



Neostar 1S

ABC N-Type

Mono-Glass Model

Up to **23.0%**
430W-450W



Product
Warranty



Performance
Warranty



reddot winner 2023

Full Black Design

No front grid lines

Higher Power Output

Higher efficiency: 23.0%

Lower degradation: 1st year $\leq 1.0\%$, Linear Degradation $\leq 0.35\%$

Better temperature coefficient: $-0.26\%/^{\circ}\text{C}$

Optimized Balance of System (BOS)

Significant savings on mounting structure, cabling, and labour cost



Complete Set of Quality Management System

IEC 61730 (2016) IEC 61215 (2021)

ISO 9001:2015 Quality Management System

ISO 14001:2015 Environmental Management System

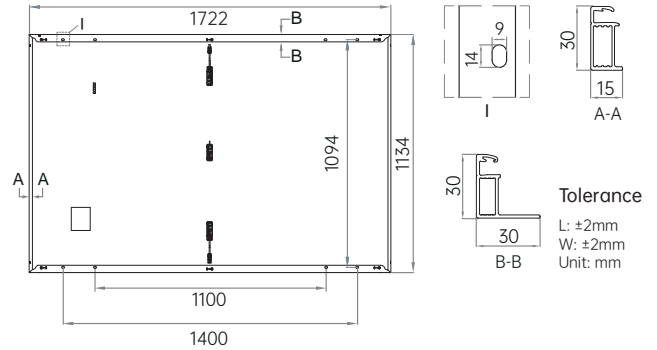
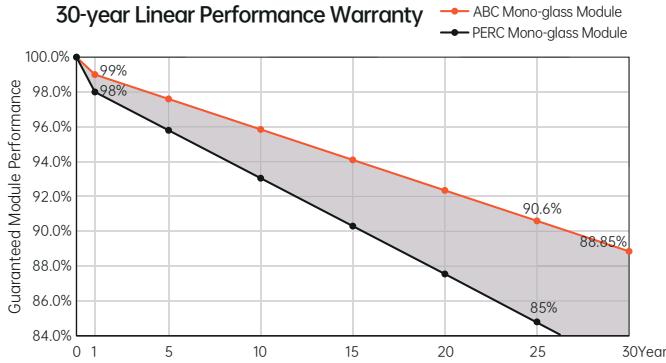
ISO 45001:2018 Occupational Safety and Management System

450W
Output

23.0%
Efficiency

≤1%
First-year Degradation

≤0.35%
Annual Degradation from Year 2-30



Electrical Characteristics (STC: AM1.5 1000W/m² 25°C NOCT: AM1.5 800W/m² 20°C 1m/s) Power Tolerance: 0~ +3%

Model	AIKO-A430-MAH54Mb		AIKO-A435-MAH54Mb		AIKO-A440-MAH54Mb		AIKO-A445-MAH54Mb		AIKO-A450-MAH54Mb	
	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT
P_{max} [W]	430	324	435	327	440	331	445	335	450	339
V_{oc} [V]	40.29	38.05	40.39	38.14	40.49	38.24	40.59	38.33	40.69	38.43
V_{mp} [V]	33.30	31.45	33.40	31.55	33.50	31.64	33.60	31.73	33.70	31.83
I_{sc} [A]	13.69	11.07	13.80	11.16	13.91	11.25	14.02	11.33	14.12	11.42
I_{mp} [A]	12.92	10.31	13.03	10.40	13.14	10.49	13.25	10.57	13.36	10.66
Module Efficiency	22.0%		22.3%		22.5%		22.8%		23.0%	

Mechanical Specification

Cell Type	N-Type ABC
Front Cover Mono glass	3.2 mm tempered glass
Frame	Black anodized aluminum
Cable	4mm ² (IEC) 12AWG(UL) 1200mm
No. of Cells	108(6*18)
Junction Box	IP68,3 bypass diodes
Connector	MC4-Evo2
Weight	20.5kg
Dimension	1722*1134*30mm
Package Detail	36pcs per pallet / 216pcs per 20'GP / 936pcs per 40'HC

Temperature Ratings (STC)

Temperature Coefficient of I_{sc}	+ 0.05%/ °C
Temperature Coefficient of V_{oc}	- 0.22%/ °C
Temperature Coefficient of P_{max}	- 0.26%/ °C

Installation Guide

Operation Temperature	-40°C - +85°C
Maximum Series Fuse Rating	25A
Protection Class	Class II
V_{oc} and I_{sc} Tolerance	±3%
Maximum System Voltage	DC1500V
Maximum Static Loading	Front 5400Pa Back 2400Pa
Hail Test	25 mm diameter hail at 23 m/s
Fire Rating	IEC Class C





N-Type ABC Neostar Series

AIKO-A-MAH54Mb

Up to **23.6%**
445W-460W



Product
Warranty



Performance
Warranty



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Full Black Design

No grid lines on the front

Higher Power Output

Higher efficiency: 23.6%

Lower degradation: 1 year $\leq 1.0\%$, 2 -30 year $\leq 0.35\%$

Better temperature coefficient: $-0.26\%/^{\circ}\text{C}$

Optimized Balance of System (BOS)

Significant savings on mounting structure, cabling, and labour cost

Complete Set of Quality Management System

IEC 61730 (2016) IEC 61215 (2021)

ISO 9001:2015 Quality Management System

ISO 14001:2015 Environmental Management System

ISO 45001:2018 Occupational Safety and Management System

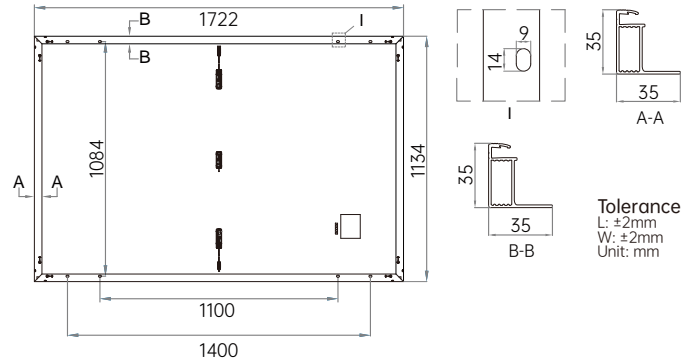
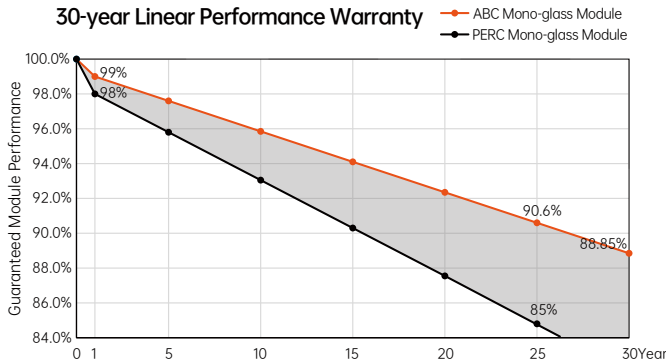


460W
Output

23.6%
Efficiency

≤1%
First-year Degradation

≤0.35%
Annual Degradation from Year 2-30



Electrical Characteristics (STC: AM1.5 1000W/m² 25°C NOCT: AM1.5 800W/m² 20°C 1m/s)

Power Tolerance: 0- + 3%

Model	AIKO-A445-MAH54Mb		AIKO-A450-MAH54Mb		AIKO-A455-MAH54Mb		AIKO-A460-MAH54Mb	
	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT
P_{max} [W]	445	335	450	339	455	343	460	346
V_{oc} [V]	40.60	38.34	40.70	38.44	40.80	38.53	40.90	38.63
V_{mp} [V]	33.60	31.73	33.70	31.82	33.80	31.92	33.90	32.01
I_{sc} [A]	13.86	11.21	13.92	11.26	13.98	11.31	14.04	11.36
I_{mp} [A]	13.25	10.57	13.36	10.66	13.47	10.75	13.58	10.84
Module Efficiency	22.8%		23.0%		23.3%		23.6%	

Mechanical Specification

Cell Type	N-Type ABC
Front Cover Mono glass	3.2 mm tempered glass
Frame	Black anodized aluminum
Cable	4mm ² (IEC) 12AWG(UL) 1200mm or Customized Length
No. of Cells	108(6*18)
Junction Box	IP68, three bypass diodes
Connector	MC4 EVO2
Weight	21.6kg±3%
Dimension	1722*1134*35mm
Package Detail	31pcs per pallet/186 pcs per 20' GP/806pcs per 40' HQ

Temperature Ratings (STC)

Temperature Coefficient of I_{sc}	+ 0.05%/ °C
Temperature Coefficient of V_{oc}	- 0.22%/ °C
Temperature Coefficient of P_{max}	- 0.26%/ °C

Installation Guide

Operation Temperature	- 40°C-+85°C
Maximum Series Fuse Rating	25A
Protection Class	Class II
V_{oc} and I_{sc} Tolerance	±3%
Maximum System Voltage	DC1500V
Maximum Static Loading	Front 5400Pa Back 2400Pa
Hail Test	25 mm diameter hail at 23 m/s
Fire Rating	IEC Class C



N-Type ABC Neostar Series

AIKO-A-MAH54Mw

Up to **23.8%**
450W-465W



Product
Warranty



Performance
Warranty



reddot winner 2023

Premium Appearance

No grid lines on the front

Higher Power Output

Higher efficiency: 23.8%

Lower degradation: 1 year $\leq 1.0\%$, 2 -30 year $\leq 0.35\%$

Better temperature coefficient: $-0.26\%/^{\circ}\text{C}$

Optimized Balance of System (BOS)

Significant savings on mounting structure, cabling, and labour cost

Complete Set of Quality Management System

IEC 61730 (2016) IEC 61215 (2021)

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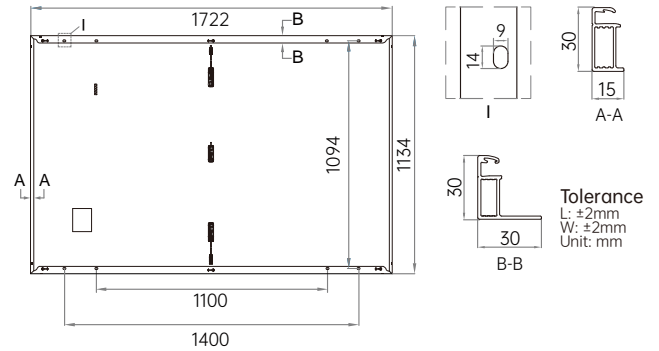
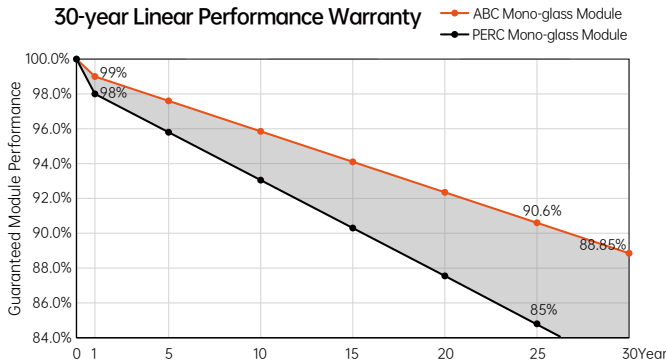


465W
Output

23.8%
Efficiency

≤1%
First-year Degradation

≤0.35%
Annual Degradation from Year 2-30



Electrical Characteristics (STC: AM1.5 1000W/m ² 25°C NOCT: AM1.5 800W/m ² 20°C 1m/s)								Power Tolerance: 0~ +3%	
Model	AIKO-A450-MAH54Mw		AIKO-A455-MAH54Mw		AIKO-A460-MAH54Mw		AIKO-A465-MAH54Mw		
Test Conditions	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	
P _{max} [W]	450	339	455	343	460	346	465	350	
V _{oc} [V]	40.49	38.24	40.59	38.33	40.69	38.43	40.79	38.52	
V _{mp} [V]	33.50	31.64	33.60	31.73	33.70	31.83	33.80	31.92	
I _{sc} [A]	14.21	11.49	14.31	11.57	14.41	11.66	14.51	11.74	
I _{mp} [A]	13.44	10.72	13.55	10.81	13.66	10.90	13.76	10.98	
Module Efficiency	23.1%		23.3%		23.6%		23.8%		

Mechanical Specification	
Cell Type	N-Type ABC
Front Cover Mono glass	3.2 mm tempered glass
Frame	Black anodized aluminum
Cable	4mm ² (IEC) 12AWG(UL) 1200mm or Customized Length
No. of Cells	108(6*18)
Junction Box	IP68, three bypass diodes
Connector	MC4 compatible/MC4 EVO2
Weight	20.5kg±3%
Dimension	1722*1134*30mm
Package Detail	36pcs per pallet/216 pcs per 20' GP/936pcs per 40' HQ

