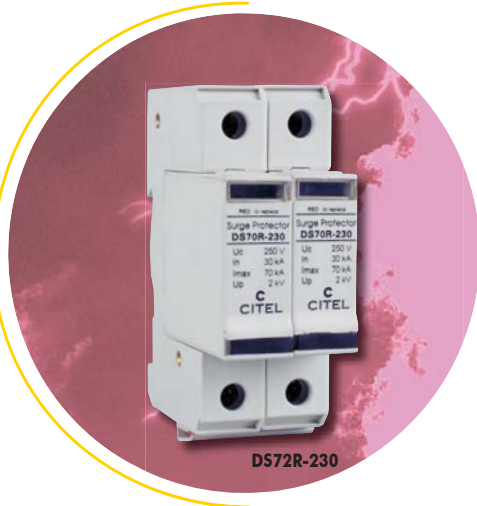


Type 2 AC power Surge Protector

DS70R



DS72R-230

DS70R Type 2 AC Surge Protectors are used mainly for primary protection of single and three-phase networks at the main electrical panel. They provide common-mode protection (between the active conductors and protective wire) and are available in one-phase, single-phase, three-phase, and three-phase + neutral versions.

The DS70R high impulse discharge capability classifies this SPD as re-inforced Type 2, useful in case of high lightning density areas. IEC60364 standard requests Type 2 SPD at the entrance of installation if the keraunic level $N_k > 25$.

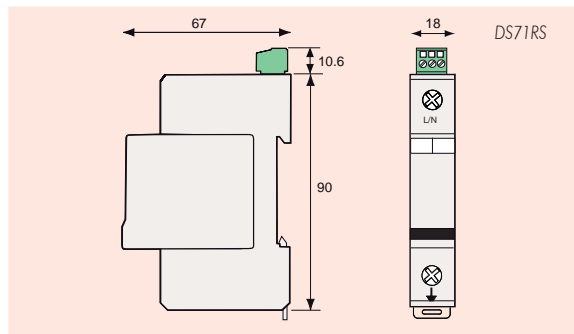
The SPD is based on association of high energy varistors equipped with thermal disconnect and failure indicator, to comply with standards. Version with a remote signalling for disconnection indication is also available (DS7*RS).

The DS70R is available for the main values of AC voltages.

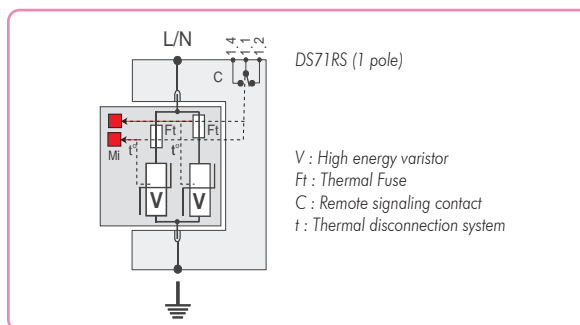
The DS70R is DIN rail compatible and is built with a plug-in module (DSM70R-xxx) and a fixed base, which allows an easy and fast maintenance.

- **Re-inforced Type 2 Surge Protector**
- **Discharge currents : I_n : 30 kA/ I_{max} : 70 kA**
- **Pluggable module by phase**
- **Remote Signalling in option**
- **IEC 61643-1 and EN 61643-11 compliance**

Dimensions (in mm)



Electrical diagram



Characteristics

CITEL part number	DS71R-400	DS71R-230	DS71R-120
Network	230/400V	230/400V	120/208V
Max. operating voltage	U _c 400 Vac	255 Vac	150 Vac
Temporary overvoltage withstand	U _T 400 Vac	255 Vac	150 Vac
Operating current	I _c < 1 mA	< 1 mA	< 1 mA
Leakage current at U _c			
Follow current	I _f none	none	none
Nominal discharge current	I _n 30 kA	30 kA	30 kA
15 x 8/20 μs impulses			
Maximum discharge current	I _{max} 70 kA	70 kA	70 kA
max. withstand 8/20 μs			
Protection level (at I _n)	U _p 1.8 kV	1.4 kV	1 kV
Residual voltage at 10 kA	1.4 kV	1 kV	0.7 kV
Residual voltage at 5 kA	1.2 kV	0.9 kV	0.6 kV
Admissible short-circuit current	25000 A	25000 A	25000 A
Associated disconnection devices			
Thermal disconnect	internal		
Fuses	Fuses type gG - 100 A max. (see Note 1)		
Installation ground fault breaker	Type «S» or delayed		
Mechanical characteristics			
Dimensions	see diagram		
Connection	by screw terminals : 4-25 mm ² / by bus		
Disconnection indicator	2 mechanical indicators by pole		
Remote signalling of disconnection	Option DS70RS - output on changeover contact		
Mounting	symmetrical rail 35 mm		
Operating temperature	-40/+85 °C		
Protection class	IP20		
Housing material	Thermoplastic UL94-V0		
Standards compliance			
EN 61643-11	Europe	Low Voltage SPD - Class II Test	
IEC 61643-1	International	Low Voltage SPD - Class II Test	
NF EN 61643-11	France	Parafoudre Basse Tension - Essais Classe II	
UL1449 ed.2	USA	Low Voltage TVSS	

