



SURGYS® G50-FE

Surge arrester - Types 1 and 2

for installations with lightning conductor and classified sites (sensitive equipment)

Electronic protection

new



SURGYS G50-FE 4 poles

Function

The SURGYS G50-FE surge arrester is designed to ensure the protection of your low voltage distribution installations and your electrical equipment. It acts against industrial operation surges and surges owing to lightning. This type of surge arrester is particularly recommended in case of risk of direct impact of lightning strikes, at the main switchboard level containing electronic devices sensitive to surges.

NEW: version for TT arrangement mains.

Advantages

Recommended where there is a risk of direct impact from lightning strikes

With its max. impulse current I_{imp} (10/350 μ s surge) of 12.5 kA, it is recommended for use at the top of the installation.

Absence of line follow current

The multi-varistor technology ensures there is no follow current and avoids any risk of nuisance tripping of upstream protection devices.

Integrated thermal disconnection device

Guarantees disconnection at surge arrester's end of life.

End of service life indicator

Indicates varistor's end-of-life.

Remote signalling

The remote signalling contact provides disconnection data to a supervision station (BMS).

Plug-in modules and monobloc base for easy installation and maintenance

These modules are quick and easy to replace, without having to uncable the device.

The solution for

- > Industry
- > All types of building (critical, non-critical)



Strong points

- > Recommended where there is a risk of direct impact from lightning strikes
- > Absence of line follow current
- > Integrated thermal disconnection device
- > End of life signal
- > Remote signalling
- > Easy maintenance

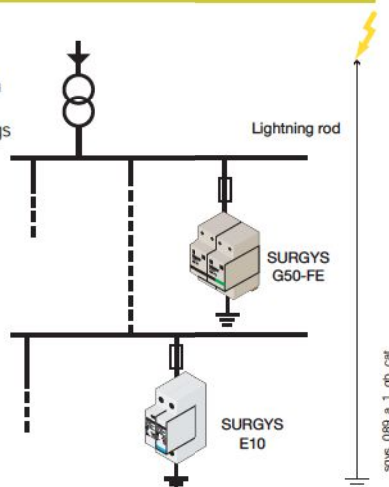
Compliance with standards

- > NF EN 61643-11
- > IEC 61643-11



Applications

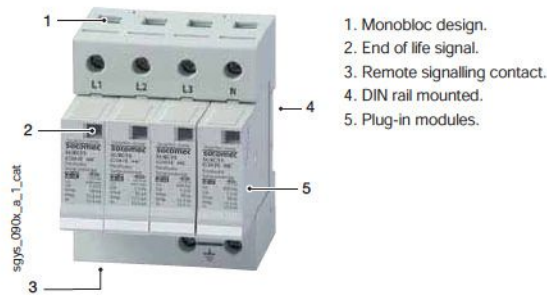
- Main switchboard or main distribution panel of a building, equipped with electronic devices (multi-function measurement devices, PLC, etc.) with presence of lightning conductors or protection through meshed cages.
- Main switchboard equipped with electronics in buildings subjected to high level risk of lightning strikes such as classified installations, installations located in areas prone to high density of lightning strikes, high-rise buildings.
- Main switchboard equipped with PLC, BMS, remote monitoring, technical alarms, modems...
- High-rise building safety main switchboard.
- Lift control panel located at an elevated level within a building.
- Safety inverter units.
- Main switchboard or remote sites containing electronics.



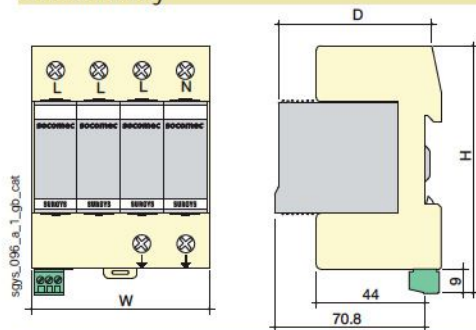
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Front panel



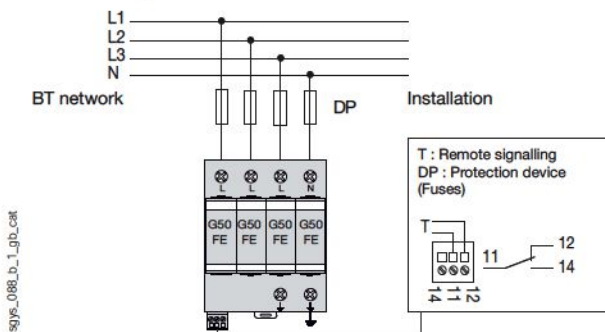
Switch body



Type	plug-in module
Dimensions W x H x D - 2 pole device	36 x 99 x 77 mm
Dimensions W x H x D - 3 pole device	54 x 99 x 77 mm
Dimensions W x H x D - 4 pole device	72 x 99 x 77 mm
Case degree of protection IP20	IP20
Terminal block degree of protection IP20	IP20
Case material	thermoplastic UL94-V0
Mains connection cross-section	5 ... 25 mm ²
Earthing connection cross-section	5 ... 25 mm ²

Connections

Parallel arrangement



Specifications

Mains		
Mains type	230 / 400 VAC	
Neutral arrangement (see table)	TT, TN, IT	
Connection mode	MC ⁽¹⁾	MC ⁽¹⁾ / MD ⁽²⁾
Nominal voltage U _n	400 VAC	230 VAC
Max. voltage U _c	440 VAC	255 VAC
Protection characteristics		
Temporary overvoltage withstand @ 5 sec (U _T)	580 VAC withstand	335 VAC withstand
Temporary overvoltage withstand @ 120 sec (U _T)	770 VAC withstand	440 VAC withstand
Temporary overvoltage from a HV mains, between N & PE in a TT arrangement	1200 V / 30 A / 200 ms withstand	
Level of protection U _p	1.7 kV	1.5 / 1.3 kV
Max. current discharge (1 impulse 8/20 μs) I _{max}	50 kA	50 kA
Nominal discharge current (15 impulses 8/20 μs) I _n	12.5 kA	12.5 kA
Impulse current (1 shock 10/350 μs) I _{imp}	12.5 kA	12.5 kA
Associated characteristics		
Residual current I _{pe}	< 3 mA	
Response time t _r	< 5 ns	
Follow current I _f	None	
Admissible short-circuit current I _{sc}	25 kA	
Recommended disconnector	gG 125 A fuses	
Type of mechanical disconnection indicator	Mechanical	
Number of disconnection indicators	1	
Remote signalling contact		
Number of contacts per pole	1	
Contact type	NO/NC	
AC making capacity	0.5 A	
DC making capacity	3 A	
AC nominal voltage	250 VAC	
DC nominal voltage	30 VDC	
Sustained current	2 A	
Connection type	Plug-in screw terminal	
Max. cross-section of terminal connections	1.5 mm ²	
Operating conditions		
Operating temperature range	-40 ... +85°C	
Storage temperature range	-40 ... +85°C	

(1) MC: Common mode.
(2) MD: Differential mode.

References

No. of poles	No. of adjacent boxes	Neutral arrangements	Protection mode	I total (10/350μs)	SURGY'S G50-FE Reference
2	2	IT	MC ⁽¹⁾	25 kA	4981 0520
3	3	TNC-IT	MC ⁽¹⁾	37.5 kA	4981 0530
4	4	IT	MC ⁽¹⁾	50 kA	4981 0540
4	4	TT-TNS	MC ⁽¹⁾ / MD ⁽²⁾	50 kA	4981 0541

(1) MC: Common mode. (2) MD: Differential mode.

Description of accessories	Reference
Spare plug-in module	4981 0519