SWISS SO AT GUALITY TECHNOLOGY



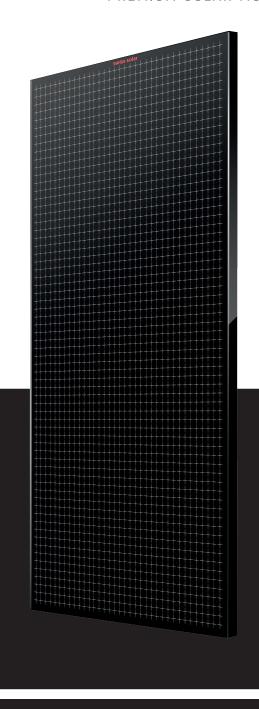
IBEX 132MWT-GRAPHENE 400/405



Graphene coating Techonology

Technological solution for solar module





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



Full Black: All black design for more elegant applications



High Reliability: conductive back sheet's 2D encapsulation avoids welding stress and micro crack, resulting lower degradation under multiple harsh testing conditions



Innovative Layout: Innovative back contact module layout with asymmetric design for higher efficiency power



Lead Free: Eco-friendly PV design achieves lead-free MWT module without soldering materials

- IEC61215(2016), IEC61730(2016)
- IS09001:2015: Quality Management System
- ISO45001:2018
 Occupational health and safety management systems











IBEX 132MWT-GRAPHENE 400-405

MONOCRYSTALLINE SOLAR MODULE

ELECTRICAL DATA AT STC		
Rated power Pmpp [Wp]	400	405
Pmpp range to	0/+5W	0/+5W
Rated current Impp [A]	10.79A	10.86A
Rated voltage Vmpp [V]	37.10V	37.30V
Short-circuit current Isc [A]	11.28A	11.35A
Open-circuit voltage Uoc [V]	44.90V	45.10V
Efficiency at STC up to	20.50%	20.70%
Application Class	Class A	Class A

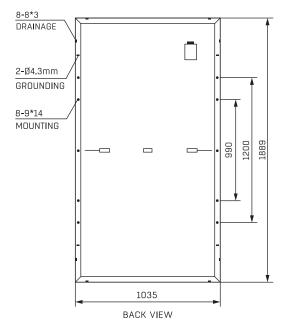
Specification as per STC (Standard test conditions): irradiance 1000 W/m^2 | module temperature 25°C | Air Mass = 1.5

300.00	305.00
8.63	8.71
34.80	35.00
9.12	9.18
42.00	42.20
	300.00 8.63 34.80 9.12

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]	20A
Operating Temperature	- 40 to +85°C
Max.tested pressure load [Pa]2	5400
Max. tested tensile load [Pa]2	2400

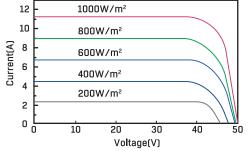
TEMPERATURE COEFFICIENT						
Isc	Voc	Pmax				
0.06% /°C	-0.28% /°C	-0.36% /°C				



SPECIFICATIONS	
Number of cells	132 (22 x 6) I 166 x 83 mm
Dimensions	1889x1035x30mm
Weight	20.5 kg
Front-side glass	3.2mm high transmittance anti-reflective coated tempered glass
Frame	Anodized Aluminum Black
Junction box	Split Junction Box (IP68)
Cable	4 mm², +350mm,-150mm 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			

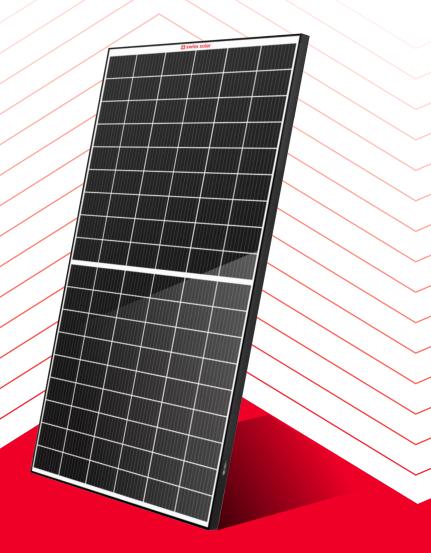
The specifications and average values can vary slightly. Relevant is the corresponding data of the individual measurement. Specifications are subject to change without notice. Measurement tolerance depending on equipment: rated power +/- 3%, other values +/- 10%. All information given in this data sheet 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







IBEX 108MHC-EIGER

390/395/400/405/410

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 20.97%)



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



- IEC61215(2016), IEC61730(2016)
- IS09001:2015: Quality Management System
- ISO45001:2018 Occupational health and safety management systems











IBEX 108MHC-EIGER 390-410

MONOCRYSTALLINE SOLAR MODULE

ELECTRICAL DATA AT STC									
Module Type	390W	395W	400W	405W	410W				
	STC NOCT	STC NOCT	STC NOCT	STC NOCT	STC NOCT				
Rated power Pmpp [Wp]	390 294	395 298	400 302	405 306	410 310				
Pmpp range to	0/+5W	0/+5W	0/+5W	0/+5W	0/+5W 12.88A 10.35A				
Rated current Impp [A]	12.60A 10.19A	12.76A 10.23A	12.74A 10.27A	12.81A 10.31A					
Rated voltage Vmpp [V]	30.95V 28.85V	31.18V 29.13V	31.40V 29.41V	31.62V 29.68V	31.83V 29.95V				
Short-circuit current Isc [A]	13.49A 10.81A	13.56A 10.85A	13.63A 10.89A	13.70A 10.93A	13.77A 10.97A				
Open-circuit voltage Uoc [V]	36.99V 34.97V	37.24V 35.25V	37.49V 35.54V	37.74V 35.82V	37.98V 36.10V				
Efficiency at STC up to	Efficiency at STC up to 19.97% 20 Application Class Class A CI		20.46%	20.74%	21%				
Application Class			Class A	Class A	Class A				

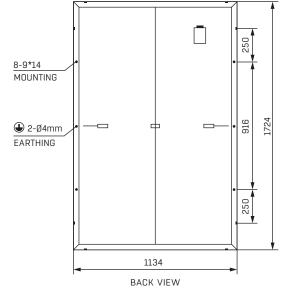
1500V DC (IEC)
25A
- 40 to +85°C
5400
2400

TEMPERATURE COEFFICIENT						
Isc	Voc	Pmax				
0.045% /°C	-0.28% /°C	-0.36% /°C				

SPECIFICATIONS	
Number of cells	108 (12 x 9) I 182x91 mm
Dimensions	1724x1134x30 mm
Weight	21.5 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,-400mm Cust.Length
Diodes	3 Diodes
Plug-in connection	MC4 Compatible
Hail test (max. hailstrom)	Ø45mm 23 m/s 83 km/h

