L-G4y, LG4.2/TAA, BFR-G3, BLK-G3, BFR-G3.1, BLK-G3.1, BFR-G4, BFR-G4.1, BFR G4.3, BLK-G4.1, G4/SC, G4.1/SC, G4.1/TAA, G4.1/MAX, BFR G4.1/TAA, BFR G4.1/MAX, BLK G4.1/TAA, BLK G4.1/SC, EC-G4.4, G5, G5/SC, G5/TS, BLK-G5, BLK-G5/SC, BLK-G5/TS, L-G5, L-G5.1, L-G5.2, L-G5.2/H, L-G5.3, G6, G6/SC, G6/TS, G6+, BLK-G6, L-G6, L-G6.1, L-G6.2, L-G6.3, G7, BLK-G6+, BLK-G6+/AC, BLK-G6+/HL, BLK-G6+/SC, BLK-G6/TS, G6+/TS, BLK-G6+/TS, BLK-G7, G7.2, G8, BLK-G8, G8+, BLK-G8+ L-G7, L-G7.1, L-G7.2, L-G7.3, L-G8, L-G8.1, L-G8.2, L-G8.3, L-G8.3/BFF, ML-G9, BLK ML-G9, ML-G9+, BLK ML-G9+, BLK-G10+, BLK-G10+/AC, ML-G10, BLK ML-G10, ML-G10+, BLK ML-G10+, ML-G10.a, BLK ML-G10.a, ML-G10.a+, BLK ML-G10.a+, XL-G9, XL-G9.2, XL-G9.3, XL-G10.2, XL-G10.3, XL-G10.c or XL-G10.d
Heliene	Heliene modules with 35 and 40 mm frames YYZZxxxA Where “YY” can be 36, 60, 72, 96, 108, 120, 132 or 144; “ZZ” can be HC, M, P, or MBLK; and “A” can be blank, HomePV, Bifacial, M10-SL, M10-SL-BLK or M10 SL-Bifacial
HT-SAAE	HT-SAAE modules with 35 and 40 mm frames HTyy-aaaZ-xxx Where “yy” can be 60, 66 or 72; “aaa” can be 18, 156 or 166; “Z” can be M, P, M-C, P-C, M(S), M(VS), M(V), P(V), M(V)-C, P(V)-C, or X
Hyperion Solar	Hyperion modules with 35mm frames HY-DH108P8-xxx
Hyundai	Hyundai modules with 32, 33, 35, 40 and 50 mm frames HiY-SxxxZZ Where “Y” can be A, D or S; “S” can be M or S; and “ZZ” can be HG, HI, KI, MI, MF, MG, PI, RI, RG, RG(BF), RG(BK), SG, TI, TG, YH(BK) or XG(BK)
Itek	Itek Modules with 40 and 50 mm frames IT-xxx-YY Where “YY” can be blank, HE, or SE, or SE72

MANUFACTURER	LIST OF UL 2703 APPROVED MODULES
JA Solar	JA Solar modules with 30, 35, 40 and 45 mm frames JAyyzz-bbww-xxx/aa Where “yy” can be M, P, M6 or P6; “zz” can be blank, (K), (L), (R), (V), (BK), (FA), (TG), (FA)(R), (L)(BK), (L)(TG), (R)(BK), (R)(TG), (V)(BK), (BK)(TG), or (L)(BK)(TG); “bb” can be 48, 54, 60, 66, 72 or 78; “ww” can be D09, S01, S02, S03, S06, S09, S10, S12, S17, S20, S30 or S31; and “aa” can be BP, MR, SI, SC, PR, 3BB, 4BB, 4BB/RE, 5BB
Jinko	Jinko modules with 35 and 40 mm frames JKMYxxxZZ-aa Where “Y” can either be blank or S; “ZZ” can be M, P, or PP; and “aa” can be blank, 60, 60B, 60H, 60L, 60BL, 60HL, 60HB, 60HBL, 6HBL-EP, 60-J4, 60B-J4, 60B-EP, 60(Plus), 60-V, 60-MX, 6RL3, 6RL3-B, 6TL3-B, 7RL3-V, 7RL3-TV, 72, 72B, 72-J4, 72B-J4, 72(Plus), 72-V, 72H-V, 72L-V, 72HL-V, 72HBL-V, 72-MX, 72H-BDVP, 72HL-TV, or 72HL-V-MX3
Kyocera	Kyocera Modules with 46mm frames KYxxxZZ-AA Where “Y” can be D or U; “ZZ” can be blank, GX, or SX; and “AA” can be LPU, LFU, UPU, LPS, LPB, LFB, LFBS, LFB2, LPB2, 3AC, 3BC, 3FC, 4AC, 4BC, 4FC, 4UC, 5AC, 5BC, 5FC, 5UC, 6BC, 6FC, 8BC, 6MCA, or 6MPA
LG	LG modules with 35, 40, and 46 mm frames LGxxxYaZ-bb Where “Y” can be A, E, M, N, Q, S; “a” can be A, 1, 2 or 3; “Z” can be C, K, T, or W; and “bb” can be A3, A5, A6, B3, B6, E6, E6.AW5, G3, G4, J5, K4, L5, N5, V5, V6
Longi	Longi modules with 30, 35 and 40 mm frames LRa-YYZZ-xxxM Where “a” can be 4, 5 or 6; “YY” can be blank, 54, 60, 66 or 72; and “ZZ” can be blank, BK, BP, HV, PB, PE, PH, HBD, HIB, HIH, HPB, HPH, or HIBD
Maxeon	Maxeon modules with 35, 40 and 46mm frames SPR-AAAY-xxx-zzz Where “AAA” can be MAX or X; “Y” can be 3, 5, 6, 21 or 22; and “zzz” can be R, BLK or COM
Meyer Burger	Meyer Burger Modules with 35mm frames Meyer Burger Glass

