

SnapNrack™

Solar Mounting Solutions

MightyMount Comp-S

Railless Comp Shingle Roof Mount
System Installation Manual

snapnrack.com

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SnapNrack MightyMount Comp-S system has been evaluated by Underwriters Laboratories (UL) and Listed to UL Standard 2703 for Grounding/Bonding and Fire Classification.

Grounding/Bonding

Only specific components have been evaluated for bonding and are identified as being in the ground path. The MightyMount Comp-S components that have been evaluated for bonding are the MightyMount Comp-S Track, Ultra End Clamp, Ultra Mid Clamp, Ground Lugs, and Smart Clips.

Wire management clips are utilized to route conductors away from these components and must be assembled according to the instructions.

This mounting system may be used to ground and/or mount a PV module complying with UL 1703 only when the specific module has been evaluated for grounding and/or mounting in compliance with the included instructions. See Appendix A for the list of modules tested with the MightyMount Comp-S system for integrated grounding.

Ground Lugs have been evaluated to both UL 467 and UL 2703 Listing requirements. The following ground lugs have been approved for use: SnapNrack model 242-02101, 242-92202, and IlSCO models GBL-4DBT and SGB-4.

The following components have been evaluated for bonding as the fault current ground path: Ultra Mid Clamp, Ultra End Clamp, Leg Assemblies, MightyMount Comp-S Track, and Ground Lugs. In order to maintain the Listing for bonding, wire management clips must be assembled to route conductors away from parts that have not been evaluated for bonding.

A Listed (QIMS) and Unlisted Component (KDER3) grounding lug, SnapNrack part no. 242-92202, is attached to the module frame flange or MightyMount Comp-S Track, for the normal attachment of a Grounding Electrode Conductor, which provides bonding within the system and eventual connection to a Grounding Electrode, as required by the U.S. NEC. Details of part no. 242-92202 can be found in Volume 1, Section 4, and Volume 2, Section 2. When this method is used, the grounding symbol is stamped onto the body of the ground lug to identify the grounding terminal.

An alternate method of grounding, A UL Listed (QIMS) and Unlisted Component (KDER3) grounding lug, SnapNrack part no. 242-02101 is attached to the MightyMount Comp-S Track, Details of part no. 242-02101 can be found in Volume 1, Section 4, and Volume 2, Section 1. When this method is used, the grounding symbol is stamped onto the body of the ground lug to identify the grounding terminal.

An alternate method of grounding, a UL Listed (KDER and QIMS) grounding lug, IlSCO (E34440 and E354420) model SGB-4 is attached to the module frame flange or MightyMount Comp-S Track. When this method is used, the grounding terminal is identified by the green colored screws of the lug.

An alternate method of grounding, a UL Listed (KDER and QIMS) grounding lug, IlSCO (E34440 and E354420) model GBL-4BDT is attached to the module frame flange through the specified hardware and torque values. When this method is used, the grounding terminal is identified by the green colored set screw of the lug.

An alternate method of grounding, Enphase R/C (QIKH2)(QIMS2) model M250, M215 & C250 is bonded to the Listed PV module frame by the Enphase R/C (QIMS2) Model EFM-XXMM anodization piercing mounting/clamping kit. The total roof-mounted PV system is bonded (modules and microinverters) together, and the assembly is bonded to ground through the Enphase R/C (QIMS2) Engage Cables; Model ETXX-240, ETXX-208 or ETXX-277, when properly grounded at the service entrance.

R/C (QIMS2), Dynoraxx (E357716) photovoltaic bonding device cat. no. Dynobond is an optional component that may be used with this system. The Dynobond device has been evaluated to provide module to module bonding. The Dynobond device attaches to the frame flange of adjacent modules.

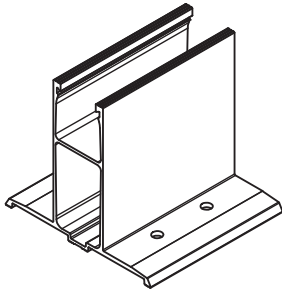
Listed (QIMS), SnapNrack MLPE Frame Attachment Kit model 242-02151 has been investigated to bond approved MLPE device back plates to frames of modules.

SnapNrack recommends a periodic re-inspection of the completed installation for loose components, loose fasteners, and any corrosion, such that if found, the affected components are to be immediately replaced.

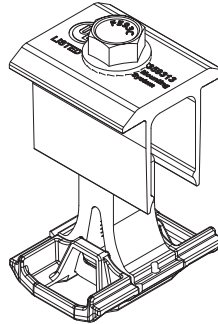
UL 2703 Fire Rating

The MightyMount Comp-S system has been evaluated for fire per the requirements of UL 2703. This system has been evaluated for a Class A System Fire Classification for steep-sloped or low-sloped roofs with Type 1, 2, and 29 modules.

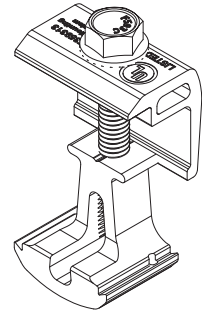
MightyMount Comp-S Structural



**SnapNrack MightyMount
Comp-S Track**

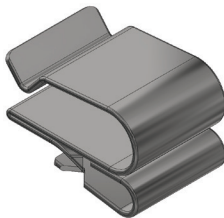


SnapNrack Ultra Mid Clamp



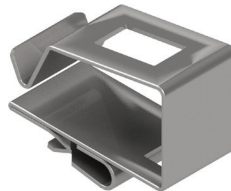
SnapNrack Ultra End Clamp

Wire Managements Components



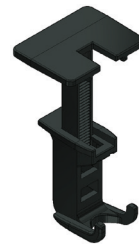
Smart Clip II

Module frame cable clip holds two PV wires or Enphase IQ-Cables.



Smart Clip XL

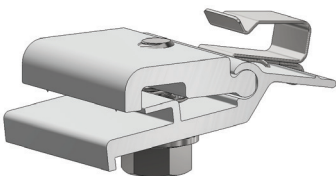
Module frame cable clip holds six PV wires or four Enphase IQ-Cable.



Wire Saver

Designed to secure conductors that become loose and hang below the array, holds one conductor.

Grounding/MLPE Components



MLPE Frame Attachment Kit

Attaches MLPEs (Module Level Performance Enhancers) and other related equipment to the module frame.



SnapNrack Ground Lug R

Other Materials Required (NOT SHOWN):

1. (4) Stainless #14 tek screws

Hardware Torque Specifications

The recommended torque to be applied to components for proper assembly and bonding are as follows:

Component/Connection	Torque Value [ft-lb]
Ground Lug model 242-92202 to MightyMount Comp-S Track or Module Frame, and Ground Lug model 242-92202 to Grounding Electrode Conductor (6-12 SOL)	8 ft-lb
Ultra Mid Clamp, Ultra End Clamp, and Ground Lug model 242-02101 to Comp-S Track (6-12 SOL)	16 ft-lb
MLPE Frame Attachment Kit	12 ft-lb
SolarEdge Frame Mounted Microinverter Bracket to Module Frame	11 ft-lb
Enphase Frame Mounted Microinverter Bracket to Module Frame	13 ft-lb
Ground Lug model SGB-4 to module, or MightyMount Comp-S Track	75 in-lb
Ground Lug model SGB-4 to Grounding Electrode Conductor (4-14 SOL or STR)	35 in-lb
Ground Lug model GBL-4DBT to module	35 in-lb
Ground Lug model GBL-4DBT to Grounding Electrode Conductor (10-14 SOL or STR)	20 in-lb
Ground Lug model GBL-4DBT to Grounding Electrode Conductor (8 SOL or STR)	25 in-lb
Ground Lug model GBL-4DBT to Grounding Electrode Conductor (4-6 SOL or STR)	35 in-lb

Site Survey

- Measure the roof surfaces and develop an accurate drawing, including any obstacles such as chimneys and roof vents.
- If plans are available, check to make sure that the plans match the final structure.
- Identify any roof access areas or keep-out areas as required by the local AHJ (i.e. fire lanes).
- Identify any construction issues that may complicate the process of attaching the Mighty Mount Comp-S Track to the roof surface.
- If you find structural problems such as termite damage or degraded roof sheathing that may compromise the structure's integrity, consult a structural engineer.