PACKING CONFIRG	URATION		
Container	40 HQ	Pieces Per Pallet	36
Pallets Per container	26	Pieces per Container	936

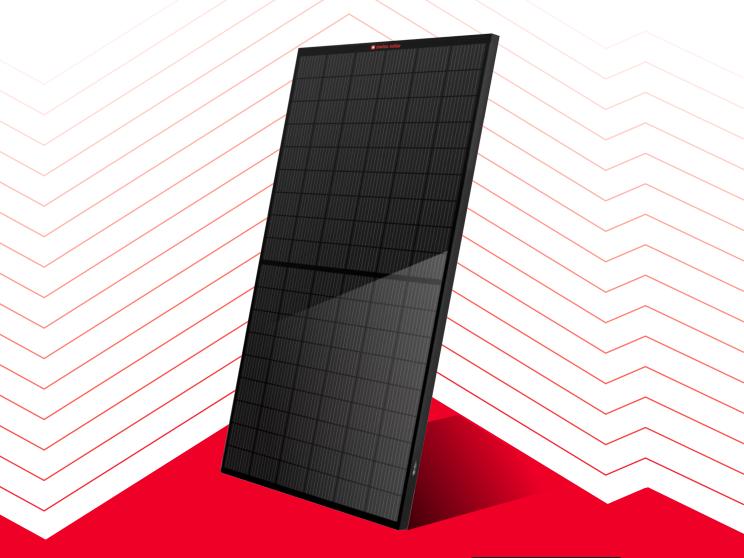
The specifications and average values can vary slightly. Relevant is the corresponding data of the individual measurement. Specifications are subject to change without notice. Measurement tolerance depending on equipment rated power +/- 3%, other values +/- 10%. All information given in this data sheet 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



14		100	ı\W0	n²						
Current(A) 8 01 11	800W/m ²								, '	
ē 10	-	600	W/m	1 ²						\
Cur 8		400	W/m	l ²					/	NΙ
4		200	W/m	1 ²					//	М
2										
ů č	5	10	15		25 ige(V		35	40	45	50







IBEX 108MHC-EIGER FULL BLACK

390/395/400/405/410

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 20.97%)



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



- IEC61215(2016), IEC61730(2016)
- IS09001:2015: Quality Management System
- ISO45001:2018
 Occupational health and safety management systems











IBEX 108MHC-EIGER 390-410 FULL BLACK

MONOCRYSTALLINE SOLAR MODULE

ELECTRICAL DATA AT STC					
Module Type	390W	395W	400W	405W	410W
	STC NOCT				
Rated power Pmpp [Wp]	390 294	395 298	400 302	405 306	410 304.8
Pmpp range to	0/+5W	0/+5W	0/+5W	0/+5W	0/+5W
Rated current Impp [A]	12.60A 10.19A	12.67A 10.23A	12.74A 10.27A	12.81A 10.31A	12.88A 10.35A
Rated voltage Vmpp [V]	30.95V 28.85V	31.18V 29.13V	31.40V 29.41V	31.62V 29.68V	31.83V 29.95V
Short-circuit current Isc [A]	13.49A 10.81A	13.56A 10.85A	13.63A 10.89A	13.70A 10.93A	13.77A 10.97A
Open-circuit voltage Uoc [V]	36.99V 34.97V	37.24V 35.25V	37.49V 35.54V	37.74V 35.82V	37.98V 36.10V
Efficiency at STC up to	19.97%	20.23%	20.48%	20.74%	21%
Application Class	Class A				

1500V DC (IEC)
25A
- 40 to +85°C
5400
2400

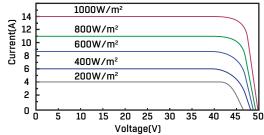
TEMPERATURE COEFFICIENT		
Isc	Voc	Pmax
0.045% /°C	-0.28% /°C	-0.36% /°C

SPECIFICATIONS	
Number of cells	108 (12 x 9) 182x91 mm
Dimensions	1724x1134x30 mm
Weight	21.5 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,-400mm Cust.Length
Diodes	3 Diodes
Plug-in connection	MC4 Compatible
Hail test (max. hailstrom)	Ø45mm 23 m/s 83 km/h

	-			250
8-9*14 MOUNTING	•			• 33
2-Ø4mm EARTHING				916
	•			250
	-	1134	_	*
		BACK VIEW		>

PACKING CONFIRG	URATION		
Container	40 HQ	Pieces Per Pallet	36
Pallets Per container	26	Pieces per Container	936

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





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 20.97%)



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)
- IS09001:2015: Quality Management System
- ISO45001:2018 Occupational health and safety management systems











IBEX 108BF-MHC-EIGER 410

MONOCRYSTALLINE SOLAR MODULE

ELECTRICAL DATA AT STC/NOCT	
Module Type	410W
	STC NOCT
Rated power Pmpp [Wp]	<mark>410</mark> 304.8
Pmpp range to	0/+5W
Rated current Impp [A]	13.04A 10.44A
Rated voltage Vmpp [V]	31.46V 29.20V
Short-circuit current Isc [A]	13.85A 11.16A
Open-circuit voltage Uoc [V]	37.45V 35.05V
Efficiency at STC up to	20.97%
Application Class	Class A

PARAMETER OF DOUBLE-S	IDED POWER GEI	NERATION (41	0W)			
Pmax gain	Pmax/W	Vmpp/V	Impp/A	Voc/V	Isc/A	
5%	431.00	31.46	13.70	37.45	14.55	
15%	472.00	31.46	15.01	37.45	15.94	
15%	513.00	31.46	16.31	37.45	17.32	

STC: 1000W/m2 irradiance, 25°C cell temperature, AM1.5.

LIMITING VALUES	
Max. system voltage [V]	1500V DC (IEC)
Max. return current [I]	30A
Operating Temperature	- 40 to +85°C
Max.tested pressure load [Pa]2	5400
Max. tested tensile load [Pa]2	2400

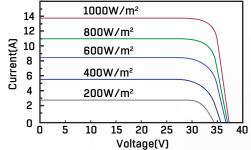
TEMPERATURE COEFFICIENT		
Isc	Voc	Pmax
በ በ45% /°C	-0.285 % /°C	-0.35% /°C

8-7*11 MOUNTING 2-Ø4mm EARTHING		250
	1134 BACK VIEW	
	DAGK VILW	

SPECIFICATIONS	
Number of cells	108 (12x9) I 182x91mm
Dimensions	1724 x 1134 x 35 mm
Weight	24.7 kg
Front-side glass	2.0/2.0 mm tempered highly transp. anti-reflection solar glass
Frame	Stable, anodised aluminium frame, black
Junction box	Split Junction Box (IP68)
Cable	4 mm², +350mm,-350mm Cust.Length
Diodes	3 Diodes
Plug-in connection	MC4 Compatible
Hail test (max. hailstrom)	Ø45mm 23 m/s 83 km/h

