



**energize
the earth
buy the sun**

X SERIES

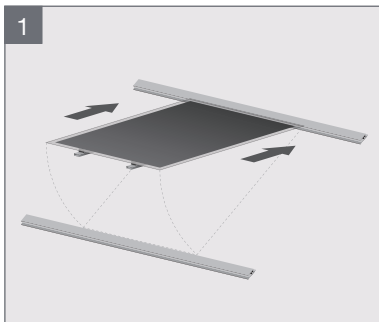
MICROMORPH

The Inventux thin-film solar modules of the X-Series MICROMORPH are made of an amorphous and microcrystalline silicon layer. This micromorph tandem structure absorbs an especially wide spectrum of light, facilitates excellent performance with diffused solarization – and is particularly suitable for flat-inclined roofs in east-west alignment.

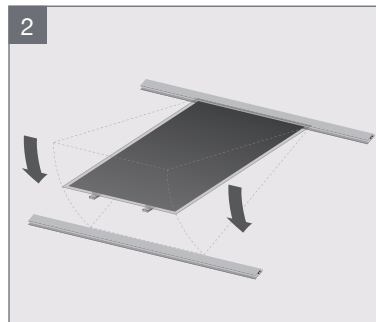
The product design, with its ideal surface of 1.43 square meters (15.39 sq ft) and its frameless glass-glass structure, as well as a rear integration of high-grade steel carrier profiles combine excellent static properties with a faster and material-saving mounting. This makes modules of the X-Series MICROMORPH a real alternative for large grid-connected photovoltaic systems.

■ Large frameless module surface with nearly square shape and integrated fiX mounting system	Time and material-saving installation at lower costs
■ Narrow output tolerance of +/- 3 %	Best possible system configuration to avoid time-consuming matching
■ Excellent performance even with diffused light, partial shading and high temperatures	Highest energy yields
■ Renounce on toxicological, dangerous materials	Unproblematic recycling at the end of the product life cycle
■ Absorbs a wide spectrum of light thanks to tandem structure (a-Si/ μ c-Si)	Highest energy yields per W_p
■ Monolithic series connection by means of laser technology without soldering joints	High function safety and longevity
■ 2 moulded junction boxes with short cables in the module corners	Fast, material-saving and safe stringing
■ Frameless glass-glass design with low iron and highly translucent front glass	High energy yield, no dirt collection in edges, no inner freezing
■ Consistent black module surface with "pin-stripe" appearance	Provides for an aesthetically pleasing product design
■ Inerasable serial number within the module	Complete traceability up to every detail
■ Manufactured in state-of-the-art, automated and ISO-certified facilities Continuous optical, mechanical and electrical inspections	Guarantees product safety and longevity – contributing to increased ROI
■ Minimum usage of material and very low process temperatures	Short Energy Payback Time as contribution to sustainability
■ Made in Germany	Consistent highest product quality, systematic process improvements, purchase criteria for the investor

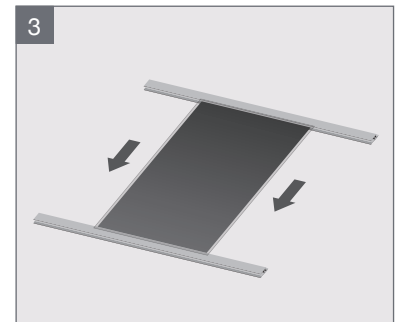
fiX Mounting System



1 Insert module in upper profile



2 Lower module



3 Slide module into lower profile

<ul style="list-style-type: none"> Fast, easy and safe mounting 	<p>Lower installation costs and thus overall profitability of the system</p>
<ul style="list-style-type: none"> Effective double usage of a mounting profile through two module rows 	<p>Material and time-saving since fewer mounting profiles required</p>
<ul style="list-style-type: none"> Strainless mounting of modules without laminate clamps 	<p>No glass breakage, particularly through weather induced stresses (snow, wind etc.)</p>
<ul style="list-style-type: none"> Maximum resilience of 5,400 Pa according to IEC 61646 	<p>More than double the resilience compared to modules of other manufacturers</p>
<ul style="list-style-type: none"> Flexible mounting system with predefined mounting points thanks to fiX 	<p>Diverse mounting possibilities and optimal module installation, no clamping on the glass</p>
<ul style="list-style-type: none"> No construction-related minimum angle of inclination 	<p>Highest flexibility in PV-system design</p>
<ul style="list-style-type: none"> Integrated steel back bars as carrier profiles 	<p>Longevity through the highest measure of temperature and corrosion resistance</p>

