



Power Rail™

Top-Clamp Mounting System Catalog

Quality Hardware for the PV Industry



Power Rail™ Module Mounting System

The Power Rail™ PV Module Mounting System is designed to reduce installation time and overall costs for parallel-to-roof mounting applications

The Power Rail top-clamping PV mounting system is designed with the professional PV solar installer in mind. The rails are engineered to allow greater spans between supports, thus minimizing roof penetrations, reducing installation time, and lowering overall costs.

Optional **Power-Kits** arrive on site complete with all of the necessary hardware and components for a fast installation and easy ordering. The Power

Rail Extrusions are precision cut in the factory to the proper length, thus eliminating field modifications and the need for additional tools.

Power Rail is available in lengths up to 27-feet, allowing for fewer field splices and longer span lengths. The end result is fewer hardware components and reduced assembly, thus saving the installer both valuable time and money.

The Power Rail system offers many benefits and features.

High Strength, Durable Design

- Engineered rail profile for maximum strength to weight ratio
- High strength 6000 Series structural aluminum rail construction
- Heavy duty Type 304 stainless steel module clamps
- All fastening hardware is made of durable stainless steel construction

Reduced Installation Time and Costs

- Top-Clamping System design for fast installation and easier access
- Up to 27 foot rail lengths eliminate costly rail splices
- Tighter module spacing offers higher density
- Greater span lengths reduce roof penetrations and mounting components
- **Power-Kits** offer all hardware components in a single part number
- Optional snap-in WEEB grounding system

Flexible Mounting Options

- Height adjustable “L” mounting feet in 4 sizes
- Solid Aluminum Power Post™ mounting option
- Easy Feet that attach anywhere on roof decking
- Power Rail™ Flash Mounting systems
- Tilt legs for increasing energy production

Wind Load	Maximum Span Length	Maximum Cantilever
90mph	96"	36"
130mph	80"	32"

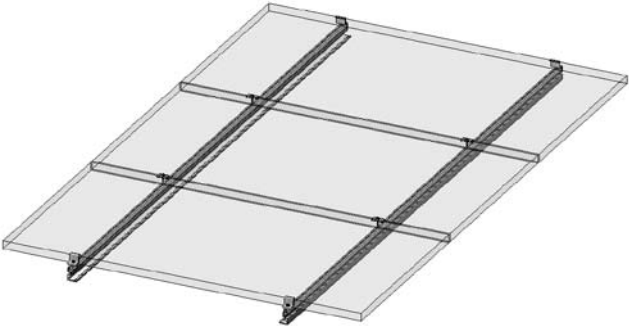
Exposure C Setting – Snow Loads <30lbs/sq ft
Please refer to design guidelines and IBC requirements for more information.



Engineering documentation available upon request

Power-Kits

Power-Kits simplify the ordering process. One part number provides all of the necessary hardware for mounting a single row of modules. Rails are factory cut to the required lengths and all module clamps, roof attachment hardware and fasteners are included for quicker installations and easier ordering.



Ordering a Power-Kit is as easy as 1-2-3

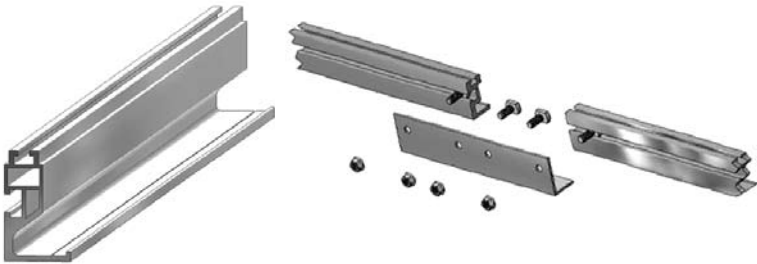
- 1) Select Number of Modules in Row
PRM-12--
Example: 12 modules per row
- 2) Select Module Series from Solar Module Chart on pages 10-13
PRM-7-SWD32-
Example: Solar World 155,165,175 modules

- 3) Select Mounting Support Type from Mounting Support Section
PRM-7-SWD32-LF3
Example: 3.5" Standard Mounting Feet
Final Part Number = PRM-7-SWD32-LF3

NOTE: **Power-Kits** contain the exact lengths of Power Rail, proper quantity of module clamps and selected mounting supports.