Temperature Ratings (STC)	
Temperature Coefficient of I _{sc}	+ 0.05%/ °C
Temperature Coefficient of V _{oc}	- 0.22%/ °C
Temperature Coefficient of P _{max}	- 0.26%/ °C

Installation Guide	
Operation Temperature	- 40°C~+85°C
Maximum Series Fuse Rating	25A
Protection Class	Class II
V _{oc} and I _{sc} Tolerance	±3%
Maximum System Voltage	DC1500V
Maximum Static Loading	Front 5400Pa Back 2400Pa
Hail Test	25 mm diameter hail at 23 m/s
Fire Rating	IEC Class C



N-Type ABC Neostar Series

AIKO-A-MAH54Mw

Up to **23.8%**
450W-465W



Product
Warranty



Performance
Warranty



reddot winner 2023

Premium Appearance

No grid lines on the front

Higher Power Output

Higher efficiency: 23.8%

Lower degradation: 1 year $\leq 1.0\%$, 2 -30 year $\leq 0.35\%$

Better temperature coefficient: $-0.26\%/^{\circ}\text{C}$

Optimized Balance of System (BOS)

Significant savings on mounting structure, cabling, and labour cost

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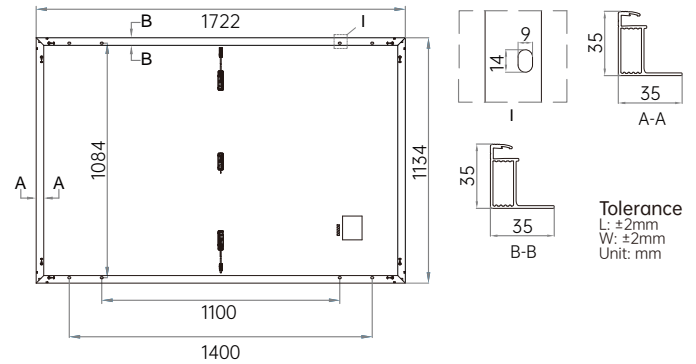
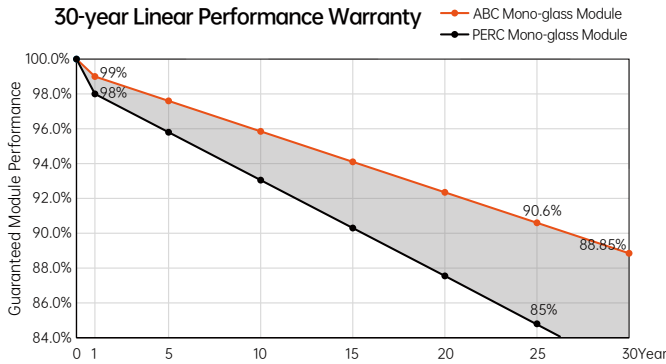


465W
Output

23.8%
Efficiency

≤1%
First-year Degradation

≤0.35%
Annual Degradation from Year 2-30



Electrical Characteristics (STC: AM1.5 1000W/m ² 25°C NOCT: AM1.5 800W/m ² 20°C 1m/s)								Power Tolerance: 0~ + 3%	
Model	AIKO-A450-MAH54Mw		AIKO-A455-MAH54Mw		AIKO-A460-MAH54Mw		AIKO-A465-MAH54Mw		
Test Conditions	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	
P_{max} [W]	450	339	455	343	460	346	465	350	
V_{oc} [V]	40.50	38.25	40.60	38.34	40.70	38.44	40.80	38.53	
V_{mp} [V]	33.50	31.63	33.60	31.73	33.70	31.82	33.80	31.92	
I_{sc} [A]	14.13	11.43	14.19	11.48	14.25	11.53	14.31	11.57	
I_{mp} [A]	13.44	10.73	13.55	10.81	13.66	10.90	13.77	10.98	
Module Efficiency	23.0%		23.3%		23.6%		23.8%		

Mechanical Specification	
Cell Type	N-Type ABC
Front Cover Mono glass	3.2 mm tempered glass
Frame	Anodized aluminum
Cable	4mm ² (IEC) 12AWG(UL) 1200mm or Customized Length
No. of Cells	108(6*18)
Junction Box	IP68, three bypass diodes
Connector	MC4 compatible/MC4 EVO2
Weight	21.6kg±3%
Dimension	1722*1134*35mm
Package Detail	31pcs per pallet/186 pcs per 20' GP/806pcs per 40' HQ

Temperature Ratings (STC)	
Temperature Coefficient of I_{sc}	+ 0.05%/ °C
Temperature Coefficient of V_{oc}	- 0.22%/ °C
Temperature Coefficient of P_{max}	- 0.26%/ °C

Installation Guide	
Operation Temperature	- 40°C~+85°C
Maximum Series Fuse Rating	25A
Protection Class	Class II
V_{oc} and I_{sc} Tolerance	±3%
Maximum System Voltage	DC1500V
Maximum Static Loading	Front 5400Pa Back 2400Pa
Hail Test	25 mm diameter hail at 23 m/s
Fire Rating	IEC Class C

COMET

1N Mono-Glass Module
605W-630W

Technical Features:

-  Partial Shading Optimisation
-  Better Temperature Coefficient
-  High Temperature Restriction
-  Micro-crack Resistance
-  Higher Power
-  Lower BOS
-  More Aesthetic Values



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Product Warranty
(extendable to 25 years*)



Performance
Warranty



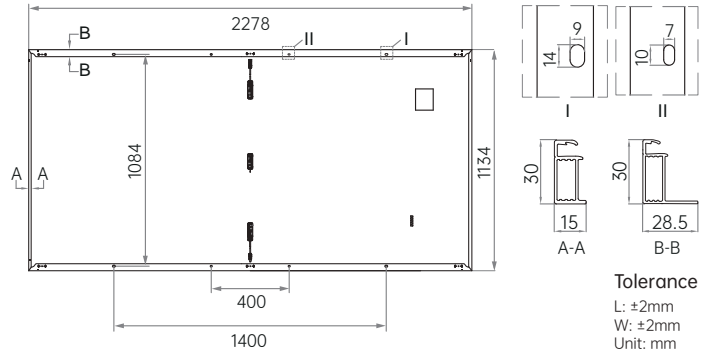
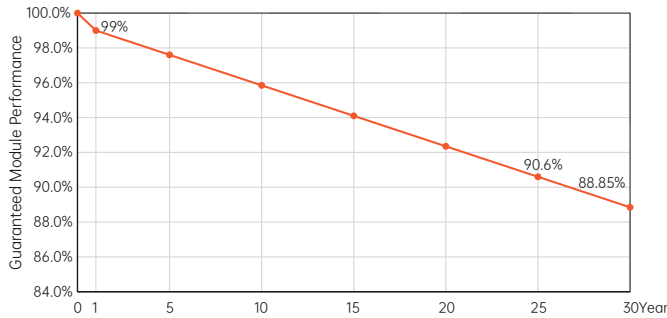
630W
Output

24.4%
Efficiency

≤1%
First-year Degradation

≤0.35%
Annual Degradation from Year 2-30

30-year Linear Performance Warranty



Electrical Characteristics (STC: AM1.5 1000W/m² 25°C NOCT: AM1.5 800W/m² 20°C 1m/s)

Power Tolerance: 0~ +3%

Model	AIKO-A605-MAH72Mw		AIKO-A610-MAH72Mw		AIKO-A615-MAH72Mw		AIKO-A620-MAH72Mw		AIKO-A625-MAH72Mw		AIKO-A630-MAH72Mw	
	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT
P_{max} [W]	605	456	610	459	615	463	620	467	625	471	630	474
V_{oc} [V]	54.09	51.08	54.19	51.18	54.29	51.27	54.39	51.36	54.49	51.46	54.59	51.55
V_{mp} [V]	44.78	42.29	44.88	42.38	44.98	42.48	45.08	42.57	45.18	42.67	45.28	42.76
I_{sc} [A]	14.28	11.55	14.36	11.61	14.44	11.68	14.52	11.74	14.60	11.81	14.68	11.87
I_{mp} [A]	13.52	10.79	13.60	10.85	13.68	10.91	13.76	10.98	13.84	11.04	13.92	11.11
Module Efficiency	23.4%		23.6%		23.8%		24.0%		24.2%		24.4%	

Mechanical Specification

Cell Type	N-Type ABC
Front Cover Mono glass	3.2 mm tempered glass
Frame	Anodized aluminum
Cable	4mm ² (IEC) 12AWG(UL) +350mm, -280mm/±1400mm or Customized Length
No. of Cells	144(6*24)
Junction Box	IP68, 3 bypass diodes
Connector	MC4 compatible/MC4-Evo2
Weight	27kg
Dimension	2278*1134*30mm
Package Detail	36pcs per pallet / 180pcs per 20'GP / 720pcs per 40'HC

Temperature Ratings (STC)

Temperature Coefficient of I_{sc}	+ 0.05%/ °C
Temperature Coefficient of V_{oc}	- 0.22%/ °C
Temperature Coefficient of P_{max}	- 0.26%/ °C

Installation Guide

Operation Temperature	-40°C - +85°C
Maximum Series Fuse Rating	25A
Protection Class	Class II
V_{oc} and I_{sc} Tolerance	±3%
Maximum System Voltage	DC1500V
Maximum Static Loading	Front 5400Pa Back 2400Pa
Hail Test	35 mm diameter hail at 27.2 m/s
Fire Rating	IEC Class C



COMET

1N+ Dual-Glass Module
610W-630W

Technical Features:

-  Partial Shading Optimisation
-  Better Temperature Coefficient
-  High Temperature Restriction
-  Micro-crack Resistance
-  Higher Power
-  Lower BOS
-  More Aesthetic Values



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Product Warranty
(extendable to 25 years*)



Performance
Warranty



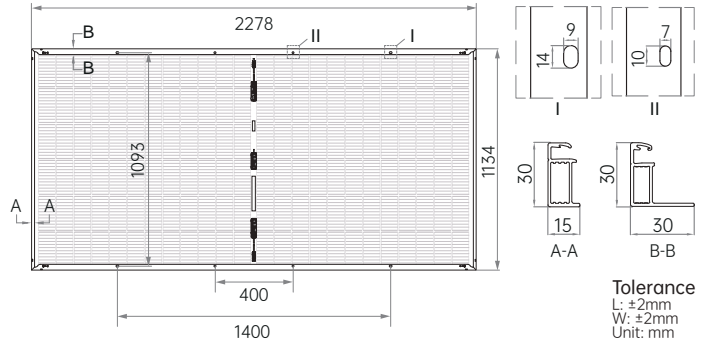
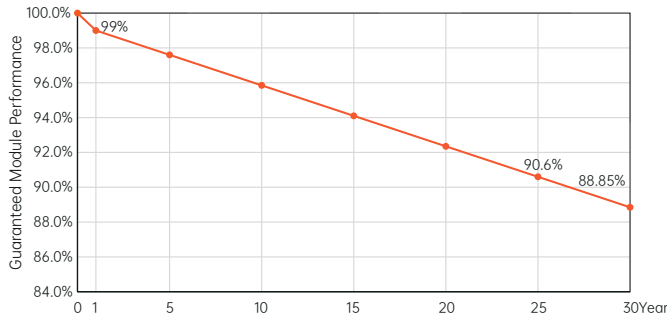
630W
Output

24.4%
Efficiency

≤1%
First-year Degradation

≤0.35%
Annual Degradation from Year 2-30

30-year Linear Performance Warranty



Electrical Characteristics (STC: AM1.5 1000W/m ² 25°C NOCT: AM1.5 800W/m ² 20°C 1m/s)										Power Tolerance: 0~ + 3%	
Model	AIKO-A610-MAH72Dw		AIKO-A615-MAH72Dw		AIKO-A620-MAH72Dw		AIKO-A625-MAH72Dw		AIKO-A630-MAH72Dw		
Test Conditions	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	
P _{max} [W]	610	459	615	463	620	467	625	471	630	474	
V _{oc} [V]	54.34	51.32	54.44	51.41	54.57	51.53	54.70	51.66	54.83	51.78	
V _{mp} [V]	45.00	42.50	45.10	42.59	45.20	42.69	45.30	42.78	45.40	42.87	
I _{sc} [A]	14.30	11.57	14.38	11.63	14.46	11.70	14.54	11.76	14.62	11.83	
I _{mp} [A]	13.56	10.82	13.64	10.89	13.72	10.95	13.80	11.01	13.88	11.08	
Module Efficiency	23.6%		23.8%		24.0%		24.2%		24.4%		

Mechanical Specification

Bifacial Factor	70±5%
Cell Type	N-Type ABC
Front Cover Mono glass	Dual glass, 2.0+2.0mm coated semi tempered glass
Frame	Anodized aluminum
Cable	4mm ² (IEC) 12AWG(UL) +350mm, -280mm/±1400mm or Customized Length
No. of Cells	144(6*24)
Junction Box	IP68, 3 bypass diodes
Connector	MC4 compatible/MC4-Evo2
Weight	32.5kg±3%
Dimension	2278*1134*30mm
Package Detail	36pcs per pallet / 180pcs per 20'GP / 720pcs per 40'HC

