

# ROCKIT

# COMPLETE RAIL-LESS RACKING SYSTEM

# INSTALLATION GUIDE

**REVISION DATE:** 08/28/25 **VERSION:** v4.2



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# ROCKIT

The RockIt system conforms to UL 2703 (and UL 2703A when using the Rockit Smart Slide) and is the industry's premier rail-less PV racking system for composition shingle, tile, and metal pitched and flat rooftops. Designed in conjunction with installers, Rocklt quickly & easily installs with a single tool. It features an easy-to-position mount alignment and a top-down leveling system.

RockIt is logistically intelligent with no need to ship or transport long rails. Components are available in a black finish that compliments both commercial and residential applications.

# **FEATURES**

- · Patented Watertight Technology
- · Fully integrated bonding
- Top-down leveling system
- North-South adjustability
- Single tool install



# DISCLAIMER

This manual describes proper installation procedures and provides necessary standards required for product reliability. Warranty details are available on the website. All installers must thoroughly read this manual and have a clear understanding of the installation procedures prior to installation. Failure to follow these guidelines may result in property damage, bodily injury or even death.

#### IT IS THE INSTALLER'S RESPONSIBILITY TO:

- Ensure safe installation of all electrical aspects of the array. All electrical installation and procedures should be conducted by a licensed and bonded electrician or solar contractor.
- All work must comply with national, state and local installation procedures, product and safety standards, including the proper use of PPE.
- Comply with all applicable local or national building and fire codes, including any that may supersede this manual.
- Ensure all products are appropriate for the installation, environment, and array under the site's loading conditions.
- Use only QuickMount and IronRidge parts or parts recommended by QuickMount and IronRidge; substituting parts may void any applicable warranty.
- Review the Design Assistant and Certification Letters to confirm design specifications.
- Ensure provided information is accurate. Issues resulting from inaccurate information are the installer's responsibility.
- Ensure bare copper grounding wire does not contact aluminum and zinc-plated steel components, to prevent risk of galvanic corrosion.
- If loose components or loose fasteners are found during periodic inspection, re-tighten immediately. Any components showing signs of corrosion or damage that compromise safety shall be replaced immediately.
- Provide an appropriate method of direct-to-earth grounding according to the latest edition of the National Electrical Code, including NEC 250: Grounding and Bonding, and NEC 690: Solar Photovoltaic Systems.
- Disconnect AC power before servicing or removing modules, AC modules, microinverters and power optimizers.
- Review module and any 3rd party manufacturer's documentation for compatibility and compliance with warranty terms and conditions.
- Module mounting rails shall not be used as scaffolding, a roof jack, or any form of an anchoring point for roof personnel.
- Ensure that the roof is in good condition prior to installing any QuickMount or IronRidge components.





ROCKIT SYSTEM SPECIFICATIONS			
Leveling Range	3.25"- 4.5" above the roof	Materials	300 series stainless steel, 6000 series aluminum
North-South Slide Range	Slide dependent 3-7 inches	Finish	Black anodization/Mill finish
Warranty	25 year material and		

TOOL LIST		
Comp Slide & Flashings	<ul> <li>Smart Slide</li> <li>½" Deep-well socket (not thick wall impact)</li> <li>5/16" Nutdriver for impact with 2" extension</li> <li>Chalk line</li> <li>String line (optional)</li> </ul>	

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



# ROCKIT

INSTALLATION GUIDE



# REQUIRED SYSTEM COMPONENTS ROCKIT SYSTEM





**COUPLING** 

#### **COMP SHINGLE INSTALLATION**

#### **COMP SLIDE & FLASHING**



#### **COMP SHINGLE INSTALLATION**

#### **SMARTSLIDE**

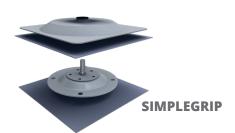




#### **FLAT ROOF INSTALLATION**

# **COMP SLIDE + SIMPLEGRIP**







#### STANDING SEAM ROOF INSTALLATION

#### **COMP SLIDE & LYNX**





# OPTIONAL ACCESSORIES EBOS & WIRE MANAGEMENT





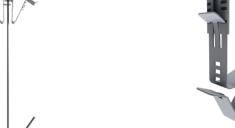


**BUG CONDUIT MOUNT** 



FRAME MLPE MOUNT





**MANTIS SIDE CLIP** 

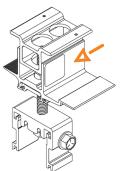
# **RATINGS**

Fire Ratings	Class A* and B** System Fire Rating
Max System Voltage	1500V
Max Fuse Rating	40A
Certification	Conforms to UL STD 2703 and UL SUBJECT 2703A
Markings	Product listing label is located on Rocklt Mount
Roof Pitch	1/4 to 21:12 (1.2 to 60 degrees)
UL 2703 Allowable Design Load Rating	30 psf downward, 30 psf upward and 20 psf lateral
Max Module Size	25.6 sq. ft.
Maximum Cantilever	1/3 of span
Maximum Span	6 ft Landscape, 4 ft Portrait
Multiple use Rated Components (Position Independent)	Rocklt Mount, Rocklt Coupling & MLPE Module Mount
UL 2703A Smart Slide Ratings	Steep Slope Ratings applicable for Asphalt Shingle roofs with slopes 2:12 and up     Low Slope Ratings applicable for Roll Roofing (Rolled Comp) roofs with slopes 1:12 and up     Low Slope Ratings applicable for Modified Bitumen (Mod-Bit) roofs with slopes 1/4:12 and up

<sup>\*</sup>Class A System fire rating with Steep and Low Slope Roofs and Type 1, 2, 29, 30 and 38 PV modules with no skirt required. Class A System fire rating with Steep Slope Roofs and Type 4 and 5 modules with south edge skirt required. Any roof-to-module gap is permitted. This rating is applicable with any roof attachment.