Power Rail™ Extrusion

Power Rail is an engineered profile extrusion made from Series 6000 structural aluminum. Mill finish is standard anodized, with powder coat available.



Splice Plate Kit

Standard Lengths

Part #	Length	Weight Per Unit (lbs.)
PR84	84"	8
PR126	126"	12
PR162	162"	15
PR204	204"	19
PR240	240"	22
PR282	282"	26
PR324	324"	30

Splice Plates

Part #	Description	Weight Per Unit (lbs.)
SPK	Splice Plate	0.40

Volume Discounts Available.

Power Rail™ Tilt Legs

Obtain optimal fixed module tilt angles and power production with Power Rail tilt legs.

Part #	Description
FL5	5° Front Leg
BL5	5° Back Leg
FL10	10° Front Leg
BL10	10° Back Leg
FL15	15° Front Leg
BL15	15° Back Leg
FL20	20° Front Leg
BL20	20° Back Leg
FL25	25° Front Leg
BL25	25° Back Leg

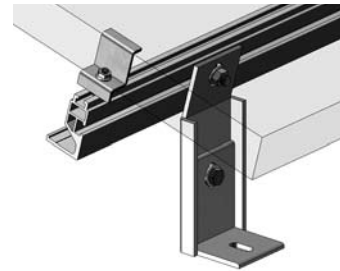
Note: Power Rail Tilt Legs are designed to fit 3.5" standard "L" mounting feet only. 3.5" "L" FOOT SOLD SEPARATELY.



15° Assembly shown



Back Leg shown
"L" foot not included*



Front Leg shown
"L" foot not included*

**Shown with optional "L" foot*

Module Clamps

Module Clamps are Type 304 stainless steel for higher yield strength and durability. The low profile design and slim 3/8" gap between modules provide a professional appearance and higher density.

Part #	Description	Weight Per Unit (lbs.)
EC- <input type="text"/>	Module End Clamp	0.15
MC- <input type="text"/>	Module Mid Clamp	0.08

Note: Replace with module series from the module chart

Example: EC-SWD32 end clamps for

Solar World 155/165/175 modules

Add "B" suffix to part number for black powder coat.

Example: EC-SWD32-B. (Add 25% to price)



"L" Feet

"L" Feet are fabricated from high strength 3/16" aluminum and include a vertical slot for adjusting to irregular surfaces.

Part #	Description	Weight Per Unit (lbs.)
LF3	Standard 3.5" L-Mounting Foot	0.24
LF5	Tall 5" L-Mounting Foot	0.40
LF6	Tall 6" L-Mounting Foot	0.45
LF7	Tall 7" L-Mounting Foot	0.5
PPB	Power Post Bracket	.09

Note: Add "x" suffix to part number for factory applied butyl mastic.

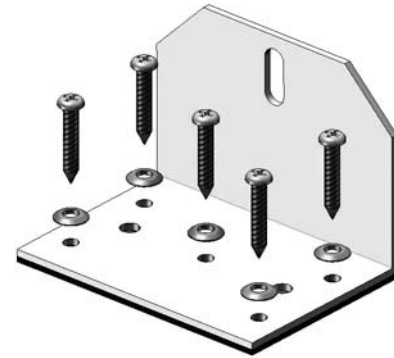
Example: LF3-50x (Add 25% to price)



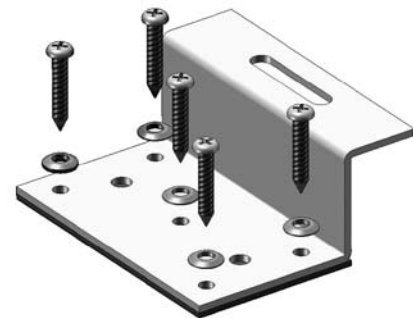
Easy Feet™

Easy Feet mount directly to metal and composite shingles or other roofing materials and do not require attachment to a roof structural member. Sealing butyl mastic backing and RoofGrip™ screws are included.

