

Zertifikat

Certificate



Zertifikat Nr. *Certificate No.*
PV Horay Rights

Blatt *Sheet*
0001

Ihr Zeichen *Client Reference*
M.G

Unser Zeichen *Our Reference*
01-Ruanand-CN22N95B 001

Ausstellungsdatum *Date of Issue*
24.06.2022
(day/mo/yr)

Genehmigungsinhaber *License Holder*
HORAY SOLAR CO., LTD
No.30-5,
Yanxin East Road, Huishan District
Wuxi,
214177 Jiangsu
P.R. China

Fertigungsstätte *Manufacturing Plant*
Refer to latest revision
of the annex list of factories

Prüfzeichen *Test Mark*



Geprüft nach *Tested acc. to*

IEC 61215-1:2021
IEC 61215-1-1:2021
IEC 61215-2:2021
IEC 61730-1:2016
IEC 61730-2:2016
EN IEC 61215-1:2021
EN IEC 61215-1-1:2021
EN IEC 61215-2:2021
EN IEC 61730-1:2018
EN IEC 61730-2:2018

Zertifiziertes Produkt (Geräteidentifikation)
Certified Product (Product Identification)

Lizenzentgelte - Einheit
License Fee - Unit

PV Module

Type Designation:

Max. System Voltage: up to 1500 VDC (Voc at STC):

With 1/2 cut of mono c-Si cell with cell size (Under STC)

HSxxx-MHG-D (xxx=640-660, in steps of 5, 132 cells)

HSxxx-MHG-D (xxx=585-600, in steps of 5, 120 cells)

HSxxx-MHG-D (xxx=535-550, in steps of 5, 110 cells)

HSxxx-MHG-D (xxx=485-500, in steps of 5, 100 cells)

HSxxx-MHO-D (xxx=535-560, in steps of 5, 144 cells)

HSxxx-MHO-D (xxx=495-515, in steps of 5, 132 cells)

HSxxx-MHO-D (xxx=450-470, in steps of 5, 120 cells)

HSxxx-MHO-D (xxx=405-420, in steps of 5, 108 cells)

HSxxx-MHL-D (xxx=445-465, in steps of 5, 144 cells)

HSxxx-MHL-D (xxx=410-425, in steps of 5, 132 cells)

HSxxx-MHL-D (xxx=370-385, in steps of 5, 120 cells)

With 1/2 cut of mono c-Si cell with cell size (Under BNPI)

HSxxx-MHG-D (xxx=701-723, in steps of 5, 132 cells)

HSxxx-MHG-D (xxx=641-657, in steps of 5, 120 cells)

HSxxx-MHG-D (xxx=586-602, in steps of 5, 110 cells)

HSxxx-MHG-D (xxx=531-548, in steps of 5, 100 cells)

Continued on Page 0002

Dem Zertifikat liegt unsere Prüf- und Zertifizierungsordnung zugrunde.
Das Produkt entspricht den o.g. Anforderungen, die Herstellung wird überwacht.
This certificate is based on our Testing and Certification Regulation. The product
fulfills above mentioned requirements, the production is subject to surveillance.



Zertifizierungsstelle

TÜV Rheinland LGA Products GmbH, Tillystraße 2, 90431 Nürnberg

<http://www.tuv.com/safety> E-mail: markcheck@tuv.com

Fax: +49 221 806-3935

Dipl.-Ing. Matthias Grzam

Zertifikat

Certificate



Zertifikat Nr. *Certificate No.*
PV Horay Rights

Blatt *Sheet*
0002

Ihr Zeichen *Client Reference*
M.G

Unser Zeichen *Our Reference*
01-Ruanand-CN22N95B 001

Ausstellungsdatum
24.06.2022

Date of Issue
(day/mo/yr)

Genehmigungsinhaber *License Holder*

HORAY SOLAR CO., LTD
No.30-5,
Yanxin East Road, Huishan District
Wuxi,
214177 Jiangsu
P.R. China

Fertigungsstätte *Manufacturing Plant*

Refer to latest revision
of the annex list of factories

Prüfzeichen *Test Mark*



IEC 61215
IEC 61730
Regular Production
Surveillance

www.tuv.com
ID 1111253583

Geprüft nach *Tested acc. to*

IEC 61215-1:2021
IEC 61215-1-1:2021
IEC 61215-2:2021
IEC 61730-1:2016
IEC 61730-2:2016
EN IEC 61215-1:2021
EN IEC 61215-1-1:2021
EN IEC 61215-2:2021
EN IEC 61730-1:2018
EN IEC 61730-2:2018

