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Lightning Protection
Surge Protection
Safety Equipment

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更多信息 More information

我想得到更多有关以下主题的详细资料

I would like to have more information material
about the following topics:

- ☐ 主要产品目录 “电涌保护”
Main Catalogue Surge Protection
- ☐ 主要产品目录 “防雷保护”
Main Catalogue Lightning Protection
- ☐ DCN 649 Red/Line系列: ... “轻松选择”
DS 649E Red/Line: ... “Easy choice”
- ☐ DCN 150 Yellow/Line 系列... “轻松选择”
DS 150E Yellow/Line: ... “Easy choice surge protection”
- ☐ 请安排你们销售人员到访（预约）
Please arrange for a visit of one of your Sales Engineers
(by appointment)

姓名/Name

公司/Company

地址/Address

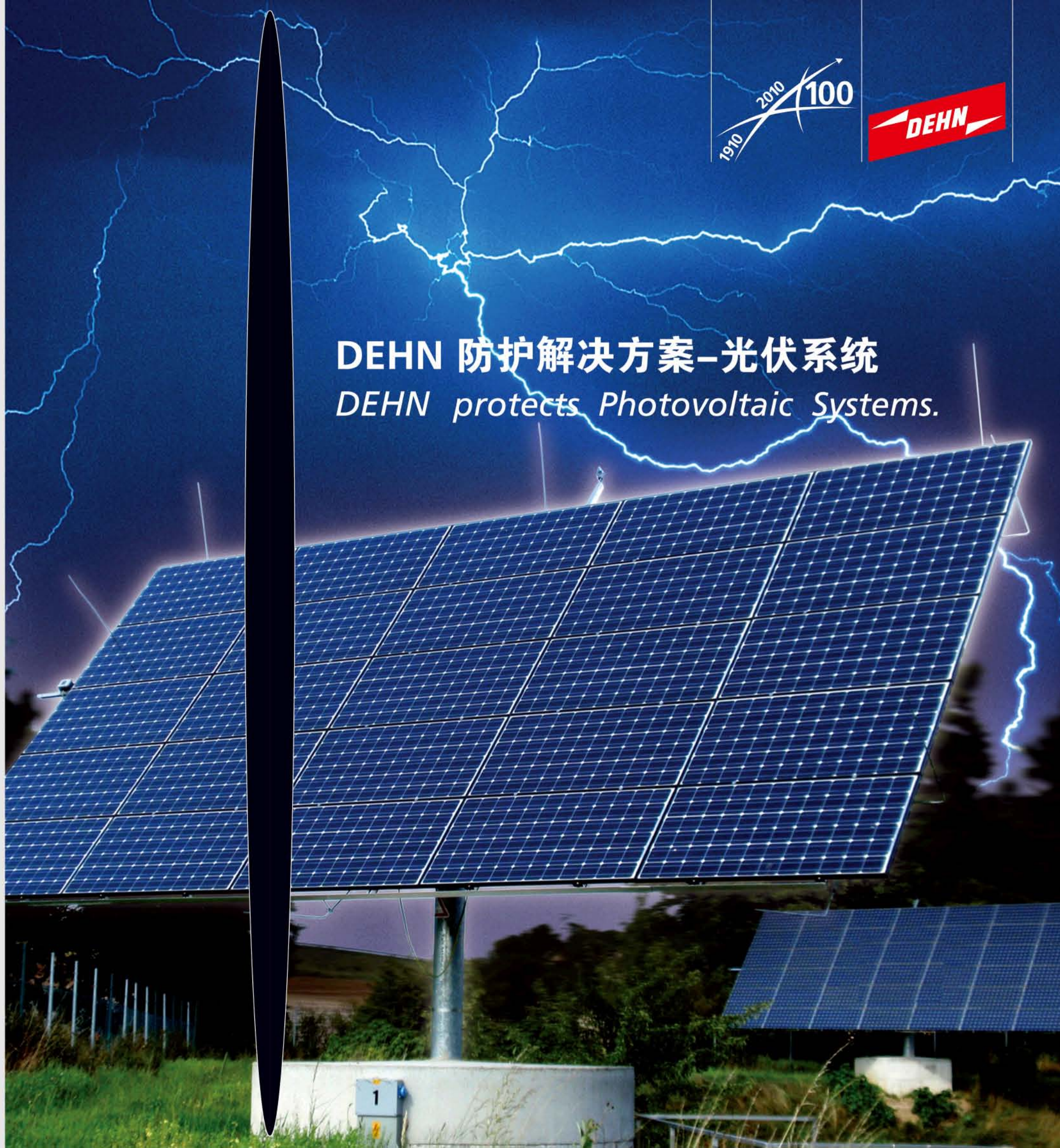
国家/Country

电话/传真/Phone/Fax

电子邮箱/EMail

请填写好后寄好给我们！ Please fill in and send to us!

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SIEMENS

SMA

PHÖNIX
EnergyStron AG

LTi REENERGY

PADCON

wieland
www.wieland-solar.com

SOLAR

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SOLAR

KRINNER

solarzentrum
DEUTLAND

SCHOTT
solar

Ingeteam

acciona
solar

leuro partner
solar
simply connected

DEHN - 全球防护解决方案专家 DEHN - Expertise in Protection Solutions worldwide.

由于暴露的安装特点和延伸的表面，光伏系统
存在遭受直接和间接雷击的巨大风险。并且，光伏
系统必定会存在和建筑物电气设施的连接，光伏系
统可能遭受的雷击损害最终会波及整个建筑物。

由于对开阔空间的需求以及复杂的设计，太阳
能电厂极易遭受损害。必须凭借结合了高科技和经
济性的雷电和电涌保护的概念来避免电厂在任何情
况下停产。

DEHN + SÖHNE致力于光伏系统的雷电和电
涌保护已有超过15年的经验。

DEHN + SÖHNE提供工程和测试服务，可在
自有的实验室内对光伏系统的客户定制保护方案进
行优化。

知名的光伏系统和逆变器厂商信赖
DEHN+ SÖHNE的防护理念。

*Due to the exposed arrangement and extended
