



**Series 5002**

***All PV PoleTops<sup>®</sup> and most adjustable PV PoleSides<sup>™</sup> use installer-friendly SolarMount<sup>®</sup> HD (heavy duty) or standard SolarMount<sup>®</sup> rails and, except where noted, SolarMount<sup>®</sup> bottom mounting clips.***

# **PV PoleMounts<sup>™</sup>**

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## SIZING CHARTS

- 1 Choose one of the three basic PV PoleMounts configurations:
  - PV PoleTops<sup>®</sup>. . . . . 3
  - Adjustable Tilt PV PoleSides<sup>™</sup> . . . . . 9
  - Fixed Tilt PV PoleSides<sup>™</sup> . . . . . 12
- 2 Review Design Wind Pressure ratings:
  - PV PoleTops<sup>®</sup>. . . . . 2
- 3 Use sizing charts to select a rack series and model number based on the manufacturer, model number, and quantity of modules you plan to mount:
  - PV PoleTops<sup>®</sup>. . . . . 3–5
  - Adjustable Tilt PV PoleSides<sup>™</sup> . . . . . 9–10
  - Fixed Tilt PV PoleSides<sup>™</sup> . . . . . 12

## Design Wind Pressures for PV PoleTops®

To ensure the structural integrity and to provide the installer with an accurate wind pressure rating, we have thoroughly computer analyzed and laboratory tested our PV PoleTops. The resulting Design Wind Pressures—maximum allowable wind pressure in pounds per square foot (psf)—appear after model numbers on the sizing chart on pages 3–5.

Each rating applies to the mounting pole in addition to the PV PoleTops rack. Where our rating is below 50 psf, it is in most cases because our analysis predicts that the mounting pole will buckle above the rated load.

**Your PV panels may carry a lower wind load rating. The manufacturers' rating is typically 50 psf.**

The ratings on our sizing chart were calculated based on the following assumptions:

- Manufacturer, model, and quantity of modules as indicated on the sizing chart;
- A tilt angle of 40 degrees from the horizontal for Series 5000 to 5003, 55 degrees for Series 5014/5034;
- A mounting pole of Schedule 40 steel pipe, 5 feet above ground for Series 5000 to 5003, 6 feet for Series 5014/5034;
- Installation performed in accordance with applicable installation instructions.

### What Design Wind Pressure is required for your site?

Start with the basic wind speed at the site. For this figure, consult a local professional engineer or the

building authority with jurisdiction over the site. In the United States, consult basic wind speed information in the building code appropriate to your site, for example, ASCE 7, the California Building Code, the International Building Code, or the Uniform Building Code. These codes also define wind exposure categories.

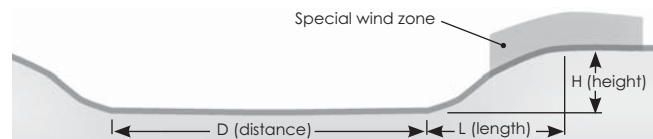
To determine your wind load, apply your basic wind speed and exposure category to the “Design Wind Pressures” table on this page. For example, if your basic wind speed is 100 miles per hour and your site fits Exposure Category C, you will require a rack with a Design Wind Pressure of 26 psf or greater.

**Special terrain** can experience extra high wind loads and require further analysis to determine an installation’s suitability: canyons or gaps where wind may be funneled at high speed and the upper half of some isolated hills, ridges, and escarpments. (For an example, see the “Special terrain” illustration on this page). UniRac warrants installations on “special terrain” only if a professional engineer or UniRac has determined that the wind loads at the particular site fall within published design load limits.

**UniRac can provide additional help.** If requirements or conditions at your site deviate significantly from the assumptions listed above, contact our Applications Department. We’ll input your parameters through our proprietary analysis program to quickly determine your wind load rating. We’ll put it in writing.

### Design Wind Pressures (psf)

Exposure category	Basic wind speed (mph)				
	90	100	110	120	130
B	14	18	21	25	30
C	21	26	32	38	44
D	26	32	38	46	53



**Special terrain:** The upper half of a hill constitutes a special wind zone if the slope ( $H \div L$ ) is greater than 0.1 and if distance ( $D$ ) to similar terrain is greater than two miles or 100 times the height of the hill ( $H$ ). Contact a professional engineer or UniRac.

## Configurations: PV PoleTops® Single Row



**Series 5000**  
with SolarMount® standard rails for 2.5" (65 mm) Schedule 40 or 80 steel pole, outside dia. 2.875" (73.0 mm)



**Series 5001**  
with SolarMount® HD (heavy duty) rails for 3" (80 mm) Schedule 40 or 80 steel pole, outside dia. 3.500" (88.9 mm)



**Series 5002**  
with SolarMount® HD (heavy duty) rails for 4" (100 mm) Schedule 40 or 80 steel pipe, outside dia. 4.500" (114.3 mm)

## Configurations: PV PoleTops® Double Row



**Series 5003**  
with SolarMount® HD (heavy duty) rails for 4" (100 mm) Schedule 40 or 80 steel pole, outside dia. 4.500" (114.3 mm)



**Series 5014/5034**  
with SolarMount® HD (heavy duty) rails for 6" (150 mm) Schedule 40 or 80 steel pole, outside dia. 6.625" (168.3 mm)

For larger pole sizes:

Series 5000—See "U-bolt Substitution," page 11.

