To: tritec AG

Issue Date: 29/10/2024

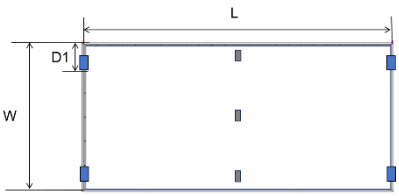
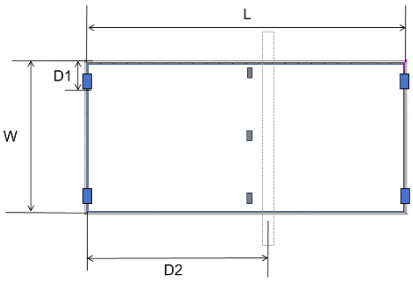
Subject: Declaration of Compatibility for Unconventional mounting methods Loadability

Aiko Solar PV modules have been CE certified by TÜV Rheinland, and certified to IEC61215/61730 standards by TÜV Rheinland.

This declaration shall serve as a statement of compatibility between AIKO solar photovoltaic modules and the special mounting system(the special mounting method has been shown below).

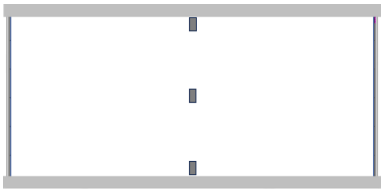
Mechanical Load

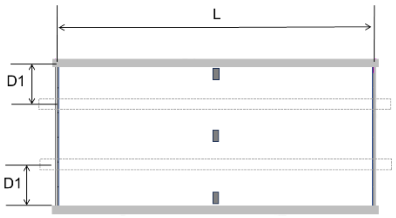
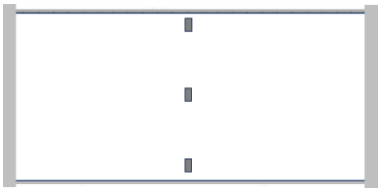
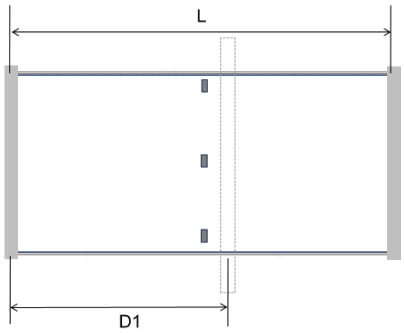
We confirm that the combination between AIKO-A4XX-MAH54Mx/AIKO-A4XX-MCE54Mx/AIKO-A4XX-MAH54Dx/AIKO-A4XX-MCE54Dx and the PMT Evo is approved for the mechanical load as below with *End Clamp AK II Klick 30-50 / Mid Clamp AK II Klick 30-50*.

Module models	Module size/mm	Mounting method	Approved test load	Remarks
AIKO-A4XX-MAH54Mx/ AIKO-A4XX-MCE54Mx/ AIKO-A4XX-MAH54Dx/ AIKO-A4XX-MCE54Dx	1757 × 1134 × 30 / 1762 × 1134 × 30	 Mounting system: PMT EVO - Flatroof with NO additional backrails D1=190mm	Downforce 3600 Pa Uplift 2400 Pa	Test method refer to Attachment 1
AIKO-A4XX-MAH54Mx/ AIKO-A4XX-MCE54Mx/ AIKO-A4XX-MAH54Dx/ AIKO-A4XX-MCE54Dx	1757 × 1134 × 30 / 1762 × 1134 × 30	 Mounting system: PMT EVO - Flatroof with 1 additional backrail D1=190mm , D2=920mm	Downforce 8000 Pa Uplift 2400 Pa	Test method refer to Attachment 2

(*) The design load is determined by considering safety factors according to: Design load = Approved test load / 1.5, or by following local regulations and standards.