#### **UL 2703 MARKING EXAMPLE:**





# **TORQUE SPECIFICATIONS**

Component	Torque (in-lb)	Notes
Smart Screws	N/A	Fully Seat. Use visual indicator of the black EPDM ring around the bonded washer for torquing.
Mount	200	
Coupling	200	
Steel Slide Screw	N/A	Fully Seat. Use visual indicator of the black EPDM ring around the bonded washer for torquing.
MLPE Module Mount	144	
Ground Lug	N/A	Refer to specific ground lug manufacturer's installation manual
RockIt Pedestal Screw	150	

System components should be periodically re-inspected for loose components, loose fasteners, and corrosion such that if found, the affected components are to be immediately replaced.

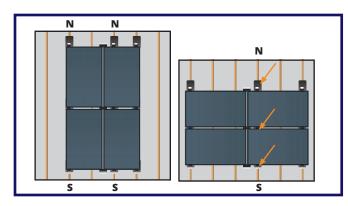
<sup>\*\*</sup>Class B System fire rating with Steep Slope Roofs and Type 4 and 5 modules, no skirt required. Any roof-to-module gap is permitted. This rating is applicable with any roof attachment.

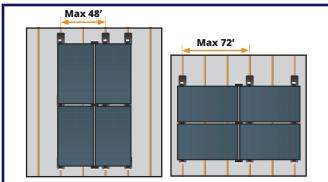
<sup>\*\*\*</sup>Mounts and couplings cannot be installed on module frames with flanges less than 22mm wide

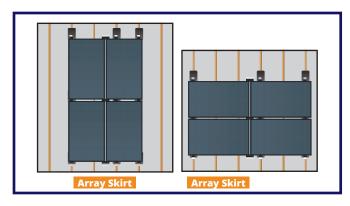
# ROCKIT

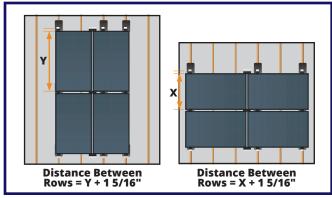
**INSTALLATION GUIDE** 

# **SLIDE PLACEMENT**









# STRUCTURAL ATTACHMENT POINTS

• Find the required structural attachment points.

#### **SLIDE SPACING**

- Spacing may vary depending upon project specific structural requirements: i.e. high snow and wind load areas may require lesser bracket spacing in the East-West axis vs. the maximum spacing.
- Max spacing is 48" OC for portrait orientation and 72" OC for landscape orientation.
- Consult project layout diagram for project specific slide spacing on the roof.
- Install slides to predetermined mount spacing.

#### **ARRAY SKIRT SECTIONS**

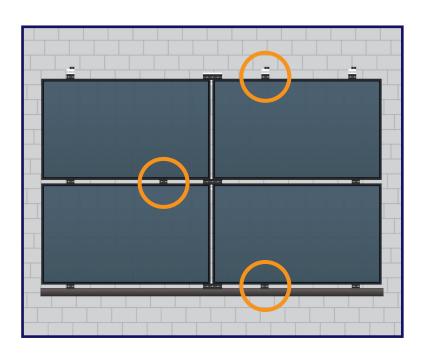
 Use the array skirt as a guide to lay out module placement.

#### **ROW SPACING**

 The distance between the rows of mounts is calculated by the module dimension North-South plus 1 5/16".



# **SLIDE PLACEMENT**



# **LAYOUT WITH STAGGERED SLIDES**

- To reduce the load on an individual rafter, slides can be mounted in a staggered configuration
- Reference each project layout



**RockIt Mount** 



**RockIt Coupling** 

# **Cantilever** Offset

## **CANTILEVER & OFFSET**

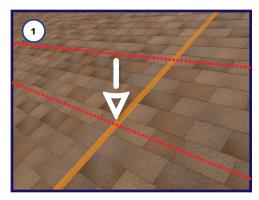
- CANTILEVER: Maximum cantilever is 1/3 attachment spacing.
- **OFFSET:** Offset from all roof edges depends on wind speed, snow loads, local fire and building codes per location.





# **COMP SHINGLE INSTALLATION**

# **COMP SLIDE & FLASHING**



**SNAP LINES** 

Snap chalk lines based on module dims + 1 5/16" spacing and then locate rafters

**PILOT HOLE** 

Drill a 7/32" pilot hole into the rafter or structural member for the lag screw. Backfill with sealant compatible with the roof type.

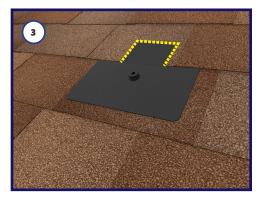


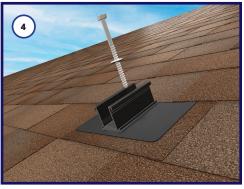
**CUT SHINGLE (IF NECESSARY)** 

To position the slide in the correct location, it is acceptable to cut out a portion of the shingle

**INSERT LAG BOLT** 

- · Line up pilot hole with flashing hole.
- Using only the EcoFasten provided lag screw\*, insert the lag through the RockIt Comp Slide, the gasketed hole in the flashing and into the rafter. Position the slide with the date stamp facing south.
- Torque: The range is between 100-140 inchpounds depending on the type of wood and time of year. The visual indicator for proper torque is when the EPDM on the underside of the bonded washer begins to push out the sides as the washer compresses. If using an impact wrench to install the fasteners be careful not to over torque the fastener. You may need to stop and use a ratchet to finish the install.
  - \* It is important to only use the lag screws provided by EcoFasten because they have longer thread lengths to increase the pull-out force









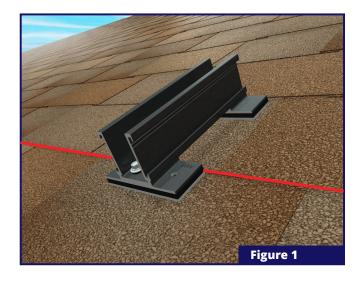
# **COMP SHINGLE INSTALLATION**

# **SMART SLIDE**

#### **ARRAY POSITIONING**

Use the shingle overlap as your starting position to snap your first chalk line (See image below). We recommend snapping chalk lines at every row to make sure every installation is completed with confidence and easy. After chalk lines have been snapped for each row, being as precise as possible, locate the rafters within the array making sure to follow the span chart and cantilevers.

