

INOXMARE®

MOUNTING RAIL 40X80, UPPER SLOT M8 LOWER SLOT M10



**DATA SHEET
ART. 9664-W2**

FASTENERS | MARINE HARDWARE | FITTINGS | SOLAR

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ART. 9664-W2

TECHNICAL SPECIFICATIONS

Material type	Aluminium
Kindness	AlMgSi0,5 F25 / A2
Surface	Blank

YOUR ADVANTAGES

 FAST ASSEMBLY

 SAFE HOLD

 COST-EFFECTIVE

 ALSO AVAILABLE BLACK ANODIZED
› For increased corrosion protection

 UNIVERSALLY APPLICABLE
› Other lengths customizable

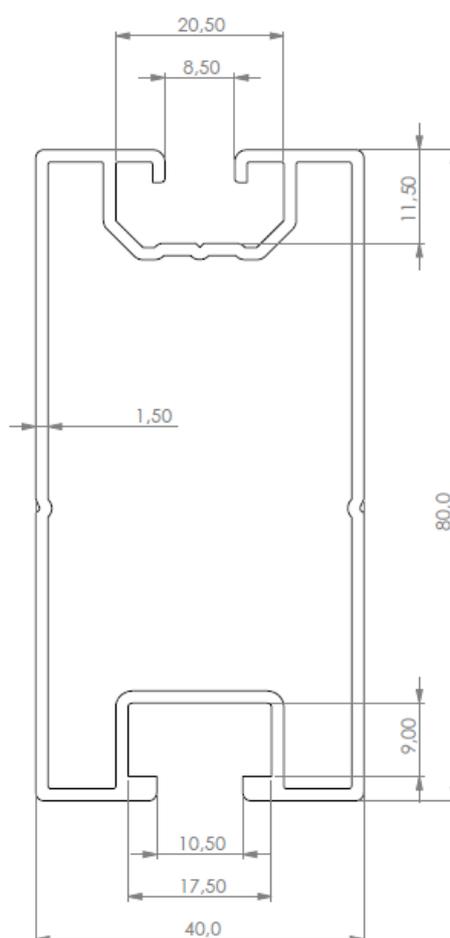
 IMMEDIATELY READY FOR ASSEMBLY

There are currently no specific test reports available for this substructure regarding its lightning current carrying capacity or equipotential bonding.

The suitability of the substructure for use in lightning protection systems and for equipotential bonding should be evaluated by a qualified planner as part of the individual planning and installation process.

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DIMENSIONS (MM)



Item number	Length
96648004002	6200 mm

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DATA SHEET

**Maximum spans of
Inox Mare solar
support profiles**

9664 W2

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General remarks on the application of the technical datasheet

During the implementation of a project and the use of the certified component, the specific on-site situation must be compared with the basic data provided here.

Any deviations from these basic data may result in different systems and loads.

It is recommended to carry out a project-specific structural analysis.

In the case of existing structures, the additional load imposed by the photovoltaic system on the pre-existing structural elements must be verified.

The load assumptions are made according to:

Principles of structural design: DIN EN 1990, DIN EN 1990/NA, and DIN EN 1990/NA/A1

Actions (loads): DIN EN 1991

Density and surface loads of construction materials, structural elements, and storage materials: DIN EN 1991-1-1 and DIN EN 1991-1-1/NA

Snow loads: DIN EN 1991-1-3 and DIN EN 1991-1-3/NA

Wind loads: DIN EN 1991-1-4 and DIN EN 1991-1-4/NA

Design and dimensioning of aluminum supporting structures:

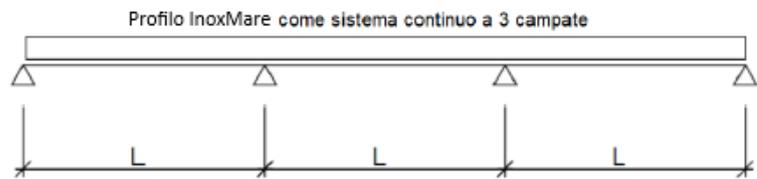
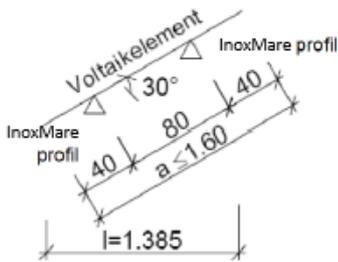
DIN EN 1999-1-1 and DIN EN 1999-1-1/NA

Static system and calculation:

The basis of the following datasheets is the corresponding static calculations of the INOXMARE SOLAR binary system profiles of type 9664-W2.

The system illustrated on page 2 forms the basis of the calculations performed. The calculations are carried out using the InfoGraph software.

Basic Data – Structural Principles



Pitched roof, $\alpha = 10^\circ, 30^\circ$ and 45° , Roof area H, Building height $\leq 18\text{m}$

Material

ALMgSi 0,5 F25 (EN AW-6063 T66)

E-Modul = 70000 [MN/m²]

α_t = 2,30e-05 [1/K]

γ = 27,000 [kN/m³]

$f_{u,k}$ (= β_z) = 245 [MN/m²]

$f_{y,k}$ (= β_{02}) = 200 [MN/m²]

Considered Inox Mare profiles

Profil	Trägheitsmoment [cm ⁴]	Widerstandsmoment [cm ³]
W2 	38,489	9,622

Load assumptions

Permanent loads

Self-weight of the photovoltaic elements 1.60 × 0.8 m (may vary depending on the product) with any additional mounting parts: => 22 kg/m²

(referring to the roof area, influence width for the Inox Mare binary system profile $a = 1.6 / 2 = 0.8$ m)

⇒ On the Inox Mare profile $g_1 = 0.22 \times 0.8 = 0.176$ kN/m

Self-weight of the Inox Mare profile: it is determined and considered together with the applied loads; the installation position must be taken into account!