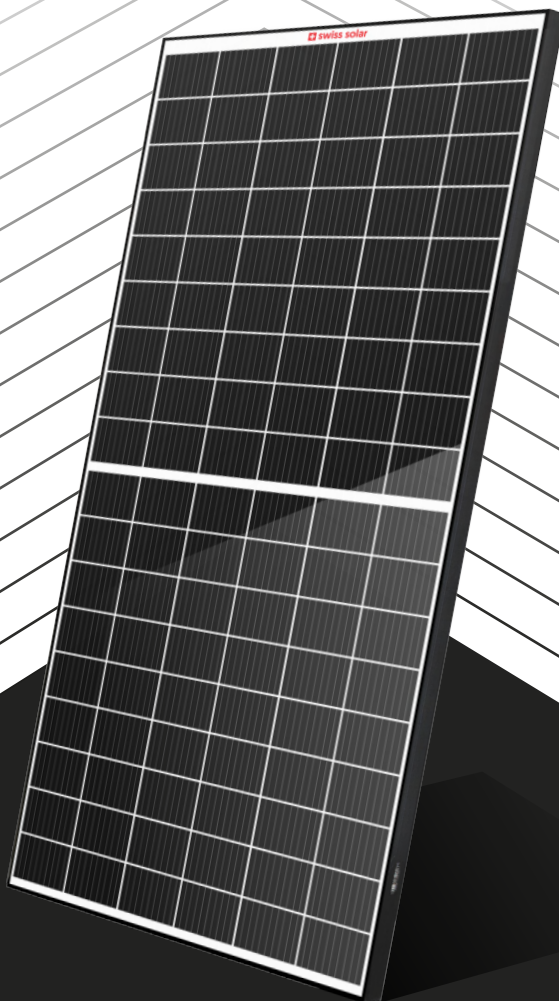




TRANSPARENT
BACKSHEET

IMPROVED LOAD

pressure
6200
tensile
4200

✓ TESTED

TOPCON
CELLS INSIDE

16BB

HALF-CELL
MONO PV MODULE

IBEX 108BF-MHC-TOPCON

410/415/420/425/430

IBEX HIGH EFFICIENCY MONOCRYSTALLINE SOLAR MODULES WITH TOPCON CELLS TECHNOLOGY



BETTER HIGH-TEMPERATURE POWER
GENERATION PERFORMANCE



HIGHER DOUBLE-SIDED REVENUE



BETTER LOW LIGHT PERFORMANCE



LOWER COST OF KILOWATT-HOUR
ELECTRICITY (LCOE)



LOWER ATTENUATION



HIGH TECHNOLOGY
SOLAR MODULES

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



IBEX 108BF-MHC-TOPCON 410-430

MONOCRYSTALLINE SOLAR MODULE

ELECTRICAL DATA AT STC

Module Type	410W	415W	420W	425W	430W
	STC	STC	STC	STC	STC
Rated power P _{mp} [Wp]	410	415	420	425	430
P _{mp} range to	0/+5W	0/+5W	0/+5W	0/+5W	0/+5W
Rated current I _{mp} [A]	13.17A	13.25A	13.33A	13.41A	13.49A
Rated voltage V _{mp} [V]	31.13V	31.32V	31.51V	31.70V	31.88V
Short-circuit current I _{sc} [A]	13.91A	13.99A	14.07A	14.15A	14.23A
Open-circuit voltage U _{oc} [V]	37.73V	37.92V	38.11V	38.30V	38.49V
Efficiency at STC up to	21.00%	21.25%	21.51%	21.76%	22.02%
Application Class	Class A	Class A	Class A	Class A	Class A

PARAMETER OF DOUBLE-SIDED POWER GENERATION (430W)

	P _{max} /W	V _{mp} /V	I _{mp} /A	V _{oc} /V	I _{sc} /A
P _{max} gain					
5%	451	31.88	14.16	38.49	14.94
15%	494	31.88	15.51	38.49	16.36
25%	537	31.88	16.86	38.49	17.79

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	6200
Max. tested tensile load [Pa]2	4200

