

# Single-Phase Surge Protector and Filter DS-HF



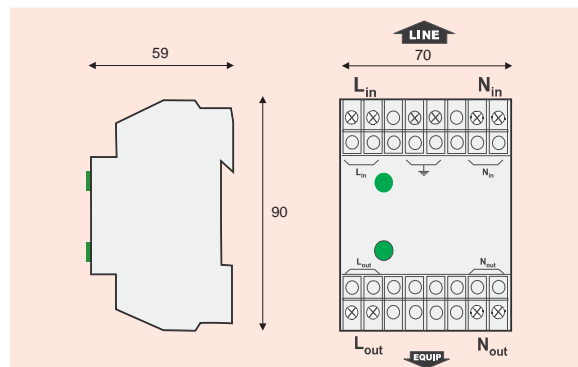
The DS-HF is a secondary Type 2 surge protector and RFI filter especially designed to protect sensitive equipment connected to single-phase networks.

The «surge protection» function is completed by RFI filtering : this combination of functions results in enhanced efficiency against transient overvoltages (improved protection level) and RF interferences.

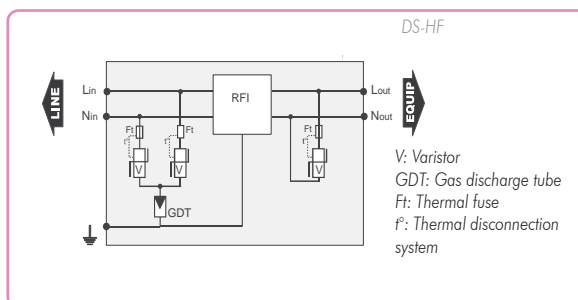
The DS-HF can be classified as secondary Type 2 or Type 3 SPD following IEC 61643-1. It is useful connected in series on AC network (maximum line current 16 A), downstream of a primary Type 2 SPD (e.g. DS40), installed in the main electrical switchboard, to protect a remote or sensitive equipment.

- **Surge protector with RFI filtering**
- **Discharge currents : In : 3kA / Imax : 10 kA**
- **Common and differential mode protection**
- **Low protection level**
- **Operating/disconnection indicators**
- **IEC 61643-1 and EN 61643-11 compliance**

## Dimensions (in mm)



## Electrical diagram



## Characteristics

CITEL part number	DS-HF	DS-HF-120
Single-phase network	230 V	120 V
AC system	TN - TT - IT	TN - TT
Max. operating voltage	Uc 255 Vac	150 Vac
Temporary overvoltage withstand	UT 400 Vac	150 Vac
Operating current	Ic < 1 mA	< 1 mA
leakage current at Uc		
Max. line current	IL 16 A	16 A
Nominal discharge current	In 3 kA	3 kA
15 x 8/20 μs impulses		
Maximum discharge current	Imax 10 kA	10 kA
Max. withstand 8/20 μs		
Protection level (CM/DM)	Up 1 kV/ 0.8 kV	0.6 kV/ 0.5 kV
Combination waveform test	Uoc 6 kV	6 kV
Class III test		
RFI filtering	0.1 - 30 MHz	0.1 - 30 MHz
Admissible short-circuit current	10000 A	10000 A
<b>Associated disconnection devices</b>		
Thermal disconnector	internal	
Fuses	Fuses type gG - 20 A max. (see Note 1)	
Installation ground fault breaker	Type «S» or delayed	
<b>Mechanical characteristics</b>		
Dimensions	see diagram	
Connection	by screw terminals : 0,75 - 4 mm <sup>2</sup>	
Voltage/operating indicator	Green led(s) on	
Disconnection indicator	Green led off	
Remote signaling of disconnection	none	
Mounting	symmetrical rail 35 mm	
Operating temperature	-40/+85 °C	
Protection class	IP20	
Housing material	Thermoplastic UL94-V0	
<b>Standards compliance</b>		
NF EN 61643-11	France	Parafoudre Basse Tension - Essais Classe II et III
IEC 61643-1	International	Low Voltage SPD - Test Class II et III
EN 61643-11	Europe	Low Voltage SPD - Test Class II and III
UL1449 ed.2	USA	Low Voltage TVSS

**Note 1.** Rating in compliance with nominal discharge current. In order to increase service continuity, higher rating can be used (up to 40 A). For further information, please consult product instructions.