

Table 1A. Quick Rack Base Mount Maximum Spacing, Modules in *Landscape* Orientation

Wind Speed		Ground Snow Load																					
		0 - 20 psf				21 - 30 psf				31 - 40 psf				41 - 50 psf				51 - 60 psf					
		ASCE 7-05 (Service Level)		ASCE 7-10 (Strength Level)		Roof Pitch		B	C	D	B	C	D	B	C	D	B	C	D	B	C	D	
85 mph	110 mph	2:12 to 6:12	7:12 to 12:12	72"	72"	72"	72"	72"	72"	72"	72"	64"	64"	64"	48"	48"	48"	48"	48"	48"	48"	48"	
				72"	64"	48"	48"	48"	48"	48"	48"	48"	48"	48"	48"	48"	48"	48"	48"	48"	48"	48"	48"
90 mph	115 mph	2:12 to 6:12	7:12 to 12:12	72"	72"	72"	72"	72"	72"	72"	72"	64"	64"	64"	48"	48"	48"	48"	48"	48"	48"	48"	48"
				72"	64"	48"	48"	48"	48"	48"	48"	48"	48"	48"	48"	48"	48"	48"	48"	48"	48"	48"	48"
95 mph	120 mph	2:12 to 6:12	7:12 to 12:12	72"	72"	72"	72"	72"	72"	72"	72"	64"	64"	64"	48"	48"	48"	48"	48"	48"	48"	48"	48"
				72"	64"	48"	48"	48"	48"	48"	48"	48"	48"	48"	48"	48"	48"	48"	48"	48"	48"	48"	48"
100 mph	130 mph	2:12 to 6:12	7:12 to 12:12	72"	72"	72"	72"	72"	72"	72"	72"	64"	64"	64"	48"	48"	48"	48"	48"	48"	48"	48"	48"
				72"	64"	48"	48"	48"	48"	48"	48"	48"	48"	48"	48"	48"	48"	48"	48"	48"	48"	48"	48"
110 mph	140 mph	2:12 to 6:12	7:12 to 12:12	72"	72"	72"	72"	72"	72"	72"	72"	64"	64"	64"	48"	48"	48"	48"	48"	48"	48"	48"	48"
				72"	64"	48"	48"	48"	48"	48"	48"	48"	48"	48"	48"	48"	48"	48"	48"	48"	48"	48"	48"
120 mph	150 mph	2:12 to 6:12	7:12 to 12:12	72"	72"	72"	72"	72"	72"	72"	72"	64"	64"	64"	48"	48"	48"	48"	48"	48"	48"	48"	48"
				72"	64"	48"	48"	48"	48"	48"	48"	48"	48"	48"	48"	48"	48"	48"	48"	48"	48"	48"	48"

Table Notes:

1. The Quick Rack base mount maximum allowable spacing listed in this table is the spacing between base mount attachment points in the roof cross-slope direction for modules in landscape orientation.
2. This table is based on an assumed PV module size no larger than 40" x 66" .
3. See Figure 4 and Tables 1B and 1C for the maximum mount cantilever (clamp bolt to end-of-module) at the nominal east or west edge of array (cross-slope edge of roof).
4. This table is subject to the conditions stated in the attached Code Compliance Letter, and shown in the attached sketches.
5. This table is based on ASCE 7-10. ASCE 7-05 wind speeds are back-calculated from ASCE 7-10 wind speeds to produce the same wind pressures, rounded to nearest 5 mph.
6. Wind load calculations are based on a Risk Category II building with a mean roof height of 35 feet and $I_w = 1.0$.
7. Snow load calculations are based on $C_e = 1.0$, $I_s = 1.0$, $C_t = 1.2$ and ASCE 7-10 Fig. 7-2a for unobstructed slippery surface (ref. ASCE 7-10 Commentary C7.8)
8. See Table 3 for regions of high wind or snow load where a staggered base mount layout is recommended.
9. The roof pitch range "2:12 to 6:12" corresponds to 9 to 27 degree roof slopes; the roof pitch range "7:12 to 12:12" corresponds to 27.1 to 45 degree roof slopes.
10. Mount capacities are based on ICC AC-13, and are not increased for load duration factor per the restrictions of AC-13. See Appendix 1 for additional information.
11. For locations with an unusual combination of both high seismic and snow loads, see Appendix 2, Table A2.1.

