

CERTIFICATE

TÜV NORD CERT GmbH
herewith declares that

Suzhou Akcome Optronics Science & Technology Co., Ltd.
Jintang Rd, Zhangjiagang Economic Development Zone
Zhangjiagang City, Jiangsu Province, 215618
P.R. China

is authorized to provide the product mentioned below with the mark as illustrated:

Description of product (details see Annex 2):

Crystalline Silicon Terrestrial Photovoltaic (PV) Modules



Valid from: 2023-07-10

Valid until: 2028-10-11

Certification program:	P12-VA-01 Rev. 17 09.20
Certification fundamental(s):	IEC / EN 61215-1:2016; IEC / EN 61215-1-1:2016; IEC 61215-2:2016 / EN 61215-2:2017 + AC:2017 + AC:2018; IEC 61730-1:2016 / EN IEC 61730-1:2018 + AC:2018; IEC 61730-2:2016 / EN IEC 61730-2:2018 + AC:2018.
Registered No.:	44 780 21 406749 - 241R9A2M16
Manufacturer:	see Annex 1
Test Report No.:	492011852.018
File No.:	PVP04060/23P-01



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Essen, 2023-07-10

Please also pay attention to the information stated overleaf.

Manufacturer:

Manufacturer 1: **Suzhou Akcome Optronics Science & Technology Co., Ltd.**
Jintang Rd, Zhangjiagang Economic Development Zone
Zhangjiagang City, Jiangsu Province, 215618, P.R. China

Factory inspection report no.: 862010243.010

Manufacturer 2: **Zhejiang Akcome Optronics Science&Technology Co., Ltd.**
Zheneng Science and Technology Industrial Park, Meishan Town
Changxing, Huzhou City, Zhejiang, P.R.China

Factory inspection report no.: 862010481.004

Manufacturer 3: **Ganzhou Akcome Optronics Science & Technology Co., Ltd.**
Jingba Industrial Zone, Jingba Town, Nankang District
Ganzhou City, Jiangxi Province, 341408, P.R. China

Factory inspection report no.: 862010369.005

Manufacturer 4: **Zhejiang Winhitech New Energy Co., Ltd.**
Tonggang 1st Road, Dinghai District, 316000 Zhoushan City, Zhejiang
Province, PEOPLE'S REPUBLIC OF CHINA

Factory inspection report no.: 862010654.002

Remark:

Factory inspection is mandatory to be performed annually. Please refer to factory inspection report for detailed information.



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Description of product(s):

Module types:	PV Modules with 6" Mono-crystalline Silicon Solar Cells: 78 cells: SK6613MHV-xxx (xxx = 405-420, in increment of 5) 72 cells: SK6612MHV-xxx (xxx = 320-395, in increment of 5) 66 cells: SK6611MHV-xxx (xxx = 310-355, in increment of 5) 60 cells: SK6610MHV-xxx (xxx = 280-325, in increment of 5) 54 cells: SK6609MHV-xxx (xxx = 250; 255; 260; 265; 270; 275; 280; 284; 285; 290) 48 cells: SK6608MHV-xxx (xxx = 220-260, in increment of 5)
Maximum system voltage:	1500V
Fuse rating:	20A
Electrical protection class:	Class II
Pollution degree:	1
Material group:	I or IIIa
Design load (positive / negative):	3600Pa / 1600Pa
Safety factors:	1.5
Fire safety class:	Class C according to ANSI/UL 1703-2018 (as per ANSI/UL 790-2018)
Module types:	PV Modules with half-cut 6" Mono-crystalline Silicon Solar Cells: 144 cells: SK6612MHVC-xxx (xxx = 370-425, in increment of 5) 132 cells: SK6611MHVC-xxx (xxx = 355-390, in increment of 5) 120 cells: SK6610MHVC-xxx (xxx = 310-355, in increment of 5) 144 cells: SK8612MHVC-xxx (xxx = 420-470, in increment of 5) 132 cells: SK8611MHVC-xxx (xxx = 385-430, in increment of 5) 120 cells: SK8610MHVC-xxx (xxx = 350-390, in increment of 5) 108 cells: SK8609MHVC-xxx (xxx = 315-350, in increment of 5)
Maximum system voltage:	1500V
Fuse rating:	20A
Electrical protection class:	Class II
Pollution degree:	1
Material group:	I or IIIa
Design load (positive / negative):	3600Pa / 1600Pa
Safety factors:	1.5
Fire safety class:	Class C according to ANSI/UL 1703-2018 (as per ANSI/UL 790-2018)



