VII Main technical parameters

Product Model	SUP2H-PV									
Nominal operating voltage U_N	48VDC	110VDC	130VDC	150VDC	220VDC	275VDC	300VDC	360VDC	500VDC	600VDC
Nominal discharge current I_n (8/20μs)	20KA	20KA	20KA	20KA	20KA	20KA	20KA	20KA	20KA	20KA
Maximum discharge current I_{max} (8/20μs)	40KA	40KA	40KA	40KA	40KA	40KA	40KA	40KA	40KA	40KA
Protection level U_p (when I_n)	0.6KV	1.2KV	1.2KV	1.6KV	2.0KV	2.0KV	2.2KV	2.6KV	2.8KV	3.0KV
Response time	≤25ns									
IP(Ingress Protection)	IP 20									
Flammability grade, in accordance with UL94	V0									
Connection	1-2 is constant closed, 2-3 is common, 2-3 is constant open									
Definition of teleindication	NC-COM is constant closed, COM is constant, NO-COM is constant open									
Cross-sectional area of access conductor	Phase line and zero line ≥6mm2, ground line ≥10mm2									
Overall dimensions	Single: 90×18×70mm; diode: 90×36×70mm; 3P: 90×54×70mm									
Service environment	Allowable temperature -40~+85℃, allowable relative humidity ≤95%(25℃), altitude ≤3km									

Note: Product specifications may be updated from time to time, please consult Suntree Electric for details.

Main technical parameters

Product Model	SUP2H-PV	SUP2H-PV	SUP2-PV	Product Model	SUP2-DC	SUP2-DC	SUP2-DC
Nominal operating voltage U_N	1000VDC	1200VDC	1500VDC	Nominal operating voltage U_N	500VDC	600VDC	1000VDC
Nominal discharge current I_n (8/20μs)	20KA	20KA	20KA	Nominal discharge current I_n (8/20μs)	20KA	20KA	20KA
Maximum discharge current I_{max} (8/20μs)	40KA	40KA	40KA	Maximum discharge current I_{max} (8/20μs)	50KA	50KA	50KA
Protection level U_p (when I_n)	3.6KV	4.0KV	5.0KV	Protection level U_p (when I_n)	2.8KV	3.0KV	4.5KV
Response time	≤25ns			Response time	7KA	7KA	7KA
IP(Ingress Protection)	IP 20			IP(Ingress Protection)	≤25ns		
Flammability grade, in accordance with UL94	V0			Flammability grade, in accordance with UL94	V0		
Definition of teleindication	1-2 is constant closed, 2-3 is common, 2-3 is constant open			Definition of teleindication	1-2 is constant closed, 2-3 is common, 2-3 is constant open		
Cross-sectional area of access conductor	NC-COM is constant closed, COM is constant, NO-COM is constant open			Cross-sectional area of access conductor	NC-COM is constant closed, COM is constant, NO-COM is constant open		
Overall dimensions	Phase line and zero line ≥6mm2, ground line ≥10mm2			Overall dimensions	Phase line and zero line ≥6mm2, ground line ≥10mm2		
Service environment	Single: 90×18×70mm; diode: 90×36×70mm; 3P: 90×54×70mm			Service environment	Single: 90×18×70mm; diode: 90×36×70mm; 3P: 90×54×70mm		
Note: Product specifications may be updated from time to time, please consult Suntree Electric for details.				Note: Product specifications may be updated from time to time, please consult Suntree Electric for details.			