Temperature Ratings (STC)

Temperature Coefficient of I _{sc}	+ 0.05%/ °C
Temperature Coefficient of V _{oc}	- 0.22%/ °C
Temperature Coefficient of P _{max}	- 0.26%/ °C

Installation Guide

Operation Temperature	-40°C - +85°C
Maximum Series Fuse Rating	25A
Protection Class	Class II
V _{oc} and I _{sc} Tolerance	±3%
Maximum System Voltage	DC1500V
Maximum Static Loading	Front 5400Pa Back 2400Pa
Hail Test	35 mm diameter hail at 27.2 m/s
Fire Rating	IEC Class C



COMET

2U Mono-Glass Module
645W-670W

Technical Features:

-  Partial Shading Optimisation
-  Better Temperature Coefficient
-  High Temperature Restriction
-  Micro-crack Resistance
-  Higher Power
-  Lower BOS
-  More Aesthetic Values



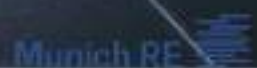
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Product Warranty
(Extendable to 25 years*)



Performance
Warranty



670W

Output

24.8%

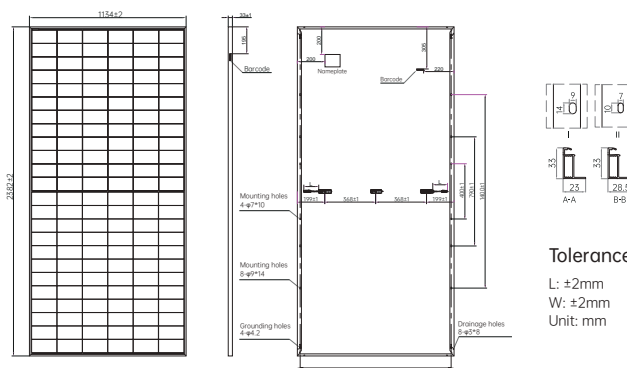
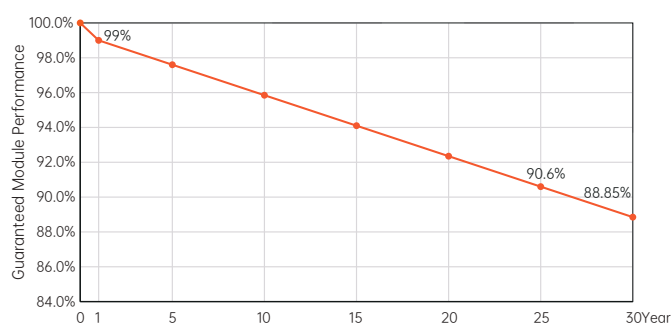
Efficiency

≤1%

First-year Degradation

≤0.35%

Annual Degradation from Year 2-30

30-year Linear Performance Warranty**Electrical Characteristics** (STC: AM1.5 1000W/m² 25°C NOCT: AM1.5 800W/m² 20°C 1m/s) Power Tolerance: 0~ + 3%

Module Type	AIKO-G645-MCH72Mw		AIKO-G650-MCH72Mw		AIKO-G655-MCH72Mw		AIKO-G660-MCH72Mw		AIKO-G665-MCH72Mw		AIKO-G670-MCH72Mw	
	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT
P_{max} [W]	645	486	650	490	655	493	660	497	665	501	670	505
V_{oc} [V]	54.30	51.28	54.40	51.37	54.50	51.47	54.60	51.56	54.70	51.66	54.80	51.75
V_{mp} [V]	45.00	42.50	45.10	42.59	45.20	42.69	45.30	42.78	45.40	42.87	45.50	42.97
I_{sc} [A]	15.06	12.18	15.12	12.23	15.18	12.28	15.24	12.32	15.30	12.37	15.36	12.42
I_{mp} [A]	14.34	11.44	14.42	11.51	14.50	11.57	14.57	11.63	14.65	11.69	14.73	11.76
Module Efficiency	23.9%		24.0%		24.2%		24.4%		24.6%		24.8%	

Mechanical Specification

Cell Type	N-Type ABC
Glass	3.2 mm tempered glass
Frame	Anodized aluminum
Cable	4mm ² (IEC) 12AWG(UL) +350mm, -280mm/±1400mm or Customized Length
No. of Cells	144(6*24)
Junction Box	IP68, 3 bypass diodes
Connector	MC4 Compatible/MC4-Evo2
Weight	28.2kg±3%
Dimension	2382*1134*33mm
Package Detail	33pcs per pallet / 132pcs per 20'GP / 660pcs per 40'HC

Temperature Ratings (STC)

Temperature Coefficient of I_{sc}	+ 0.05%/ °C
Temperature Coefficient of V_{oc}	- 0.22%/ °C
Temperature Coefficient of P_{max}	- 0.26%/ °C

Installation Guide

Operation Temperature	-40°C - +85°C
Maximum Series Fuse Rating	30A
Protection Class	Class II
V_{oc} and I_{sc} Tolerance	±3%
Maximum System Voltage	DC1500V
Maximum Static Loading	Front 5400Pa Back 2400Pa
Hail Test	35 mm diameter hail at 27.2 m/s
Fire Rating	IEC Class C



COMET

3N+72e Dual-glass Module
620W-645W

Technical Features:

-  Partial Shading Optimisation
-  Better Temperature Coefficient
-  High Temperature Restriction
-  Micro-crack Resistance
-  Higher Power
-  Lower BOS
-  More Aesthetic Values
-  Infinite Technology



red dot winner 2023



Product Warranty
(Extendable to 25 years*)



Performance
Warranty



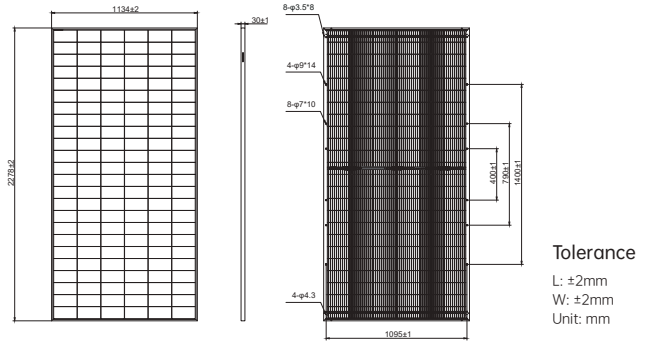
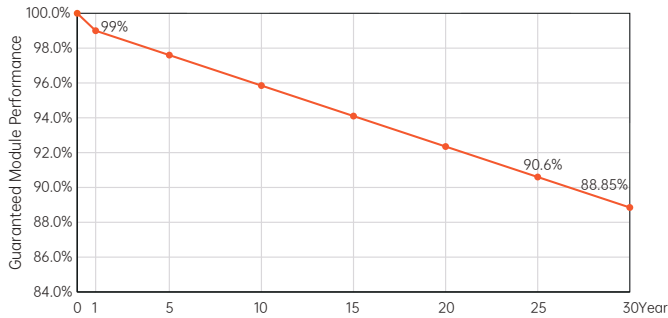
645W
Output

25.0%
Efficiency

≤1%
First-year Degradation

≤0.35%
Annual Degradation from Year 2-30

30-year Linear Performance Warranty



Electrical Characteristics (STC: AM1.5 1000W/m² 25°C NOCT: AM1.5 800W/m² 20°C 1m/s) Power Tolerance:0~ + 3%

Module Type	AIKO-A620-MAE72Dw		AIKO-A625-MAE72Dw		AIKO-A630-MAE72Dw		AIKO-A635-MAE72Dw		AIKO-A640-MAE72Dw		AIKO-A645-MAE72Dw	
	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT
P _{max} [W]	620	467	625	471	630	474	635	478	640	482	645	486
V _{oc} [V]	54.57	51.53	54.70	51.66	54.83	51.78	54.96	51.90	55.09	52.03	55.22	52.15
V _{mp} [V]	45.20	42.69	45.30	42.78	45.40	42.87	45.50	42.97	45.60	43.06	45.70	43.16
I _{sc} [A]	14.46	11.70	14.54	11.76	14.62	11.83	14.70	11.89	14.78	11.96	14.86	12.02
I _{mp} [A]	13.72	10.95	13.8	11.01	13.88	11.08	13.96	11.14	14.04	11.2	14.12	11.27
Module Efficiency	24.0%		24.2%		24.4%		24.6%		24.8%		25.0%	

Product Specification	
Cell type	N-Type ABC
Glass	Dual glass, 2.0+2.0mm coated semi tempered glass
Frame	Anodized aluminum
Cable	4mm ² (IEC) 12AWG(UL) +350mm, -280mm/±1400mm or Customized Length
No. of Cells	144(6*24)
Junction Box	IP68, 3 bypass diodes
Connector	MC4 compatible/MC4-Evo2
Weight	31.5kg±3%
Dimension	2278*1134*30mm
Package Detail	37pcs per pallet / 185pcs per 20GP / 740pcs per 40'HC

Temperature Ratings (STC)	
Temperature Coefficient of I _{sc}	+ 0.05%/ °C
Temperature Coefficient of V _{oc}	- 0.22%/ °C
Temperature Coefficient of P _{max}	- 0.26%/ °C

Installation Guide	
Operation Temperature	-40°C - +85°C
Maximum Series Fuse Rating	25A
Protection Class	Class II
Maximum System Voltage	DC1500V
Maximum Static Loading	+5400Pa/-2400Pa
Hail Test	25 mm diameter hail at 23 m/s
Fire Rating	IEC Class C



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*AIKO reserves right to update the specification without notice
DSDr_EN_2405_V1.5

COMET

3N72 Mono-glass Module
655W-680W

Technical Features:

-  Partial Shading Optimisation
-  Better Temperature Coefficient
-  High Temperature Restriction
-  Micro-crack Resistance
-  Higher Power
-  Lower BOS
-  More Aesthetic Values
-  Infinite Technology



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Product Warranty
(Extendable to 25years*)



Performance
Warranty



680W

Output

25.2%

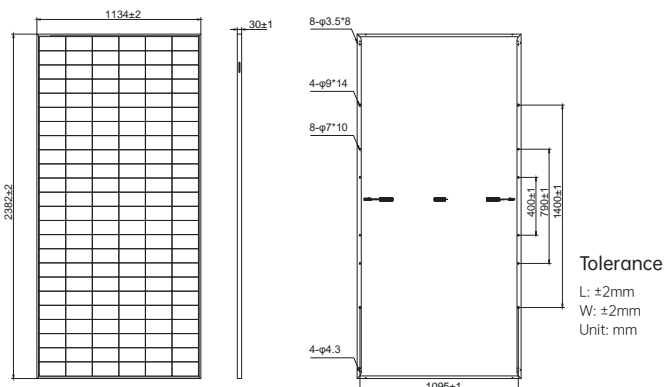
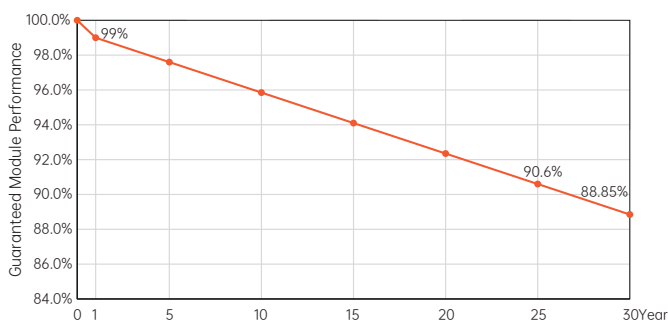
Efficiency

≤1%

First-year Degradation

≤0.35%

Annual Degradation from Year 2-30

30-year Linear Performance Warranty**Electrical Characteristics** (STC: AM1.5 1000W/m² 25°C NOCT: AM1.5 800W/m² 20°C 1m/s)

Power Tolerance: 0~ + 3%

Module Type	AIKO-A655-MDE72Mw		AIKO-A660-MDE72Mw		AIKO-A665-MDE72Mw		AIKO-A670-MDE72Mw		AIKO-A675-MDE72Mw		AIKO-A680-MDE72Mw	
	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT
P _{max} [W]	655	493	660	497	665	501	670	505	675	508	680	512
V _{oc} [V]	54.50	51.47	54.60	51.56	54.70	51.66	54.80	51.75	54.90	51.85	55.00	51.94
V _{mp} [V]	45.20	42.69	45.30	42.78	45.40	42.87	45.50	42.97	45.60	43.06	45.70	43.16
I _{sc} [A]	15.18	12.28	15.24	12.32	15.30	12.37	15.36	12.42	15.42	12.47	15.48	12.52
I _{mp} [A]	14.5	11.57	14.57	11.63	14.65	11.69	14.73	11.76	14.81	11.82	14.88	11.88
Module Efficiency	24.2%		24.4%		24.6%		24.8%		25.0%		25.2%	

