

Certyfikat

Nr Z2 084110 0008 Rew. 10

Posiadacz Certyfikatu: Jiangsu VDS Renewable
No. 1, Longmen Road
Wujin High-tech Industrial Area
213000 Changzhou, Jiangsu
Chiny

Znak Certyfikacji: [Logo] TÜV Süd

Produkt: Moduły fotowoltaiczne (PV) z krzemu monokrystalicznego
do zastosowań naziemnych

Produkt został przetestowany dobrowolnie i jest on zgodny z zasadniczymi wymogami. Wyrób można opatrzyć oznaczeniem certyfikacji, zamieszczonym powyżej. Zmiana oznaczenia certyfikacji w jakikolwiek sposób jest zabroniona. Ponadto posiadaczowi Certyfikatu nie wolno go przenieść na osoby trzecie. Ważność Certyfikatu odnosi się do podanej daty, chyba że zostanie wcześniej odwołany. Wszystkie obowiązujące wymagania oraz przepisy dotyczące badań i certyfikacji Grupy TÜV Süd muszą zostać spełnione. Więcej szczegółów na: www.tuvsud.com/ps-cert

Nr sprawozdania z badań: 704062020002-10

Ważny do: 2028-07-24

Data: 2023-07-28

[Podpis]

(Zhulin Zhang)

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Modele:

SOLA-S144/FNH-xxx-HV(xxx=395-420, z przyrostem co 5);
SOLA-S120/FNH-xxx-HV(xxx=330-350, z przyrostem co 5);
SOLA-S144/M6H-xxx(xxx=415-460, z przyrostem co 5);
SOLA-S120/M6H-xxx(xxx=345-380, z przyrostem co 5);
SOLA-S156/M6H-xxx(xxx=450-495, z przyrostem co 5);
SOLA-S132/M6H-xxx(xxx=380-420, z przyrostem co 5);
SOLA-S108/M6H-xxx(xxx=315-340, z przyrostem co 5);
SOLA-S156/M10H-xxx(xxx=560-620, z przyrostem co 5);
SOLA-S144/M10H-xxx(xxx=530-575, z przyrostem co 5);
SOLA-S132/M10H-xxx(xxx=480-525, z przyrostem co 5);
SOLA-S120/M10H-xxx(xxx=435-480, z przyrostem co 5);
SOLA-S108/M10H-xxx(xxx=390-430, z przyrostem co 5);
SOLA-S144/M6H-xxx-BG(xxx=440-465, z przyrostem co 5);
SOLA-S132/M6H-xxx-BG(xxx=405-425, z przyrostem co 5);
SOLA-S120/M6H-xxx-BG(xxx=370-385, z przyrostem co 5);
SOLA-S108/M6H-xxx-BG(xxx=330-345, z przyrostem co 5);
SOLA-S132/M12H-xxx(xxx=650-670, z przyrostem co 5);
SOLA-S120/M12H-xxx(xxx=590-605, z przyrostem co 5);
SOLA-S110/M12H-xxx(xxx=545-555, z przyrostem co 5);
SOLA-S100/M12H-xxx(xxx=495-505, z przyrostem co 5);

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SOLA-S144/M10H-xxx-BG(xxx=505-545, z przyrostem co 5);
SOLA-S132/M10H-xxx-BG(xxx=465-500, z przyrostem co 5);
SOLA-S120/M10H-xxx-BG(xxx=420-455, z przyrostem co 5);
SOLA-S108/M10H-xxx-BG(xxx=380-405, z przyrostem co 5);
SOLA-S132/M12H-xxx-BG(xxx=630-660, z przyrostem co 5);
SOLA-S120/M12H-xxx-BG(xxx=570-600, z przyrostem co 5);
SOLA-S108/M12H-xxx-BG(xxx=510-540, z przyrostem co 5);
SOLA-S110/M12H-xxx-BG(xxx=525-550, z przyrostem co 5);
SOLA-S100/M12H-xxx-BG(xxx=480-500, z przyrostem co 5);
SOLA-S132/M12N-xxx-BG(xxx=660-690, z przyrostem co 5);
SOLA-S120/M12N-xxx-BG(xxx=600-625, z przyrostem co 5);
SOLA-S110/M12N-xxx-BG(xxx=550-575, z przyrostem co 5);
SOLA-S100/M12N-xxx-BG(xxx=500-520, z przyrostem co 5);
SOLA-S132/M12N-xxx(xxx=660-690, z przyrostem co 5);
SOLA-S120/M12N-xxx(xxx=600-625, z przyrostem co 5);
SOLA-S110/M12N-xxx(xxx=550-575, z przyrostem co 5);
SOLA-S100/M12N-xxx(xxx=500-520, z przyrostem co 5);

