

ROCK

COMPLETE RAIL-LESS RACKING SYSTEM

INSTALLATION GUIDE

REVISION DATE: 03/13/25

VERSION: v4.0



REVISION DATE: 03/13/25 VERSION: v4.0

EcoFasten For Installers. By Installers.

Clicking the page name will take you to that page

TABLE OF CONTENTS	PAGE 01
FEATURES & BENEFITS	PAGE 02
SYSTEM SPECIFICATIONS	PAGE 03
COMPONENTS	PAGE 04
RATINGS	PAGE 05
PLACEMENT	PAGE 06
INSTALLATION	PAGE 08
SUPPLIMENTAL GUIDES	PAGE 17
METAL ROOFS	PAGE 18
GROUNDING	PAGE 19
COMPATIBLE MODULES	PAGE 21

REVISION DATE: 03/13/25 VERSION: v4.0

EcoFasten For Installers. By Installers.



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, RockIt 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 EcoFasten parts or parts recommended by EcoFasten; 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.
- Ensure that the roof is in good condition prior to installing any EcoFasten components.

ROCKIT. INSTALLATION GUIDE

REVISION DATE: 03/13/25 VERSION: v4.0

For Installers. By Installers.



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 workmanship		

TOOL LIST	
 Comp Slide & Flashings 7/32" Drill bit ½" Deep-well socket (not thick wall impact) Chalk line String line (optional) 	 Smart Slide ½" Deep-well socket (not thick wall impact) 5/16" Nutdriver for impact with 2" extension Chalk line String line (optional)

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

ROCKIT. INSTALLATION GUIDE

EcoFasten. For Installers. By Installers.

VERSION: v4.0

REVISION DATE: 03/13/25



PAGE

05



EcoFasten. For Installers. By Installers.

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)	RockIt Mount, RockIt 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

*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.

**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.

***Mounts and couplings cannot be installed on module frames with flanges less than 22mm wide

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.



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".



EcoFasten. For Installers. By Installers.

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



Rocklt Mount

Rocklt Coupling



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.

PAGE

8



COMP SHINGLE INSTALLATION COMP SLIDE & FLASHING









(1) 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.

3 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



EcoFasten.

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.



LEVEL

For Installers. By Installers.

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.



* 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.

TOO MUCH TORQUE*

TILTED

NOT ENOUGH TORQUE



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.



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.





COMP SHINGLE INSTALLATION SMART SLIDE

COMPOSITION SHINGLE INFORMATION



• SHINGLE BUTT JOINT*

² SHINGLE STEP

3 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.





EcoFasten For Installers. By Installers.

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.

3 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.

page 15

EcoFasten. For Installers. By Installers.

SYSTEM INSTALLATION







S 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

⑦ 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.

^{раде}



EcoFasten For Installers. By Installers.

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.

(10) 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.

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)

12 COMPLETE THE ARRAY

Repeat steps above for all other rows in the array.



REVISION DATE: 03/13/25 VERSION: v4.0

For Installers. By Installers.

OTHER INSTALLATION OPTIONS SUPPLEMENTAL GUIDES

ROOF ATTACHMENTS

SIMPLEBLOCK-U INSTALLATION

Click here to view guide

SIMPLEGRIP INSTALLATION

Click here to view guide

ACCESSORIES

CONDUIT MOUNT INSTALLATION

Click here to view guide

FRAME MLPE INSTALLATION

Click here to view guide

J-BOX 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.
- Rocklt array skirt is bonded to the array via the Rocklt 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 SGB-4 Ground Lug (UL2703 -E354420/ UL 467 - E34440)
- ILSCO GBL-4DBT (UL2703 -E354420 / UL 467 - E34440)
- ILSCO GBL-4DBTH (UL2703 -E354420 / UL 467 - E34440)
- ILSCO 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.

page 20



EcoFasten. For Installers. By Installers.

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.

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 AlONyyG1-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 MF or BF; and "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 or MBT; and "aa" can be blank, 125 or 156; and "ZZ" can be 60S, 108V, 108VB, 120S, 120V or 120VB

TYPE 1, 2, 29, 30 AND 38 MODULES

ROCKIT. INSTALLATION GUIDE

REVISION DATE: 03/13/25 VERSION: v4.0

For Installers. By Installers.

MANUFACTURER	LIST OF UL 2703 APPROVED PV MODULES*
Bluesun Solar	Bluesun modules with 30 and 35 mm frames BSMxxxM-AAA
	Where "AAA" can be 60HPH or 72HBD
	Boviet modules with 35 and 40 mm frames
Poviot	BVM66aaYY-xxxBcc
Boviet	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 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
	-541 M; and "2" can be H, M, MS, M-SD, MS-HL, MS-SD, P, PX, or P-SD
	CTRByyyV77-AA
CertainTeed	Where "BB" can be blank or M10: "Y" can be M or HC: "77" can be 00, 10 or
	11; 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
	"A" can be T or BT
	FT Solar modules with 30, 33, 35 and 40 mm frames
ET Solar (EliTe Solar)	ET-YZZZxxxAA
	Where "Y" can be P, L, M, N or NR; "ZZZ" can be 48TBH, 660, 660BH, 672,
	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
Eroodom	Freedom Forever modules with 35 mm frames
Forever	FF-MPa-BBB-xxx
1 01 0 4 01	Where "a" can be blank or 1

REVISION DATE: 03/13/25 VERSION: v4.0

For Installers. By Installers.

