



Hebei Longze Metal Products Manufacturing Co., LTD

Technical Data Sheet: BIPV Waterproof Solar Mounting System

Product Overview

Brand: Longze Fasteners

Product Name: Solar BIPV Waterproof Mounting System / Integrated Racking Structure

International Standards: AS/NZS 1170.2 / ASTM B221 / EN 755

Material Grade: Aluminum Alloy AL6005-T5

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

Application Scenarios: Industrial Rooftops, Commercial Carports, Waterproof Sunrooms..

Dimensional & Technical Specifications

Technical Specifications

<i>Component Item</i>	<i>Specification / Value</i>	<i>Material</i>
<i>Rail Height</i>	<i>40 mm / 50 mm / 80 mm</i>	<i>AL6005-T5</i>
<i>Waterproof Method</i>	<i>EPDM Sealing Strip + Structural Drainage</i>	<i>UV-Resistant EPDM</i>
<i>Surface Treatment</i>	<i>Anodized Aluminum, Thickness $\geq 12\mu\text{m}$</i>	<i>AA Class 10/15</i>
<i>Max Wind Load</i>	<i>Up to 60 m/s</i>	<i>-</i>
<i>Max Snow Load</i>	<i>Up to 1.6 kN/m²</i>	<i>-</i>

Note: Rails can be pre-cut to specific project lengths upon request.

Mechanical Properties (AL6005-T5)

<i>Property Item</i>	<i>Value / Requirement</i>	<i>Testing Standard</i>
<i>Tensile Strength (Rm)</i>	≥ 260 MPa	ASTM B221
<i>Yield Strength (Rp0.2)</i>	≥ 240 MPa	ASTM B221
<i>Hardness</i>	≥ 85 HW (Webster Hardness)	-
<i>Corrosion Resistance</i>	Excellent (C4/C5 Environment Ready)	ISO 9223

"Recommended with: Longze Solar Mounting Fasteners".

Eric's Professional Advice:

1. Waterproof Reliability: Our BIPV system uses a unique "Double-Drainage" design. Even if extreme rain bypasses the first EPDM seal, the secondary rail channel ensures 100% water diversion.

2. Fastener Strategy: For waterproof systems, vibration is the enemy of seals. We exclusively use DIN 6923 Serrated Flange Nuts to ensure the structure remains rock-solid for 25 years.

3. Thermal Expansion: Always leave a 20mm gap between rail sections. Our specialized BIPV rail connectors are designed to handle thermal expansion without compromising the waterproof seal.

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