

Certificate



Certificate no.

TU 721940008 01

License Holder:

Orb Energy Private Limited
95, Digital Park Road, 2nd Stage
Yeshawanthapura, Bengaluru 560022
India

Manufacturing Plant:

Orb Energy Private Limited
95, Digital Park Road, 2nd Stage
Yeshawanthapura, Bengaluru 560022
India

Test report no.: USA-319440007.001

Tested to: UL 1703:2002 R9.17

Client Reference: Mr. Yadhunath KK

Certified Product: Photovoltaic Modules

Model Designations:

OrbxxxM72-15 (xxx=330-400), 72 cells,
OrbxxxM60-15 (xxx=275-335), 60 cells,
OrbxxxM54-15 (xxx=245-300), 54 cells,
OrbxxxM48-15 (xxx=220-265), 48 cells,
OrbxxxM36-15 (xxx=165-200), 36 cells

OrbxxxM72 (xxx=330-400), 72 cells,
OrbxxxM60 (xxx=275-335), 60 cells,
OrbxxxM54 (xxx=245-300), 54 cells,
OrbxxxM48 (xxx=220-265), 48 cells,
OrbxxxM36 (xxx=165-200), 36 cells

Cell Technology

Maximum System Voltage:

Max Overcurrent Protection Rating:

Fire Classification Type:

M-15 series

6" mono-Si

1500 V DC

15 A

Type 7

M series

6" mono-Si

1000 V DC

15 A

Type 7

Electrical ratings are at Standard Test Conditions (STC), 1000 W/m², AM 1.5, 25°C cell temperature.

Appendix: 1, 1-6

Licensed Test Mark:



Date of Issue

26 August 2019

Zertifikat

Certificate



Zertifikat Nr. *Certificate No.*
PV 60133963

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0004

Ihr Zeichen *Client Reference*

Unser Zeichen *Our Reference*

Ausstellungsdatum

Date of Issue

0001--21281393 004

16.05.2019

(day/mo/yr)

Genehmigungsinhaber *License Holder*

Orb Energy Private Limited
No. 95 Digital Park Road, 2nd Stage
Yeshawanthapura
Bengaluru 560022
India

Fertigungsstätte *Manufacturing Plant*

Orb Energy Private Limited
No. 95 Digital Park Road, 2nd Stage
Yeshawanthapura
Bengaluru 560022
India

Prüfzeichen *Test Mark*



IEC 61215
IEC 61730
Regular Production
Surveillance

www.tuv.com
ID 1111214261

Geprüft nach *Tested acc. to*

IEC 61215:2005
IEC 61730-1:2004+A1+A2
IEC 61730-2:2004+A1
EN 61730-1:2007+A1+A2+A11
EN 61730-2:2007+A1

Zertifiziertes Produkt (Geräteidentifikation)
Certified Product (Product Identification)

Lizenzentgelte - Einheit
License Fee - Unit

PV Module

Type:

with 6" mono cells:

OrbxxxM72 (xxx = 325-400 in steps of 1 with 72 cells)
OrbxxxM60 (xxx = 270-330 in steps of 1 with 60 cells)
OrbxxxM54 (xxx = 245-300 in steps of 1 with 54 cells)
OrbxxxM48 (xxx = 215-265 in steps of 1 with 48 cells)
OrbxxxM36 (xxx = 160-200 in steps of 1 with 36 cells)
xxx represent output power in Wp

Remarks:

The above listed PV modules fulfil the requirements of Application Class A (Class II acc. to IEC 61140). They may be used in PV plants at at maximum system voltage (Voc at STC) of up to 1000 VDC. Further remarks see page 2.

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 27 April 2021.