MANUFACTURER	LIST OF UL 2703 APPROVED PV MODULES*
Freevolt	Freevolt modules with 35 mm frames
	ECP-PVGRAF-144HC-xxx
	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	Hansol modules with 30 mm frames
	HAxxxAA-NNEA0
Goldi	Goldi modules with 35 mm frames
	GS10-B108-TF-xxx
Grape	Grape modules with 35 mm frames
Solar	GS-M120-xxx-FAB1
	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
	Where "yy" can be 60 or 72 , "aaa" can be 156 or 166, "2" can be M, M(V),
	M(S), M(VS), M-C, M(V)-C, P or P(V)
Hyperion Solar	Hyperion or Rungery modules with 35 mm frames
(Runergy)	
	Where "Y" can be N or P; and "B" can be blank or B
	Hiv Spec77
Hyundai	Mhare WWconder hA N ar S WS wconder hA N S ar S hA H A H A H A A A A A A A A
	MC NE(PK) OL DL SC DC (PK) TC or VH(PK) or VC(PK)
	Itek Modules with 40 mm frames
Itok	
ILEK	"YY" can be blank. HE, or SE
	IA Solar modules with 30, 35 and 40 mm frames
JA Solar	IAvvzz-bbww-xxx/aa
	Where "vv" can be M P M6 or P6: " zz " can be blank (K) (L) (R) (V) (BK) (FA)
	(SE) (TG) (FA)(R) (K)(SE) (K)(TG) (L)(BK) (L)(TG) (R)(BK) (R)(TG) (V)(BK) (BK)
	(TG) or (I)(BK)(TG); "bb" can be 54, 60 or 72; "ww" can be blank, D30, S01
	S02 S03 S09 S10 S17 S30 or S31 and "aa" can be MR SLSC PR RE 3RR
	4BB 4BB/RE 4BB/1500V PR/1500V 5BB

REVISION DATE: 03/13/25 VERSION: v4.0

For Installers. By Installers.

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"
јіпко	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
IC	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
Longi	Where "a" can be 4, 5, 6 or 7; "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
Mayoon	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, TXI or TXS; "bb" can be blank, 6, 10 or 60A; "ZZ"
(IIISOIAI)	can be blank, 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	Mitrex modules with 30, 35 and 40 mm frames
	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 Fnergy	Next Energy Alliance modules with 35 and 40 mm frames
Alliance	yyNEA-xxxZZ
	where "yy" can be blank or US; "ZZ" can be M, MB or M-60

REVISION DATE: 03/13/25 VERSION: v4.0

For Installers. By Installers.

MANUFACTURER	LIST OF UL 2703 APPROVED PV MODULES*
NE Solar	NE Solar modules with 30, 35 and 40 mm frames
	NESExxx-zzMHX-yy
NE JUIAI	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
-	Phono Solar modules with 30 and 35 mm frames
Phono	PSXXXY-ZZ/A
Solar	Where "Y" can be M4, M4H, M5GF, M5GFH, M6, M6H, M8GF or M8GFH; "22"
	Call be 18, 20 of 24; and A call be 1H, OHB, VH, VHB of VINHB
Prism	
Solar	Where "V" can be H. HP or HPI
	O CELLS Modules with 30, 32, 35 and 40 mm frames
	aaYY-77-xxx
	where "aa" can be O, or B : "YY" can be PLUS_PRO_PEAK_LINE PRO_LINE
	PLUS PLUS DUO PEAK DUO or Trop: and "77" can be G3 G3 1 G4 G4 1
	1-G2 1-G2 3 1-G3 1 -G3 1 1-G3 1 -G4 1-G4 2 1-G4 2 1-G4 2/TAA BFR-G3
	BI K-G3. BER-G3.1. BI K-G3.1. BER-G4. BER-G4.1. BER G4.3. BI K-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

ROCKIT. INSTALLATION GUIDE

REVISION DATE: 03/13/25 VERSION: v4.0

For Installers. By Installers.

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
Ponosola	JCxxxY-ZZ
Reflesoia	"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
бегарінін	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	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, 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
	STS-xxxP-54DD

REVISION DATE: 03/13/25 VERSION: v4.0

For Installers. By Installers.