TEMPERATURE COEFFICIENT

I _{sc}	V _{oc}	P _{max}
0.046% /°C	-0.25% /°C	-0.30% /°C

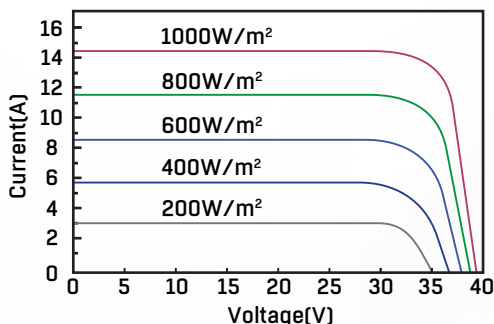
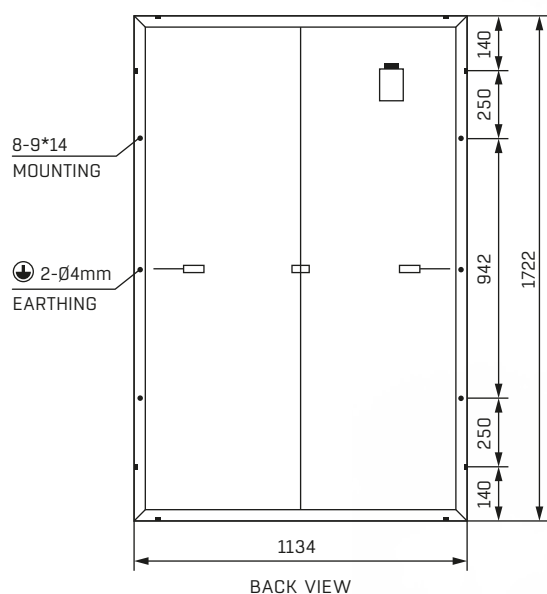
SPECIFICATIONS

Type of cells	N-type of Bifacial Black Mono
Number of cells	108 (12 x 9) 182x91 mm
Dimensions	1722 x 1134 x 30 mm
Weight	21.5 kg
Front-side glass	3.2 mm ^{high transmission, low iron, tempered glass}
Frame	Anodized Aluminium Alloy
Junction box	Split Junction Box (IP68)
Cable	4 mm ² , +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	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 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 | 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

SWISSENERGY-SOLAR.CH



Product Service

CERTIFICATE

No. Z2 110727 0001 Rev. 00

Holder of Certificate: **SWISS SOLAR AG**

Bahnhofstrasse 21
6300 ZUG
SWITZERLAND

Certification Mark:



Product:

Crystalline Silicon Terrestrial Photovoltaic (PV) Modules
Mono-Crystalline Silicon Photovoltaic Module

The product was tested on a voluntary basis and complies with the essential requirements. The certification mark shown above can be affixed on the product. It is not permitted to alter the certification mark in any way. In addition, the certification holder must not transfer the certificate to third parties. This certificate is valid until the listed date, unless it is cancelled earlier. All applicable requirements of the testing and certification regulations of TÜV SÜD Group have to be complied. For details see: www.tuvsud.com/ps-cert

Test report no.: 701262009501-00

Valid until: 2025-07-20

Date, 2020-11-25

(Zhulin Zhang)

CERTIFICATE

No. Z2 110727 0001 Rev. 00

Model(s):

1000 V DC system voltage Single Glass modules:
IBEX 72-xxxM-PERC, xxx= 330 to 390 in step of 5;
IBEX 60-xxxM-PERC, xxx= 275 to 325 in step of 5;

1500 V DC system voltage Single Glass modules:
IBEX 72-xxxM-PERC HV, xxx= 330 to 390 in step of 5;
IBEX 60-xxxM-PERC HV, xxx= 275 to 325 in step of 5;

Half cell 1000 V DC system voltage Single Glass modules:
IBEX 144MHC-xxx-DUO, xxx= 370 to 415 in step of 5;
IBEX 120MHC-xxx-DUO, xxx= 305 to 345 in step of 5;
IBEX 144MHC-xxx-COSMOS, xxx= 420 to 460 in step of 5;
IBEX 120MHC-xxx-COSMOS, xxx= 350 to 380 in step of 5;

Half cell 1500 V DC system voltage Single Glass modules:
IBEX 144MHC-xxx-DUO HV, xxx= 370 to 415 in step of 5;
IBEX 120MHC-xxx-DUO HV, xxx= 305 to 345 in step of 5;
IBEX 144MHC-xxx-COSMOS HV, xxx= 420 to 460 in step of 5;
IBEX 120MHC-xxx-COSMOS HV, xxx= 350 to 380 in step of 5;

xxx is standing for rated output power at STC.