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

Tel.: +49 221 806-1371 e-mail: cert-validity@de.tuv.com
Fax: +49 221 806-3935 http://www.tuv.com/safety

Zertifizierungsstelle



Dipl.-Ing. M. Adrian

Zertifikat

Certificate



Zertifikat Nr. *Certificate No.*
PV 60133963

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0003

Ihr Zeichen *Client Reference*

Unser Zeichen *Our Reference*

Ausstellungsdatum

Date of Issue

0001--21281393 004

16.05.2019

(day/mo/yr)

Genehmigungsinhaber *License Holder*

Orb Energy Private Limited
No. 95 Digital Park Road, 2nd Stage
Yeshawanthapura
Bengaluru 560022
India

Fertigungsstätte *Manufacturing Plant*

Orb Energy Private Limited
No. 95 Digital Park Road, 2nd Stage
Yeshawanthapura
Bengaluru 560022
India

Prüfzeichen *Test Mark*



Geprüft nach *Tested acc. to*

IEC 61215:2005
IEC 61730-1:2004+A1+A2
IEC 61730-2:2004+A1
EN 61730-1:2007+A1+A2+A11
EN 61730-2:2007+A1

Zertifiziertes Produkt (Geräteidentifikation)
Certified Product (Product Identification)

Lizenzentgelte - Einheit
License Fee - Unit

PV Module

Type:

with 6" mono cells:

OrbxxxM72-15 (xxx = 325-400 in steps of 1 with 72 cells)
OrbxxxM60-15 (xxx = 270-330 in steps of 1 with 60 cells)
OrbxxxM54-15 (xxx = 245-300 in steps of 1 with 54 cells)
OrbxxxM48-15 (xxx = 215-265 in steps of 1 with 48 cells)
OrbxxxM36-15 (xxx = 160-200 in steps of 1 with 36 cells)

with 6" poly cells:

OrbxxxP72-15 (xxx = 290-360 in steps of 1 with 72 cells)
OrbxxxP60-15 (xxx = 240-300 in steps of 1 with 60 cells)
OrbxxxP54-15 (xxx = 215-270 in steps of 1 with 54 cells)
OrbxxxP48-15 (xxx = 190-240 in steps of 1 with 48 cells)
OrbxxxP36-15 (xxx = 145-180 in steps of 1 with 36 cells)

with 6" poly cut cells:

OrbxxxP72-15 (xxx = 184-250 in steps of 1 with 72 cells)

xxx represents Output power in Wp

Remarks:

The above listed PV modules fulfil the requirements of Application Class A (Class II acc. to IEC 61140). They may be used in PV plants at at maximum system voltage (Voc at STC) of up to 1500 VDC.

Further remarks see page 2.

continued on page 4

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

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Zertifizierungsstelle



Dipl.-Ing. M. Adrian

Zertifikat

Certificate



Zertifikat Nr. *Certificate No.*
PV 60133963

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0001

Ihr Zeichen *Client Reference*

Unser Zeichen *Our Reference*

Ausstellungsdatum

Date of Issue

0001--21281393 002

06.11.2018

(day/mo/yr)

Genehmigungsinhaber *License Holder*

Orb Energy Private Limited
No. 95 Digital Park Road, 2nd Stage
Yeshawanthapura
Bengaluru 560022
India

Fertigungsstätte *Manufacturing Plant*

Orb Energy Private Limited
No. 95 Digital Park Road, 2nd Stage
Yeshawanthapura
Bengaluru 560022
India

Prüfzeichen *Test Mark*



Geprüft nach *Tested acc. to*

IEC 61215:2005
IEC 61730-1:2004+A1+A2
IEC 61730-2:2004+A1
EN 61730-1:2007+A1+A2+A11
EN 61730-2:2007+A1

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

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

PV Module

Type:

with 6" poly cells:

- OrbxxxP72 (xxx = 290 - 360 in steps of 1 with 72 cells)
- OrbxxxP60 (xxx = 240 - 300 in steps of 1 with 60 cells)
- OrbxxxP54 (xxx = 215 - 270 in steps of 1 with 54 cells)
- OrbxxxP48 (xxx = 190 - 240 in steps of 1 with 48 cells)
- OrbxxxP36 (xxx = 145 - 180 in steps of 1 with 36 cells)

with 6" poly cut cells:

- OrbxxxP72 (xxx = 184 - 250 in steps of 1 with 72 cells)
 - OrbxxxP36 (xxx = 007 - 137 in steps of 1 with 36 cells)
 - OrbxxxP18 (xxx = 003 - 005 in steps of 1 with 18 cells)*
- xxx represent output power in Wp

Remarks:

The above listed PV modules fulfil the requirements of Application Class A (Class II acc. to IEC 61140). They may be used in PV plants at a maximum system voltage (Voc at STC) of up to 1000 VDC or 600 VDC for type marked *.

continued on page 2

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

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Zertifizierungsstelle



Dipl.-Ing. M. Adrian

Zertifikat

Certificate



Zertifikat Nr. *Certificate No.*
PV 60133963

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0002

Ihr Zeichen *Client Reference*

Unser Zeichen *Our Reference*

Ausstellungsdatum

Date of Issue

0001--21281393 002

06.11.2018

(day/mo/yr)

Genehmigungsinhaber *License Holder*

Orb Energy Private Limited
No. 95 Digital Park Road, 2nd Stage
Yeshawanthapura
Bengaluru 560022
India

Fertigungsstätte *Manufacturing Plant*

Orb Energy Private Limited
No. 95 Digital Park Road, 2nd Stage
Yeshawanthapura
Bengaluru 560022
India

Prüfzeichen *Test Mark*



Geprüft nach *Tested acc. to*

IEC 61215:2005
IEC 61730-1:2004+A1+A2
IEC 61730-2:2004+A1
EN 61730-1:2007+A1+A2+A11
EN 61730-2:2007+A1

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

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

PV Module

Remarks (cont.):

The above listed PV modules fulfil the requirements of
- Fire rating class C
- EN 61512:2005

This certificate replaces certificate PV 60124361.

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 27 April 2021.

*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

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Zertifizierungsstelle



Dipl.-Ing. M. Adrian



भारतीय मानक ब्यूरो

(उपभोक्ता मामले, खाद्य एवं सार्वजनिक वितरण विभाग, भारत सरकार)

BUREAU OF INDIAN STANDARDS

(Ministry of Consumer Affairs, Food & Public Distribution,
Govt. of India)

मानक भवन, 9 बहादुर शाह जफर मार्ग, नई दिल्ली - 110002

Manak Bhavan, 9 Bahadur Shah Zafar Marg, New Delhi - 110002

दूरभाष/Phone: +91-11-23230856/2323010131/23233375/23239402


ई-मेल/E-mail: registration@bis.gov.in

वेबसाइट/Website: <https://bis.gov.in/>, <https://www.crbis.in/BIS/>

Our Ref: Registration/CRS 2019-4538/R-62001708

Date:28-11-2019

Subject : Licence Document

Manufacturing Unit :	Orb Energy Private Limited 95 DIGITAL PARK ROAD, 2ND STAGE, YESHAWANTHAPURA, BENGALURU KARNATAKA,India-560022 vadiraja.navarathna@orbenergy.com 08067711300	
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Dear Sir,

1. With reference to your Application, we are pleased to inform you that it has been decided to grant you licence as per details given below :