Sirius PVSirius PV modules with 35 mm frames ELNSM54M-HC-8F-xxxSolar4AmericaSolar4America modules with 30, 35 and 40 mm frames S4Axx-Z2yyAA Where "22" can be 60, 72 or 108; "yy" can be MH5, MH10 or TH10; and "AA" can be blank, BB, BW or SWSolareverSolarever modules with 30, 35 mm frames SE-222*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 144SolariaSolaria modules with 35 and 40 mm frames PowerA-xxxR-ZZ Where "azz" can be XT or X; and "ZZ" can be blank, AC, BD, BX, BY, PD, PL, PX, PZ, WX or WZSolarSpaceSolaria modules with 30 mm frames SolarSpace SolarSpace can be XT or X; and "ZZ" can be blank, AC, BD, BX, BY, PD, PL, PX, PZ, WX or WZSolarSpaceSolarSpace modules with 30 mm frames SolarSpace SolarSpace can be HDB or HSB; and "A" can be M or N SolarTech modules with 35 and 40 mm frames SolarSpace SolarTech modules with 35 and 40 mm frames SolarSpace SolarSpace can be HDB or HSB; and "A" can be M or N SolarTech modules with 30 mm frames SolarSpace Solar Space SolarSpace SolarSpace SolarSpace SolarSpace Solar Space SolarSpace <b< th=""><th>MANUFACTURER</th><th>LIST OF UL 2703 APPROVED PV MODULES*</th></b<>	MANUFACTURER	LIST OF UL 2703 APPROVED PV MODULES*
Shinds FV 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 Solarever Solarever modules with 30, 35 mm frames Solaria Solaria modules with 30, 35 mm frames Solaria Sever modules with 30 and 40 mm frames PowerA-xxxR-ZZ Where "Xzz" can be 166 or 182; "yy" can be 83, 91 or 105; and "aaa" can be 96-BD, 108 or 144 Solaria Solaria modules with 35 and 40 mm frames Solaria PowerA-xxxR-ZZ Where "A" can be XT or X; and "ZZ" can be blank, AC, BD, BX, BY, PD, PL, PX, PZ, WX or WZ SolarSpace SolarSpace modules with 30 mm frames SolarTech AAA-xxx Where "ZZ" can be HDB or HSB; and "A" can be M or N SolarTech AAA-xxx Where "AAA" can be PERCB-B, PERCB-W, HJTB-B or HJTB-W Sonali Modules with 35 and 40 mm frames Star Solar Star Solar modules with 35 mm frames Star Star Solar modules with 35 and 40 mm frames Solar Sunmac modules with 30 and 35 mm frames Sunper "YY" can be M60H or M60HB; an	Sirius PV	Sirius PV modules with 35 mm frames
Solar4AmericaSolar4America modules with 30, 35 and 40 mm framesSolar4AmericaSolar227, 27, 27, 27, 27, 27, 27, 27, 27, 27,		ELNSM54M-HC-BF-xxx
Solar4AmericaS4Axxx-ZZyyAA Where "ZZ" can be 60, 72 or 108; "yy" can be MH5, MH10 or TH10; and "AA" can be blank, BB, BW or SWSolareverSolarever modules with 30, 35 mm framesSolareverSiz-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 144SolariaSolaria modules with 35 and 40 mm frames PowerA-xxxR-ZZ Where "A" can be XT or X; and "ZZ" can be blank, AC, BD, BX, BY, PD, PL, PX, PZ, WX or WZSolarSpaceSolarSpace modules with 30 mm frames SolarSpaceSolarTechSolarCh modules with 30 mm frames SolarTechSolarCh modules with 30 mm framesSolarCB-WSolarTechSolarCh modules with 40 mm frames Solar Can be ADA wxx Where "AAA" can be PERCB-B, PERCB-W, HJTB-B or HJTB-WSolarTechSolar Can be blank or M; and "yyy" can be blank or W-M60H M10 Where "M" can be blank or M; and "yyy" can be blank or M10Sunmac SolarSunmac modules with 30 and 35 mm frames Sunmac can be 600 or 754; and "ZZ" can be NH or SH Sunpower modules with 35 and 40 mm frames Star-xxxYY-ZZZ Where "aaa" can be 600 or 754; and "ZZ" can be NH or SH Sunpower modules with 35 and 40 mm frames SPR-A-xxx-YY Where "aaa" can be 600 or 754; and "ZZ" can be NH or SH Sunpower modules with 35 and 40 mm frames SPR-A-xxx-YY Where "aaa" can be 600 or 754; and "ZZ" can be NH or SH Sunpower modules with 35 and 40 mm frames SPR-A-xxx-YY Where "aaa" can be 600 or 754; and "ZZ" can be NH or SH Sunpower modules with 35 and 40 mm frames SPR-A-xxx-YY Where "aaa" can be 600 or 754; and "ZZ" can be NH or SH Sunpower modules with 35 and 40 mm frames SPR-A-xxx-YY Where "aa" can be A or M; and "YY" can be blank, COM, G-AC, BLK-G-AC, H-AC or BLK-H-AC<		Solar4America modules with 30, 35 and 40 mm frames
Solar WinterfetaWhere "ZZ" can be 60, 72 or 108; "yy" can be MH5, MH10 or TH10; and "AA" can be blank, BB, BW or SWSolareverSolarever 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 144SolariaSolaria modules with 35 and 40 mm frames PowerA-xxxR-ZZ Where "A" can be XT or X; and "ZZ" can be blank, AC, BD, BX, BY, PD, PL, PX, PZ, WX or WZSolarSpaceSolarSpace can be XT or X; and "ZZ" can be blank, AC, BD, BX, BY, PD, PL, PX, PZ, WX or WZSolarTechSolarCen modules with 30 mm frames SolarSpace can be HDB or HSB; and "A" can be M or NSolarTechSolarCen modules with 40 mm frames SolarCen modules with 35 and 40 mm frames SolarSpace can be HDB or HSB; and "A" can be M or NSolarTechSolarCen modules with 35 and 40 mm frames SolarCen modules with 35 and 40 mm frames SolarCen modules with 35 and 40 mm frames Solar Cen be XAA*xxx Where "AAA" can be PERCB-B, PERCB-W, HJTB-B or HJTB-WSonaliSo-Axxxyyy Where "M" can be blank or M; and "yyy" can be blank or M-M60H M10Star SolarStar Solar modules with 35 mm frames Star-xxxYY-ZZZ Where "YY" can be M60H or M60HB; and "ZZ" can be blank or M10SunpowerSunpower modules with 35 and 40 mm frames SPR-A-xxx-YY Where "aaa" can be 60 or 754; and "ZZ" can be NH or SH Sunpower modules with 35 and 40 mm frames 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 Modules with 40 mm frames SPR-A-xxxT	Solar4America	S4Axxx-ZZyyAA