Product Specification

Cell type	N-Type ABC
Glass	3.2 mm tempered glass
Backsheet	High weather resistant backsheet
Frame	Anodized aluminum
Cable	4mm ² (IEC) 12AWG(UL) +350mm, -280mm/±1400mm or Customized Length
No. of cells	144(6*24)
Junction Box	IP68, 3 bypass diodes
Connector	MC4 compatible/MC4-Evo2
Weight	29kg±3%
Dimension	2382*1134*30mm
Package Detail	37pcs per pallet /148pcs per 20'GP/ 740pcs per 40'HC

Temperature Ratings (STC)

Temperature Coefficient of I _{sc}	+ 0.05%/ °C
Temperature Coefficient of V _{oc}	- 0.22%/ °C
Temperature Coefficient of P _{max}	- 0.26%/ °C

Installation Guide

Operation Temperature	-40°C - +85°C
Maximum Series Fuse Rating	30A
Protection Class	Class II
Maximum System Voltage	DC1500V
Maximum Static Loading	+5400Pa/-2400Pa
Hail Test	25 mm diameter hail at 23 m/s
Fire Rating	IEC Class C



COMET

3N72e Mono-glass Module
625W-650W

Technical Features:

-  Partial Shading Optimisation
-  Better Temperature Coefficient
-  High Temperature Restriction
-  Micro-crack Resistance
-  Higher Power
-  Lower BOS
-  More Aesthetic Values
-  Infinite Technology



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Product Warranty
(Extendable to 25years*)



Performance
Warranty



650W

Output

25.2%

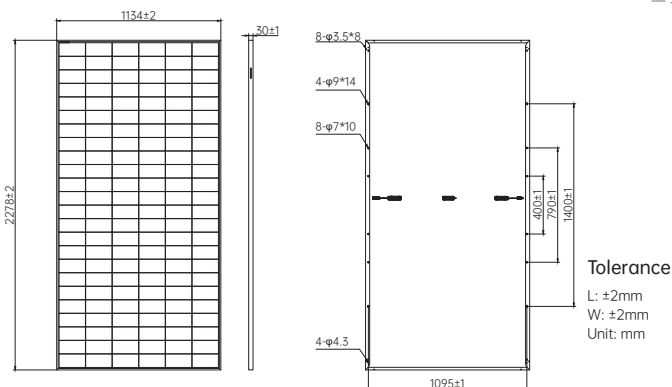
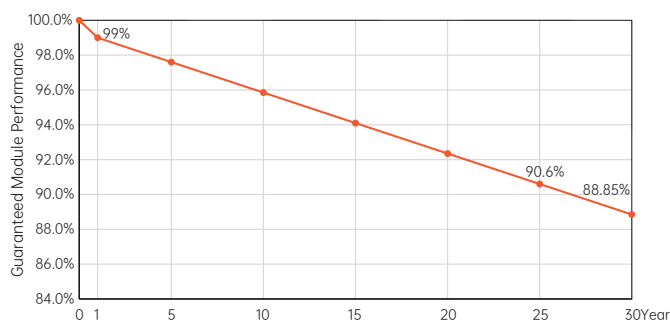
Efficiency

≤1%

First-year Degradation

≤0.35%

Annual Degradation from Year 2-30

30-year Linear Performance Warranty**Electrical Characteristics** (STC: AM1.5 1000W/m² 25°C NOCT: AM1.5 800W/m² 20°C 1m/s)

Power Tolerance: 0~ + 3%

Module Type	AIKO-A625-MAE72Mw		AIKO-A630-MAE72Mw		AIKO-A635-MAE72Mw		AIKO-A640-MAE72Mw		AIKO-A645-MAE72Mw		AIKO-A650-MAE72Mw	
	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT
P_{max} [W]	625	471	630	474	635	478	640	482	645	486	650	490
V_{oc} [V]	54.49	51.46	54.59	51.55	54.69	51.65	54.79	51.74	54.89	51.84	54.99	51.93
V_{mp} [V]	45.18	42.67	45.28	42.76	45.38	42.86	45.48	42.95	45.58	43.04	45.68	43.14
I_{sc} [A]	14.60	11.81	14.68	11.87	14.76	11.94	14.84	12.00	14.92	12.06	15.00	12.13
I_{mp} [A]	13.84	11.04	13.92	11.11	14	11.17	14.08	11.23	14.16	11.3	14.23	11.36
Module Efficiency	24.2%		24.4%		24.6%		24.8%		25.0%		25.2%	

Product Specification

Cell type	N-Type ABC
Glass	3.2 mm tempered glass
Backsheet	High weather resistant backsheet
Frame	Anodized aluminum
Cable	4mm ² (IEC) 12AWG(UL) +350mm, -280mm/±1400mm or Customized Length
No. of Cells	144(6*24)
Junction Box	IP68, 3 bypass diodes
Connector	MC4 compatible/MC4-Evo2
Weight	27kg±3%
Dimension	2278*1134*30mm
Package Detail	37pcs per pallet / 185pcs per 20'GP / 740pcs per 40'HC

Temperature Ratings (STC)

Temperature Coefficient of I_{sc}	+ 0.05%/ °C
Temperature Coefficient of V_{oc}	- 0.22%/ °C
Temperature Coefficient of P_{max}	- 0.26%/ °C

Installation Guide

Operation Temperature	-40°C - +85°C
Maximum Series Fuse Rating	25A
Protection Class	Class II
Maximum System Voltage	DC1500V
Maximum Static Loading	+5400Pa/-2400Pa
Hail Test	25 mm diameter hail at 23 m/s
Fire Rating	IEC Class C



NEBULAR

2P Mono-Facial Module
430W-460W

Technical Features:

-  Partial Shading Optimisation
-  Better Temperature Coefficient
-  High Temperature Restriction
-  Micro-crack Resistance
-  Higher Power
-  Lower BOS
-  More Aesthetic Values



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Product
Warranty



Performance
Warranty



460W

Output

23.0%

Efficiency

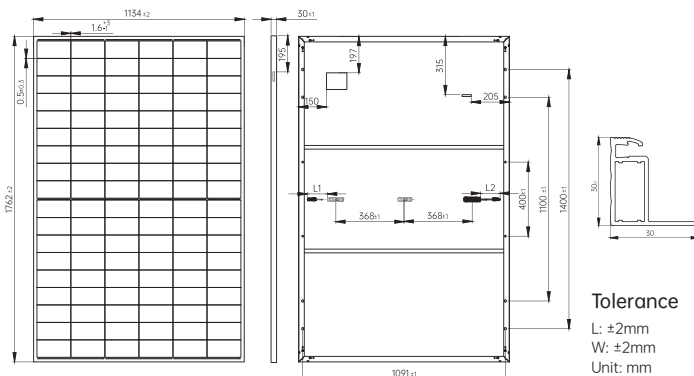
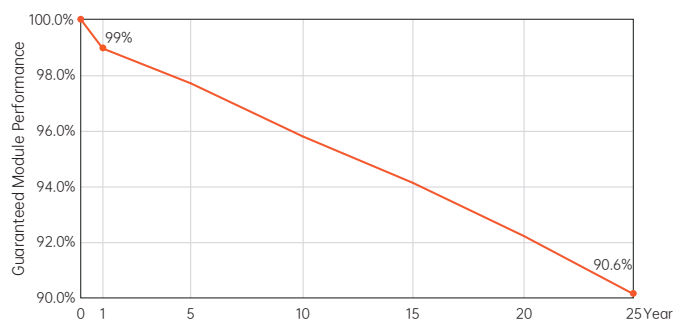
≤1%

First-year Degradation

≤0.35%

Annual Degradation from Year

25-year Linear Performance Warranty



Electrical Characteristics (STC: AM1.5 1000W/m² 25°C NOCT: AM1.5 800W/m² 20°C 1m/s)

Power Tolerance: 0~ +3%

Module Type	AIKO-A435-MAH54Tm		AIKO-A440-MAH54Tm		AIKO-A445-MAH54Tm		AIKO-A450-MAH54Tm		AIKO-A455-MAH54Tm		AIKO-A460-MAH54Tm	
	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT
P _{max} [W]	435	327	440	331	445	335	450	339	455	343	460	346
V _{oc} [V]	40.76	38.49	40.82	38.55	40.88	38.60	40.94	38.66	41.00	38.72	41.06	38.77
V _{mp} [V]	34.32	32.41	34.38	32.47	34.44	32.52	34.50	32.58	34.56	32.64	34.62	32.69
I _{sc} [A]	13.82	11.17	13.92	11.26	14.02	11.34	14.12	11.42	14.22	11.50	14.25	11.52
I _{mp} [A]	12.68	10.12	12.80	10.22	12.93	10.32	13.05	10.41	13.17	10.51	13.29	10.61
Module Efficiency	21.8%		22.0%		22.3%		22.5%		22.8%		23.0%	

Mechanical Specification

Cell Type	N-Type ABC
Front Sheet	Transparent
Back Sheet	White sheet
Frame	Black anodized aluminum
Cable	4mm ² (IEC) 12AWG(UL) 1200mm
No. of Cells	108(6*18)
Junction Box	IP68, 3bypass diodes
Connector	MC4-Evo2
Weight	8.6kg±3%
Dimension	1762*1134*30mm
Package Detail	36pcs per pallet / 216pcs per 20' GP / 936pcs per 40' HC

Temperature Ratings (STC)

Temperature Coefficient of I _{sc}	+ 0.04%/ °C
Temperature Coefficient of V _{oc}	- 0.22%/ °C
Temperature Coefficient of P _{max}	- 0.26%/ °C

Installation Guide








Operation Temperature	-40°C - +85°C
Maximum Series Fuse Rating	25A
Protection Class	Class II
V _{oc} and I _{sc} Tolerance	±3%
Maximum System Voltage	DC1500V
Maximum Static Loading	Front 3600Pa Back 2400Pa
Hail Test	25 mm diameter hail at 23 m/s
Fire Rating	IEC Class C



NEOSTAR

1U+ Dual-Glass Module
655W-680W

Technical Features:

-  Partial Shading Optimisation
-  Better Temperature Coefficient
-  High Temperature Restriction
-  Micro-crack Resistance
-  Higher Power
-  Lower BOS
-  More Aesthetic Values



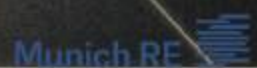
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Product Warranty
(Extendable to 25years*)



Performance
Warranty



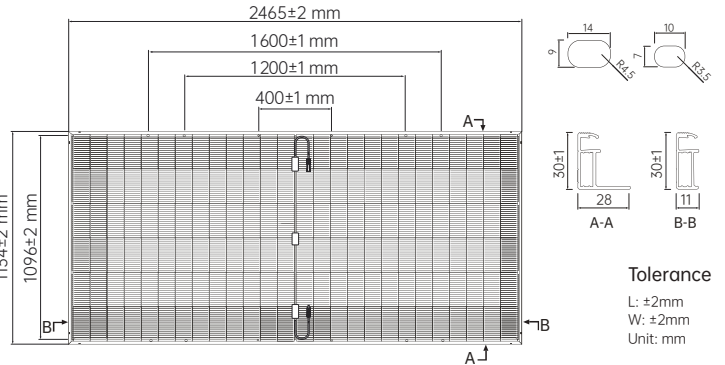
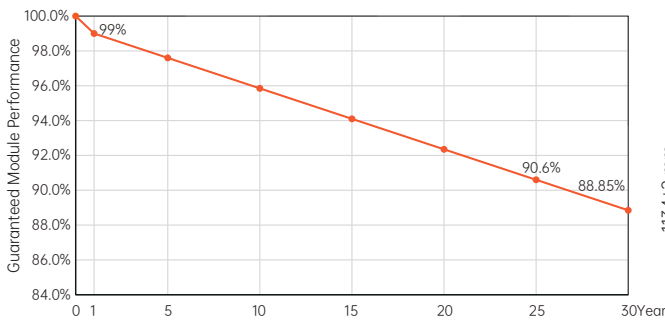
680W
Output

24.3%
Efficiency

≤1%
First-year Degradation

≤0.35%
Annual Degradation from Year 2-30

30-year Linear Performance Warranty



Electrical Characteristics (STC: AM1.5 1000W/m² 25°C NOCT: AM1.5 800W/m² 20°C 1m/s)