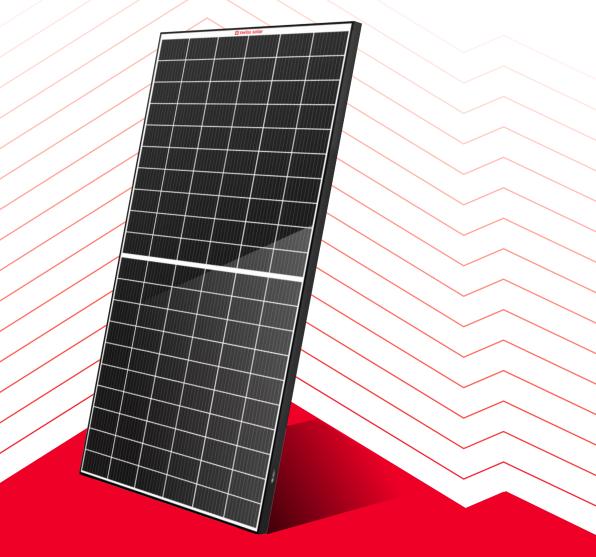
PACKING CONFIRGURATION						
Container	40 HQ	Pieces Per Pallet	36			
Pallets Per container	26	Pieces per Container	936			

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 in 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



25 YEARS PRODUCT WARRANTY 30 YEARS POWER WARRANTY





IBEX 120MHC-EIGER

440/445/450/455/460

IBEX HIGH EFFICIENCY MONOCRYSTALLINE SOLAR MODULES WITH HALF CELL TECHNOLOGY



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



- IEC61215(2016), IEC61730(2016)
- IS09001:2015: Quality Management System
- ISO45001:2018 Occupational health and safety management systems











IBEX 120MHC-EIGER 440-460

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				

Specification as per STC (Standard test conditions): irradiance $1000\,\mathrm{W/m^2}$ | module temperature $25^\circ\mathrm{C}$ | Air Mass = 1.5

ELECTRICAL DATA AT NO	CT					
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

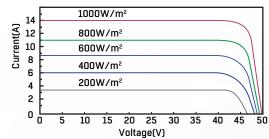
TEMPERATURE COEFFICIENT						
Isc	Voc	Pmax				
0.05% /°C	-0.28% /°C	-0.36% /°C				

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

			250
8-9*14 MOUNTING		•	
② 2-Ø4mm EARTHING		-	1101
•		•	250
-	1134		+
-	BACK VIEW	/	

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



20 YEARS PRODUCT WARRANTY

30 YEARS
POWER WARRANTY





IBEX 120MHC-EIGER FULL BLACK

440/445/450/455

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



- IEC61215(2016), IEC61730(2016)
- IS09001:2015: Quality Management System
- ISO45001:2018 Occupational health and safety management systems











IBEX 120MHC-EIGER 440-455 FULL BLACK

MONOCRYSTALLINE SOLAR MODULE

ELECTRICAL DATA AT STC								
Module Type	44	0W	44.	5W	45	0W	45	5W
	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT
Rated power Pmpp [Wp]	440	327.1W	445	330.8W	450	334.5W	455	338.2W
Pmpp range to	0/-	-5W	0/+	-5W	0/-	-5W	0/+	-5W
Rated current Impp [A]	12.77A	10.24A	12.86A	10.30A	12.94A	10.36A	13.02A	10.43A
Rated voltage Vmpp [V]	34.47V	31.97V	34.63V	32.13V	34.79V	32.29V	34.95V	32.45V
Short-circuit current Isc [A]	13.56A	10.91A	13.65A	10.99A	13.74A	11.07A	13.83A	11.15A
Open-circuit voltage Uoc [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%	21.0	01%
Application Class	Cla	ss A	Clas	ss A	Cla	ss A	Clas	ss A

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	Isc Voc					
0.045% /°C	-0.285% /°C	-0.35% /°C				

	-	_	250	
			250	
8-9*14 MOUNTING		-		
● 2-Ø4mm EARTHING		<u> </u>	1903	
	•		•	
			250 250	

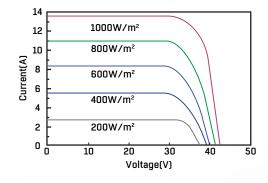
1134

BACK VIEW

SPECIFICATIONS	
Number of cells	120 (12 x 10) l 182x91mm
Dimensions	1903 x 1134 x 30 mm
Weight	27.0 kg
Front-side glass	2.0/2.0 mm tempered highly transp. anti-reflection solar glass
Frame	Stable, anodised aluminium frame, black
Junction box	Split Junction Box (IP68)
Cable	4 mm², +350mm,-350mm Cust.Length
Diodes	3 Diodes
Plug-in connection	MC4 Compatible
Hail test (max. hailstrom)	Ø45mm 23 m/s 83 km/h

PACKING CONFIRE	URATION		
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 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. I 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





IBEX HIGH EFFICIENCY MONOCRYSTALLINE SOLAR MODULES WITH HALF CELL TECHNOLOGY



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	44	0W	445W		450W		455W	
	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT
Rated power Pmpp [Wp]	440	327.1W	445	330.8W	450	334.5W	455	338.2W
Pmpp range to	0/-	-5W	0/+	-5W	0/-	+5W	0/+	·5W
Rated current Impp [A]	12.77A	10.24A	12.86A	10.30A	12.94A	10.36A	13.02A	10.43A
Rated voltage Vmpp [V]	34.47V	31.97V	34.63V	32.13V	34.79V	32.29V	34.95V	32.45V
Short-circuit current Isc [A]	13.56A	10.91A	13.65A	10.99A	13.74A	11.07A	13.83A	11.15A
Open-circuit voltage Uoc [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%	21.0	01%
Application Class	Cla	ss A	Clas	ss A	Cla	ss A	Clas	ss A

PARAMETER OF DOUBLE-SID	PARAMETER OF DOUBLE-SIDED POWER GENERATION (450W)				
Pmax gain	+5%	+15%	+25%		
Rated power Pmpp [Wp]	472	517	562		
Rated current Impp [A]	13.57	14.86	16.15		
Rated voltage Vmpp [V]	34.79	34.79	34.79		
Short-circuit current Isc [A]	14.52	15.90	17.28		
Open-circuit voltage Uoc [V]	41.40	41.40	41.40		

STC: 1000W/m2 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]2	5400
Max. tested tensile load [Pa]2	2400