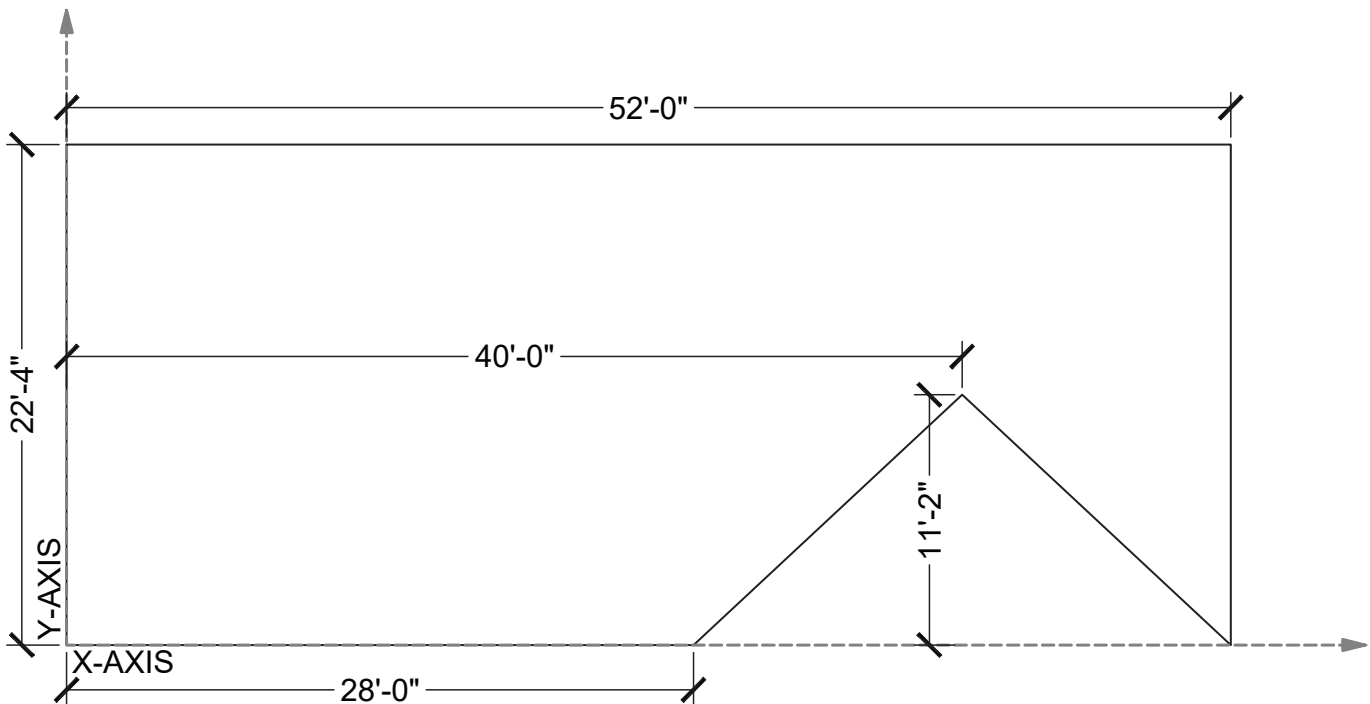
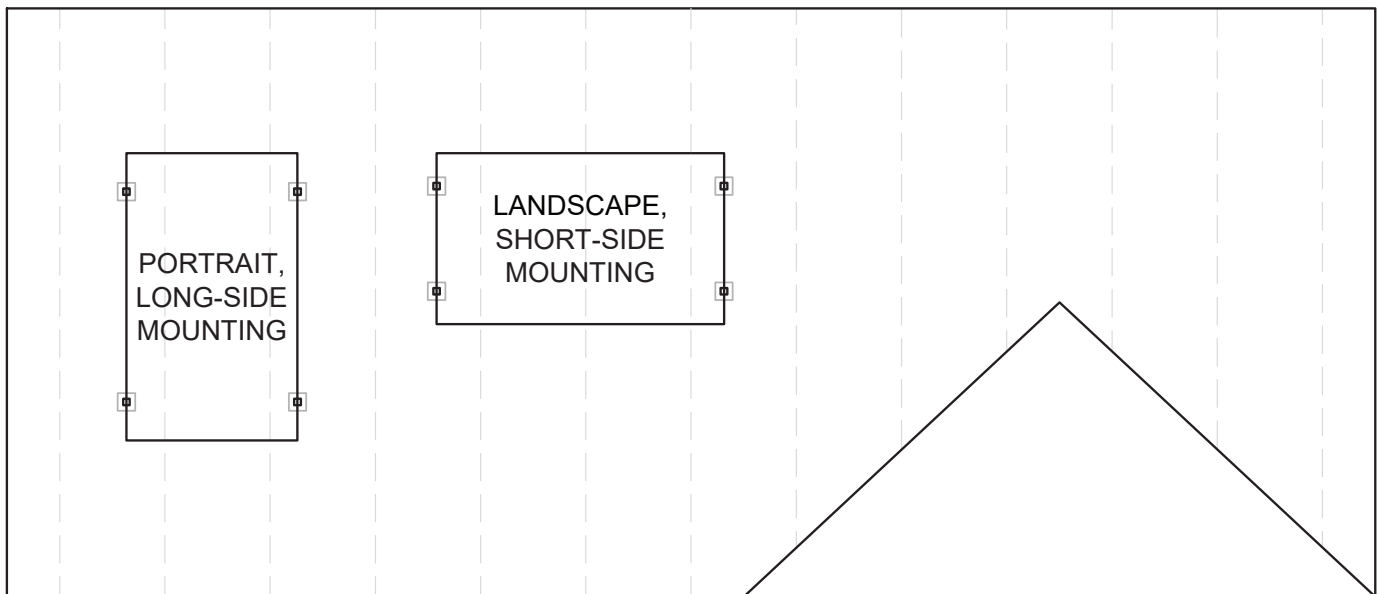


Image Note: X-Axis described in this manual is cross-slope on the roof, Y-Axis is in line with the roof slope.

Design Guidance

1. Layout the modules in the available roof area. Adjacent modules in the same row are spaced 3/4" apart by Ultra Rail Mid Clamps. Ultra Rail End Clamps require an additional 1" of track extending past module frame. When installing multiple rows of modules, a minimum spacing gap of 1/8" should be used between rows (3/4" is recommended for improved load values).
2. Determine site conditions for calculating the engineering values, confirm site conditions and code versions comply with local AHJ requirements.
3. Reference site conditions and system specifications in MightyMount Comp-S Structural Engineering Report to determine minimum required attachments per module side.
4. Draw roof attachment locations on layout based on module dimensions and Mid and End Clamp spacing requirements.
5. Confirm design complies with UL 2703 Listing for Mechanical Loading. For more details on the mechanical loading details see the Mechanical Loading Specifications section.
6. To simplify the design process and automatically generate a bill of materials (BOM) for the mounting system, use the MightyMount Configuration Tool located on the SnapNrack website. Always refer to Approved Module Lists in Installation Manuals to ensure installation complies with UL 2703 Listing.
7. Mark distance from array edge to identifiable roof features in x and y axes.
8. Insert SnapNrack installation details into design set specific to the project requirements.



Design Note: MightyMount allows for multiple mounting configurations. Modules can be mounted in portrait (long side of module perpendicular to ridge) or landscape (long side of module parallel to ridge) orientations. In addition, modules can also be short side-mounted (module clamps on the short side) or long side-mounted (module clamps on the long side).

Installation Notes

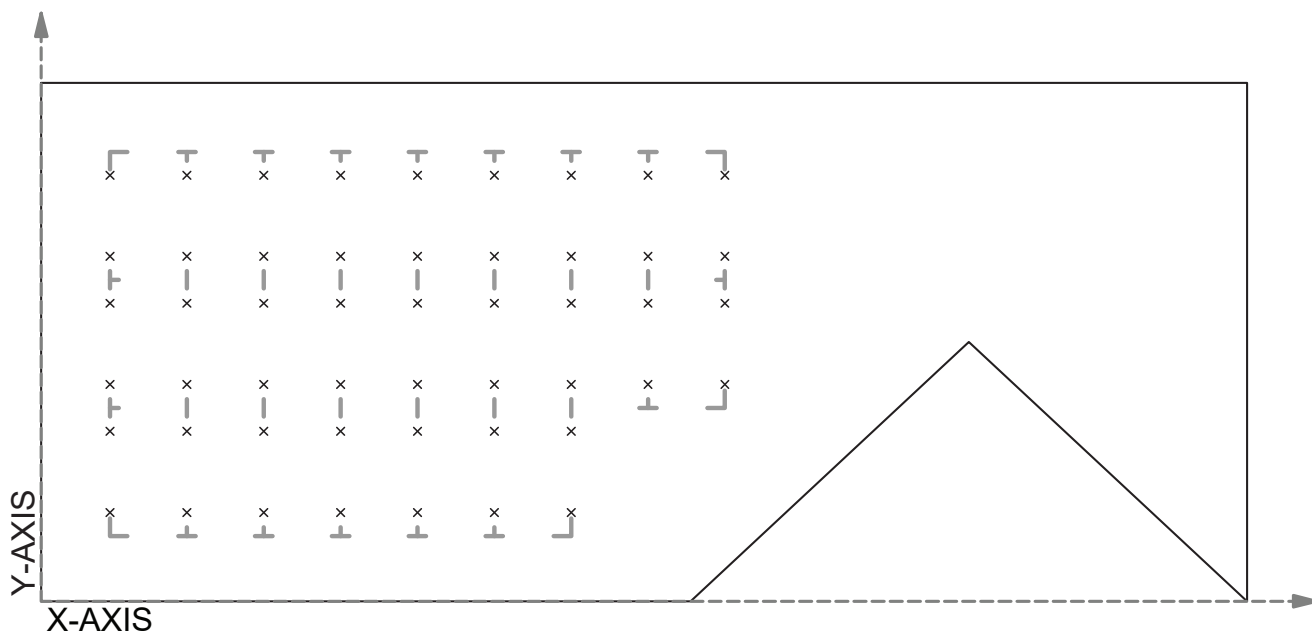
- Ensure the MightyMount Comp-S Track is located in the middle of a course of shingles. Determine site conditions for calculating the engineering values, confirm site conditions and code versions comply with local AHJ requirements.
- If the Deck Screws strip out the roof sheathing, re-evaluate the integrity of the roof sheathing and the torque setting on the drill. Seal the holes with card flashing and sealant. Relocate track to the shingle course above or below.

⚠ Safety Guidance

- Always wear appropriate OSHA approved safety equipment when at active construction site.
- Appropriate fall protection or prevention gear should be used. Always use extreme caution when near the edge of roof.
- Use appropriate ladder safety equipment when accessing the roof from ground level.
- Safety equipment should be checked periodically for wear and quality issues.
- Always wear proper eye protection.

System Layout

1. Transfer the array layout to the roof using a roof marking crayon to mark the inside and outside corners of the array.
2. Locate the estimated module edge positions and mark them in the array area with a roof marking crayon.
3. Transfer module edge locations using a chalk line.
4. Mark MightyMount Comp-S Track locations on the roof, noting that the tracks will be located at intersections of the modules and centered on a row of composition shingle roofing.



Layout Note: Ensure final roof attachment locations are accurately identified. The distance between each track will be the module dimension + .75 inches. There is a 2-inch gap required for the expansion and contraction of every 8th module.

Install Note: Module frames must have at least 1" of contact with the MightyMount Comp-S Track.