surface of photovoltaic systems, there is a high
risk of direct and indirect lightning strokes.
Photovoltaic (PV) systems inevitably represent a
connection to the electrical installation of a
building. Possible lightning effects on
photovoltaic generators can thus affect the
entire building.*

*Solar power plants are also very susceptible to
damage due to their enormous space
requirement and their complex design. In all
cases downtimes have to be prevented by means
of technically and economically coordinated
lightning and surge protection concept.*

*For more than 15 years, DEHN + SÖHNE has been
engaged in developing lightning and surge
protection concepts for photovoltaic systems.*

*DEHN + SÖHNE offers engineering and test
services in the in-house test laboratory in order
to optimise customer-specific solutions for
photovoltaic installations.*

*Renowned manufacturers of photovoltaic
systems and inverters trust in the protection
concepts of DEHN + SÖHNE.*

DEHN - 保护装有光伏系统的建筑物

DEHN protects Buildings with PV Systems.

安装在具有外部防雷系统的建筑物上的光伏系统

PV system installed on a building with external lightning protection system.

已保持安全隔离距离 / Adherence of the separation distances



—模块化电涌保护器 (SPD)，用于单相、230V TN系统
Modular surge arrester for use in single-phase 230 V TN systems
DG M TN 275
货号/Part No. 952 200
DG M TN 275 FM
货号/Part No. 952 205



—模块化电涌保护器 (SPD)，用于单相、230V TT系统
Modular surge arrester for use in single-phase 230 V TT systems
DG M TT 2P 275
货号/Part No. 952 110
DG M TT 2P 275 FM
货号/Part No. 952 115