We confirm that the combination between AIKO-A4XX-MAH54Mx/AIKO-A4XX-MCE54Mx/AIKO-A4XX-MAH54Dx/AIKO-A4XX-MCE54Dx and the inlay TRI-Stand / TRI-Fast / TRI-Roof+ is approved for the mechanical load as below:

Module models	Module size/mm	Mounting method	Approved test load	Remarks
AIKO-A4XX-MAH54Mx/ AIKO-A4XX-MCE54Mx/ AIKO-A4XX-MAH54Dx/ AIKO-A4XX-MCE54Dx	1757 × 1134 × 30 / 1762 × 1134 × 30	 Mounting system: tritec INLAY roof TRI-Stand / TRI-Fast / TRI-Roof+ Orientation: LANDSCAPE With NO additional backrail	Downforce 6000 Pa Uplift 3150 Pa	Test method refer to Attachment 3

AIKO-A4XX-MAH54Mx/ AIKO-A4XX-MCE54Mx/ AIKO-A4XX-MAH54Dx/ AIKO-A4XX-MCE54Dx	1757 × 1134 × 30 /1762 × 1134 × 30	 Mounting system: tritec INLAY roof TRI-Stand / TRI-Fast / TRI-Roof+ Orientation: LANDSCAPE With 2 additional backrail D1=320mm	Downforce 7400 Pa Uplift 3150 Pa	Test method refer to Attachment 4
AIKO-A4XX-MAH54Mx/ AIKO-A4XX-MCE54Mx/ AIKO-A4XX-MAH54Dx/ AIKO-A4XX-MCE54Dx	1757 × 1134 × 30 /1762 × 1134 × 30	 Mounting system: tritec INLAY roof TRI-Stand / TRI-Fast / TRI-Roof+ Orientation: PORTRAIT With no additional backrail	Downforce 2400 Pa Uplift 2400 Pa	Test method refer to Attachment 5
AIKO-A4XX-MAH54Mx/ AIKO-A4XX-MCE54Mx/ AIKO-A4XX-MAH54Dx/ AIKO-A4XX-MCE54Dx	1757 × 1134 × 30 /1762 × 1134 × 30	 Mounting system: tritec INLAY roof TRI-Stand / TRI-Fast / TRI-Roof+ Orientation: PORTRAIT With 1 additional backrail D1=920mm	Downforce 5400 Pa Uplift 2400 Pa	Test method refer to Attachment 6

(*) The design load is determined by considering safety factors according to: Design load = Approved test load / 1.5, or by following local regulations and standards.

The above statement is based upon and in accordance with the specifications that tritec AG provides at the time of issuing this letter. Any change to the specification will nullify this statement and requires further evaluation.

Name: Qin Xiao
Position held: Director of Product Management
Signature:
Brand: Alko Solar
Company full address: No.655, Haopai Road, Suxi Town, Yiwu, 322009, China.

Attachment 1

University of Applied Sciences and Arts of Southern Switzerland

MECHANICAL LOAD TEST

GENERAL INFORMATION

Manufacturer	Aiko Digital Energy Technology Co., Ltd.	**Module Label**	24-106/A/1
Model	AIKO-A470-MAH54Mw	**Starting date**	28.08.2024
Serial Number	Y012404E857056413	**Ending date**	28.08.2024
Result:	PASSED	NOTES: the test method is out of the scope of ISO 17025 accreditation of the lab.	
Test Method:	IEC 61215-2:2021, cl. 4.16 (partial)		

TEST RESULTS

Load	Variable conditions
Test current	0.1 A
Number of plungers	20
Module area	1.99 m²

UNCERTAINTY (coverage factor k=2)

REMARKS / ADDITIONAL INFORMATION

+3000Pa -2400Pa for 15minutes each, and with no backrails

FOLLOWING MEASUREMENTS AND INSPECTIONS

Performance at STC
28.08.2024

Pm	456.26 W
ΔPm(prev)	0.08 %

University of Applied Sciences and Arts of Southern Switzerland

MECHANICAL LOAD TEST

GENERAL INFORMATION

Manufacturer	Aiko Digital Energy Technology Co., Ltd.	**Module Label**	24-106/A/1
Model	AIKO-A470-MAH54Mw	**Starting date**	28.08.2024
Serial Number	Y012404E857056413	**Ending date**	28.08.2024
Result:	FAILED	NOTES: the test method is out of the scope of ISO 17025 accreditation of the lab.	
Test Method:	IEC 61215-2:2021, cl. 4.16 (partial)		

TEST RESULTS

Load	Variable conditions
Test current	0.1 A
Number of plungers	20
Module area	1.99 m²

UNCERTAINTY (coverage factor k=2)