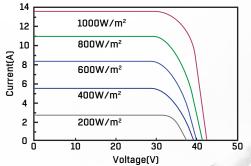
TEMPERATURE COEFFICIENT				
Isc	Voc	Pmax		
0.050% /°C	-0.284 % /°C	-0.35% /°C		

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 tempered highly transp. anti-reflection solar glass
Frame	Stable, anodised aluminium frame, black
Junction box	Split Junction Box (IP68)
Cable	4 mm², +350mm,-350mm Cust.Length
Diodes	3 Diodes
Plug-in connection	MC4 Compatible
Hail test (max. hailstrom)	Ø45mm 23 m/s 83 km/h

	\ <u>-</u>				
] 1			
9*14					
MOUNTING					
2 Ø4 mm		900 1400 1903			
2-Ø4 mm GROUNDING					
					
		 			
],			
		<u> </u>			
	1134				
BACK VIEW					

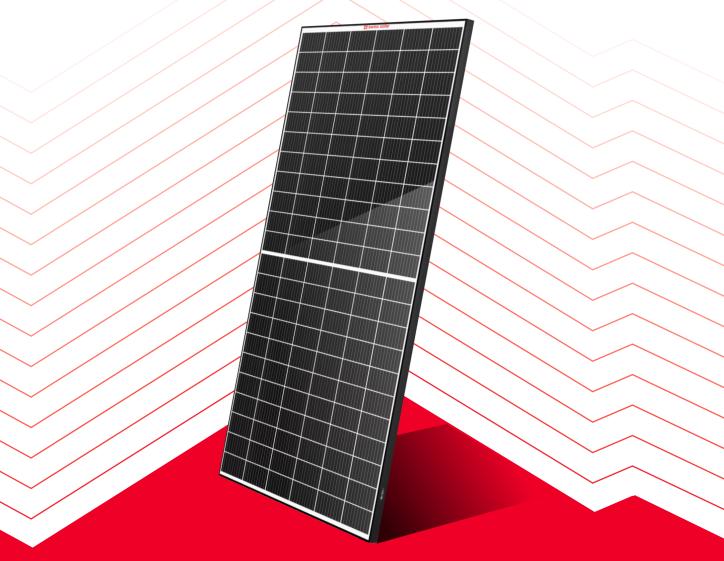
PACKING CONFIRG	URATION		
Container	40 HQ	Pieces Per Pallet	37
Pallets Per container	24	Pieces per Container	888

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 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 25 YEARS PRODUCT WARRANTY 30 YEARS POWER WARRANTY





IBEX 132MHC-EIGER

495/500/505

IBEX HIGH EFFICIENCY MONOCRYSTALLINE SOLAR MODULES WITH HALF CELL TECHNOLOGY



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 21.27%)



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



- IEC61215(2016), IEC61730(2016)
- IS09001:2015: Quality Management System
- ISO45001:2018 Occupational health and safety management systems











IBEX 132MHC-EiGER 495-505

MONOCRYSTALLINE SOLAR MODULE

ELECTRICAL DATA AT STC				
Rated power Pmpp [Wp]	495	500	505	
Pmpp range to	0/+5W	0/+5W	0/+5W	
Rated current Impp [A]	12.85A	12.92A	12.99A	
Rated voltage Vmpp [V]	38.52V	38.70V	38.88V	
Short-circuit current Isc [A]	13.74A	13.81A	13.88A	
Open-circuit voltage Uoc [V]	46.51V	46.67V	46.83V	
Efficiency at STC up to	20.85%	21.06%	21.27%	
Application Class	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

373.00	377.00	381.00	
10.35	10.39	10.43	
36.04	36.28	36.53	
10.97	11.01	11.05	
44.03	44.28	44.52	
	10.35 36.04 10.97	10.35 10.39 36.04 36.28 10.97 11.01	10.35 10.39 10.43 36.04 36.28 36.53 10.97 11.01 11.05

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

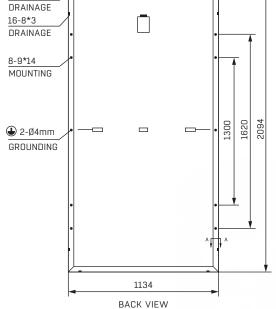
LIMITING VALUES	
Max. system voltage [V]	1500V DC (IEC)
Max. return current [I]	25A
Operating Temperature	- 40 to +85°C
Max.tested pressure load [Pa]2	5400
Max. tested tensile load [Pa]2	3800

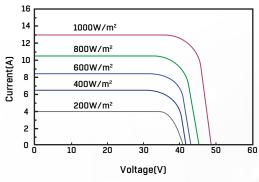
TEMPERATURE COEFFICIENT					
Isc	Voc	Pmax			
0.05% /°C	-0.28% /°C	-0.36% /°C			

١	SPECIFICATIONS	
	Number of cells	132 (6 x 22)
	Dimensions	2094x1134x35 mm
Ī	Weight	25.5 kg
	Front-side glass	3.2 mm tempered Low Iron Glass
Ī	Frame	Stable, anodised aluminium frame, black
	Junction box	Split Junction Box (IP68)
	Cable	4 mm², +300mm,-400mm Cust.Length
	Diodes	3 Diodes
Ī	Plug-in connection	MC4 Compatible
	Hail test (max. hailstrom)	Ø45mm 23 m/s 83 km/h
		-

	Hail test (max. hailstro	om) Ø45r	nm 23 m/s 83 km/h	
-8*8 RAINAGE	PACKING CONFIRE	URATION		
6-8*3	Container	40 HQ	Pieces Per Pallet	31
RAINAGE	Pallets Per container	22	Pieces per Container	682

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. I 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





IBEX 132MHC-EIGER FULL BLACK

495/500

IBEX HIGH EFFICIENCY MONOCRYSTALLINE SOLAR MODULES WITH HALF CELL TECHNOLOGY



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 21.06%)



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%

SWISSENERGY-SOLAR.CH

IBEX 132MHC-EIGER 495-500 FULL BLACK

MONOCRYSTALLINE SOLAR MODULE

ELECTRICAL DATA AT STC		
Rated power Pmpp [Wp]	495	500
Pmpp range to	0/+5W	0/+5W
Rated current Impp [A]	12.24A	12.31A
Rated voltage Vmpp [V]	40.44V	40.62V
Short-circuit current Isc [A]	13.13A	13.20A
Open-circuit voltage Uoc [V]	48.67V	48.83V
Efficiency at STC up to	20.85%	21.06%
Application Class	Class A	Class A

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

373.00	377.00
10.01	10.05
37.26	37.51
10.63	10.67
45.44	45.69
	10.01 37.26 10.63

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]	20A
Operating Temperature	- 40 to +85°C
Max.tested pressure load [Pa]2	5400
Max. tested tensile load [Pa]2	3800