NOTE: For landscape module orientation, the north-south distance between each chalk line is equal to the module width plus 1-5/16". For portrait, the distance is the module length plus 1-5/16".



#### PLACING THE SLIDE

Once the general location of each rafter is marked, clean the mounting location with a nylon brush for proper sealing. Before peeling off the release liners, please note the Smart Slide is designed to straddle the two shingle courses. It is important to make sure the bottom foot is flush and pushed up against the shingle course edge above (see figure 1). When you locate the rafter, peel off the two release liners and place the center of the slide over the rafter.

**NOTE:** Only install on clean roofs free of snow, ice and debris in ambient temperatures between 5° F and 118° F. If installing on Presidential shingles of rare thickness over 1/8", cut off the shingle tabs to ensure the slide lies flat.





## **COMP SHINGLE INSTALLATION**

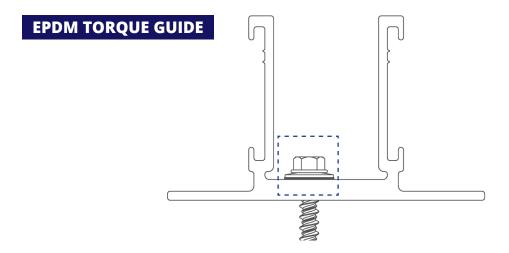
# **SMART SLIDE**

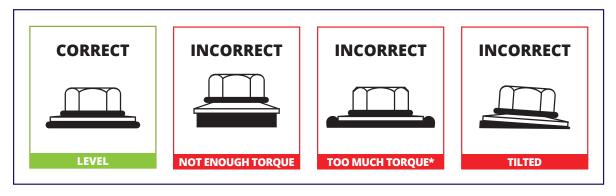
#### **SCREW PLACEMENT & DRIVING THE SCREWS**

**NOTE:** Once the release liner is removed and the slide is placed into position, it will be difficult to remove from the roof.

Screws should be driven in straight down and square with the base. Use a long nut driver or a drive extension to better view the mounting screws for proper alignment and the sealing washers for correct compression.

NEVER REMOVE A SCREW after it have been driven into the roof, even if it misses a rafter. Smart Slide is designed to give the installer multiple opportunities to find the rafter.





<sup>\*</sup> If too much torque is used it could damage the EPDM washer. Damaged or blown out EPDM washers should be replaced with a new washer as needed.



# **COMP SHINGLE INSTALLATION**

# **SMART SLIDE**

# **SCREW PLACEMENT - DECK MOUNTED**

#### **INSTALLATION**

When installing direct to the roof deck without regard to rafter locations, all 8 screws must be installed. (Be sure to reference the direct to deck span tables.)

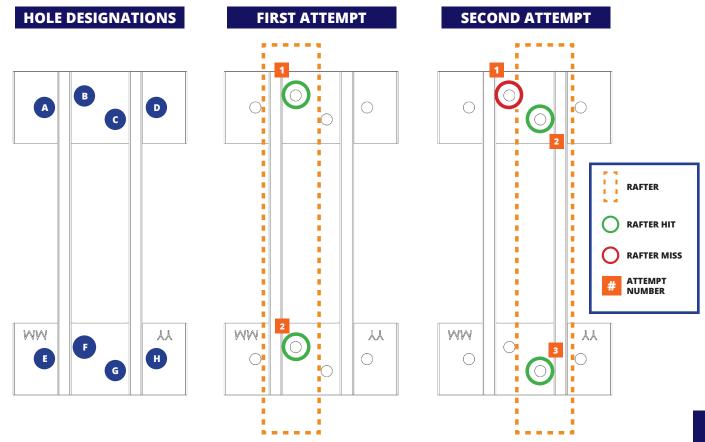
#### **SCREW PLACEMENT - RAFTER MOUNTED**

#### 1. INSTALLATION - FIRST ATTEMPT

Drive screw in Hole B. If a rafter is hit with the first screw, the second screw can immediately be driven through Hole F. No additional screws are needed if the first 2 screws hit the rafter.

#### 2. INSTALLATION - SECOND ATTEMPT

If the rafter is missed with the first screw as shown below with a red circle, drive a second screw through Hold C. If the rafter is hit with the second screw, the third screw can immediately be driven through Hole G.



**NOTE:** If a rafter is missed completely within the slide, you must add another slide to the previous rafter.

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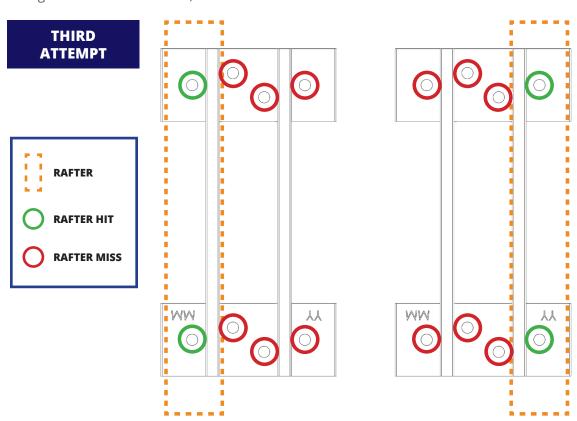
## **COMP SHINGLE INSTALLATION**

# **SMART SLIDE**

#### **SCREW PLACEMENT**

#### 3. INSTALLATION - THIRD ATTEMPT

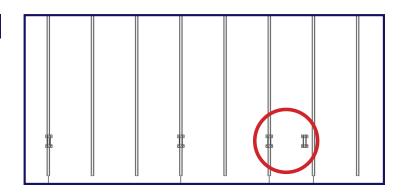
If the rafter is missed in both Holes B & C, then try Hole A and Hole D. If a rafter is hit through either of those holes, all 8 screws must be installed.



#### 4. INSTALLATION - FOURTH ATTEMPT

If the rafter is missed completely within the slide, you must add another slide to the previous rafter. You may then continue with your job specific attachement spans.

