



Hebei Longze Metal Products Manufacturing Co., LTD

Technical Data Sheet: U Slotted Steel & Aluminum Strut Channel

Product Overview

Brand: Longze Fasteners

Product Name: U Slotted Strut Channel / Support Systems

International Standards: ISO 1461 (Galvanizing) / ASTM B221 (Aluminum) / EN 10219

Material Options: Q235B Carbon Steel (HDG) / Aluminum Alloy AL6005-T5

Compatible Hardware: DIN 6923 / ISO 4161 / ASME B18.16.4 (Serrated Flange Nuts)

Surface Treatment: Hot-Dip Galvanized (HDG) for Steel / Anodized for Aluminum

Application Scenarios: Solar PV Racking, HVAC Supports, Cable Tray Systems, Seismic Bracing.

Dimensional & Technical Specifications

Technical Specifications

<i>Profile Size (H*W)</i>	<i>Wall Thickness (t)</i>	<i>Slot Size</i>	<i>Material Grade</i>
<i>41 * 21 mm</i>	<i>1.5 / 2.0 / 2.5 mm</i>	<i>11 * 30 mm / 14 * 30 mm</i>	<i>Q235B / AL6005-T5</i>
<i>41 * 41 mm</i>	<i>2.0 / 2.5 / 3.0 mm</i>	<i>11 * 30 mm / 14 * 30 mm</i>	<i>Q235B / AL6005-T5</i>
<i>41 * 62 mm</i>	<i>2.5 / 3.0 mm</i>	<i>14 * 30 mm (Slotted)</i>	<i>Q235B (HDG Only)</i>

***Note: Pre-punched holes (round or slotted) are available for rapid on-site assembly.**

Mechanical & Performance Properties

Property Item	Specification (Steel Q235B)	Specification (AL6005-T5)
Tensile Strength (\$R_m\$)	370 - 500 MPa	≥ 260 MPa
Yield Strength (\$R_{p0.2}\$)	≥ 235 MPa	≥ 240 MPa
Surface Finish	HDG (Zinc ≥ 85 μm)	Anodized (≥ 12 μm)
Salt Spray Resistance	1500+ Hours	Excellent
Standard Length	3m / 6m (Customizable)	2.1m / 4.2m / 5.8m

"Recommended with: Longze Solar Mounting Fasteners".

Eric's Professional Advice:

1 Versatility: Our U Slotted Channels are designed with standardized slots, making them perfectly compatible with Longze DIN 6923 Flange Nuts. This combination provides an anti-vibration lock, ideal for solar farms in high-wind areas.

2. Material Choice: Use Aluminum AL6005-T5 for roof projects to reduce structural weight, and HDG Q235B Steel for heavy-duty ground-mounted utility systems where high load capacity is the priority.

3. Corrosion Integrity: For the steel version, our Hot-Dip Galvanizing process ensures the inside of the U-channel is as protected as the outside, preventing internal rust that can weaken the structure over time.

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