swiss solar QUALITY TECHNOLOGY

ENGINEERED IN SWITZERLAND

IBEX 120MHC-EiGER FULL BLACK

440/445/450/455/460

IBEX HIGH EFFICIENCY MONOCRYSTALLINE SOLAR MODULES WITH HALF CELL TECHNOLOGY

0+5 Positive power tolerance (0+5W) guaranteed

High performance under low light. Works at cloudy, rainy days

The monolithic perc cell structure technology (low resistance characteristics) is adopted (the maximum conversion efficiency of modules is up to 21.25%)

EXTREME WEATHER RATING. High-tech aluminium alloy frame, certified for high snow (5400 Pa) and wind loads (2400 Pa)

Reduced resistance between cells Less micro cracks, higher output power

10% SUPER STRONG FRAME. The overflow tank is waterproof with double layers. Aluminum frame enhances the mechanical load strength by 10%

- IEC61215(2016), IEC61730(2016)
- ISO9001:2015: Quality Management System
- ISO45001:2018 Occupational health and safety management systems

TÜV SÜD ISO 45001 · TÜV SÜD ISO 9001 · TÜV SÜD Safety Quality Reliability Performance Photo voltaics IEC 61215 IEC 61730 Additional Environmental Tests Salt Mist Corrosion IEC 61701 · CE · TÜV NORD

IBEX 120MHC-EiGER 440-460 FULL BLACK

MONOCRYSTALLINE SOLAR MODULE

ELECTRICAL DATA AT STC

Rated power Pmpp [Wp]	440	445	450	455	460
Pmpp range to	0/+5W	0/+5W	0/+5W	0/+5W	0/+5W
Rated current Impp [A]	12.84A	12.90A	12.96A	13.02A	13.08A
Rated voltage Vmpp [V]	34.20V	34.50V	34.70V	34.90V	35.20V
Short-circuit current Isc [A]	13.58A	13.63A	13.68A	13.73A	13.78A
Open-circuit voltage Uoc [V]	41.00V	41.20V	41.40V	41.60V	41.80V
Efficiency at STC up to	20.33%	20.56%	20.79%	21.02%	21.25%
Application Class	Class A	Class A	Class A	Class A	Class A

Specification as per STC (Standard test conditions): irradiance 1000 W/m² | module temperature 25°C | Air Mass = 1.5

ELECTRICAL DATA AT NOCT

Power at Pmpp [Wp]	324.00	328.00	331.00	335.00	339.00
Rated current Impp [A]	10.14	10.21	10.24	10.30	10.35
Rated voltage Vmpp [V]	31.94	32.14	32.34	32.54	32.74
Short-circuit Isc [A]	10.68	10.73	10.78	10.83	10.88
Open-circuit voltage Uoc [V]	38.28	38.48	38.68	38.88	39.08

NOCT (nominal operating cell temperature): irradiance 800 W/m² | Wind speed 1 m/sec | Ambient temperature | 20°C cell operating temperature 45 +/-2°C | Air Mass = 1.5

LIMITING VALUES

Max. system voltage [V]	1500V DC (IEC)
Max. return current [I]	25A
Operating Temperature	- 40 to +85°C
Max.tested pressure load [Pa]2	5400
Max. tested tensile load [Pa]2	2400

TEMPERATURE COEFFICIENT

Isc	Voc	Pmax
0.05% /°C	-0.28% /°C	-0.36% /°C

SPECIFICATIONS

Number of cells	120 (6 x 20) I 182x182 mm
Dimensions	1909x1134x30 mm
Weight	23.5 kg
Front-side glass	3.2 mm tempered Low Iron Glass
Frame	Stable, anodised aluminium frame, black
Junction box	Split Junction Box (IP68)
Cable	4 mm², +300mm,-200mm Cust.Length
Diodes	3 Diodes
Plug-in connection	MC4 Compatible
Hail test (max. hailstrom)	Ø45mm | 23 m/s | 83 km/h

PACKING CONFIRGURATION

Container	40 HQ	Pieces Per Pallet	36
Pallets Per container	24	Pieces per Container	864

The specifications and average values can vary slightly. Relevant is the corresponding data of the individual measurement. Specifications are subject to change without notice. Measurement tolerance depending on equipment: rated power +/- 3%, other values +/- 10%. All information given in this data sheet correspondes to DIN EN 50380. A potential light-induced degradation of the power after commissioning is not considered here. Further information in the installation manuals. 1 The specific warranty conditions are given under www.swissenergy-solar.ch | 2 Horizontal mounted | 3 Tolerance L/W = +/- 3 mm. H +/-2mm, the dimensions given in the order confirmation will be decisive | 4 Location and dimensions of holes on request

WARRANTY

20 YEARS
PRODUCT WARRANTY

30 YEARS
POWER WARRANTY

swiss solar

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