#### **FOURTH ATTEMPT**

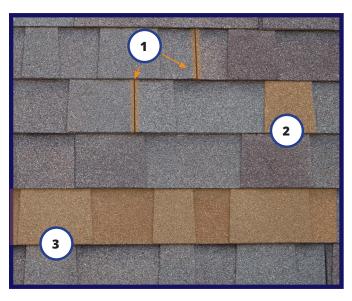


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# **COMP SHINGLE INSTALLATION**

# **SMART SLIDE**

#### **COMPOSITION SHINGLE INFORMATION**



- **SHINGLE BUTT JOINT\***
- 2 SHINGLE STEP
- **SHINGLE COURSE** \*Composition shingles either come in 36" or 1M length sheets. a butt joint is Where two

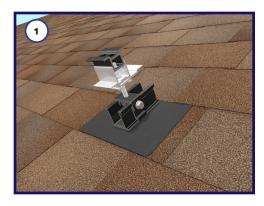
adjacent sheets come together in a course.

# **SHINGLE BUTT JOINTS**

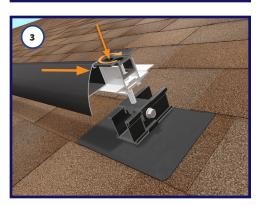
Apply a bead of roof sealant over any exposed shingle butt joints north (upslope) of a mounting foot. Please reference our approved sealant list posted on our website.

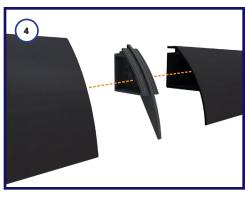


# SYSTEM INSTALLATION









## **MOUNTS & ALIGNMENT**

- · Begin with the row that will get Skirt which is usually the far south row. On the far east and far west Slides, install a Mount about ½" from the south end of the Slide.
- Tighten side bolts to 200 in-lbs.
- Run a string line across the north edge of the base of the two Mounts.
- Add a Mount to each of the other Slides, position them up against the string line, and tighten the side bolts to 200 in-bs.

# **SKIRT POSITION**

- · Rotate the top of the Mount so that the long, stepped shelf is facing north. Depending on the PV module thickness, use the appropriate A, B, or C Skirt.
- Set the Skirt on the south side of the Mount as shown.

#### **TOP POSITION**

40mm A SKIRT

38mm B SKIRT

#### **CHANNEL POSITION**

35mm A SKIRT

32mm B SKIRT

**NOTE:** There are ridges inside the small channel on the B Skirt whereas the channel is smooth on the A Skirt. The C Skirt for 30mm only has no channel.

# **SKIRT TIGHTENING**

Tighten top bolt in Mount to secure the Skirt

# **SKIRTS END CAPS**

Press fit End Caps at every Skirt connection and on the ends.

**NOTE:** The End Caps makes it easier to align the Skirts and is required for strength.

# SYSTEM INSTALLATION







# **COUPLINGS ON SKIRTS**

- · Everywhere two modules will meet, install a Coupling on the Skirt with the long, stepped shelf facing north.
- Torque to 200 in-lbs.

**NOTE:** There must be at least one Mount or one Coupling connecting every Skirt section.

# **ALIGN & STRAIGHTEN SKIRTS** (OPTIONAL)

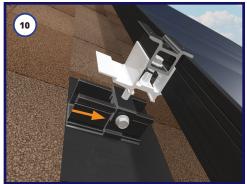
- If the row of Skirts is not straight in the north-south direction, loosen appropriate side bolts, slide the Mount and retighten to 200 in-lbs
- If the row of Skirts is not straight in the up-down direction, adjust the leveling nut inside the Mount
- · Align skirts with module edge

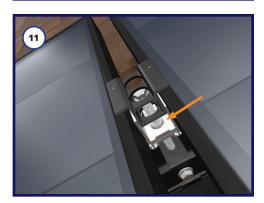
# **INSTALL FIRST ROW OF PV MODULES**

- Place the modules into the first row of Mounts and Couplings at a 45 degree angle. While applying pressure against the Mounts and Couplings, lower the modules until parallel to the roof ensuring the modules are fully seated.
- Space the modules in the east/west direction ½" to 3/4".

# **SYSTEM INSTALLATION**







# **INSTALL SECOND ROW OF COUPLINGS**

- · At the intersection of the north side of two modules, install a Coupling with the two bonding pins facing south.
- · Coupling can be positioned off center to avoid running into a Mount, but the two bonding pins must clamp different modules.
- Torque to 200 in-lbs.

# **INSTALL SECOND ROW OF MOUNTS**

- · Lift the modules slightly and install the Mounts on the Slides to engage the north side of the module.
- Tighten to 200 in-lbs.

# 11) LEVELING (OPTIONAL) & WIRE MANAGEMENT

- Before installing next row of modules, level the row (if needed) by turning the leveling nut.
- Manage wires after each row of modules is installed (see Tips & Tricks video on wire management on the EcoFasten website)

# **COMPLETE THE ARRAY**

Repeat steps above for all other rows in the array.



# **OTHER INSTALLATION OPTIONS**

# **SUPPLEMENTAL GUIDES**

**ROOF ATTACHMENTS** 

## LYNX INSTALLATION

Click here to view guide

#### SIMPLEGRIP INSTALLATION

Click here to view guide

**ACCESSORIES** 

# **BUG CONDUIT MOUNT INSTALLATION**

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# **CLASSIC CONDUIT MOUNT INSTALLATION**

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# FRAME MLPE INSTALLATION

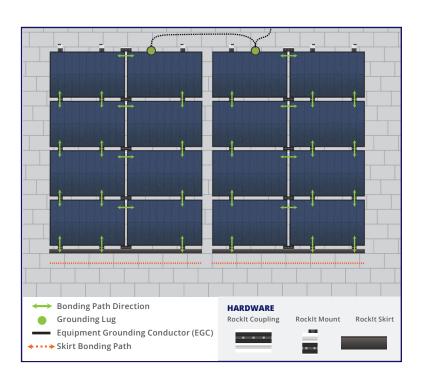
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# **JAYBOX INSTALLATION**

Click here to view guide



# **BONDING AND GROUNDING**



# THERMAL EXPANSION & BONDING

- A thermal expansion gap is required per each continuous 70' length of modules.
- Omit a coupling and leave a 2" gap in the RockIt array skirt and also between the modules at that point.
- Bonding across the thermal gap should be accomplished with an approved ground lug for each array and an equipment grounding conductor.