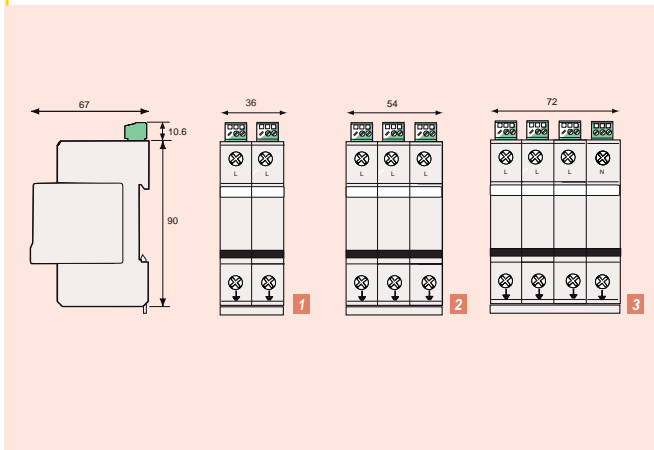
Note 1: Rating in compliance with nominal discharge current. In order to increase service continuity, higher rating can be used (up to 160 A). For further information, please consult product instructions.



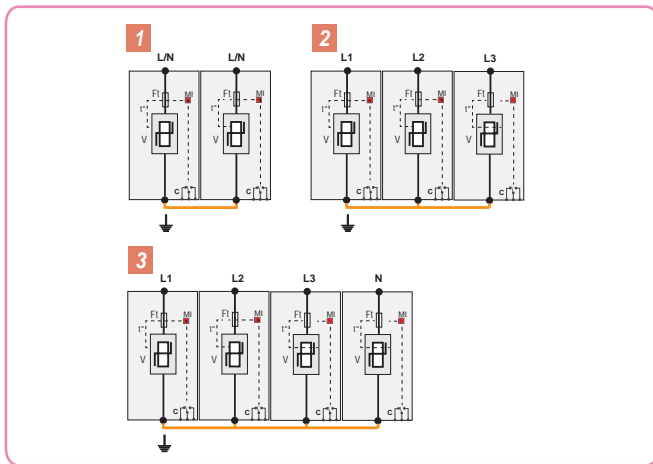
Type 2 AC power Multipolar Surge Protector

DS72R
DS73R
DS74R

Dimensions and Diagram



The DS70R surge protectors are designed to be used in multipolar configuration to protect single-phase, 3-phase or 3-phase+neutral AC networks. Each pole of the SPD is connected between Line(s) and PE and Neutral and PE.



Part number	Network	AC System	Protection mode		I _{max} total	Up L/PE	Diagram
			common	differential			
DS74R-400	230/400 V 3-phase+N	IT-TT	●		280 kA	1.8 kV	3
DS74R-230	230/400 V 3-phase+N	TT-TN	●		280 kA	1.4 kV	
DS74R-120	120/208 V 3-phase+N	TN	●		280 kA	1 kV	
DS73R-400	400 V 3-phase	IT	●		210 kA	1.8 kV	2
DS73R-230	400 V 3-phase	TNC	●		210 kA	1.4 kV	
DS73R-120	208 V 3-phase	TNC	●		210 kA	1 kV	
DS72R-400	230V Single phase	IT	●		140 kA	1.8 kV	1
DS72R-230	230V Single phase	TT-TN	●		140 kA	1.4 kV	
DS72R-120	120 V Single phase	TN	●		140 kA	1 kV	

