

## DUAL RACK RAIL-STANDARD

Our Dual Rack rails were designed to be customizable for solar PV arrays on residential and commercial projects. They are engineered for strength and durability and tested for spans up to eight feet. Installers prefer Dual Rack rails because they are strong, reliable, time saving, and are available at the best price in the marketplace.

### ADVANTAGES

- ✓ Advanced Dual Rack design
- ✓ PE Certified in 16 states
- ✓ No special training required
- ✓ Save time and money on installations
- ✓ Less parts, 2 ways to install
- ✓ 3 sizes available: 12', 14', & 17'-in silver & black
- ✓ 10 year limited warranty



### PRODUCT LINE

Item #	Product Name
DR-CR-01	DR 144" Rail - Clear
DR-CR-02	DR 168" Rail - Clear
DR-CR-03	DR 204" Rail - Clear
DR-BR-01	DR 144" Rail - Black
DR-BR-02	DR 168" Rail - Black
DR-BR-03	DR 204" Rail - Black

### MATERIAL SPECIFICATIONS

Material Designation	6005-T5
Density ( $\rho$ )	167.62 lb/ft <sup>3</sup>
Coefficient of Thermal expansion ( $\alpha_T$ )	1.306E-05/ <sup>o</sup> F(2.35E-05/ <sup>o</sup> C)
Diffusivity ( $\lambda$ )	200.00 W/m <sup>2</sup> °K
Modulus of Elasticity (E)	10.152E06 Psi (7,000 kN/cm <sup>2</sup> )
Shear Modulus (G)	3.916E06 Psi (2,700 kN/cm <sup>2</sup> )

### MECHANICAL PROPERTIES

Tensile Strength ( $f_{u,k}$ )	38.0 Ksi (26.0 kN/cm <sup>2</sup> )
Tensile Yield Strength ( $f_{y,k}$ )	35.0 Ksi (24.0 kN/cm <sup>2</sup> )
Profile Wall Thickness	( $t \leq 0.39$ in/10 mm)

### SECTION PROPERTIES

$I_x$	0.383 in <sup>4</sup>
$W_x$	0.334 in <sup>3</sup>
$I_y$	0.206 in <sup>4</sup>
$W_y$	0.262 in <sup>3</sup>
A	0.581 in <sup>2</sup>
Weight	0.68 lb/ft

### WARRANTY

10 Year limited warranty

### ORDERING SPECIFICS

Standard Packaging	6pc
Dimensions	144"/ 168"/ 204"
Weight	0.68 lb/ft

### RAIL SPANS (ft')

EXP	Wind Speed (mph)	Zone 1 Snow Load (psf)					
		0.0	10.0	20.0	30.0	40.0	50.0
		B					
B	110	8.0	7.0	6.0	5.0	4.5	4.0
	120	8.0	7.0	6.0	5.0	4.5	4.0
	130	8.0	7.0	6.0	5.0	4.5	4.0
	140	8.0	7.0	6.0	5.0	4.5	4.0
	150	7.5	7.0	6.0	5.0	4.5	4.0
	160	7.0	7.0	6.0	5.0	4.5	4.0
	170	7.0	7.0	6.0	5.0	4.5	4.0
	180	6.5	6.5	5.5	5.0	4.5	4.0
C	110	8.0	7.0	6.0	5.0	4.5	4.0
	120	8.0	7.0	6.0	5.0	4.5	4.0
	130	7.5	7.0	6.0	5.0	4.5	4.0
	140	7.0	7.0	6.0	5.0	4.5	4.0
	150	6.5	6.5	5.5	5.0	4.5	4.0
	160	6.0	6.0	5.5	5.0	4.5	4.0
	170	5.5	5.5	5.5	5.0	4.5	4.0
	180	5.5	5.5	5.5	5.0	4.5	4.0