Part #	Description	Weight Per Unit (lbs.)
PEF	Pivot Easy Mounting Foot	0.76



Part #	Description	Weight Per Unit (lbs.)
ZEF	"Z" Style Easy Mounting Foot	0.53



Roof Rod Mount

Roof Rod mounts attach directly to the roof deck and are suitable for tile and other roofing materials. Sealing butyl mastic backing and RoofGrip™ screws included.

Part #	Description	Weight Per Unit (lbs.)
RRM	Threaded Rod Mount	1.5

Note: L Foot included.

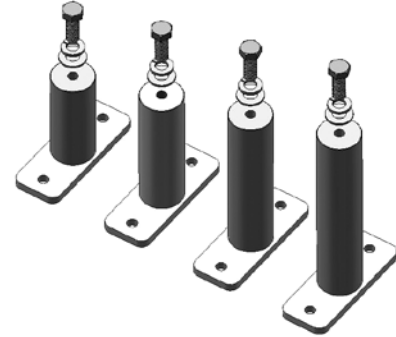


Note: RoofGrip™ is a trademark of ITW Buildex and Illinois Toolworks Inc.

Power Post™ Stanchions

Power posts offer high strength solid aluminum construction and are used with flashing cones.

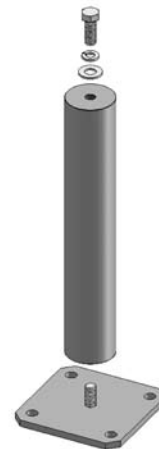
Part #	Description	Diameter	Weight Per Unit (lbs.)
PP3	3" Power Post	1.31"	0.55
PP4	4" Power Post	1.31"	0.67
PP5	5" Power Post	1.31"	0.81
PP6	6" Power Post	1.31"	0.94
PP7	7" Power Post	1.31"	1.1



Super Post™ Stanchions

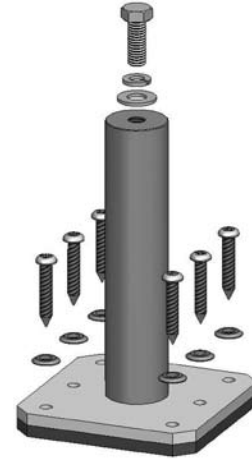
Super posts offer high strength solid aluminum construction for larger arrays and higher roof clearance.

Part #	Description	Diameter	Weight Per Unit (lbs.)
SP7	7" Super Mounting Post	1.75"	2.4
SP8	8" Super Mounting Post	1.75"	2.6
SP9	9" Super Mounting Post	1.75"	2.9
SP10	10" Super Mounting Post	1.75"	3.2



Easy Power Post™ Stanchions

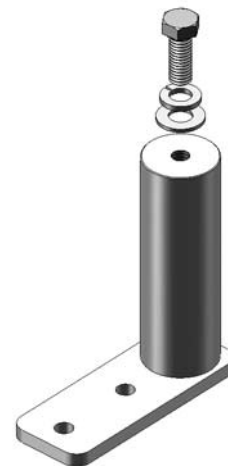
Part #	Description	Diameter	Weight Per Unit (lbs.)
EP3	3" Easy Post	1.31"	0.82
EP4	4" Easy Post	1.31"	0.94
EP5	5" Easy Post	1.31"	1.08
EP6	6" Easy Post	1.31"	1.21
EP7	7" Easy Post	1.31"	1.37



Offset Power Post™ Stanchions

Offset Power Posts center the flashing cone and avoid potential gaps with the Power Post Base.