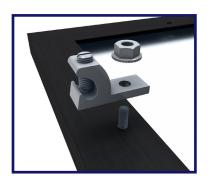


# **BONDING PATH & ASSEMBLY**

- RockIt mount bonds North-South rows of modules.
- RockIt coupling bonds East-West rows of modules.
- RockIt array skirt is bonded to the array via the RockIt mount.
- · One approved ground lug is required per continuous PV array.
- Ilsco SGB-4 Approved for Mounting to Rockit Mount or Rockit Slides as alternate grounding location



# **BONDING AND GROUNDING**









#### **NECESSARY COMPONENTS**

One of the following grounding lugs (or any UL 2703 Compliant ground Lug):

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





Above: Optional Locations for grounding lug on last row upslope of array

\*Equipment grounding wire should be sized in accordance with the National Electrical Code, NFPA70 and a minimum of 1/4" clearance is required between bare copper wires and aluminum components.







# **COMPATIBLE MODULES**

The Rockit 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.

\*Class A System fire rating with Steep and Low Slope roofs and Type 1, 2, 29, 30 and 38 PV modules with no skirt required.

**NOTE:** Modules with flange widths shorter than 22mm cannot be installed in portrait.

# **TYPE 1, 2, 29, 30 AND 38 MODULES**

MANUFACTURER	LIST OF UL 2703 APPROVED PV MODULES*
Adani	Adani modules with 30, 35 and 40 mm 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 40 mm frames AIONyyG1-xxx Where "yy" can be 60 or 72
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 BF, BFN, MF or MFN; "aa" can be 10, 23 or 26;
Astronergy Solar	Astronergy modules with 35 and 40 mm frames CHSMbbyyC/zz-xxx Where "bb" can be 60, 66, or 72; "yy" can be blank, 10 or 12; "C" can be M, M(BL), M-HC, P, P(BL) or P-HC; and "zz" can be blank or HV
Auxin	Auxin modules with 40 mm frames  AXNYMzYYMxxxB  Where "Y" can be 6, 10 or G1; "z" can be blank or 6; "YY" can be blank, 10 or 12; "B" can be blank, A, B, C or W
Axitec	Axitec Modules with 30 and 35 mm frames AC-xxxY/aaZZ "Y" can be M, P, MH, MBT or TGB; and "aa" can be blank, 125 or 156; and "ZZ" can be 60S, 108BB, 108BB-US, 108V, 108VB, 120S, 120V or 120VB



MANUFACTURER	LIST OF UL 2703 APPROVED PV MODULES*
Bluesun	Bluesun modules with 30 and 35 mm frames
Solar	BSMxxxM-AAA
Joiai	Where "AAA" can be 60HPH or 72HBD
	Boviet modules with 35 and 40 mm frames
Boviet	BVMZZaaYY-xxxBcc
DOVIEL	Where "ZZ" can be 66 or 76; "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 or HC-BF
	Canadian Solar modules with 35 and 40 mm frames
Canadian	CSbY-xxxZ
Solar	Where "b" can be 1, 3, 6, 6.1 or 6.2; "Y" can be H, K, L, N, P, R, V, Y, -48TM or
	-54TM; and "Z" can be H, M, MS, M-SD, MS-HL, MS-SD, P, PX, or P-SD
	CertainTeed modules with 30, 35 and 40 mm frames
CertainTeed	CTBBxxxYZZ-AA
CertainTeed	Where "BB" can be blank, M10 or TC; "Y" can be M or HC; "ZZ" can be 00, 10,
	11 or 12; and "AA" can be 04, 06, 08 or 09
Crossroads	Crossroads Solar modules with 40 mm frames
Solar	Crossroads Solar xxx
	CSUN modules with 35 and 40 mm frames
CSUN	CSUNxxx-zzAbb
	Where "zz" is 60 or 72; and "A" is M or MM; "bb" is blank or 5BB
	Dehui modules with 35 and 40 mm frames
Dehui	DH-MYYYZ-xxx
	Where "YYY" can be 760, 772, 860, 872; and "Z" can be B or W
	Emmvee modules with 35 mm frames
Emmvee	Exxx-YYZZZ-A
EIIIIIVEE	Where "YY" can be HCM, HCMW, HCBT; "ZZZ" can be 108, 120 or 132; and
	"A" can be T or BT
	ET Solar modules with 30, 33, 35 and 40 mm frames
	ET-YZZZxxxAA
ET Solar	Where "Y" can be P, L, M, N or NR; "ZZZ" can be 48TBH, 660, 660BH, 672,
(EliTe Solar)	672BH, 754BH, 760BH, 766BH, 760TBH, 766TBH or 848TBH; and "AA" can
	be GB, GL, TB, TW, WB, WW, BB, WBG, WWG, WBAC, WBCO, WWCO, WWB-
	CO or BBAC
Freedom	Freedom Forever modules with 35 mm frames
Forever	FF-MPa-BBB-xxx
FUIEVEI	Where "a" can be blank or 1
Freevolt	Freevolt modules with 35 mm frames
ricevoit	ECP-PVGRAF-144HC-xxx