VIII Manufacturing standards

IEC61643-1: 1998 Surge Protective devices connected to Low-voltage power Distribution system.
Part 1: Performance requirements and testing methods.
EN60950: Safety of information technology equipment, including electrical business equipment.
GB/T 18802.1: Surge Protective Devices Connected to Low-voltage Power Distribution Systems-Part 1: Performance Requirements and Testing Methods
YD/T 1235.1: Performance requirements for Surge Protective Devices Connected to Low-voltage Distribution Systems of Telecommunication Stations/ Sites
YD/T 1235.2: Testing Methods for Surge Protective Devices Connected to Low-voltage Distribution Systems of Telecommunication Stations/Sites

Warning!
The module must be tested regularly every year and must be replaced if it is found to have deteriorated or tripped.
Suntree Electric Group Co., Ltd

suntree

Certificate

Model & specification	SUP
Product name	DC Surge Protective Device
Standards for compliance	IEC61643-31 GB/T18802.1
Date of manufacture	See product package
Quality inspector	XC007

This product has been inspected to comply with the product standard and is approved for delivery

SUNTREE Electric Group Co., Ltd

Before installing and using the product, please read the instruction manual carefully and keep it for future use.

Suntree Electric Group Co.,Ltd
ADD: Xinguang Industrial Area,Liushi,Yueqing,
Zhejiang,P.R.China
Tel:0577-61788115
Fax:0577-62890578
Web:www.chinasuntree.com

Instruction Manual

SUP

DC Surge Protective Device

SUNTREE Electric Group Co., Ltd

For the safety of you and your equipment, please read the following items carefully before use:
For the safety of you and your equipment:

1.Please read each operation specification carefully and in detail, and strictly comply with the operation specification in order to avoid losses.

2.Warn personnel whose irregular operations have caused serious damage to product and equipment.

Warning items

1.Non-professional personnel are prohibited from operating or repairing the product, otherwise it will lead to danger of electric shock or damage to the product.

2.It cannot be installed directly outdoors, otherwise it will shorten the service life or cause adverse reactions.

3.It cannot be directly installed in inflammable, e xplosive, humid, direct sunlight, high temperature, vibration, impact and other places. Otherwise, the service life will be shortened or the product will burn and explode.

4.It cannot be installed directly in the place where conductive dust and metal wires invade, otherwise it will lead to product damage or mechanical failure.

5.All requirements in the instruction manual shall be met, otherwise the service life will be shortened.

I. Safety Precautions

•When the lightning protector is installed in the final system, all requirements of the standard GB/T4943 (EN60950, IEC60950) must be implemented.

•Equipment should be installed by authorized professionals. When installing, the power supply must be disconnected, and live operation is strictly prohibited to prevent accidents.

II. Scope of Application

SUP series lightning arresters for DC power supply are used to prevent damage to DC power supply system and electrical equipment caused by lightning over-voltage and transient over-voltage, and to protect the safety of equipment and users. It is widely used for DC power protection in mobile communication base stations, microwave communication stations/sites, telecommunications rooms, factories, civil aviation, finance, securities and other systems.

Applicable to various DC power supply systems, such as:

•DC distribution panel;
•DC power supply equipment;
•DC distribution box;
•Electronic system cabinet;
•Output terminal of secondary power supply equipment.

III. Performance characteristics

Temperature control circuit-breaking technology and built-in over-current protection circuit are adopted to completely avoid the fire hazard caused by the self-heating of lightning arrester.

World-renowned components are selected and manufactured by advanced manufacturing process;

•Large surge energy withstand capacity and low residual voltage;

•Self-contained remote alarm dry contact;

•The service state and failure state are clear and intuitive; Convenient installation and simple maintenance;

•The manufacturing process is exquisite and can service for a long time in harsh environments such as acid, alkali, dust, salt spray and humidity.

IV. Mounting Method

•The lightning arrester should be installed with 35 mm standard guide rail.

Connect the anode, cathode and ground wires of the power supply system to the+, -and GND terminals of the lightning arrester respectively, and tighten the screws of the terminals. Connect the grounding wire of the lightning arrester to the grounded bus-bar of the lightning protection system reliably, and after the installation and wiring is completed, check to make sure that the wiring is correct and firm, then turn on the power and put it into use.

V. Maintenance and Use Precautions

•Equipment should be installed by authorized professionals. When installing, the power supply must be disconnected, and live operation is strictly prohibited to prevent accidents;

•The sectional area of the access wire must meet the technical requirements.