Series 5014/5034—See reducer for 8-inch (200 mm) Schedule 40 or 80 steel pole, outside diameter 8.625 inches (219.1 mm), "Accessories," page 8.

### KEY

500323 48

Rack item no. (series no. = first 4 digits).

Design Wind Pressure, pounds per square foot (psf). Where multiple selections are listed, choose the rack item number with the lowest design wind pressure acceptable at your site. **Note: Your PV modules may carry a lower Design Wind Pressure rating.** See "Design Wind Pressures for PV PoleTops" on the facing page.

## Sizing Chart: PV PoleTops®

Select rack based on manufacturer, model number, and quantity of the modules you plan to mount.

Module	Number of modules to be mounted							
	1	2	3	4	6	8	10	12
<b>AEE</b>								
AE80j	500024 115	500016 58	500117 53	500123 40	500350 33	500337 25 501434 25	501438 54	501478 17
<b>BP Solar</b>								
BP350	500024 165	500016 83	500105 75	500110 56	500323 48	500328 36	501493 27	501429 22
BP365	500023 133	500029 67	500103 60	500108 56	500321 38	500326 28	501423 29	501427 24
BP380, -485	500024 114	500016 57	500105 52	500110 39	500323 32	500328 25 501421 33	501493 27	501429 22
BP3125	500044 46	500129 50	500132 33	500229 31	500315 20 501457 19	501463 14		
BP3150, -3160, -4175, -SX160B, -SX170B	500045 37	500130 39	500226 34	500340 23 501453 24	501459 16			
<b>Evergreen</b>								
EC110, -115, -120	500036 56	500114 49	500121 32	500224 31	500342 19 501456 19	501462 14		
ES170RL, -180RL, -190RL	500039 39	500120 33	500230 28	500341 20 501404 20				
<b>GE Energy</b>								
GEPV045, -050	500007 131	500001 66	500108 59	500146 44	500326 37	500330 28 501425 27	503400 22	
GEPV072, -085	500024 117	500030 59	500117 54	500122 40	500350 33	500336 25 501433 26	501437 20	501441 17

GE Energy and other module sizing continues on page 4

**Sizing Chart: PV PoleTops®** (continued)

Module	Number of modules to be mounted							
	1	2	3	4	6	8	10	12
<b>GE Energy (continued)</b>								
GEPV100, -110	500007 <b>76</b>	500133 <b>52</b>	500136 <b>34</b>	500225 <b>32</b>	500313 <b>21</b> 501432 <b>27</b>	501437 <b>20</b>	501444 <b>16</b>	
GEPVp130	500007 <b>75</b>	500133 <b>51</b>	500136 <b>34</b>	500225 <b>32</b>	500313 <b>21</b> 501432 <b>27</b>	501437 <b>20</b>	501444 <b>16</b>	
GEPV173	500029 <b>52</b>	500121 <b>35</b>	500232 <b>30</b>	500335 <b>22</b> 501432 <b>27</b>	501439 <b>18</b>			
GEPVp185, -200	500029 <b>51</b>	500121 <b>34</b>	500232 <b>29</b>	500335 <b>21</b> 501432 <b>27</b>	501440 <b>18</b>			
<b>Isofoton</b>								
I-100	500036 <b>68</b>	500114 <b>59</b>	500121 <b>39</b>	500224 <b>37</b>	500335 <b>25</b> 501432 <b>27</b>	501437 <b>20</b>	501443 <b>16</b>	
I-150S	500041 <b>45</b>	500122 <b>40</b>	500233 <b>33</b>	500336 <b>25</b> 501433 <b>26</b>	501441 <b>17</b>			
<b>Kaneka</b>								
G-EA060, G-SA060	500014 <b>49</b>	500131 <b>52</b>	500241 <b>45</b>	500335 <b>33</b>	501439 <b>18</b>			
<b>Kyocera</b>								
KC50T, -65T, -85T	500025 <b>113</b>	500031 <b>57</b>	500107 <b>52</b>	500113 <b>39</b>	500325 <b>32</b> 501486 <b>37</b>	500330 <b>24</b> 503401 <b>28</b>	501429 <b>22</b>	501430 <b>14</b>
KCI30GT, -130TM	500043 <b>50</b>	500128 <b>53</b>	500131 <b>35</b>	500228 <b>34</b>	500342 <b>23</b> 501456 <b>19</b>	501462 <b>14</b>		
KCI75GT	500039 <b>45</b>	500132 <b>40</b>	500243 <b>33</b>	500313 <b>25</b> 501432 <b>27</b>	501440 <b>18</b>			
KC200GT	500014 <b>32</b>	500132 <b>34</b>	500243 <b>30</b>	500315 <b>22</b> 501457 <b>19</b>				
<b>Mitsubishi</b>								
PVMF110EC3, -120EC3	500043 <b>51</b>	500128 <b>53</b>	500131 <b>35</b>	500228 <b>35</b>	500342 <b>23</b> 501456 <b>19</b>	501462 <b>14</b>		
PVMF125EA2LF, -130A2LF	500045 <b>46</b>	500130 <b>51</b>	500140 <b>33</b>	500340 <b>31</b> 501453 <b>24</b>	500301 <b>21</b> 501460 <b>15</b>			
PVMF160EB3, -165EB3, -170EB3	500045 <b>37</b>	500130 <b>36</b>	500214 <b>33</b>	500340 <b>23</b> 501453 <b>24</b>	501460 <b>15</b>			
<b>Photowatt</b>								
PW6-110, -123	500043 <b>49</b>	500128 <b>54</b>	500131 <b>35</b>	500228 <b>34</b>	500342 <b>22</b> 501456 <b>19</b>	501462 <b>14</b>		
PW750	500035 <b>84</b>	500042 <b>42</b>	500119 <b>49</b>	500145 <b>37</b>	500334 <b>31</b> 501433 <b>26</b>	500309 <b>23</b> 501435 <b>24</b>	503403 <b>19</b>	501444 <b>16</b>
PW1650	500041 <b>43</b>	500123 <b>38</b>	500233 <b>31</b>	500337 <b>24</b> 501434 <b>25</b>	501443 <b>16</b>			
<b>Schott Solar</b>								
ASE300-DGF 50	500128 <b>45</b>	500227 <b>26</b>						
<b>Sanyo*</b>								
HIP180BA3, -186BA3, -190BA3, -195BA3, -200BA3	500002 <b>62</b>	500143 <b>43</b>	500240 <b>36</b>	501498 <b>29</b>	501495 <b>20</b>	501487 <b>15</b>		