Power Tolerance: 0~ +3%

Module Type	AIKO-A655-MAH78Dw		AIKO-A660-MAH78Dw		AIKO-A665-MAH78Dw		AIKO-A670-MAH78Dw		AIKO-A675-MAH78Dw		AIKO-A680-MAH78Dw	
	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT
P_{max} [W]	655	493	660	497	665	501	670	505	675	508	680	512
V_{oc} [V]	58.74	55.47	58.80	55.53	58.86	55.58	58.92	55.64	58.98	55.70	58.04	55.75
V_{mp} [V]	48.61	45.91	48.67	45.97	48.73	46.02	48.79	46.08	48.85	46.14	48.91	46.19
I_{sc} [A]	14.21	11.49	14.28	11.55	14.35	11.61	14.42	11.66	14.49	11.72	14.56	11.78
I_{mp} [A]	13.48	10.76	13.57	10.82	13.65	10.89	13.74	10.96	13.82	11.03	13.91	11.10
Module Efficiency	23.4%		23.6%		23.8%		24.0%		24.1%		24.3%	

Mechanical Specification

Bifacial Factor	70±5%
Cell Type	N-Type ABC
Glass	Dual glass, 2.0 + 2.0mm coated semi tempered glass
Frame	Anodized aluminum
Cable	4mm ² (IEC) 12AWG(UL) +350mm, -280mm or Customized Length
No. of Cells	156(6*26)
Junction Box	IP68, 3 bypass diodes
Connector	MC4 Compatible
Weight	34.7kg±3%
Dimension	2465*1134*30mm
Package Detail	36pcs per pallet / 576pcs per 40'HC

Temperature Ratings (STC)

Temperature Coefficient of I_{sc}	+ 0.05%/ °C
Temperature Coefficient of V_{oc}	- 0.22%/ °C
Temperature Coefficient of P_{max}	- 0.26%/ °C

Installation Guide








Operation Temperature	-40°C - +85°C
Maximum Series Fuse Rating	25A
Protection Class	Class II
V_{oc} and I_{sc} Tolerance	±3%
Maximum System Voltage	DC1500V
Maximum Static Loading	Front 5400Pa Back 2400Pa
Hail Test	25 mm diameter hail at 23 m/s
Fire Rating	IEC Class C



NEOSTAR

2N Mono-Glass Module
450W-485W

Technical Features:

-  Partial Shading Optimisation
-  Better Temperature Coefficient
-  High Temperature Restriction
-  Micro-crack Resistance
-  Higher Power
-  Lower BOS
-  More Aesthetic Values



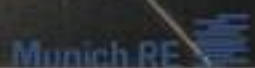
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Product Warranty
(Extendable to 25 years*)



Performance
Warranty



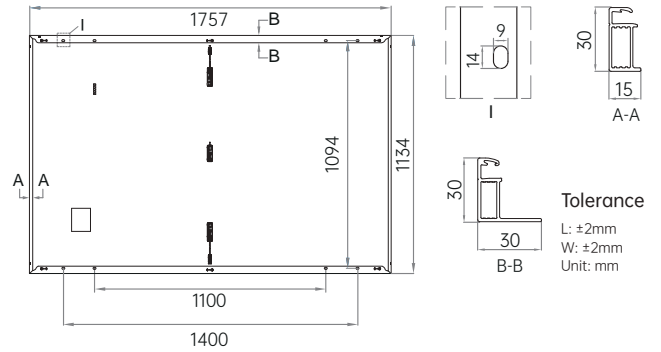
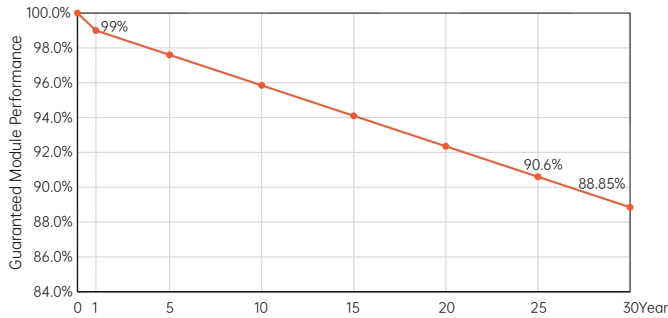
485W
Output

24.3%
Efficiency

≤1%
First-year Degradation

≤0.35%
Annual Degradation from Year 2-30

30-year Linear Performance Warranty



Electrical Characteristics (STC: AM1.5 1000W/m² 25°C NOCT: AM1.5 800W/m² 20°C 1m/s)

Power Tolerance: 0~ +3%

Module Type	AIKO-A450-MAH54Mw		AIKO-A455-MAH54Mw		AIKO-A460-MAH54Mw		AIKO-A465-MAH54Mw		AIKO-A470-MAH54Mw		AIKO-A475-MAH54Mw		AIKO-A480-MAH54Mw		AIKO-A485-MAH54Mw	
	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT
P_{max} [W]	450	339	455	343	460	346	465	350	470	354	475	358	480	361	485	365
V_{oc} [V]	40.94	38.66	41.00	38.72	41.06	38.77	41.12	38.83	41.18	38.89	41.24	38.94	41.30	39.00	41.36	39.06
V_{mp} [V]	34.50	32.58	34.56	32.64	34.62	32.69	34.68	32.75	34.74	32.81	34.80	32.86	34.86	32.92	34.92	32.98
I_{sc} [A]	14.12	11.42	14.22	11.50	14.25	11.52	14.29	11.55	14.32	11.58	14.35	11.60	14.38	11.63	14.41	11.66
I_{mp} [A]	13.05	10.41	13.17	10.51	13.29	10.61	13.41	10.71	13.54	10.80	13.66	10.90	13.78	10.99	13.90	11.09
Module Efficiency	22.6%		22.8%		23.1%		23.3%		23.6%		23.8%		24.1%		24.3%	

Mechanical Specification

Cell Type	N-Type ABC
Front Cover Mono glass	3.2 mm tempered glass
Frame	Anodized aluminum
Cable	4mm ² (IEC) 12AWG(UL) ±1200mm
No. of Cells	108(6*18)
Junction Box	IP68, 3 bypass diodes
Connector	MC4-Evo2
Weight	21.5kg
Dimension	1757*1134*30mm
Package Detail	36pcs per pallet / 216pcs per 20'GP / 936pcs per 40'HC

Temperature Ratings (STC)

Temperature Coefficient of I_{sc}	+ 0.05%/ °C
Temperature Coefficient of V_{oc}	- 0.22%/ °C
Temperature Coefficient of P_{max}	- 0.26%/ °C

Installation Guide








Operation Temperature	-40°C - +85°C
Maximum Series Fuse Rating	25A
Protection Class	Class II
V_{oc} and I_{sc} Tolerance	±3%
Maximum System Voltage	DC1500V
Maximum Static Loading	Front 5400Pa Back 2400Pa
Hail Test	40 mm diameter hail at 27.5 m/s
Fire Rating	IEC Class C



NEOSTAR

2P Mono-Glass Module
450W-485W

Technical Features:

-  Partial Shading Optimisation
-  Better Temperature Coefficient
-  High Temperature Restriction
-  Micro-crack Resistance
-  Higher Power
-  Lower BOS
-  More Aesthetic Values



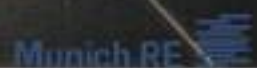
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Product Warranty
(Extendable to 25 years*)



Performance
Warranty



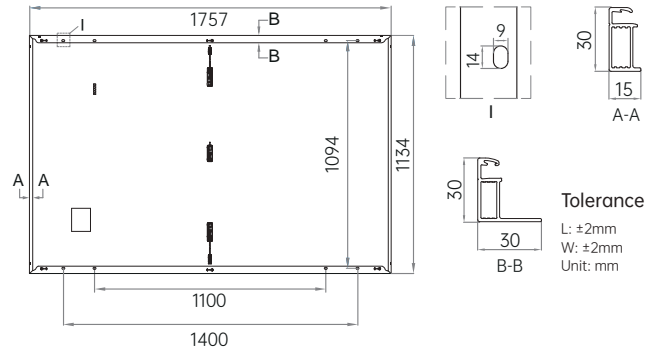
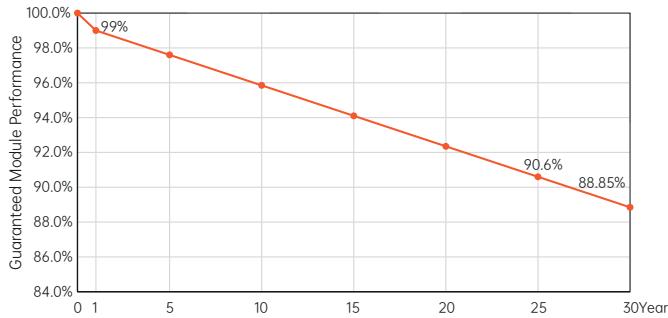
485W
Output

24.3%
Efficiency

≤1%
First-year Degradation

≤0.35%
Annual Degradation from Year 2-30

30-year Linear Performance Warranty



Electrical Characteristics (STC: AM1.5 1000W/m² 25°C NOCT: AM1.5 800W/m² 20°C 1m/s)

Power Tolerance: 0~ +3%

Module Type	AIKO-A450-MAH54Mw		AIKO-A455-MAH54Mw		AIKO-A460-MAH54Mw		AIKO-A465-MAH54Mw		AIKO-A470-MAH54Mw		AIKO-A475-MAH54Mw		AIKO-A480-MAH54Mw		AIKO-A485-MAH54Mw	
	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT
P_{max} [W]	450	339	455	343	460	346	465	350	470	354	475	358	480	361	485	365
V_{oc} [V]	40.94	38.66	41.00	38.72	41.06	38.77	41.12	38.83	41.18	38.89	41.24	38.94	41.30	39.00	41.36	39.06
V_{mp} [V]	34.50	32.58	34.56	32.64	34.62	32.69	34.68	32.75	34.74	32.81	34.80	32.86	34.86	32.92	34.92	32.98
I_{sc} [A]	14.12	11.42	14.22	11.50	14.25	11.52	14.29	11.55	14.32	11.58	14.35	11.60	14.38	11.63	14.41	11.66
I_{mp} [A]	13.05	10.41	13.17	10.51	13.29	10.61	13.41	10.71	13.54	10.80	13.66	10.90	13.78	10.99	13.90	11.09
Module Efficiency	22.6%		22.8%		23.1%		23.3%		23.6%		23.8%		24.1%		24.3%	

Mechanical Specification

Cell Type	N-Type ABC
Front Cover Mono glass	3.2 mm tempered glass
Frame	Anodized aluminum
Cable	4mm ² (IEC) 12AWG(UL) ±1200mm
No. of Cells	108(6*18)
Junction Box	IP68, 3 bypass diodes
Connector	MC4-Evo2
Weight	21.5kg
Dimension	1757*1134*30mm
Package Detail	36pcs per pallet / 216pcs per 20'GP / 936pcs per 40'HC

Temperature Ratings (STC)

Temperature Coefficient of I_{sc}	+ 0.05%/ °C
Temperature Coefficient of V_{oc}	- 0.22%/ °C
Temperature Coefficient of P_{max}	- 0.26%/ °C

Installation Guide








Operation Temperature	-40°C - +85°C
Maximum Series Fuse Rating	25A
Protection Class	Class II
V_{oc} and I_{sc} Tolerance	±3%
Maximum System Voltage	DC1500V
Maximum Static Loading	Front 5400Pa Back 2400Pa
Hail Test	40 mm diameter hail at 27.5 m/s
Fire Rating	IEC Class C



NEOSTAR

2S Mono-Glass Module
440W-470W

Technical Features:

-  Partial Shading Optimisation
-  Better Temperature Coefficient
-  High Temperature Restriction
-  Micro-crack Resistance
-  Higher Power
-  Lower BOS
-  More Aesthetic Values



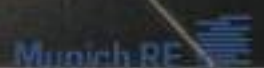
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Product
Warranty



Performance
Warranty



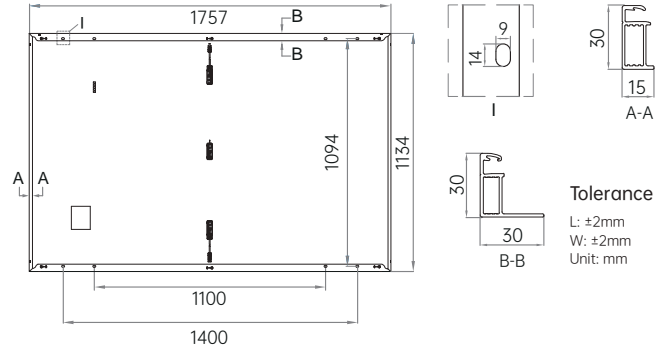
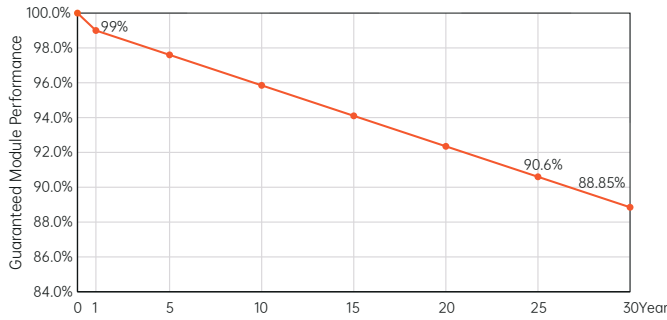
470W
Output