Table 1B. Quick Rack Base Mount Maximum East and West Cantilevers, Modules in **Landscape** Orientation with Typical Backspan from Table 1A

Wind Speed ASCE 7-10 (Service Level)	ASCE 7-10 (Strength Level)	Roof Pitch	Maximum Mount Cantilever with Backspan = Typical Span																			
			Typical Span (see Table 1A)				Roof Edge Distance = 36"+				Roof Edge Distance = 24"				Roof Edge Distance = 18"				Roof Edge Distance = 12"			
			Wind Exposure Category		Wind Exposure Category		Wind Exposure Category		Wind Exposure Category		Wind Exposure Category		Wind Exposure Category		Wind Exposure Category		Wind Exposure Category		Wind Exposure Category		Wind Exposure Category	
B	C	D	B	C	D	B	C	D	B	C	D	B	C	D	B	C	D	B	C	D		
85 mph	110 mph	2:12 to 6:12	72"	72"	72"	24"	24"	24"	24"	24"	24"	21"	21"	21"	18"	18"	18"	18"	18"	18"	18"	18"
			72"	64"	48"	24"	24"	22"	24"	24"	24"	24"	21"	21"	21"	18"	18"	18"	18"	18"	18"	18"
90 mph	115 mph	2:12 to 6:12	72"	64"	64"	24"	24"	24"	24"	24"	24"	21"	21"	21"	18"	18"	18"	18"	18"	18"	18"	18"
			72"	64"	48"	24"	24"	22"	24"	24"	24"	24"	21"	21"	21"	18"	18"	18"	18"	18"	18"	18"
95 mph	120 mph	2:12 to 6:12	72"	64"	64"	24"	24"	24"	24"	24"	24"	21"	21"	21"	18"	18"	18"	18"	18"	18"	18"	18"
			72"	48"	48"	24"	24"	22"	24"	24"	24"	24"	21"	21"	21"	18"	18"	18"	18"	18"	18"	18"
100 mph	130 mph	2:12 to 6:12	72"	64"	48"	24"	24"	24"	24"	24"	24"	21"	21"	21"	18"	18"	18"	18"	18"	18"	18"	18"
			72"	64"	48"	32"	24"	22"	15"	21"	14"	7"	18"	12"	6"	15"	9"	4"	9"	9"	9"	9"
110 mph	140 mph	2:12 to 6:12	72"	48"	48"	24"	24"	22"	24"	24"	24"	21"	21"	21"	18"	18"	18"	18"	18"	18"	18"	18"
			48"	32"	32"	22"	15"	15"	14"	7"	7"	12"	6"	6"	6"	9"	4"	4"	4"	4"	4"	4"
120 mph	150 mph	7:12 to 12:12	48"	32"	32"	24"	24"	22"	15"	15"	14"	7"	7"	7"	12"	6"	6"	6"	6"	6"	6"	6"
			48"	32"	32"	22"	15"	15"	14"	7"	7"	12"	6"	6"	6"	9"	4"	4"	4"	4"	4"	4"

- Table Notes:
1. The Quick Rack base mount maximum cantilever listed in this table is the distance from center of clamp bolt (in top slider) to end of module (see Figure 4).
 2. The "backspan" is the first span (i.e. mount spacing) inward from the cantilever (see Figure 4). In this table (Table 1B), backspan matches typical span from Table 1A.
 3. See Table 1C, notes 3 through 9, which also apply to this table.

Table 1C. Quick Rack Base Mount Maximum East and West Cantilevers, Modules in **Landscape** Orientation with Atypical 16" or 24" Backspan