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SOLA-S144/M10N-xxx-BG(xxx=555-585, z przyrostem co 5);
SOLA-S120/M10N-xxx-BG(xxx=465-485, z przyrostem co 5);
SOLA-S108/M10N-xxx-BG(xxx=415-435, z przyrostem co 5);
SOLA-S144/M10N-xxx(xxx=555-585, z przyrostem co 5);
SOLA-S120/M10N-xxx(xxx=465-485, z przyrostem co 5);
SOLA-S108/M10N-xxx(xxx=415-435, z przyrostem co 5);

*xxx oznacza znamionową moc wyjściową w warunkach STC.

Wszystkie parametry elektryczne przedstawiono w odniesieniu do poniższych warunków testowych:
natężenie promieniowania - przód 1000 W/m², natężenie promieniowania - tył 135 W/m²,
25 °C, AM 1,5

SOLA-S144/M10H-xxx-BG(xxx=555-590, z przyrostem co 5);
SOLA-S132/M10H-xxx-BG(xxx=510-540, z przyrostem co 5);
SOLA-S120/M10H-xxx-BG(xxx=465-490, z przyrostem co 5);
SOLA-S108/M10H-xxx-BG(xxx=420-440, z przyrostem co 5);
SOLA-S132/M12H-xxx-BG(xxx=695-715, z przyrostem co 5);
SOLA-S120/M12H-xxx-BG(xxx=635-645, z przyrostem co 5);
SOLA-S108/M12H-xxx-BG(xxx=570-585, z przyrostem co 5);
SOLA-S110/M12H-xxx-BG(xxx=580-595, z przyrostem co 5);
SOLA-S100/M12H-xxx-BG(xxx=530-540, z przyrostem co 5);
SOLA-S132/M12N-xxx-BG(xxx=705-735, z przyrostem co 5);

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SOLA-S120/M12N-xxx-BG(xxx=640-665, z przyrostem co 5);
SOLA-S110/M12N-xxx-BG(xxx=585-610, z przyrostem co 5);
SOLA-S100/M12N-xxx-BG(xxx=535-555, z przyrostem co 5);
SOLA-S144/M10N-xxx-BG(xxx=585-615, z przyrostem co 5);
SOLA-S120/M10N-xxx-BG(xxx=485-510, z przyrostem co 5);
SOLA-S108/M10N-xxx-BG(xxx=435-460, z przyrostem co 5);

*xxx oznacza znamionową moc wyjściową w warunkach STC.

Parametry:

Klasa ochrony: klasa II

Maks. napięcie systemu: 1500V DC

Laboratorium testowe: Yangzhou Opto-Electrical
Products Testing Institute

No. 10 West Kaifa Road, Yangzhou 225009 Jiangsu, P.R. Chiny

Specyfikacja: Z ramą, skrzynka przyłączeniowa,
przewód, złącze

Klasa odporności ogniowej: klasa C, zgodnie z normą
L790.

