

Certificate



Certificate no.

TU 722140006 04

License Holder:

EMMVEE Photovoltaic Power Private Ltd.
“Solar Tower” # 56, 6th main,
11th Cross, Lakshmaiah Block Ganganagar,
Bangalore – 560024, India

Manufacturing Plant(s):

Refer to the latest revision of the List of
Factories (Appendix 2).

Test report no.: USA-321440002.006

Client Reference: Mr. Srinath.T

Tested to: UL 61215-1:2017, UL 61215-1-1:2017, UL 61215-2:2017,
UL 61730-1:2017, UL 61730-2:2017

Certified Product: Photovoltaic (PV) Modules

Model Designations:

Pearl Series with Monocrystalline-Si Half cut cells with White Back sheet

ExxxHCMW144 (xxx=530-545 in steps of 1, with 144 cells)
ExxxHCMW120 (xxx=440-450 in steps of 1, with 120 cells)
ExxxHCMW108 (xxx=395-410 in steps of 1, with 108 cells)

Graphite Series with Monocrystalline-Si Half cut cells with Black Back sheet

ExxxHCM144-B (xxx=520-530 in steps of 1, with 144 cells)
ExxxHCM120-B (xxx=430-445 in steps of 1, with 120 cells)
ExxxHCM108-B (xxx=385-400 in steps of 1, with 108 cells)

Maximum System voltage: 1500 VDC

Safety Class: Class II

Fire Type: Type 4

Electrical ratings are provided at Standard Test Conditions (STC),
1000W/m², AM1.5 spectrum, 25°C cell temperature.

Appendices: 1, 1-7 2, 1

Licensed Test Mark:



Date of Issue:

14 September 2022

Certificate



Certificate no.

TU 722140006 03

License Holder:

EMMVEE Photovoltaic Power Private Ltd.
"Solar Tower" # 56, 6th main,
11th Cross, Lakshmaiah Block Ganganagar,
Bangalore – 560024, India

Manufacturing Plant(s):

Refer to the latest revision of the List of
Factories (Appendix 2).

Test report no.: USA-321440002.005

Client Reference: Mr. Srinath.T

Tested to: UL 61215-1:2017, UL 61215-1-1:2017, UL 61215-2:2017,
UL 61730-1:2017, UL 61730-2:2017

Certified Product: Photovoltaic (PV) Modules

Model Designations:

With Monocrystalline-Si Full cells with Black Back sheet

ExxxM72-B (xxx=370-395 in steps of 1, with 72 cells)

ExxxM60-B (xxx=305 in steps of 1, with 60 cells)

With Poly Crystalline Full cells with Black Back sheet

ExxxP72-B (xxx= 315 -325 in steps of 1 with 72 cells)

ExxxP60-B (xxx= 270 with 60 cells)

xxx represents output power in Wp.

Maximum System voltage: 1500 VDC

Safety Class: Class II

Fire Type: Type 4

Electrical ratings are provided at Standard Test Conditions (STC),
1000W/m², AM1.5 spectrum, 25°C cell temperature.

Appendices: 1, 1-7 2, 1

Licensed Test Mark:



Date of Issue:

06 September 2022

Zertifikat

Certificate



Zertifikat Nr. / Certificate No.
PV 60165052

Blatt / Sheet
0001

Ihr Zeichen / Client Reference

Unser Zeichen / Our Reference

Ausstellungsdatum

Date of Issue

0002-G.P.-IN22ROYN 001 08.08.2022 (day/mo/yr)

Genehmigungsinhaber / License Holder

EMMVEE Photovoltaic Power
Private Ltd.