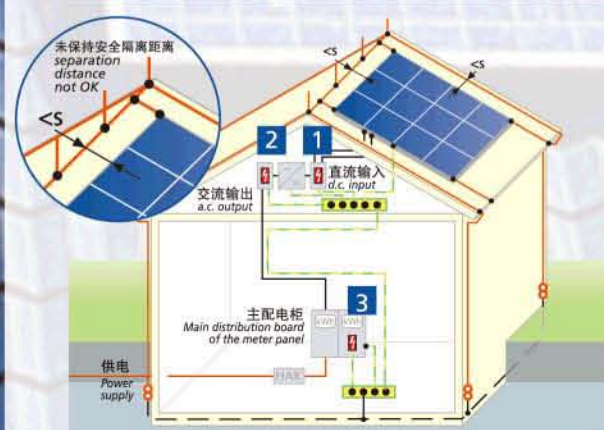


—模块化电涌保护器 (SPD)，用于单相、230V TN系统
Modular surge arrester as complete unit for photovoltaic systems
DG M YPV SCI 1000
货号/Part No. 952 510
DG M YPV SCI 1000 FM
货号/Part No. 952 515



—供电系统多极、复合雷电流/电涌保护器
Multi-pole combined lightning current and surge arrester for use in power supply systems
DV M TNC 255
货号/Part No. 951 300
DV M TNS 255
货号/Part No. 951 400
DV M TT 255
货号/Part No. 951 310

未保持安全隔离距离 / No adherence of the separation distances



—模块化复合雷电流/电涌保护器，用于单相、TN系统
Modular combined lightning current and surge arrester for use in single-phase TN systems
DV M TN 255
货号/Part No. 951 200
DV M TN 255 FM
货号/Part No. 951 205



—模块化复合雷电流/电涌保护器，用于单相TT、TN系统
Modular combined lightning current and surge arrester for use in single-phase TT and TN systems
DV M TT 2P 255
货号/Part No. 951 110
DV M TT 2P 255 FM
货号/Part No. 951 115



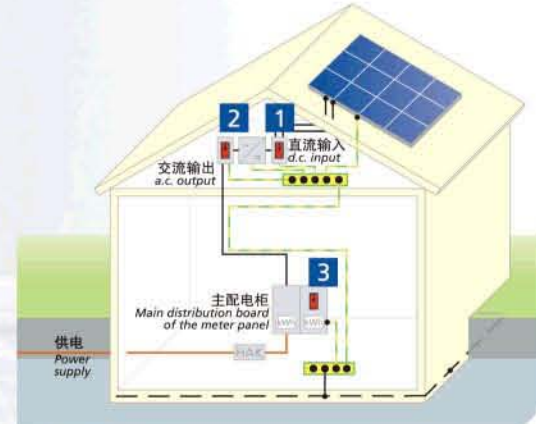
—1级复合雷电流/电涌保护器用于光伏系统
Combined lightning current and surge arrester Type 1 for use in photovoltaic installations
DLM PV 1000
货号/Part No. 900 330



—供电系统多极、复合雷电流/电涌保护器
Multipole combined lightning current and surge arrester for use in power supply systems
DV M TNC 255
货号/Part No. 951 300
DV M TNS 255
货号/Part No. 951 400
DV M TT 255
货号/Part No. 951 310

在无外部防雷保护建筑物中的光伏系统

PV system installed on a building without external lightning protection system.



—模块化电涌保护器 (SPD)，用于单相、230V TN系统
Modular surge arrester for use in single-phase 230 V TN systems
DG M TN 275
货号/Part No. 952 200
DG M TN 275 FM
货号/Part No. 952 205



—模块化电涌保护器 (SPD)，用于单相、230V TT系统
Modular surge arrester for use in single-phase 230 V TT systems
DG M TT 2P 275
货号/Part No. 952 110
DG M TT 2P 275 FM
货号/Part No. 952 115



—模块化电涌保护器 (SPD)，完整的保护单元，用于光伏系统
Modular surge arrester as complete unit for photovoltaic systems
DG M YPV SCI 1000
货号/Part No. 952 510
DG M YPV SCI 1000 FM
货号/Part No. 952 515



—模块化多极电涌保护器 (SPD)，用于三相供电系统
Modular multipole surge arrester for use in (three-phase) systems
DG M TNC 275 FM
货号/Part No. 952 305
DG M TNS 275 FM
货号/Part No. 952 405
DG M TT 275 FM
货号/Part No. 952 315