Part #	Description	Diameter	Weight Per Unit (lbs.)
OP3	3" Offset Mounting Post	1.31"	0.55
OP4	4" Offset Mounting Post	1.31"	0.67
OP5	5" Offset Mounting Post	1.31"	0.81
OP6	6" Offset Mounting Post	1.31"	0.94
OP7	7" Offset Mounting Post	1.31"	1.1

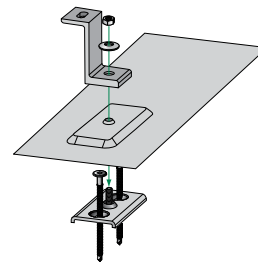


Power Rail™ Accessories

Power Rail™ PV Flash

Power Rail PV Flash includes Stainless Steel base, two 3" fasteners, 8" x 14" flashing in matte black color and specified high strength mounting foot.

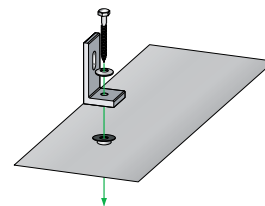
Part #	Mounting Foot	Shipping Weight Per Unit
PFL	3" L Foot	0.80 lbs.
PFZ	3" Z Foot	0.80 lbs.
PFP	3" Tall Post	0.80 lbs.



Power Rail™ Eco Flash

Power Rail Eco Flash includes one 3" x 1/4" lagbolt, 6" x 14" flashing in matte black color and specified high strength mounting foot.

Part #	Mounting Foot	Shipping Weight Per Unit
EFL	3" L Foot	0.48 lbs.
EFZ	3" Z Foot	0.48 lbs.
EFP	3" Tall Post	0.48 lbs.

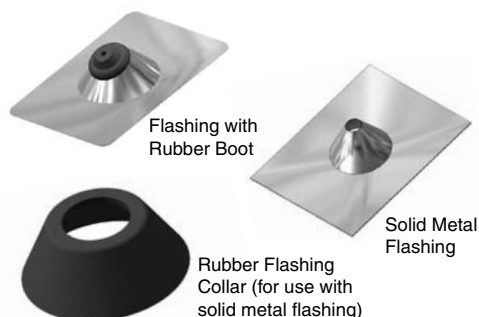


Power Rail™ Accessories

Power Post Flashing

Part #	Description	Weight Per Unit (lbs.)
OF	Oatey Flashing with Rubber Boot for 1.31" posts	0.66
SMF	Aluminum One Piece Flashing	1.15
RFC	Rubber Flashing Collar	0.05

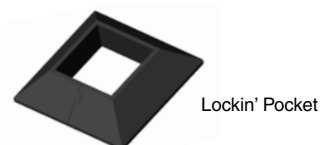
NOTE: Oatey No-Calk® NC-1 Solar flashing are galvanized with a UV Rubber Boot that fits onto the Power Post. Oatey flashing may be used on roof's with 0-45 degree angles.



Flat Roof Flashing

Part #	Description	Weight Per Unit (lbs.)
LPK4	4" Lockin' Pocket	1.7
LPK6	6" Lockin' Pocket	2.6
HFUS	Hurricane Force Universal Sealer	-

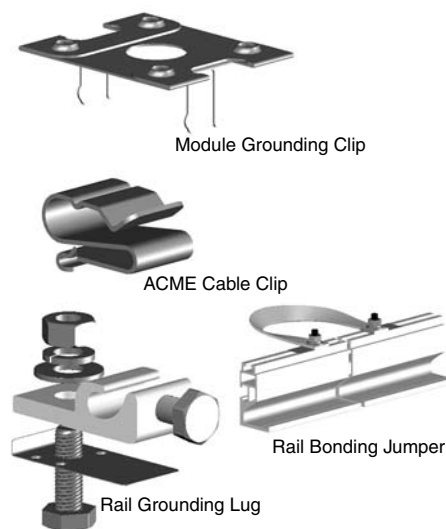
NOTE: Lockin' Pockets and Hurricane Force Sealer are backed by a third party warranty on all flat roof penetrations.