Wind Speed ASCE 7-10 (Service Level)	ASCE 7-10 (Strength Level)	Roof Pitch	Maximum Mount Cantilever with Atypical Backspan = 16" or 24"																			
			Typical Span (see Table 1A)				Roof Edge Distance = 36"+				Roof Edge Distance = 24"				Roof Edge Distance = 18"				Roof Edge Distance = 12"			
			Wind Exposure Category		Wind Exposure Category		Wind Exposure Category		Wind Exposure Category		Wind Exposure Category		Wind Exposure Category		Wind Exposure Category		Wind Exposure Category		Wind Exposure Category		Wind Exposure Category	
B	C	D	B	C	D	B	C	D	B	C	D	B	C	D	B	C	D	B	C	D		
85 mph	110 mph	2:12 to 6:12	72"	72"	72"	24"	24"	24"	24"	24"	24"	24"	24"	24"	24"	24"	24"	24"	24"	24"	24"	24"
			72"	64"	48"	24"	24"	24"	24"	24"	24"	24"	24"	24"	24"	24"	24"	24"	24"	24"	24"	24"
90 mph	115 mph	2:12 to 6:12	72"	72"	64"	24"	24"	24"	24"	24"	24"	24"	24"	24"	24"	24"	24"	24"	24"	24"	24"	24"
			72"	64"	48"	24"	24"	24"	24"	24"	24"	24"	24"	24"	24"	24"	24"	24"	24"	24"	24"	24"
95 mph	120 mph	2:12 to 6:12	72"	72"	64"	24"	24"	24"	24"	24"	24"	24"	24"	24"	24"	24"	24"	24"	24"	24"	24"	24"
			72"	48"	48"	24"	24"	24"	24"	24"	24"	24"	24"	24"	24"	24"	24"	24"	24"	24"	24"	24"
100 mph	130 mph	2:12 to 6:12	64"	48"	32"	24"	24"	24"	24"	24"	24"	24"	24"	24"	24"	24"	24"	24"	24"	24"	24"	24"
			72"	48"	48"	24"	24"	24"	24"	24"	24"	24"	24"	24"	24"	24"	24"	24"	24"	24"	24"	24"
110 mph	140 mph	2:12 to 6:12	48"	32"	32"	24"	24"	24"	24"	24"	24"	24"	24"	24"	24"	24"	24"	24"	24"	24"	24"	24"
			48"	32"	32"	24"	24"	24"	24"	24"	24"	24"	24"	24"	24"	24"	24"	24"	24"	24"	24"	24"
120 mph	150 mph	7:12 to 12:12	48"	32"	32"	24"	24"	24"	24"	24"	24"	24"	24"	24"	24"	24"	24"	24"	24"	24"	24"	24"
			48"	32"	32"	24"	24"	24"	24"	24"	24"	24"	24"	24"	24"	24"	24"	24"	24"	24"	24"	24"

- Table Notes:
1. The Quick Rack base mount maximum cantilever listed in this table is the distance from center of clamp bolt (in top slider) to end of module (see Figure 4).
 2. The "backspan" is the first span (i.e. mount spacing) inward from the cantilever (see Figure 4). In this table (Table 1C), backspan is one rafter spacing (16" or 24").
 3. The "module cantilever" is measured from end of module to closest edge of clamp (see Figure 4). Installer shall verify that module cantilever does not exceed manufacturer recommendations.
 4. The "roof edge distance" is the lateral cross-slope distance from gable end, rake, hip or other roof edge, to end of perimeter module (see Figure 4).
 5. + For buildings with the narrow side wider than 30 feet, increase 36" to 10% of building least plan (footprint) dimension.
 6. This table is based on an assumed PV module size no larger than 40"x66".
 7. High snow load regions: above 20 psf ground snow load, the maximum mount cantilever shall be the lesser of:
 - (i) the maximum cantilever shown in Tables 1B or 1C above, or
 - (ii) half the maximum mount spacing shown in Table 1A (see previous page).
 8. The maximum allowable cantilever shown in these tables ensure that the end mounts & rafters under the array are loaded no more heavily than the interior ones.

Table 2A. Quick Rack Base Mount Maximum Spacing, Modules in **Portrait** Orientation

Wind Speed		Roof Pitch	Ground Snow Load																
			0 - 15 psf						16 - 30 psf						31 - 45 psf				
			ASCE 7-05 (Service Level)				ASCE 7-10 (Strength Level)				Wind Exposure Category								
85 mph	90 mph	95 mph	100 mph	110 mph	120 mph	130 mph	140 mph	150 mph	B	C	D	B	C	D	B	C	D		
2:12 to 6:12		48"		32"		32"		48"		32"		48"		32"		32"		32"	
		48"		32"		32"		48"		32"		48"		32"		32"		32"	
7:12 to 12:12		48"		32"		32"		48"		32"		48"		32"		32"		32"	
		48"		32"		32"		48"		32"		48"		32"		32"		32"	
2:12 to 6:12		32"		32"		32"		32"		32"		32"		32"		32"		32"	
		32"		32"		32"		32"		32"		32"		32"		32"		32"	
7:12 to 12:12		32"		32"		32"		32"		32"		32"		32"		32"		32"	
		32"		32"		32"		32"		32"		32"		32"		32"		32"	
2:12 to 6:12		32"		24"		24"		32"		24"		32"		24"		24"		24"	
		32"		24"		24"		32"		24"		32"		24"		24"		24"	
7:12 to 12:12		32"		24"		24"		32"		24"		32"		24"		24"		24"	
		32"		24"		24"		32"		24"		32"		24"		24"		24"	
2:12 to 6:12		32"		24"		24"		32"		24"		32"		24"		24"		24"	
		32"		24"		24"		32"		24"		32"		24"		24"		24"	
7:12 to 12:12		32"		24"		24"		32"		24"		32"		24"		24"		24"	
		32"		24"		24"		32"		24"		32"		24"		24"		24"	