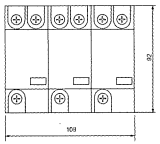
•When the lightning protector is installed in the final system, all requirements of the standard GB/T4943 (EN60950, IEC60950) must be implemented;

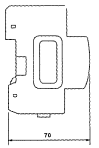
•The product is a protective product, no special maintenance is required, only regular checks for loose connections and normal service status indication.

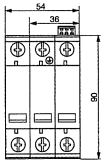
•After the thunderstorm season, it is normal for the indicator window to display red, indicating that the lightning arrester has been activated, and a new module or the whole product should be replaced immediately.

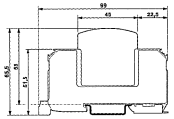
•When the system work failure is suspected to be caused by the lightning arrester, you can remove the arrester and then check, if the system returns to normal after restoring to the state before use, it means that the arrester has been damaged and must be replaced immediately.

III. Product Schematic Diagram and Outline Structure



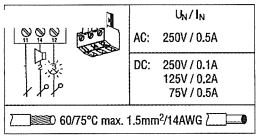




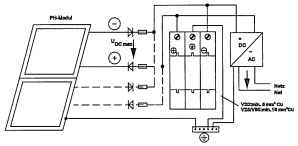


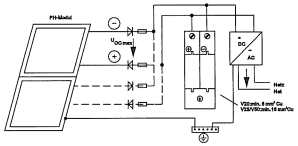
Remote Contact Signaling

BSPH3____YPV(R)



U_N = Nominal Voltage
I_N = Nominal Current
= Audio Alarm/Alert
= PLC / Monitoring System Connection





suntree

human technology nature

CE

⚠ ATTENTION! GB

- Installation must be performed only by electrically skilled operator.
- National electrical installation rules must be followed.
- The unit must be used only as surge protector and according the conditions described in this document.
- Surge protectors must be selected in relation with an dedicated AC network
- Dedicated fuses must be installed in the surge protector branch
- In case of red indicator, the surge protector must be replaced.

This document could be modified without notice.
Updated Information on Website.

⚠ ATTENTION! FR

- L'installation ne doit être effectuée que par un opérateur électricien dûment qualifié.
- Les régles générales d'installation électrique nationales doivent être respectées.
- Le produit est uniquement destiné à un usage parafoudre et doit être utilisé dans les conditions décrites dans ce document.
- Les parafoudres sont utilisés en fonction d'un réseau BT déterminé
- Des fusibles dédiés doivent être installés dans les branches du parafoudre
- En cas d'indicateur passant au rouge, le parafoudre doit être remplacé.

Ce document peut être modifié sans préavis.
Informations à jour sur site web.

⚠ WARNUNG! DE

- Die Montage und der Anschluss des Gerätes dürfen nur durch eine Elektrofachkraft durchgeführt werden.
- Nationale Installations Vorschriften sind zu beachten.
- Das Gerät ist nur im Rahmen dieser Installationshilfe und seiner technischen Daten zu verwenden.
- Die Ableiter sind nach der Niederspannungs-netzform auszuwählen (siehe Tabelle 1).
- Die Vorsicherungen sind nach der Tabelle 2 zu selektieren und zu installieren (Spalte 1).
- Ist die Anzeige im Sichtfenster auf ROT umgeschaltet, so ist das Modul DEFEKT und muss ausgetauscht werden.

Änderungen am Dokument ohne Ankündigung möglich.
Aktuelle Informationen finden Sie auf unserer Webseite.

⚠ INSTRUKCJA OBSLUGI! PL

- Montaż ograniczników przepięć powinien być wykonany tylko przez wykwalifikowanego elektroinstalatora zgodnie z obowiązującymi przepisami krajowymi.
- Ogranicznik przepięć powinien być używany tylko zgodnie z wymaganiami opisanymi w niniejszej instrukcji.
- Ogranicznik przepięć powinien być zainstalowany w instalacji AC zgodnie z jej parametrami podanymi w Tabeli 1.
- Zabezpieczenia topikowe powinny być dobrane i zainstalowane w obwodach ogranicznika zgodnie z zasadami podanymi w Tabeli 2.
- W przypadku kiedy w okienku kontrolnym pojawi się kolor czerwony to moduł powinien zostać wymieniony na nowy.

