CERTIFICATE

Issued to:
Applicant:
Villarreal Division Equipos S.A.de C.V.
Morelos #905 Sur C.P.
67350 Allende N.L., Mexico

Product	:	Photovoltaic (PV) Module(s)
Trade name(s)	:	CONNERA
Type(s)/model(s)	:	PV Module with mono c-Si cells and PV Module with poly c-Si cells

The product and any acceptable variation thereof as specified in the Annex to this certificate and the documents referred to therein.

DEKRA hereby declares that the above-mentioned product has been certified based on:
- an evaluation according to the standard(s) IEC 61215-1:2021, IEC 61215-1-1:2021, IEC 61215-2:2021, IEC 61730-1:2023 and IEC 61730-2:2023
- a periodic surveillance
- a DEKRA certification agreement with the number 6059484
- the licensee is registered with the number 43796

DEKRA hereby grants the right to use the DEKRA Seal certification mark.

DEKRA hereby grants the right to use the DEKRA Seal certification mark with the following content:

Category	:	Photovoltaic
Keyword	:	Module Tested
Keyword	:	Periodic Factory Inspection

The DEKRA Seal certification mark may be applied to the product or documentation as specified in this certificate for the duration and under the conditions of the DEKRA Seal certification agreement.

This certificate is issued on 27 September 2024 and expires at the latest on 11 September 2029.

Certificate number: 31-90022-001

DEKRA Certification B.V.

B.T.M. Holtus
Managing Director

C. Lin
Certification Manager

31-90022-001

SPECIFICATION OF THE CERTIFIED PRODUCT

Product data

Product	:	Photovoltaic (PV) Module(s)
Trade name(s)	:	CONNERA
Type(s)/model(s)	:	CONNERA-xxx-108MBK, CONNERA-xxx-120M, CONNERA-xxx-120MBK, CONNERA-xxx-132M, CONNERA-xxx-132MBK, CONNERA-xxx-144M, CONNERA-xxx-96M, CONNERA-xxx-B120M, CONNERA-xxx-B132M, CONNERA-xxx-CS36M, CONNERA-xxx-CS36P, CONNERA-xxx-CS60M, CONNERA-xxx-CS60P, CONNERA-xxx-CS72M, CONNERA-xxx-CS72P, CONNERA-xxx-HC54BK, CONNERA-xxx-HC54M, CONNERA-xxx-HC60M, CONNERA-xxx-HC66M, CONNERA-xxx-HC72BK, CONNERA-xxx-HC72M, CONNERA-xxx-HCB72M, CONNERA-xxx-HCB78, CONNERA-xxx-RCHC48MBK, CONNERA-xxx-RCHC54M, CONNERA-xxx-RCHC60M, CONNERA-xxx-RCHC60MBK, CONNERA-xxx-RCHC66MBK, CONNERA-xxx-RCHC72MBK, CONNERA-xxxM, CONNERA-xxxMBF-48B, CONNERA-xxxMBF-48D, CONNERA-xxxMBF-48K, CONNERA-xxxMBF-54B, CONNERA-xxxMBF-54C, CONNERA-xxxMBF-54D, CONNERA-xxxMBF-54K, CONNERA-xxxMBF-60B, CONNERA-xxxMBF-60D, CONNERA-xxxMBF-60K, CONNERA-xxxMBF-66B, CONNERA-xxxMBF-66D, CONNERA-xxxMBF-66K, CONNERA-xxxMBF-72B, CONNERA-xxxMBF-72D, CONNERA-xxxMBF-72G, CONNERA-xxxMBF-72K, CONNERA-xxxMBF-78B, CONNERA-xxxMBF-78D and CONNERA-xxxMBF-78K
Protection Class	:	Class II
Pollution Degree	:	1
Fire Rating	:	Class C according to UL790
Maximum system voltage	:	1500V

Product data – type CONNERA-xxx-108MBK

Design	:	PV module with mono c-Si cells
Description	:	xxx=490-510, in steps of 5, 108 cells

Product data – type CONNERA-xxx-120M

Design	:	PV module with mono c-Si cells
Description	:	xxx=590-610, in steps of 5, 120 cells

Product data – type CONNERA-xxx-120MBK

Design	:	PV module with mono c-Si cells
Description	:	xxx=590-610, in steps of 5, 120 cells xxx=465-490, in steps of 5, 120 cells

Product data – type CONNERA-xxx-132M

Design	:	PV module with mono c-Si cells
Description	:	xxx=650-670, in steps of 5, 132 cells xxx=515-540, in steps of 5, 132 cells

Product data – type CONNERA-xxx-132MBK
Design : PV module with mono c-Si cells
Description : xxx=650-670, in steps of 5, 132 cells

Product data – type CONNERA-xxx-144M
Design : PV module with mono c-Si cells
Description : xxx=645-670, in steps of 5, 144 cells