REMARKS / ADDITIONAL INFORMATION

+3600 -3000 for 15 minutes each and without backrail. Push test passed,
pull-out test FAILED (sample immediately out of the clamps)

FOLLOWING MEASUREMENTS AND INSPECTIONS

Performance at STC
28.08.2024

Pm	456.52 W
ΔPm(prev)	0.06 %

Attachment 2

University of Applied Sciences and Arts of Southern Switzerland

MECHANICAL LOAD TEST

GENERAL INFORMATION

Manufacturer	Aiko Digital Energy Technology Co., Ltd.	**Module Label**	24-106/A/2
Model	AIKO-A470-MAH54Mw	**Starting date**	28.08.2024
Serial Number	Y012404E857056823	**Ending date**	28.08.2024
Result:	PASSED	NOTES: the test method is out of the scope of ISO 17025 accreditation of the lab.	
Test Method:	IEC 61215-2:2021, cl. 4.16 (partial)		

TEST RESULTS

Load	Variable conditions
Test current	0.1 A
Number of plungers	20
Module area	1.99 m²

UNCERTAINTY (coverage factor k=2)

Total uncertainty = ± 1.1%

REMARKS / ADDITIONAL INFORMATION

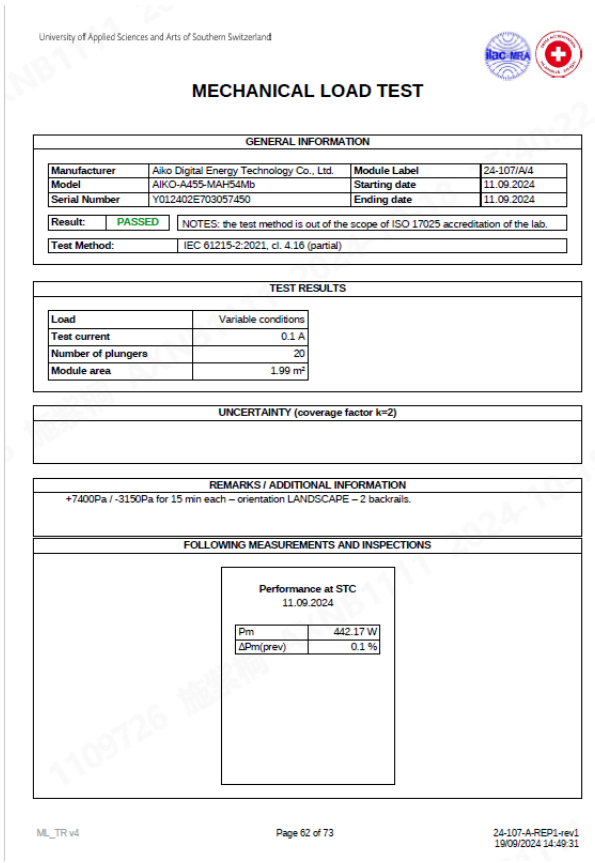
+8000 -2400 for 15 minutes each with 1 additional backrail

FOLLOWING MEASUREMENTS AND INSPECTIONS

Performance at STC
28.08.2024

Pm	456.98 W
ΔPm(prev)	0 %

Attachment 3



University of Applied Sciences and Arts of Southern Switzerland

MECHANICAL LOAD TEST

GENERAL INFORMATION

Manufacturer	Aiko Digital Energy Technology Co., Ltd.	**Module Label**	24-107/A/4
Model	AIKO-A455-MAH54Mb	**Starting date**	11.09.2024
Serial Number	Y012402E703057450	**Ending date**	11.09.2024

Result:	PASSED	NOTES: the test method is out of the scope of ISO 17025 accreditation of the lab.
Test Method:		IEC 61215-2:2021, cl. 4.16 (partial)

TEST RESULTS

Load	Variable conditions
Test current	0.1 A
Number of plungers	20
Module area	1.99 m²

UNCERTAINTY (coverage factor k=2)

