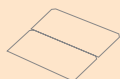


0322.1610 High performance module

M490-HC108-b RC GG U30b

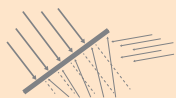
Bifacial glass-glass module / Totally Black / 490 Wp /
HiR RearCon Half-cut / Black 30 mm U-frame



HiR RearCon cell technology



Totally Black for highest aesthetic requirements



Additional yields through bifaciality



Best performance stability and maximum efficiency



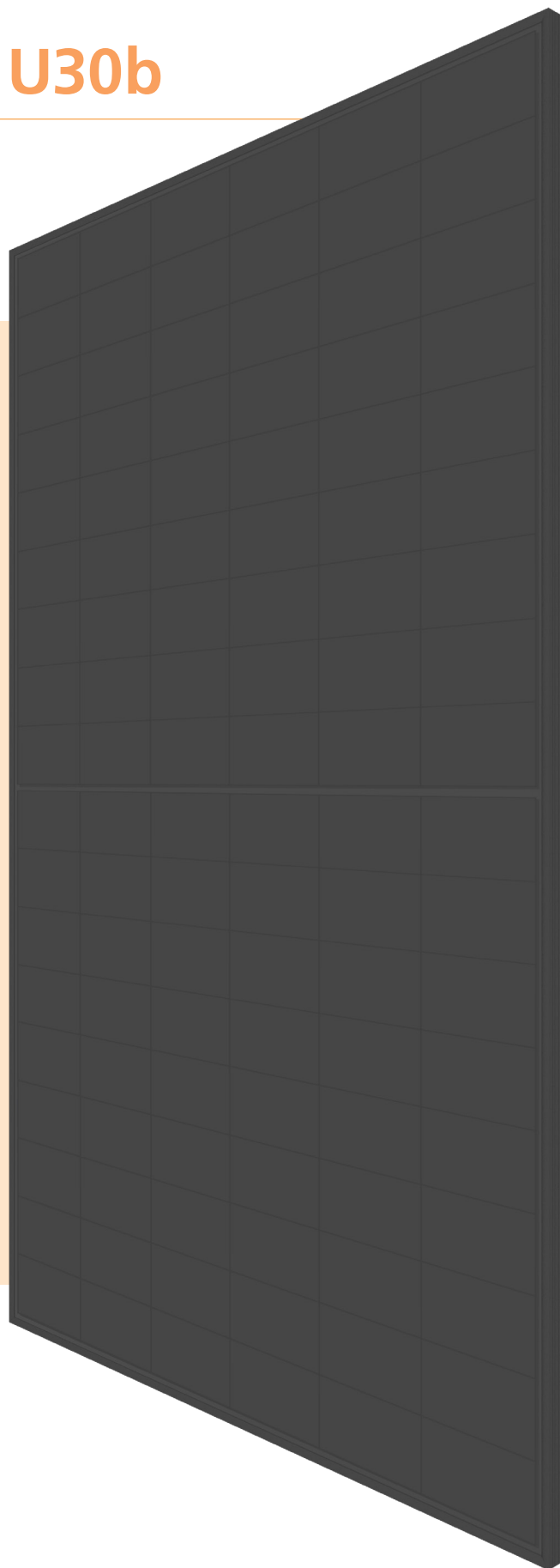
Very high durability due to glass-glass technology



Full traceability of all raw materials



Swiss development and warranty



Bifacial gain¹

Low reflecting surface	<i>e.g. grass, brick</i>	5 - 15 %
Well reflecting surface	<i>e.g. sand, bright gravel or paint</i>	15 - 25 %
Highly reflecting surface	<i>e.g. ice, snow</i>	25 - 35 %

Electrical data STC

Nominal power (Pmpp)	490 Wp
Nominal voltage (Umpp)	34.04 V
Nominal current (Impp)	14.40 A
Open circuit voltage (Uoc)	41.02 V
Short circuit current (Isc)	15.10 A
Module efficiency	24.0 %
Power sorting	-0/+5 %

With bifacial gain¹

5 %	514 Wp
10 %	539 Wp
15 %	563 Wp
20 %	588 Wp
30 %	637 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)	372 Wp
Nominal voltage (Umpp)	32.30 V
Nominal current (Impp)	11.51 A
Open circuit voltage (Uoc)	38.92 V
Short circuit current (Isc)	12.21 A

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

Thermal properties

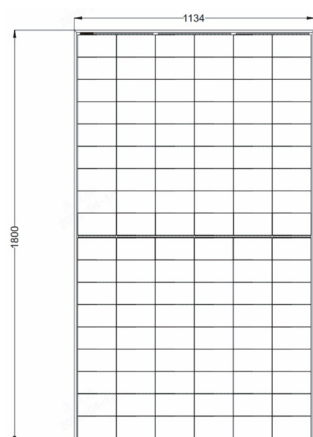
Nominal operating cell temperature (NOCT)	42 ±2 °C
Temperature coefficient Uoc	-0.268 %/°C
Temperature coefficient Isc	+0.042 %/°C
Temperature coefficient Pmpp	-0.300 %/°C

Operating conditions

Temperature range	-40 ... +85 °C
Max. system voltage	1500 V
Max. string fuse	30 A
Max. surface load *	Up to 6'000 N/m ²
Hail resistance	Ø 50 mm (30.8 m/s) Hail protection class 5
Application class (acc. to IEC/EN61730)	A
Fire protection class (acc. to EN 13501-1)	B - s1, d0
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 the installed state depend on the type of installation, installation situation, location and type of load. Specific details can be found in the respective planning information.

Technical drawing



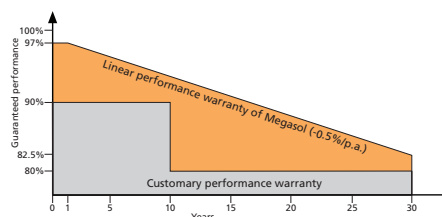
Note: The instructions in the installation manual must be strictly complied with. Further information about approved utilization of products can be found in the installation manual or can be requested from the technical service.

General data

Laminate structure	Glass-glass
Cell technology	Megasol Mono HiR RearCon
Cell format	Half-cut 182x96 mm
Number of cells (matrix)	108 (6x 18)
Design	Totally Black Black cell spacing, black cross connectors, hidden busbars (RearCon)
Frame	U-frame 30 mm Aluminium, anodized black
Front side	3.2 mm TVG High-transmission solar glass, antireflective surface AR+
Encapsulation material	Special EVA (UV+/IR+) with lowest yellowness index
Back side	2.0 mm TVG
Junction box	Split Box, IP68
Cable cross section	4 mm ²
Connectors	Original Stäubli MC4-Evo 2
Dimensions (LxWxH) ±3.0 mm	1800x1134x30 mm
Grid dimensions (LxW)	Depending on the installation situation
Weight	30 kg

Warranty

Product warranty *	30 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.

* Product warranty 15 years + 15 years with product registration.



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