Grounding and Clips

Part #	Description	Weight Per Unit (lbs.)
WEEB-DMC	Module Grounding Clip	.003
WEEBL-6.7	Rail Grounding Lug	0.19
WEEB-6.7-RBJ	Rail Bonding Jumper	0.11
ACC-PV	ACME PV Cable Clip	0.006
ACC	ACME – 2 Cable Clip	0.006

NOTE: Cable Clips snugly hold 1 or 2 designated cables.



Solar Module Chart

	POWER-FAB™ Module Series	Manufacturer's Modules	Number of Modules							
			2	3	4	5	6	7	8	
AEE	AEE21	AE80HE								
		# of Supports	4	4	4	4	4	6	6	
		Rail Length (inches)	45	66	87	108	129	151	172	
		Kit Weight (lbs)	18	23	28	33	38	47	52	
ALEO	ALE33	ALE170 (S16) (165-185)								
		# of Supports	4	4	4	6	6	8	8	
		Rail Length (inches)	69	102	135	168	201	234	267	
		Kit Weight (lbs)	24	32	39	51	59	71	78	
	ALE39	ALE210 (S18)-210-230								
		# of Supports	4	4	6	6	8	8	10	
		Rail Length (inches)	81	121	160	200	239	278	318	
	ALE32	ALE (S3) 155-175								
		# of Supports	4	4	4	6	6	8	8	
		Rail Length (inches)	66	98	130	162	194	226	258	
	ALPS	ALP39	ALPS2000							
			# of Supports	4	4	6	6	8	8	10
Rail Length (inches)			81	121	160	200	239	278	318	
Kit Weight (lbs)			27	36	49	59	72	81	94	
BP SOLAR	BP33	SX3200, SX3195, SX3190								
		# of Supports	4	4	4	6	6	8	8	
		Rail Length (inches)	69	103	136	169	203	236	269	
		Kit Weight (lbs)	24	32	40	51	59	71	79	
	BP31	BP4175, BP175B, BP4175I, SX170B, SX160B, BP3160								
		# of Supports	4	4	4	6	6	6	8	
		Rail Length (inches)	66	97	129	160	191	223	254	
	BP27	SX3140, SX3130, BP3135, BP3130, BP3125, BP3115, BP3110								
		# of Supports	4	4	4	4	6	6	6	
		Rail Length (inches)	56	83	110	137	164	191	218	
	BP21	BP380, BP375, BP350, BP340								
		# of Supports	4	4	4	4	4	6	6	
		Rail Length (inches)	46	67	89	110	131	153	174	
		Kit Weight (lbs)	19	24	29	34	39	48	53	
	CSI	CSI39	CS6P-170/180/190							
			# of Supports	4	4	6	6	8	8	10
Rail Length (inches)			81	120	159	198	237	276	315	
Kit Weight (lbs)			27	36	49	58	71	80	93	
DAY4	DAY39	48MC-170								
		# of Supports	4	4	6	6	8	8	10	
		Rail Length (inches)	81	121	160	200	239	278	318	
		Kit Weight (lbs)	27	36	49	59	72	81	94	
EVERGREEN	EVR26	EC120								
		# of Supports	4	4	4	4	6	6	6	
		Rail Length (inches)	55	81	107	133	159	185	211	
	EVR38	ES190								
		# of Supports	4	4	6	6	8	8	10	
		Rail Length (inches)	78	116	154	192	230	268	306	
	EVR38X	ES-A-200								
		# of Supports	4	4	6	6	8	8	10	
		Rail Length (inches)	78	116	154	192	230	268	306	
	GE	GE21	GE85							
			# of Supports	4	4	4	4	4	6	6
			Rail Length (inches)	45	66	87	109	130	151	172
GE26		GE110								
		# of Supports	4	4	4	4	6	6	6	
		Rail Length (inches)	55	82	108	135	161	187	214	
GE39		GE173, GEPVp-185-MC, GEPVp-200-MC								
		# of Supports	4	4	6	6	8	8	10	
		Rail Length (inches)	81	120	159	198	236	275	314	
			Kit Weight (lbs)	27	36	49	58	71	80	93