等电位连接 / Equipotential Bonding

出于雷电流和电涌保护的需要，强烈建议将光伏设备的支架做等电位连接，描述如下：

- 在光伏设备支架上用16mm²的铜线做固定连接
- 确保光伏设备支架的持续导通连接
- 将等电位连接排与建筑物的主等电位连接排相连
- 功能性接地排必须平行紧密地与直流和交流电缆/导体/元件连接

For reasons of lightning and surge protection it is strongly recommended to integrate the PV frame into the equipotential bonding. This should be done as follows:

- Defined connection with 16 mm² Cu at the PV frame.
- A continuously conductive connection of the PV frames has to be ensured.
- The equipotential bonding conductor is connected to the main earthing busbar of the building on ground level.
- The functional earthing conductor has to be installed in parallel and in close contact with the d.c. and a.c. cables / conductors and components.

DEHN - 新产品

DEHN - New Products.

DEHNlimit PV 1000

1级复合雷电流/电涌保护器，用于光伏设备
Combined lightning current and surge arrester Type 1 for use in photovoltaic installations



型号/Type	货号/Part No.
DLM PV 1000	900 330

雷电流泄放能力高达50kA
High lightning current discharge capacity of 50 kA (10/350 μs)



火花间隙型雷电流保护器，用于光伏设备直流发电机的电路中，具有阻断直流的作用
Spark-gap-based SPD with d.c. interruption for use in PV generator circuits



可应用于最高1000V发电机电压的光伏系统中
Can be used for PV systems up to 1000 V generator voltage



DEHNguard M YPV SCI 1000 (FM)

2级、模块化电涌保护器 (SPD)，用于光伏系统具有耐受故障的Y型电路和3步切断直流的分断单元

Modular surge arrester Type 2 for photovoltaic installations with fault resistant Y circuit and 3-stage d.c. disconnection switching unit

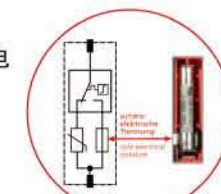


型号/Type	货号/Part No.
DG M YPV SCI 1000	952 510
DG M YPV SCI 1000 FM	952 515

安全性的变革：
DEHNguard M YPV SCI 1000—安全的电涌保护器可应用于最高1000V发电机电压的光伏系统中
Evolution of safety:
DEHNguard M YPV SCI 1000 - safe surge protection for PV systems up to 1000 V generator voltage



在保护模块中集成了可以进行安全电气隔离的脱扣和短路装置
Combined disconnecting and short-circuiting device with safe electrical disconnection in the protection module



由于在保护模块中集成了熔丝，更换模块时没有电弧，更加安全
The electrical disconnection of an overloaded protection module by the integrated fuse allows for a safe arcing free exchange of the module



DEHN - 太阳能电厂的保护理念

DEHN - Protection Concepts for Solar Power Plants.

在开阔场地的太阳能电站平面图
Layout plan of a solar power plant in an open area.



所有的发电机框架均通过接地片相互连接。另外，这些呈放射状的接地极互相交织。



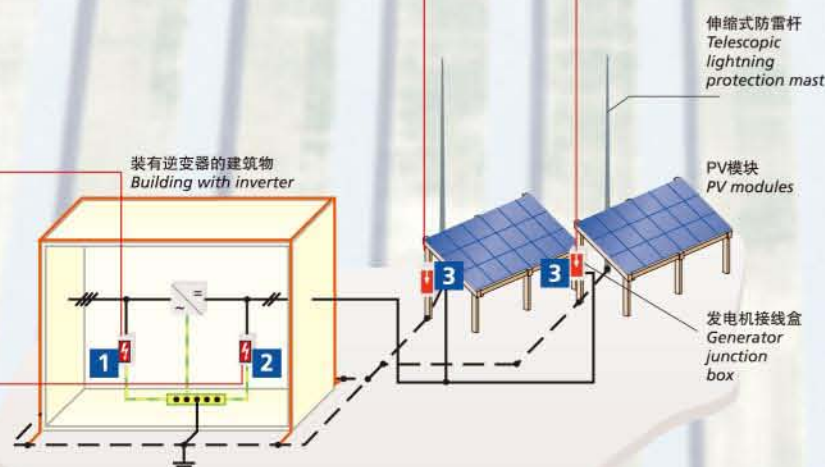
DG M YPV SCI 1000
货号/Part No. 952 510



DV M TNC
货号/Part No. 951 300



DLM PV 1000
货号/Part No. 900 330



DEHN - 防雷专家

DEHN - Expert in Lightning Protection.