can be blank, BB, BW or SWSolarever modules with 30, 35 mm framesSE-zzz*yy-xxXM-aaaWhere "zzz" can be 160 r 182; "yy" can be 83, 91 or 105; and "aaa" can be 96-BD, 108 or 144SolariaSolariaSolariaSolariaSolariaPowerA-xxxR-ZZWhere "A" can be XT or X; and "ZZ" can be blank, AC, BD, BX, BY, PD, PL, PX, PZ, WX or WZSolarSpaceSolarSpaceSolarSpaceSolarTechAA-xxxWhere "AA" can be HDB or HSB; and "A" can be M or NSolarTechSolarTechAA-xxxWhere "AA" can be PERCB-B, PERCB-W, HJTB-B or HJTB-WSonaliSolarSpaceSolar Solar SpaceSolar Coch modules with 35 and 40 mm framesSolarTechAA-xxxWhere "AA" can be PERCB-B, PERCB-W, HJTB-B or HJTB-WSonali Modules with 35 and 40 mm framesSolarSolarStar SolarStar Solar modules with 35 and 40 mm framesSunmac SolarSunmac modules with 35 mm framesSunmac codules with 35 and 40 mm framesSunpowerSunpower modules with 35 and 40 mm framesSunpower Modules with 35 and 40 mm framesSunpreme Modules with 35 and 40 mm framesSunpreme Modules with 40 mm framesSunpreme Modules with 40 mm framesSunpreme Module	Joiai America	Where "ZZ" can be 60, 72 or 108; "yy" can be MH5, MH10 or TH10; and "AA"
SolareverSolarever modules with 30, 35 mm framesSolareverSe-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 144SolariaSolaria modules with 35 and 40 mm frames PowerA-xxXR-ZZ Where "A" can be XT or X; and "ZZ" can be blank, AC, BD, BX, BY, PD, PL, PX, PZ, WX or WZSolarSpaceSolarSpace modules with 30 mm frames SolarSpaceSolarSpaceSolarSpace modules with 30 mm frames SolarSpaceSolarCenterSolarSpace modules with 30 mm frames SolarTechSolarTechSolarCenter AAA-xxx Where "AAA" can be PERCB-B, PERCB-W, HJTB-B or HJTB-WSonaliSolarI can be blank or M; and "yyy" can be blank or W-M60H M10Star SolarStar-xxxYY Where "M" can be blank or M; and "yyy" can be blank or M10Sunmac SolarSunmac modules with 35 and 40 mm frames SMxxMaaaZ-BB Where "aa" can be 660 or 754; and "ZZ" can be NH or SHSunpowerSunpower modules with 35 and 40 mm frames SPR-A-xxx-YY Where "aa" can be A or M; and "YY" can be blank, COM, G-AC, BLK-G-AC, H-AC or BLK-H-AC Sunpreme Modules with 40 mm frames		can be blank, BB, BW or SW
SolareverSE-zz*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 144SolariaSolaria modules with 35 and 40 mm frames PowerA-xxxR-ZZ Where "A" can be XT or X; and "ZZ" can be blank, AC, BD, BX, BY, PD, PL, PX, PZ, WX or WZSolarSpaceSolarSpace modules with 30 mm framesSolarTechSolarTech modules with 30 mm framesSolarTechSolarTech modules with 40 mm framesSonaliSolarTech modules with 35 and 40 mm framesSolarSpaceSolarTech modules with 40 mm framesSolarSolarSolarTech modules with 35 and 40 mm framesSolarTechSolarTech modules with 35 and 40 mm framesSolarSonali Modules with 35 and 40 mm framesSolarSolar can be PERCB-B, PERCB-W, HJTB-B or HJTB-WSonaliSonali Modules with 35 and 40 mm framesSolarSolar can be blank or M; and "yyy" can be blank or W-M60H M10StarStar Solar modules with 35 mm framesSunmacSunmac modules with 30 and 35 mm framesSunpowerSunpower modules with 35 and 40 mm framesSunpowerSunpower modules with 30 and 35 mm framesSunpowerSunpower modules with 35 and 40 mm framesSunpowerSunpower modules with 35 and 40 mm framesSunpowerSunpower modules with 35 and 40 mm framesSunpremeSunpreme Modules with 40 mm framesSunpremeSunpreme Modules with 40 mm frames		Solarever modules with 30, 35 mm frames
Where "zzz" can be 166 or 182; "yy" can be 83, 91 or 105; and "aaa" can be 96-BD, 108 or 144SolariaSolaria modules with 35 and 40 mm frames PowerA-xxxR-ZZ Where "A" can be XT or X; and "ZZ" can be blank, AC, BD, BX, BY, PD, PL, PX, PZ, WX or WZSolarSpaceSolarSpace modules with 30 mm frames SolarSpaceSolarTechSolarTech modules with 40 mm framesSolarTechAA-xxx Where "AA" can be PERCB-B, PERCB-W, HJTB-B or HJTB-WSonaliSolarInd dules with 35 and 40 mm framesSolarSolarTech where "M" can be blank or M; and "yyy" can be blank or W-M60H M10Star SolarSolar modules with 35 and 40 mm framesSolarSolar Tech modules with 35 and 40 mm framesSolarSolarInd dules with 35 and 40 mm framesSolarSolar can be blank or M; and "yyy" can be blank or W-M60H M10Star SolarSunmac modules with 35 mm framesSunpowerSunmac modules with 30 and 35 mm framesSunpowerSunpower modules with 35 and 40 mm framesSunpowerSunpower modules with 35 and 40 mm framesSunpowerSunpower modules with 30 and 35 mm framesSunpowerSunpa can be 660 or 754; and "ZZ" can be NH or SHSunpowerSunpower modules with 35 and 40 mm framesSunpowerSunpa can be A or M; and "YY" can be blank , COM, G-AC, BLK-G-AC, H-AC or BLK-H-ACSunpremeSunpreme Modules with 40 mm frames	Solarever	SE-zzz*yy-xxxM-aaa