23.5%
Efficiency

≤1%
First-year Degradation

≤0.35%
Annual Degradation from Year 2-30

30-year Linear Performance Warranty



Electrical Characteristics (STC: AM1.5 1000W/m² 25°C NOCT: AM1.5 800W/m² 20°C 1m/s)

Power Tolerance: 0~ + 3%

Module Type	AIKO-A440-MAH54Mb		AIKO-A445-MAH54Mb		AIKO-A450-MAH54Mb		AIKO-A455-MAH54Mb		AIKO-A460-MAH54Mb		AIKO-A465-MAH54Mb		AIKO-A470-MAH54Mb	
	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT
P_{max} [W]	440	331	445	335	450	339	455	343	460	346	465	350	470	358
V_{oc} [V]	40.82	38.55	40.88	38.60	40.94	38.66	41.00	38.72	41.06	38.77	41.12	38.83	41.18	38.94
V_{mp} [V]	34.38	32.47	34.44	32.52	34.50	32.58	34.56	32.64	34.62	32.69	34.68	32.75	34.74	32.86
I_{sc} [A]	13.92	11.26	14.02	11.34	14.12	11.42	14.22	11.50	14.25	11.52	14.29	11.55	14.32	11.60
I_{mp} [A]	12.80	10.22	12.93	10.32	13.05	10.41	13.17	10.51	13.29	10.61	13.41	10.71	13.54	10.90
Module Efficiency	22.1%		22.3%		22.6%		22.8%		23.1%		23.3%		23.5%	

Mechanical Specification

Cell Type	N-Type ABC
Front Cover Mono glass	3.2 mm tempered glass
Frame	Black anodized aluminum
Cable	4mm ² (IEC) 12AWG(UL) ±1200mm
No. of Cells	108(6*18)
Junction Box	IP68, 3 bypass diodes
Connector	MC4-Evo2
Weight	21.5kg
Dimension	1757*1134*30mm
Package Detail	36pcs per pallet / 216pcs per 20'GP / 936pcs per 40'HC

Temperature Ratings (STC)

Temperature Coefficient of I_{sc}	+ 0.05%/ °C
Temperature Coefficient of V_{oc}	- 0.22%/ °C
Temperature Coefficient of P_{max}	- 0.26%/ °C

Installation Guide








Operation Temperature	-40°C - +85°C
Maximum Series Fuse Rating	25A
Protection Class	Class II
V_{oc} and I_{sc} Tolerance	±3%
Maximum System Voltage	DC1500V
Maximum Static Loading	Front 5400Pa Back 2400Pa
Hail Test	40 mm diameter hail at 27.5 m/s
Fire Rating	IEC Class C



NEOSTAR

2S+ Dual-Glass Module
440W-470W

Technical Features:

-  Partial Shading Optimisation
-  Better Temperature Coefficient
-  High Temperature Restriction
-  Micro-crack Resistance
-  Higher Power
-  Lower BOS
-  More Aesthetic Values



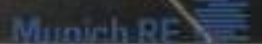
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Product
Warranty



Performance
Warranty



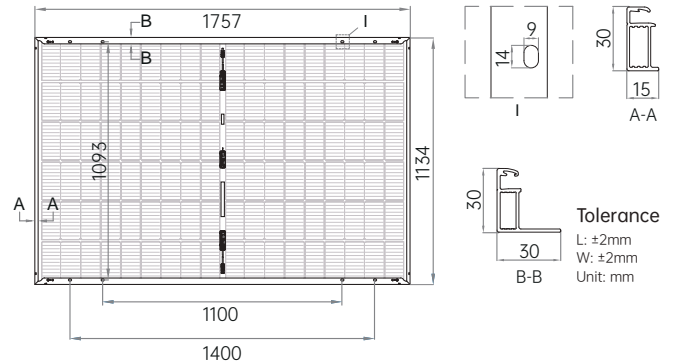
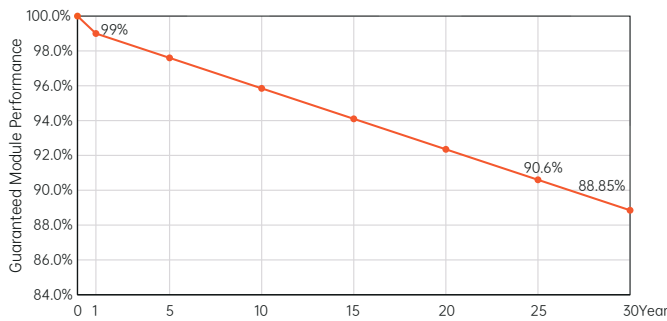
470W
Output

23.6%
Efficiency

≤1%
First-year Degradation

≤0.35%
Annual Degradation from Year 2-30

30-year Linear Performance Warranty



Electrical Characteristics (STC: AM1.5 1000W/m² 25°C NOCT: AM1.5 800W/m² 20°C 1m/s)

Power Tolerance: 0~ +3%

Module Type	AIKO-A440-MAH54Db		AIKO-A445-MAH54Db		AIKO-A450-MAH54Db		AIKO-A455-MAH54Db		AIKO-A460-MAH54Db		AIKO-A465-MAH54Db		AIKO-A470-MAH54Db	
	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT
P_{max} [W]	440	331	445	335	450	339	455	343	460	346	465	350	470	354
V_{oc} [V]	40.82	38.55	40.88	38.60	40.94	38.66	41.00	38.72	41.06	38.77	41.12	38.83	41.18	38.89
V_{mp} [V]	34.38	32.47	34.44	32.52	34.50	32.58	34.56	32.64	34.62	32.69	34.68	32.75	34.74	32.81
I_{sc} [A]	13.92	11.26	14.02	11.34	14.12	11.42	14.22	11.50	14.25	11.52	14.29	11.55	14.32	11.58
I_{mp} [A]	12.80	10.22	12.93	10.32	13.05	10.41	13.17	10.51	13.29	10.61	13.41	10.71	13.54	10.80
Module Efficiency	22.1%		22.3%		22.6%		22.8%		23.1%		23.3%		23.6%	

Mechanical Specification

Cell Type	N-Type ABC
Glass	Dual glass, 2.0 + 2.0mm coated semi tempered glass
Frame	Black Anodized aluminum
Cable	4mm ² (IEC) 12AWG(UL) ±1200mm
No. of Cells	108(6*18)
Junction Box	IP68, 3 bypass diodes
Connector	MC4-Evo2
Weight	24.5kg
Dimension	1757*1134*30mm
Package Detail	36pcs per pallet / 216pcs per 20'GP / 936pcs per 40'HC

Temperature Ratings (STC)

Temperature Coefficient of I_{sc}	+ 0.05%/ °C
Temperature Coefficient of V_{oc}	- 0.22%/ °C
Temperature Coefficient of P_{max}	- 0.26%/ °C

Installation Guide



Operation Temperature	-40°C - +85°C
Maximum Series Fuse Rating	25A
Protection Class	Class II
V_{oc} and I_{sc} Tolerance	±3%
Maximum System Voltage	DC1500V
Maximum Static Loading	Front 5400Pa Back 2400Pa
Hail Test	35 mm diameter hail at 27.2 m/s
Fire Rating	IEC Class C



NEOSTAR

3N+78 Dual-glass Module
675W-700W

Technical Features:

-  Partial Shading Optimisation
-  Better Temperature Coefficient
-  High Temperature Restriction
-  Micro-crack Resistance
-  Higher Power
-  Lower BOS
-  More Aesthetic Values
-  Infinite Technology



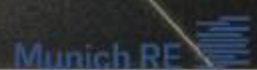
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Product Warranty
(Extendable to 25years*)



Performance
Warranty



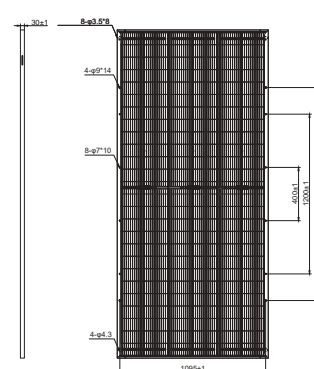
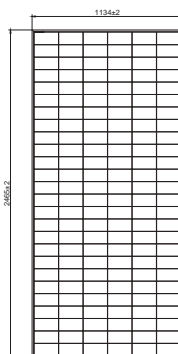
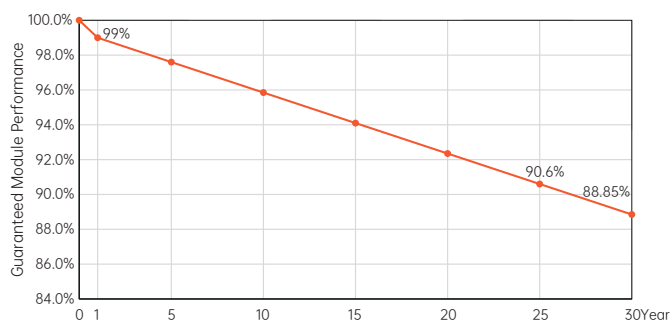
700W
Output

25.0%
Efficiency

≤1%
First-year Degradation

≤0.35%
Annual Degradation from Year 2-30

30-year Linear Performance Warranty



Tolerance
L: ±2mm
W: ±2mm
Unit: mm

Electrical Characteristics (STC: AM1.5 1000W/m² 25°C NOCT: AM1.5 800W/m² 20°C 1m/s) Power Tolerance: 0- + 3%

Module Type	AIKO-A675-MAE78Dw		AIKO-A680-MAE78Dw		AIKO-A685-MAE78Dw		AIKO-A690-MAE78Dw		AIKO-A695-MAE78Dw		AIKO-A700-MAE78Dw	
	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT
P _{max} [W]	675	508	680	512	685	516	690	520	695	523	700	527
V _{oc} [V]	58.98	55.70	59.04	55.75	59.10	55.81	59.16	55.87	59.22	55.92	59.28	55.98
V _{mp} [V]	48.85	46.14	48.91	46.19	48.97	46.25	49.03	46.31	49.09	46.36	49.15	46.42
I _{sc} [A]	14.49	11.72	14.56	11.78	14.63	11.83	14.70	11.89	14.77	11.95	14.84	12.00
I _{mp} [A]	13.82	11.03	13.91	11.1	13.99	11.17	14.08	11.23	14.16	11.30	14.25	11.37
Module Efficiency	24.1%		24.3%		24.5%		24.7%		24.9%		25.0%	

Product Specification

Cell type	N-Type ABC
Glass	Dual glass, 2.0+2.0mm coated semi-tempered glass
Frame	Anodized aluminum
Cable	4mm ² (IEC) 12AWG(UL) ±1200mm
No. of Cells	156(6*26)
Junction Box	IP68, 3 bypass diodes
Connector	MC4 compatible
Weight	34.5kg±3%
Dimension	2465*1134*30mm
Package Detail	37pcs per pallet /148pcs per 20'GP/ 592pcs per 40'HC

Temperature Ratings (STC)

Temperature Coefficient of I _{sc}	+ 0.05%/ °C
Temperature Coefficient of V _{oc}	- 0.22%/ °C
Temperature Coefficient of P _{max}	- 0.26%/ °C

Installation Guide

Operation Temperature	-40°C - +85°C
Maximum Series Fuse Rating	25A
Protection Class	Class II
Maximum System Voltage	DC1500V
Maximum Static Loading	+5400Pa/-2400Pa
Hail Test	25 mm diameter hail at 23 m/s
Fire Rating	IEC Class C



NEOSTAR

3N54 Mono-glass Module
470W-495W

Technical Features:

-  Partial Shading Optimisation
-  Better Temperature Coefficient
-  High Temperature Restriction
-  Micro-crack Resistance
-  Higher Power
-  Lower BOS
-  More Aesthetic Values
-  Infinite Technology



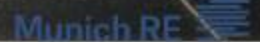
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Product Warranty
(Extendable to 25years*)



