

# CERTIFICATE



## of Conformity Low Voltage Directive 2014/35/EU

Registration No.: AN 50563707 0001

Report No.: CN22143Q 001

Holder: **SUNTREE Electric Group Co., Ltd.**  
**Xinguang Industrial Zone,**  
**Liushi Town, Yueqing City**  
**Zhejiang**  
**P.R. China**

Product: **Surge Protector**  
**(Surge Protective Device for PV application)**

Identification: Type Designation : SUP2H8-PV, SUP4H8-S40  
(SUNTREE)  
Serial No. : Engineering Samples  
Remark:  
Issued in conjunction with TÜV Rheinland license  
R 50563705 0001

This certificate of conformity is based on an evaluation of a sample of the above mentioned product. Technical Report and documentation are at the Licence Holder's disposal. This is to certify that the tested sample is in conformity with Annex I of Council Directive 2014/35/EU, referred to as the Low Voltage Directive. This certificate does not imply assessment of the series-production of the product and does not permit the use of a TÜV Rheinland mark of conformity. The holder of the certificate is authorized to use this certificate in connection with the EC declaration of conformity according to Annex IV of the Directive.

Certification Body

Date 16.11.2022



*Yongming Yang*  
Yongming Yang

**TÜV Rheinland LGA Products GmbH - Tillystraße 2 - 90431 Nürnberg**

**CE** The CE marking may be used if all relevant and effective EC Directives are complied with. **CE**

SUNTREE Electric Group Co., Ltd.  
Maggie Liu

Date : 16.11.2022  
Our ref. : ZWC 01  
Your ref.: M.L.

Xinguang Industrial Zone,  
Liushi Town, Yueqing City  
Zhejiang  
P.R. China

**Ref : AN Certificate of Conf. Low Voltage D.**

Type of Equipment : Surge Protective Device for PV application  
Model Designation : See Certificate  
Certificate No. : AN 50563707 0001  
Report No. : CN22143Q 001

Dear Maggie Liu,

We herewith confirm that a sample of the above mentioned technical equipment has been tested and was found to be in accordance with the relevant requirements.

Enclosed please find your Certificate of Conformity.

We appreciate your kind support and would like to offer our assistance and continuous services in the future.

With kind regards,

Certification Body



Yongming Yang

CC: SUNTREE Electric Group Co., Ltd.

Enclosure

证书的详细资料请登陆[www.certipedia.com](http://www.certipedia.com)查阅,或拨打我司客服热线800 999 3668 / 400 883 1300咨询

# Zertifikat

# Certificate



Zertifikat Nr. *Certificate No.*  
R 50563705

Blatt *Sheet*  
0001

Ihr Zeichen *Client Reference*  
M.L.

Unser Zeichen *Our Reference*  
01-ZWC-CN22143Q 001

Ausstellungsdatum *Date of Issue*  
16.11.2022 (day/mo/yr)

**Genehmigungsinhaber *License Holder***

SUNTREE Electric Group Co., Ltd.  
Xinguang Industrial Zone,  
Liushi Town, Yueqing City  
Zhejiang  
P.R. China

**Fertigungsstätte *Manufacturing Plant***

SUNTREE Electric Group Co., Ltd.  
Xinguang Industrial Zone,  
Liushi Town, Yueqing City  
Zhejiang  
P.R. China

**Prüfzeichen *Test Mark***



Geprüft nach *Tested acc. to*  
EN 61643-31:2019

**Zertifiziertes Produkt (Geräteidentifikation)  
*Certified Product (Product Identification)***

**Lizenzentgelte - Einheit  
*License Fee - Unit***

Surge Protector (Surge Protective Device for PV application)

Type Designation : SUP2H8 - PV, SUP4H8 - S40 (SUNTREE) 6  
Maximum continuous operating voltage (Ucpv) : 800 V DC  
Voltage protection level (Up) : 3.0 kV(+/PE, -/PE )  
Short-circuit current rating (Iscpv) : 10 A  
Nominal discharge current (In) : 20 kA  
Maximum discharge current (Imax) : 40 kA  
Itotal : 40 kA  
Type of SPD : Type 2  
Location : Indoor  
Temperatures : -40°C to +70°C

Remark: test according to IEC 61643-31:2018 was considered.