Parameters:

Construction:	Framed, with Junction box, Cable and connectors.
Test Laboratory:	Yangzhou Opto-Electrical Products Testing Institute No.10 West Kaifa Road, Yangzhou 225009 Jiangsu, P.R.China.
Safety Class:	Class II
Max. system voltage:	1000 V DC or 1500 V DC
Fire Safety Class:	Class C according to UL790

Tested according to:

IEC 61215-1:2016
IEC 61215-1-1:2016
IEC 61215-2:2016
IEC 61730-1:2016
IEC 61730-2:2016

Production Facility(ies):

083334



Product Service

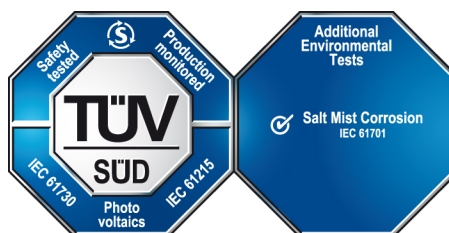
CERTIFICATE

No. Z2 110727 0002 Rev. 00

Holder of Certificate: **SWISS SOLAR AG**

Bahnhofstrasse 21
6300 ZUG
SWITZERLAND

Certification Mark:



Product:

Crystalline Silicon Terrestrial Photovoltaic (PV) Modules
Mono-Crystalline Silicon Photovoltaic Module

The product was tested on a voluntary basis and complies with the essential requirements. The certification mark shown above can be affixed on the product. It is not permitted to alter the certification mark in any way. In addition, the certification holder must not transfer the certificate to third parties. This certificate is valid until the listed date, unless it is cancelled earlier. All applicable requirements of the testing and certification regulations of TÜV SÜD Group have to be complied. For details see: www.tuvsud.com/ps-cert

Test report no.: 701262106201-00

Valid until: 2025-12-17

Date, 2021-05-07

(Zhulin Zhang)

CERTIFICATE

No. Z2 110727 0002 Rev. 00

Model(s):

1000 V DC system voltage Single Glass modules:

IBEX 72-xxxM-PERC, xxx= 330 to 390 in step of 5;

IBEX 60-xxxM-PERC, xxx= 275 to 325 in step of 5;

1500 V DC system voltage Single Glass modules:

IBEX 72-xxxM-PERC HV, xxx= 330 to 390 in step of 5;

IBEX 60-xxxM-PERC HV, xxx= 275 to 325 in step of 5;

Half cell 1000 V DC system voltage Single Glass modules:

IBEX 144MHC-xxx-DUO, xxx= 370 to 415 in step of 5;

IBEX 120MHC-xxx-DUO, xxx= 305 to 345 in step of 5;

IBEX 144MHC-xxx-COSMOS, xxx= 430 to 460 in step of 5;

IBEX 120MHC-xxx-COSMOS, xxx= 360 to 380 in step of 5;

Half cell 1500 V DC system voltage Single Glass modules:

IBEX 144MHC-xxx-DUO HV, xxx= 370 to 415 in step of 5;

IBEX 120MHC-xxx-DUO HV, xxx= 305 to 345 in step of 5;

IBEX 144MHC-xxx-COSMOS HV, xxx= 430 to 460 in step of 5;

IBEX 120MHC-xxx-COSMOS HV, xxx= 360 to 380 in step of 5;

xxx is standing for rated output power at STC

Parameters:

Construction:

Framed, with Junction box,
Cable and Connectors.

Safety Class:

Class II

Maximum System Voltage:

1500 V DC or 1000 V DC

Fire Safety Class:

Class C

Severity of Salt mist test:

Severity 5

Tested according to:

IEC 61215-1:2016

IEC 61215-1-1:2016

IEC 61215-2:2016

IEC 61730-1:2016

IEC 61730-2:2016

IEC 61701:2011

CERTIFICATE

TÜV NORD CERT GmbH
herewith declares that

SWISS SOLAR AG
Bahnhofstrasse 21, CH-6300 Zug, Switzerland

is authorized to provide the product mentioned below with the mark as illustrated:

Description of product (details see Annex 2):

PV Modules with 7" Half Cut Mono-crystalline Silicon Solar Cells



Valid from: 2021-04-15

Valid until: 2023-05-09

Tested according to: IEC / EN 61215-1:2016;
IEC / EN 61215-1-1:2016;
IEC 61215-2:2016 / EN 61215-2:2017 + AC:2017 + AC:2018;
IEC 61730-1:2016 / EN IEC 61730-1:2018 + AC:2018;
IEC 61730-2:2016 / EN IEC 61730-2:2018 + AC:2018.

