

Low frequency



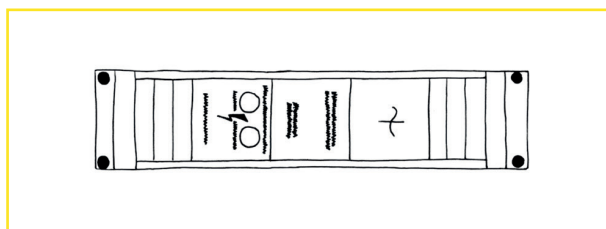
- shielded system full protection module without switch for shielding low-frequency alternating electric fields
- for overvoltage protection and mains filtering at the beginning of a system module row. Mostly after the MSDS-SA switch
- full electrical protection „PRO-TECTOR“, mains and HF filter
- Modular system:
Completely modular design, for connection in rows. Various system strips for selectable number of slots, with connection cables and interlinking cables in several lengths (from 0.5 m up to 5 m). Flexible and adaptable, without cable clutter.

Sockets can be optionally switched off / not switched off by means of a 2-pole switch. Up to 10 system strips may be plugged in one after the other without endangering the short-circuit protection.

Applications for example for office workstations, hi-fi systems, TV combinations ...

- The alternating electric field is minimised to 1-2 volts/metre (V/m). The recommended guideline value of building biology is max. 10 V/m.
- Please note when installing:
Let the mains cable run at least 80 mm straight at the plug and socket.
- Use of socket modules with 2-pole switch:
By using switchable modules, several units can be connected together and conveniently disconnected from the mains together by using of a switch.

Order-No.: 300168 - 41-4764
Short-Desc.: MSDS-VI



Modular socket system

Full protection module MSDS-VI

Technical data

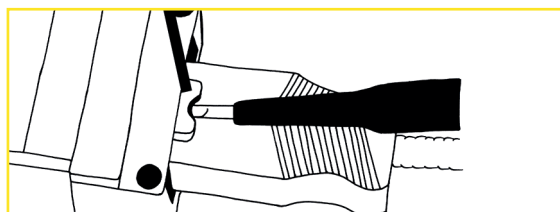
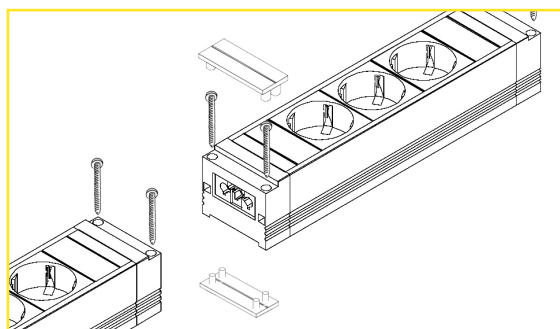
MSDS-module:	shielded
length x width x height:	221 x 53 x 44 mm
colour:	silver (anodised aluminium profile), black
operating voltage: (max.)	250 VAC / 50 Hz
load: (max.)	16 A nach IEC 884
protection class:	1 (with protective earth conductor)
basis of examination:	single, 100 %, TCO'99 (MPR II, DIN prEN 50279)

Scope of application

office space, PC workstations
TV combinations, hi-fi systems, laboratory tables ...

Scope of delivery

system module full protection - MSDS-VI



If there is a need for continuous power for units with programmed data or necessary accessibility, you can use the modules with combined disconnectable and non-disconnectable inserts.

- **Note:** DIN VDE 0100 Part 420 Para. 4.1 (fire hazard in electrical installations) must be particularly observed during use. If the total resistance of the individual plug-in connections exceeds the impedance required for short-circuit protection, it will no longer trip (VDE 0100-410:2007-06 requires short disconnection times of 0.4 s for the TN system). In such cases, the temperature of the line can rise until a fire originates.

Therefore, the following applies (for all modules, whether shielded or unshielded):

- plug in up to a maximum of ten modules in a row
- do not operate covered

Data sheet overvoltage protection + mains filter according to VDE 0675, part 6 section 4.12

System module MSDS-VI - PRO-TECTOR

Surge protection - PRO-TECTOR

max. permissible operating current $I_{\max}$ AC	16 A
leakage paths:	varistor and gas surge arrester
test standard:	VDE 0675 part 6
arrester Rated voltage U_p :	300 VAC
rated leakage current I_{SN} (8/20 μ s)	6500 (6,5 k) A
guaranteed protection level:	< 1000 V bei 6500 A (8/20 μ s)
response time t_a	< 25 ns
indicators:	green = protection all right red = protection defective

Intended use

The full-protection socket strip is designed for overvoltage category II according to DIN VDE 0110 part 1.

Disconnecting unit

The standard VDE 0675, part 6 prescribes a maximum current pulse of $i_{sn} = 1.5$ kA (8/20 μ s). The present unit has been designed for 6.5 kA and therefore offers 4x higher protection than prescribed.

VDE 0675 requires thermal control with disconnection of the varistors in the event of a fault to avoid a fire hazard.

This is done with 2 thermal fuses. When the overvoltage part is disconnected, the connected devices remain connected to the mains.

Installation instructions

The full-protection socket strip must not be manipulated in any way. The wiring and connections made by the manufacturer must not be changed!

Mains- and high-frequency filter

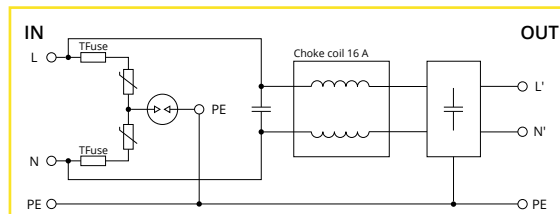
operating current (max.)	16 A
mains filter:	50 dBm (factor 100000)
HF (high frequency)- filter	up to 80 MHz filters also PLC

Technic

Symmetrical as well as asymmetrical disturbances exist in the public power supply network. Symmetrical disturbances or differential disturbances occur between phase and neutral, asymmetrical disturbances or common-mode disturbances between the conductors and earth potential. The integrated filter electronics (low-pass filter) are used for the conducted reduction of these disturbance variables. With increasing frequency, the ratio of interference voltage (output) to interference voltage (input) decreases (measured in dBm!).

dBm stands for the transmission power in relation to 1mW. In contrast to the 'pure' dB, this is not a relative factor, but an absolute value due to the reference value (this 1 mW).

0 dBm corresponds to a transmission power of 1 milliwatt.



Block diagram

The circuit diagram shows the structure of the device full protection.

Overvoltage protection

acc. VDE 0675, part 6 section 4.12

The full protection electronic assembly serves as a mounting kit in the socket strip.

Requirement class

The full device protection is designed for requirement class D (portable use at sockets).

Function

When functioning correctly, a green lamp lights up. A failure of the surge protection device is clearly indicated by a red lamp lighting up.

In this case, the overvoltage part has been damaged by a very significant overvoltage and you should replace the unit.

Prefuse

Due to the use of very high-quality components, it was possible to dispense with a back-up fuse. You have the power of the 16A house mains available without restriction.

Important: If you operate the power strip on an unprotected mains supply, a 16 A fuse must be installed in front of the unit.