MANUFACTURER	LIST OF UL 2703 APPROVED MODULES
Mission Solar	Mission Solar modules with 33, 35 and 40 mm frames YYYbb-xxxZZaa Where “YYY” can be MSE or TXS; “bb” can be blank, 6 or 60A; “ZZ” can be blank, MM, SE, SO, SQ, SR, SX, TS, 120 or 144; and “aa” can be blank, BB, BW, 1J, 4J, 4S, 5K, 5R, 5T, 60, 6J, 6S, 6W, 6Z, 8K, 8T, 9R, 9S or 9Z
Mitsubishi	Mitsubishi modules with 46 mm frames PV-MYYxxxZZ Where “YY” can be LE or JE; and “ZZ” can be either HD, HD2, or FB
Motech	IM and XS series modules with 40, 45, and 50 mm frames
Next Energy Alliance	Next Energy Alliance modules with 35 and 40mm frames yyNEA-xxxZZ where “yy” can be blank or US; “ZZ” can be M, MB or M-60
NE Solar	NE Solar modules with 30, 35 and 40mm frames NESExxx-zzMH-yy Where “zz” can be 54 or 60; and “yy” can be M6 or M10
Neo Solar Power	Neo Solar Power modules with 35 mm frames D6YxxxZZaa Where “Y” can be M or P; “ZZ” can be B3A, B4A, E3A, E4A, H3A, H4A; and “aa” can be blank, (TF), ME or ME (TF)
Panasonic (HIT)	Panasonic modules with 35 and 40 mm frames VBHNxxxYYzzA Where “YY” can be either KA, RA, SA or ZA; “zz” can be either 01, 02, 03, 04, 06, 06B, 11, 11B, 15, 15B, 16, 16B, 17, or 18; and “A” can be blank E, G or N
Panasonic (EverVolt)	Panasonic modules with 30 mm frames EVPVxxxA Where “A” can be blank or H, K or PK
Peimar	Peimar modules with 40 mm frames SbxxxYzz Where “b” can be G, M or P; “Y” can be M or P; and “zz” can be blank, (BF), or (FB)
Philadelphia Solar	Philadelphia modules with 35 and 40 mm frames PS-YzzAA-xxx Where “Y” can be M or P; “zz” can be 60, 72 or 144; and “AA” can be blank, (BF), (HC) or (HCBF)



MANUFACTURER	LIST OF UL 2703 APPROVED MODULES
Phono Solar	Phono Solar modules with 30, 35 and 40mm frames PSxxxY-ZZ/A Where "Y" can be M, M1, MH, M1H, M4, M4H, M5GF, M5GFH, M6, M6H, M8GF, M8GFH or P; "ZZ" can be 18, 20 or 24; and "A" can be F, T, TH, U, UH, UHB, VH or VHB
Prism Solar	Prism Solar modules with 35mm frames PST-xxxW-M72Y Where "Y" can be H, HB or HBI
Recom	Recom modules with 35 and 40 mm frames RCM-xxx-6yy Where "yy" can be MA, MB, ME or MF
REC Solar	REC modules with 30, 38 and 45 mm frames RECxxxYYZZ Where "YY" can be AA, M, NP, NP2, PE, PE72, TP, TP2, TP2M, TP2SM, TP2S, TP3M or TP4; and "ZZ" can be blank, Black, BLK, BLK2, SLV, 72, Pure or Pure-R
Renesola	ReneSola modules with 35, 40 and 50 mm frames AAxxxY-ZZ Where "AA" can be SPM(SLP) or JC; "Y" can be blank, F, M or S; and "ZZ" can be blank, Ab, Ab-b, Abh, Abh-b, Abv, Abv-b, Bb, Bb-b, Bbh, Bbh-b, Bbv, Bbv-b, Db, Db-b, or 24/Bb
Renogy	Renogy Modules with 40 and 50 mm frames RNG-xxxY Where "xxx" is the module power rating; and "Y" can be D or P
Risen	Risen Modules with 35 and 40 mm frames RSMyy-6-xxxZZ Where "yy" can be 60, 72, 120, 132 or 144; and "ZZ" can be M or P
S-Energy	S-Energy modules with 35 and 40mm frames SABB-CCYYY-xxxZ Where "A" can be C, L or N; "BB" can be blank, 20, 40 or 45; "CC" can be blank, 60 or 72; "YYY" can be blank, MAE, MAI, MBE, MBI, MCE or MCI; and "Z" can be V, M-10, P-10 or P-15
SEG Solar	SEG Solar modules with 35 and 40 mm frames SEG-aYY-xxx-ZZ Where "a" can be blank, 6 or B; "YY" can be blank, MA, MB, PA, or PB; and "ZZ" can be blank, BB, BG, BW, HV, WB, WW, BMB, BMA-HV, BMA-TB, BMB-HV, BMB-TB, BMD-HV