Product data – type CONNERA-xxx-96M
Design : PV module with mono c-Si cells
Description : xxx=430-450, in steps of 5, 96 cells

Product data – type CONNERA-xxx-B120M
Design : PV module with mono c-Si cells
Description : xxx=465-490, in steps of 5, 120 cells
xxx=590-610, in steps of 5, 120 cells

Product data – type CONNERA-xxx-B132M
Design : PV module with mono c-Si cells
Description : xxx=650-670, in steps of 5, 132 cells

Product data – type CONNERA-xxx-CS36M
Design : PV module with mono c-Si cells
Description : xxx=30-40, 50, 70-80, 100, 120, 150-205, in steps of 5, 36 cells

Product data – type CONNERA-xxx-CS36P
Design : PV module with poly c-Si cells
Description : xxx=70-80, 100, 155-175, in steps of 5, 36 cells

Product data – type CONNERA-xxx-CS60M
Design : PV module with mono c-Si cells
Description : xxx=305-350, in steps of 5, 60 cells

Product data – type CONNERA-xxx-CS60P
Design : PV module with poly c-Si cells
Description : xxx=260-295, in steps of 5, 60 cells

Product data – type CONNERA-xxx-CS72M
Design : PV module with mono c-Si cells
Description : xxx=190-220, 370-415, in steps of 5, 72 cells

Product data – type CONNERA-xxx-CS72P
Design : PV module with poly c-Si cells
Description : xxx=200-210, 310-355, in steps of 5, 72 cells

Product data – type CONNERA-xxx-HC54BK
Design : PV module with mono c-Si cells

Description : xxx=415-435, in steps of 5, 108 cells

Product data – type CONNERA-xxx-HC54M
Design : PV module with mono c-Si cells
Description : xxx=395-435, in steps of 5, 108 cells

Product data – type CONNERA-xxx-HC60M
Design : PV module with mono c-Si cells
Description : xxx=320-350, 435-460, in steps of 5, 120 cells

Product data – type CONNERA-xxx-HC66M
Design : PV module with mono c-Si cells
Description : xxx=490-510W, in steps of 5, 132 cells

Product data – type CONNERA-xxx-HC72BK
Design : PV module with mono c-Si cells
Description : xxx=560-590, in steps of 5, 144 cells

Product data – type CONNERA-xxx-HC72M
Design : PV module with mono c-Si cells
Description : xxx=385-420, 560-590, in steps of 5, 144 cells

Product data – type CONNERA-xxx-HCB72M
Design : PV module with mono c-Si cells
Description : xxx=560-590, in steps of 5, 144 cells

Product data – type CONNERA-xxx-HCB78
Design : PV module with mono c-Si cells
Description : xxx=610-635, in steps of 5, 156 cells

Product data – type CONNERA-xxxM
Design : PV module with mono c-Si cells
Description : xxx=430-460, 520-560, in steps of 5, 144 cells
xxx=590-620, in steps of 5, 132 cells

Product data – type CONNERA-xxxMBF-48B
Design : PV module with mono c-Si cells
Description : xxx=430-450, in steps of 5, 96 cells

Product data – type CONNERA-xxxMBF-48D
Design : PV module with mono c-Si cells
Description : xxx=430-450, in steps of 5, 96 cells

Product data – type CONNERA-xxxMBF-48K
Design : PV module with mono c-Si cells
Description : xxx=430-450, in steps of 5, 96 cells

Product data – type CONNERA-xxxMBF-54B

Design	:	PV module with mono c-Si cells
Description	:	xxx=490-510, in steps of 5, 108 cells
		xxx=420-450, in steps of 5, 108 cells

Product data – type CONNERA-xxxMBF-54C

Design	:	PV module with mono c-Si cells
Description	:	xxx=420-450, in steps of 5, 108 cells

Product data – type CONNERA-xxxMBF-54D

Design	:	PV module with mono c-Si cells
Description	:	xxx=395-420, in steps of 5, 108 cells
		xxx=490-510, in steps of 5, 108 cells
		xxx=415-440, in steps of 5, 108 cells
		xxx=420-450, in steps of 5, 108 cells

Product data – type CONNERA-xxxMBF-54K

Design	:	PV module with mono c-Si cells
Description	:	xxx=395-420, in steps of 5, 108 cells
		xxx=490-510, in steps of 5, 108 cells
		xxx=415-440, in steps of 5, 108 cells
		xxx=420-450, in steps of 5, 108 cells

Product data – type CONNERA-xxxMBF-60B

Design	:	PV module with mono c-Si cells
Description	:	xxx=545-565, in steps of 5, 120 cells
		xxx=480-500, in steps of 5, 120 cells

Product data – type CONNERA-xxxMBF-60D

Design	:	PV module with mono c-Si cells
Description	:	xxx=435-460, in steps of 5, 120 cells
		xxx=545-565, in steps of 5, 120 cells
		xxx=465-490, in steps of 5, 120 cells
		xxx=590-610, in steps of 5, 120 cells
		xxx=480-500, in steps of 5, 120 cells