Performance
Warranty



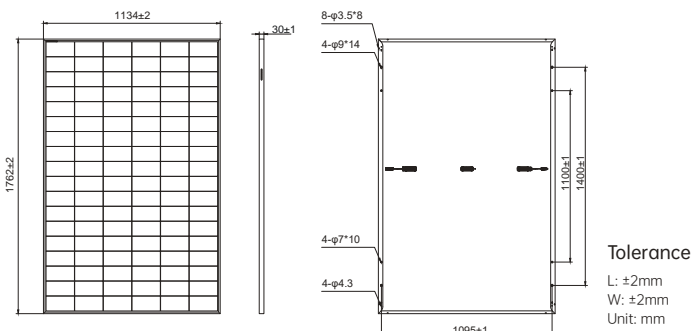
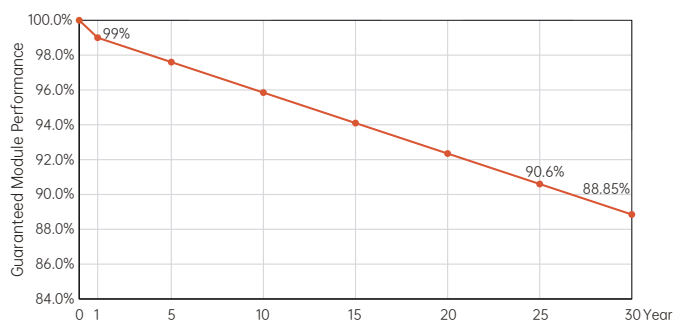
495W
Output

24.8%
Efficiency

≤1%
First-year Degradation

≤0.35%
Annual Degradation from Year 2-30

30-year Linear Performance Warranty



Electrical Characteristics (STC: AM1.5 1000W/m² 25°C NOCT: AM1.5 800W/m² 20°C 1m/s) Power Tolerance:0~ + 3%

Module Type	AIKO-A470-MCE54Mw		AIKO-A475-MCE54Mw		AIKO-A480-MCE54Mw		AIKO-A485-MCE54Mw		AIKO-A490-MCE54Mw		AIKO-A495-MCE54Mw	
	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT
P _{max} [W]	470	356	475	360	480	364	485	367	490	371	495	375
V _{oc} [V]	40.60	38.52	40.70	38.61	40.80	38.71	40.90	38.80	41.00	38.90	41.10	38.99
V _{mp} [V]	34.00	32.26	34.10	32.35	34.20	32.45	34.30	32.54	34.40	32.64	34.50	32.73
I _{sc} [A]	14.70	11.88	14.76	11.93	14.82	11.97	14.88	12.02	14.94	12.07	15.00	12.12
I _{mp} [A]	13.83	11.05	13.94	11.14	14.04	11.22	14.15	11.31	14.25	11.39	14.35	11.48
Module Efficiency	23.5%		23.8%		24.0%		24.3%		24.5%		24.8%	

Product Specification

Cell type	N-Type ABC
Glass	3.2 mm tempered glass
Backsheet	High weather resistant backsheet
Frame	Anodized aluminum
Cable	4mm ² (IEC) 12AWG(UL) ±1200mm
No. of Cells	108(6*18)
Junction Box	IP68, 3 bypass diodes
Connector	MC4-Evo2
Weight	21kg±3%
Dimension	1762*1134*30mm
Package Detail	37pcs per pallet /222pcs per 20'GP/ 962pcs per 40'HC

Temperature Ratings (STC)

Temperature Coefficient of I _{sc}	+ 0.05%/ °C
Temperature Coefficient of V _{oc}	- 0.22%/ °C
Temperature Coefficient of P _{max}	- 0.26%/ °C

Installation Guide


Operation Temperature	-40°C - +85°C
Maximum Series Fuse Rating	25A
Protection Class	Class II
Maximum System Voltage	DC1500V
Maximum Static Loading	+5400Pa/-2400Pa
Hail Test	25 mm diameter hail at 23 m/s
Fire Rating	IEC Class C



NEOSTAR

3S+54 Dual-glass Module
460W-485W

Technical Features:

-  Partial Shading Optimisation
-  Better Temperature Coefficient
-  High Temperature Restriction
-  Micro-crack Resistance
-  Higher Power
-  Lower BOS
-  More Aesthetic Values
-  Infinite Technology



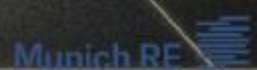
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Product
Warranty



Performance
Warranty



485W

Output

24.3%

Efficiency

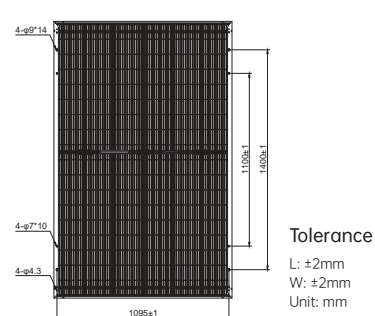
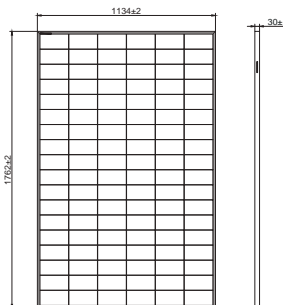
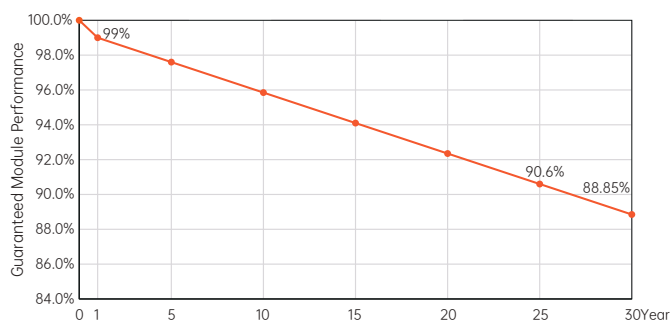
≤1%

First-year Degradation

≤0.35%

Annual Degradation from Year 2-30

30-year Linear Performance Warranty



Electrical Characteristics (STC: AM1.5 1000W/m² 25°C NOCT: AM1.5 800W/m² 20°C 1m/s) Power Tolerance: 0~ + 3%

Module Type	AIKO-A460-MCE54Db		AIKO-A465-MCE54Db		AIKO-A470-MCE54Db		AIKO-A475-MCE54Db		AIKO-A480-MCE54Db		AIKO-A485-MCE54Db	
	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT
P _{max} [W]	460	349	465	352	470	356	475	360	480	364	485	367
V _{oc} [V]	40.40	38.33	40.50	38.42	40.60	38.52	40.70	38.61	40.80	38.71	40.90	38.80
V _{mp} [V]	33.80	31.07	33.90	32.16	34.00	32.26	34.10	32.35	34.20	32.45	34.30	32.54
I _{sc} [A]	14.58	11.78	14.64	11.83	14.70	11.88	14.76	11.93	14.82	11.97	14.88	12.02
I _{mp} [A]	13.62	10.89	13.72	10.97	13.83	11.05	13.94	11.14	14.04	11.22	14.15	11.31
Module Efficiency	23.0%		23.3%		23.5%		23.8%		24.0%		24.3%	

Product Specification

Cell type	N-Type ABC
Glass	Dual glass, 2.0+2.0mm coated semi-tempered glass
Frame	Black anodized aluminum
Cable	4mm ² (IEC) 12AWG(UL) ±1200mm
No. of Cells	108(6*18)
Junction Box	IP68, 3 bypass diodes
Connector	MC4-Evo2
Weight	24.5kg±3%
Dimension	1762*1134*30mm
Package Detail	37pcs per pallet /222pcs per 20'GP/ 962pcs per 40'HC

Temperature Ratings (STC)

Temperature Coefficient of I _{sc}	+ 0.05%/ °C
Temperature Coefficient of V _{oc}	- 0.22%/ °C
Temperature Coefficient of P _{max}	- 0.26%/ °C

Installation Guide




Operation Temperature	-40°C - +85°C
Maximum Series Fuse Rating	25A
Protection Class	Class II
Maximum System Voltage	DC1500V
Maximum Static Loading	+5400Pa/-2400Pa
Hail Test	25 mm diameter hail at 23 m/s
Fire Rating	IEC Class C



NEOSTAR

3S54 Mono-glass Module
460W-485W

Technical Features:

-  Partial Shading Optimisation
-  Better Temperature Coefficient
-  High Temperature Restriction
-  Micro-crack Resistance
-  Higher Power
-  Lower BOS
-  More Aesthetic Values
-  Infinite Technology



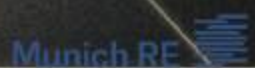
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Product
Warranty



Performance
Warranty



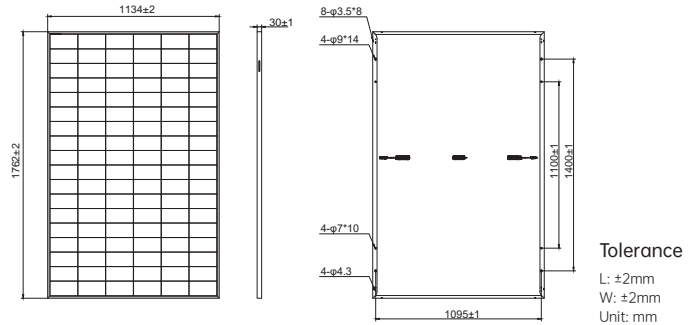
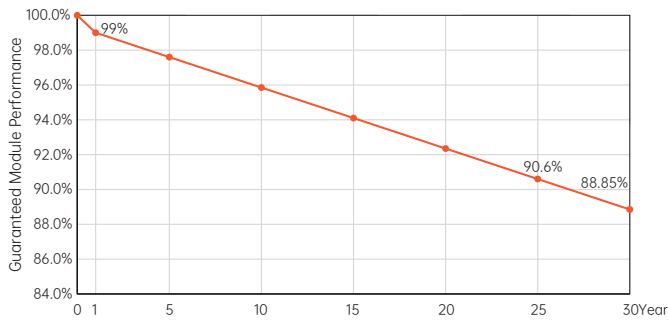
485W
Output

24.3%
Efficiency

≤1%
First-year Degradation

≤0.35%
Annual Degradation from Year 2-30

30-year Linear Performance Warranty



Electrical Characteristics (STC: AM1.5 1000W/m² 25°C NOCT: AM1.5 800W/m² 20°C 1m/s) Power Tolerance: 0~ + 3%

Module Type	AIKO-A460-MCE54Mb		AIKO-A465-MCE54Mb		AIKO-A470-MCE54Mb		AIKO-A475-MCE54Mb		AIKO-A480-MCE54Mb		AIKO-A485-MCE54Mb	
	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT
P _{max} [W]	460	349	465	352	470	356	475	360	480	364	485	367
V _{oc} [V]	40.40	38.33	40.50	38.42	40.60	38.52	40.70	38.61	40.80	38.71	40.90	38.80
V _{mp} [V]	33.80	32.07	33.90	32.16	34.00	32.26	34.10	32.35	34.20	32.45	34.30	32.54
I _{sc} [A]	14.58	11.78	14.64	11.83	14.70	11.88	14.76	11.93	14.82	11.97	14.88	12.02
I _{mp} [A]	13.62	10.89	13.72	10.97	13.83	11.05	13.94	11.14	14.04	11.22	14.15	11.31
Module Efficiency	23.0%		23.3%		23.5%		23.8%		24.0%		24.3%	

Product Specification	
Cell type	N-Type ABC
Glass	3.2 mm tempered glass
Backsheet	High weather resistant backsheet
Frame	Black anodized aluminum
Cable	4mm ² (IEC) 12AWG(UL) ±1200mm
No. of Cells	108(6*18)
Junction Box	IP68, 3 bypass diodes
Connector	MC4-Evo2
Weight	21kg±3%
Dimension	1762*1134*30mm
Package Detail	37pcs per pallet /222pcs per 20'GP/ 962pcs per 40'HC

Temperature Ratings (STC)	
Temperature Coefficient of I _{sc}	+ 0.05%/ °C
Temperature Coefficient of V _{oc}	- 0.22%/ °C
Temperature Coefficient of P _{max}	- 0.26%/ °C

Installation Guide	
Operation Temperature	-40°C - +85°C
Maximum Series Fuse Rating	25A
Protection Class	Class II
Maximum System Voltage	DC1500V
Maximum Static Loading	+5400Pa/-2400Pa
Hail Test	25 mm diameter hail at 23 m/s
Fire Rating	IEC Class C



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*AIKO reserves right to update the specification without notice
DSDr_EN_2405_V1.5

STELLAR

1N+ Dual-Glass Module
635W-660W

Technical Features:

-  Partial Shading Optimisation
-  Better Temperature Coefficient
-  High Temperature Restriction
-  Micro-crack Resistance
-  Higher Power
-  Lower BOS
-  More Aesthetic Values



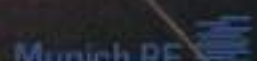
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Product Warranty
(Extendable to 25 years*)