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

SPECIFICATIONS	
Number of cells	132 (6 x 22) I 182x182 mm
Dimensions	2094x1134x35 mm
Weight	26.0 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, +900mm,-900mm Cust.Length
Diodes	3 Diodes
Plug-in connection	MC4 Compatible
Hail test (max. hailstrom)	Ø45mm 23 m/s 83 km/h

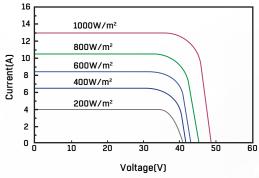
4-8*8 DRAINAGE 16-8*3 DRAINAGE	Ō		A
8-9*14 MOUNTING			
€ 2-Ø4mm GROUNDING		1300	NO 024
•			

1134

BACK VIEW

PACKING CONFIRGURATION						
Container	40 HQ	Pieces Per Pallet	31			
Pallets Per container	22	Pieces per Container	682			

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 in 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



20 YEARS PRODUCT WARRANTY 30 YEARS POWER WARRANTY





IBEX HIGH EFFICIENCY MONOCRYSTALLINE SOLAR MODULES WITH HALF CELL TECHNOLOGY



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 21.27 %)



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 132BF-MHC-EIGER 485-505

MONOCRYSTALLINE SOLAR MODULE

ELECTRICAL DATA AT STC					
Rated power Pmpp [Wp]	485	490	495	500	505
Pmpp range to	0/+5W	0/+5W	0/+5W	0/+5W	0/+5W
Rated current Impp [A]	12.10A	12.17A	12.24A	12.31A	12.38A
Rated voltage Vmpp [V]	40.08V	40.26V	40.44V	40.62V	40.79V
Short-circuit current Isc [A]	12.99A	13.06A	13.13A	13.20A	13.27A
Open-circuit voltage Uoc [V]	48.34V	48.51V	48.67V	48.83V	48.98V
Efficiency at STC up to	20.42%	20.64%	20.85%	21.06%	21.27%
Application Class	Class A				

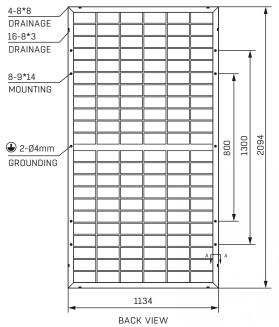
Specification as per STC (Standard test conditions): irradiance 1000 W/m^2 | module temperature 25°C | Air Mass = 1.5

ELE	ELECTRICAL CHARACTERISTICS WITH DIFFERENT REAR SIDE POWER GAIN								
5%	Maximum Power At STC (Pmax)	509W	515W	520W	525W	530W			
	Module Efficiency STC (%)	21.45%	21.67%	21.89%	22.11%	22.31%			
15%	Maximum Power At STC (Pmax)	558W	564W	569W	575W	581W			
	Module Efficiency STC (%)	23.49%	23.73%	23.97%	24.21%	24.46%			
25%	Maximum Power At STC (Pmax)	606W	613W	619W	625W	631W			
	Module Efficiency STC (%)	25.53%	25.79%	26.06%	26.32%	26.57%			

STC: 1000W/m2 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]2	5400
Max. tested tensile load [Pa]2	2400

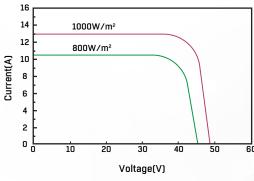
TEMPERATURE COEFFICIENT				
Isc	Pmax			
0.05% /°C	-0.28% /°C	-0.36% /°C		



SPECIFICATIONS	
Number of cells	132 (6 x 22) 182x91 mm
Dimensions	2094x1134x35 mm
Weight	25.5 kg
Front-side glass	2.0/2.0 mm tempered highly transp. anti-reflection solar glass
Frame	Stable, anodised aluminium frame, black
Junction box	Split Junction Box (IP68)
Cable	4 mm², +300mm,-400mm Cust.Length
Diodes	3 Diodes
Plug-in connection	MC4 Compatible
Hail test (max. hailstrom)	Ø45mm 23 m/s 83 km/h

PACKING CONFIRG	URATION		
Container	40 HQ	Pieces Per Pallet	31
Pallets Per container	22	Pieces per Container	682

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



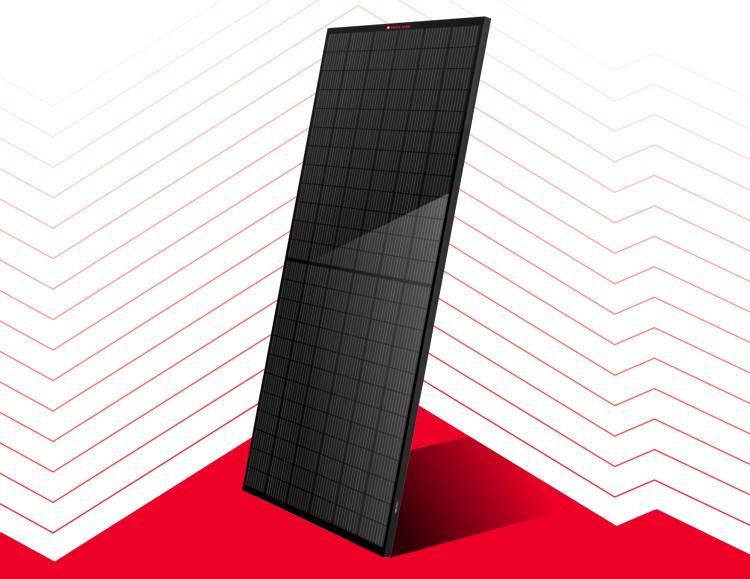
WARRANTY

25 YEARS

PRODUCT WARRANTY

30 YEARS
POWER WARRANTY





IBEX 144MHC-EIGER FULL BLACK

525/530/535/540/545

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 21.09%)



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



- IEC61215(2016), IEC61730(2016)
- · IS09001:2015: Quality Management System
- ISO45001:2018 Occupational health and safety management systems











IBEX 144MHC-EIGER 525-545 FULL BLACK

MONOCRYSTALLINE SOLAR MODULE

ELECTRICAL DATA AT STC					
Rated power Pmpp [Wp]	525	530	535	540	545
Pmpp range to	0/+5W	0/+5W	0/+5W	0/+5W	0/+5W
Rated current Impp [A]	12.66A	12.73A	12.80A	12.87A	12.94A
Rated voltage Vmpp [V]	41.47V	41.63V	41.80V	41.96V	42.12V
Short-circuit current Isc [A]	13.55A	13.62A	13.69A	13.76A	13.83A
Open-circuit voltage Uoc [V]	49.59V	49.74V	49.89V	50.04V	50.18V
Efficiency at STC up to	20.31%	20.51%	20.70%	20.89%	21.09%
Application Class	Class A				