Registered No.: 44 780 21 406749 - 050

Manufacturer: see Annex 1

Test Report No.: 492011649.001

File No.: PVP04001/21P

A handwritten signature in blue ink, appearing to read "Rupprecht".

TÜV NORD CERT GmbH
Certification Body
Consumer Products



Essen, 2021-04-15

Please also pay attention to the information stated overleaf.

Anlage 1 zum Zertifikat Nr.: / Annex 1 to Certificate No.: 44 780 21 406749 - 050

Seite / Page 1 von / of 1

Aktenzeichen: / File reference: PVP04001/21P

2021-04-15

Manufacturer:

Manufacturer: Coded by debtor no. 55403167

Factory inspection report no.: 862010379.003

Remark:

Factory inspection is mandatory to be performed annually. Please refer to factory inspection report for detailed information.

A handwritten signature in blue ink, appearing to read "Rüdiger K.", is positioned above the company name.

TÜV NORD CERT GmbH
Certification Body
Consumer Products

Description of product(s):

Module types:	PV Modules with 7" Half Cut Mono-crystalline Silicon Solar Cells: 156 cells: IBEX-156MHC-EiGER-***W (***=560-605, in increment of 5) 144 cells: IBEX-144MHC-EiGER-***W (***=515-555, in increment of 5) 132 cells: IBEX-132MHC-EiGER-***W (***=475-510, in increment of 5) 120 cells: IBEX-120MHC-EiGER-***W (***=430-465, in increment of 5) 108 cells: IBEX-108MHC-EiGER-***W (***=390-415, in increment of 5)
Maximum system voltage:	1500V
Fuse rating:	25A
Electrical protection class:	Class II
Pollution degree:	1
Material group:	I or II
Design load (positive / negative):	3600Pa (positive) / 1600Pa (negative)
Safety factors:	1.5
Fire safety class:	Class C according to ANSI/UL 1703-2018 (per ANSI/UL 790-2018)

Remark:

For detailed product information, please refer to CDF (Constructional Data Form) in Annex 1 of test report.



TÜV NORD CERT GmbH
Certification Body
Consumer Products

**Certificate
of conformity with the following
European Directives**

Registered No.:
44 799 21 406749 - 031

Low-Voltage Directive 2014/35/EU

Date of application	File reference	Test report No.	Date of issue	Place of issue
2021-04-01	PVP04001/21P	492011649.001	2021-04-15	Essen

This is to certify that the following products comply to the essential requirements of the above mentioned European Directive and the following standards, taking into account the German national deviations:

Product: Crystalline Silicon Terrestrial Photovoltaic (PV) Modules

Type designation: See Annex 1

Applicant: **SWISS SOLAR AG**
Bahnhofstrasse 21, CH-6300 Zug, Switzerland

Standard(s): EN IEC 61730-1:2018; EN IEC 61730-1:2018/AC:2018-06
EN IEC 61730-2:2018; EN IEC 61730-2:2018/AC:2018-06

This Certificate of conformity is based on the evaluation of samples of the product. It does not imply an assessment of the production and it does not permit the use of a mark of conformity or of a safety mark of the TÜV NORD CERT GmbH. The holder of this certificate may use this Certificate together with his EC-Declaration of Conformity.