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Module types:	PV Modules with half-cut 7" Mono-crystalline Silicon Solar Cells: 144 cells: SK9612MHVC-xxx (xxx = 525-565, in increment of 5) 132 cells: SK9611MHVC-xxx (xxx = 480-515, in increment of 5) 120 cells: SK9610MHVC-xxx (xxx = 440-470, in increment of 5) 108 cells: SK9609MHVC-xxx (xxx = 395-420, in increment of 5) 72 cells: SK9606MHVC-xxx (xxx = 265-280, in increment of 5) 60 cells: SK9605MHVC-xxx (xxx = 225-235, in increment of 5) 54 cells: SK9609MHVR-xxx (xxx = 195-205, in increment of 5)
Maximum system voltage:	1500V
Fuse rating:	25A or 15A
Electrical protection class:	Class II
Pollution degree:	1
Material group:	I or IIIa
Design load (positive / negative):	3600Pa / 1600Pa or 5400Pa / 2400Pa
Safety factors:	1.5
Fire safety class:	Class C according to ANSI/UL 1703-2018 (as per ANSI/UL 790-2018)

Module types:	PV Modules with half-cut 8" Mono-crystalline Silicon Solar Cells: 132 cells: SKA611MHVC-xxx (xxx = 645-670, in increment of 5) 120 cells: SKA610MHVC-xxx (xxx = 585-610, in increment of 5) 110 cells: SKA511MHVC-xxx (xxx = 535-555, in increment of 5)
Maximum system voltage:	1500V
Fuse rating:	30A
Electrical protection class:	Class II
Pollution degree:	1
Material group:	I or IIIa
Design load (positive / negative):	3600Pa / 1600Pa
Safety factors:	1.5
Fire safety class:	Class C according to ANSI/UL 1703-2018 (as per ANSI/UL 790-2018)



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Module types:	PV Modules with half-cut 7" n-type Topcon Bifacial Mono Solar Cells: 156 cells: SK9613THVC-xxx (xxx=605-630, in increment of 5) 144 cells: SK9612THVC-xxx (xxx=560-580, in increment of 5) 132 cells: SK9611THVC-xxx (xxx=510-530, in increment of 5) 120 cells: SK9610THVC-xxx (xxx=465-480, in increment of 5) 108 cells: SK9609THVC-xxx (xxx=420-435, in increment of 5)
Maximum system voltage:	1500V
Fuse rating:	25A
Electrical protection class:	Class II
Pollution degree:	1
Material group:	I or IIIa
Design load (positive / negative):	3600Pa / 1600Pa
Safety factors:	1.5
Fire safety class:	Class C according to ANSI/UL 1703-2018 (as per ANSI/UL 790-2018)

Module types:	PV Modules with 1/3-cut 8" Mono-crystalline Silicon Solar Cells: 150 cells: SKA510MHVC-xxx (xxx = 495-520, in increment of 5) 120 cells: SKA508MHVC-xxx (xxx = 395-415, in increment of 5)
Maximum system voltage:	1500V
Fuse rating:	20A
Electrical protection class:	Class II
Pollution degree:	1
Material group:	I or IIIa
Design load (positive / negative):	3600Pa / 1600Pa
Safety factors:	1.5
Fire safety class:	Class C according to ANSI/UL 1703-2018 (as per ANSI/UL 790-2018)



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Module types:	PV Modules with 6" Mono-crystalline Silicon Solar Cells: 78 cells: SK6613M-xxx (xxx = 405-420, in increment of 5) 72 cells: SK6612M-xxx (xxx = 320-395, in increment of 5) 66 cells: SK6611M-xxx (xxx = 310-355, in increment of 5) 60 cells: SK6610M-xxx (xxx = 280-325, in increment of 5) 54 cells: SK6609M-xxx (xxx = 250; 255; 260; 265; 270; 275; 280; 284; 285; 290) 48 cells: SK6608M-xxx (xxx = 220-260, in increment of 5)
Maximum system voltage:	1000V
Fuse rating:	20A
Electrical protection class:	Class II
Pollution degree:	1
Material group:	I or IIIa
Design load (positive / negative):	3600Pa / 1600Pa
Safety factors:	1.5
Fire safety class:	Class C according to ANSI/UL 1703-2018 (as per ANSI/UL 790-2018)