**Zertifiziertes Produkt (Geräteidentifikation)
*Certified Product (Product Identification)***

**Lizenzentgelte - Einheit
*License Fee - Unit***

PV Module

Continuation of Page 0001

HSxxx-MHO-D (xxx=586-613, in steps of 5, 144 cells)
HSxxx-MHO-D (xxx=542-564, in steps of 5, 132 cells)
HSxxx-MHO-D (xxx=493-515, in steps of 5, 120 cells)
HSxxx-MHO-D (xxx=443-460, in steps of 5, 108 cells)
HSxxx-MHL-D (xxx=487-509, in steps of 5, 144 cells)
HSxxx-MHL-D (xxx=449-465, in steps of 5, 132 cells)
HSxxx-MHL-D (xxx=405-422, in steps of 5, 120 cells)

Remarks:

Class II acc. to IEC 61140
Fire Rating: Class A (according to UL 790)
Design Load/ Safety Factors: 3600 Pa / 1.5 (downward)
1600 Pa / 1.5 (upward)

Conditions:

The product test is voluntarily according to technical regulations. Any change of the design, materials, components or processing may require the repetition of some of the qualification tests in order to retain type approval.
This certificate is valid until 23 June 2027

Dem Zertifikat liegt unsere Prüf- und Zertifizierungsordnung zugrunde.
Das Produkt entspricht den o.g. Anforderungen, die Herstellung wird überwacht.
This certificate is based on our Testing and Certification Regulation. The product fulfills above mentioned requirements, the production is subject to surveillance.



Zertifizierungsstelle

TÜV Rheinland LGA Products GmbH, Tillystraße 2, 90431 Nürnberg
<http://www.tuv.com/safety> E-mail: markcheck@tuv.com
Fax: +49 221 806-3935

Dipl.-Ing. Matthias Grzam

Zertifikat

Certificate



Zertifikat Nr. *Certificate No.*
PV Horay Rights

Blatt *Sheet*
0003

Ihr Zeichen *Client Reference*
M.G

Unser Zeichen *Our Reference*
01-Ruanand-CN22NKK2

Ausstellungsdatum
002 11.08.2022

Date of Issue
(day/mo/yr)

Genehmigungsinhaber *License Holder*

HORAY SOLAR CO., LTD
No.30-5,
Yanxin East Road, Huishan District
Wuxi,
214177 Jiangsu
P.R. China

Fertigungsstätte *Manufacturing Plant*

Refer to latest revision
of the annex list of factories

Prüfzeichen *Test Mark*



Geprüft nach *Tested acc. to*

IEC 61215
IEC 61730
Regular Production
Surveillance
www.tuv.com
ID 1111253582

IEC 61215-1:2021
IEC 61215-1-1:2021
IEC 61215-2:2021
IEC 61730-1:2016
IEC 61730-2:2016
EN IEC 61215-1:2021
EN IEC 61215-1-1:2021
EN IEC 61215-2:2021
EN IEC 61730-1:2018
EN IEC 61730-2:2018

**Zertifiziertes Produkt (Geräteidentifikation)
*Certified Product (Product Identification)***

**Lizenzentgelte - Einheit
*License Fee - Unit***

PV Module

Same as Page 0001-0002

In addition:

Type Designation:

Max. System Voltage: up to 1500 VDC (Voc at STC):

With cut of mono c-Si cell:

- HSxxx-MHG (xxx=170-180, in steps of 5, 36 cells)
- HSxxx-MHG (xxx=110-120, in steps of 5, 36 cells)
- HSxxx-MHG (xxx=80-90, in steps of 5, 36 cells)
- HSxxx-MHO (xxx=120-130, in steps of 5, 36 cells)
- HSxxx-MHO (xxx=80-90, in steps of 5, 36 cells)
- HSxxx-MHO (xxx=60-65, in steps of 5, 36 cells)
- HSxxx-MHL (xxx=100-110, in steps of 5, 36 cells)
- HSxxx-MHL (xxx=70-75, in steps of 5, 36 cells)
- HSxxx-MHL (xxx=50-55, in steps of 5, 36 cells)

Dem Zertifikat liegt unsere Prüf- und Zertifizierungsordnung zugrunde.
Das Produkt entspricht den o.g. Anforderungen, die Herstellung wird überwacht.
This certificate is based on our Testing and Certification Regulation. The product
fulfills above mentioned requirements, the production is subject to surveillance.