Ten dokument może zostać zmodyfikowany bez wcześniejszego powiadomienia. Zaktualizowane informacje znajdują się na stronie internetowej.

⚠ NAVODILA ZA UPORABO! SI

- Montažo prenapetostnih odvodnikov mora izvršiti za to usposobljena oseba.
- Prenapetostni odvodniki morajo biti vgrajeni v skladu z nacionalnimi standardi in ob upoštevanju zaščitnih ukrepov.
- Izdelek se lahko uporablja le kot prenapetostni odvodnik pod pogoji uporabe navedenimi v tem dokumentu.
- Prenapetostni odvodnik mora biti izbran glede na lastnosti uporabljenega AC omrežja.
- Uporabljen mora biti v kombinaciji z ustrezno predvarovalko.
- V primeru pojava rdečega indikatorja, mora biti odvodnik zamenjan.

Ta dokument se lahko spremeni brez predhodnega obvestila.
Posodobljene informacije so na spletni strani.

⚠ ATTENTION! ES

- Solo un operador eléctrico capacitado puede realizar la instalación.
- Las reglas generales nacionales de instalación eléctrica deben ser respectadas.
- El producto solo tiene un uso de protección contra sobretensiones transitorias y debe ser utilizado en las condiciones mencionadas en este documento.
- Las protecciones contra sobretensiones transitorias se usan en relación con una red de baja tensión determinada
- Fusibles dedicados deben ser instalados aguas arriba de la protección, en la conexión en paralelo

- Se debe sustituir la protección cuando el indicador esta puesto en rojo.

Este documento puede ser modificado sin previo aviso.
Información actualizada en el sitio web.

⚠ ATTENTION! IT

- L'installazione deve essere fatta solamente da elettricisti qualificati.
- Devono essere rispettate le regolamentazioni nazionali e locali riguardanti l'installazione di apparati elettrici.
- L'unità deve essere usata solo come protezione da sovratensioni e secondo le condizioni descritte in questo documento.
- Le protezioni da sovratensione devono essere scelte in funzione della corrente alternata di rete

- Fusibili dedicati devono essere installati nel ramo protetto da sovratensione
- Nel caso in cui si accenda l'indicatore rosso, l'unità di protezione da sovratensione deve essere sostituita.

Questo documento può essere modificato senza preavviso.
Informazioni attualizzate disponibili sul sito web.

⚠ AVISO! PT

- A instalação deve ser feita por um electricista habilitado.
- Devem ser seguidas todas as regras de segurança indicadas pelo operador eléctrico.
- Esta protecção deve ser utilizada apenas como protecção contra sobretensões e de acordo com as condições mencionadas neste documento.
- A protecção deve ser escolhida de acordo com a rede eléctrica AC
- Devem ser instalados fúsiveis de protecção a montante da protecção
- Caso o indicador vermelho esteja activo, dever-se-á substituir a protecção.

Este documento pode ser modificado sem aviso prévio.
Informação atualizada no website.

⚠ LET OP! NL

- Alleen een geschoolde elektromonteur mag de installatie uitvoeren.
- De installatie moet plaatsvinden conform de regelgeving voor elektrische installaties van het betreffende land.
- De eenheid mag alleen worden gebruikt als een overspanningsbeveiliging en alleen conform de voorwaarden die zijn beschreven in dit document.
- De overspanningsbeveiligingen moeten worden geselecteerd in samenhang met een eigen AC-netwerk
- Er moeten eigen zekeringen worden geïnstalleerd in de overspanningsbeveiligingstak
- Wanneer het lampje rood brandt, moet de overspanningsbeveiliging worden vervangen.

Dit document kan zonder voorafgaande kennisgeving worden gewijzigd. Actuele informatie vindt u op de website.

