

**IBEX**

HIGH TECHNOLOGY SOLAR MODULES

**IBEX-144MHC-DUO  
BLACK**

395/400/405/410/415/420

**9BB** HALF-CELL MONO PV MODULE

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 20.67%)



EXTREME WEATHER RATING. High-tech aluminium alloy frame, certified for high snow (5400 Pa) and wind loads (3800 Pa)



Reduced resistance between cells. Less micro cracks, higher output power



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

# IBEX 144MHC-DUO-BLACK 395-420

MONOCRYSTALLINE SOLAR MODULE

## ELECTRICAL DATA AT STC

Rated power P <sub>mpp</sub> [Wp]	395	400	405	410	415	420
P <sub>mpp</sub> range to	0/+5W	0/+5W	0/+5W	0/+5W	0/+5W	0/+5W
Rated current I <sub>mp</sub> [A]	9.78A	9.85A	9.93A	10.00A	10.07A	10.15A
Rated voltage V <sub>mpp</sub> [V]	40.4V	40.6V	40.8V	41.0V	41.2V	41.4V
Short-circuit current I <sub>sc</sub> [A]	10.24A	10.31A	10.40A	10.47A	10.56A	10.64A
Open-circuit voltage U <sub>oc</sub> [V]	49.4V	49.7V	49.9V	50.2V	50.4V	50.7V
Efficiency at STC up to	19.44%	19.68%	19.93%	20.18%	20.42%	20.67%
Application Class	Class A	Class A	Class A	Class A	Class A	Class A

Specification as per STC (Standard test conditions): irradiance 1000 W/m<sup>2</sup> | module temperature 25°C | Air Mass = 1.5

## ELECTRICAL DATA AT NOCT

Power at P <sub>mpp</sub> [Wp]	296.9	300.7	304.4	308.2	311.9	315.7
Rated current I <sub>mp</sub> [A]	7.86	7.91	7.98	8.03	8.10	8.17
Rated voltage V <sub>mpp</sub> [V]	37.80	38.00	38.1	38.40	38.50	38.7
Short-circuit I <sub>sc</sub> [A]	8.29	8.35	8.42	8.48	8.55	8.61
Open-circuit voltage U <sub>oc</sub> [V]	46.1	46.3	46.5	46.8	47	47.3

NOCT (nominal operating cell temperature): irradiance 800 W/m<sup>2</sup> | 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]	20A
Operating Temperature	- 40 to +85°C
Max. tested pressure load [Pa] <sup>2</sup>	5400
Max. tested tensile load [Pa] <sup>2</sup>	2400

## SPECIFICATIONS

Number of cells	144 (6 x 24)   158.75 x 79.375 mm
Dimensions	2024 x 1004 x 40 mm
Weight	23 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 mm <sup>2</sup> , +300mm,-300mm Cust.Length
Diodes	3 Diodes
Plug-in connection	MC4 Compatible
Hail test (max. hailstrom)	Ø45mm   23 m/s   83 km/h

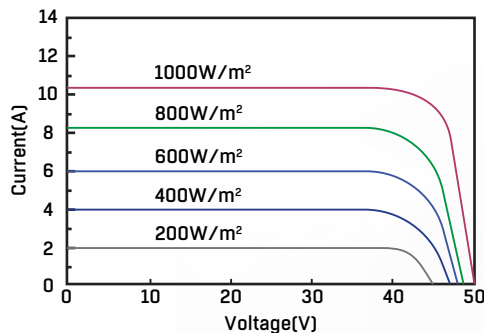
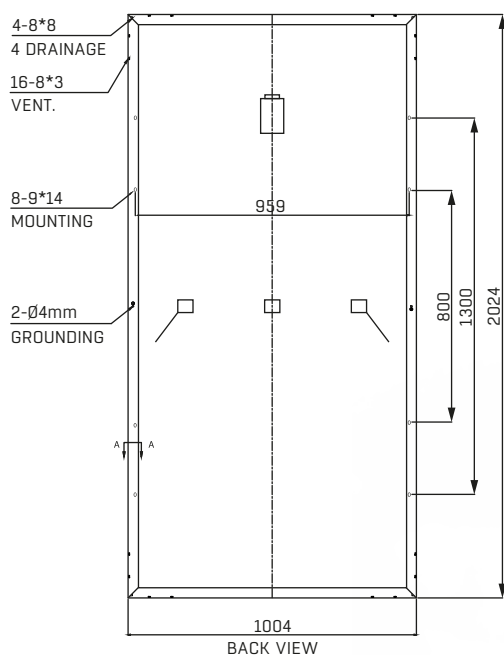
## TEMPERATURE COEFFICIENT

I <sub>sc</sub>	V <sub>oc</sub>	P <sub>max</sub>
0.05% /°C	-0.28% /°C	-0.36% /°C

## PACKING CONFIGURATION

Container	40 HQ	Pieces Per Pallet	26
Pallets Per container	22	Pieces per Container	572

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

**20 YEARS**  
PRODUCT WARRANTY

**30 YEARS**  
POWER WARRANTY

**swiss solar**