96-BD, 108 or 144SolariaSolaria modules with 35 and 40 mm framesPowerA-xxxR-ZZWhere "A" can be XT or X; and "ZZ" can be blank, AC, BD, BX, BY, PD, PL, PX, PZ, WX or WZSolarSpaceSolarSpace modules with 30 mm framesSolarSpaceSolarSpace modules with 30 mm framesSolarTechSolarTech modules with 40 mm framesAA-xxxWhere "AA" can be PERCB-B, PERCB-W, HJTB-B or HJTB-WSonaliSonali Modules with 35 and 40 mm framesSonaliSonali Modules with 35 and 40 mm framesSonaliSorali Modules with 35 and 40 mm framesSonaliSonali Modules with 35 and 40 mm framesSonaliSonali Modules with 35 and 40 mm framesSolarSonali Modules with 35 mm framesStar solar modules with 35 mm framesStar-xxxYYY-ZZZWhere "YY" can be blank or M60H B; and "ZZZ" can be blank or M10SunmacSunmac modules with 30 and 35 mm framesSunpowerSunpower modules with 35 and 40 mm framesSPR-A-xxx-YYWhere "aaa" can be 660 or 754; and "ZZ" can be NH or SHSunpowerSunpower modules with 35 and 40 mm framesSPR-A-xxx-YYWhere "aaa" can be A or M; and "YY" can be blank, COM, G-AC, BLK-G-AC, H-AC or BLK-H-ACSunpremeSunpreme Modules with 40 mm frames		Where "zzz" can be 166 or 182; "yy" can be 83, 91 or 105; and "aaa" can be
SolariaSolaria modules with 35 and 40 mm framesPowerA-xxxR-ZZWhere "A" can be XT or X; and "ZZ" can be blank, AC, BD, BX, BY, PD, PL, PX, PZ, WX or WZSolarSpaceSolarSpace modules with 30 mm framesSolarSpaceSolarSpace modules with 30 mm framesSolarTechSolarTech modules with 40 mm framesAAA-xxxWhere "zzz" can be PERCB-B, PERCB-W, HJTB-B or HJTB-WSonaliSonali Modules with 35 and 40 mm framesSonaliSS-4xxxWhere "AAA" can be PERCB-B, PERCB-W, HJTB-B or HJTB-WSonaliSonali Modules with 35 and 40 mm framesSonaliSS-M-xxx-yyyWhere "M" can be blank or M; and "yyy" can be blank or W-M60H M10Star SolarStar Solar modules with 35 mm framesStar SolarSunmac Sunxex and the Were "YY" can be M60H or M60HB; and "ZZZ" can be blank or M10SunpremeSunpreme Modules with 35 and 40 mm framesSunpremeSunpreme Modules with 40 mm framesSunpremeSunpreme Modules with 40 mm framesSunpremeSunpreme Modules with 40 mm frames		96-BD, 108 or 144
SolariaPowerA-xxxR-ZZ Where "A" can be XT or X; and "ZZ" can be blank, AC, BD, BX, BY, PD, PL, PX, PZ, WX or WZSolarSpaceSolarSpace modules with 30 mm frames SS8-54zzz-xxxA Where "zzz" can be HDB or HSB; and "A" can be M or NSolarTechSolarTech modules with 40 mm framesAAA-xxxWhere "AAA" can be PERCB-B, PERCB-W, HJTB-B or HJTB-WSonaliSS-M-xxx-yyy Where "AAA" can be blank or M; and "yyy" can be blank or W-M60H M10Star SolarStar Solar modules with 35 mm frames Star-xxXYYY-ZZZ Where "YY" can be M60H or M60HB; and "ZZZ" can be blank or M10Sunmac SolarSunmac can conduct with 30 and 35 mm frames SMxxMaaaZZ-BB Where "aaa" can be 660 or 754; and "ZZ" can be NH or SHSunpowerSunpower modules with 35 and 40 mm frames SPR-A-xxx-YY Where "ac an be A or M; and "YY" can be blank , COM, G-AC, BLK-G-AC, H-AC or BLK-H-ACSunpremeSunpreme Modules with 30 and sim frames Sunpreme Modules with 35 and 40 mm frames Sunpreme Modules with 35 and 40 mm frames		Solaria modules with 35 and 40 mm frames
Where "A" can be XT or X; and "ZZ" can be blank, AC, BD, BX, BY, PD, PL, PX, PZ, WX or WZSolarSpaceSolarSpace modules with 30 mm framesSolarSpaceSolarSpace modules with 30 mm framesSolarSpaceSolarSpace modules with 30 mm framesSolarTechSolarTech modules with 40 mm framesAAA-xxxWhere "AA" can be PERCB-B, PERCB-W, HJTB-B or HJTB-WSonaliSonali Modules with 35 and 40 mm framesSonaliSolar Tech modules with 35 and 40 mm framesSonaliSolar Tech modules with 35 mm framesStar SolarSolar modules with 35 mm framesStar SolarStar Solar modules with 30 and 35 mm framesSunmac SolarSunmac can be 660 or 754; and "ZZ" can be NH or SHSunpowerSunpower modules with 35 and 40 mm framesSunpowerSunpower modules with 35 and 40 mm framesSunpowerSunpower modules with 30 and 35 mm framesSunpowerSunpower modules with 30 and 35 mm framesSunpowerSunpower modules with 35 and 40 mm framesSunpowerSunpower modules with 30 and 35 mm framesSunpowerSunpower modules with 30 and 35 mm framesSunpowerSunpower modules with 30 and 40 mm framesSunpowerSunpower modules with 30 and 754; and "ZZ" can be blank, COM, G-AC, BLK-G-AC, H-AC or BLK-H-ACSunpremeSunpreme Modules with 40 mm frames	Solaria	PowerA-xxxR-ZZ