MANUFACTURER	LIST OF UL 2703 APPROVED MODULES
Seraphim Energy Group	Seraphim modules with 35 and 40 mm frames SEG-aYY-xxxZZ Where “a” can be blank, 6 or B; “YY” can be blank, MA, MB, PA, or PB; and “ZZ” can be blank, BB, BG, BW, HV, WB, WW, BMB, BMA-HV, BMB-HV
Seraphim USA	Seraphim modules with 35, 40 and 50 mm frames SRP-xxx-YYY-ZZ Where “xxx” is the module power rating; and “YYY” can be 6MA, 6MB, 6PA, 6PB, BMD, 6QA-XX-XX, and 6QB-XX-XX; ZZ is blank, BB or HV
Sharp	Sharp modules with 35 and 40 mm frames NUYYxxx Where “YY” can be SA or SC
Shinsung E&G	Shinsung Modules with 35mm frames SSVxxx-144MH
Silfab	Silfab Modules with 35 and 38 mm frames SYY-Z-xxxAb Where “YY” can be IL, SA, LA, SG or LG; “Z” can be blank, M, P, or X; “A” can be blank, B, H, M, N; and “b” can be A, C, C+, G, K, L, N, T, U or X
Solar4America	Solar4America modules with 35 and 40mm frames S4Axxx-72yy Where “yy” can be MH5 or MH5BB
Solarever	Solarever modules with 35mm frames SE-zzz*yy-xxxM-aaa Where “zzz” can be 166 or 182; “yy” can be 83 or 91; and “aaa” can be 108 or 144
Solaria	Solaria modules with 35 and 40 mm frames PowerA-xxxY-ZZ Where “A” can be X or XT, “Y” can be R or C; and “ZZ” can be blank, AC, BD, BX, BY, PD, PL, PM, PM-AC, PX, PZ, WX or WZ
Solarcity (Tesla)	Solarcity modules with 40 mm frames SCxxxYY Where “YY” can be blank, B1 or B2
SolarTech	SolarTech modules with 40 and 42 mm frames AAA-xxxYY Where “AAA” can be PERCB-B, PERCB-W, HJT B-B, HJT B-W or STU; “YY” can be blank, PERC or HJT

MANUFACTURER	LIST OF UL 2703 APPROVED MODULES
SolarWorld AG	SolarWorld Sunmodule Plus, Protect, Bisun, XL, Bisun XL, may be followed by mono, poly, duo, black, bk, or clear; modules with 31, 33 or 46 mm frames SW-xxx
SolarWorld Americas	SolarWorld Sunmodule Plus, Protect, Bisun, XL, Bisun XL, may be followed by mono, poly, duo, black, bk, or clear; modules with 33 mm frames SWA-xxx
Sonali	Sonali Modules with 35 and 40 mm frames SS-M-xxx Where "M" can be blank or M
Star Solar	Star Solar modules with 35mm frames Star-xxxYYY-ZZZ Where "YYY" can be M60H or M60HB; and "ZZZ" can be blank or M10
Stion	Stion Thin film modules with 35 mm frames STO-xxx or STO-xxxA
SunEdison	SunEdison Modules with 35, 40 & 50 mm frames SE-YxxxZABCDE Where "Y" can be B, F, H, P, R, or Z; "Z" can be 0 or 4; "A" can be B, C, D, E, H, I, J, K, L, M, or N; "B" can be B or W; "C" can be A or C; "D" can be 3, 7, 8, or 9; and "E" can be 0, 1 or 2
Suniva	Suniva modules with 35, 38, 40, 46, and 50 mm frames OPTxxx-AA-B-YYY-Z MVXxxx-AA-B-YYY-Z Where "AA" is either 60 or 72; "B" is either 4 or 5; "YYY" is either 100,101,700,1B0, or 1B1; and "Z" is blank or B
Sunmac Solar	Sunmac modules with 30 and 35mm frames SMxxxMaaaZZ-BB Where "aaa" can be 660 or 754; and "ZZ" can be NH or SH
Sunpower	Sunpower standard (G3 or G4) or InvisiMount (G5) 35, 40 and 46 mm frames SPR-Zb-xxx-YY Where "Z" can be A, E, P, M or X; "b" can be blank, 17, 18, 19, 20, 21, or 22; and "YY" can be blank, BLK, COM, C-AC, D-AC, E-AC, BLK-E-AC, G-AC, BLK-G-AC, H-AC, BLK-H-AC, BLK-C-AC, or BLK-D-AC