\* Use models listed in this row only for Sanyo modules. Top mounting clamp sets are substituted to accommodate Sanyo modules, which have no mounting holes.

**Sizing Chart: PV PoleTops®** (continued)

Module	Number of modules to be mounted							
	1	2	3	4	6	8	10	12
<b>Sharp</b>								
NE-80EJEA	500034 <b>90</b>	500041 <b>45</b>	500117 <b>53</b>	500123 <b>39</b>	500350 <b>33</b> 501496 <b>34</b>	500337 <b>25</b> 501434 <b>25</b>	501494 <b>20</b>	501478 <b>17</b>
ND-L3EJEA (123w), -L5EIU (125w)	500044 <b>47</b>	500129 <b>46</b>	500132 <b>31</b>	500229 <b>32</b>	500315 <b>20</b> 501457 <b>19</b>	501463 <b>14</b>		
ND-N2ECU (142w)	500039 <b>50</b>	500136 <b>43</b>	500232 <b>37</b>	500313 <b>27</b> 501432 <b>27</b>	501440 <b>18</b>			
ND-162UI, -167U3A	500039 <b>44</b>	500136 <b>39</b>	500232 <b>32</b>	500313 <b>24</b> 501432 <b>27</b>	501440 <b>18</b>			
ND-187UI	500039 <b>39</b>	500132 <b>34</b>	500243 <b>29</b>	500315 <b>21</b> 501457 <b>19</b>				
<b>SolarWorld (Shell)</b>								
80P, 85P	500024 <b>117</b>	500030 <b>59</b>	500117 <b>54</b>	500122 <b>40</b>	500350 <b>33</b> 501496 <b>34</b>	500336 <b>25</b> 501433 <b>26</b>	501437 <b>20</b>	501441 <b>17</b>
165P, -PC, 175P, -PC	500027 <b>56</b>	500118 <b>38</b>	500237 <b>32</b>	500348 <b>21</b> 501484 <b>23</b>	501489 <b>15</b>			
<b>SunPower</b>								
SPR90, -95	500024 <b>85</b>	500030 <b>68</b>	500117 <b>62</b>	500122 <b>46</b>	501485 <b>40</b>	500327 <b>29</b> 501434 <b>25</b>	501425 <b>27</b>	501428 <b>23</b>
SPR200BLK, -210, -215BLK, -220	500038 <b>47</b>	500117 <b>41</b>	500214 <b>34</b>	500340 <b>24</b> 501453 <b>24</b>	501460 <b>15</b>			
<b>Suntech</b>								
STP060	500007 <b>145</b>	500001 <b>72</b>	500108 <b>66</b>	500146 <b>49</b>	500326 <b>42</b> 501491 <b>36</b>	501425 <b>27</b>	503400 <b>22</b>	
STP085S	500024 <b>115</b>	500016 <b>57</b>	500118 <b>52</b>	500123 <b>39</b>	500334 <b>33</b> 501431 <b>33</b>	500337 <b>25</b> 501434 <b>25</b>	501494 <b>20</b>	501443 <b>16</b>
STP110-12 Tb, -115-12/Tc, -120, -130, -140	500037 <b>58</b>	500133 <b>51</b>	500122 <b>33</b>	500235 <b>31</b>	500349 <b>21</b> 501481 <b>18</b>	501463 <b>14</b>		
STP110-24/Ab, STP175-24/Ab-I	500038 <b>46</b>	500118 <b>40</b>	500127 <b>26</b> 500237 <b>33</b>	500340 <b>23</b> 501453 <b>24</b>	501460 <b>15</b>			
<b>SunWize</b>								
SW50C, 55, 60	500023 <b>149</b>	500029 <b>74</b>	500103 <b>68</b>	500108 <b>51</b>	500321 <b>43</b>	500326 <b>31</b>	501423 <b>29</b>	501427 <b>24</b>
SW85, -90, -90C	500035 <b>69</b>	500042 <b>35</b>	500119 <b>41</b>	500126 <b>31</b>	500347 <b>26</b> 501454 <b>21</b>	501458 <b>16</b>		
SW100, -115, -120	500036 <b>63</b>	500114 <b>55</b>	500121 <b>36</b>	500223 <b>34</b>	500342 <b>23</b> 501456 <b>19</b>	501461 <b>14</b>		
SW150, -155, -160	500038 <b>45</b>	500117 <b>39</b>	500236 <b>32</b>	500339 <b>21</b> 501452 <b>24</b>	501458 <b>16</b>			
<b>Uni-Solar</b>								
ES62T	500038 <b>58</b>	500118 <b>51</b>	500139 <b>33</b>	500350 <b>32</b> 501431 <b>33</b>	500352 <b>21</b> 501436 <b>22</b>	501478 <b>17</b>		
US64	500037 <b>57</b>	500135 <b>50</b>	500124 <b>33</b>	500339 <b>31</b> 501452 <b>24</b>	500317 <b>20</b> 501488 <b>17</b>			
<b>Yingli</b>								
YL80, -85	500024 <b>117</b>	500016 <b>59</b>	500106 <b>54</b>	500110 <b>40</b>	500351 <b>33</b>	500328 <b>25</b> 501421 <b>33</b>	501493 <b>27</b>	501429 <b>22</b>

