

Aluminum Racking Rail HDC

For the roof-parallel installation of photovoltaic panels

Application

The hollow chamber double-C racking rail HDC is used for the installation on pantile roofs (in combination with roof brackets of type P/PS/BS/FS) and metal sheeting roofs (with roof anchors of type TR/K A2 Hv / BE).

The rail is suitable for:

- installation on standard roof brackets and anchors, using T-bolts,
- comfortable installation from above on Wagner TOP brackets and anchors,
- utilization as panel carrier in connection with the flat-roof and greenfield racking system TRIC F, and TRIC FL
- the simple setup of cross connections.

The optimized geometry allows for a structurally safe and cost-effective installation.

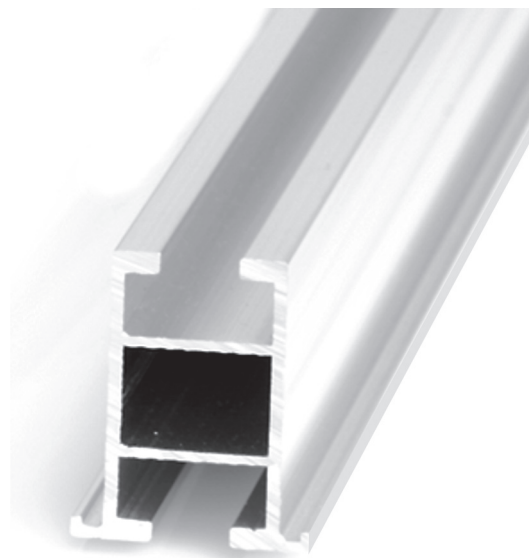


Fig. 1 Aluminum racking rail HDC

Tab. 1 Max. allowable span between two brackets/anchors [mm]		
Snow load zone*	0 - 300 m AMSL	300 - 500 AMSL
1 ($\geq 0.65 \text{ kn/m}^2$)	1620	1370
1a ($\geq 0.81 \text{ kn/m}^2$)	1510	1240
2 ($\geq 0.85 \text{ kn/m}^2$)	1330	1030
2a ($\geq 1.06 \text{ kn/m}^2$)	1210	930
3 ($\geq 1.10 \text{ kn/m}^2$)	1130	860

Building height ≤ 10 m, roof pitch 30° , inland, two horizontal rails per row of panels, installation in the safe zone of the roof (not in edges, corners), panel size 1600×800 mm.
 Max. allowable projection of rail over outer anchors/brackets is 0.45 m.

*German EUROCODE 1 based snow load zones, absolute values in brackets. Observe local country codes and standards! In case of doubt contact the Wagner & Co technical support.



Tab. 2 Technical data	
Material	Aluminum EN AW 6063 / T66
Offset yield point $R_{p0,2}$	180 N/mm^2
Length	6 m
Specific weight	0.82 kg/m
Cross section area	297 mm^2
Allowable stress acc. to DIN 4113-1/A1:2002-09, table 4	$\sigma_{z,d}^H = 105 \text{ N/mm}^2$ $\sigma_{z,d}^{HZ} = 120 \text{ N/mm}^2$
2nd moments of inertia	$I_x = 64433 \text{ mm}^4$ $I_y = 36636 \text{ mm}^4$
Section modulus	$W_x = 2838 \text{ mm}^3$ $W_y = 2024 \text{ mm}^3$

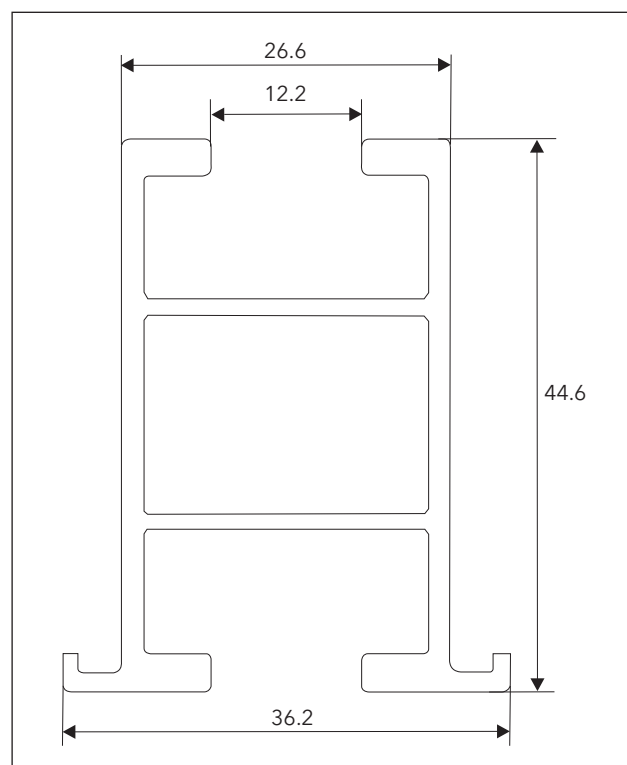


Abb. 2 Cross section with dimensions (mm)