Testowano zgodnie z normą:

IEC 61215-1:2016
IEC 61215-1-1:2016
IEC 61215-2:2016
IEC 61730-1:2016
IEC 61730-2:2016

Przetłumaczono z języka angielskiego na język polski na podstawie oryginału



Product Service

CERTIFICATE

No. Z2 084110 0008 Rev. 10

Holder of Certificate: **Jiangsu VDS Renewable Technology Co., Ltd**
No.1, Longmen Road
Wujin High-tech Industrial Area
213000 Changzhou, Jiangsu
PEOPLE'S REPUBLIC OF CHINA

Certification Mark:



Product: **Crystalline Silicon Terrestrial Photovoltaic (PV) Modules**
Mono-crystalline Silicon Photovoltaic Module

The product was tested on a voluntary basis and complies with the essential requirements. The certification mark shown above can be affixed on the product. It is not permitted to alter the certification mark in any way. In addition, the certification holder must not transfer the certificate to third parties. This certificate is valid until the listed date, unless it is cancelled earlier. All applicable requirements of the testing and certification regulations of TÜV SÜD Group have to be complied. For details see: www.tuvsud.com/ps-cert

Test report no.: 704062020002-10

Valid until: 2028-07-24

Date, 2023-07-28

(Zhulin Zhang)



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Model(s):

GPNE-S144/FNH-xxx-HV(xxx=395-420, in step of 5);
 GPNE-S120/FNH-xxx-HV(xxx=330-350, in step of 5);
 SOLA-S144/FNH-xxx-HV(xxx=395-420, in step of 5);
 SOLA-S120/FNH-xxx-HV(xxx=330-350, in step of 5);
 VDS-S144/FNH-xxx-HV(xxx=395-420, in step of 5);
 VDS-S120/FNH-xxx-HV(xxx=330-350, in step of 5);
 GPNE-S144/M6H-xxx(xxx=415-460, in step of 5);
 GPNE-S120/M6H-xxx(xxx=345-380, in step of 5);
 SOLA-S144/M6H-xxx(xxx=415-460, in step of 5);
 SOLA-S120/M6H-xxx(xxx=345-380, in step of 5);
 VDS-S144/M6H-xxx(xxx=415-460, in step of 5);
 VDS-S120/M6H-xxx(xxx=345-380, in step of 5);
 GPNE-S156/M6H-xxx(xxx=450-495 in step of 5);
 GPNE-S132/M6H-xxx(xxx=380-420 in step of 5);
 GPNE-S108/M6H-xxx(xxx=315-340 in step of 5);
 SOLA-S156/M6H-xxx(xxx=450-495 in step of 5);
 SOLA-S132/M6H-xxx(xxx=380-420 in step of 5);
 SOLA-S108/M6H-xxx(xxx=315-340 in step of 5);
 VDS-S156/M6H-xxx(xxx=450-495 in step of 5);
 VDS-S132/M6H-xxx(xxx=380-420 in step of 5);
 VDS-S108/M6H-xxx(xxx=315-340 in step of 5);
 GPNE-S156/M10H-xxx(xxx=560-620, in step of 5);
 GPNE-S144/M10H-xxx(xxx=530-575, in step of 5);
 GPNE-S132/M10H-xxx(xxx=480-525, in step of 5);
 GPNE-S120/M10H-xxx(xxx=435-480, in step of 5);
 GPNE-S108/M10H-xxx(xxx=390-430, in step of 5);
 SOLA-S156/M10H-xxx(xxx=560-620, in step of 5);
 SOLA-S144/M10H-xxx(xxx=530-575, in step of 5);
 SOLA-S132/M10H-xxx(xxx=480-525, in step of 5);
 SOLA-S120/M10H-xxx(xxx=435-480, in step of 5);
 SOLA-S108/M10H-xxx(xxx=390-430, in step of 5);
 VDS-S156/M10H-xxx(xxx=560-620, in step of 5);
 VDS-S144/M10H-xxx(xxx=530-575, in step of 5);
 VDS-S132/M10H-xxx(xxx=480-525, in step of 5);
 VDS-S120/M10H-xxx(xxx=435-480, in step of 5);
 VDS-S108/M10H-xxx(xxx=390-430, in step of 5);
 GPNE-S144/M6H-xxx-BG(xxx=440-465, in step of 5);
 GPNE-S132/M6H-xxx-BG(xxx=405-425, in step of 5);
 GPNE-S120/M6H-xxx-BG(xxx=370-385, in step of 5);
 GPNE-S108/M6H-xxx-BG(xxx=330-345, in step of 5);
 SOLA-S144/M6H-xxx-BG(xxx=440-465, in step of 5);
 SOLA-S132/M6H-xxx-BG(xxx=405-425, in step of 5);
 SOLA-S120/M6H-xxx-BG(xxx=370-385, in step of 5);
 SOLA-S108/M6H-xxx-BG(xxx=330-345, in step of 5);
 VDS-S144/M6H-xxx-BG(xxx=440-465, in step of 5);
 VDS-S132/M6H-xxx-BG(xxx=405-425, in step of 5);
 VDS-S120/M6H-xxx-BG(xxx=370-385, in step of 5);
 VDS-S108/M6H-xxx-BG(xxx=330-345, in step of 5);
 GPNE-S132/M12H-xxx(xxx=650-670, in step of 5);
 GPNE-S120/M12H-xxx(xxx=590-605, in step of 5);
 GPNE-S110/M12H-xxx(xxx=545-555, in step of 5);
 GPNE-S100/M12H-xxx(xxx=495-505, in step of 5);
 SOLA-S132/M12H-xxx(xxx=650-670, in step of 5);
 SOLA-S120/M12H-xxx(xxx=590-605, in step of 5);
 SOLA-S110/M12H-xxx(xxx=545-555, in step of 5);
 SOLA-S100/M12H-xxx(xxx=495-505, in step of 5);

