



Single Phase

SD1-80/z
SD1-120/z
SD1-160/z
SD1-200/z

Three Phase

SD3-80/z
SD3-120/z
SD3-160/z
SD3-200/z

MAIN SWITCHBOARD (MSB) SURGE PROTECTION

Use MULTIMOV high energy surge diverters for point of entry protection at main switchboards. Models are available for all wiring systems worldwide.

All Mode Protection

Models containing N-E protection (/N versions) feature all mode protection. Protection is provided for all combinations of lines (L-N, L-E, N-E) ensuring the maximum level of protection is achieved at all times.

Redundant Segments

MULTIMOV surge diverters feature a parallel redundant arrangement of high energy metal oxide varistors (MOVs), thus promoting long life and exceptional surge handling capacity. In the event of a varistor failure the remaining segments continue to provide protection.

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.

Percentage Active Display

A digital display confirms the device rating upon switch on then displays percentage active. The display indicates segments status and thermal overload.

External Alarms

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

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
- ◆ Redundant segments
- ◆ Surge current fusing
- ◆ Thermal sensing
- ◆ Percentage active display
- ◆ External alarm
- ◆ Safe metal enclosure

Ordering Guide

		SD x - y /z
x =	Phases:	1, 2, 3
y =	Surge rating kA:	80, 120, 160, 200
z =	N-E protection:	/N

At major distribution boards or in non-MEN wiring systems protection between the neutral and earth conductors is essential to providing true all mode protection. This protection is provided via a very high energy gas filled arrester.

Polycarbonate enclosure: /P

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

Metal enclosure: /E

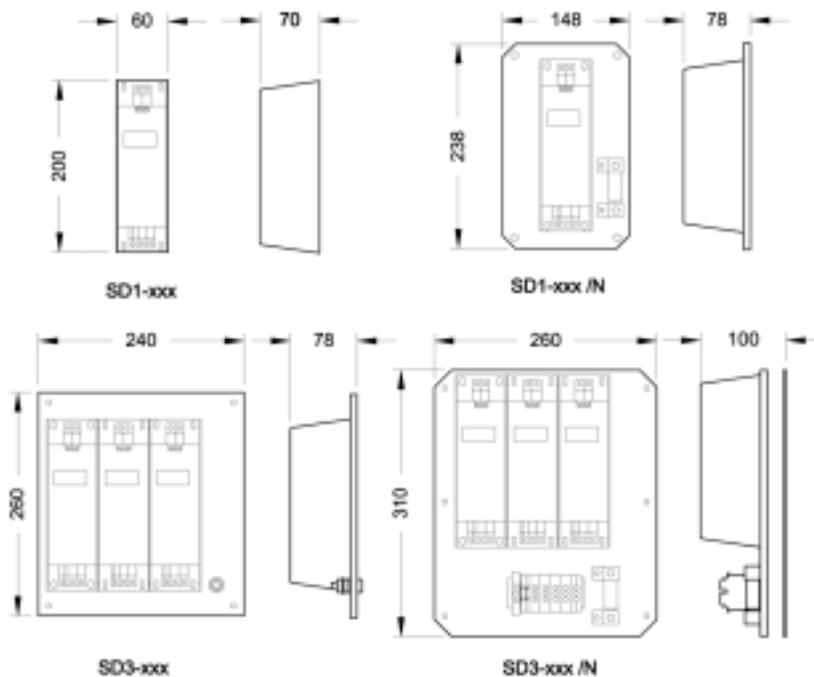
Metal enclosures are ideal when the protection cannot be installed in the MSB. Enclosure door cut outs allow status of protection components inside to be easily viewed.

Extended voltage: /EV

Under poor power quality conditions the line voltage may exceed 280V. The /EV series has been designed to withstand up to 440V between any phase to neutral allowing them to survive up to 440V continuous voltage and still provide adequate protection. Only available with 80kA, 120kA and 160kA models.

e.g. SD3-160/N/E

Dimensions



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.

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

Specifications

Description:	MULTIMOV surge diverter
Connection type:	Shunt
Nominal voltage:	
SD1-xxx/x	220 / 230 / 240VAC RMS
SD3-xxx/x	380 / 400 / 415VAC RMS
Working voltage:	
SD1-xxx/x	200 → 280VAC RMS
SD3-xxx/x	346 → 485VAC RMS
Working frequency:	40 → 60Hz
Working temperature:	- 40 → 85°C
Working humidity:	0 → 90%
Peak surge handling per mode (8/20µs):	
SDx-80/z	80kA
SDx-120/z	120kA
SDx-160/z	160kA
SDx-200/z	200kA
Let through voltage for 6kV, 3kA (8/20µs) pulse:	
L-N	<800V
Standards compliance:	ANSI C62.41 cat. A, B, C AS1768-2003 cat. A, B, C BS6651-1999 cat. A, B, C CP33-1996 cat. A, B, C IEC 1000-4-5-1995 UL1449 Second Edition N2530
Response time:	<5ns
Earth leakage current:	<5µA
Display:	Digital display of segment status.
Alarms:	Changeover contact on one segment failure or thermal overload.
Alarm isolation:	4KV to active circuitry.
Terminal Capacity:	
Power	16mm ²
Alarms	2.5mm ²
Weight:	
Unit Weight:	
SD1-xxx	1.2kg
SD1-xxx/N	2.0kg
SD3-xxx	5.0kg
SD3-xxx/N	6.0kg
Polycarbonate enclosure:	
SD1-xxx	0.9kg
SD1-xxx/N	2.0kg
Metal enclosure:	
SD1-xxx	3.5kg
SD3-xxx/N	6kg
Note:	Polycarbonate and metal enclosure weights are additional to unit weights.

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