PZ, WX or WZSolarSpaceSolarSpace modules with 30 mm framesSolarSpaceSSR-54zzz-xxxAWhere "zzz" can be HDB or HSB; and "A" can be M or NSolarTechSolarTech modules with 40 mm framesAAA-xxxWhere "AAA" can be PERCB-B, PERCB-W, HJTB-B or HJTB-WSonaliSonali Modules with 35 and 40 mm framesSonaliSolar can be blank or M; and "yyy" can be blank or W-M60H M10Star SolarStar Solar modules with 35 mm framesStar SolarStar Solar modules with 35 mm framesStar SolarStar Solar modules with 35 mm framesSunmac SolarSunmac modules with 30 and 35 mm framesSunmac SolarSunmac can be 660 or 754; and "ZZ" can be blank or M10SunpowerSunpower modules with 35 and 40 mm framesSunpowerSunpower modules with 35 and 40 mm framesSunpowerSunpower modules with 35 and 40 mm framesSunpowerSunpower modules with 30 and 35 mm framesSunpowerSunpower modules with 30 and 35 mm framesSunpowerSunpower modules with 30 and 40 mm framesSunpowerSunpower modules with 30 and 40 mm framesSunpowerSunpower modules with 30 and 40 mm framesSunpremeSunpreme Modules with 40 mm framesSunpremeSunpreme Modules with 40 mm framesSunpremeSunpreme Modules with 40 mm frames		Where "A" can be XT or X; and "ZZ" can be blank, AC, BD, BX, BY, PD, PL, PX,
SolarSpaceSolarSpace modules with 30 mm framesSolarSpaceSS8-54zzz-xxxA Where "zzz" can be HDB or HSB; and "A" can be M or NSolarTechSolarTech modules with 40 mm framesAAA-xxxWhere "AAA" can be PERCB-B, PERCB-W, HJTB-B or HJTB-WSonaliSonali Modules with 35 and 40 mm framesSonaliSonali Modules with 35 and 40 mm framesSonaliSonali Modules with 35 and 40 mm framesSonaliStar Solar modules with 35 mm framesStarStar Solar modules with 35 mm framesStar-xxxYYY-ZZZ Where "YYY" can be M60H or M60HB; and "ZZZ" can be blank or M10Summac SolarSunmac modules with 30 and 35 mm framesSMxxXMaaaZZ-BB Where "aaa" can be 660 or 754; and "ZZ" can be NH or SHSunpowerSunpower modules with 35 and 40 mm framesSPR-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-ACSunpremeSunpreme Modules with 40 mm frames		PZ, WX or WZ
SolarSpaceSS8-54zzz-xxxA Where "zzz" can be HDB or HSB; and "A" can be M or NSolarTechSolarTech modules with 40 mm framesAAA-xxxWhere "AAA" can be PERCB-B, PERCB-W, HJTB-B or HJTB-WSonaliSonali Modules with 35 and 40 mm framesSonaliSonali Modules with 35 and 40 mm framesSolarSonali Modules with 35 mm framesStar SolarStar Solar modules with 35 mm framesSunmac SolarSunmac modules with 30 and 35 mm framesSunmac modules with 30 and 35 mm framesSolarSunmac modules with 30 and 35 mm framesSunpowerSunpower modules with 35 and 40 mm framesSunpowerSunpower modules with 35 and 40 mm framesSunpremeSunpreme Modules with 40 mm framesSunpremeSunpreme Modules with 40 mm frames		SolarSpace modules with 30 mm frames
Where "zzz" can be HDB or HSB; and "A" can be M or NSolarTechSolarTech modules with 40 mm framesAAA-xxxWhere "AAA" can be PERCB-B, PERCB-W, HJTB-B or HJTB-WSonaliSonali Modules with 35 and 40 mm framesSonaliSonali Modules with 35 and 40 mm framesSonaliSolar Tech modules with 35 and 40 mm framesSonaliSolar modules with 35 and 40 mm framesStarSolar modules with 35 mm framesStarStar Solar modules with 35 mm framesStar-xxxYYY-ZZZWhere "YYY" can be M60H or M60HB; and "ZZZ" can be blank or M10SunmacSunmac modules with 30 and 35 mm framesSolarSunmac can be 660 or 754; and "ZZ" can be NH or SHWhere "aaa" can be 660 or 754; and "ZZ" can be NH or SHSunpowerSunpower modules with 35 and 40 mm framesSunpowerSunpower modules with 40 mm framesSunpremeSunpreme Modules with 40 mm frames	SolarSpace	SS8-54zzz-xxxA
SolarTechSolarTech modules with 40 mm framesSolarTechAAA-xxxWhere "AAA" can be PERCB-B, PERCB-W, HJTB-B or HJTB-WSonaliSonali Modules with 35 and 40 mm framesSonaliSonali Modules with 35 and 40 mm framesSonaliSonali modules with 35 and 40 mm framesSonaliStar Solar modules with 35 mm framesStar SolarStar Solar modules with 35 mm framesStar-xxYYY-ZZZWhere "YYY" can be M60H or M60HB; and "ZZZ" can be blank or M10SunmacSunmac modules with 30 and 35 mm framesSolarSunmac modules with 30 and 35 mm framesSunpowerSunpower modules with 35 and 40 mm framesSunpowerSunpower modules with 35 and 40 mm framesSPR-A-xxx-YYWhere "aaa" can be 660 or 754; and "ZZ" can be NH or SHSunpowerSunpower modules with 35 and 40 mm framesSPR-A-xxx-YYWhere "A" can be A or M; and "YY" can be blank , COM, G-AC, BLK-G-AC, H-AC or BLK-H-ACSunpremeSunpreme Modules with 40 mm frames		Where "zzz" can be HDB or HSB; and "A" can be M or N
SolarTechAAA-xxx Where "AAA" can be PERCB-B, PERCB-W, HJTB-B or HJTB-WSonaliSonali Modules with 35 and 40 mm framesSonaliSonali Modules with 35 and 40 mm framesSonaliSS-M-xxx-yyy Where "M" can be blank or M; and "yyy" can be blank or W-M60H M10Star SolarStar Solar modules with 35 mm frames Star-xxxYYY-ZZZ Where "YY" can be M60H or M60HB; and "ZZZ" can be blank or M10Sunmac SolarSunmac modules with 30 and 35 mm frames SMxxxMaaaZZ-BB Where "aaa" can be 660 or 754; and "ZZ" can be NH or SHSunpowerSunpower modules with 35 and 40 mm frames 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-ACSunpremeSunpreme Modules with 40 mm frames Sunpreme	<u> </u>	Solar Lech modules with 40 mm frames