**Specifications: Series 5000 Single Row PV PoleTops®**


**Series 5000**  
with SolarMount®  
standard rails for 2½"  
(65 mm) Schedule  
40 or 80 steel pole,  
outside dia. 2.875"  
(73.0 mm)

Adapt your Series 5000 rack to a larger pole  
size with U-bolt substitution.

See "U-bolt Substitution" prices on page 11.

Item number	Rail/ channel length	Module bolt sets	Shipping	
			Lbs	Inches
500001	54"/24"	2 12	55x4x3	
500002*	38"/24"	1* 10	39x4x3	
500007	28"/24"	1 9	29x4x3	
500014	40"/40"	1 12	41x4x3	
500016	44"/24"	2 11	45x4x3	
500023	20"/24"	1 9	25x4x3	
500024	22"/24"	1 9	25x4x3	
500025	26"/24"	1 9	27x4x3	
500027	34"/24"	1 10	35x4x3	
500029	40"/24"	2 11	41x4x3	
500030	42"/24"	2 11	43x4x3	
500031	52"/24"	2 12	51x4x3	

Item number	Rail/ channel length	Module bolt sets	Shipping	
			Lbs	Inches
500034	22"/32"	1 10	33x4x3	
500035	24"/32"	1 10	33x4x3	
500036	26"/32"	1 10	33x4x3	
500037	30"/32"	1 11	33x4x3	
500038	32"/32"	1 11	33x4x3	
500041	44"/32"	2 12	45x4x3	
500042	46"/32"	2 12	47x4x3	
500043	26"/40"	1 12	41x4x3	
500044	28"/40"	1 12	41x4x3	
500045	32"/40"	1 12	41x4x3	

**Specifications: Series 5001 Single Row PV PoleTops®**


**Series 5001**  
with SolarMount®  
HD (heavy duty)  
rails for 3" (80 mm)  
Schedule 40 or 80  
steel pole, outside  
dia. 3.500" (88.9 mm)

Item number	Rail/ X-tube length	Module bolt sets	Shipping	
			Lbs	Inches
500103	60"/24"	3 21	64x5x4	
500105	64"/24"	3 22	68x5x4	
500106	66"/24"	3 23	70x5x4	
500107	78"/24"	3 25	82x5x4	
500108	80"/24"	4 25	84x5x4	
500110	86"/24"	4 27	90x5x4	
500113	104"/24"	4 31	108x5x4	
500114	52"/32"	2 21	56x5x4	
500117	64"/32"	3 22	66x5x4	
500118	66"/32"	3 24	70x5x4	
500119	70"/32"	3 25	74x5x4	
500120	76"/32"	3 26	80x5x4	
500121	78"/32"	3 26	82x5x4	
500122	84"/32"	4 27	88x5x4	
500123	86"/32"	4 28	90x5x4	
500124	88"/32"	4 29	92x5x4	

Item number	Rail/ X-tube length	Module bolt sets	Shipping	
			Lbs	Inches
500126	92"/32"	4 30	96x5x4	
500127	98"/32"	3 31	102x5x4	
500128	52"/40"	2 22	56x5x4	
500129	54"/40"	2 23	58x5x4	
500130	64"/40"	2 23	66x5x4	
500131	78"/40"	3 27	82x5x4	
500132	80"/40"	3 27	84x5x4	
500133	54"/32"	2 20	58x5x4	
500135	60"/32"	2 22	64x5x4	
500136	80"/32"	3 26	84x5x4	
500139	94"/32"	3 28	98x5x4	
500140	96"/40"	3 29	100x5x4	
500143*	74"/32"	2 26	78x5x4	
500145	90"/32"	4 30	94x5x4	
500146	106"/24"	4 31	106x5x4	

**Specifications: Series 5002 Single Row PV PoleTops®**


**Series 5002**  
with SolarMount®  
HD (heavy duty)  
rails for 4" (100 mm)  
Schedule 40 or 80  
steel pole, outside  
dia. 4.500" (114.3  
mm)

Item number	Rail/ X-tube length	Module bolt sets	Shipping	
			Lbs	Inches
500214	96"/40"	3 40	100x7x4	
500220	98"/24"	3 37	102x7x4	
500223	102"/32"	4 39	106x7x4	
500224	104"/32"	5 40	108x7x4	
500225*	106"/32"	3* 41	110x7x4	
500226	94"/40"	3 37	98x7x4	
500227	102"/40"	4 39	106x7x4	
500228	104"/40"	4 40	108x7x4	
500229†	108"/40"	4 41	110x7x4	

Item number	Rail/ X-tube length	Module bolt sets	Shipping	
			Lbs	Inches
500230†	114"/32"	3 42	118x7x4	
500232†	118"/32"	3 43	122x7x4	
500233†	130"/32"	3 46	132x7x4	
500235†	108"/32"	4 41	112x7x4	
500236	94"/32"	3 37	98x7x4	
500237	98"/32"	3 39	104x7x4	
500240*†	108"/32"	3 41	112x7x4	
500241†	114"/40"	3 43	118x7x4	
500243†	118"/40"	3 44	122x4x4	

\* For use with Sanyo modules only. Top mounting clamp sets are substituted to accommodate the listed number of Sanyo modules.