MANUFACTURER	LIST OF UL 2703 APPROVED PV MODULES*
Goldi	Goldi modules with 35 mm frames
Goldi	GS10-B108-TF-xxx
Grape	Grape modules with 35 mm frames
Solar	GS-M120-xxx-FAB1
	GreenWatts modules with 30 and 35mm frames
GreenWatts	HSYY-A-xxx-ZZ
Solar	Where "YY" can be 54, 60 or 66; "A" can be blank or F; and "ZZ" can be MN or
	BOB
	Hansol modules with 30 mm frames
Hansol	HAxxxYY-ZZZ
панзы	Where "YY" can be AA, AB or XA; and "ZZZ" can be CGEA0, DGEA0, NGEA0,
	NNEA0
	Heliene modules with 35 and 40 mm frames
	YYZZxxxA
Heliene	Where "YY" can be 60, 72, 108, 120 or 132; "ZZ" can be HC, M or P; and "A"
	can be blank, M10-SL, M10 TPC SL, M10-SL-BLK, M10-SL-Bifacial or M10
	NTYP SL
	HT-SAAE modules with 35 and 40 mm frames
HT-SAAE	HTyy-aaaZ-xxx
пі-эале	Where "yy" can be 60 or 72, "aaa" can be 156 or 166, "Z" can be M, M(V),
	M(S), M(VS), M-C, M(V)-C, P or P(V)
Hyporion Color	Hyperion or Rungery modules with 35 mm frames
Hyperion Solar (Runergy)	HY-DH108Y8-xxxB
(Rullergy)	Where "Y" can be N or P; and "B" can be blank or B
	Huyndai modules with 30, 32, 35 and 40 mm frames
Hyundai	HiY-SxxxZZ
Tiyunuai	Where "Y" can be A, N or S; "S" can be M, S or T; and "ZZ" can be HG, KI, MF,
	MG, NF(BK), OJ, PI, SG, RG, RG (BK), TG or YH(BK) or XG(BK)
	Itek Modules with 40 mm frames
Itek	IT-xxx-YY
	"YY" can be blank, HE, or SE
	JA Solar modules with 30, 35 and 40 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),
JA Solar	(SE), (TG), (FA)(R), (K)(SE), (K)(TG), (L)(BK), (L)(TG), (R)(BK), (R)(TG), (V)(BK), (BK)
	(TG), or (L)(BK)(TG); "bb" can be 54, 60 or 72; "ww" can be blank, D30, D41,
	S01, S02, S03, S09, S10, S17, S30 or S31; and "aa" can be MB, MR, SI, SC, PR,
	RE, 3BB, 4BB, 4BB/RE, 4BB/1500V, PR/1500V, 5BB





MANUFACTURER	LIST OF UL 2703 APPROVED PV MODULES*
	Jinko modules with 30, 35 and 40 mm frames
	JKMYxxxZZ-aa
linko	Where "Y" can either be blank or S; "ZZ" can be M, N, P, PP, or -V; and "aa"
Jinko	can be blank, 54HL4-B, 60, 60B, 60H, 60HB, 60L, 60BL, 60HL, 60HBL, 60-J4,
	60B-J4, 60B-EP, 60(Plus), 60-V, 60-MX, 72H, 72H-V, 72HL-V, 72HBL-V, 72L-V,
	6RL3, 6RL3-B or 6TL3-B
	KB Solar modules with 35 mm frames
KB Solar	KBS-xxx-Mono-YY
	Where "YY" can be blank or BF
	LA Solar modules with 35 mm frames
LA Solar	LSxxxYY
	Where "YY" can be BL, BLA, HC or ST
	LG modules with 40 mm frames
LG	LGxxxyaz-bb
LG	"y" can be A, E, M, N, Q, or S; "a" can be A, 1, 2 or 3; "z" can be C, K or W; and
	"bb" can be G4, A5, A6, B6, E6, E6.AW5, L5, N5, v5, V6
	Longi modules with 30, 35 and 40 mm frames
Longi	LRa-YYZZ-xxxM
Loligi	Where "a" can be 4, 5, 6, 7 or 8; "YY" can be 54, 60 or 66 "ZZ" can be blank,
	BK, PB, PE, PH, HPB, HPH, HABB, HABD or HGBB
	Maxeon modules with 35, 40 and 46 mm frames
Maxeon	SPR-AAAY-xxx-zzz
Maxeon	Where "AAA" can be MAX or X; "Y" can be 3, 5, 6, 7, 21 or 22; and "zzz" can be
	blank, R, BLK, BLK-R or COM
Meyer	Meyer Burger Modules with 35 mm frames
Burger	Meyer Burger Black, White or Glass
	Mission Solar modules with 35, 40 mm frames
Mission Solar	YYYbb-xxxZZaa
(mSolar)	Where "YYY" can be MSE, MSX, TXI or TXS; "bb" can be blank, 6, 10 or 60A;
(moorar)	"ZZ" can be blank, HN, HT, SO, SQ, SX, 108, 120 or 144; and "aa" can be
	blank, 0B, 2B, BB, BW, 4J, 4S, 5K, 5R, 5T, 8T, 8K, 9R or 9Z
	Mitrex modules with 30, 35 and 40 mm frames
Mitrex	Mxxx-XYZ
	Where "X" can be A, B, I or L; "Y" can be 1 or 3; and "Z" can be F or H
Next Energy	Next Energy Alliance modules with 35 and 40 mm frames
Alliance	yyNEA-xxxZZ
7.11.01100	where "yy" can be blank or US; "ZZ" can be M, MB or M-60