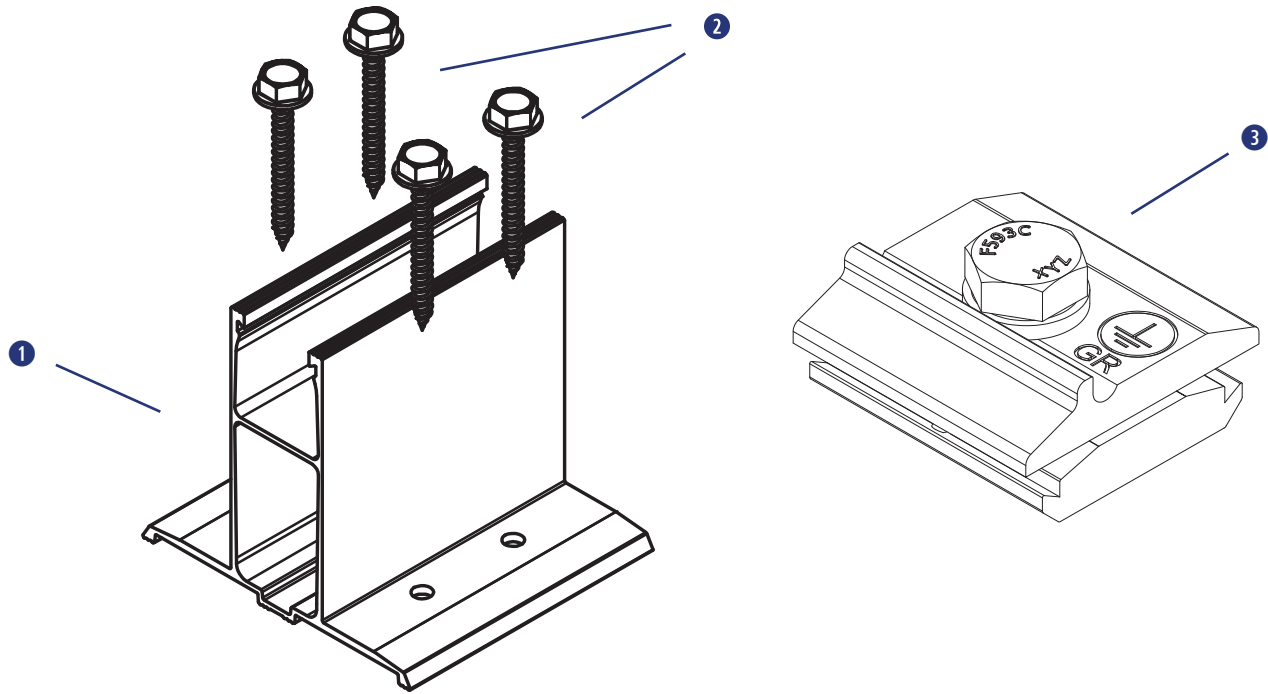
Required Tools

- Drill with ½" socket
- String line
- Torque Wrench
- Socket Wrench
- Tape Measure

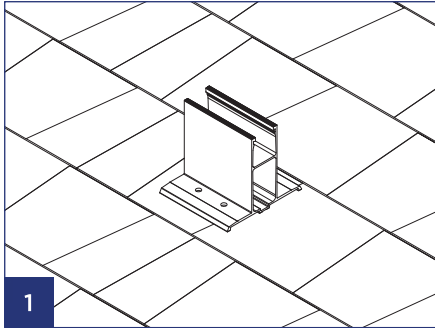
Materials Included: MightyMount Comp-S

- 1 SnapNrack MightyMount Comp-S Track
- 2 (4) Stainless #14 tek screws
- 3 SnapNrack Ground Lug R

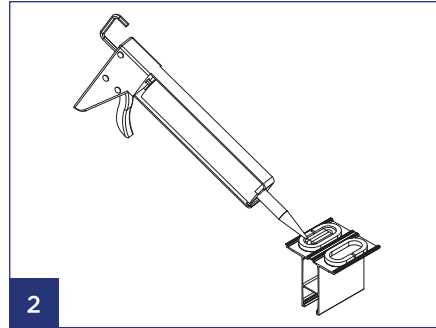
Application Note: Install on Composition Shingle Roofs



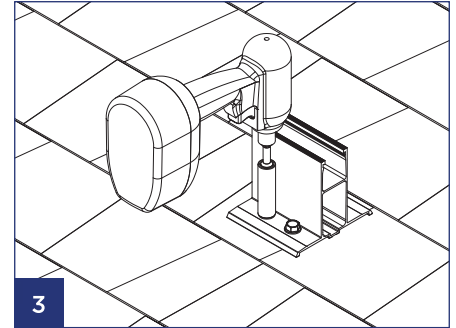
Installation Instructions: MightyMount Comp-S



1 Using track locations drawn during system layout, check that track is aligned on the proper course of shingles.



2 Fill both cavities on the bottom of the MightyMount Comp-S Track created by sealant ring with roof sealant to ensure a water tight seal.



3 Insert first self-drilling deck screw through SpeedSeal™ DeckFoot mounting hole and drive into the roof, then repeat for the remaining three screws.

⚠ Install Note

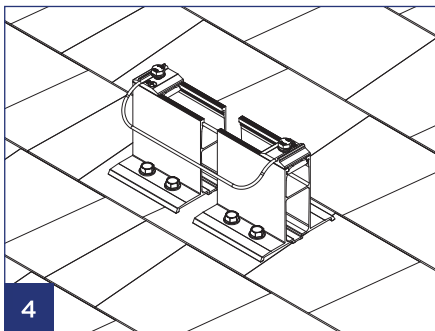
The distance between tracks will be the module dimension plus .75" on the center—plan for a 2 inch gap every 8th module to allow for expansion and contraction.

⚙ Best Practice

Remove any dirt and debris from the roof surface before MightyMount Comp-S Track is installed.

⚠ Install Note

Roof sealant should seep out from both sealant vents located underneath the MightyMount Comp-S Track, which ensures that a sufficient amount of roof sealant has been applied. If the sealant is not seen from both vents, remove MightyMount Comp-S Track and add more sealant before reinstalling.



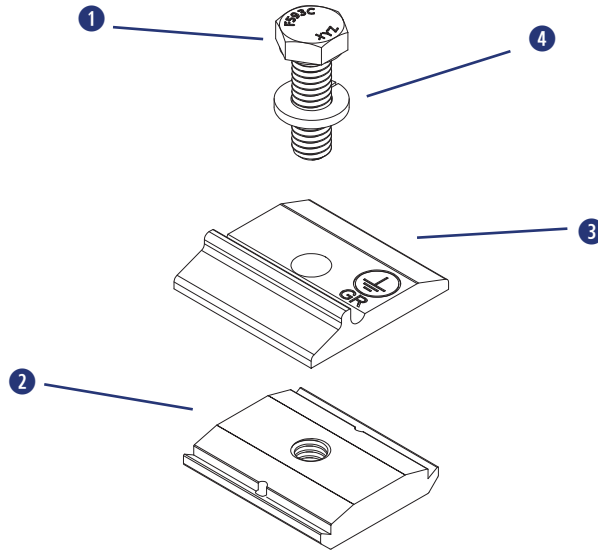
4 Install an extra track for expansion and contraction a minimum of every 8th contiguous module. Install a bonding jumper between tracks for grounding on every row of modules.

Required Tools

- Socket Wrench
- Torque Wrench
- ½" socket
- Electrician Tools

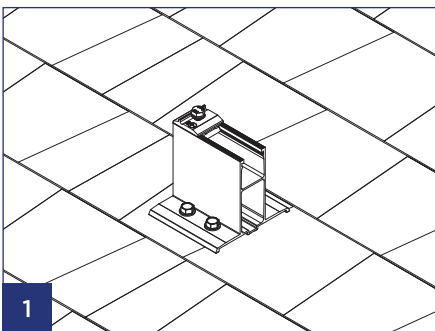
Materials Included: SnapNrack, Ground Lug R (242-92101)

- ① (1) Bolt, Hex Cap, 5/16 in - 18x1 in, SS
- ② (1) SnapNrack, Bonding Channel Nut
- ③ (1) SnapNrack, Ground Lug R PRC
- ④ (1) 5/16 in SS Split Lock Washer

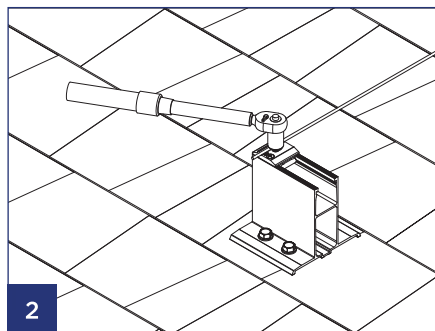


Installation Instructions: SnapNrack Ground Lug R

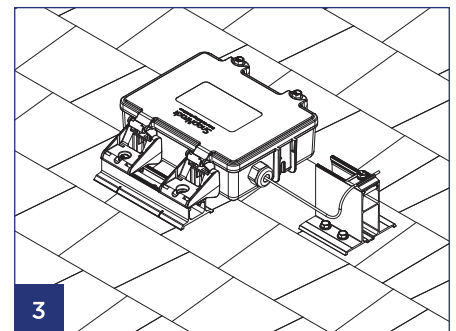
SnapNrack Ground Lug R to be used in accordance with the National Electric Code, ANSI/NFPA 70.



1
Ground Lug R is attached a minimum of (1) MightyMount Comp-S Track per row of modules. Insert Ground Lug R into MightyMount Comp-S Track.



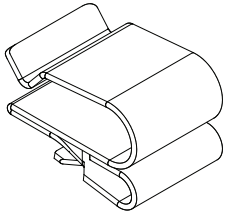
2
Run 10 - 6 AWG, solid, bare copper GEC into Ground Lug R channel, torque clamping bolt to 16 ft-lb.



3
Run bare, solid EGC from Ground Lug R to Junction Box, bond bare EGC to stranded EGC in Junction Box. For details on installing the Junction Box reference the RL Universal Junction Box Installation Manual.

