

SDN3 - All Mode Surge Diverter



Main Switchboard (MSB) Surge Protection

Use MULTIMOV all mode high energy surge diverters for point of entry protection at main switchboards, especially where N-PE protection is required.

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.

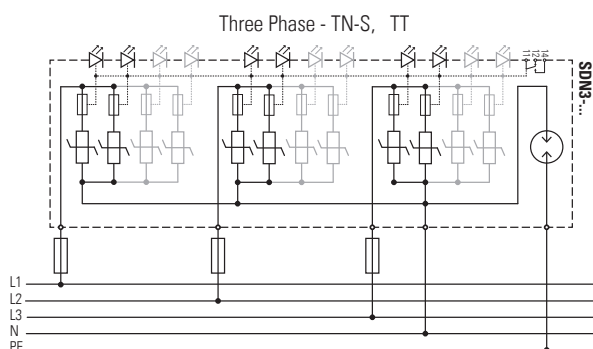
LED Status Active Display

The LED display indicates segment status and indicates normal operation when all LEDs are brightly lit. A dim LED phase segment indicates the failure of an external backup fuse and this will activate the external alarm. An extinguished LED indicates a component failure or thermal overload, also activating the external alarm.

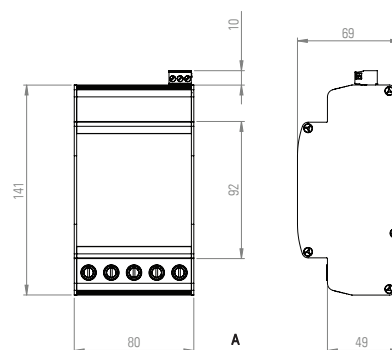
Safe Metal Enclosure

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

Diagram / Installation



Dimensions



Ordering Information

Lightning Protection Level (LPL)	IV: Low exposure		II, III: Medium exposure		I: High exposure	
	Single Phase	Three Phase	Single Phase	Three Phase	Single Phase	Three Phase
Network Type						
Main Switchboard TN-S and TT	SD1-100-275-N	SDN3-100-275	SD1-150-275-N	SDN3-150-275	SD1-200-275-N	SDN3-200-275
Options						
Polycarbonate enclosure	-P	-P	-P	-P	-P	-P
Metal enclosure (IP 65)	-M	-M	-M	-M	-M	-M
L-PE Protection (non MEN)	-U	-U	-U	-U	-U	-U

Product Specifications

Model		SDN3-100-275	SDN3-150-275	SDN3-200-275
Electrical Specifications				
Connection type		Shunt	Shunt	Shunt
Modes of protection		L-N, N-PE	L-N, N-PE	L-N, N-PE
Phases		3	3	3
Nominal voltage	U_o	230 VAC	230 VAC	230 VAC
Short circuit withstand level	I_{SCCR}	25 kA	25 kA	25 kA
Maximum backup fuse (gL/gG)		63 A	80 A	100 A
L-N				
Maximum continuous voltage	U_c	275 VAC	275 VAC	275 VAC
Maximum discharge current (8/20 μ s)	I_{max}	100 kA	150 kA	200 kA
Lightning impulse current (10/350 μ s)	I_{imp}	6.25 kA	9.35 kA	12.5 kA
Nominal discharge current (8/20 μ s)	I_n	40 kA	60 kA	80 kA
Voltage protection level @ 3 kA 8/20 μ s	U_p	< 800 V	< 750 V	< 700 V
Voltage protection level @ I_n	U_p	< 1500 V	< 1600 V	< 1700 V
Response time	t_A	< 25 ns	< 25 ns	< 25 ns
Temporary overvoltage (TOV)	U_T	440 V / 5 s (Withstand)		
N-PE				
Maximum continuous voltage	U_c	255 VAC	255 VAC	255 VAC
Maximum discharge current (8/20 μ s)	I_{max}	60 kA	150 kA	150 kA
Lightning impulse current (10/350 μ s)	I_{imp}	15 kA	30 kA	30 kA
Nominal discharge current (8/20 μ s)	I_n	50 kA	100 kA	100 kA
Voltage protection level @ 1 kV/ μ s	U_p	< 700 V	< 1200 V	< 1200 V
Voltage protection level @ I_n	U_p	< 1300 V	< 1800 V	< 1800 V
Response time	t_A	< 100 ns	< 100 ns	< 100 ns
Temporary overvoltage (TOV)	U_T	1200 V / 0.2 s	1200 V / 0.2 s	1200 V / 0.2 s
Follow current interrupt rating	I_{fi}	100 A	100 A	100 A
Earth leakage current		< 10 μ A	< 10 μ A	< 10 μ A
Indication				
Display		LED status per MOV, phase fuse monitoring by LED dimming		
External alarm		Active alarm standard		
Display / Alarm function		Power fail safe, thermal overload, SPDT voltage free contact		
Alarm isolation		4 kV		
Mechanical Specifications				
Operating temperature		-40 to +70 °C	-40 to +70 °C	-40 to +70 °C
Humidity Range		5 to 95 % non-condensing		
Terminal capacity – power		2.5 – 16 mm ²	2.5 – 16 mm ²	2.5 – 16 mm ²
Terminal capacity – alarms		0.5 – 2.5 mm ²	0.5 – 2.5 mm ²	0.5 – 2.5 mm ²
Terminal screw torque – power		2.0 Nm	2.0 Nm	2.0 Nm
Terminal screw torque – alarm		0.5 Nm	0.5 Nm	0.5 Nm
Environmental / Location		IP 20 / Indoors	IP 20 / Indoors	IP 20 / Indoors
Dimensional Drawing		see Dimensions		
Device width		80 mm		
Mounting		TS35 DIN rail / Panel mount (optional)		
Enclosure / Colour		Metal / Black		
Standards				
IEC 61643-11:2011		SPD connected to low-voltage power systems - Type 1+2		
AS/NZS 1768:2007		A.C. power system SPD - Cat C, B		
UL 1449 3 rd edition		Low voltage SPD - Type 2		
IEEE 62.41.2:2002		Low voltage SPD - Cat B		
Shipping				
Weight		650 g	725 g	800 g
Customs Tariff		85354010	85354010	85354010