MANUFACTURER	LIST OF UL 2703 APPROVED PV MODULES*
	NE Solar modules with 30, 35 and 40 mm frames
NE Solar	NESExxx-zzMHX-yy
INE Solai	Where "zz" can be 54, 60 or 72; "X" can be blank or B; and "yy" can be M6 or
	M10
	Panasonic modules with 40 mm frames
Panasonic	VBHNxxxYYzzA
(HIT)	"YY" can be either SA or KA; "zz" can be either 03, 04, 17 or 18; and "A" can
	be blank, E or G
Panasonic	Panasonic modules with 30 mm frames
(EverVolt)	EVPVxxxA
, ,	Where "A" can be blank or H, K, HK, HK2 or PK
	Philadelphia modules with 30, 35 and 40 mm frames
Philadelphia	PS-YzzAA-xxxW
Solar	Where "Y" can be M, MNB, MNG or P; "zz" can be 60, 72, 108, 132 or 144;
	"AA" can be blank, (BF), (HC) or (HCBF); and "W" can be blank or W
DL	Phono Solar modules with 30 and 35 mm frames
Phono Solar	PSxxxY-ZZ/A
Solar	Where "Y" can be M4, M4H, M5GF, M5GFH, M6, M6H, M8GF or M8GFH; "ZZ" can be 18, 20 or 24; and "A" can be TH, UHB, VH, VHB or VNHB
	Prism Solar modules with 35 mm frames
Prism	PST-xxxW-M72Y
Solar	Where "Y" can be H, HB or HBI
	Q CELLS Modules with 30, 32, 35 and 40 mm frames
	aaYY-ZZ-xxx
	where "aa" can be Q. or B.; "YY" can be PLUS, PRO, PEAK, LINE PRO, LINE
	PLUS, PLUS DUO, PEAK DUO or Tron; 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/
Q CELLS	TS, L-G5, L-G5.1, L-G5.2, L-G5.2/H, L-G5.3, L-G6.3/BFG, G6, G6/SC, G6/TS,
	G6+, G6+/TS, BLK-G6, G7, BLK-G6+, BLK-G6+/AC, BLK-G6+/HL, BLK-G6+/
	SC, BLK-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, M-G2+, BLK M-G2+, BLK M-G2.H+, BLK M-G2+/AC,
	BLK M-G2.H1+/AC, BLK ML-G9, ML-G9+, BLK ML-G9+, ML-G9, BLK-G10,
	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+, BLK ML-G10.B+, BLK
	ML-G10.C+, BLK ML-G10 +/t, BLK-G10+/HL and BLK ML-G10+/TS



MANUFACTURER	LIST OF UL 2703 APPROVED PV MODULES*
	REC modules with 30 and 38 mm frames
	RECxxxYYZZ
REC	Where "YY" can be AA, M, NP, NP2, NP3, PE, PE72, TP, TP2, TP2M, TP2SM,
	TP2S, TP3M or TP4; and "ZZ" can be blank, Black, BLK, BLK2, SLV, 72, Pro M,
	Pure, Pure-R, Pure-RX or Pure 2
	Recom modules with 35 and 40 mm frames
Recom	RCM-xxx-6yy
	Where "yy" can be MA, MB, ME or MF
	ReneSola 60-cell modules with 40 mm frames
Renesola	JCxxxY-ZZ
Reflesofa	"Y" can be F, M or S; and "ZZ" can be Ab, Ab-b, Abh, Abh-b, Abv, Abv-b, Bb,
	Bb-b, Bbh, Bbh-b, Bbv, Bbv-b, Db, or Db-b
	Renogy Modules with 35 mm frames
Renogy	RSPxxxD-YY-ZZZ
	Where "YY" can be BB or BK; and "ZZZ" can be blank, 108 or 120
	S-Energy modules with 35 and 40 mm frames
	SABB-CCYYY-xxxZ
S-Energy	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
Soranhim	Seraphim modules with 35 and 40 mm frames
Seraphim USA	SRP-xxx-YYY-ZZ
UJA	Where "YYY" can be 6MA, 6MB, 6PA, 6PB, or BMD; "ZZ" is blank or HV
	SEG Solar Modules with 30, 35 and 40 mm frames
SEG	SEG-xxx-YYY-ZZ
Solar	Where "YYY" can be BMB, BMD, BTB, BTD or 6MA; "ZZ" can be BB, BG, BW,
	HV, TB, WB or WW
Shinsung	Shinsung Modules with 35 mm frames
E&G	SSVxxx-144MH
	Silfab Modules with 35 and 38 mm frames
	SYY-Z-xxxAb
Silfab	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, Q or X; and "b" can be A, C, C+, D, G, K, L, M, N, T, U or
	X
Sinotec	Sinotec Modules with 30 mm frames
31110666	STS-xxxP-54DD



MANUFACTURER	LIST OF UL 2703 APPROVED PV MODULES*
Sirius PV	Sirius PV modules with 35 mm frames
	ELNSM54M-HC-BF-xxx
Solar4America	Solar4America modules with 30, 35 and 40 mm frames
	S4Axxx-ZZyyAA
	Where "ZZ" can be 60, 72 or 108; "yy" can be MH5, MH10 or TH10; and "AA"
	can be blank, BB, BW or SW
Solarever	Solarever modules with 30, 35 mm frames
	SE-zzz*yy-xxxM-aaa
	Where "zzz" can be 166 or 182; "yy" can be 83, 91 or 105; and "aaa" can be
	96-BD, 108 or 144
	Solaria modules with 35 and 40 mm frames
Solaria	PowerA-xxxR-ZZ
3010110	Where "A" can be XT or X; and "ZZ" can be blank, AC, BD, BX, BY, PD, PL, PX,
	PZ, WX or WZ
	SolarSpace modules with 30 mm frames
SolarSpace	SS8-54zzz-xxxA
	Where "zzz" can be HDB or HSB; and "A" can be M or N
	SolarTech modules with 40 mm frames
SolarTech	AAA-xxx
	Where "AAA" can be PERCB-B, PERCB-W, HJTB-B or HJTB-W
	Sonali Modules with 35 and 40 mm frames
Sonali	SS-M-xxx-yyy
	Where "M" can be blank or M; and "yyy" can be blank or W-M60H M10
Star	Star Solar modules with 35 mm frames
Solar	Star-xxxYYY-ZZZ
	Where "YYY" can be M60H or M60HB; and "ZZZ" can be blank or M10
Sunmac	Sunmac modules with 30 and 35 mm frames
Solar	SMxxxMaaaZZ-BB
	Where "aaa" can be 660 or 754; and "ZZ" can be NH or SH
	Sunpower modules with 35 and 40 mm frames
Sunpower	SPR-A-xxx-YY
	Where "A" can be A or M; and "YY" can be blank , COM, G-AC, BLK-G-AC, H-AC or BLK-H-AC
Sunpreme	
	Sunpreme Modules with 40 mm frames
	GxB-xxxT



