

## IBEX

HIGH TECHNOLOGY  
SOLAR MODULES

IBEX 120BF  
MHC-EIGER

440/445/450/455

10BB HALF-CELL MONO PV MODULE

BIFACIAL HIGH TECHNOLOGY  
GLASS SOLAR MODULES

SWISS SOLAR

### 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 21.01%)



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



Combines high efficiency PERC bifacial cells with a dual glass construction, which can convert light that hits the back of the module into electricity, generating up to 25% more energy

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



# IBEX 120BF MHC-EIGER 440-455

## MONOCRYSTALLINE SOLAR MODULE

### ELECTRICAL DATA AT STC

Module Type	440W		445W		450W		455W	
	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT
Rated power P <sub>mp</sub> [Wp]	440	327.1W	445	330.8W	450	334.5W	455	338.2W
P <sub>mp</sub> range to	0/+5W		0/+5W		0/+5W		0/+5W	
Rated current I <sub>mp</sub> [A]	12.77A	10.24A	12.86A	10.30A	12.94A	10.36A	13.02A	10.43A
Rated voltage V <sub>mp</sub> [V]	34.47V	31.97V	34.63V	32.13V	34.79V	32.29V	34.95V	32.45V
Short-circuit current I <sub>sc</sub> [A]	13.56A	10.91A	13.65A	10.99A	13.74A	11.07A	13.83A	11.15A
Open-circuit voltage U <sub>oc</sub> [V]	41.00V	38.41V	41.20V	38.59V	41.40V	38.77V	41.60V	38.95V
Efficiency at STC up to	20.32%		20.55%		20.78%		21.01%	
Application Class	Class A		Class A		Class A		Class A	

### PARAMETER OF DOUBLE-SIDED POWER GENERATION (450W)

P <sub>max</sub> gain	+5%	+15%	+25%
Rated power P <sub>mp</sub> [Wp]	472	517	562
Rated current I <sub>mp</sub> [A]	13.57	14.86	16.15
Rated voltage V <sub>mp</sub> [V]	34.79	34.79	34.79
Short-circuit current I <sub>sc</sub> [A]	14.52	15.90	17.28
Open-circuit voltage U <sub>oc</sub> [V]	41.40	41.40	41.40

STC: 1000W/m<sup>2</sup> irradiance, 25°C cell temperature, AM1.5.

### 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] <sup>2</sup>	5400
Max. tested tensile load [Pa] <sup>2</sup>	2400

### TEMPERATURE COEFFICIENT

I <sub>sc</sub>	V <sub>oc</sub>	P <sub>max</sub>
0.050% /°C	-0.284 % /°C	-0.35% /°C

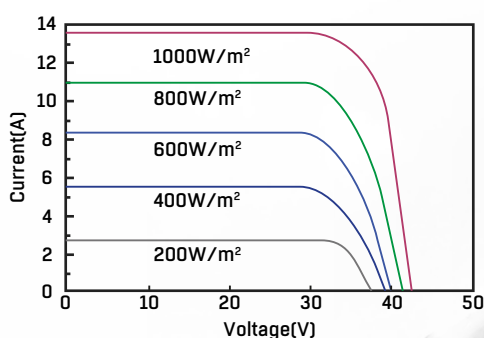
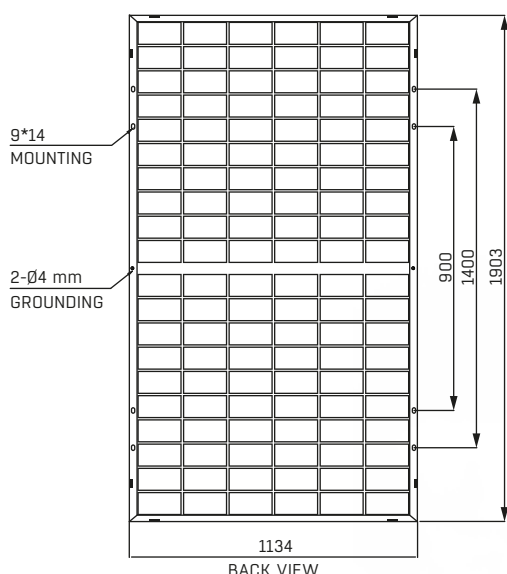
### SPECIFICATIONS

Number of cells	120 (12 x 10)   182x91mm
Dimensions	1903 x 1134 x 30 mm
Weight	27.0 kg
Front-side glass	2.0/2.0 mm <small>tempered highly transp. anti-reflection solar glass</small>
Frame	Stable, anodised aluminium frame, black
Junction box	Split Junction Box (IP68)
Cable	4 mm <sup>2</sup> , +350mm,-350mm Cust.Length
Diodes	3 Diodes
Plug-in connection	MC4 Compatible
Hail test (max. hailstrom)	Ø45mm   23 m/s   83 km/h

### PACKING CONFIGURATION

Container	40 HQ	Pieces Per Pallet	37
Pallets Per container	24	Pieces per Container	888

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 corresponds 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](http://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

**25 YEARS**  
PRODUCT WARRANTY

**30 YEARS**  
POWER WARRANTY

**swiss solar**