Certification Body
Specialist Manager Consumer Products

TÜV NORD CERT GmbH
Langemarckstrasse 20
D-45141 Essen
P.O.Box 10 32 61
D-45032 Essen
Fon: +49 (0)201 825-5120
Fax: +49 (0)201 825-3209
Email: prodcert@tuev-nord.de

Description of product(s):

Module types:

PV Modules with 7" Half Cut Mono-crystalline Silicon Solar Cells:

156 cells: IBEX-156MHC-EiGER-***W (***=560-605, in increment of 5)

144 cells: IBEX-144MHC-EiGER-***W (***=515-555, in increment of 5)

132 cells: IBEX-132MHC-EiGER-***W (***=475-510, in increment of 5)

120 cells: IBEX-120MHC-EiGER-***W (***=430-465, in increment of 5)

108 cells: IBEX-108MHC-EiGER-***W (***=390-415, in increment of 5)



TÜV NORD CERT GmbH
Certification Body
Consumer Products



Management Service

CERTIFICATE

The Certification Body
of TÜV SÜD Management Service GmbH

certifies that

swiss solar QUALITY
TECHNOLOGY

SWISS SOLAR AG

Bahnhofstrasse 21
6300 Zug
Switzerland

has established and applies
a Quality Management System for

**Sales of solar modules,
solar inverters and mounting system.**

An audit was performed, Order No. **707127772**.

Proof has been furnished that the requirements
according to

ISO 9001:2015

are fulfilled.

The certificate is valid in conjunction
with the main certificate from **2021-06-01** until **2024-05-31**.

Certificate Registration No.: **12 100 62049/02 TMS**.

Head of Certification Body
Munich, 2021-06-02





Management Service

CERTIFICATE

The Certification Body
of TÜV SÜD Management Service GmbH

certifies that

swiss solar QUALITY
TECHNOLOGY

SWISS SOLAR AG

Bahnhofstrasse 21
6300 Zug
Switzerland

has established and applies
an Occupational Health and Safety Management System for

**Sales of solar modules,
solar inverters and mounting system.**

An audit was performed, Order No. **707127772**.

Proof has been furnished that the requirements
according to

ISO 45001:2018

are fulfilled.

The certificate is valid in conjunction
with the main certificate from **2021-06-17** until **2024-06-16**.

Certificate Registration No.: **12 117 62049/02 TMS**.

Head of Certification Body
Munich, 2021-06-21



ZERTIFIKAT ◆ CERTIFICATE ◆ CERTIFICADO ◆ CERTIFICAT
認證證書 ◆

CE KONFORMITÄTSERKLÄRUNG/ CE DECLARATION OF CONFORMITY:

HERSTELLER NAME NAME OF MANUFACTURER	SWISS SOLAR AG
ADRESSE DES HERSTELLERS MANUFACTURER ADDRESS	Baarerstrasse 25, CH-6300 Zug, Schweiz Switzerland
PRODUKT PRODUCT	Photovoltaikmodul Photovoltaic Module
DATUM DER CE KENNZEICHNUNG CE DATE OF MARKING	01.01.2023
MARKE BRAND	swiss solar

MODEL TYPEN / MODEL TYPES:

Wir erklären auf eigene Verantwortung, dass das oben genannte Produkt in Konformität mit den folgenden Standards ist:
We declare under sole responsibility, that the above-referenced product is in conformity with the standards of:

MONOKRISTALLINE MODULE | MONOCRYSTALLINE MODULES

- IBEX 60-320-330M-PERC
- IBEX 72-380-390M-PERC
- IBEX 120MHC-DUO
- IBEX 120MHC-DUO-BLACK
- IBEX 120MHC-COSMOS
- IBEX 120MHC-COSMOS-BLACK,
- IBEX 144MHC-DUO
- IBEX 144MHC-COSMOS,
- IBEX 144MHC-COSMOS BLACK
- IBEX 120MHC-AEON
- IBEX 120MHC-AEON BIFACIAL
- IBEX 144MHC-AEON
- IBEX 144MHC-AEON BIFACIAL
- IBEX 156MHC-AEON BIFACIAL
- IBEX 50M-EIGER
- IBEX 50M-EIGER BLACK
- IBEX 54M-EIGER
- IBEX 54M-EIGER BLACK
- IBEX 60M-EIGER
- IBEX 60M-EIGER BLACK
- IBEX 66M-EIGER
- IBEX 66M-EIGER BLACK
- IBEX-108MHC-EIGER
- IBEX-108MHC-EIGER-BLACK
- IBEX 108BF-MHC-EIGER
- IBEX 108MHC-EIGER BIFACIAL
- IBEX-120MHC-EIGER
- IBEX-120MHC-EIGER-BLACK
- IBEX 120BF-MHC-EIGER
- IBEX 120MHC-EIGER BIFACIAL
- IBEX-132MHC-EIGER
- IBEX-132MHC-EIGER-BLACK
- IBEX 132BF-MHC-EIGER
- IBEX 132MHC-EiGER BIFACIAL
- IBEX-144MHC-EIGER
- IBEX-144MHC-EIGER-BLACK
- IBEX 144MHC-EIGER BIFACIAL
- IBEX 144BF-MHC-EIGER
- IBEX-156MHC-EIGER
- IBEX-156MHC-EIGER-BLACK
- IBEX 156MHC-EIGER BIFACIAL
- IBEX 156BF-MHC-EIGER
- IBEX108MHC TOPCON
- IBEX108MHC TOPCON-BLACK
- IBEX108BF MHC TOPCON
- IBEX120MHC TOPCON
- IBEX120MHC TOPCON-BLACK
- IBEX120BF MHC TOPCON
- IBEX132MHC TOPCON
- IBEX132MHC TOPCON-BLACK
- IBEX132BF MHC TOPCON
- IBEX144MHC TOPCON
- IBEX144MHC TOPCON-BLACK
- IBEX144BF MHC TOPCON
- IBEX156MHC TOPCON
- IBEX156MHC TOPCON-BLACK
- IBEX156BF MHC TOPCON
- IBEX60M TOPCON
- IBEX66M TOPCON

Directive 2014/30/EU
Directive 2014/35/EU

(Electro Magnetic Compability Directive)
(Low Voltage Directive)

VORSCHRIFTEN DIE PHOTOVOLTAIKMODULE BETREFFEND | STANDARDS USED FOR PHOTOVOLTAIC MODULES:

Directive 2014/30/EU (EMC Directive)

EN 61000-6-1:2007
EN 61000-6-3:2007 + A1:2011

EN 61000-3-2:2014
EN 61000-3-3:2013

Directive 2014/35/EU (Low Voltage Directive)

EN 61730-1:2007 A1:2012 + A2:2013
EN 61730-2:2007 A1:2012

Zug, 01/01/2023

Pavel Sadovskij

MOD of SSWISS GROUP AG





Product Service

CERTIFICATE

No. Z2 110727 0003 Rev. 00

Holder of Certificate: **SWISS SOLAR AG**

Bahnhofstrasse 21
6300 ZUG
SWITZERLAND

Certification Mark:



Product:

Crystalline Silicon Terrestrial Photovoltaic (PV) Modules
Mono-crystalline Silicon Photovoltaic Module

The product was tested on a voluntary basis and complies with the essential requirements. The certification mark shown above can be affixed on the product. It is not permitted to alter the certification mark in any way. In addition, the certification holder must not transfer the certificate to third parties. This certificate is valid until the listed date, unless it is cancelled earlier. All applicable requirements of the testing and certification regulations of TÜV SÜD Group have to be complied. For details see: www.tuvsud.com/ps-cert

Test report no.: 701262213701-00

Valid until: 2027-04-21

Date, 2022-08-29

(Zhulin Zhang)

CERTIFICATE

No. Z2 110727 0003 Rev. 00

Model(s):

IBEX-72M PERC xxx, xxx=340-405, in step of 5;
IBEX-60M PERC xxx, xxx=285-340, in step of 5;
IBEX-54M PERC xxx, xxx=255-275, in step of 5;
IBEX-144MHC COSMOS xxx, xxx=390-455, in step of 5;
IBEX-120MHC COSMOS xxx, xxx=325-380, in step of 5;
IBEX-132MHC COSMOS xxx, xxx=385-415, in step of 5;
IBEX-156MHC EiGER xxx, xxx=550-605, in step of 5;
IBEX-144MHC EiGER xxx, xxx=510-555, in step of 5;
IBEX-132MHC EiGER xxx, xxx=470-510, in step of 5;
IBEX-120MHC EiGER xxx, xxx=425-465, in step of 5;
IBEX-108MHC EiGER xxx, xxx=390-415, in step of 5;
IBEX-66M EiGER HP xxx, xxx=635-675, in step of 5;
IBEX-60M EiGER HP xxx, xxx=580-610, in step of 5.
xxx is standing for rated output power at STC.