REMARKS / ADDITIONAL INFORMATION

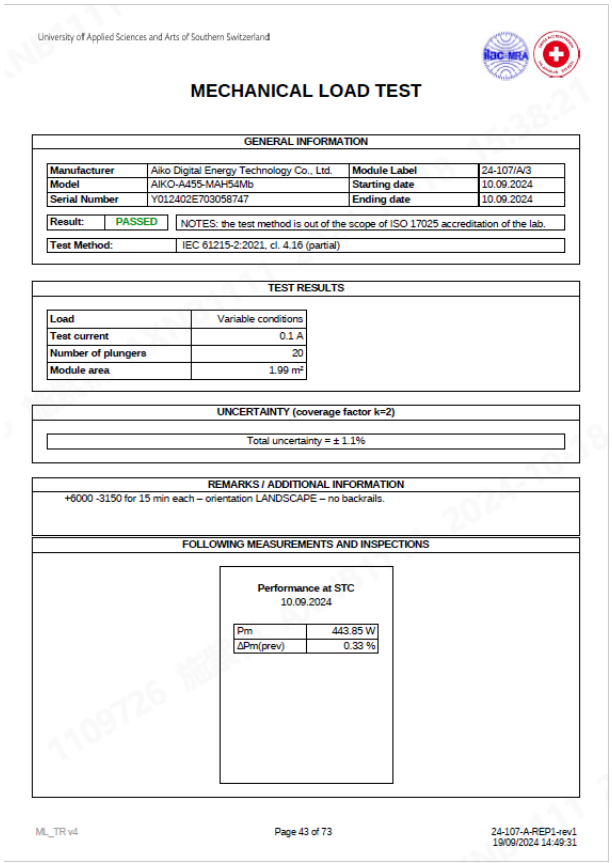
+7400Pa / -3150Pa for 15 min each – orientation LANDSCAPE – 2 backrails.

FOLLOWING MEASUREMENTS AND INSPECTIONS

Performance at STC
11.09.2024

Pm	442.17 W
ΔPm(prev)	0.1 %

Attachment 4



University of Applied Sciences and Arts of Southern Switzerland

MECHANICAL LOAD TEST

GENERAL INFORMATION

Manufacturer	Aiko Digital Energy Technology Co., Ltd.	**Module Label**	24-107/A/3
Model	AIKO-A455-MAH54Mb	**Starting date**	10.09.2024
Serial Number	Y012402E703058747	**Ending date**	10.09.2024

Result:	PASSED	NOTES: the test method is out of the scope of ISO 17025 accreditation of the lab.
Test Method:		IEC 61215-2:2021, cl. 4.16 (partial)

TEST RESULTS

Load	Variable conditions
Test current	0.1 A
Number of plungers	20
Module area	1.99 m²

UNCERTAINTY (coverage factor k=2)

Total uncertainty = ± 1.1%

REMARKS / ADDITIONAL INFORMATION

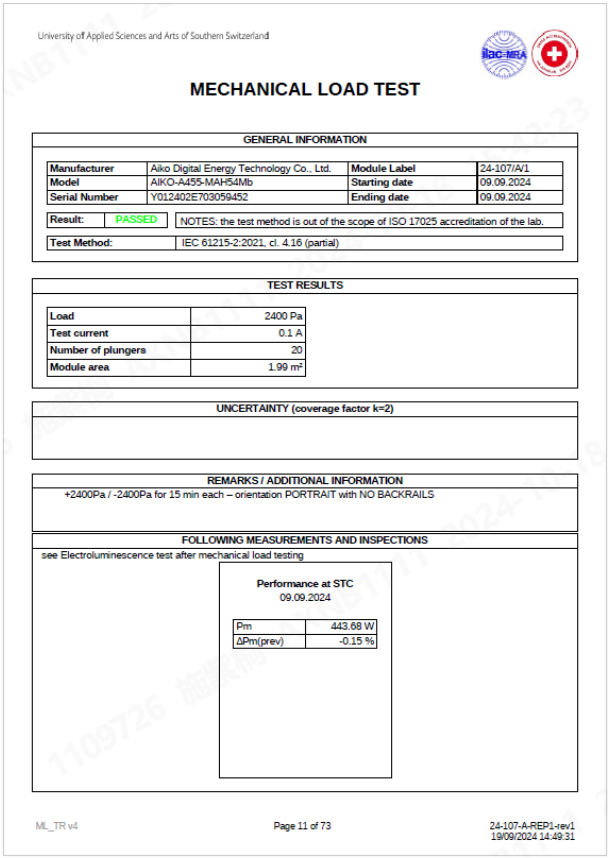
+6000 -3150 for 15 min each – orientation LANDSCAPE – no backrails.