Table Notes:

1. The Quick Rack base mount maximum allowable spacing listed in this table is the spacing between base mount attachment points in the roof cross-slope direction for modules in portrait orientation.
2. This table is based on an assumed PV module size no larger than 40" x 66".
3. See Figure 4 and Tables 2B and 2C for the maximum mount cantilever (clamp bolt to end-of-module) at the nominal east or west edge of array (cross-slope edge of roof).
4. This table is subject to the conditions stated in the attached Code Compliance Letter, and shown in the attached sketches.
5. This table is based on ASCE 7-10. ASCE 7-05 wind speeds are back-calculated from ASCE 7-10 wind speeds to produce the same wind pressures, rounded to nearest 5 mph.
6. Wind load calculations are based on a Risk Category II building with a mean roof height of 35 feet and $w_w = 1.0$.
7. Snow load calculations are based on $C_e = 1.0$, $I_s = 1.0$, $C_t = 1.2$ and ASCE 7-10 Fig. 7-2a for unobstructed slippery surface (ref. ASCE 7-10 Commentary C7.8)
8. See Table 3 for regions of high wind or snow load where a staggered base mount layout is recommended.
9. The roof pitch range "2:12 to 6:12" corresponds to 9 to 27 degree roof slopes; the roof pitch range "7:12 to 12:12" corresponds to 27.1 to 45 degree roof slopes.
10. Mount capacities are based on ICC AC-13, and are not increased for load duration factor per the restrictions of AC-13. See Appendix 1 for additional information.
11. For locations with an unusual combination of both high seismic and snow loads, see Appendix 2, Table A2.2.

Table 2B. Quick Rack Base Mount Maximum East and West Cantilevers, Modules in **Portrait** Orientation with Typical Backspan from Table 2A

Wind Speed ASCE 7-10 (Service)	ASCE 7-10 (Strength)	Roof Pitch	Typical Span (see Table 2A)						Maximum Mount Cantilever with Backspan = Typical Span										
			Wind Exposure Category			Roof Edge Distance = 36'+			Roof Edge Distance = 24"			Roof Edge Distance = 18"			Roof Edge Distance = 12"				
			B	C	D	B	C	D	B	C	D	B	C	D	B	C	D		
85 mph	110 mph	2:12 to 6:12	48"	48"	32"	22"	22"	15"	14"	14"	7"	12"	12"	6"	6"	6"	9"	9"	4"
		7:12 to 12:12	48"	32"	32"	22"	15"	15"	14"	7"	7"	12"	12"	6"	6"	6"	9"	9"	4"
90 mph	115 mph	2:12 to 6:12	48"	48"	32"	22"	22"	15"	14"	14"	7"	12"	12"	6"	6"	6"	9"	9"	4"
		7:12 to 12:12	48"	32"	32"	22"	15"	15"	14"	7"	7"	12"	12"	6"	6"	6"	9"	9"	4"
95 mph	120 mph	2:12 to 6:12	48"	32"	32"	22"	15"	15"	14"	7"	7"	12"	12"	6"	6"	6"	9"	9"	4"
		7:12 to 12:12	32"	32"	24"	15"	15"	12"	7"	7"	4"	6"	6"	6"	6"	6"	9"	9"	4"
100 mph	130 mph	2:12 to 6:12	48"	32"	32"	22"	15"	15"	14"	7"	7"	12"	12"	6"	6"	6"	9"	9"	4"
		7:12 to 12:12	32"	24"	24"	15"	12"	12"	7"	4"	4"	6"	6"	6"	6"	6"	9"	9"	4"
110 mph	140 mph	2:12 to 6:12	32"	32"	24"	15"	15"	12"	7"	7"	4"	6"	6"	6"	6"	6"	9"	9"	4"
		7:12 to 12:12	32"	24"	24"	15"	12"	12"	7"	4"	4"	6"	6"	6"	6"	6"	9"	9"	4"
120 mph	150 mph	2:12 to 6:12	32"	24"	24"	15"	12"	12"	7"	4"	4"	6"	6"	6"	6"	6"	9"	9"	4"
		7:12 to 12:12	32"	24"	16"	15"	12"	12"	7"	4"	4"	6"	6"	6"	6"	6"	9"	9"	4"