Performance
Warranty



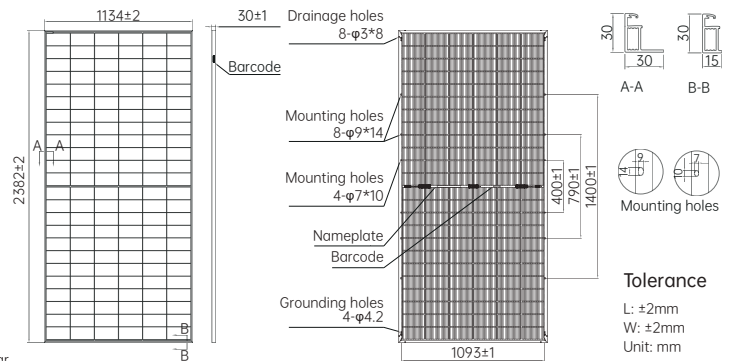
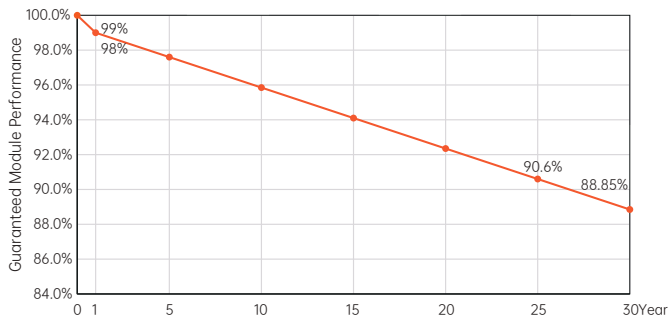
660W
Output

24.4%
Efficiency

≤1%
First-year Degradation

≤0.35%
Annual Degradation from Year 2-30

30-year Linear Performance Warranty



Electrical Characteristics (STC: AM1.5 1000W/m² 25°C NOCT: AM1.5 800W/m² 20°C 1m/s) Power Tolerance: 0~ + 3%

Module Type	AIKO-G635-MCH72Dw		AIKO-G640-MCH72Dw		AIKO-G645-MCH72Dw		AIKO-G650-MCH72Dw		AIKO-G655-MCH72Dw		AIKO-G660-MCH72Dw	
	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT
P_{max} [W]	635	481	640	485	645	489	650	493	655	496	660	500
V_{oc} [V]	54.70	50.95	53.80	51.04	53.90	51.14	54.00	51.23	54.10	51.33	54.20	51.42
V_{mp} [V]	45.00	42.69	45.10	42.79	45.20	42.88	45.30	42.98	45.40	43.07	45.50	43.17
I_{sc} [A]	14.88	12.02	14.94	12.07	15.00	12.12	15.06	12.17	15.12	12.22	15.18	12.27
I_{mp} [A]	14.12	11.29	14.20	11.35	14.27	11.41	14.35	11.48	14.43	11.54	14.51	11.60
Module Efficiency	23.5%		23.7%		23.9%		24.1%		24.2%		24.4%	

Mechanical Specification

Bifacial Factor	70±5%
Cell Type	N-Type ABC
Glass	Dual glass, 2.0 + 2.0mm Heat Strengthened Glass
Frame	Anodized aluminum
Cable	4mm ² (IEC) 12AWG(UL) +350mm, -280mm/±1400mm or Customized Length
No. of Cells	144(6*24)
Junction Box	IP68, 3 bypass diodes
Connector	MC4 Compatible/MC4-Evo2
Weight	33.5kg±3%
Dimension	2382*1134*30mm
Package Detail	36pcs per pallet / 144pcs per 20'GP / 720pcs per 40'HC

Temperature Ratings (STC)

Temperature Coefficient of I_{sc}	+ 0.05%/ °C
Temperature Coefficient of V_{oc}	- 0.22%/ °C
Temperature Coefficient of P_{max}	- 0.26%/ °C

Installation Guide

Operation Temperature	-40°C - +85°C
Maximum Series Fuse Rating	30A
Protection Class	Class II
V_{oc} and I_{sc} Tolerance	±3%
Maximum System Voltage	DC1500V
Maximum Static Loading	Front 5400Pa Back 2400Pa
Hail Test	35 mm diameter hail at 27.2 m/s
Fire Rating	IEC Class C



STELLAR

3N+72 Dual-glass Module
650W-675W

Technical Features:

-  Partial Shading Optimisation
-  Better Temperature Coefficient
-  High Temperature Restriction
-  Micro-crack Resistance
-  Higher Power
-  Lower BOS
-  More Aesthetic Values
-  Infinite Technology



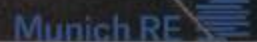
reddot winner 2023



Product Warranty
(Extendable to 25years*)



Performance
Warranty



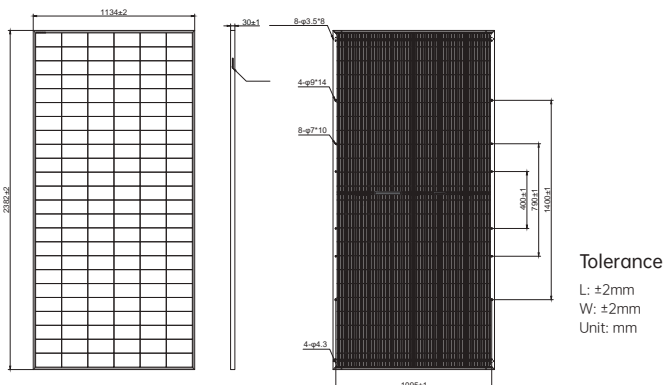
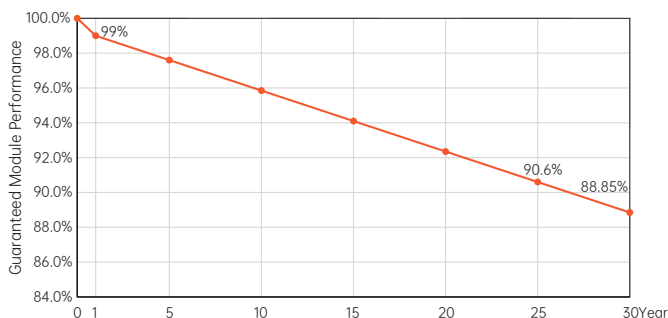
675W
Output

25.0%
Efficiency

≤1%
First-year Degradation

≤0.35%
Annual Degradation from Year 2-30

30-year Linear Performance Warranty



Electrical Characteristics (STC: AM1.5 1000W/m² 25°C NOCT: AM1.5 800W/m² 20°C 1m/s) Power Tolerance: 0- + 3%

Module Type	AIKO-A650-MDE72Dw		AIKO-A655-MDE72Dw		AIKO-A660-MDE72Dw		AIKO-A665-MDE72Dw		AIKO-A670-MDE72Dw		AIKO-A675-MDE72Dw	
	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT
P _{max} [W]	650	493	655	496	660	500	665	504	670	508	675	512
V _{oc} [V]	54.00	51.23	54.10	51.33	54.20	51.42	54.40	51.61	54.60	51.80	54.80	51.99
V _{mp} [V]	45.30	42.98	45.40	43.07	45.50	43.17	45.60	43.26	45.70	43.36	45.80	43.45
I _{sc} [A]	15.06	12.17	15.12	12.22	15.18	12.27	15.24	12.31	15.30	12.36	15.36	12.41
I _{mp} [A]	14.35	11.48	14.43	11.54	14.51	11.60	14.59	11.66	14.67	11.72	14.74	11.79
Module Efficiency	24.1%		24.2%		24.4%		24.6%		24.8%		25.0%	

Product Specification

Cell type	N-Type ABC
Glass	Dual glass, 2.0+2.0mm coated semi tempered glass
Frame	Anodized aluminum
Cable	4mm ² (IEC) 12AWG(UL) +350mm,-280mm/±1400mm or Customized Length
No. of Cells	144(6*24)
Junction Box	IP68, 3 bypass diodes
Connector	MC4 compatible/MC4-Evo2
Weight	33kg±3%
Dimension	2382*1134*30mm
Package Detail	37pcs per pallet /148pcs per 20'GP/ 740pcs per 40'HC

Temperature Ratings (STC)

Temperature Coefficient of I _{sc}	+ 0.05%/ °C
Temperature Coefficient of V _{oc}	- 0.22%/ °C
Temperature Coefficient of P _{max}	- 0.26%/ °C

Installation Guide

Operation Temperature	-40°C - +85°C
Maximum Series Fuse Rating	30A
Protection Class	Class II
Maximum System Voltage	DC1500V
Maximum Static Loading	+5400Pa/-2400Pa
Hail Test	25 mm diameter hail at 23 m/s
Fire Rating	IEC Class C



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marketing@aikosolar.com

*AIKO reserves right to update the specification without notice
DSDr_EN_2405_V1.5



N-Type ABC Neostar Series

AIKO-A-MAH54Db

Up to **23.3%**
440W-455W



Product
Warranty



Performance
Warranty

Full Black Design

No grid lines on the front

Higher Power Output

Higher efficiency: 23.3%

Lower degradation: 1 year \leq 1.0%, 2 -30 year \leq 0.35%

Better temperature coefficient: $-0.26\%/^{\circ}\text{C}$

Optimized Balance of System (BOS)

Significant savings on mounting structure, cabling, and labour cost



Complete Set of Quality Management System

IEC 61730 (2016) IEC 61215 (2021)

ISO 9001:2015 Quality Management System

ISO 14001:2015 Environmental Management System

ISO 45001:2018 Occupational Safety and Management System

* Product warranty extendable to 25 years, applies to Europe and Australia

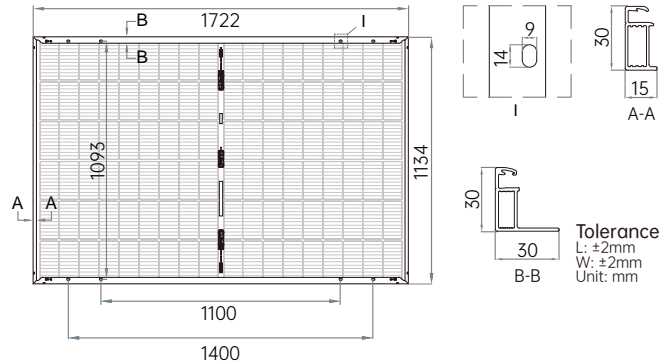
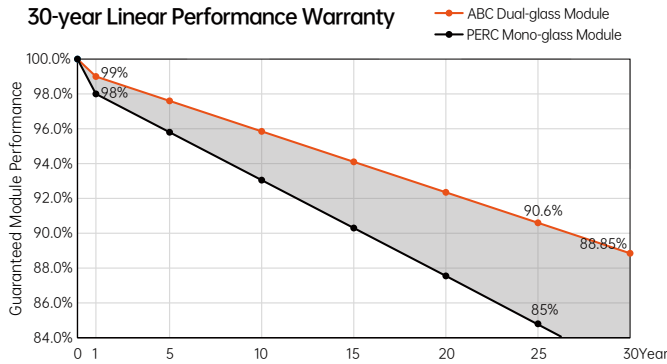
455W
Output

23.3%
Efficiency

≤1%
First-year Degradation

≤0.35%
Annual Degradation from Year 2-30

30-year Linear Performance Warranty



Electrical Characteristics (STC: AM1.5 1000W/m² 25°C NOCT: AM1.5 800W/m² 20°C 1m/s) Power Tolerance: 0~ + 3%

Model	AIKO-A440-MAH54Db		AIKO-A445-MAH54Db		AIKO-A450-MAH54Db		AIKO-455-MAH54Db	
	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT
Test Conditions	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT
P_{max} [W]	440	332	445	336	450	339	455	343
V_{oc} [V]	40.05	37.72	40.15	37.82	40.25	37.91	40.35	38.00
V_{mp} [V]	33.69	31.73	33.79	31.83	33.89	31.92	33.99	32.01
I_{sc} [A]	13.62	10.98	13.68	11.03	13.74	11.08	13.80	11.13
I_{mp} [A]	13.07	10.47	13.18	10.56	13.28	10.65	13.39	10.73
Module Efficiency	22.5%		22.8%		23.0%		23.3%	

Mechanical Specification

Cell Type	N-Type ABC
Glass	Dual glass, 2.0+2.0mm coated semi tempered glass
Frame	Black anodized aluminum
Cable	4mm ² (IEC) 12AWG(UL) 1200mm or Customized Length
No. of Cells	108(6*18)
Junction Box	IP68, three bypass diodes
Connector	MC4 EVO2
Weight	24.0kg±3%
Dimension	1722*1134*30mm
Package Detail	36pcs per pallet/216 pcs per 20' GP/936pcs per 40' HQ

Temperature Ratings (STC)

Temperature Coefficient of I_{sc}	+ 0.05%/ °C
Temperature Coefficient of V_{oc}	- 0.22%/ °C
Temperature Coefficient of P_{max}	- 0.26%/ °C

Installation Guide

Operation Temperature	- 40°C~+85°C
Maximum Series Fuse Rating	25A
Protection Class	Class II
V_{oc} and I_{sc} Tolerance	±3%
Maximum System Voltage	DC1500V
Maximum Static Loading	Front 5400Pa Back 2400Pa
Hail Test	25 mm diameter hail at 23 m/s
Fire Rating	IEC Class C