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VDS-S132/M12H-xxx(xxx=650-670, in step of 5);
 VDS-S120/M12H-xxx(xxx=590-605, in step of 5);
 VDS-S110/M12H-xxx(xxx=545-555, in step of 5);
 VDS-S100/M12H-xxx(xxx=495-505, in step of 5);
 GPNE-S144/M10H-xxx-BG(xxx=505-545, in step of 5);
 GPNE-S132/M10H-xxx-BG(xxx=465-500, in step of 5);
 GPNE-S120/M10H-xxx-BG(xxx=420-455, in step of 5);
 GPNE-S108/M10H-xxx-BG(xxx=380-405, in step of 5);
 SOLA-S144/M10H-xxx-BG(xxx=505-545, in step of 5);
 SOLA-S132/M10H-xxx-BG(xxx=465-500, in step of 5);
 SOLA-S120/M10H-xxx-BG(xxx=420-455, in step of 5);
 SOLA-S108/M10H-xxx-BG(xxx=380-405, in step of 5);
 VDS-S144/M10H-xxx-BG(xxx=505-545, in step of 5);
 VDS-S132/M10H-xxx-BG(xxx=465-500, in step of 5);
 VDS-S120/M10H-xxx-BG(xxx=420-455, in step of 5);
 VDS-S108/M10H-xxx-BG(xxx=380-405, in step of 5);
 GPNE-S132/M12H-xxx-BG(xxx=630-660, in step of 5);
 GPNE-S120/M12H-xxx-BG(xxx=570-600, in step of 5);
 GPNE-S108/M12H-xxx-BG(xxx=510-540, in step of 5);
 GPNE-S110/M12H-xxx-BG(xxx=525-550, in step of 5);
 GPNE-S100/M12H-xxx-BG(xxx=480-500, in step of 5);
 SOLA-S132/M12H-xxx-BG(xxx=630-660, in step of 5);
 SOLA-S120/M12H-xxx-BG(xxx=570-600, in step of 5);
 SOLA-S108/M12H-xxx-BG(xxx=510-540, in step of 5);
 SOLA-S110/M12H-xxx-BG(xxx=525-550, in step of 5);
 SOLA-S100/M12H-xxx-BG(xxx=480-500, in step of 5);
 VDS-S132/M12H-xxx-BG(xxx=630-660, in step of 5);
 VDS-S120/M12H-xxx-BG(xxx=570-600, in step of 5);
 VDS-S108/M12H-xxx-BG(xxx=510-540, in step of 5);
 VDS-S110/M12H-xxx-BG(xxx=525-550, in step of 5);
 VDS-S100/M12H-xxx-BG(xxx=480-500, in step of 5);
 GPNE-S132/M12N-xxx-BG(xxx=660-690, in step of 5);
 GPNE-S120/M12N-xxx-BG(xxx=600-625, in step of 5);
 GPNE-S110/M12N-xxx-BG(xxx=550-575, in step of 5);
 GPNE-S100/M12N-xxx-BG(xxx=500-520, in step of 5);
 SOLA-S132/M12N-xxx-BG(xxx=660-690, in step of 5);
 SOLA-S120/M12N-xxx-BG(xxx=600-625, in step of 5);
 SOLA-S110/M12N-xxx-BG(xxx=550-575, in step of 5);
 SOLA-S100/M12N-xxx-BG(xxx=500-520, in step of 5);
 VDS-S132/M12N-xxx-BG(xxx=660-690, in step of 5);
 VDS-S120/M12N-xxx-BG(xxx=600-625, in step of 5);
 VDS-S110/M12N-xxx-BG(xxx=550-575, in step of 5);
 VDS-S100/M12N-xxx-BG(xxx=500-520, in step of 5);
 GPNE-S132/M12N-xxx(xxx=660-690, in step of 5);
 GPNE-S120/M12N-xxx(xxx=600-625, in step of 5);
 GPNE-S110/M12N-xxx(xxx=550-575, in step of 5);
 GPNE-S100/M12N-xxx(xxx=500-520, in step of 5);
 SOLA-S132/M12N-xxx(xxx=660-690, in step of 5);
 SOLA-S120/M12N-xxx(xxx=600-625, in step of 5);
 SOLA-S110/M12N-xxx(xxx=550-575, in step of 5);
 SOLA-S100/M12N-xxx(xxx=500-520, in step of 5);
 VDS-S132/M12N-xxx(xxx=660-690, in step of 5);
 VDS-S120/M12N-xxx(xxx=600-625, in step of 5);
 VDS-S110/M12N-xxx(xxx=550-575, in step of 5);
 VDS-S100/M12N-xxx(xxx=500-520, in step of 5);
 GPNE-S144/M10N-xxx-BG(xxx=555-585, in step of 5);