Table Notes:

1. The Quick Rack base mount maximum cantilever listed in this table is the distance from center of clamp bolt (in top slider) to end of module (see Figure 4).
2. The "backspan" is the first span (i.e. mount spacing) inward from the cantilever (see Figure 4). In this table (Table 2B), backspan matches typical span from Table 2A.
3. See Table 2C - notes 3 through 9, which also apply to this table.

Table 2C. Quick Rack Base Mount Maximum East and West Cantilevers, Modules in **Portrait** Orientation with Atypical 16" or 24" Backspan

Wind Speed ASCE 7-10 (Service)	ASCE 7-10 (Strength)	Roof Pitch	Typical Span (see Table 2A)						Maximum Mount Cantilever with Atypical Backspan = 16" or 24"									
			Wind Exposure Category			Roof Edge Distance = 36'+			Roof Edge Distance = 24"			Roof Edge Distance = 18"			Roof Edge Distance = 12"			
			B	C	D	B	C	D	B	C	D	B	C	D	B	C	D	
85 mph	110 mph	2:12 to 6:12	48"	48"	32"	24"	24"	17"	16"	16"	11"	15"	15"	10"	13"	13"	9"	9"
		7:12 to 12:12	48"	32"	32"	24"	17"	17"	16"	11"	11"	15"	10"	10"	13"	9"	9"	9"
90 mph	115 mph	2:12 to 6:12	48"	48"	32"	24"	24"	17"	16"	16"	11"	15"	15"	10"	13"	13"	9"	9"
		7:12 to 12:12	48"	32"	32"	24"	17"	17"	16"	11"	11"	15"	10"	10"	13"	9"	9"	9"
95 mph	120 mph	2:12 to 6:12	48"	32"	32"	24"	17"	17"	16"	11"	11"	15"	10"	10"	13"	9"	9"	9"
		7:12 to 12:12	32"	32"	24"	17"	12"	12"	11"	4"	4"	10"	10"	4"	9"	9"	3"	3"
100 mph	130 mph	2:12 to 6:12	48"	32"	32"	24"	17"	17"	16"	11"	11"	15"	10"	10"	13"	9"	9"	9"
		7:12 to 12:12	32"	24"	24"	17"	12"	12"	11"	4"	4"	10"	4"	4"	9"	3"	3"	3"
110 mph	140 mph	2:12 to 6:12	32"	32"	24"	17"	17"	17"	16"	11"	11"	15"	10"	10"	13"	9"	9"	9"
		7:12 to 12:12	32"	24"	24"	17"	12"	12"	11"	4"	4"	10"	4"	4"	9"	3"	3"	3"
120 mph	150 mph	2:12 to 6:12	32"	24"	24"	17"	17"	17"	16"	11"	11"	15"	10"	10"	13"	9"	9"	9"
		7:12 to 12:12	32"	24"	16"	17"	12"	12"	11"	4"	4"	10"	4"	4"	9"	3"	3"	3"

Table Notes:

1. The Quick Rack base mount maximum cantilever listed in this table is the distance from center of clamp bolt (in top slider) to end of module (see Figure 4).
2. The "backspan" is the first span (i.e. mount spacing) inward from the cantilever (see Figure 4). In this table (Table 2C), backspan is one rafter spacing (16" or 24").
3. The "module cantilever" is measured from end of module to closest edge of clamp (see Figure 4). Installer shall verify that module cantilever does not exceed manufacturer recommendations.
4. The "roof edge distance" is the lateral cross-slope distance from gable end, rake, hip or other roof edges, to end of perimeter module (see Figure 4).
5. + For buildings with the narrow side wider than 30 feet, increase 36" to 10% of building least plan (footprint) dimension
6. This table is based on an assumed PV module size no larger than 40"x66".
7. High snow load regions: above 15 psf ground snow load, the maximum mount cantilever shall be the lesser of:
(i) the maximum cantilever shown in Tables 2B or 2C above, or (ii) half the maximum mount spacing shown in Table 2A (see previous page).
8. The maximum allowable cantilever shown in these tables ensure that the end mounts & rafters under the array are loaded no more heavily than the interior ones.

