



Single Phase

SD1-25DIN/3x
SD1-40DIN/3x
SD1-80DIN/3x

Three Phase

SD3-25DIN/3x
SD3-40DIN/3x
SD3-80DIN/3x
SD3-120DIN/3x

DISTRIBUTION BOARD (DB) SURGE PROTECTION

DINsafe surge diverters can be installed at major distribution boards in low to medium exposure locations. All mode protection is provided by a combination MOV and gas discharge tube circuit. Models are available for all wiring systems worldwide

All Mode Protection

Novaris models featuring all mode protection provide protection for all combinations of lines (L-N, L-E, N-E) ensuring the maximum level of protection is achieved at all times.

Surge Current Fusing

Surge current fuses allow components to absorb maximum energy but in the event of a component failure the fuse will open to isolate the damaged component.

Thermal Sensing

Sustained overvoltages can cause components to overheat and degrade. Thermal sensing warns of this condition without disconnecting the protection.

LED Status Display

LED indicators are provided on models to indicate operating status.

External Alarms

Models featuring external alarms have voltage free changeover contacts for remote status indication.

DIN 43880 Compliant

Protection devices housed in DIN 43880 compliant enclosures allow for convenient installation on DIN rail fittings commonly used in switchboards worldwide.

Safe Metal Enclosure

Novaris surge protection products are housed in safe, all metal enclosures. In the event of a prolonged overvoltage they will not catch fire or explode.

- ◆ All mode protection
- ◆ Surge current fusing
- ◆ Thermal sensing
- ◆ LED status display
- ◆ External alarms
- ◆ DIN 43880 compliant
- ◆ Safe metal enclosure

Ordering Options

SD x - y DIN /3 z

- x = Phases:** 1, 2, 3
- y = Surge rating kA:** 25, 40, 80, 120
- z = External alarm:** /A

Models are available with an inbuilt alarm relay that provides a clean changeover contact. This relay may be used to remotely monitor the status of the unit and will also indicate power failure.

Polycarbonate enclosure: /P

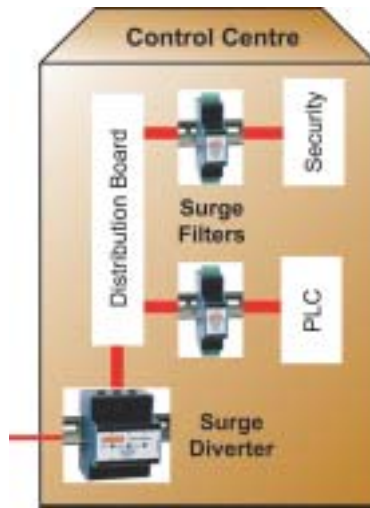
Use a suitably rated polycarbonate enclosure for mounting external to the DB in damp and dusty conditions. A clear lid allows protection status to be easily viewed.

e.g. SD3-40DIN/3A/P

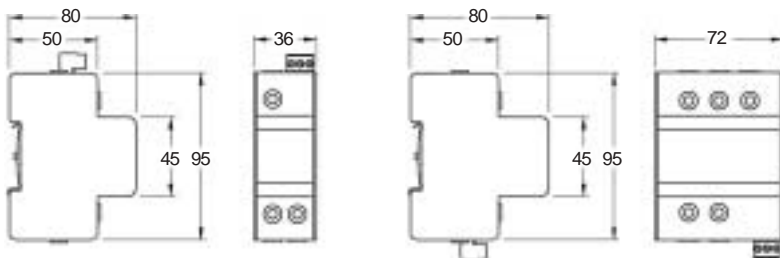
The Novaris Systematic Approach

In a system design DINsafe surge diverters would be utilised upstream of a power line surge filter for protection of critical loads. The surge diverter shunts the majority of the initial high energy pulse to ground, whilst the series connected surge filter, installed closer to the equipment, provides additional stages of protection.

The surge filter is connected in series with the load and unlike a surge diverter, is unaffected by the inductance of connecting leads. A surge filter is capable of protecting even the most sensitive electrical or electronic equipment.



Dimensions



SD1-25DIN/3x
SD1-40DIN/3x

SD1-80DIN/3x
SD3-xxDIN/3x

Safety

The Siemens Metal Oxide Varistor (MOV) Handbook states:

Overload may result in package rupture and expulsion of hot material. For this reason a varistor should be physically shielded from adjacent components eg. by a suitable metal case.

DINsafe surge diverters are enclosed in all-metal enclosures and circuit components are not encapsulated in any form of epoxy resin.

Description:	DINsafe surge diverter
Protection modes:	All mode (L-N, L-E & N-E)
Connection type:	Shunt
Nominal voltage:	
SD1-xDIN/3x	220 / 230 / 240VAC RMS
SD3-xDIN/3x	380 / 400 / 415VAC RMS
Working voltage:	
SD1-xDIN/3x	200 → 280VAC RMS
SD3-xDIN/3x	346 → 485VAC RMS
Working frequency:	40 → 60Hz
Working temperature:	-40 → 85°C
Working humidity:	0 → 90%
Peak surge handling per mode (8/20µs):	
SDx-25DIN/3x	25kA
SDx-40DIN/3x	40kA
SDx-80DIN/3x	80kA
SD3-120DIN/3x	120kA

Let through voltage for 6kV,
3kA (8/20µs) pulse: <800V

Standards compliance: BS6651-1999 cat. A, B, C
AS1768-2003 cat. A, B, C
IEEE C62.41 cat. A, B, C
CP33-1999 cat. A, B, C
IEC 1000-4-5-1995
UL1449 Second Edition

Response time: <5ns

Earth leakage current: < 10µA

Display: LED indication of status

Alarms (optional): Changeover contact on MOV failure or thermal overload

Alarm isolation: 4kV isolation from all circuitry

Terminal capacity:
Power 16mm²
Alarms 2.5mm²

Weight:
Per unit:
SD1-xDIN/3x 270g
SD3-xDIN/3x 440g

Polycarbonate enclosures:
SD1-xDIN/3x 500g
SD3-xDIN/3x 550g

NOTE: polycarbonate enclosures are additional to unit weights

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