MANUFACTURER	LIST OF UL 2703 APPROVED PV 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 mm frames
	STPxxxS-zz/aa
	Where "zz" can be B60 or B72; and "aa" can be Vnh or Wnhb
Talesun	Talesun modules with 30 and 35 mm frames
	TAByZZA-xxx
Talesan	Where "A" can be D, M or P; "B" can be 3, 6, 7 or 9; "y" can be G, I or L; "ZZ"
	can be 48, 54, 60 or 72; and "A" can be M or M(H)
	Tesla modules with 40 mm frames
Tesla	TxxxY
	Where "Y" can be H or S
	Thornova Modules with 30 and 35 mm frames
Thornova	TS-YYZZ(xxx)-X
Illoriiova	Where "YY" can be BB, BBT, BG or BGT; "ZZ" can be 54 or 60; and "X" can be
	blank, G11 or X
Topco Solar	Topco Solar modules with 30mm frames
Topeo Solai	TPM7-SH108-xxx/M
	Trina modules with 30, 35 and 40 mm frames
	TSM-xxxYYZZ
Trina	"YY" can be DD05, DD05A, DD06, DE05, DE09, DX05A, DE06X, PA05, PC05,
IIIIIa	PD05, PE14, PX05, NE09RC or NE09RH.05; and "ZZ" can be blank or A, .05,
	.05(II), .08, A.05, A.08, A(II), A.05(II), A.08(II), C.05, C.07, C.05(II), C.07(II), H,
	H.05, H.08, H.05(II), H.08 (II), M, M(II) or M.05(II)
	Universal Solar Modules with 35 mm frames
Universal	UNI-xxx-yyyZZZ-aa
Olliversal	Where "yyy" can be 108, 120 or 144; "ZZZ" can be M, MH or BMH; and "aa"
	can be blank, BB or DG
	URE modules with 30 and 35 mm frames
URE	DyMxxxaa
	Where "D" can be D or F, "y" can be A, B, 6 or 7; "M" can be F, K, or M; and
	"aa" can be BFG, B7G, BFG-BB, DFG-BB, C8G, H3A, H4A, H8A, E7G-BB, MFG,
	MFG-BB or M7G-BB





MANUFACTURER	LIST OF UL 2703 APPROVED PV MODULES*
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 MDH, MDHT, MH or MHBB; "ZZ" can be 54, 60 or 72; "AAA" is the module power rating; and "bb" can be 05
VSUN	VSUN modules with 30, 35 and 40 mm frames VSUNxxxB-YYz-aa Where "B" can be blank or N; "YY" can be 108 or 120; "z" can be BMH or M; and "aa" can be blank, BB or BW
Waaree	Waaree modules with 35 and 40 mm frames WSyy-xxx where "yy" can be blank, M, MB, MDI or MDIB
Yingli	Yingli modules with 30, 35 and 40 mm frames YLxxxZ-yy Where "Z" can be D or P; "yy" can be blank, 29b, 30b, 34d, 35b, 36b, 37e 1/2, 37e 1500V 1/2, 40d, 49e 1/2 or 49e 1500V 1/2
Yotta	Yotta modules with 30 mm frames YSM-Bxxx-06-72-1
Zeus	Zeus Solar Modules with 40 mm frames ZxxxM-HB
ZN Shine	ZN Shine modules with 30 or 35mm frames ZXMY-AAA-xxx/M Where "Y" can be 6 or 7; "AAA" can be 72, NH120, NHDB144, SH108, SHDB120 or SHLDD120







#### **TYPE 4 MODULES**

\*\*Class A System fire rating with Steep Slope Roofs and Type 4 modules with south edge skirt required. Class B System fire rating with Steep Slope Roofs Type 4 modules, no skirt required. Any roof-to-module gap is permitted. This rating is applicable with any roof attachment.

MANUFACTURER	LIST OF UL 2703 APPROVED TYPE 4 PV MODULES**
Bluesun Solar	Bluesun modules with 35 mm frames
	BSMxxxM10-54HPH
Emmvee	Emmvee modules with 35 mm frames
	Exxx-YYZZZ-B
	Where "YY" can be M, P and HCM; "ZZZ" can be 72 or 120
Inlease	Jakson Solar modules with 35mm frames
Jakson Solar	JH-xxxYY
Sulai	Where "YY" can be BB or BT
Magnus Green Solar	Magnus Green Solar modules with 35 mm frames
	MGS-xxxW-yyy-M10
	Where "yyy" can be M54H, M60H or M72H
	Navitas Modules with 35 mm frames
Navitas	NSMxxx-yyy
	Where "yyy" can be 120, 132 or 144
	Saatvik Modules with 35 mm frames
Saatvik	SGExxx-108ZZZ
	Where "ZZZ" can be MHC, MBHC or MHCB
	Sinotec Modules with 30 and 35 mm frames
Sinotec	STS-xxxP-aabb
	Where "aa" can be 54 or 72; and "bb" can be BB or DB
Sirius PV	Sirius PV Modules with 35 mm frames
Sirius PV	ELNSM54M-HC-xxx
	Solarever modules with 30, 35 mm frames
Solarever	SE-zzz*yy-xxxM-aaa
Solarever	Where "zzz" can be 166 or 182; "yy" can be 83 or 91; and "aaa" can be 120-
	BH or 144N
Solaria	Solaria modules with 35mm frames
	PowerX-xxxR-4T
Sonali	Sonali Modules with 35 mm frames
	SS-xxx-108M-B





MANUFACTURER	LIST OF UL 2703 APPROVED TYPE 4 PV MODULES**
Sungold	Sungold Modules with 35 mm frames
	SG-xxxWM
Talesun	Talesun modules with 30 mm frames
	TP7G54M(H)xxx
Waaree	Waaree modules with 35 mm frames
	AAyy-xxx
	Where "AA" canbe WS or Bi; and "yy" can be MD, MDI, MDIB, 33 or 57







# IRONRIDGE Make Solar Stronger

IronRidge®, an Enstall® company, designs and manufactures structural hardware for residential and commercial solar systems. For almost 30 years, we have worked closely with solar professionals to build strong, simple, and cost-effective products. The QuickMount brand family of products are manufactured and sold by IronRidge.