† Ships via truck freight only; all others may ship UPS.

**Specifications: Series 5003 Double Row PV PoleTops®**



**Series 5003**  
with SolarMount®  
HD (heavy duty)  
rails for 4" (100 mm)  
Schedule 40 or 80  
steel pole, outside  
dia. 4.500" (114.3  
mm)

Item number	Rail/ X-tube length	Module bolt sets	Shipping	
			Lbs	Inches
500301	96"/102"	6	68	106x7x4
500309	90"/84"	8	63	94x7x4
500313	80"/84"	6	59	88x7x4
500315	80"/102"	6	63	106x7x4
500317	88"/102"	6	66	106x7x4
500321	60"/72"	6	49	76x7x4
500323	64"/72"	6	51	76x7x4
500325	78"/72"	6	55	82x7x4
500326	80"/72"	8	56	84x7x4
500327	84"/72"	8	57	88x7x4
500328	86"/72"	8	58	90x7x4
500330	104"/72"	8	63	108x7x4
500334	68"/84"	6	56	88x7x4

Item number	Rail/ X-tube length	Module bolt sets	Shipping	
			Lbs	Inches
500335	78"/84"	6	59	88x7x4
500336	84"/84"	8	61	88x7x4
500337	86"/84"	8	61	90x7x4
500339	62"/102"	4	57	106x7x4
500340	64"/102"	4	58	106x7x4
500341	76"/102"	6	62	106x7x4
500342	78"/102"	6	62	106x7x4
500347	70"/102"	6	60	106x7x4
500348	66"/102"	4	59	106x7x4
500349	82"/102"	6	64	106x7x4
500350	64"/84"	6	54	88x7x4
500351	68"/72"	6	52	76x7x4
500352	94"/84"	6	64	98x7x4

**Specifications: Series 5014/5034 Double Row PV PoleTops® with High Wind Brace**



**Series 5014/5034**  
with SolarMount®  
HD (heavy duty)  
rails for 6" (150 mm)  
Schedule 40 or 80  
steel pole, outside  
dia. 6.625" (168.3  
mm)

Item number	Rail/ X-tube length	Module bolt sets	Shipping†	
			Lbs	Inches
501404†	76"/102"	4	92	106x7x6
501420†	84"/72"	8	96	88x7x6
501421†	86"/72"	8	87	89x7x6
501423†	100"/72"	10	94	103x7x6
501425†	106"/72"	10	97	109x7x6
501427	120"/72"	12	102	123x7x6
501428	126"/72"	12	104	129x7x6
501429	130"/72"	12	106	133x7x6
501430	156"/72"	12	114	159x7x6
501431†	66"/84"	6	85	88x7x6
501432†	90"/84"	6	89	88x7x6
501433†	84"/84"	8	90	87x7x6
501434†	86"/84"	8	91	89x7x6
501435†	90"/84"	8	95	92x7x6
501436†	98"/84"	6	97	104x7x6
501437†	106"/84"	10	97	109x7x6
501438	110"/84"	10	101	113x7x6
501439	116"/84"	6	103	119x7x6
501441	126"/84"	12	108	129x7x6
501443	130"/84"	12	109	133x7x6
501444	134"/84"	12	111	135x7x6
501452†	62"/102"	4	87	106x7x6
501453†	64"/102"	4	88	106x7x6
501454†	70"/102"	6	90	106x7x6
501456†	78"/102"	6	94	106x7x6

Item number	Rail/ X-tube length	Module bolt sets	Shipping†	
			Lbs	Inches
501457†	80"/102"	6	93	83x7x6
501458†	92"/102"	8	97	105x7x6
501459†	94"/102"	6	98	105x7x6
501460†	96"/102"	6	99	105x7x6
501461†	102"/102"	8	101	105x7x6
501462†	104"/102"	8	102	107x7x6
501463†	108"/102"	8	103	111x7x6
501478	128"/84"	12	109	131x7x6
501481†	82"/102"	6	96	106x7x6
501484†	66"/102"	4	87	106x7x6
501485†	64"/72"	6	77	76x7x6
501486†	78"/72"	6	84	82x7x6
501487*	144"/84"	8	119	147x7x6
501488†	88"/102"	6	99	106x7x6
501489†	98"/102"	6	102	101x7x6
501491†	80"/72"	6	85	84x7x6
501493	108"/72"	10	98	111x7x6
501494	108"/84"	10	102	111x7x6
501495*	108"/84"	6	101	111x7x6
501496†	64"/84"	6	81	88x7x6
501498†	74"/84"	13	85	88x7x6
<b>Series 5014 continues as Series 5034</b>				
503400	132"/72"	10	110	135x7x6
503403	112"/84"	10	104	115x7x6

\* For use with Sanyo modules only. Top mounting clamp sets are substituted to accommodate the listed number of Sanyo modules.