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

ELECTRICAL DATA AT NOCT						
Power at Pmpp [Wp]	397.00	401.00	405.00	409.00	413.00	
Rated current Impp [A]	10.25	10.29	10.33	10.37	10.41	
Rated voltage Vmpp [V]	38.73	38.97	39.21	39.44	39.67	
Short-circuit Isc [A]	10.87	10.91	10.95	10.99	11.03	
Open-circuit voltage Uoc [V]	46.92	47.16	47.40	47.63	47.87	

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

SPECIFICATIONS

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]2	5400
Max. tested tensile load [Pa]2	3800

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

Number of cells	144 (6 x 24) I 182x182 mm
Dimensions	2279x1134x35 mm
Weight	28.5 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,-400mm Cust.Length
Diodes	3 Diodes
Plug-in connection	MC4 Compatible
Hail test (max. hailstrom)	Ø45mm 23 m/s 83 km/h

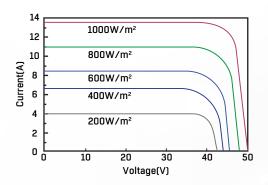
4-8*8 4 DRAINAGE				1
16-8*3 VENT.				-
8-9*14 MOUNTING	•		•	
2-Ø4mm GROUNDING		0	s	1300 1620 2279
	•		•	_
	•		^,	A

1134

BACK VIEW

PACKING CONFIRG	URATION		
Container	40 HQ	Pieces Per Pallet	30
Pallets Per container	20	Pieces per Container	600

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 in 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



20 YEARS PRODUCT WARRANTY 30 YEARS POWER WARRANTY





IBEX HIGH EFFICIENCY MONOCRYSTALLINE SOLAR MODULES WITH HALF CELL TECHNOLOGY



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 21.28%)



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)
- IS09001:2015: Quality Management System
- ISO45001:2018 Occupational health and safety management systems











IBEX 144BF-MHC-EIGER 530-550

MONOCRYSTALLINE SOLAR MODULE

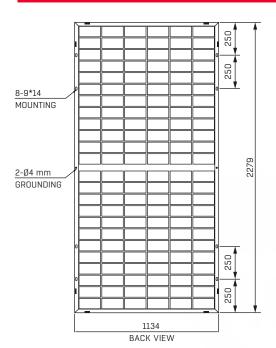
ELECTRICAL DATA AT STC					
Module Type	530W	535W	540W	545W	550W
	STC	STC	STC	STC	STC
Rated power Pmpp [Wp]	530	535	540	545	550
Pmpp range to	0/+5W	0/+5W	0/+5W	0/+5W	0/+5W
Rated current Impp [A]	12.73A	12.80A	12.87A	12.94A	13.01A
Rated voltage Vmpp [V]	41.63V	41.80V	41.96V	42.12V	42.28V
Short-circuit current Isc [A]	13.62A	13.69A	13.76A	13.83A	13.90A
Open-circuit voltage Uoc [V]	49.74V	49.89V	50.04V	50.18V	50.32V
Efficiency at STC up to	20.51%	20.70%	20.89%	21.09%	21.28%
Application Class	Class A				

ELE	CTRICAL CHARACTERISTICS W	ITH DIFFEREN	IT REAR SIDE	POWER GAIN		
5%	Maximum Power At STC (Pmax)	575W	562W	567W	572W	578W
	Module Efficiency STC (%)	21.53%	21.74%	21.94%	22.14%	22.35%
15%	Maximum Power At STC (Pmax)	610W	615W	621W	627W	633W
	Module Efficiency STC (%)	23.58%	23.81%	24.03%	24.25%	24.47%
25%	Maximum Power At STC (Pmax)	663W	669W	675W	681W	688W
	Module Efficiency STC (%)	25.63%	25.88%	26.12%	26.36%	26.60%

STC: 1000W/m2 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]2	5400
Max. tested tensile load [Pa]2	2400

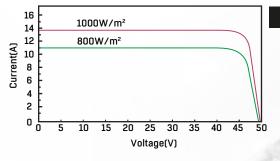
TEMPERATURE COEFFICIENT					
Isc	Voc	Pmax			
0.05% /°C	-0.28% /°C	-0.36% /°C			



SPECIFICATIONS	
Number of cells	144 (6x24) I 182x91mm
Dimensions	2279 x 1134 x 35 mm
Weight	27.5 kg
Frontglass	3.2mm coated tempered glass
Frame	Stable, anodised aluminium frame, black
Junction box	Split Junction Box (IP68)
Cable	4 mm², +300mm,-400mm 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	31			
Pallets Per container	20	Pieces per Container	620			

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

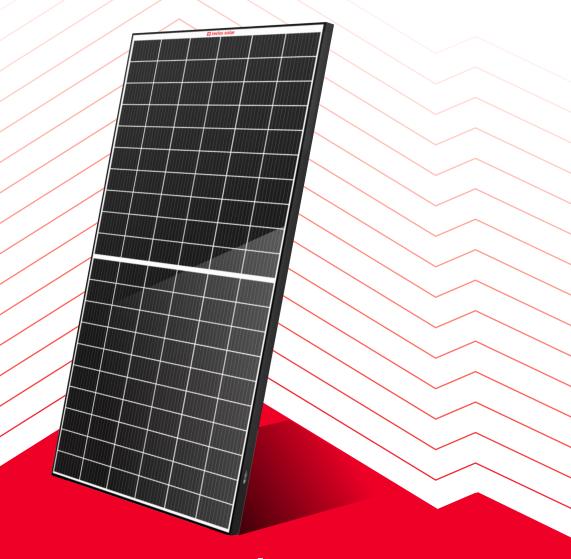
25 YEARS
PRODUCT WARRANTY

30 YEARS

POWER WARRANTY







IBEX60M-EIGER

590/595/600/605/610

IBEX HIGH EFFICIENCY MONOCRYSTALLINE SOLAR MODULES WITH HALF CELL TECHNOLOGY



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 21.55%)



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



- ISO9001:2015: Quality Management System
- ISO45001:2018
 Occupational health and safety management systems