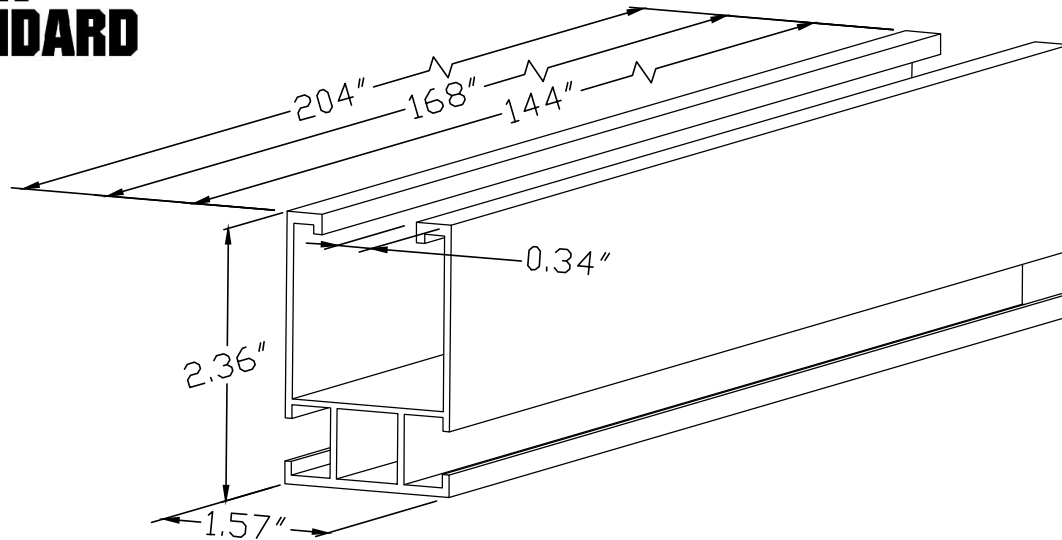
A. The table above ONLY includes Dual Rack rail capacity check. It does not include roof attachment or roof capacity check.

B. Wind risk category II per ASCE7-10. C. Topographic factor,  $k_{zt}$  is 1.0. D. Maximum mean roof height is 30ft.

E. Average parapet height is 0 ft. F. Roof pitch is between 7 degree and 27 degree. G. Maximum solar panel weight is 50 lbs.

H. Height of solar panel is between 2" and 10" to roof

## DUAL RACK RAIL-STANDARD

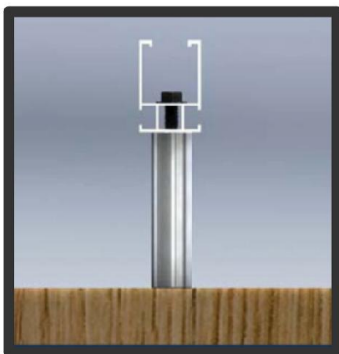


### INSTALLATION GUIDE

The Dual Rack is a robust, long-life photovoltaic (PV) module mounting system for both flat and pitched roofs. It consists of aluminum rails, roof attachments and all necessary small parts to ensure a safe installation. Dual Rack allows modules to be mounted in both landscape and portrait orientation.

- Dual Rack technology can be installed in two different ways: Top down attachment style and L-Foot style

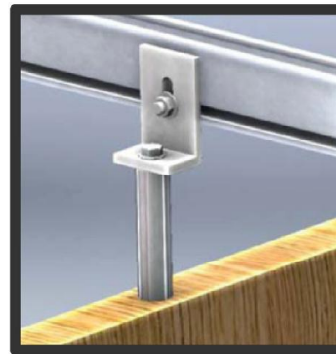
Top Down



#### TOP DOWN

- Measure and mark location of each stand off to roof connection.
- Drill 3/8" hole through Dual Rack rail for each standoff location.
- Attach standoff to roof with 5/16" lag screw and attach Dual Rack rail to stand off with 3/8" bolt and washer.

L-Foot style



#### L-FOOT STYLE

- After locating and securely installing standoff to rafter, attach L-foot with 3/8" bolt and nut to Dual Rack rail at desired height.
- Dual Rack L-foot enable height adjustment up to 1.1 inches.

### CONTACT INFO



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### DISTRIBUTOR INFO