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ANLAGE (Appendix): 1.0

Dem Zertifikat liegt unsere Prüf- und Zertifizierungsordnung zugrunde und es bestätigt die Konformität des Produktes mit den oben genannten Standards und Prüfgrundlagen. Zusätzliche Anforderungen in Ländern, in denen das Produkt in Verkehr gebracht werden soll, müssen zusätzlich betrachtet werden. Die Herstellung des zertifizierten Produktes wird überwacht.  
This certificate is based on our Testing and Certification Regulation and states the conformity of the product with the standards and testing requirements as indicated above. Any additional requirements in countries where the product is going to be marketed have to be considered additionally. The manufacturing of the certified product is subject to surveillance.



**Zertifizierungsstelle**

*Yongming Yang*

**TÜV Rheinland LGA Products GmbH, Tillystraße 2, 90431 Nürnberg**

http://www.tuv.com/safety E-mail: markcheck@tuv.com  
Fax: +49 221 806-3935

**Yongming Yang**

SUNTREE Electric Group Co., Ltd.  
Maggie Liu

Date : 16.11.2022  
Our ref. : ZWC 01  
Your ref.: M.L.

Xinguang Industrial Zone,  
Liushi Town, Yueqing City  
Zhejiang  
P.R. China

**Ref : R TÜV-Mark Approval**

Type of Equipment : Surge Protective Device for PV application  
Model Designation : See Certificate  
Certificate No. : R 50563705 0001  
Report No. : CN22143Q 001

Dear Maggie Liu,

The above specified technical equipment has been tested and found to be in accordance with the relevant requirements.

Enclosed you will find the certificate of approval.

If cancellation of the certificate is submitted by November 15 in a given year, no fee will be charged for the following year.

We appreciate your kind support and would like to offer our assistance and continuous services in the future.

Please contact our office for approval of your new products.

With kind regards,

Certification Body



Yongming Yang

cc: SUNTREE Electric Group Co., Ltd.

Enclosure

证书的详细资料请登陆[www.certipedia.com](http://www.certipedia.com)查阅,或拨打我司客服热线800 999 3668 / 400 883 1300咨询

## IEC SYSTEM FOR MUTUAL RECOGNITION OF TEST CERTIFICATES FOR ELECTRICAL EQUIPMENT (IECEE) CB SCHEME

## CB TEST CERTIFICATE

Product

Surge Protective Device for PV application

Name and address of the applicant

SUNTREE Electric Group Co., Ltd.  
Xinguang Industrial Zone, Liushi Town, Yueqing City,  
Zhejiang  
P.R. China

Name and address of the manufacturer

SUNTREE Electric Group Co., Ltd.  
Xinguang Industrial Zone, Liushi Town, Yueqing City,  
Zhejiang  
P.R. China

Name and address of the factory

Note: When more than one factory, please report on page 2

SUNTREE Electric Group Co., Ltd.  
Xinguang Industrial Zone, Liushi Town, Yueqing City,  
Zhejiang  
P.R. China

Ratings and principal characteristics

Ucpv:800 VDC; PV T2 In=20kA; Imax=40kA; Up:3.0kV  
Itotal:40kA; Iscpv:10A; Indoor; One port; IP20

Trademark / Brand (if any)

Suntree (logo)

Customer's Testing Facility (CTF) Stage used

Model / Type Ref.

SUP2H8-PV, SUP4H8-S40

Additional information (if necessary may also be reported on page 2)

N/A

A sample of the product was tested and found to be in conformity with

IEC 61643-31:2018

As shown in the Test Report Ref. No. which forms part of this Certificate

CN22GQTE 001

This CB Test Certificate is issued by the National Certification Body



TÜV Rheinland InterCert Kft., MEEI Division  
H-1143 Budapest, Gizella út 51-57., Hungary  
Web: www.tuv.com

Date: 2022-11-13

Signature:




Wencai Zhang

(To be filled in by TÜV Rheinland)