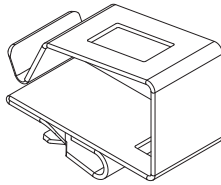
Materials Included: Smart Clips

SmartClip



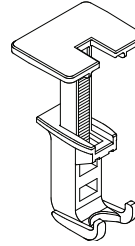
- (1) Smart Clip
- (2) PV Wire
- (1) Enphase IQ Cable

SmartClip XL



- (1) Smart Clip XL
- (6) PV Wire
- (4) Enphase IQ Cable

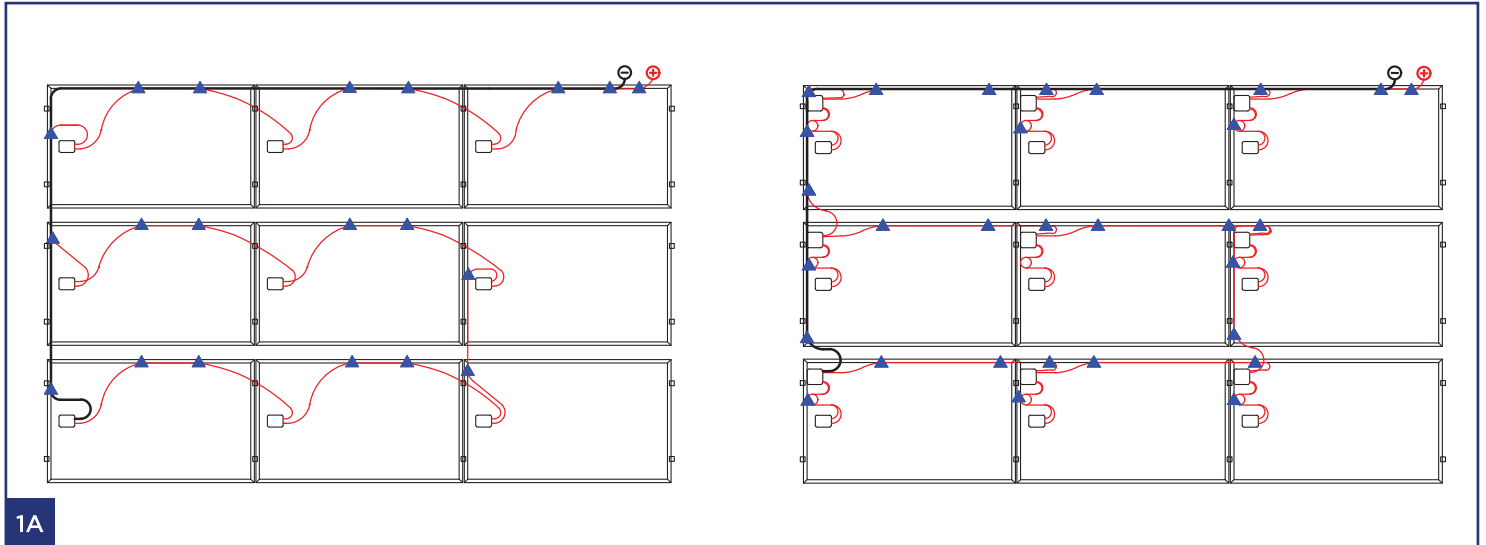
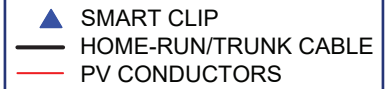
Wire Saver



- (1) Wire Saver
- (1) PV Wire

Installation Instructions: SnapNrack Smart Clips

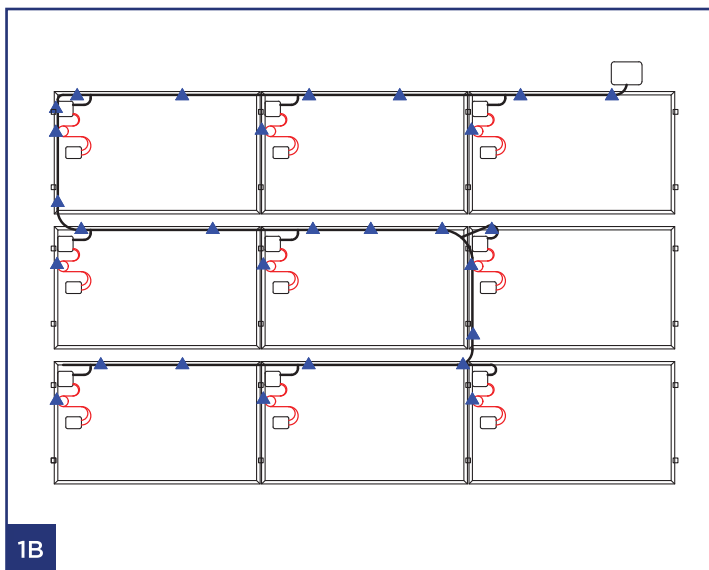
SmartClips should be used to route conductors away from non-bonded components.



For central inverter and DC to DC MLPE systems: Identify where PV string poles are located, use SnapNrack Smart Clips to manage conductors in route from far pole to the Junction Box.

⚠ Install Note

Use Smart Clips to manage PV module leads connected to the MLPE.



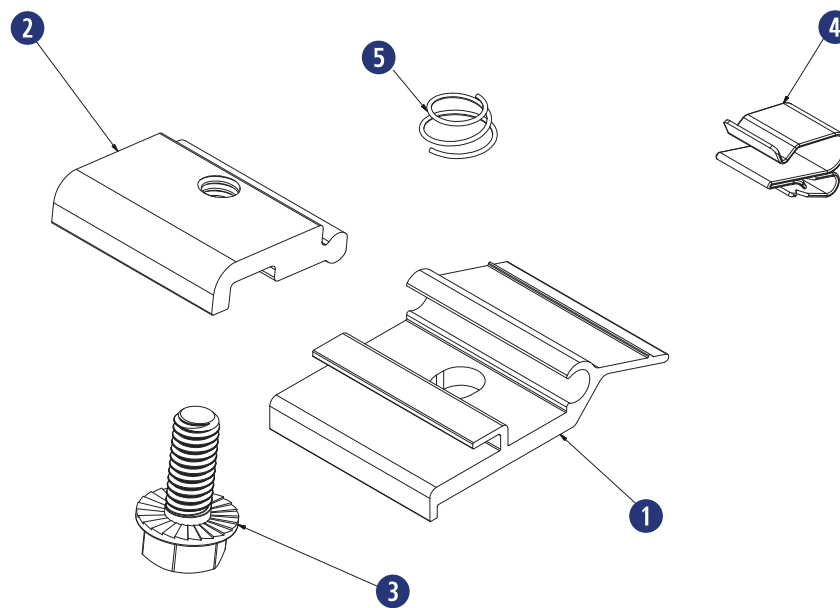
For microinverter systems: Identify route from furthest microinverter to Junction Box, use Smart Clips to manage AC trunk cables and multiple PV wires.

Required Tools

- Socket Wrench
- Torque Wrench
- ½" socket

Materials Included: SnapNrack, MLPE Frame

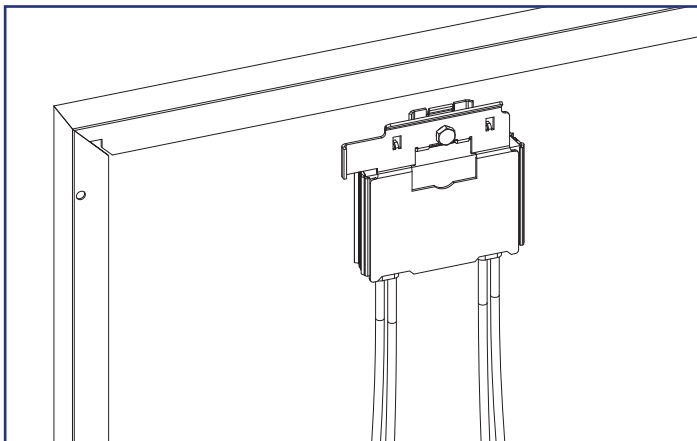
- ① (1) SnapNrack MLPE Frame Attachment Top
- ② (1) SnapNrack MLPE Frame Attachment Bottom
- ③ (1) 5/16"-18 X 3/4" Serrated Flange Bolt SS
- ④ (1) SnapNrack Smart Clip
- ⑤ (1) SnapNrack MLPE Frame Attachment Coil Spring SS



Materials Included:

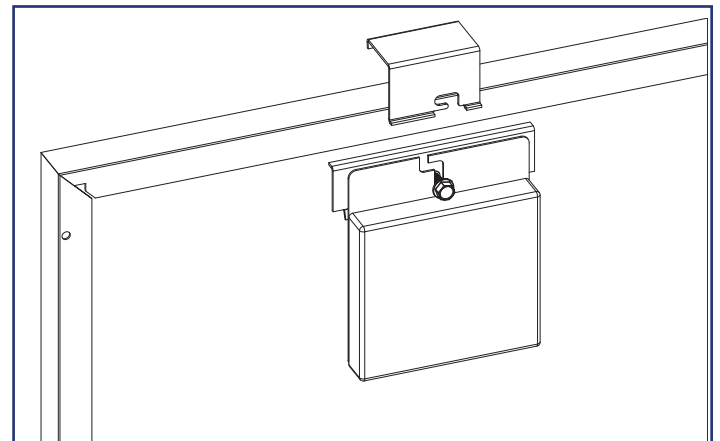
SolarEdge Frame Mount

- ① (1) SolarEdge Optimizer w/ Frame-Mounted Module Add-On



Enphase Frame Mount

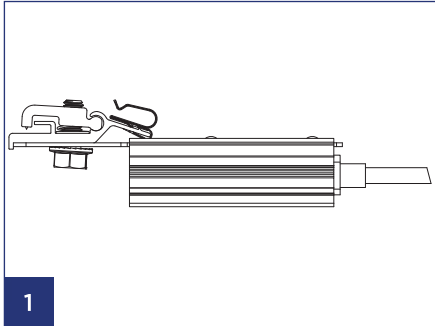
- ① (1) Enphase Microinverter
- ② (1) Enphase Frame Mount



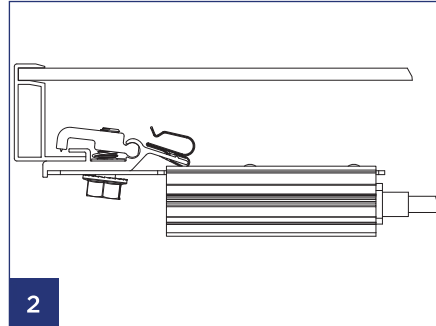
Installation Instructions: SnapNrack MLPE Frame Attachment Kit

SnapNrack MLPE Frame Attachment kits are used to attach module level performance enhancing devices, and other devices such as an SRD (rapid shutdown device), directly to module frames and provide integrated grounding/bonding for Devices grounded through the metal back plate.

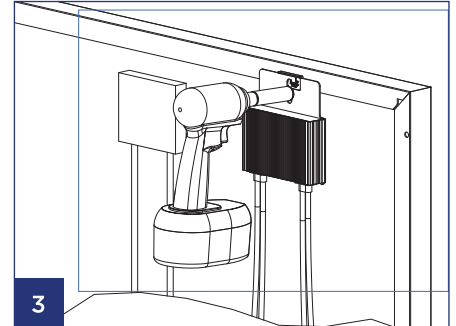
(Refer to the list of tested MLPE devices on page 23 of this manual)



Slide the backplate channel of the MLPE device under the MLPE Frame Attachment Kit bolt. The MLPE mounting plate should rest against the MLPE mounting plate backstop on the MLPE Frame Attachment Kit.