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GPNE-S120/M10N-xxx-BG(xxx=465-485, in step of 5);
 GPNE-S108/M10N-xxx-BG(xxx=415-435, in step of 5);
 SOLA-S144/M10N-xxx-BG(xxx=555-585, in step of 5);
 SOLA-S120/M10N-xxx-BG(xxx=465-485, in step of 5);
 SOLA-S108/M10N-xxx-BG(xxx=415-435, in step of 5);
 VDS-S144/M10N-xxx-BG(xxx=555-585, in step of 5);
 VDS-S120/M10N-xxx-BG(xxx=465-485, in step of 5);
 VDS-S108/M10N-xxx-BG(xxx=415-435, in step of 5);
 GPNE-S144/M10N-xxx(xxx=555-585, in step of 5);
 GPNE-S120/M10N-xxx(xxx=465-485, in step of 5);
 GPNE-S108/M10N-xxx(xxx=415-435, in step of 5);
 SOLA-S144/M10N-xxx(xxx=555-585, in step of 5);
 SOLA-S120/M10N-xxx(xxx=465-485, in step of 5);
 SOLA-S108/M10N-xxx(xxx=415-435, in step of 5);
 VDS-S144/M10N-xxx(xxx=555-585, in step of 5);
 VDS-S120/M10N-xxx(xxx=465-485, in step of 5);
 VDS-S108/M10N-xxx(xxx=415-435, in step of 5);
 xxx is standing for rated output power at STC.

All electrical data is shown as relative to this test conditions:

front side irradiance 1000 W/m², backside irradiance
 135 W/m², 25 °C, AM 1.5

GPNE-S144/M10H-xxx-BG(xxx=555-590, in step of 5);
 GPNE-S132/M10H-xxx-BG(xxx=510-540, in step of 5);
 GPNE-S120/M10H-xxx-BG(xxx=465-490, in step of 5);
 GPNE-S108/M10H-xxx-BG(xxx=420-440, in step of 5);
 SOLA-S144/M10H-xxx-BG(xxx=555-590, in step of 5);
 SOLA-S132/M10H-xxx-BG(xxx=510-540, in step of 5);
 SOLA-S120/M10H-xxx-BG(xxx=465-490, in step of 5);
 SOLA-S108/M10H-xxx-BG(xxx=420-440, in step of 5);
 VDS-S144/M10H-xxx-BG(xxx=555-590, in step of 5);
 VDS-S132/M10H-xxx-BG(xxx=510-540, in step of 5);
 VDS-S120/M10H-xxx-BG(xxx=465-490, in step of 5);
 VDS-S108/M10H-xxx-BG(xxx=420-440, in step of 5);
 GPNE-S132/M12H-xxx-BG(xxx=695-715, in step of 5);
 GPNE-S120/M12H-xxx-BG(xxx=635-645, in step of 5);
 GPNE-S108/M12H-xxx-BG(xxx=570-585, in step of 5);
 GPNE-S110/M12H-xxx-BG(xxx=580-595, in step of 5);
 GPNE-S100/M12H-xxx-BG(xxx=530-540, in step of 5);

SOLA-S132/M12H-xxx-BG(xxx=695-715, in step of 5);
 SOLA-S120/M12H-xxx-BG(xxx=635-645, in step of 5);
 SOLA-S108/M12H-xxx-BG(xxx=570-585, in step of 5);
 SOLA-S110/M12H-xxx-BG(xxx=580-595, in step of 5);
 SOLA-S100/M12H-xxx-BG(xxx=530-540, in step of 5);
 VDS-S132/M12H-xxx-BG(xxx=695-715, in step of 5);
 VDS-S120/M12H-xxx-BG(xxx=635-645, in step of 5);
 VDS-S108/M12H-xxx-BG(xxx=570-585, in step of 5);
 VDS-S110/M12H-xxx-BG(xxx=580-595, in step of 5);
 VDS-S100/M12H-xxx-BG(xxx=530-540, in step of 5);
 GPNE-S132/M12N-xxx-BG(xxx=705-735, in step of 5);
 GPNE-S120/M12N-xxx-BG(xxx=640-665, in step of 5);
 GPNE-S110/M12N-xxx-BG(xxx=585-610, in step of 5);
 GPNE-S100/M12N-xxx-BG(xxx=535-555, in step of 5);
 SOLA-S132/M12N-xxx-BG(xxx=705-735, in step of 5);



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SOLA-S120/M12N-xxx-BG(xxx=640-665, in step of 5);
SOLA-S110/M12N-xxx-BG(xxx=585-610, in step of 5);
SOLA-S100/M12N-xxx-BG(xxx=535-555, in step of 5);
VDS-S132/M12N-xxx-BG(xxx=705-735, in step of 5);
VDS-S120/M12N-xxx-BG(xxx=640-665, in step of 5);
VDS-S110/M12N-xxx-BG(xxx=585-610, in step of 5);
VDS-S100/M12N-xxx-BG(xxx=535-555, in step of 5);
GPNE-S144/M10N-xxx-BG(xxx=585-615, in step of 5);
GPNE-S120/M10N-xxx-BG(xxx=485-510, in step of 5);
GPNE-S108/M10N-xxx-BG(xxx=435-460, in step of 5);
SOLA-S144/M10N-xxx-BG(xxx=585-615, in step of 5);
SOLA-S120/M10N-xxx-BG(xxx=485-510, in step of 5);
SOLA-S108/M10N-xxx-BG(xxx=435-460, in step of 5);
VDS-S144/M10N-xxx-BG(xxx=585-615, in step of 5);
VDS-S120/M10N-xxx-BG(xxx=485-510, in step of 5);
VDS-S108/M10N-xxx-BG(xxx=435-460, in step of 5);
xxx is standing for rated output power

Parameters:

Safety Class:	Class II
Max. System Voltage:	1500V DC
Test Laboratory:	Yangzhou Opto-Electrical Products Testing Institute No. 10 West Kaifa Road, Yangzhou 225009 Jiangsu, P. R. China
Construction:	Framed, with Junction box, cable and connector.
Fire Safety Class:	Class C according to UL790

Tested according to:

IEC 61215-1:2016
IEC 61215-1-1:2016
IEC 61215-2:2016
IEC 61730-1:2016
IEC 61730-2:2016