Solar Module Chart *(continued)*

	POWER-FAB™ Module Series	Manufacturer's Modules	Number of Modules							
			2	3	4	5	6	7	8	
GLOBAL SOLAR	GSE47	33060-O								
		# of Supports	4	4	6	8	8	10	10	
		Rail Length (inches)	96	143	190	237	284	331	378	
		Kit Weight (lbs)	30	41	56	71	82	97	108	
ISOFOTON	ISO42	IS-200/32, IS-150S/24, IS-150S/12								
		# of Supports	4	4	6	6	8	8	10	
		Rail Length (inches)	86	127	169	211	252	294	335	
			Kit Weight (lbs)	28	38	51	61	75	85	98
	ISO31	IS-150/32, IS-150/24, IS-150/12								
		# of Supports	4	4	4	6	6	6	8	
		Rail Length (inches)	66	97	129	160	191	223	254	
			Kit Weight (lbs)	23	31	38	49	57	64	75
	ISO22	IS-75/12								
# of Supports		4	4	4	4	4	6	6		
Rail Length (inches)		46	68	90	112	134	156	178		
		Kit Weight (lbs)	19	24	29	34	39	48	53	
KANEKA	KNK38	KNK-G-S A060 / P-LE055								
		# of Supports	4	4	6	6	8	8	10	
		Rail Length (inches)	79	117	155	194	232	270	308	
			Kit Weight (lbs)	26	35	48	57	70	79	92
	KNK38X	KNK-ED/SD120								
		# of Supports	4	4	6	6	8	8	10	
		Rail Length (inches)	79	117	155	194	232	270	308	
			Kit Weight (lbs)	26	35	48	57	70	79	92
	KNK39	KNK-SC / EC120								
# of Supports		4	4	6	6	8	8	10		
Rail Length (inches)		81	121	160	200	239	278	318		
		Kit Weight (lbs)	27	36	49	59	72	81	94	
KYOCERA	KYO39	KD210, KD205, KD180GX-LP, KC200, KC175								
		# of Supports	4	4	6	6	8	8	10	
		Rail Length (inches)	81	121	160	200	239	278	318	
			Kit Weight (lbs)	27	36	49	59	72	81	94
	KYO27	KD135GX-LP, KD130GX-LP								
		# of Supports	4	4	4	4	6	6	6	
		Rail Length (inches)	56	83	109	136	163	189	216	
			Kit Weight (lbs)	21	27	34	40	50	56	62
	KYO26	KC130, KC85T, KC65T, KC50T, KC40T								
# of Supports		4	4	4	4	6	6	6		
Rail Length (inches)		55	81	107	133	159	185	211		
		Kit Weight (lbs)	21	27	33	39	49	55	61	
MITSUBISHI	MIT26	MF110								
		# of Supports	4	4	4	4	6	6	6	
		Rail Length (inches)	54	80	106	132	157	183	209	
			Kit Weight (lbs)	21	27	33	39	49	55	61
	MIT32	MF125, MT165-EB3								
		# of Supports	4	4	4	6	6	8	8	
		Rail Length (inches)	67	99	131	163	194	226	258	
			Kit Weight (lbs)	24	31	38	50	57	69	76
	MIT27	UE125								
# of Supports		4	4	4	4	6	6	6		
Rail Length (inches)		56	83	110	137	164	191	218		
		Kit Weight (lbs)	21	27	34	40	50	57	63	
MIT33	MT180-UD4									
	# of Supports	4	4	4	6	6	8	8		
	Rail Length (inches)	69	102	136	169	202	235	268		
		Kit Weight (lbs)	24	32	40	51	59	71	79	
NINGBO	NIN32	TDB125x125-72-P								
		# of Supports	4	4	4	6	6	8	8	
		Rail Length (inches)	67	99	131	164	196	228	260	
		Kit Weight (lbs)	24	31	39	50	58	69	77	