† May ship via UPS at customer request. UPS shipments will be divided into two boxes in addition to the hardware box. Total weight remains approximately as listed.

‡ Series 5014 racks include a separate hardware box (23 lbs., 8 x 8 x 8 inches) in addition to the listed shipping box.

**Accessories**

Item number	Description	Shipping wt.
321218	Clips and hardware to mount one extra module	1 lb.
990204	Conversion service, place 3-inch model on 4-inch (100 mm) Schedule 40/80 pole, O.D. 4.500 inches (114.3 mm)	
990301	Pole reducer, place 4-inch model on 6-inch (150 mm) Schedule 40/80 pole, O.D. 6.625 inches (168.3 mm)	18 lbs.



**Pole reducer**

## Configurations: Adjustable Tilt PV PoleSides™



**Series 4000**  
for 2" (50 mm) Schedule 40 or 80 steel pole, outside dia. 2.375" (60.3 mm)



**Series 4001**  
with SolarMount® standard rails for 2.5" (65 mm) Schedule 40 or 80 steel pole, outside dia. 2.875" (73.0 mm)



**Series 4002**  
with SolarMount® standard rails for 2.5" (65 mm) Schedule 40 or 80 steel pole, outside dia. 2.875" (73.0 mm); 3" (80 mm) Schedule 40 or 80 steel pole, outside dia. 3.500" (88.9 mm); or 4" (100 mm) Schedule 40 or 80 steel pole, outside dia. 4.500" (114.3 mm)

The Price List for Series 4002 lists pole sizes for each model. See page 11.

Adapt your rack to different pole sizes with U-bolt substitution. Series 4011 and 4012 racks may go on 1.5-inch Schedule 40 or 80 poles. Series 4000 to 4002 racks may go only on larger pipes.

See "U-bolt Substitution" prices on page 11.

## Sizing Chart: Adjustable Tilt PV PoleSides™

Select rack based on manufacturer, model number, and quantity of the modules you plan to mount.

Module make and model	Number of modules to be mounted			
	1	2	3	4
<b>AEE</b>				
AE5G, AE5/6G	400002	400011		
AE10G	400006	400032		
AE20G	400024	400263		
AE85J	400111	400211	400250	400227
<b>BP Solar</b>				
BPSX5M, -10M	400006	400032		
BPSX10U	400005	400027		
BPSX20M, -20U, -30M, -30U	400021	400208		
BP340	400027	400211	400218	400227
BP350	400039	400211	400218	400227
BP365	400101	400208	400216	400223
BP380, -485	400111	400211	400218	400227
BP3125	400236	400233	400224	400232
BP3150, -3160, -4175; BPSX160B, -170B	400207	400219	400230	
<b>Evergreen</b>				
EC110, -115, -120	400204	400212	400222	400231
ES170-RL, -180RL, -190RL	400209	400242		
<b>GE Energy</b>				
GEPV030	400026	400251		
GEPV045, -050	400107	400213	400223	400229
GEPV072, -085	400111	400251	400218	400225
GEPV100, -110	400235	400213	400223	400229
GEPvP130	400235	400243	400223	400229
GEPV173	400208	400223		
GEPvP185, -200	400208	400223		

Module make and model	Number of modules to be mounted			
	1	2	3	4
<b>Isofoton</b>				
I-100	400204	400212	400222	400231
I-150S	400210	400226		
IS-150	400207	400244	400228	
<b>Kaneka</b>				
G-EA060, G-SA060	400248	400245		
<b>Kyocera</b>				
KSS, -10, -20	400011	400107		
KC50T, -65T, -85T	400107	400213	400223	400229
KC130GT, -130TM	400257	400214	400224	400246
KC175GT	400209	400222		
KC200GT	400209	400224		
<b>Mitsubishi</b>				
PV-MF110EC3, -120EC3	400257	400214	400224	400246
PV-MF125A2LF, -130EA2LF	400207	400219	400230	
PV-MF160EB3, -165EB3, -170EB3	400237	400219	400230	
<b>Photowatt</b>				
PW6-110, -123	400257	400214	400224	400246
PW750	400103	400210	400220	400259
PW1650	400210	400226		
<b>Sanyo*</b>				
HIP180BA3, 186BA3, 190BA3, 195BA3, 200BA3	400239	400249		
<b>Schott Solar</b>				
ASE300-DGF/50	400214			

Module sizing continues on page 10

\* Use models listed in this row only for Sanyo modules. Top mounting clamp sets are substituted to accommodate Sanyo modules, which have no mounting holes.

**Sizing Chart: Adjustable Tilt PV PoleSides™** (continued)

Select rack based on manufacturer, model number, and quantity of the modules you plan to mount.