⚠ NAVOD NA INSALACIU! SK

- Montáž prepäťových spínačov by mala vykonávať len kvalifikovaná osoba v súlade s platnými národnými predpismi.
- Zvodič prepätia by sa mal používať iba v súlade s požiadavkami opísanými v tomto dokumente.
- Prepäťové ochrany musia byť zvolené podľa charakteristiky použitej AC siete
- Zvláštne poistky by sa mali vyberať a inštalovať v obvodoch v súlade s pravidlami uvedenými v tabuľke 2 stĺpec 1.
- V prípade červeného indikátora musí byť zvodič vymenený.

Tento dokument je možné upraviť bez upozornenia.
Aktualizované informácie sú na webových stránkach.

⚠ ВНИМАНИЕ! RU

- монтаж и подключение изделия должны производится только специалистами-электриками.
- необходимо учитывать требования местных норм и стандартов.
- изделие может использоваться только для защиты от импульсных перенапряжений в соответствии с настоящей инструкцией.
- параметры сети должны соответствовать характеристикам изделия
- обязательна установка токовых предохранителей соответствующего номинала
- при обнаружении индикатора состояния красного цвета изделие должно быть заменено.

В документ могут вноситься *изменения.*
Актуальную информацию смотрите *на нашей* WEB-странице.

⚠ VAROVANI/ATTENTION! CZ

- Montáž a připojení svodiče přepětí smí provádět pouze pracovník s příslušnou elektrotechnickou kvalifikací.
- Je zapotřebí dodržovat zásady bezpečnosti práce i platné národní elektrotechnické předpisy.
- Svodič přepětí se smí používat pouze v souladu se svými technickými parametry a podle těchto montážních pokynů.
- Svodiče přepětí je zapotřebí zvolit a používat tak, aby odpovídaly napájecí síti (viz tabulka 1).
- Potřeba instalace pojistek pro předjištění před svodiče a jejich volba - viz tabulka 2, sloupec 1.
- Pokud ukazatel správné funkce má ČERVENOU barvu, pak svodič/modul je VADNÝ a musí být vyměněn.

Změny v tomto dokumentu jsou možné bez předchozího upozornění.
Aktuální informace najdete na naší webové stránce.

⚠ 安全须知! 中文

产品安装只能由具备专业资质的人员实施；
请遵守国家电气安装相关规范；
本产品仅作为浪涌保护器且在本文件所规定的条件下使用；
请根据不同的电源网络制式选用浪涌保护器；
请在浪涌保护器前端安装规定的熔断器；
当状态指示变为红色时，须及时更换浪涌保护器；

本文件的修改无需另行通知。
更新文件请登陆公司网站。

⚠ ADVARSEL! DK

- Installationen skal udføres af en elektriker.
- Nationale regler for elektrisk installation skal følges.
- Enheden må kun anvendes som overspændingsbeskytter og i henhold til de betingelser, der er beskrevet i dette dokument.
- Overspændingsbeskyttere skal vælges i henhold til et dedikeret vekselstrømsnet
- Der skal installeres passende sikringer i overspændingsbeskytterdelen
- Hvis kontrollampen lyser rødt, skal overspændingsbeskytteren udskiftes.

Dokumentet kan ændres uden varsel.
Opdaterede informationer findes på vores webside.

⚠ OBS! SE

- Installationen bör endast utföras av en person med lämpliga kunskaper i elinstallationer.
- Lokala regler för elinstallationer måste följas.
- Enheten bör endast användas som överspänningsskydd och i enlighet med villkoren som beskrivs i det här dokumentet.
- Överspänningsskydd måste väljas i relation till ett särskilt avsett elnät
- Särskilt avsedda säkringar måste installeras i grenen för överspänningsskyddet
- Om indikatorn visar rött, måste överspänningsskyddet bytas ut.

Informationen i det här dokumentet kan ändras utan föregående meddelande.
Uppdaterad information finns på webbplatsen