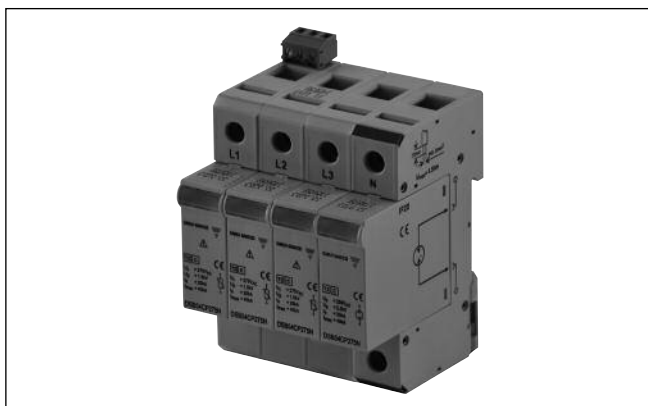


# Monitoring Relays Surge Arresters for AC systems Type DSB54

CARLO GAVAZZI



- Category IEC / EN / VDE: Class II/Type 2/C
- Connection to TN-S, IT and TT networks
- MOV or MOV & GDT protection
- Modular design housing
- Replaceable cartridges
- DIN rail Mounting
- IEC 61643-1 compliant

## Ordering Key **DSB5 4 X P 275 N**

Type \_\_\_\_\_  
 Poles \_\_\_\_\_  
 Contact \_\_\_\_\_  
 Three Phase \_\_\_\_\_  
 MCOV \_\_\_\_\_  
 GDT \_\_\_\_\_

## Product Description

DSB54 series of overvoltage surge protection devices is suitable for the protection of three phase AC mains connected devices from the effects of indirect lightning discharges and

induced voltages and is intended to provide protection in zones 1 - 2 per IEC 62305.

The modules consist in either an high performance Varistor (MOV) block with thermal dis-

connection device or an encapsulated air gap device (GDT) which is used as a galvanic separation between N and PE conductors.

Plug in modules facilitate

replacement of failed modules on site without the need of replacing and rewiring the whole block.

## Type Selection

<b>Contact</b>		
None	<b>X</b>	
1 (relay)	<b>C</b>	
<b>Max. Continuous Oper. Voltage</b>		
<b>MCOV</b> 275Vac/350Vdc	<b>275</b>	
320Vac/420Vdc	<b>320</b>	
385Vac/500Vdc	<b>385</b>	
440Vac/580Vdc	<b>440</b>	
<b>GDT</b> No (4+0)	<b>- (nil)</b>	
Yes (3+1)	<b>N</b>	

## Ordering Codes

<b>MOV</b>	
for MCOV 275 arresters	DS0275B
for MCOV 320 arresters	DS0320B
for MCOV 385 arresters	DS0385B
for MCOV 440 arresters	DS0440B
<b>GDT</b> (only for DSB54xxxxN types)	
GDT cartridge	DS0255BN

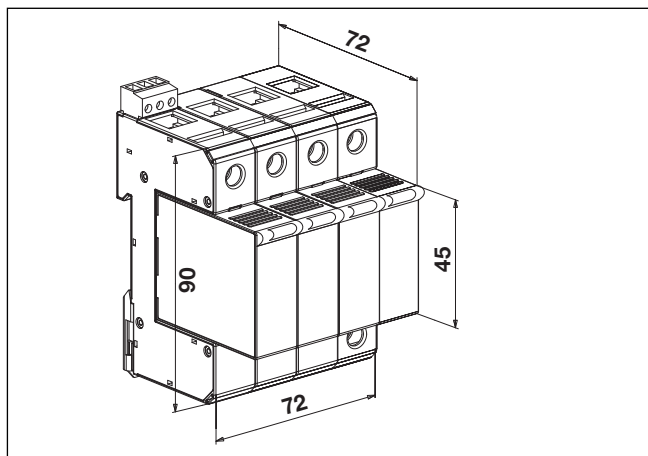
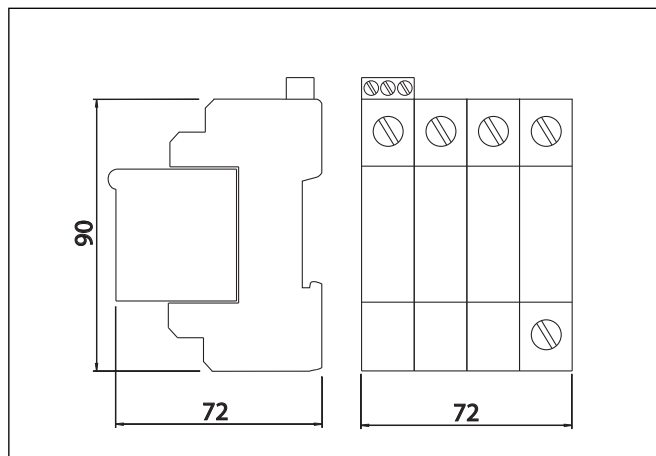
## Electrical characteristics without GDT (4+0) DSB54xPxxx versions

<b>Max. Continuous Oper. Voltage</b>	<b>U<sub>c</sub></b>	<b>Protection level</b>	<b>U<sub>p</sub></b>
<b>MCOV</b>	275Vac / 350Vdc 320Vac / 420Vdc 385Vac / 500Vdc 440Vac/580Vdc	<b>275</b> <b>320</b> <b>385</b> <b>440</b>	<1.5kV <1.5kV <1.9kV <2.2kV
<b>Nominal discharge current</b>	<b>I<sub>n</sub></b>	<b>Response time t<sub>A</sub></b>	<25ms
<b>(8/20)</b>	20kA per pole (40kA)	<b>Thermal protection</b>	YES
<b>Max discharge current</b>	<b>I<sub>max</sub></b>	<b>Back-up fuse (if mains &gt;125A)</b>	125A gL
<b>(8/20)</b>	40kA per pole (80kA)	<b>Short-circuit withstand current</b>	25kA/50Hz
<b>Follow current I<sub>f</sub></b>	NO		

## Electrical characteristics with GDT (3+1) DSB54xPxxxN versions

<b>Max. Continuous Oper. Voltage</b>	<b>U<sub>c</sub></b>	<b>Protection level</b>	<b>U<sub>p</sub></b>
<b>MCOV</b>	275Vac / 350Vdc 320Vac / 420Vdc 385Vac / 500Vdc 440Vac / 580Vdc	<b>275 L-N</b> <b>320 L-N</b> <b>385 L-N</b> <b>440 L-N</b> <b>N-PE</b>	<1.5kV <1.5kV <1.9kV <2.2kV <2.0kV
<b>Nom. discharge current</b>	<b>I<sub>n</sub></b>	<b>Response time</b>	<b>t<sub>A</sub></b>
<b>(8/20)</b>	20kA 20kA	<b>L-N</b> <b>N-PE</b>	25ms 100ms
<b>Max discharge current</b>	<b>I<sub>max</sub></b>	<b>Thermal protection</b>	YES
<b>(8/20)</b>	40kA	<b>Back-up fuse</b>	
<b>L-N</b>		<b>L-N</b>	125A gL
<b>N-PE</b>		<b>Short-circuit withstand current</b>	
<b>Follow current</b>	<b>I<sub>f</sub></b>	<b>L-N</b>	25kA/50Hz
<b>N-PE</b>	>100A <sub>RMS</sub>		

## Dimensions and mechanical drawings



## Connection diagrams