Module make and model	Number of modules to be mounted			
	1	2	3	4
<b>Sharp</b>				
NE-80EJEA	400112	400210	400244	400254
ND-L3EJEA (123w), ND-L5E1U (125w)	400236	400233	400224	400232
ND-N2ECU (142w)	400209	400222		
ND-162UI, ND-167U3A	400209	400222		
ND-187UI	400209	400222		
ND-200UI, 208UI	400209	400224		
<b>SolarWorld (Shell)</b>				
80P, 85P	400111	400251	400218	400225
165P, -PC; 175P, -PC	400238	400250	400247	
<b>SunPower</b>				
SPR90, -95	400111	400251	400218	400225
SPR200BLK, -210, -215BLK, -220	400207	400244	400228	
<b>Suntech</b>				
STP060	400107	400243	400223	400229

Module make and model	Number of modules to be mounted			
	1	2	3	4
<b>Suntech (continued)</b>				
STP085S	400111	400211	400250	400227
STP110-12/Tb, -115-12/Tc, -120, -130, -140	400235	400253	400258	400261
STP110-24/Ab	400207	400244	400228	
STP175-24/Ab-1	400207	400244	400228	
<b>SunWize</b>				
SW50C, -55, -60	400101	400251	400216	400223
SW85, -90, -90C	400204	400212	400222	400259
SW100, -115, -120	400204	400212	400222	400231
SW150	400207	400244	400259	
<b>Uni-Solar</b>				
ES62T	400206	400244	400228	
US64	400207	400215	400226	
<b>Yingli</b>				
YL80, -85	400111	400211	400250	400227

**Specifications: Series 4000**  
**Adjustable Tilt PV PoleSides™**


**Series 4000**  
 for 2" (50 mm) Schedule 40 or 80 steel pole, outside dia. 2.375" (60.3 mm)

Item number	Rail/ channel length	Module bolt sets	Shipping	
			Lbs	Inches
400002	10"/10"	1	5	11x4x3
400005	12"/15"	1	5	16x4x3
400006	12"/10"	1	5	13x4x3
400011	14"/10"	2	5	15x4x3
400021	20"/25"	1	7	26x4x3
400024	20"/10"	1	6	22x4x3
400026	22"/25"	1	7	26x4x3
400027	22"/15"	2	6	24x4x3
400032	24"/10"	2	6	26x4x3
400039	22"/20"	1	6	24x4x3

**Specifications: Series 4001**  
**Adjustable Tilt PV PoleSides™**


**Series 4001**  
 with SolarMount® standard rails for 2½" (65 mm) Schedule 40 or 80 steel pole, outside dia. 2.875" (73.0 mm)

Item number	Rail/ channel length	Module bolt sets	Shipping	
			Lbs	Inches
400101	20"/24"	1	6	25x4x3
400103	24"/32"	1	6	33x4x3
400107	28"/24"	2	8	29x4x3
400111	22"/24"	1	6	25x4x3
400112	22"/32"	1	8	33x4x3

**Specifications: Series 4002 Adjustable Tilt PV PoleSides™**



**Series 4002**  
with SolarMount® standard rails for  
2½" (65 mm) Schedule 40 or 80 steel pole,  
outside dia. 2.875" (73.0 mm);  
3" (80 mm) Schedule 40 or 80 steel pole,  
outside dia. 3.500" (88.9 mm);  
or 4" (100 mm) Schedule 40 or 80 steel pole,  
outside dia. 4.500" (114.3 mm)

Item number	Rail / channel length	Module bolt sets	Fits Sch 40/80 pole size (in)	Shipping	
				Lbs	Inches
400204	28"/30"	1	2½	12	31x4x4
400206	32"/25"	1	2½	15	33x4x4
400207	32"/35"	1	2½	16	36x4x4
400208	40"/25"	2	2½	19	41x4x4
400209	40"/35"	2	2½	20	41x4x4
400210	46"/30"	2	2½	21	47x4x4
400211	44"/25"	2	2½	20	45x4x4
400212	52"/32"	2	3	21	53x4x4
400213	52"/24"	2	3	20	53x4x4
400214	52"/40"	2	3	22	80x4x4
400215	60"/32"	2	3	24	61x4x4
400216	60"/24"	3	3	24	61x4x4
400218	64"/24"	3	3	24	65x4x4
400219	64"/40"	3	3	25	81x4x4
400220	68"/32"	3	3	24	69x4x4
400222	80"/32"	3	4	25	81x4x4
400223	80"/24"	4	4	25	81x4x4
400224	80"/40"	3	4	27	81x4x4
400225	84"/24"	4	4	30	85x4x4
400226	88"/32"	4	4	26	89x4x4
400227	88"/24"	4	4	26	89x4x4

Item number	Rail / channel length	Module bolt sets	Fits Sch 40/80 pole size (in)	Shipping	
				Lbs	Inches
400228	96"/32"	3	4	27	97x4x4
400229	106"/24"	4	4	30	107x4x4
400230	96"/40"	3	4	30	97x4x4
400231	104"/32"	4	4	32	105x4x4
400232†	108"/40"	4	4	35	109x4x4
400233	56"/40"	2	3	24	57x4x4
400235	28"/25"	2	2½	14	29x4x4
400236	28"/40"	1	2½	15	41x4x4
400237	32"/40"	1	2½	15	41x4x4
400238	36"/30"	1	2½	19	37x4x4
400239*	38"/30"	1*	2½	20	39x4x4
400242	76"/32"	2	4	30	77x4x4
400243	54"/24"	2	3	22	55x4x4
400244	64"/32"	3	3	24	65x4x4
400245	76"/40"	2	4	29	77x4x4
400246	104"/40"	4	4	34	105x4x4
400247	98"/24"	3	4	28	99x4x4
400248	40"/40"	1	2½	17	41x4x4
400249*	72"/40"	2*	4	30	73x4x4
400250	66"/24"	3	3	24	67x4x4
400251	42"/25"	2	2½	16	43x4x4
400253	54"/32"	2	3	23	55x4x4
400254	86"/32"	4	4	30	87x4x4
400257	26"/35"	1	2½	14	36x4x4
400258	82"/32"	3	4	29	83x4x4
400259	92"/32"	4	4	35	93x4x4
400261†	108"/32"	4	4	38	109x4x5
400263	36"/24"	2	2½	15	37x4x4

\* For use with Sanyo modules only. Top mounting clamp sets are substituted to accommodate the listed number of Sanyo modules.