Parameters:

Safety Class:	Class II
Max. System Voltage:	1500V DC
Test Laboratory:	Changzhou HuaYang Inspection and Testing Technology Co., Ltd No.8 Lanxiang Road, Wujin Economic Development Zone, Changzhou, Jiangsu, China.
Construction:	Framed, with Junction box, cable and connector.
Fire Safety Class:	Class C according to UL790

Tested according to:

IEC 61215-1:2016
IEC 61215-1-1:2016
IEC 61215-2:2016
IEC 61730-1:2016
IEC 61730-2:2016



Product Service

CERTIFICATE

No. Z2 110727 0003 Rev. 01

Holder of Certificate: **SWISS SOLAR AG**

Bahnhofstrasse 21
6300 ZUG
SWITZERLAND

Certification Mark:



Product:

Crystalline Silicon Terrestrial Photovoltaic (PV) Modules
Mono-crystalline Silicon Photovoltaic Module

The product was tested on a voluntary basis and complies with the essential requirements. The certification mark shown above can be affixed on the product. It is not permitted to alter the certification mark in any way. In addition, the certification holder must not transfer the certificate to third parties. This certificate is valid until the listed date, unless it is cancelled earlier. All applicable requirements of the testing and certification regulations of TÜV SÜD Group have to be complied. For details see: www.tuvsud.com/ps-cert

Test report no.: 701262213701-01

Valid until: 2028-07-19

Date, 2023-08-28

(Zhulin Zhang)

CERTIFICATE

No. Z2 110727 0003 Rev. 01

Model(s):

IBEX-72M PERC xxx, xxx=340-405, in step of 5;
IBEX-60M PERC xxx, xxx=285-340, in step of 5;
IBEX-54M PERC xxx, xxx=255-275, in step of 5;
IBEX-144MHC COSMOS xxx, xxx=390-465, in step of 5;
IBEX-120MHC COSMOS xxx, xxx=325-385, in step of 5;
IBEX-132MHC COSMOS xxx, xxx=385-425, in step of 5;
IBEX-156MHC EiGER xxx, xxx=550-605, in step of 5;
IBEX-144MHC EiGER xxx, xxx=510-555, in step of 5;
IBEX-132MHC EiGER xxx, xxx=470-510, in step of 5;
IBEX-120MHC EiGER xxx, xxx=425-465, in step of 5;
IBEX-108MHC EiGER xxx, xxx=390-415, in step of 5;
IBEX-66M EiGER HP xxx, xxx=635-675, in step of 5;
IBEX-60M EiGER HP xxx, xxx=580-610, in step of 5;
IBEX156MHC TOPCON xxx, xxx=585-635, in step of 5;
IBEX144MHC TOPCON xxx, xxx=540-585, in step of 5;
IBEX132MHC TOPCON xxx, xxx=495-535, in step of 5;
IBEX120MHC TOPCON xxx, xxx=450-485, in step of 5;
IBEX108MHC TOPCON xxx, xxx=405-435, in step of 5;
IBEX156BF MHC TOPCON xxx, xxx=585-630, in step of 5;
IBEX144BF MHC TOPCON xxx, xxx=540-580, in step of 5;
IBEX132BF MHC TOPCON xxx, xxx=495-530, in step of 5;
IBEX120BF MHC TOPCON xxx, xxx=450-480, in step of 5;
IBEX108BF MHC TOPCON xxx, xxx=405-435, in step of 5;
IBEX66M TOPCON xxx, xxx=655-695, in step of 5;
IBEX60M TOPCON xxx, xxx=595-630, in step of 5.
xxx is standing for rated output power at STC.

Parameters:

Safety Class:	Class II
Max. System Voltage:	1500V DC
Test Laboratory:	Changzhou HuaYang Inspection and Testing Technology Co., Ltd No.8 Lanxiang Road, Wujin Economic Development Zone, Changzhou, Jiangsu, China.
Construction:	Framed, with Junction box, cable and connector.
Fire Safety Class:	Class C according to UL790

Tested according to:

IEC 61215-1:2016
IEC 61215-1-1:2016
IEC 61215-2:2016
IEC 61730-1:2016
IEC 61730-2:2016



Product Service

CERTIFICATE

No. Z2 110727 0004 Rev. 00

Holder of Certificate: **SWISS SOLAR AG**

Bahnhofstrasse 21
6300 ZUG
SWITZERLAND

Certification Mark:



