

# MPV-M-Sama 1 - Innovation on 1.43 m<sup>2</sup>

## Ideal for Rooftop Installations

The attractive, frameless modules, 1.43 m<sup>2</sup> large, are made up of one amorphous silicon and one micromorph silicon layer. The micromorph tandem layer absorbs a particularly broad spectrum of light, which leads to excellent energy production even during diffuse or low light conditions. These modules are particularly well suited for rooftop installations.



### Reliability, Warranty and Safety

- High reliability certified according to IEC 61646:2008, IEC 61730-1:2007 and IEC 61730-2:2007
- "Made in EU" certificate
- Product warranty of 10 years on material and workmanship
- Performance guarantee:
  - 10 years (90 % of minimum stabilized rated power output)
  - 25 years (80 % of minimum stabilized rated power output)
- Fully recyclable due to PV-Cycle membership

### About Masdar PV GmbH

Masdar PV GmbH develops and produces innovative thin-film solar products and solutions. Part of the Masdar Power business unit, Masdar PV GmbH is a 100% subsidiary of Masdar, Abu Dhabi's multifaceted initiative for innovative technologies, launched and owned by the Mubadala Development Company.

#### ⊕ EFFICIENT

Excellent energy output even during diffuse or low light conditions

#### ⊕ SUPERIOR YIELD

Higher yields than crystalline modules in hot climates due to better temperature coefficient

#### ⊕ SAFE

Financially powerful investor ensures continued existence

#### ⊕ QUALITY GUARANTEED

10-year product warranty  
25-year performance guarantee\*

#### ⊕ CERTIFIED

Certified high-tech module, "Made in Germany", guaranteeing high quality products

#### ⊕ TESTED

Independent tests confirm mechanical stability of the modules even under conditions of high wind and snow loads

#### ⊕ POSITIVE SORTING

Superior specific yields due to positive sorting within power classes

#### ⊕ AESTHETIC

Black striped module design meets highest aesthetic expectations

#### ⊕ SUSTAINABLE

Short energy payback time due to low process temperatures and careful selection of materials

#### ⊕ RECYCLABLE

Manufactured with non-toxic materials

\*80 % of minimum stabilised rated power output



## a-Si/ $\mu$ c-Si Thin-Film PV Module

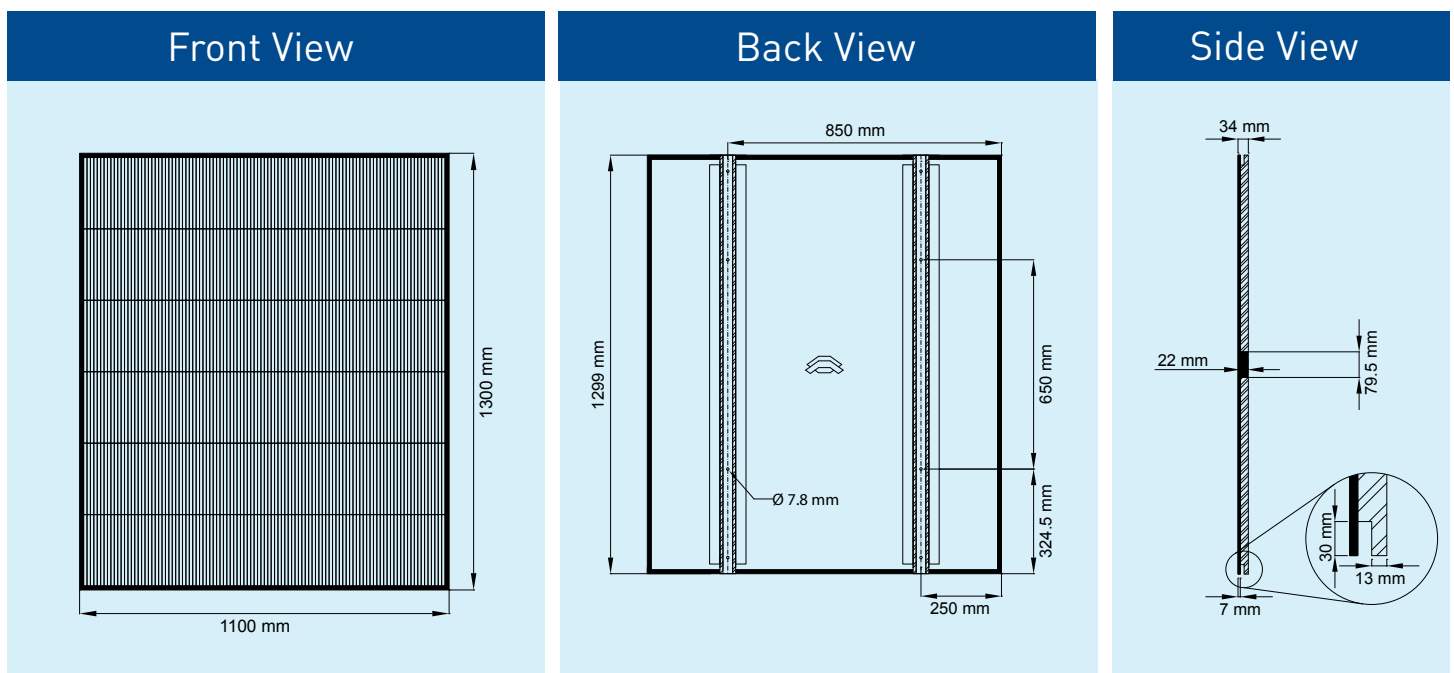
Parameter	Unit	MPV120-M	MPV125-M	MPV130-M	MPV135-M	MPV140-M
Nominal peak power ( $P_{mpp}$ )	W	120	125	130	135	140
Nominal voltage ( $V_{mpp}$ )	V	111.2	112.6	110.7	111.8	113
Nominal current ( $I_{mpp}$ )	A	1.08	1.11	1.18	1.21	1.24
Open circuit voltage ( $V_{oc}$ )	V	142.4	143.6	140.4	142.2	143.9
Short circuit current ( $I_{sc}$ )	A	1.26	1.30	1.39	1.41	1.43
Maximum system voltage ( $V_{max}$ )	V	1000				
Maximum reverse current ( $I_R$ )	A	3				
Bypass diode current ( $I_B$ )	A	10				
Temperature coefficient ( $P_{mpp}$ )	%/K	-0.27				
Temperature coefficient ( $V_{oc}$ )	%/K	-0.37				
Temperature coefficient ( $I_{sc}$ )	%/K	0.1				
Length	mm	1300				
Width	mm	1100				
Area	m <sup>2</sup>	1.43				
Thickness of module (incl. backrails)	mm	7 (34)				
Weight	kg	30				
Operating temperature range	°C	-40 to +85				

Negative grounding required

 Standard test conditions (STC) = 1000 W/m<sup>2</sup>, 25°C, AM 1.5

## Dimensions

The drawings are not drawn to scale! For valid measurements, please refer to the installation guide!



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