DEHNcon-H HVI® 高压绝缘电缆

耐高压绝缘引下线，根据EN62305-3，保证与导电部件的安全隔离距离。因此，HVI引下线可贴近安装，减少光伏模块行间距，有效提高场地利用率，示意图见右下：s为减少的距离。

DEHNcon-H HVI® conductor light

High-voltage-resistant insulating down conductor for keeping the separation distance from conductive parts according to EN 62305-3. HVI down conductor could be installed closely to PV module to reduce row space of PV modules. Thus it will be possible that more sets could be installed in same area.

货号/Part No. 819 250

阴影最优化的雷电保护

使用隔离的接闪装置 (GRPIAI) 并用HVI® 电缆连接。这种隔离的雷电保护系统将会避免在PV模块上形成阴影。

Shade-optimised lightning protection

with isolated air-termination system (GRPIAI) and connection of the HVI®-Light. This solution prevents impermissible shading of the PV modules by means of the isolated lightning protection system.

独立式接闪器

具有可折叠的三脚架，用于保护安装在屋顶上的大型装置，为适合屋顶的倾斜度，最大可做10度的调节。

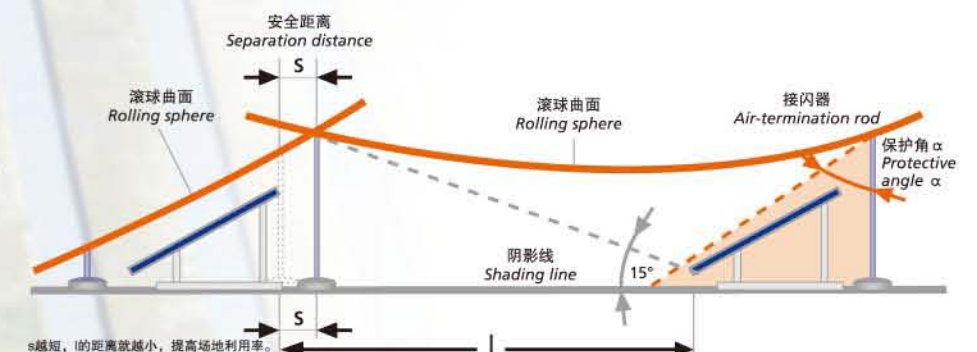
Self-supporting air-termination rods

With hinged tripod support for protecting large roof-mounted elements, can be adjusted to roof inclinations of max. 10 degrees.

货号/Part No. 105 600

为光电系统设计接闪系统时必须考虑安全距离和投影角度

Designing the air-termination system under consideration of separation distances and shadow formations





DEHN - 数据采集和处理的优化保护

DEHN - Optimised Protection Concept for Data Acquisition and Processing.

1

DEHNprotector 230 NT

电涌保护适配器，适用于网络终端主输入和数据输入口的全保护。

Surge protective adapter with combined protection for the mains and data input of a network termination basis access (NTBA).

货号/Part No. 909 310



2

DEHNpatch DPA M CLE RJ 45B 48

通用的网络保护模块，最高电压可达直流48V：用于以太网10/100/1000/10000 Mbit/s, VoIP, PoE, ISDN

For universal use up to 48 V d.c.: Ethernet 10/100/1000/10000 Mbit/s, VoIP, PoE, ISDN

货号/Part No. 929 121



3

BLITZDUCTOR[®] XT BXTU ML4 BD 0 - 180

雷电流/电涌保护器，电压范围从0至180V。可自动检测信号电压并调整保护水平使之与信号电压最优匹配。

Lightning current and surge arrester for all voltages from 0 to 180 V_{pp}. It automatically detects the signal voltage applied and optimally adjusts the voltage protection level to this signal voltage.