Position the MLPE Frame Attachment Kit on the module frame flange in a location that will not interfere with mounting system components. The module frame flange should rest against the module flange backstop on the MLPE Frame Attachment Kit.



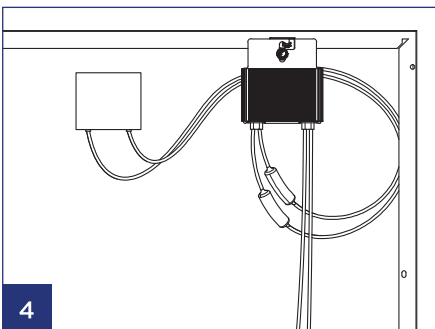
Tighten the mounting bolt on the MLPE Frame Attachment Kit to 12 lb-ft.

Install Note

Avoid blocking module frame drainage holes when installing the MLPE Frame Attachment Kit.

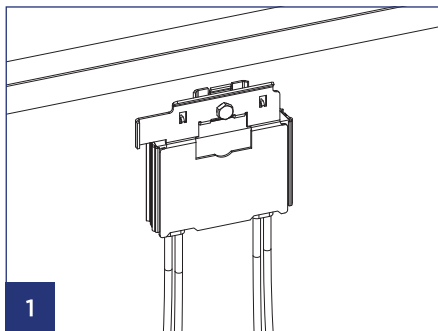
Install Note

The MLPE Frame Attachment Kit bonds the following components: Module Frame, MLPE backplate, and Smart Clip.

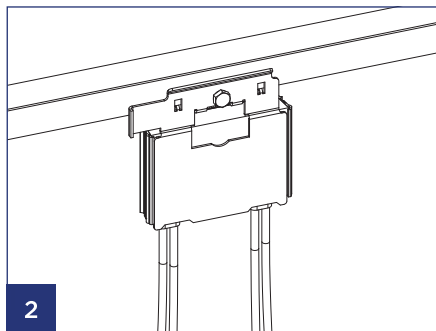


Connect the module leads to the input connectors on the MLPE device and manage conductors with the integrated Smart Clip.

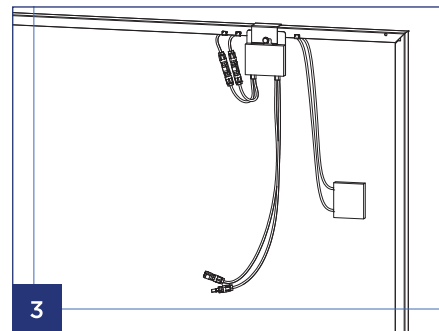
Installation Instructions: SolarEdge Frame Mount



1
Locate the SolarEdge optimizer with Frame-Mounted Module Add-On at a location on the module frame that will not interfere with the RL Comp-S Risers.



2
Install the optimizer mounting plate onto the module frame and tighten hardware to 11 ft-lbs.

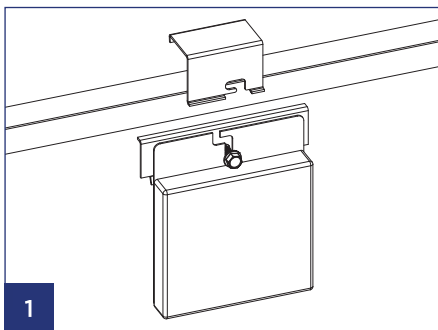


3
Connect the module leads to the input connectors on the optimizer and manage conductors with SnapNrack Smart Clips.

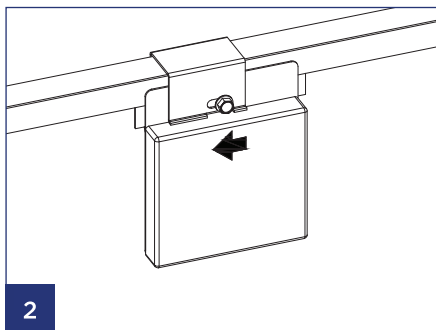
Install Note

Refer to the SolarEdge optimizer Frame-Mounted Module Add-On installation guide for additional instructions.

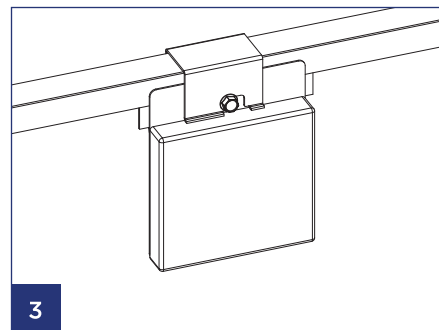
Installation Instructions: Enphase Frame Mount



1
Locate the Enphase Frame Mount bracket clamp at a location on the module frame that will not interfere with the RL Comp-S Risers.



2
Slide the microinverter unit onto the bracket clamp, then move it slightly to the left.



3
Tighten hardware to 13 ft-lbs.

Install Note

The microinverter mounting flange should be on the outside of the module frame.

4

Slide the microinverter unit onto the bracket clamp, then move it slightly to the left.

Install Note

Refer to Enphase Frame Mount installation guide for additional instructions.

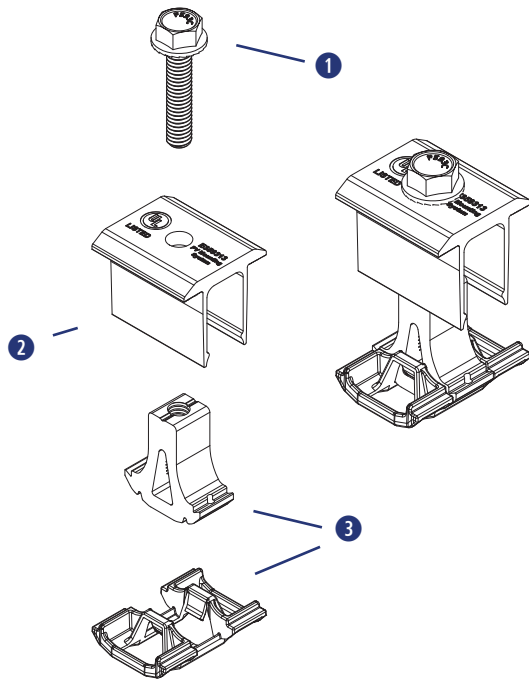
Required Tools

- Socket Wrench
- Torque Wrench
- ½" socket

Materials Included:

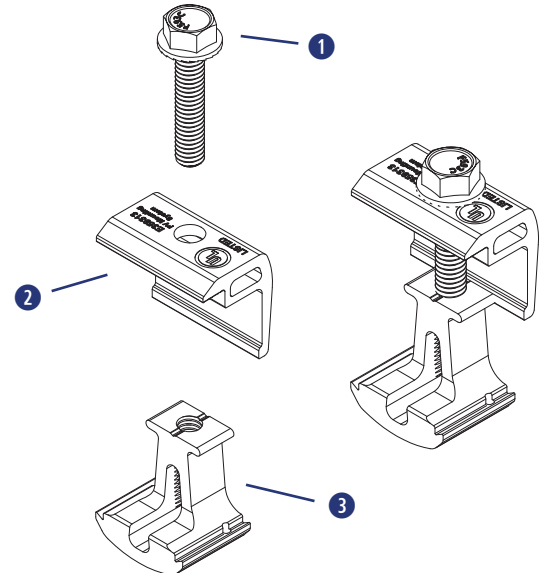
- 1 Pre-Installed SnapNrack MightyMount Comp-S Tracks
- 2 SnapNrack Ultra Mid Clamp Assemblies
- 3 SnapNrack Ultra End Clamp Assemblies
- 4 PV Modules

Ultra Mid Clamp Assembly



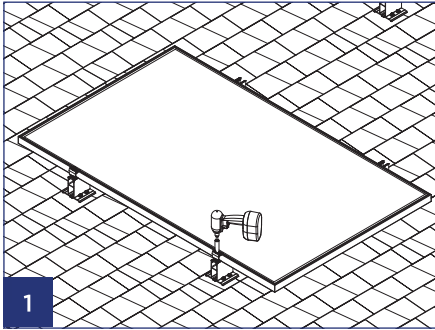
- 1 (1) 5/16"-18 X 1-1/2" SS Flange Bolt
- 2 (1) SnapNrack Ultra Rail Mid Clamp Top
- 3 (1) SnapNrack Ultra Rail Mid Clamp Base

Ultra End Clamp Assembly

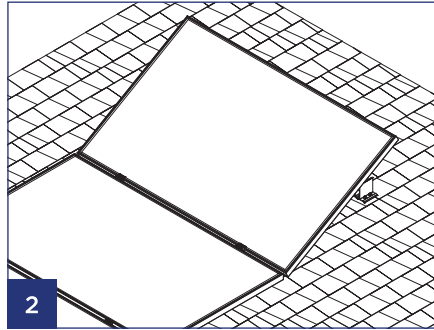


- 1 (1) 5/16"-18 X 1-1/2" SS Flange Bolt
- 2 (1) SnapNrack Ultra Rail End Clamp Top
- 3 (1) SnapNrack Ultra Rail End Clamp Base

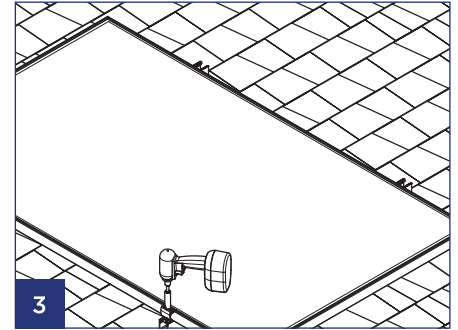
Installation Instructions:



1
Align the first module to ensure the row stays straight with the roof edge. Secure module to the Mighty Mount Comp-S Tracks with (2) Ultra End Clamps. Tighten to 16 ft lbs.



2
Install modules along each row using Ultra End Clamps and Ultra Mid Clamps. Tighten to 16 ft lbs.



3
Install (2) Ultra End Clamps every 8th module to allow for expansion and contraction, using both tracks. Be sure to leave a minimum 2 inches between modules.