Product:

Crystalline Silicon Terrestrial Photovoltaic (PV) Modules
Mono-crystalline Silicon Photovoltaic Module

The product was tested on a voluntary basis and complies with the essential requirements. The certification mark shown above can be affixed on the product. It is not permitted to alter the certification mark in any way. In addition, the certification holder must not transfer the certificate to third parties. This certificate is valid until the listed date, unless it is cancelled earlier. All applicable requirements of the testing and certification regulations of TÜV SÜD Group have to be complied. For details see: www.tuvsud.com/ps-cert

Test report no.: 701262213702-00

Valid until: 2027-05-24

Date, 2022-08-29

(Zhulin Zhang)

CERTIFICATE

No. Z2 110727 0004 Rev. 00

Model(s):

Test method 8 of salt mist:

IBEX-144MHC COSMOS xxx, xxx=390-455 in step of 5;
IBEX-120MHC COSMOS xxx, xxx=325-380 in step of 5;
IBEX-132MHC COSMOS xxx, xxx=385-415, in step of 5;

Test method 6 of salt mist:

IBEX-156MHC EiGER xxx, xxx=550-605, in step of 5;
IBEX-144MHC EiGER xxx, xxx=510-555, in step of 5;
IBEX-132MHC EiGER xxx, xxx=470-510, in step of 5;
IBEX-120MHC EiGER xxx, xxx=425-465, in step of 5;
IBEX-108MHC EiGER xxx, xxx=390-415, in step of 5;
IBEX-66M EiGER HP xxx, xxx=635-675, in step of 5;
IBEX-60M EiGER HP xxx, xxx=580-610, in step of 5.
xxx is standing for rated output power at STC.

Parameters:

Safety Class:	Class II
Max. System Voltage:	1500V DC or 1000V DC
Construction:	Framed, with Junction box, cable and connector.
Fire Safety Class:	Class C according to UL790
Test method of salt mist:	Test method 8 or Test method 6

Tested according to:

IEC 61215-1:2016
IEC 61215-1-1:2016
IEC 61215-2:2016
IEC 61730-1:2016
IEC 61730-2:2016
IEC 61701:2020



Product Service

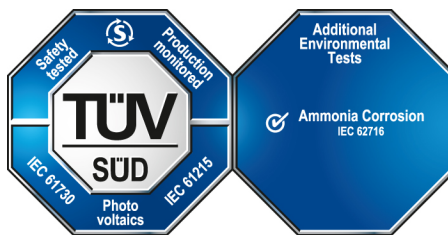
CERTIFICATE

No. Z2 110727 0005 Rev. 00

Holder of Certificate: **SWISS SOLAR AG**

Bahnhofstrasse 21
6300 ZUG
SWITZERLAND

Certification Mark:



Product:

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Mono-crystalline Silicon Photovoltaic Module

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Test report no.: 701262213703-00

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CERTIFICATE

No. Z2 110727 0005 Rev. 00

Model(s):

IBEX-144MHC COSMOS xxx, xxx=390-455 in step of 5;
IBEX-120MHC COSMOS xxx, xxx=325-380 in step of 5;
IBEX-132MHC COSMOS xxx, xxx=385-415, in step of 5;
IBEX-156MHC EiGER xxx, xxx=550-605, in step of 5;
IBEX-144MHC EiGER xxx, xxx=510-555, in step of 5;
IBEX-132MHC EiGER xxx, xxx=470-510, in step of 5;
IBEX-120MHC EiGER xxx, xxx=425-465, in step of 5;
IBEX-108MHC EiGER xxx, xxx=390-415, in step of 5;
IBEX-66M EiGER HP xxx, xxx=635-675, in step of 5;
IBEX-60M EiGER HP xxx, xxx=580-610, in step of 5.
xxx is standing for rated output power at STC.

Parameters:

Safety Class:	Class II
Max. System Voltage:	1500V DC
Construction:	Framed, with Junction box, cable and connector.
Fire Safety Class:	Class C according to UL790

Tested according to:

IEC 61215-1:2016
IEC 61215-1-1:2016
IEC 61215-2:2016
IEC 61730-1:2016
IEC 61730-2:2016
IEC 62716:2013