† Ships via truck freight only; all others may ship UPS.

**U-Bolt Substitution Chart for Alternate Pole Sizes and Wall Mounting**

If you plan to mount your rack on a different size pole, use this chart to substitute larger U-bolts. On your order, list the substitution item number and amount. U-bolts up to 13 inches may be special ordered. Smaller-than-standard pole sizes are not recommended, except for Series 4011 and 4012. **For wall mounting**, U-bolts are removed and the dollar values (in parenthesis) are credited. These substitution charges apply to list prices only.

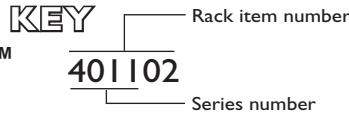
Series & standard Schedule 40/80 pole size	U-bolts	Schedule 40/80 pole size to be substituted				Wall mounting
		1½" (O.D. 1.900") 40 mm (O.D. 48.3 mm)	2½" (O.D. 2.875") 65 mm (O.D. 73.0 mm)	3" (O.D. 3.500") 80 mm (O.D. 88.9 mm)	4" (O.D. 4.500") 100 mm (O.D. 114.3 mm)	
4000 for 2-inch pole	1		990319	990320	990321	990318
4001 for 2½-inch pole	2			990323	990324	990322
4002 for 2½-inch pole	2			990323	990324	990322
4002 for 3-inch pole	4				990326	990325
4002 for 4-inch pole	4					990327
4011 for 2-inch pole	2	990334				
4012 for 2-inch pole	2	990334				
5000 for 2½-inch pole	2			990323	990324	

**Configurations: Fixed Tilt PV PoleSides™ for One Module**


**Series 4011**  
for 2" (50 mm) Schedule 40 or 80 steel pole, outside dia. 2.375" (60.3 mm)



**Series 4012**  
for 2" (50 mm) Schedule 40 or 80 steel pole, outside dia. 2.375" (60.3 mm)


**Sizing Chart: Fixed Tilt PV PoleSides™**  
 Select rack based on manufacturer, model number, and tilt angle of the module you plan to mount.

Module make and model	45° tilt	60° tilt	Module make and model	45° tilt	60° tilt
<b>AEE</b>			<b>Mitsubishi</b>		
AE85J	401274	401275	PVMF110EC3, -120EC3	401264	401266
<b>BP Solar</b>			<b>Photowatt</b>		
BPSX5M, -10M	401102		PW750, -1650	401278	401279
BPSX20M, -20U, -30M, -30U	401104		<b>Sharp</b>		
BP350	401274	401275	NE-80EJEA	401274	401275
BP365	401274	401275	ND-L3EJEA (123 watt)	401264	401266
BP380, -485	401274	401275	ND-L5EIU (125 watt)	401264	401266
BP3125	401264	401266	ND-N2ECU (142w)	401278	401279
BP3150, -3160, -4175; BPSX160B, -170B	401276	401277	ND-I62UI, ND-I67U3A	401278	401279
<b>Evergreen</b>			ND-I87UI	401278	401279
EC110, -115, -120	401264	401266	<b>SolarWorld (Shell)</b>		
ES170RL, -180RL, -190RL	401278	401279	80P, 85P	401274	401275
<b>GE Energy</b>			165-P, -PC; 175-P, -PC	401276	401277
GEPV030	401274	401275	<b>SunPower</b>		
GEPV072, -085	401274	401275	SPR90, -95	401274	401275
GEPV100, -110	401264	401266	SPR-200-BLK, 210, 215-BLK, 220,	401276	401277
GEPVp130	401264	401266	<b>Suntech</b>		
GEPV173	401278	401279	STP060	401264	401266
GEPVp185	401278	401279	STP110-24/Ab	401276	401277
GEPV200	401278	401279	STP175-24/Ab-I	401276	401277
<b>Isofoton</b>			<b>SunWize</b>		
I-150S	401278	401279	SW50C, -55, -60	401274	401275
IS-150	401276	401277	SW85, -90, -90C	401274	401275
<b>Kyocera</b>			SW100, -115, -120	401264	401266
KSS	401102		SW150	401276	401277
KS10	401102		<b>UniSolar</b>		
KS20	401102		US64	401276	401277
KC50T	401260	401262	<b>Yingli</b>		
KC130GT, -130TM	401264	401266	YL80, -85	401274	401275
KC175GT	401278	401279			

**Specifications: Series 4011 Fixed Tilt PV PoleSides™**

Model number	Tilt angle	Shipping	
		Lbs	Inches
401102	45°	3	1x4x14
401104	45°	3	1x4x20

**Specifications: Series 4012 Fixed Tilt PV PoleSides™**

Model number	Tilt angle	Shipping	
		Lbs	Inches
401260	45°	8	3x24x37
401262	60°	8	3x19x25
401264	45°	10	3x28x42
401266	60°	10	3x28x42
401274	45°	10	3x24x37
401275	60°	10	3x24x37
401276	45°	11	3x28x42
401277	60°	11	3x28x42
401278	45°	10	3x24x37
401279	60°	10	3x24x37