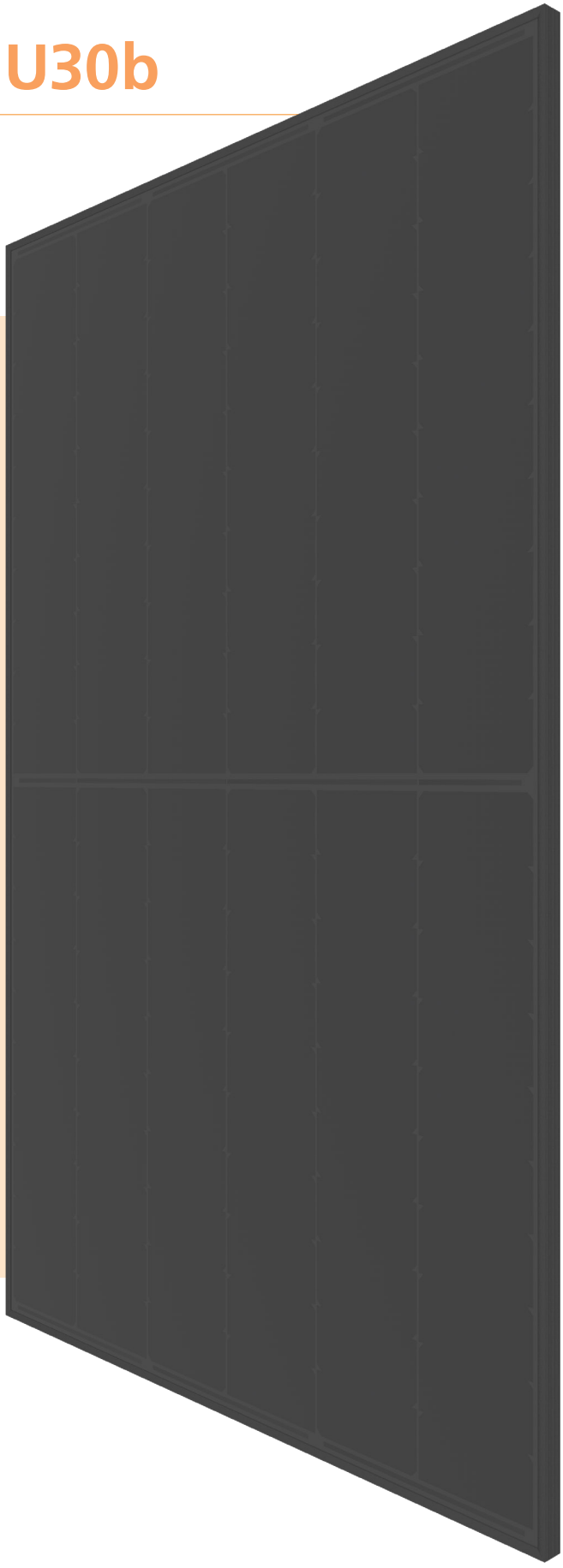
0322.1548 High performance module

M400-HC120-b RC GG U30b

Bifacial glass-glass module / Totally Black / 400 Wp /
HiR RearCon Half-cut / Black 30 mm U-frame



HiR RearCon cell technology

Totally Black for highest aesthetic requirements

Additional yields through bifaciality

Best performance stability and maximum efficiency

50+

Very high durability due to glass-glass technology

Full traceability of all raw materials

Swiss development and warranty

Bifacial gain[1]		
Low reflecting surface	*e.g. grass, brick*	**5 - 15 %**
Well reflecting surface	*e.g. sand, bright gravel or paint*	**15 - 25 %**
Highly reflecting surface	*e.g. ice, snow*	**25 - 35 %**

megasol
innovation in power

High performance module M400-HC120-b RC GG U30b

Art. 0322.1548

Electrical data STC

Nominal power (Pmpp)	400 Wp
Nominal voltage (Umpp)	36.3 V
Nominal current (Impp)	11.03 A
Open circuit voltage (Uoc)	42.3 V
Short circuit current (Isc)	11.56 A
Cell efficiency	25.0 %
Module efficiency	22.1 %
Power sorting	-0/+5 %

With bifacial gain [1]

5 %	420 Wp
10 %	440 Wp
15 %	460 Wp
20 %	480 Wp
30 %	520 Wp

[1] Depending on installation situation, albedo of the substrate and external factors.