MANUFACTURER	LIST OF UL 2703 APPROVED MODULES
Sunspark	Sunspark modules with 40 mm frames SYY-xxxZ-A Where "YY" can be MX or ST; and "Z" can be M, MB, M3, M3B, P or W; and "A" can be 60 or 72
Suntech	Suntech Modules with 35, 40 and 50mm frames STPxxxz-aa Where "y" is blank or S; and "zz" can be 20, 24, A60, A72U, B60 or B72; and "aa" can be Vd, Vem, Vfw, Vfh, Vnh, Wdb, Wde, Wd, Wfhh or Wnhb
Talesun	Talesun modules with 30, 35 and 40mm frames TP6yZZaaxx-b Where "P" can be D or P; "y" can be blank, F, H, I or L; "ZZ" can be 60 or 72; "aa" can be M, M(H), or P; and "b" can be blank, B, T, or (H)
Tesla	Tesla modules with 40 mm frames TxxxY Where "Y" can be H or S
Trina	Trina Modules with 30, 35, 40 and 46mm frames TSM-xxxYYZZ Where "YY" can be DD05, DD06, DD14, DE09, DE14, DE06X, DE15, DE15V, DEG15, PA05, PC05, PD05, PD06, PA14, PC14, PD14, PE14, or PE15 ; and "ZZ" can be blank, (II), .05, .05(II), .08, .10, .18, .08D, .18D, 0.82, .002, .00S, 05S, 08S, A, A.05, A.08, A.10, A.18, A(II), A.05(II), A.08(II), A.082(II), A.10(II), A.18(II), C.05, C.07, C.05(II), C.07(II), H, H(II), H.05(II), H.08(II), HC.20(II), HC.20(II), M, M(II), M.05(II), MC.20(II)
Universal	Universal Solar Modules with 35mm frames UNI-xxx-yyyZZZ-aa Where "yyy" can be 108, 120 or 144; "ZZZ" can be M, MH or BMH; and "aa" can be blank, BB or DG
URE	URE modules with 35 mm frames DyZxxxxaa Where "D" can be D or F, "y" can be A, B, 6 or 7; "Z" can be K or M; and "aa" can be C8G, H3A, H4A, H8A, E7G-BB, E8G, E8G-BB or MFG-BB
Vikram	Vikram solar modules with 35 and 40 mm frames XVSyy.ZZ.AAA.bb Where "X" can be blank, Paradea, Prexos or Somera; "yy" can be M, P, MBB, MDH, MDHT, MH, MS, MHHB, or PBB; "ZZ" can be 60 or 72; "AAA" is the module power rating; and "bb" can be 03, 04 or 05

MANUFACTURER	LIST OF UL 2703 APPROVED MODULES
VSUN	VSUN modules with 30, 35 and 40 mm frames VSUNxxx-YYz-aa Where "YY" can be 60, 72, 108, 120, 132 or 144; "z" can be M, P, MH, PH, or BMH; and "aa" can be blank, BB or BW
Waaree	Waaree modules with 40mm frames WSyy-xxx where "yy" can be blank or M
Winaico	Winaico modules with 35 and 40 mm frames Wsy-xxxZa Where "y" can be either P or T; "Z" can be either M, P, or MX; and "a" can be blank or 6
Yingli	Yingli modules with 35 and 40 mm frames YLxxxZ-yy Where "Z" can be D or P; "yy" can be 29b, 30b, 34d, 35b, 36b or 40d
Yotta	Yotta modules with 30mm frames YSM-Bxxx-06-72-1
Zeus	Zeus Solar Modules with 40mm frames ZxxxM-HB
ZN Shine	ZN Shine modules with 35mm frames ZXMY-AAA-xxx/M Where "Y" can be 6 or 7, "AAA" can be 72, NH120, NH144 or NHDB144