"Solar Tower" #55, 6th Main
11th Cross, Lakshmaiah Block
Bangalore - Ganganagar 560024
India

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 1111257603

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

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

**Lizenzentgelte - Einheit
License Fee - Unit**

PV Module

Type:

"Pearl Series" with monocrystalline half cut cells:

ExxxHCMW144 (xxx=530-545 in steps of 1, 144 cells)

ExxxHCMW120 (xxx=440-450 in steps of 1, 120 cells)

ExxxHCMW108 (xxx=395-410 in steps of 1, 108 cells)

"Sapphire Series" with mono bifacial half cut cells:

ExxxHCBG144 (xxx=530-545 in steps of 1, 144 cells)

ExxxHCBG120 (xxx=440-450 in steps of 1, 120 cells)

ExxxHCBG108 (xxx=395-405 in steps of 1, 108 cells)

xxx represents output power in Wp

Remarks:

Class II acc. to IEC 61140

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

Max. positive Design Load (downward): 3600 Pa

Max. negative Design Load (upward): 1600 Pa

with safety factor 1.5

Additional applicable test standards see page 3.

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

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

Fax: +49 221 806-3935

Zertifizierungsstelle



Dipl.-Ing. A. Cox

Zertifikat

Certificate



Zertifikat Nr. Certificate No.
PV 60165052

Blatt Sheet
0002

Ihr Zeichen Client Reference

Unser Zeichen Our Reference

Ausstellungsdatum

Date of Issue

0002-G.P.-IN22ROYN 001 08.08.2022 (day/mo/yr)

Genehmigungsinhaber License Holder

EMMVEE Photovoltaic Power
Private Ltd.

"Solar Tower" #55, 6th Main
11th Cross, Lakshmaiah Block
Bangalore - Ganganagar 560024
India

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 1111257603

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

Zertifiziertes Produkt (Geräteidentifikation)
Certified Product (Product Identification)

Lizenzentgelte - Einheit
License Fee - Unit

PV Module

Type:

"Quartz Series" with mono bifacial half cut cells:
ExxxHCBT144 (xxx=530-545 in steps of 1, 144 cells)
ExxxHCBT120 (xxx=440-450 in steps of 1, 120 cells)
ExxxHCBT108 (xxx=395-400 in steps of 1, 108 cells)

"Graphite Series" with monocrystalline half cut cells:

ExxxHCM144-B (xxx=520-530 in steps of 1, 144 cells)
ExxxHCM120-B (xxx=430-445 in steps of 1, 120 cells)
ExxxHCM108-B (xxx=385-400 in steps of 1, 108 cells)

xxx represents output power in Wp

Remarks:

Class II acc. to IEC 61140

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

Max. positive Design Load (downward): 3600 Pa

Max. negative Design Load (upward): 1600 Pa
with safety factor 1.5

Additional applicable test standards see page 3.

continued on page 3

Dem Zertifikat liegt unsere Prüf- und Zertifizierungsordnung zugrunde.
Das Produkt entspricht den o.g. Anforderungen, die Herstellung wird überwacht.
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TÜV Rheinland LGA Products GmbH, Tillystraße 2, 90431 Nürnberg

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

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Zertifizierungsstelle



Dipl.-Ing. A. Cox

Zertifikat

Certificate



Zertifikat Nr. Certificate No.
PV 60165052

Blatt Sheet
0003

Ihr Zeichen Client Reference

Unser Zeichen Our Reference

Ausstellungsdatum

Date of Issue

0002-G.P.-IN22ROYN 001 08.08.2022 (day/mo/yr)

Genehmigungsinhaber License Holder

EMMVEE Photovoltaic Power
Private Ltd.

"Solar Tower" #55, 6th Main
11th Cross, Lakshmaiah Block
Bangalore - Ganganagar 560024
India

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 1111257603

Geprüft nach Tested acc. to

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: see all other pages

Remark: Additional applicable test standards listed above.

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.

Validity: 5 years counting from date of issue.