TÜV Rheinland LGA Products GmbH, Tillystraße 2, 90431 Nürnberg
<http://www.tuv.com/safety> E-mail: markcheck@tuv.com
Fax: +49 221 806-3935

Zertifizierungsstelle



Dipl.-Ing. Matthias Orzam

Zertifikat

Certificate



Zertifikat Nr. Certificate No.
PV Horay Rights

Blatt Sheet
0001

Ihr Zeichen Client Reference
M.G

Unser Zeichen Our Reference
01-Ruanand-CN22NKK2 001

Ausstellungsdatum
11.05.2022

Date of Issue
(day/mo/yr)

Genehmigungsinhaber License Holder

HORAY SOLAR CO., LTD
No.30-5,
Yanxin East Road, Huishan District
Wuxi,
214177 Jiangsu
P.R. China

Fertigungsstätte Manufacturing Plant

Refer to latest revision
of the annex list of factories

Prüfzeichen Test Mark



Geprüft nach Tested acc. to

IEC 61215-1:2021
IEC 61215-1-1:2021
IEC 61215-2:2021
IEC 61730-1:2016
IEC 61730-2:2016
EN IEC 61215-1:2021
EN IEC 61215-1-1:2021
EN IEC 61215-2:2021
EN IEC 61730-1:2018
EN IEC 61730-2:2018

**Zertifiziertes Produkt (Geräteidentifikation)
Certified Product (Product Identification)**

**Lizenzentgelte - Einheit
License Fee - Unit**

PV Module

Type Designation:

Max. System Voltage: up to 1500 VDC (Voc at STC):

With 1/2 cut of mono c-Si cells:

- HSxxx-MHG (xxx=640-660, in steps of 5, 132 cells)
- HSxxx-MHG (xxx=585-600, in steps of 5, 120 cells)
- HSxxx-MHG (xxx=535-550, in steps of 5, 110 cells)
- HSxxx-MHG (xxx=485-500, in steps of 5, 100 cells)
- HSxxx-MHO (xxx=535-560, in steps of 5, 144 cells)
- HSxxx-MHO (xxx=495-515, in steps of 5, 132 cells)
- HSxxx-MHO (xxx=450-470, in steps of 5, 120 cells)
- HSxxx-MHO (xxx=405-420, in steps of 5, 108 cells)
- HSxxx-MHL (xxx=445-465, in steps of 5, 144 cells)
- HSxxx-MHL (xxx=410-425, in steps of 5, 132 cells)
- HSxxx-MHL (xxx=370-385, in steps of 5, 120 cells)

Continued on Page 0002

Dem Zertifikat liegt unsere Prüf- und Zertifizierungsordnung zugrunde.
Das Produkt entspricht den o.g. Anforderungen, die Herstellung wird überwacht.
This certificate is based on our Testing and Certification Regulation. The product
fulfills above mentioned requirements, the production is subject to surveillance.



Zertifizierungsstelle

TÜV Rheinland LGA Products GmbH, Tillystraße 2, 90431 Nürnberg
<http://www.tuv.com/safety> E-mail: markcheck@tuv.com
Fax: +49 221 806-3935

Dipl.-Ing. (FH) Tim Kirschner

Zertifikat

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0002

Ihr Zeichen *Client Reference*
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Unser Zeichen *Our Reference*
01-Ruanand-CN22NKK2 001

Ausstellungsdatum
11.05.2022

Date of Issue
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Genehmigungsinhaber *License Holder*

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Fertigungsstätte *Manufacturing Plant*

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IEC 61215-2:2021
IEC 61730-1:2016
IEC 61730-2:2016
EN IEC 61215-1:2021
EN IEC 61215-1-1:2021
EN IEC 61215-2:2021
EN IEC 61730-1:2018
EN IEC 61730-2:2018

**Zertifiziertes Produkt (Geräteidentifikation)
*Certified Product (Product Identification)***

PV Module

**Lizenzentgelte - Einheit
*License Fee - Unit***

Continuation of Page 0001

Remarks:

Class II acc. to IEC 61140
Fire Rating: Class C (according to UL 790)
Design Load/ Safety Factors: 3600 Pa / 1.5 (downward)
1600 Pa / 1.5 (upward)

Conditions:

The product test is voluntarily according to technical regulations. Any change of the design, materials, components or processing may require the repetition of some of the qualification tests in order to retain type approval.

The certificate is valid until 10 May 2027.

Dem Zertifikat liegt unsere Prüf- und Zertifizierungsordnung zugrunde.
Das Produkt entspricht den o.g. Anforderungen, die Herstellung wird überwacht.
This certificate is based on our Testing and Certification Regulation. The product fulfills above mentioned requirements, the production is subject to surveillance.



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Dipl.-Ing. (FH) Tim Kirschner