Module types:	PV Modules with half-cut 6" Mono-crystalline Silicon Solar Cells: 144 cells: SK6612MC-xxx (xxx = 370-425, in increment of 5) 132 cells: SK6611MC-xxx (xxx = 355-390, in increment of 5) 120 cells: SK6610MC-xxx (xxx = 310-355, in increment of 5) 144 cells: SK8612MC-xxx (xxx = 420-470, in increment of 5) 132 cells: SK8611MC-xxx (xxx = 385-430, in increment of 5) 120 cells: SK8610MC-xxx (xxx = 350-390, in increment of 5) 108 cells: SK8609MC-xxx (xxx = 315-350, in increment of 5)
Maximum system voltage:	1000V
Fuse rating:	20A
Electrical protection class:	Class II
Pollution degree:	1
Material group:	I or IIIa
Design load (positive / negative):	3600Pa / 1600Pa
Safety factors:	1.5
Fire safety class:	Class C according to ANSI/UL 1703-2018 (as per ANSI/UL 790-2018)



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Module types:	PV Modules with half-cut 7" Mono-crystalline Silicon Solar Cells: 144 cells: SK9612MC-xxx (xxx = 525-565, in increment of 5) 132 cells: SK9611MC-xxx (xxx = 480-515, in increment of 5) 120 cells: SK9610MC-xxx (xxx = 440-470, in increment of 5) 108 cells: SK9609MC-xxx (xxx = 395-420, in increment of 5) 72 cells: SK9606MC-xxx (xxx = 265-280, in increment of 5) 60 cells: SK9605MC-xxx (xxx = 225-235, in increment of 5) 54 cells: SK9609MR-xxx (xxx = 195-205, in increment of 5)
Maximum system voltage:	1000V
Fuse rating:	25A or 15A
Electrical protection class:	Class II
Pollution degree:	1
Material group:	I or IIIa
Design load (positive / negative):	3600Pa / 1600Pa or 5400Pa / 2400Pa
Safety factors:	1.5
Fire safety class:	Class C according to ANSI/UL 1703-2018 (as per ANSI/UL 790-2018)

Module types:	PV Modules with half-cut 8" Mono-crystalline Silicon Solar Cells: 132 cells: SKA611MC-xxx (xxx = 645-670, in increment of 5) 120 cells: SKA610MC-xxx (xxx = 585-610, in increment of 5) 110 cells: SKA511MC-xxx (xxx = 535-555, in increment of 5)
Maximum system voltage:	1000V
Fuse rating:	30A
Electrical protection class:	Class II
Pollution degree:	1
Material group:	I or IIIa
Design load (positive / negative):	3600Pa / 1600Pa
Safety factors:	1.5
Fire safety class:	Class C according to ANSI/UL 1703-2018 (as per ANSI/UL 790-2018)



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Module types:	PV Modules with half-cut 7" n-type Topcon Bifacial Mono Solar Cells: 156 cells: SK9613TC-xxx (xxx=605-630, in increment of 5) 144 cells: SK9612TC-xxx (xxx=560-580, in increment of 5) 132 cells: SK9611TC-xxx (xxx=510-530, in increment of 5) 120 cells: SK9610TC-xxx (xxx=465-480, in increment of 5) 108 cells: SK9609TC-xxx (xxx=420-435, in increment of 5)
Maximum system voltage:	1000V
Fuse rating:	25A
Electrical protection class:	Class II
Pollution degree:	1
Material group:	I or IIIa
Design load (positive / negative):	3600Pa / 1600Pa
Safety factors:	1.5
Fire safety class:	Class C according to ANSI/UL 1703-2018 (as per ANSI/UL 790-2018)

Module types:	PV Modules with 1/3-cut 8" Mono-crystalline Silicon Solar Cells: 150 cells: SKA510MC-xxx (xxx = 495-520, in increment of 5) 120 cells: SKA508MC-xxx (xxx = 395-415, in increment of 5)
Maximum system voltage:	1000V
Fuse rating:	20A
Electrical protection class:	Class II
Pollution degree:	1
Material group:	I or IIIa
Design load (positive / negative):	3600Pa / 1600Pa
Safety factors:	1.5
Fire safety class:	Class C according to ANSI/UL 1703-2018 (as per ANSI/UL 790-2018)

Remark:

For detailed product information, please refer to CDF (Constructional Data Form) in Annex 1 of test report.



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