Install Note

It is recommended that module leads and connectors are prepared for installation using SnapNrack Smart Clips before being brought to the rooftop.

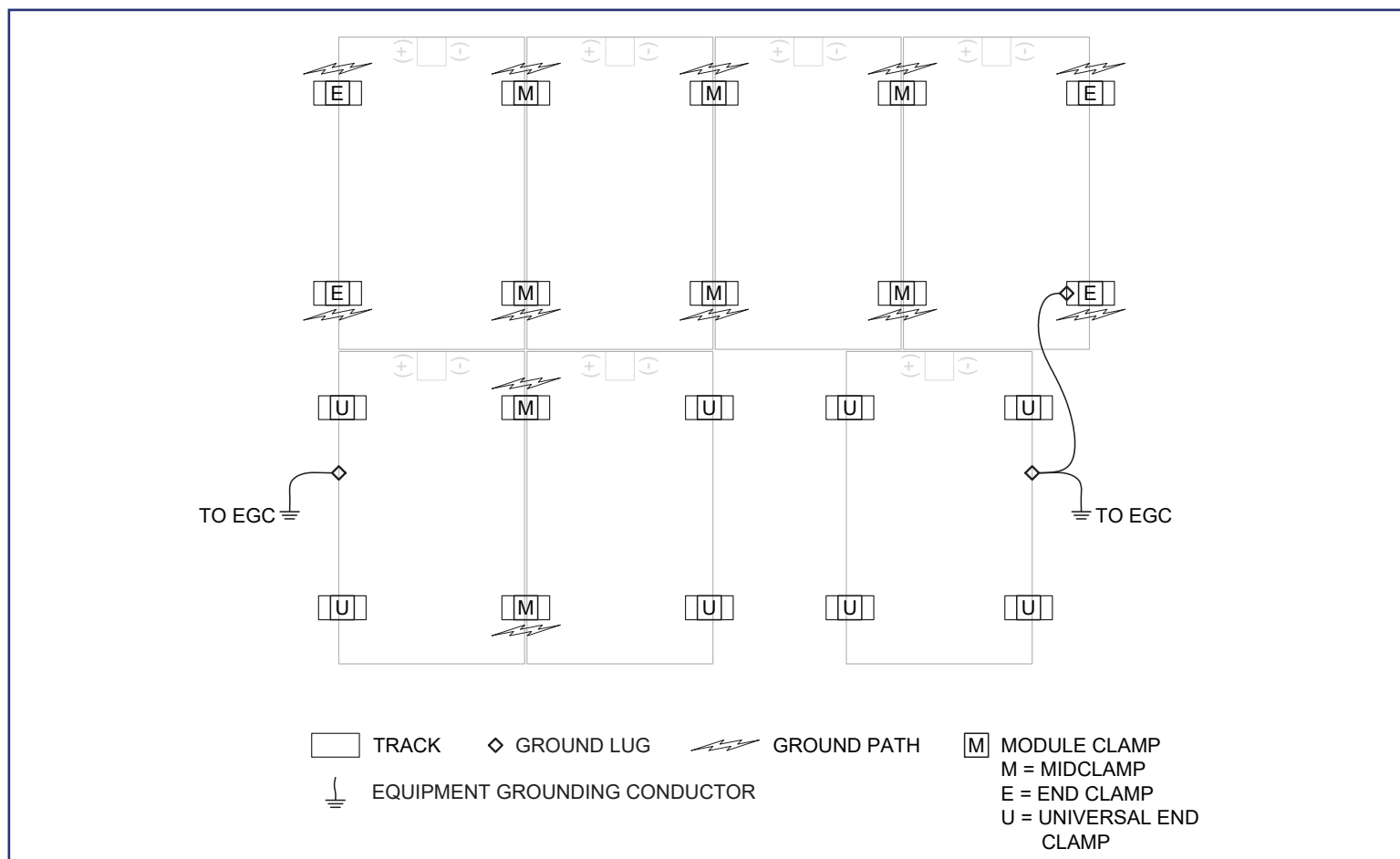
- With no MLPE, secure module leads to module frame to allow access to connectors while modules are installed.
- Secure MLPE device to module frame with SnapNrack MLPE Frame Attachment Kit and connect module leads to MLPE, and manage leads by positioning connectors to allow access during installation.

Grounding Specifications

All MightyMount Comp-S components in the ground path have been Certified to be used multiple times for grounding/bonding. The UL 2703 Listing does not specify a maximum number of uses for the Legs, Mid Clamps, End Clamps, or Ground Lug. Review the requirements of the National Electric Code (NEC) Article 250 to select the appropriate Equipment Grounding Conductor size based on the short-circuit current of the PV system.

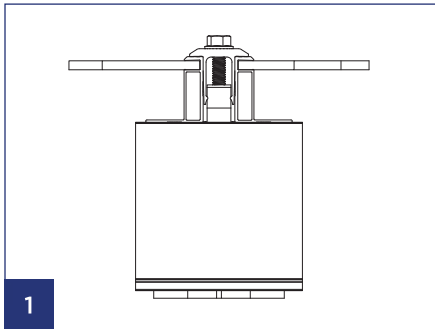
When using Ground Lug R, the following components are part of the fault current ground path:

- SnapNrack MightyMount Comp-S Track
- SnapNrack Ultra End Clamp
- SnapNrack Ultra Mid Clamp

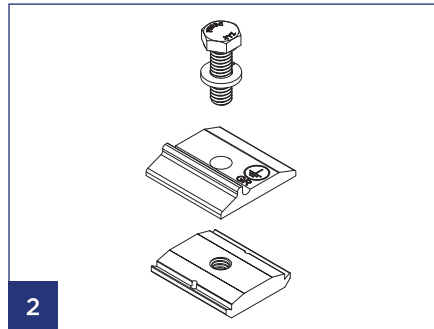


Ground Path Details

Grounding Method Details

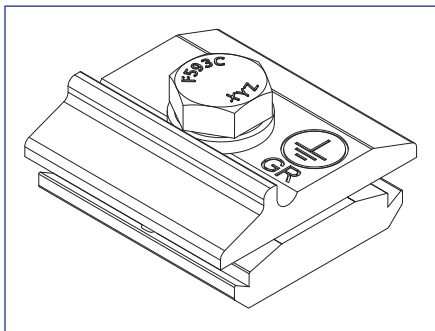


Module to module and module to Mighty Mount Comp-S Track bonding provided by Ultra End and Mid Clamps.



Each continuous row is connected to Equipment Grounding Conductor through SnapNrack Ground Lug R installed on one MightyMount Comp-S Track per row.

Grounding Marking Details



Ground Lug R is marked with the ground symbol.

Maintaining a Grounding Bonding when removing a module. Instruction For Maintaining the Grounding Bonding when removing a module for servicing.

Caution

Module removal may disrupt the bonding path and could introduce the risk of electric shock. Additional steps may be required to maintain the bonding path. Modules should only be removed by qualified persons in compliance with the instructions in this manual.

Module removal is not presented as a frequently expected occurrence and will not be required as part of routine maintenance. Scenarios that could result in a disruption of the bonding path are described, for example, irregularly-shaped arrays, arrays consisting of individual rows, and any other scenario where module removal could disrupt the bonding path.

In most cases, the removal of a module for servicing will not disturb or break grounding continuity. If a module is to be removed, that will break continuity; these are the steps that must be taken to maintain a continuously bonded SnapNrack MightyMount Comp-S System.

Required Tools

- Socket Wrench
- Torque Wrench
- ½" socket
- 7/16" socket



Caution

Do Not Remove the Module until the Jumper is installed.

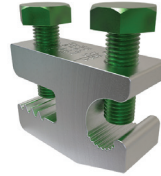
Required Materials:



#10 or Larger Bare Copper Conductor



SnapNrack Ground Lug R 242-02101



IlSCO Part No. SGB-4



Dynoraxx Dynobond™

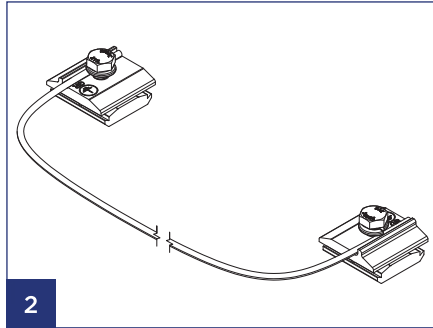
Jumper Assembly Instruction And Installation

Caution

Do Not Remove the Module until the Jumper is installed.

1

Identify the existing ground path at the location of module removal and choose an appropriate length of #10 bare copper to bridge the soon to be broken ground path.



Example of assembled bonding jumper using (2) SnapNrack Ground Lugs

Attach one ground lug to each end of #10 bare copper wire. See recommended options below:

1. (2) SnapNrack part no. 242-02101
2. (2) IlSCO part no. SGB-4
3. (1) SnapNrack part no. 242-02101, and (1) IlSCO part no. SGB-4
4. (1) DynoRaxx DynoBond™

4

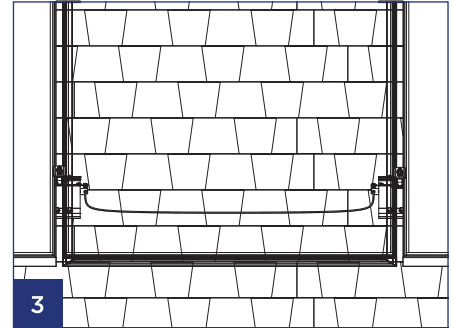
Service the array. With the bonding jumper installed, it is now safe to remove the module for service or maintenance.

5

After Servicing the array, reinstall the module and original ground path. Only then Remove the bonding jumper.

Caution

Do not remove the bonding jumper until original ground path is established. Jumper is installed.



Before the module is removed, attach the assembled bonding jumper. Depending on where the module will be removed and choice of ground lug, jumper attachment locations will vary.

- IlSCO SGB-4 lugs can be attached to MightyMount Comp-S Tracks or module frames.
- The SnapNrack Ground Lug can only be attached to SnapNrack MightyMount Comp-S tracks.
- DynoRaxx DynoBond™ is approved and appropriate when a short bonding jumper is needed from module to module.