**Constructional Data Form**

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4

<b>Applicant:</b>	SUNTREE Electric Group Co., Ltd.
<b>Address:</b>	Xinguang Industrial Zone, Liushi Town, Yueqing City, Zhejiang, P.R. China
<b>Factory:</b>	SUNTREE Electric Group Co., Ltd.
<b>Address:</b>	Xinguang Industrial Zone, Liushi Town, Yueqing City, Zhejiang, P.R. China
<b>Kind of Equip.:</b>	Surge Protective Device for PV application
<b>Designation:</b>	SUP2H8-PV, SUP4H8-S40
<b>Location category:</b>	Indoor
<b>Number of ports:</b>	One port
<b>Method of mounting:</b>	DIN-rail
<b>Residual Current(I<sub>PE</sub>)</b>	0.3mA d.c.; 0.5 mA a.c.
<b>Type of current:</b>	DC
<b>Test Class:</b>	Type 2
<b>Nominal discharge current(I<sub>n</sub>):</b>	20kA
<b>Max. discharge current (I<sub>max</sub>):</b>	40kA
<b>Max. continuous operation voltage (U<sub>OPV</sub>):</b>	800 VDC
<b>Short-circuit current rating (I<sub>SCPV</sub>):</b>	10 A
<b>Continuous current for PV application (I<sub>CPV</sub>)</b>	50 μA
<b>Voltage protect level (U<sub>p</sub>):</b>	3.0 kV(+ to PE, - to PE)
<b>Application system</b>	Photovoltaic system
<b>IP code</b>	IP20
<b>Temperatures and humidity</b>	-40°C to +70°C/5% to 95%
<b>Air pressure and altitude</b>	62kPa to 106kPa, -500m to 2000m
<b>Remark:</b>	OCFM Trade Mark: 

TÜV Rheinland

 Wenzhou city Yueqing  
 (Place)


 2022/11/02  
 (Date)

 3 November  
2022

(Date)

  
 (Signature)

Ruijie Ma

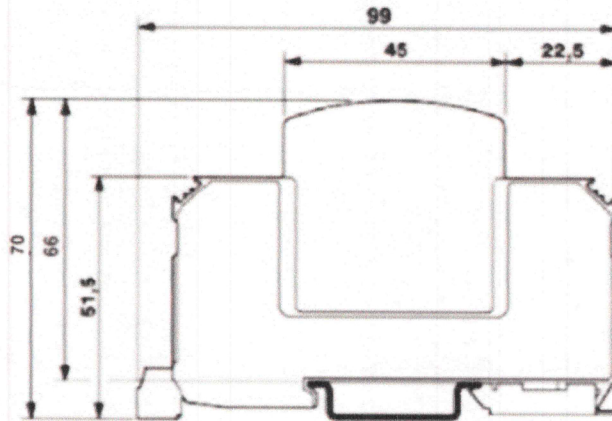
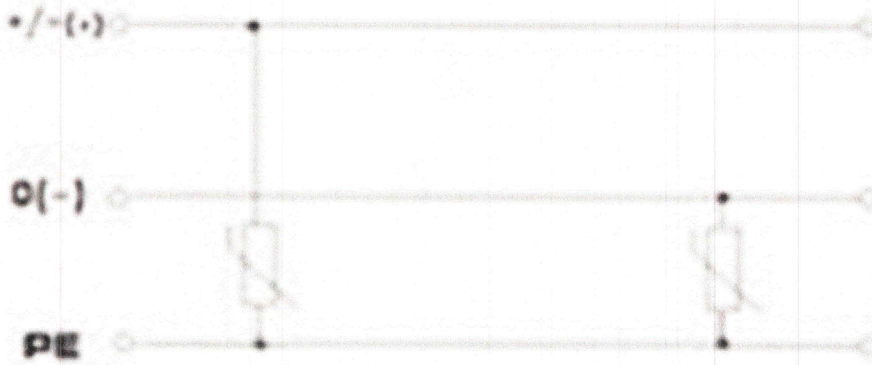
(Stamp and Signature of Applicant)

(To be filled in by TÜV Rheinland)

Constructional Data Form

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4

1. Circuit Diagram



TÜV Rheinland

Wenzhou city Yueqing  
(Place)



2022/11/02  
(Date)