FOLLOWING MEASUREMENTS AND INSPECTIONS

Performance at STC
10.09.2024

Pm	443.85 W
ΔPm(prev)	0.33 %

Attachment 5



University of Applied Sciences and Arts of Southern Switzerland

MECHANICAL LOAD TEST

GENERAL INFORMATION

Manufacturer	Aiko Digital Energy Technology Co., Ltd.	**Module Label**	24-107/A/1
Model	AIKO-A455-MAH54Mb	**Starting date**	09.09.2024
Serial Number	Y012402E703059452	**Ending date**	09.09.2024

Result:	PASSED	NOTES: the test method is out of the scope of ISO 17025 accreditation of the lab.
Test Method:		IEC 61215-2:2021, cl. 4.16 (partial)

TEST RESULTS

Load	2400 Pa
Test current	0.1 A
Number of plungers	20
Module area	1.99 m²

UNCERTAINTY (coverage factor k=2)

REMARKS / ADDITIONAL INFORMATION

+2400Pa / -2400Pa for 15 min each – orientation PORTRAIT with NO BACKRAILS

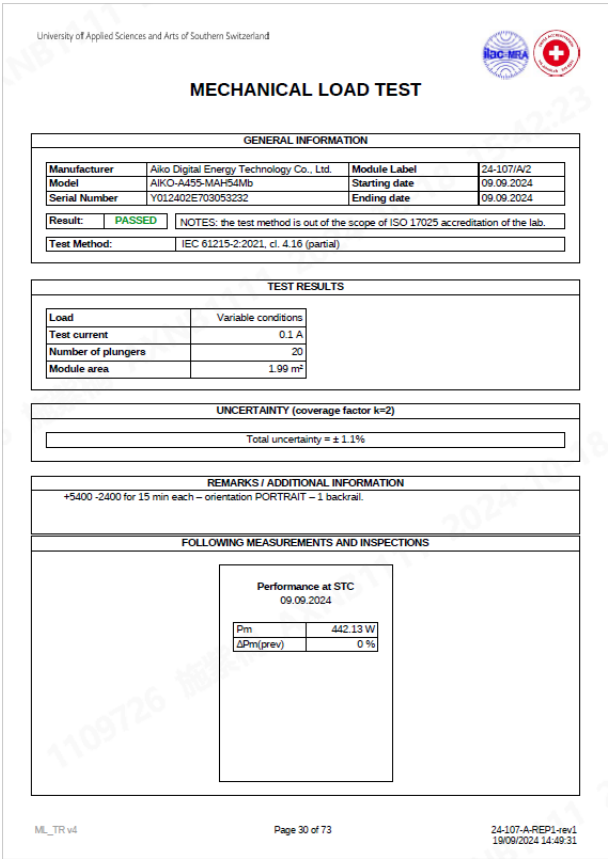
FOLLOWING MEASUREMENTS AND INSPECTIONS

see Electroluminescence test after mechanical load testing

Performance at STC
09.09.2024

Pm	443.68 W
ΔPm(prev)	-0.15 %

Attachment 6



University of Applied Sciences and Arts of Southern Switzerland

MECHANICAL LOAD TEST

GENERAL INFORMATION

Manufacturer	Aiko Digital Energy Technology Co., Ltd.	**Module Label**	24-107/A/2
Model	AIKO-A455-MAH54Mb	**Starting date**	09.09.2024
Serial Number	Y012402E703053232	**Ending date**	09.09.2024

Result:	PASSED	NOTES: the test method is out of the scope of ISO 17025 accreditation of the lab.
Test Method:		IEC 61215-2:2021, cl. 4.16 (partial)

TEST RESULTS

Load	Variable conditions
Test current	0.1 A
Number of plungers	20
Module area	1.99 m²

UNCERTAINTY (coverage factor k=2)

Total uncertainty = ± 1.1%

REMARKS / ADDITIONAL INFORMATION

+5400 -2400 for 15 min each – orientation PORTRAIT – 1 backrail.

FOLLOWING MEASUREMENTS AND INSPECTIONS

Performance at STC
09.09.2024

Pm	442.13 W
ΔPm(prev)	0 %