PRODUCT :	CRYSTALLINE SILICON TERRESTRIAL PHOTOVOLTAIC (PV) MODULES (Si wafer based)
IS NO :	IS 14286 : 2010/ IEC 61215 : 2005, IS/IEC 61730 (PART 1) : 2004 & IS/IEC 61730 (PART 2) : 2004
BRAND :	ORB (LOGO)
MODEL :	Orb150P36,Orb150P36-15,Orb155P36,Orb155P36-15,Orb160P36,Orb160P36-15,Orb165P36,Orb165P36-15,Orb205P48,Orb205P48-15,Orb210P48,Orb210P48-15,Orb215P48,Orb215P48-15,Orb220P48,Orb220P48-15,Orb225P54,Orb225P54-15,Orb230P54,Orb230P54-15,Orb235P54,Orb235P54-15,Orb240P54,Orb240P54-15,Orb245P54,Orb245P54-15,Orb250P54,Orb250P54-15,Orb255P60,Orb255P60-15,Orb260P60,Orb260P60-15,Orb265P60,Orb265P60-15,Orb270P60,Orb270P60-15,Orb275P60,Orb275P60-15,Orb280P60,Orb280P60-15,Orb305P72,Orb305P72-15,Orb310P72,Orb310P72-15,Orb315P72,Orb315P72-15,Orb320P72,Orb320P72-15,Orb325P72,Orb325P72-15,Orb330P72,Orb330P72-15,Orb335P72,Orb335P72-15
FACTORY ADDRESS :	95 DIGITAL PARK ROAD, 2ND STAGE, YESHAWANTHAPURA, BENGALURU KARNATAKA,India-560022

- The licence is being granted for your unit located at the address and for the brand and models mentioned at serial no 1 above.
- The number assigned to this Licence is **R-62001708** which has been made operative from **28-11-2019** and is valid upto **27-11-2021** The Licence Number should invariably be referred to in your future correspondence.
- The rights and privileges under the licence shall not be exercised by any other factory / organization at any other location. This licence is not transferable. In the event of shifting of the manufacturing machinery from the registered premises to some other place use of the licence Number shall be stopped and BIS shall be informed.
- The licensee shall comply with the provisions of the Act, rules and regulations framed thereunder and as amended from time to time.
- The licensee shall follow the guidelines for the use of Standard Mark and labeling requirements as per Annex-I.
- The licensee shall not use the licence in any manner which contravenes the provisions of Act, rules and regulations framed thereunder and as amended from time to time.
- Upon expiry of validity, stoppage or suspension or cancellation of licence, you shall discontinue forthwith the self declaration of conformity to the relevant Indian Standard(s) and withdraw all promotional and advertising matter which contains any reference thereto.
- For renewal of licence, the licensee shall have to apply to BIS three months in advance before expiration of the licence and application form for renewal is available on BIS website.
- The licence is not transferable. Kindly acknowledge receipt of this letter.

Thanking you,

Yours faithfully,
(Vibha Rani)
Sc. D
Telfax : +91-11-23230856
E-mail: registration@bis.gov.in

Note: This is a system generated letter. Hence signature is not required.
To verify authentication of letter, kindly scan the QR code on this letter.

CERTIFICATE

Management system as per
ISO 9001 : 2015

In accordance with TÜV NORD CERT procedures, it is hereby certified that

ORB ENERGY PRIVATE LIMITED
HEAD OFFICE & FACTORY 1: 95, Digital Park Road,
2nd Stage Yeshwanthapura, Bengaluru - 560 022,
Karnataka,
India
and other location as per annexure

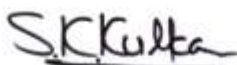


applies a management system in line with the above standard for the following scope

Design, Manufacture, Sales, Installation & Service of
Solar Photo Voltaic Modules.
Solar Photo Voltaic Systems.
Solar water Heating Systems.

Certificate Registration No. **44 100 135115**
Audit Report No. **2.5-6165/2013**

Valid until **18.09.2022**
Valid from **19.09.2019**
Initial Certification **19.09.2013**



Certification Body
at TÜV NORD CERT GmbH

Issue **19.08.2019**
Place : **Mumbai**

This certification was conducted in accordance with the TÜV NORD CERT auditing and certification procedures & shall be valid subject to regular Surveillance Audits.

TÜV NORD CERT GmbH

Langemarckstrasse 20

45141 Essen

www.tuev-nord-cert.com

TUV India Pvt. Ltd., 801, Raheja Plaza – 1, L.B.S. Marg, Ghatkopar (W), Mumbai - 400 086, India www.tuv-nord.com/in