货号/Part No. 920 349



4

LifeCheck DRC MCM XT

最多可监测10个BXT模块的状态监测装置。通过遥信触点实现故障信号可视。

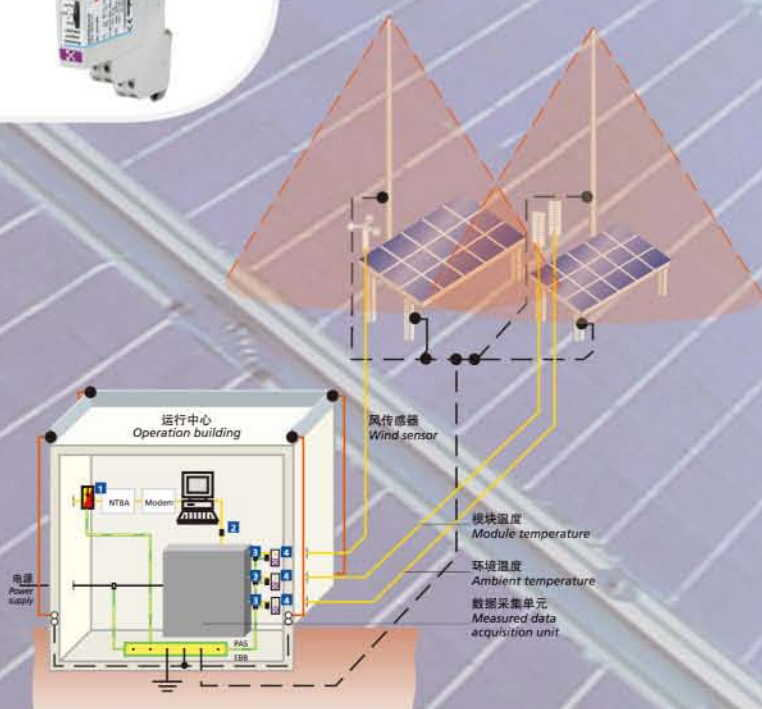
Condition monitoring of max. 10 BXT protection modules. Visual fault indication via remote signalling contact

货号/Part No. 910 695



应用RFID技术测试SPD模块。
LifeCheck[®] 是利用RFID (Radio Frequency Identification-射频识别技术) 对电涌保护器的工作状态进行检测的一项技术。

Testing an SPD module with RFID technology (LifeCheck[®])



DEHN - 保护世界各地的光伏系统

DEHN protects Photovoltaic Systems worldwide.

Solar Power Plant, Waldpolenz (40 MW_p)

德国

Floriade 2002 (2,3 MW_p),

Haarelemermeer, Amsterdam

荷兰

Solar Power Plant Serpa (11 MW_p)

葡萄牙

Photovoltaic System (300 kW_p),
Grevenmacher

卢森堡

Photovoltaic System, Corviglia Cable Railway

瑞士

Solar Power Plant Pocking (10 MW_p)

德国

Solar Power Plant Mühlhausen (6,3 MW_p)

德国

Off-grid Photovoltaic System

哥伦比亚

Photovoltaic Test Facility (300 kW_p),
Manfredonia

意大利

Photovoltaic System at the University
of UK MFF Prag, VUT Brunn, TU Liberec

捷克

Solar Power Plant Arroyo San Servan (10 MW_p)

西班牙

Gufferthütte, Rofangebirge, Achenkirch

奥地利

Photovoltaic System, Catania (Sicily)

意大利

Photovoltaic System at the Rotterdam Zoo

荷兰

Solar Heliotrop

德国

Solar Power Plant "Beneixama" (20 MW_p)

西班牙

Technical College, Bern (60 MW_p), Burgdorf

瑞士

Solar Power Plant, Rende Cosenza (1 MW_p)

意大利

Solar Power Plant, Yongam (3 MW_p)

韩国

Roof Mounted Installation, Kuala Lumpur
(362 kW_p)

马来西亚

Roof Mounted Installation, Vijfhuizen
(2,3 MW_p)

荷兰

Solar Power Plant, Acquaviva Delle Fonti
(1 MW_p)

意大利



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Foto/Photo: philipp elektrotechnik (Solarpark Pullenreuth)