STC (Standard Test Conditions): irradiance 1000 W/m², cell temperature 25 °C, AM 1.5
Measuring tolerances ±3 % (Pmpp); ±10 % (Umpp, Impp, %, Uoc, Isc)

Electrical data at partial load

800 W/m²

Nominal power (Pmpp)	324 Wp
Nominal voltage (Umpp)	36.0 V
Nominal current (Impp)	9.02 A
Open circuit voltage (Uoc)	41.9 V
Short circuit current (Isc)	9.46 A

Measuring tolerances ±5 % (Pmpp); ±10 % (Umpp, Impp)

Thermal properties

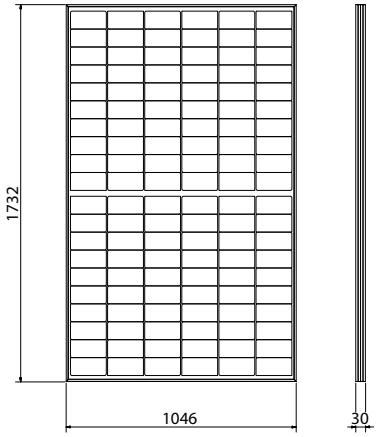
Nominal operating cell temperature (NOCT)	42 ±2 °C
Temperature coefficient Uoc	-0.268 %/°C
Temperature coefficient Isc	+0.042 %/°C
Temperature coefficient Pmpp	-0.300 %/°C

Operating conditions

Temperature range	-40 ... +85 °C
Max. system voltage	1500 V
Max. string fuse	25 A
Max. snow loads *	Up to 6'000 N/m²
Hail resistance	ø 30 mm at 23 m/s Hail protection class 3
Application class (acc. to IEC/EN 61730)	A
Fire protection	Top and back layer are made of heat-resistant glass. The component is considered to be non-combustible material as defined by the Cantonal Fire Insurances.
Protection class	II
Standards	IEC/EN 61215, 61730
Salt spray test	IEC/EN 61701 I+II
Ammonium corrosion test	IEC/EN 62716

* Max. possible forces acting on the module. The maximum values in mounted condition depend on the substructure as well as the installation situation. If the requirements are higher than IEC/EN 61215, a project-specific dimensioning of the mounting system is necessary.

Technical drawing



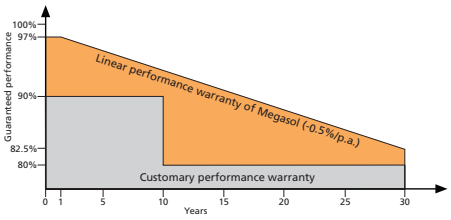
Note: The instructions in the installation manual must be strictly complied with. Further information about approved utilization of products can be found in the installation manual or can be requested from the technical service.

General data

Laminate structure	Glass-glass
Cell technology	Megasol Mono HiR RearCon
Cell format	M6 Half-cut 166 x 83 mm
Number of cells (matrix)	120 (6x 20)
Design	Totally Black Black cell spacing, black cross connectors, hidden busbars (RearCon)
Frame	U-frame 30 mm Aluminium, anodized black
Front side	2.0 mm TVG High-transmission, nano-finished/antireflective surface
Encapsulation material	Special EVA (UV+/IR+) with lowest yellowness index
Back side	2.0 mm TVG
Junction box	Split Box, IP 67
Cable cross section	4 mm²
Connectors	Original Stäubli MC4-Evo 2
Dimensions (L x W x H) ±3.0 mm	1732 x 1046 x 30 mm
Grid dimensions (L x W)	Depending on the installation situation
Weight	22 kg

Warranty

Product warranty	15 years
Linear performance warranty	30 years



Relative efficiency level in relation to the minimal output (%). At least 97 % of the minimum output during the first year. Afterwards, max. 0.5 % degradation per annum. At least 92.5 % of the minimum output after 10 years. At least 87.5 % of the minimum output after 20 years. At least 82.5 % of the minimum output after 30 years. All data within the measuring tolerances. Warranties according to the respective latest Megasol Warranty Conditions which can be found on www.megasol.ch/warranty.

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Megasol partner

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