Product data – type CONNERA-xxxMBF-60K

Design	:	PV module with mono c-Si cells
Description	:	xxx=435-460, in steps of 5, 120 cells
		xxx=545-565, in steps of 5, 120 cells
		xxx=465-490, in steps of 5, 120 cells
		xxx=590-610, in steps of 5, 120 cells
		xxx=480-500, in steps of 5, 120 cells

Product data – type CONNERA-xxxMBF-66B

Design	:	PV module with mono c-Si cells
Description	:	xxx=590-620, in steps of 5, 132 cells
		xxx=515-540, in steps of 5, 132 cells
		xxx=530-550, in steps of 5, 132 cells

Product data – type CONNERA-xxxMBF-66D

Design	:	PV module with mono c-Si cells
Description	:	xxx=490-510, in steps of 5, 132 cells xxx=590-620, in steps of 5, 132 cells xxx=515-540, in steps of 5, 132 cells xxx=650-670, in steps of 5, 132 cells xxx=690-720, in steps of 5, 132 cells xxx=530-550, in steps of 5, 132 cells

Product data – type CONNERA-xxxMBF-66K

Design	:	PV module with mono c-Si cells
Description	:	xxx=490-510, in steps of 5, 132 cells xxx=590-620, in steps of 5, 132 cells xxx=515-540, in steps of 5, 132 cells xxx=650-670, in steps of 5, 132 cells xxx=690-720, in steps of 5, 132 cells xxx=530-550, in steps of 5, 132 cells

Product data – type CONNERA-xxxMBF-72B

Design	:	PV module with mono c-Si cells
Description	:	xxx=645-670, in steps of 5, 144 cells xxx=560-590, in steps of 5, 144 cells xxx=590-610, in steps of 5, 144 cells

Product data – type CONNERA-xxxMBF-72D

Design	:	PV module with mono c-Si cells
Description	:	xxx=520-560, in steps of 5, 144 cells xxx=645-670, in steps of 5, 144 cells xxx=590-610, in steps of 5, 144 cells

Product data – type CONNERA-xxxMBF-72G

Design	:	PV module with mono c-Si cells
Description	:	xxx=560-590, in steps of 5, 144 cells

Product data – type CONNERA-xxxMBF-72K

Design	:	PV module with mono c-Si cells
Description	:	xxx=520-560, in steps of 5, 144 cells xxx=645-670, in steps of 5, 144 cells xxx=560-590, in steps of 5, 144 cells xxx=590-610, in steps of 5, 144 cells

Product data – type CONNERA-xxxMBF-78B

Design	:	PV module with mono c-Si cells
Description	:	xxx=610-635, in steps of 5, 156 cells xxx=630-650, in steps of 5, 156 cells

Product data – type CONNERA-xxxMBF-78D

Design	:	PV module with mono c-Si cells
Description	:	xxx=610-635, in steps of 5, 156 cells xxx=630-650, in steps of 5, 156 cells

Product data – type CONNERA-xxxMBF-78K

Design	:	PV module with mono c-Si cells
Description	:	xxx=610-635, in steps of 5, 156 cells xxx=630-650, in steps of 5, 156 cells

Product data – type CONNERA-xxx-RCHC48MBK

Design	:	PV module with mono c-Si cells
Description	:	xxx=430-450, in steps of 5, 96 cells

Product data – type CONNERA-xxx-RCHC54M

Design	:	PV module with mono c-Si cells
Description	:	xxx=490-510, in steps of 5, 108 cells

Product data – type CONNERA-xxx-RCHC60M

Design	:	PV module with mono c-Si cells
Description	:	xxx=545-565, in steps of 5, 120 cells

Product data – type CONNERA-xxx-RCHC60MBK

Design	:	PV module with mono c-Si cells
Description	:	xxx=545-565, in steps of 5, 120 cells

Product data – type CONNERA-xxx-RCHC66MBK

Design	:	PV module with mono c-Si cells
Description	:	xxx=590-620, in steps of 5, 132 cells

Product data – type CONNERA-xxx-RCHC72MBK

Design	:	PV module with mono c-Si cells
Description	:	xxx=645-670, in steps of 5, 144 cells

TESTS

Test requirements

IEC 61215-1:2021
IEC 61215-1-1:2021
IEC 61215-2:2021
IEC 61730-1:2023
IEC 61730-2:2023

Test result

The test results are documented in DEKRA test file 616439400.

Additional information

This certificate replaces certificate No. 31-134745 which we hereby declare invalid.

The list of components is laid down in test report 6164394A.53A; 6164394A.53B.

Conclusion
The examination has confirmed that all requirements were met.

Factory location
The factory location is registered with the number 43796.

Trade name(s): CONNERA stands for CONNERA

Unique Identifier