IBEX60M-EiGER 590-610

MONOCRYSTALLINE SOLAR MODULE

ELECTRICAL DATA AT STC					
Rated power Pmpp [Wp]	590	595	600	605	610
Pmpp range to	0/+5W	0/+5W	0/+5W	0/+5W	0/+5W
Rated current Impp [A]	17.30A	17.40A	17.50A	17.54A	17.58A
Rated voltage Vmpp [V]	34.10V	34.20V	34.30V	34.50V	34.70V
Short-circuit current Isc [A]	18.33A	18.43A	18.53A	18.58A	18.62A
Open-circuit voltage Uoc [V]	41.10 V	41.30V	41.50V	41.70V	41.90V
Efficiency at STC up to	20.85%	21.02%	21.20%	21.38%	21.55%
Application Class	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]	447.20	451.00	454.80	458.60	462.30	
Rated current Impp [A]	14.04	14.12	14.19	14.23	14.26	
Rated voltage Vmpp [V]	31.90	32.00	32.00	32.20	32.40	
Short-circuit Isc [A]	14.81	14.89	14.97	15.01	15.04	
Open-circuit voltage Uoc [V]	38.50	38.70	38.90	39.10	39.20	

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]	30A
Operating Temperature	- 40 to +85°C
Max.tested pressure load [Pa]2	5400
Max. tested tensile load [Pa]2	3800

TEMPERATURE COEFFICIENT				
Isc	Voc	Pmax		
0.05% /°C	-0.27% /°C	-0.35% /°C		

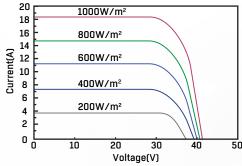
SPECIFICATIONS	
Number of cells	120 (6 x 20) 210x105 mm
Dimensions	2172x1303x35 mm
Weight	31.0 kg
Front-side glass	3.2 mm tempered Low Iron Glass
Frame	Stable, anodised aluminium frame, black
Junction box	Split Junction Box (IP68)
Cable	4 mm², +300mm,-300mm Cust.Length
Diodes	3 Diodes
Plug-in connection	MC4 Compatible
Hail test (max. hailstrom)	Ø45mm 23 m/s 83 km/h

•	<u> </u>	-	
8-9*14 MOUNTING		,	
€ 2-Ø4.2mm EARTHING			800 1500 2172
	1303	_	+

BACK VIEW

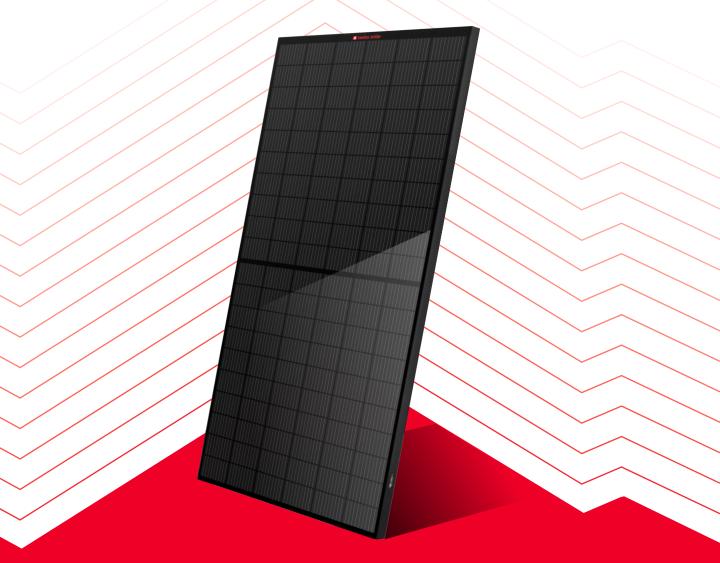
PACKING CONFIRGURATION					
Container	40 HQ	Pieces Per Pallet	30		
Pallets Per container	16	Pieces per Container	480		

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



20 YEARS PRODUCT WARRANTY 30 YEARS POWER WARRANTY





IBEX60M-EIGER FULL BLACK

590/595/600/605/610

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 21.55%)



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



- ISO9001:2015: Quality Management System
- ISO45001:2018
 Occupational health and safety management systems





IBEX60M-EIGER 590-610 FULL BLACK

MONOCRYSTALLINE SOLAR MODULE

ELECTRICAL DATA AT STC					
Rated power Pmpp [Wp]	590	595	600	605	610
Pmpp range to	0/+5W	0/+5W	0/+5W	0/+5W	0/+5W
Rated current Impp [A]	17.30A	17.40A	17.50A	17.54A	17.58A
Rated voltage Vmpp [V]	34.10V	34.20V	34.30V	34.50V	34.70V
Short-circuit current Isc [A]	18.33A	18.43A	18.53A	18.58A	18.62A
Open-circuit voltage Uoc [V]	41.10V	41.30V	41.50V	41.70V	41.90V
Efficiency at STC up to	20.85%	21.02%	21.20%	21.38%	21.55%
Application Class	Class A				

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

ELECTRICAL DATA AT NOCT						
Power at Pmpp [Wp]	447.20	451.00	454.80	458.60	462.30	
Rated current Impp [A]	14.04	14.12	14.19	14.23	14.26	
Rated voltage Vmpp [V]	31.90	32.00	32.00	32.20	32.40	
Short-circuit Isc [A]	14.81	14.89	14.97	15.01	15.04	
Open-circuit voltage Uoc [V]	38.50	38.70	38.90	39.10	39.20	

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]	30A
Operating Temperature	- 40 to +85°C
Max.tested pressure load [Pa]2	5400
Max. tested tensile load [Pa]2	3800

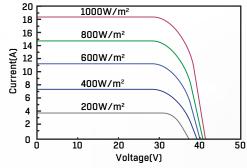
TEMPERATURE COEFFICIENT			
Isc	Voc	Pmax	
0.05% /°C	-0.27% /°C	-0.35% /°C	

SPECIFICATIONS	
Number of cells	120 (6 x 20) I 210x105 mm
Dimensions	2172x1303x35 mm
Weight	31.0 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,-300mm Cust.Length
Diodes	3 Diodes
Plug-in connection	MC4 Compatible
Hail test (max. hailstrom)	Ø45mm 23 m/s 83 km/h

	•	ф	 •	1
8-9*14 MOUNTING	^		•	
2-Ø4.2mm EARTHING			 800	2172
	•			
				<u> </u>
		1303	-	
'		BACK VIEW	·	

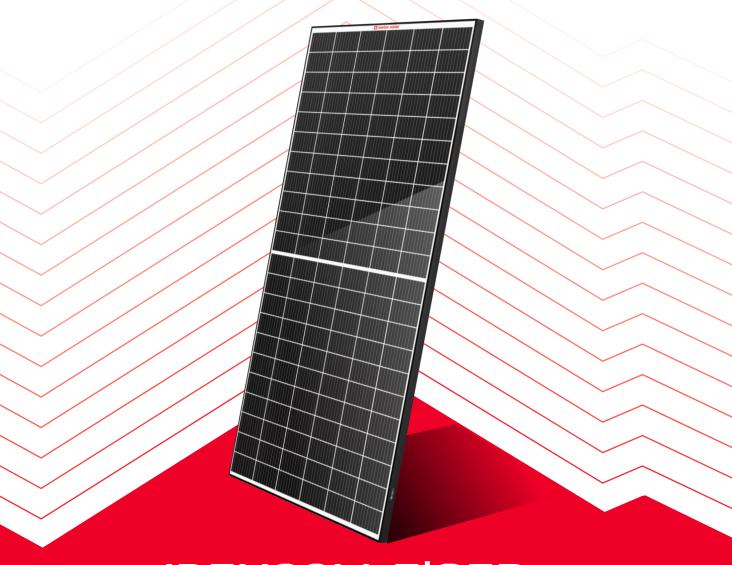
PACKING CONFIRG	URATION		
Container	40 HQ	Pieces Per Pallet	30
Pallets Per container	16	Pieces per Container	480