continued on next page

Solar Module Chart *(continued)*

	POWER-FAB™ Module Series	Manufacturer's Modules	Number of Modules						
			2	3	4	5	6	7	8
REC	REC39	SCM210							
		# of Supports	4	4	6	6	8	8	10
		Rail Length (inches)	81	121	160	200	239	278	318
		Kit Weight (lbs)	27	36	49	59	72	81	94
SANYO	SAN32	HIT POWER 205N, 210N & 215N							
		# of Supports	4	4	6	6	8	8	8
		Rail Length (inches)	67	99	131	164	196	228	260
		Kit Weight (lbs)	24	31	39	50	58	69	77
	SAN35	HIT POWER 190, 195, 200 & BA19							
		# of Supports	4	4	6	6	6	8	8
		Rail Length (inches)	73	108	143	178	213	248	283
		Kit Weight (lbs)	25	34	46	54	62	75	83
	SAN36	HIP200BA3							
		# of Supports	4	4	6	6	6	8	8
		Rail Length (inches)	74	109	145	181	216	252	287
		Kit Weight (lbs)	25	34	46	54	63	75	83
SCHOTT	ASE51	ASE300							
		# of Supports	4	6	6	8	10	10	12
		Rail Length (inches)	104	155	206	257	308	359	410
		Kit Weight (lbs)	32	48	60	76	92	104	120
SCHUCO	SCH32	S125-SP, S158-SP, S165-SP							
		# of Supports	4	4	4	6	6	8	8
		Rail Length (inches)	67	99	131	163	195	227	259
		Kit Weight (lbs)	24	31	38	50	57	69	76
SHARP	SHP21	NE-80EJEA, NE-80U1							
		# of Supports	4	4	4	4	4	6	6
		Rail Length (inches)	46	67	89	110	132	153	175
		Kit Weight (lbs)	19	24	29	34	39	48	53
	SHP26	ND-123U1, ND-L3EJEA, ND-L5E1U, ND-130UJF							
		# of Supports	4	4	4	4	6	6	6
		Rail Length (inches)	55	82	108	135	161	188	214
		Kit Weight (lbs)	21	27	33	39	50	56	62
	SHP33	NE-170U1, NT-175-U1, NE-165U1, NT-180U1							
		# of Supports	4	4	4	6	6	8	8
		Rail Length (inches)	68	101	134	167	200	233	266
		Kit Weight (lbs)	24	32	39	51	59	70	78
	SHP39	ND-200U1F, ND-205U1F, ND-208U1, ND-216-U1F, ND-220U1F, ND-220U2, ND-224U1, ND-224U2, ND-167U3							
		# of Supports	4	4	6	6	8	8	10
		Rail Length (inches)	82	121	161	200	239	279	318
		Kit Weight (lbs)	27	36	49	59	72	81	94
SOLARWORLD	SWD21	SQ-80, SW75, SW80							
		# of Supports	4	4	4	4	4	6	6
		Rail Length (inches)	45	66	87	109	130	151	172
		Kit Weight (lbs)	18	23	28	33	38	47	52
SWD32	SW155, 165, 175								
	# of Supports	4	4	4	6	6	8	8	
	Rail Length (inches)	67	99	132	164	196	229	261	
	Kit Weight (lbs)	24	31	39	50	58	69	77	
SUNPOWER	SPR21	SPR-90							
		# of Supports	4	4	4	4	4	6	6
		Rail Length (inches)	45	66	87	108	129	151	172
		Kit Weight (lbs)	18	23	28	33	38	47	52
	SPR32	SPR-220							
		# of Supports	4	4	4	6	6	8	8
		Rail Length (inches)	66	98	130	162	193	225	257
		Kit Weight (lbs)	23	31	38	50	57	69	76
	SPR42	SPR-315							
		# of Supports	4	4	6	6	8	8	10
		Rail Length (inches)	86	127	169	210	252	294	335
		Kit Weight (lbs)	28	38	51	61	75	84	98
SUNTECH	STP32	STP170/175/180							
		# of Supports	4	4	4	6	6	8	8
		Rail Length (inches)	67	99	131	164	196	228	260
		Kit Weight (lbs)	24	31	39	50	58	69	77
	STP39	STP200							
		# of Supports	4	4	6	6	8	8	10
		Rail Length (inches)	82	121	161	200	239	279	318
		Kit Weight (lbs)	27	36	49	59	72	81	94