Approved Module & MLPE Information

The MightyMount Comp-S System employs top-down clamps, which have been evaluated for frame-to-system bonding, at specific mounting torques and with the specific modules listed below.

MightyMount Comp-S has been tested with the following UL Listed module series: The MightyMount Comp-S System employs top-down clamps, which have been evaluated for frame-to-system bonding, at specific mounting torques and with the specific module series listed below. All wattage values are covered.

NOTE: Modules with an asterisk* have a fire rating that is different than Type 1, Type 2 or Type 29. SNR systems have only been evaluated for use with Type 1, Type 2, or Type 29 modules. Modules with a different fire type rating should be considered to not have been evaluated for use with SNR systems with respect to a system fire rating.

Manufacturer	Model	
Aptos Solar	DNA-120-MF23-XXX DNA-120-BF23-XXX DNA-144-MF23-XXX DNA-144-BF23-XXX DNA-120-MF26-XXXW DNA-144-MF26-XXXW	DNA-120-BF26-XXXW DNA-144-BF26-XXXW DNA-108-BF10-xxxW DNA-120-BF10-xxxW DNA-108-MF10-xxxW
Boviet Solar	BVM6610P-XXX BVM6610M-XXX	BVM6612P-XXX BVM6612M-XXX
Canadian Solar	CS6K-XXX-M CS6K-XXX-M-SD CS6K-XXX-P CS6K-XXX-P-SD CS6K-XXX-MS CS6P-XXX-M CS6P-XXX-P CS6P-XXX-P-SD CS6V-XXX-M CS6V-XXX-P CS6X-XXX-P CS3K-XXX-P CS3K-XXX-MS	CS3U-XXX-MS CS3U-XXX-P CS1K-XXX-MS CS1H-XXX-MS CS1H-XXX-MS-AB CS3W-XXX-P CS3N-XXX-MS CS1Y-XXX-MS CS3W-XXXMB-AG CS3Y-XXXMB-AG CS6W-XXXMB-AG CS6R-XXXMS-HL CS3W-XXX-MS
CertainTeed	CTXXXHC11-06	
Chint Solar	CHSM6612M-XXX CHSM6612M(BL)-XXX CHSM6612M/HV-XXX	CHSM72M-HC-XXX* (Astro 4) CHSM72M-HC-XXX* (Astro 5)
Dehui Solar	DH-M760B-XXXW DH-M760W-XXXW DH-M772W-XXXW	DH-M760F-XXXW* DH-M772F-XXXW*
ET Solar	ET-P660XXXBB ET-P660XXXWB ET-P660XXXWW ET-P660XXXWWG	P660XXXWB/WW P660XXXWWG M660XXXBB M660XXXWW
Freedom Forever	FF-MP-BBB-xxx	

Manufacturer	Model	
Hanwha Q Cells	Q.PEAK BLK-G3.1-XXX	Q.PEAK DUO-L-G7.2-XXX
	Q.PEAK G3.1-XXX	Q.PEAK DUO-L-G7.3-XXX
	Q.PLUS BFR-G3.1-XXX	Q.PEAK DUO-L-G6-XXX
	B.LINE PLUS BFR-G4.1-XXX	Q.PEAK DUO-L-G6.2-XXX
	B.LINE PRO BFR-G4.1-XXX	Q.PEAK DUO-L-G6.3-XXX
	Q.BASE GY-XXX	Q.PEAK DUO-L-G8-XXX
	Q.PEAK BFR-G4-XXX	Q.PEAK DUO-L-G8.1-XXX
	Q.PEAK BFR-G4.1-XXX	Q.PEAK DUO-L-G8.2-XXX
	Q.PEAK BLK-G4.1-XXX	Q.PEAK DUO-L-G8.3-XXX
	Q.PEAK BLK-G4.1/TAA-XXX	Q.PEAK DUO-G5/SC-XXX
	Q.PEAK G4-XXX	Q.PEAK DUO-BLK-G5/SC-XXX
	Q.PEAK G4.1-XXX	Q.PEAK DUO-G6+/SC-XXX
	Q.PEAK G4.1/MAX-XXX	Q.PEAK DUO-BLK-G6+/SC-XXX
	Q.PEAK G4.1/TAA-XXX	Q.PEAK DUO BLK-G6+/AC-XXX
	Q.PLUS BFR-G4-XXX	Q.PEAK DUO-ML-G9-XXX
	Q.PLUS BFR-G4.1-XXX	Q.PEAK DUO-BLK-ML-G9-XXX
	Q.PLUS BFR-G4.1/TAA-XXX	Q.PEAK DUO-BLK-G9-XXX
	Q.PLUS G4-XXX	Q.PEAK DUO-BLK-G9+-XXX
	Q.PLUS GY-XXX	Q.PEAK DUO-ML-G9+-XXX
	Q.PLUS BFR-GY-XXX	Q.PEAK DUO-BLK-ML-G9+-XXX
	Q.PRO BFR-G4-XXX	Q.PEAK DUO-G5/TS-XXX
	Q.PRO BFR-G4.1-XXX	Q.PEAK DUO BLK-G5/TS-XXX
	Q.PRO BFR-G4.3-XXX	Q.PEAK DUO-G6/TS-XXX
	Q.PRO BFR-GY-XXX	Q.PEAK DUO BLK-G6/TS-XXX
	Q.PRO BLK-GY-XXX	Q.PEAK DUO-G6+/TS-XXX
	Q.PRO G4-XXX	Q.PEAK DUO BLK-G6+/TS-XXX
	Q.PRO GY-XXX	Q.PEAK DUO XL-G9.2-XXX
	Q.PRO GY/SC-XXX	Q.PEAK DUO XL-G9.3-XXX
	Q.PEAK DUO-G5-XXX	Q.PEAK DUO XL-G9.3/BFG-XXX
	Q.PEAK DUO-BLK-G5-XXX	Q.PEAK DUO XL-G10.2-XXX
	Q.PLUS DUO-G5-XXX	Q.PEAK DUO XL-G10.3/BFG-XXX
	Q.PEAK DUO-G7-XXX	Q.PEAK DUO XL-G10.3-XXX
	Q.PEAK DUO-BLK-G7-XXX	Q.PEAK DUO XL-G10.c-XXX
	Q.PEAK DUO-G7.2-XXX	Q.PEAK DUO XL-G10.d-XXX
	Q.PEAK DUO-G6+-XXX	Q.PEAK DUO L-G8.3/BFG-XXX
	Q.PEAK DUO-BLK-G6+-XXX	Q.PEAK DUO L-G8.3/BGT-XXX
	Q.PEAK DUO-G6-XXX	Q.PEAK DUO ML-G10-XXX
	Q.PEAK DUO-BLK-G6-XXX	Q.PEAK DUO BLK ML-G10+-XXX
	Q.PEAK DUO-G8+-XXX	Q.PEAK DUO ML-G10+-XXX
	Q.PEAK DUO-BLK-G8+-XXX	Q.PEAK DUO BLK ML-G10-XXX
	Q.PEAK DUO-G8-XXX	Q.PEAK DUO ML-G10.a+-XXX
	Q.PEAK DUO-BLK-G8-XXX	Q.PEAK DUO BLK ML-G10.a+-XXX
	Q.PLUS L-G4-XXX	Q.PEAK DUO ML-G10.a-XXX
	Q.PLUS L-G4.1-XXX	Q.PEAK DUO BLK ML-G10.a-XXX
	Q.PLUS L-G4.2-XXX	Q.PEAK DUO BLK ML-G10.a+/TS-XXX

Manufacturer	Model	
Hanwha Q Cells	Q.PEAK L-G4.1-XXX	Q.PEAK DUO G10-XXX
	Q.PEAK L-G4.2-XXX	Q.PEAK DUO BLK G10-XXX
	Q.PLUS DUO-L-G5-XXX	Q.PEAK DUO G10+-XXX
	Q.PLUS DUO-L-G5.1-XXX	Q.PEAK DUO BLK G10+-XXX
	Q.PLUS DUO-L-G5.2-XXX	Q.PEAK DUO BLK G10+/AC XXX
	Q.PLUS DUO-L-G5.3-XXX	Q.PEAK DUO BLK G10+/HL XXX
	Q.PEAK DUO-L-G5.2-XXX	Q.PEAK DUO XL-G11.3 XXX
	Q.PEAK DUO-L-G5.3-XXX	Q.PEAK DUO XL-G11.3 BFG XXX
	Q.PEAK DUO-L-G7-XXX	Q.TRON-G1+ XXX
	Q.PEAK DUO-L-G7.1-XXX	Q.TRON BLK-G1+ XXX
Hanwha SolarOne	HSL60P6-PB-2-XXXQ	HSL60P6-PB-4-XXXQ
Heliene	60M-XXX	72M-XXX
	60P-XXX	72P-XXX
HT-SAAE	HT60-166M-XXX	HT60-182M-XXX
Hyundai	HiS-MXXXRG	HiA-SXXXMS
	HiS-SXXXRG	HiS-SXXXXY
	HiS-SXXXRW	HiS-SXXXXI
	HiS-MXXXMG	HiS-SxxxYH(BK)
	HiS-SXXXMG	All may be followed by (BK)
	HiD-SXXXRG	
Hyperion/Runergy	HY-DH108P8-XXX(Y)	
JA Solar	JAM6-60-XXX/SI	JAM72S10-XXX/MR
	JAP6-60-XXX/3BB	JAM72S10-XXX/PR
	JAM60S09-XXX/PR	JAM72S12-XXX/PR
	JAM60S10-XXX/MR	JAP6(k)-72-XXX/4BB
	JAM60S10-XXX/PR	JAM60S17-XXX/MR
	JAM60S12-XXX/PR	JAM54S30-XXX/MR
	JAP72S01-XXX/SC	JAM54S31-XXX/MR
	JAM72S09-XXX/PR	JAM72D30-XXX/MB
Jinko Solar	JKMXXXM-60	JKMXXXP-72-V
	JKMXXXM-60L	JKMXXXPP-72
	JKMXXXM-60HL	JKMXXXPP-72-V
	JKMXXXM-60HBL	JKMSXXXP-72
	JKMXXXP-60	JKMXXXM-72HL-V
	JKMXXXP-60-J4	JKMXXXM-72HL-TV
	JKMXXXP-60-V	JKMXXXM-72HBL
	JKMXXXP-60B-J4	JKMXXXM-6TL3-B
	JKMXXXPP-60	JKMXXXM-6RL3-B
	JKMXXXPP-60-V	JKMXXXM-7RL3-V
	JKMXXXM-72	JKMXXXM-7RL3-TV
	JKMXXXM-72L-V	JKMXXXM-72HL4-V
	JKMXXXP-72	JKMXXXM-72HL4-TV
Kyocera	KUXXX-6YYY	KUXXX-8YYY