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



20 YEARS PRODUCT WARRANTY 30 YEARS POWER WARRANTY





IBEX66M-EIGER

665/670

IBEX HIGH EFFICIENCY MONOCRYSTALLINE SOLAR MODULES WITH HALF CELL TECHNOLOGY



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 21.60%)



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



- ISO9001:2015: Quality Management System
- ISO45001:2018
 Occupational health and safety management systems





IBEX66M-EiGER 665-670

MONOCRYSTALLINE SOLAR MODULE

ELECTRICAL DATA AT STC		
Rated power Pmpp [Wp]	665	670
Pmpp range to	0/+5W	0/+5W
Rated current Impp [A]	17.50A	17.54A
Rated voltage Vmpp [V]	38.00V	38.20V
Short-circuit current Isc [A]	18.58A	18.62A
Open-circuit voltage Uoc [V]	45.80V	46.00V
Efficiency at STC up to	21.40%	21.60%
Application Class	Class A	Class A

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

T	
504.00	508.00
14.24	14.28
35.40	35.60
14.98	15.02
43.00	43.20
	14.24 35.40 14.98

Dimensions

Weight

SPECIFICATIONS Number of cells

LIMITING VALUES	
Max. system voltage [V]	1500V DC (IEC)
Max. return current [I]	30A
Operating Temperature	- 40 to +85°C
Max.tested pressure load [Pa]2	5400
Max. tested tensile load [Pa]2	2400

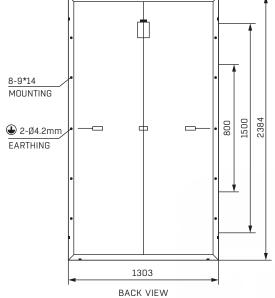
TEMPERATURE COEFFICIENT			
Isc	Voc	Pmax	
0.04% /°C	-0.25% /°C	-0.34% /°C	

Max.tested pre	essure load [Pa]2	5400	Front-side glass	3.2 mm tempered Low Iron Glass
Max. tested te	nsile load [Pa]2	2400	Frame	Stable, anodised aluminium frame, black
TEMPEDATU	IRE COEFFICIEI	NT	Junction box	Split Junction Box (IP68)
			Cable	4 mm², +350mm,-350mm Cust.Length
SC	Voc	Pmax	Diodes	3 Diodes
0.04% /°C	-0.25% /°C	-0.34% /°C	Plug-in connection	MC4 Compatible
			Hail test (max. hailstrom) Ø45mm 23 m/s 83 km/h
_				
		PACKING CONFIRGUI	RATION	
•	П	•	Container 4	O HQ Pieces Per Pallet 31

Pallets Per container

17

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



20	_					_
18	ŀ.	1000	IW/m²			
16	ŀ.	800\	N/m²			
₹ 14 ₹ 12	ŀ.	600\	N/m²			
Current(A) 8 15 15 15 15 15 15 15 15 15 15 15 15 15		400\	N/m²			
6 4	Ē	200\	N/m²			
2 0	Ė					
U	0	10	20	30	40	50
			Volta	ue(V)		

WARRANTY 20 YEARS PRODUCT WARRANTY 30 YEARS

POWER WARRANTY

Pieces per Container

132 (12 x 11) | 210x105 mm

2384x1303x35 mm

33.9 kg





IBEX66M-EIGER FULL BLACK

650/655/660/665/670

IBEX HIGH EFFICIENCY MONOCRYSTALLINE SOLAR MODULES WITH HALF CELL TECHNOLOGY



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



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- ISO9001:2015: Quality Management System
- ISO45001:2018
 Occupational health and safety management systems





IBEX66M-EIGER 650-670 FULL BLACK

MONOCRYSTALLINE SOLAR MODULE

ELECTRICAL DATA AT STC					
Rated power Pmpp [Wp]	650	655	660	665	670
Pmpp range to	0/+5W	0/+5W	0/+5W	0/+5W	0/+5W
Rated current Impp [A]	17.34A	17.38A	17.42A	17.46A	17.50A
Rated voltage Vmpp [V]	37.50V	37.70V	37.90V	38.10V	38.30V
Short-circuit current Isc [A]	18.35A	18.39A	18.44A	18.48A	18.51A
Open-circuit voltage Uoc [V]	45.20V	45.40V	45.60V	45.80V	46.00V
Efficiency at STC up to	20.92%	21.09%	21.25%	21.41%	21.57%
Application Class	Class A				

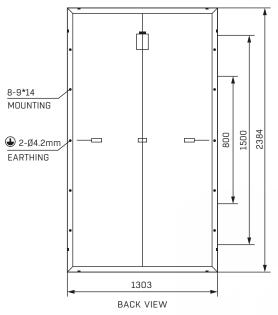
Specification as per STC (Standard test conditions): irradiance 1000 W/m^2 | module temperature 25°C | Air Mass = 1.5

ELECTRICAL DATA AT NOCT						
Power at Pmpp [Wp]	492.70	496.50	500.20	504.00	507.80	
Rated current Impp [A]	14.05	14.08	14.12	14.15	14.18	
Rated voltage Vmpp [V]	35.10	35.20	35.40	35.60	35.80	
Short-circuit Isc [A]	14.83	14.86	14.90	14.93	14.96	
Open-circuit voltage Uoc [V]	42.30	42.50	42.70	42.90	43.10	

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]	30A
Operating Temperature	- 40 to +85°C
Max.tested pressure load [Pa]2	5400
Max. tested tensile load [Pa]2	3800

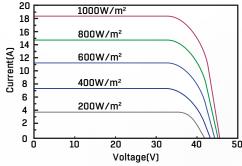
TEMPERATURE COEFFICIENT							
Isc	Voc	Pmax					
0.05% /°C	-0.28% /°C	-0.35% /°C					



SPECIFICATIONS	
Number of cells	132 (6 x 22) I 210x105 mm
Dimensions	2384x1303x35 mm
Weight	34.5 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,-300mm 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	30			
Pallets Per container	16	Pieces per Container	480			

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



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