Solar Module Chart *(continued)*

	POWER-FAB™ Module Series	Manufacturer's Modules	Number of Modules							
			2	3	4	5	6	7	8	
SUNTECH	STP39X	STP260/270/280								
		# of Supports	4	4	6	6	8	8	10	
		Rail Length (inches)	82	121	161	200	239	279	318	
		Kit Weight (lbs)	27	36	49	59	72	81	94	
SUNWIZE	SWZ23	SWZ 50A								
		# of Supports	4	4	4	4	4	6	6	
		Rail Length (inches)	49	72	95	118	140	163	186	
			Kit Weight (lbs)	19	25	30	35	41	50	55
	SWZ20	SWZ60								
		# of Supports	4	4	4	4	4	4	6	
		Rail Length (inches)	43	63	83	103	123	143	163	
			Kit Weight (lbs)	18	23	27	32	37	41	50
	SWZ24	SW75A, SW80A								
		# of Supports	4	4	4	4	6	6	6	
		Rail Length (inches)	50	73	97	121	144	168	191	
			Kit Weight (lbs)	20	25	31	36	46	51	57
	SWZ23X	SWZ90								
		# of Supports	4	4	4	4	4	6	6	
		Rail Length (inches)	49	72	95	118	140	163	186	
			Kit Weight (lbs)	19	25	30	35	41	50	55
	SWZ26	SWZ120								
		# of Supports	4	4	4	4	6	6	6	
		Rail Length (inches)	54	80	106	132	157	183	209	
			Kit Weight (lbs)	21	27	33	39	49	55	61
	SWZ32	SW170-L, SW175-L and SW180-L								
# of Supports		4	4	4	6	6	8	8		
Rail Length (inches)		67	99	131	164	196	228	260		
		Kit Weight (lbs)	24	31	39	50	58	69	77	
UNI-SOLAR	UNI30	US64								
		# of Supports	4	4	4	6	6	6	8	
		Rail Length (inches)	62	91	121	150	180	210	239	
		Kit Weight (lbs)	22	29	36	47	54	61	72	
UNI32	ES-62T									
	# of Supports	4	4	4	6	6	8	8		
	Rail Length (inches)	66	98	129	161	192	224	256		
		Kit Weight (lbs)	23	31	38	50	57	68	76	
YINGLI	YNG39	YL175, YL170, YL165, YL160, YL155, YL150								
		# of Supports	4	4	6	6	8	8	10	
		Rail Length (inches)	81	121	160	200	239	278	318	
		Kit Weight (lbs)	27	36	49	59	72	81	94	
YNG41	YL240 through YL205									
	# of Supports	4	4	6	6	8	8	10		
	Rail Length (inches)	85	126	167	208	248	289	330		
		Kit Weight (lbs)	28	37	51	60	74	84	97	



DPW | SOLAR



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