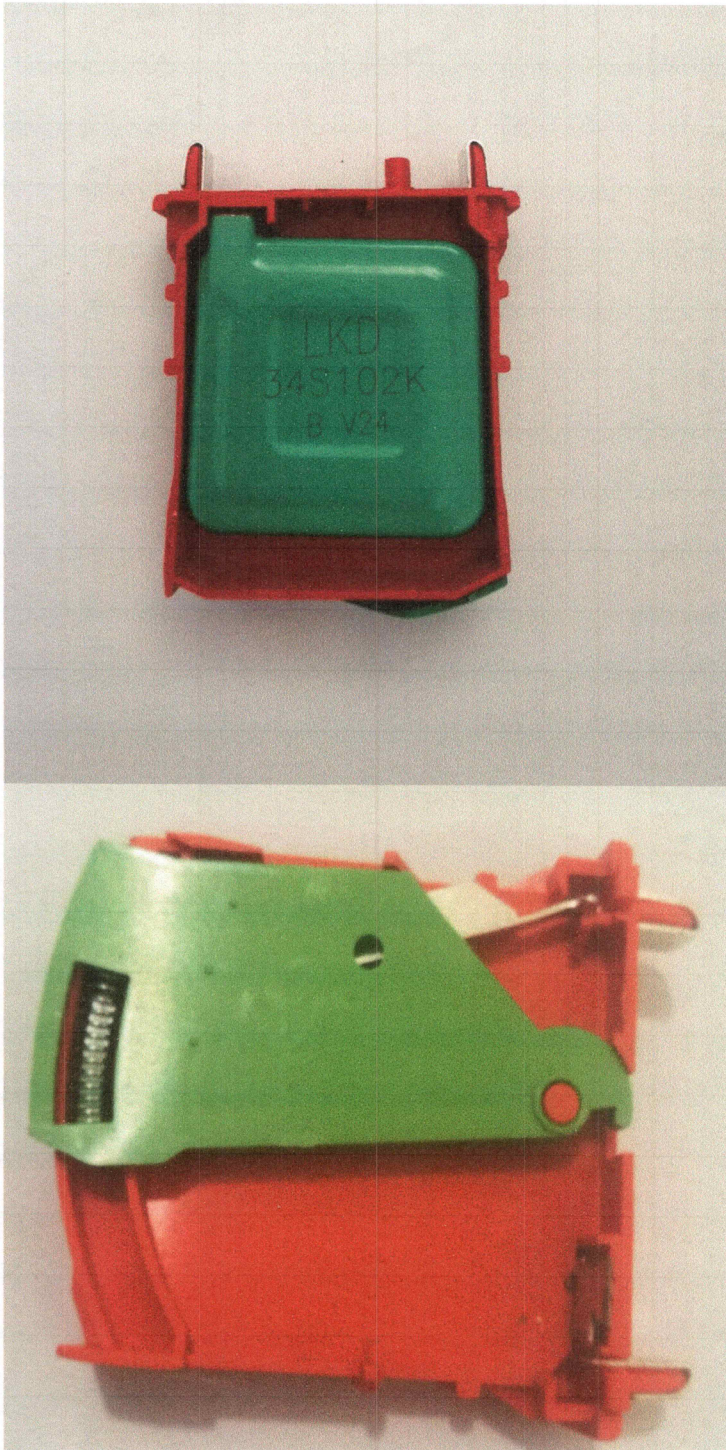
3 November  
2022  
(Date) *Abnau Zhang*  
(Signature)

*Ruijie Ma*  
(Stamp and Signature of Applicant)

(To be filled in by TÜV Rheinland)

Constructional Data Form

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2.Part list

TÜV Rheinland

Wenzhou city Yueqing  
(Place)

2022/11/02  
(Date)

3 November  
2022  
(Date) *Abnau Zhang*  
(Signature)

*Ruijie Ma*  
(Stamp and Signature of Applicant)





(To be filled in by TÜV Rheinland)

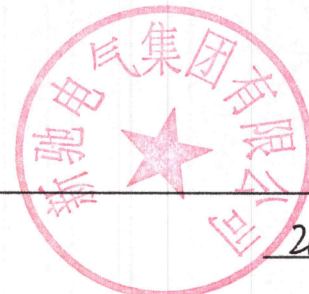
Constructional Data Form

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No.	Name	Type & Specifications	Manufacturer	Standards	Certification
1	MOV	34S821K	Longke Electronics Co., Ltd.	IEC61051-1:2018	TUV B 080789 0003Rev.03
2	Box cover	PA66 A3 GF25 V0XI UL94 V-0	Jiangyin YINUO Engineering Plastics Co., Ltd.	IEC61643-31	Test with SPD
3	Box body	Muld	Zhejiang Leisheng Electronics Co., Ltd.	IEC61643-31	Test with SPD
4	Micro switch	G10-00P-150-127 2A 125VAC	Wenzhou Gangyuan Electronics Co., Ltd	CAN/CSA-C22.2 No. 61058-1	WOYR8.E4901 51
5	Telesignalling terminals	ZB15EDGK-3.81-03p-G01 ZB15EDGV-3.81-03p-G01	NingboZhongbo Photovoltaic Technology Co., Ltd	DIN EN61984 (VDE 0627): 2002	Test with SPD
6	Tin solder	S-SnA 135°C	Zhejiang Qiangli Holding Co., Ltd.	SGS	Test with SPD

TÜV Rheinland

Wenzhou city Yueqing  
(Place)



2022/11/02  
(Date)

3 November 2022  
(Date) *Roman Zhang*  
(Signature)

*Ruijie Ma*  
(Stamp and Signature of Applicant)