



Type 2 AC Surge Protector

DS40



DS40 Type 2 AC Surge Protectors are used mainly for primary protection of single and 3-Phase networks at the main electrical panel. They provide common-mode (between L and PE) or common and differential mode (l/PE and L/N) when associated with DS40G (DS4x-xxx/G version). They are available in one-phase, single-phase, three-phase, and three-phase+neutral versions.

The DS40 impulse discharge capability classifies this SPD as regular Type 2, useful in case of medium lightning density areas. IEC60364 standard requests Type 2 SPD at the entrance of installation if the keraunic level $N_k > 25$.

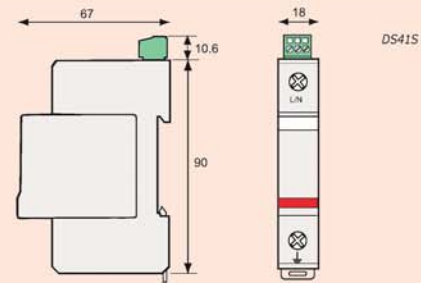
This SPD is based on high energy varistor equipped with thermal disconnecter and failure indicator, to comply with standards. Version with a remote signaling for disconnection indication is also available (DS4*S).

The DS40 is available for a large range of AC voltages.

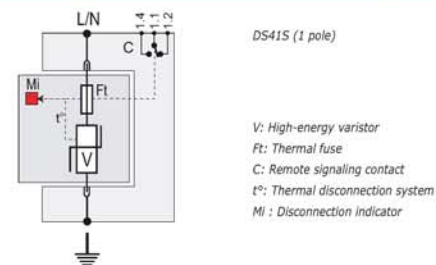
The DS40 is DIN rail compatible and is built with a plug-in module (DSM40-xxx) and a fixed base, which allows an easy and fast maintenance.

- Type 2 AC Surge Protector
- Discharge currents : I_n : 20 kA/ I_{max} : 40 kA
- Pluggable module for each phase
- UL 1449 2nd edition

Dimensions (in mm)



Electrical Diagram



Characteristics

CITEL part number	DS40-480	DS40-400	DS40-230	DS40-120
Network	277/480V	230/400V	230/400V	120/208V
Max. operating voltage U_c	550 Vac	277/480 Vac	275 Vac	150 Vac
Temporary overvoltage withstand U	480 Vac	400 Vac	275 Vac	150 Vac
Operating current I_c	<1 mA	<1 mA	<1 mA	<1 mA
Leakage current at U_c				
Follow current I_f	none	none	none	none
Nominal discharge current I_n 15 x 8/20 μ s impulse	20 kA	20 kA	20 kA	20 kA
Maximum discharge current I_{max} max. withstand 8/20 μ s	40 kA	40 kA	40 kA	40 kA
Protection level (at I_n) U_p	2.5 kV	1.8 kV	1.25 kV	0.9 kV
Residual voltage at 10 kA	2.0 kV	1.5 kV	1.1 kV	0.7 kV
Residual voltage at 5 kA	1.6 kV	1.3 kV	0.9 kV	0.6 kV
Admissible short-circuit current	25000 A	25000 A	25000 A	25000 A
Associated disconnection devices				
Thermal disconnecter	internal			
Fuses	Fuses type gG - 50 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	1 mechanical indicator			
Remote signaling of disconnection	Option DS40S - 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 SPD		

Note 1 : Rating in compliance with nominal discharge current. In order to increase service continuity, higher rating can be used (up to 125 A). For further information, please consult product instructions..