SonaliWhere "AAA" can be PERCB-B, PERCB-W, HJTB-B or HJTB-WSonali Modules with 35 and 40 mm framesSS-M-xxx-yyyWhere "M" can be blank or M; and "yyy" can be blank or W-M60H M10Star SolarStar Solar modules with 35 mm framesStar-xxxYYY-ZZZ Where "YYY" can be M60H or M60HB; and "ZZZ" can be blank or M10Sunmac SolarSunmac modules with 30 and 35 mm framesSMxxXMaaaZZ-BB Where "aaa" can be 660 or 754; and "ZZ" can be NH or SHSunpowerSunpowerSPR-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-ACSunpremeSunpremeSunpremeSunpremeSunpreme	SolarTech	
Sonali Modules with 35 and 40 mm framesSonali Modules with 35 and 40 mm framesSch-xxx-yyyWhere "M" can be blank or M; and "yyy" can be blank or W-M60H M10Star SolarSolarSolarSunmac SolarSunmac SolarSunmac SolarSunmac SolarSunmac SolarSunmac SolarSunmac SolarSunmac SolarSunmac SolarSunmac modules with 30 and 35 mm frames SMxxxMaaaZZ-BB Where "aaa" can be 660 or 754; and "ZZ" can be NH or SHSunpowerSunpower modules with 35 and 40 mm frames 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-ACSunpremeSunpreme Modules with 40 mm frames GxB-xxxT		Where "AAA" can be PERCB-B, PERCB-W, HJTB-B or HJTB-W
SonaliSS-M-xxx-yyyWhere "M" can be blank or M; and "yyy" can be blank or W-M60H M10StarStar Solar modules with 35 mm framesSolarStar Solar modules with 35 mm framesSunmacSunmac modules with 30 and 35 mm framesSolarSunmac modules with 30 and 35 mm framesSunmac modules with 30 and 35 mm framesSMxxxMaaaZZ-BBWhere "aaa" can be 660 or 754; and "ZZ" can be NH or SHSunpowerSunpower modules with 35 and 40 mm framesSPR-A-xxx-YYWhere "A" can be A or M; and "YY" can be blank , COM, G-AC, BLK-G-AC, H-AC or BLK-H-ACSunpremeSunpreme Modules with 40 mm framesGxB-xxxT	- - -	Sonali Modules with 35 and 40 mm frames
Star SolarStar Solar modules with 35 mm frames Star-xxxYYY-ZZZ Where "YYY" can be M60H or M60HB; and "ZZZ" can be blank or M10Sunmac SolarSunmac modules with 30 and 35 mm frames SMxxxMaaaZZ-BB Where "aaa" can be 660 or 754; and "ZZ" can be NH or SHSunpowerSunpower modules with 35 and 40 mm frames 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-ACSunpremeSunpreme Modules with 40 mm frames GxB-xxxT	Sonali	SS-M-xxx-yyy
Star SolarStar Solar modules with 35 mm framesStar-xxxYYY-ZZZ Where "YYY" can be M60H or M60HB; and "ZZZ" can be blank or M10Sunmac SolarSunmac modules with 30 and 35 mm frames SMxxxMaaaZZ-BB Where "aaa" can be 660 or 754; and "ZZ" can be NH or SHSunpowerSunpower modules with 35 and 40 mm frames 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-ACSunpremeSunpreme Modules with 40 mm frames GxB-xxxT		Where "M" can be blank or M; and "yyy" can be blank or W-M60H M10
SolarStar-xxxYYY-ZZZWhere "YYY" can be M60H or M60HB; and "ZZZ" can be blank or M10Sunmac SolarSunmac modules with 30 and 35 mm frames SMxxxMaaaZZ-BB Where "aaa" can be 660 or 754; and "ZZ" can be NH or SHSunpowerSunpower modules with 35 and 40 mm frames 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-ACSunpremeSunpreme Modules with 40 mm frames GxB-xxxT	Star	Star Solar modules with 35 mm frames
Sunmac Solar Sunmac modules with 30 and 35 mm frames SMxxxMaaaZZ-BB SMxxxMaaaZZ-BB Where "aaa" can be 660 or 754; and "ZZ" can be NH or SH Sunpower Sunpower modules with 35 and 40 mm frames 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	Solar	Star-XXXYYY-ZZZ
Sunmac SolarSunmac modules with 30 and 35 mm trainesSMxxxMaaaZZ-BB Where "aaa" can be 660 or 754; and "ZZ" can be NH or SHSunpowerSunpower modules with 35 and 40 mm framesSPR-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-ACSunpremeSunpreme Modules with 40 mm framesSunpremeGxB-xxxT		Where YYY can be moon of moones, and 222 can be blank of MTO
Solar SMXXXMAAA22-BB Where "aaa" can be 660 or 754; and "ZZ" can be NH or SH Sunpower Sunpower modules with 35 and 40 mm frames 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	Sunmac	Summac modules with 30 and 35 min frames
Sunpower Sunpower modules with 35 and 40 mm frames 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	Solar	SWIXXXIVIddd22-DD
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		Suppower modules with 25 and 40 mm frames
Sunpower SFR-A-XXX-TT 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 GxB-xxxT	Sunpower	SDD A wor VV
Sunpreme Sunpreme GxB-xxxT		Where "A" can be A or M: and "W" can be blank. COM C AC PLK C AC
Sunpreme Modules with 40 mm frames		Where A can be A or M, and YY can be blank, COM, G-AC, BLK-G-AC,
Sunpreme GxB-xxxT		Suppreme Modules with 40 mm frames
	Sunpreme	GrB-rryT