Manufacturer	Model	
LG	LGXXXN1C-A5	LGXXXA1C-V5
	LGXXXN1K-A5	LGXXXM1C-L5
	LGXXXQ1C-A5	LGXXXM1K-L5
	LGXXXQ1K-A5	LGXXXN1C-N5
	LGXXXS1C-A5	LGXXXN1K-L5
	LGXXXN2C-B3	LGXXXN1K-A6
	LGXXXN2W-B3	LGXXXN1C-A6
	LGXXXN1C-G4	LGXXXN1W-A6
	LGXXXN1K-G4	LGXXXQ1C-A6
	LGXXXS1C-G4	LGXXXQ1K-A6
	LGXXXN2C-G4	LGXXXM1K-A6
	LGXXXN2K-G4	LGXXXM1C-A6
	LGXXXN2W-G4	LGXXXA1C-A6
	LGXXXS2C-G4	LGXXXQAC-A6
	LGXXXS2W-G4	LGXXXQAK-A6
	LGXXXN1C-V5	LGXXXN1K-B6
	LGXXXN1W-V5	LGXXXN2W-E6
	LGXXXN2T-V5	LGXXXN2T-E6
	LGXXXN2T-J5	LGXXXN1K-E6
	LGXXXN1T-V5	LGXXXN3K-V6
Longi	LR6-60-XXXM	LR4-60HPB-XXXM
	LR6-60BK-XXXM	LR4-60HIB-XXXM
	LR6-60HV-XXXM	LR4-60HPH-XXXM
	LR6-60PB-XXXM	LR4-60HIH-XXXM
	LR6-60PE-XXXM	LR6-60HIH-XXXM
	LR6-60PH-XXXM	LR6-60HIB-XXXM
	LR6-60HPB-XXXM	LR4-72HPH-XXXM
	LR6-60HPH-XXXM	
Meyer Burger	Meyer Burger Black*	Meyer Burger White*
mSolar	TX16-XXX120BB	
Mission Solar	MSEXXXSO5T	MSEXXXSR8K
	MSEXXXSO5K	MSEXXXSR8T
	MSEXXXSQ5T	MSEXXXSR9S
	MSEXXXSQ5K	MSE60AXXX
	MSEXXXMM4J	MSEXXXTS60
	MSEXXXMM6J	MSEXXXSX5K
	MSEXXXSO6W	MSEXXXSX5T
	MSEXXXSO4J	MSEXXXSX6S
	MSEXXXSO6J	MSEXXXSX6W
	MSEXXXSQ6S	MSExxxSX5R
	MSEXXXSQ4S	
Next Energy Alliance	USNEA-XXXM3-60	USNEA-XXXM3-72
	USNEA-XXXM3B-60	USNEA-XXXM3B-72

Manufacturer	Model	
Panasonic	VBHNXXXKA01	VBHN325SA17E
	VBHNXXXKA02	VBHXXXRA18N
	VBHNXXXSA16	VBHXXXRA03K
	VBHNXXXKA03	EVPVXXX(K)
	VBHNXXXKA04	EVPVXXXH
	VBHNXXXSA17	EVPVXXXPK
	VBHNXXXSA18	
Phono Solar	PSXXXM-20/U	PSxxxM8GF-18/VH
	PSXXXMH-20/U	PSxxxM8GFH-18/VH
	PSxxxM8GF-24/TH	PSxxxM6-24/TH
	PSxxxM8GFH-24/TH	
REC	RECXXXPE	RECXXTP2M 72 BLK2
	RECXXXPE-BLK	RECXXTP2SM 72
	RECXXTP	RECXXTP2SM 72 BLK
	RECXXTP-BLK	RECXXTP2SM 72 BLK2
	RECXXTP IQ	RECXXXAA
	RECXXTP2	RECXXTP3
	RECXXTP2-BLK	RECXXTP3M
	RECXXXNP	RECXXTP4
	RECXXTP2M	RECXXXAA Pure
	RECXXTP72	RECxxxAA Pure-R
	RECXXXPE72	RECXXXNP2
	RECXXXPE72XV	RECxxxNP3
	RECXXTP2M 72	All may be followed by BLK or BLACK
	RECXXTP2M 72 BLK	
Renesola	JCXXXM-24/Bb	JCXXXM-24/BBh
SEG Solar	SEG-400-BMB-HV	SEG-xxx-BMD-HV
	SEG-400-BMB-TB	SEG-xxx-BMD-TB
Silfab	SLAXXX-M	SILXXXNT
	SLAXXX-P	SILXXXHL
	SSAXXX-M	SILXXXBK
	SSAXXX-P	SILXXXHC
	SILXXXBL	SILXXXNU
	SILXXXML	SILXXXNX
	SILXXXNL	SILXXXHN

Manufacturer	Model	
Silfab	SLGXXX-M	SILXXXBG
	SLGXXX-P	SIL-xxxHC+
	SSGXXX-M	SIL-xxxHM
	SSGXXX-P	
Solaria	Solaria PowerXT-XXXR-PX	Solaria PowerXT-XXXR-PM
	Solaria PowerXT-XXXR-BX	Solaria PowerXT-XXXR-PM-AC
	Solaria PowerXT-XXXR-AC	
SolarWorld	SWXXX-Mono	SWXXX-Mono XL
Suniva	MVX-XXX-60-5-701	OPT-XXX-60-4-1B0
	MVX-XXX-60-5-7B1	OPT-XXX-60-4-800
	OPT-XXX-60-4-100	OPT-XXX-60-4-8B0
Sunpower	SPR-EYY-XXX	SPR-AXXX
	SPR-XYX-XXX	SPR-AXXX-BLK-G-AC
	SPR-EYY-XXX	SPR-AXXX-BLK
	SPR-XYX-XXX	SPR-MXXX-H-AC
	SPR-P17-XXX-COM	SPR-MXXX
	SPR-P19-XXX-COM	SPR-MXXX-BLK-H-AC
	SPR-AXXX-G-AC	SPR-MXXX-BLK
SunSpark	SST-XXXM3-60	SST-XXXM3-72
	SST-XXXM3B-60	SST-XXXM3B-72
Talesun	TP660M-XXX	TP672M-XXX
	TP660P-XXX	TP672P-XXX
Tesla	TXXXS	TXXXH
Trina	TSM-XXXDD05(II)	TSM-XXXDD06M.05(II)
	TSM-XXXDD05A.05(II)	TSM-XXXDE15H(II)
	TSM-XXXDD05A.08(II)	TSM-XXXDE15M(II)
	TSM-XXXDD05A.082(II)	TSMXXXDD05H.05(II)
	TSM-XXXPA05	TSMXXXDE06X.05(II)
	TSM-XXXPA05.05	TSMXXXDE09.05
	TSM-XXXPA05.08	TSMXXXDE15V(II)
	TSM-XXXPD05	TSMXXXDEG15VC.20(II)
	TSM-XXXPD05.002	TSMXXXDEG18MC.20(II)
	TSM-XXXPD05.05	TSM-XXXDE19
	TSM-XXXPD05.05S	TSMXXXDEG19C.20

Manufacturer	Model	
Trina	TSM-XXXPD05.08	TSMXXXDEG21C.20
	TSM-XXXPD05.082	TSMXXXDE09C.05
	TSM-XXXPD05.08D	TSMXXXDE09C.07
	TSM-XXXPD05.08S	TSM-xxxNE09RC.05
Vikram Solar	SOMERA VSMHBB.60.XXX.05	PREXOS VSMDHT.60.XXX.05
	SOMERA VSMH.72.XXX.05	PREXOS VSMDHT.72.XXX.05
VSUN	VSUNXXX-144BMH-DG	VSUNXXX-108BMH
	VSUNXXX-120BMH	
Yingli	YLXXXA-29b	YLXXXP-29b
ZNShine	ZXM6-60-XXX/M	ZXM6-NH144-XXXM
	ZXM6-NH120-XXXM	ZXM7-SH108-XXXM

The MightyMount Comp-S mounting system has been tested with the following UL/NRTL Listed Module Level Power Electronic (MLPE) Devices. The back plates of the MLPEs have been evaluated for bonding to the MightyMount Comp-S Track through the MLPE Attachment Kit.

Manufacturer		Model
AP Smart	RSD-S-PLC	
Celestica International	DG-006-F001201x	DG-006-F001401x
Delta Electronics	GPI00010105	
Enphase	C250	IQ7PLUS-72-2-US
	M215	IQ7PLUS-72-B-US
	M250	IQ8-60
	IQ6-60-2-US	IQ8PLUS-72
	IQ6PLUS-72-2-US	IQ8A-72
	IQ7-60-2-US	IQ8H-208-72
	IQ7-60-B-US	IQ8H-240-72
Generac	S2502	
Ginlong Technologies	Solis-RSD-1G	Solis-MLRSD-R2-1G
	Solis-MLRSD-R1-1G	
SolarEdge	P300-5NC4ARS	P405
	P320-5NC4ARS	P485
	P370-5NC4AFS	P505
	P400-5NC4AFS	P730
	P320	P800p
	P340	P850
	P370	P860
	P400	P950
	P401	
SMA	RSB-2S-US-10	
Tigo	TS4-R-F	TS4-R-S-DUO
	TS4-R-M	TS4-A-F
	TS4-R-O	TS4-A-2F
	TS4-R-S	TS4-A-O
	TS4-R-M-DUO	TS4-A-S
	TS4-R-O-DUO	

Note:

AP Smart RSD-S-PLC, Ginlong Solis-MLRSD-R1-1G and Solis-MLRSD-R2-1G, and all Tigo models have not been investigated for bonding since the enclosures are constructed entirely of polymeric materials.

The SolarEdge P320 and P370 models are both frame mount and rail mount. All other PXXX series models are rail mount.

Functionality of these devices was not evaluated.