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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Fax: +49 221 806-3935

Zertifizierungsstelle



Dipl.-Ing. A. Cox

Anlage Fertigungsstättenliste
/Attachment List of Factories



PV 60165052 0001

1 EMMVEE Photovoltaic Power
Private Limited
#13/1 International Airport Road
Bengaluru 562157
India

2 EMMVEE PHOTOVOLTAIC POWER
PRIVATE LIMITED
SY.NO.66-70/3, PEMMANAHALLI, SOMPURA HOBLI,
DABASPET, NELAMANGALA, TALUK
Bengaluru 562111
India


TÜVRheinland®

Dieser Anhang ersetzt den Vorgänger vom/
This annex replaces the previous annex dated

Datum / Date 08.08.2022

Zertifizierungsstelle
/ Certification Body



Dipl.-Ing. A. Cox

Zertifikat

Certificate



Zertifikat Nr. Certificate No.
PV 60141604

Blatt Sheet
0003

Ihr Zeichen Client Reference

Unser Zeichen Our Reference

Ausstellungsdatum

Date of Issue

0001-G.P.-21290525 005

18.08.2022

(day/mo/yr)

Genehmigungsinhaber License Holder

EMMVEE Photovoltaic Power
Private Ltd.

"Solar Tower" #55, 6th Main
11th Cross, Lakshmaiah Block
Bangalore - Ganganagar 560024
India

Fertigungsstätte Manufacturing Plant

Refer to latest revision
of the annex list of factories

Prüfzeichen Test Mark



Salt Mist
Resistance
Regular Production
Surveillance

www.tuv.com
ID 1111219443

Geprüft nach Tested acc. to

IEC 61701:2020

EN IEC 61701:2020

Zertifiziertes Produkt (Geräteidentifikation)

Certified Product (Product Identification)

Lizenzentgelte - Einheit

License Fee - Unit

PV Module

Type:

"Pearl Series" with monocrystalline half cut cells:

ExxxHCMW144 (xxx=530-545 in steps of 1, 144 cells)

ExxxHCMW120 (xxx=440-450 in steps of 1, 120 cells)

ExxxHCMW108 (xxx=395-410 in steps of 1, 108 cells)

"Sapphire Series" with mono bifacial half cut cells:

ExxxHCBG144 (xxx=530-545 in steps of 1, 144 cells)

ExxxHCBG120 (xxx=440-450 in steps of 1, 120 cells)

ExxxHCBG108 (xxx=395-405 in steps of 1, 108 cells)

"Quartz Series" with mono bifacial half cut cells:

ExxxHCBT144 (xxx=530-545 in steps of 1, 144 cells)

ExxxHCBT120 (xxx=440-450 in steps of 1, 120 cells)

ExxxHCBT108 (xxx=395-400 in steps of 1, 108 cells)

xxx represent output power in Wp

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

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

Fax: +49 221 806-3935

Zertifizierungsstelle



Dipl.-Ing. A. Cox

Zertifikat

Certificate



Zertifikat Nr. / Certificate No.
PV 60141604

Blatt / Sheet
0004

Ihr Zeichen / Client Reference

Unser Zeichen / Our Reference

Ausstellungsdatum

Date of Issue

0001-G.P.-21290525 005

18.08.2022

(day/mo/yr)

Genehmigungsinhaber / License Holder

EMMVEE Photovoltaic Power
Private Ltd.
"Solar Tower" #55, 6th Main
11th Cross, Lakshmaiah Block
Bangalore - Ganganagar 560024
India

Fertigungsstätte / Manufacturing Plant

Refer to latest revision
of the annex list of factories

Prüfzeichen / Test Mark



Salt Mist
Resistance
Regular Production
Surveillance

www.tuv.com
ID 1111219443

Geprüft nach / Tested acc. to

IEC 61701:2020
EN IEC 61701:2020

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

**Lizenzentgelte - Einheit
License Fee - Unit**

PV Module

Type:

"Graphite Series" with monocrystalline half cut cells:

ExxxHCM144-B (xxx=520-530 in steps of 1, 144 cells)

ExxxHCM120-B (xxx=430-445 in steps of 1, 120 cells)

ExxxHCM108-B (xxx=385-400 in steps of 1, 108 cells)

xxx represent output power in Wp

Remarks:

Valid in conjunction with TÜV Rheinland certificate
acc. to IEC/EN 61215, IEC/EN 61730 and only for the material
combination as listed in the above mentioned test report.
Test performed with severity 6 of 6.

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.
Accordingly the repetition of the tests that are basis of
this certificate may be required.

This certificate is valid until 16 July 2024.

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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Fax: +49 221 806-3935

Zertifizierungsstelle



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