REVISION DATE: 03/13/25 VERSION: v4.0

For Installers. By Installers.

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
	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	Tesla modules with 40 mm frames
	TxxxY
	Where "Y" can be H or S
	Thornova Modules with 30 and 35 mm frames
Thornova	TS-YYZZ(xxx)-X
	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
	TPM7-SH108-xxx/M
	Trina modules with 30, 35 and 40 mm frames
Trina	"YY" can be DD05, DD05A, DD06, DE05, DE09, DX05A, DE06X, PA05, PC05,
	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	Universal Solar Modules with 35 mm 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 30 and 35 mm frames
	DyMxxxaa
	Where "D" can be D or F, "y" can be A, B, 6 or $/$; "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

REVISION DATE: 03/13/25 VERSION: v4.0

For Installers. By Installers.

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 35mm frames
	ZXMY-AAA-xxx/M
	Where "Y" can be 6 or 7; "AAA" can be 72, NH120, NHDB144, SH108 or
	SHDB120



EcoFasten For Installers. By Installers.

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
Jakson Solar	Jakson Solar modules with 35mm frames
	JH-xxxYY
	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	Navitas Modules with 35 mm frames
	NSMxxx-yyy
	Where "yyy" can be 120, 132 or 144
Saatvik	Saatvik Modules with 35 mm frames
	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
	ELNSM54M-HC-xxx
Solarever	Solarever modules with 30, 35 mm frames
	SE-zzz*yy-xxxM-aaa
	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



For Installers. By Installers.

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

page **31**





EcoFasten, an Enstall Company, has established a reputation for being one of the industry's leading innovators by providing expert solutions for mounting solar PV on any roof. EcoFasten's broad portfolio of solar rooftop mounting systems and attachments stems from the direct needs of solar PV installers. EcoFasten takes pride in providing the right solution for every application.



1295 W. WASHINGTON STREET, SUITE 110, TEMPE, AZ 85288 877-859-3947 | INFO@ECOFASTENSOLAR.COM|ECOFASTENSOLAR.COM