

Type 2 AC power Surge Protector

DU40



DU40 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 DU40G : refer to pages A28-A29. They are available in one-phase, single-phase, three-phase, and three-phase+neutral versions.

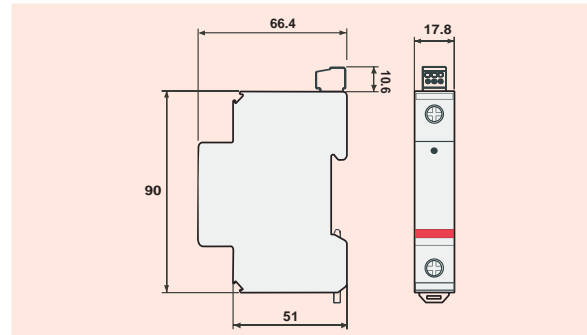
The DU40 impulse discharge capability classifies this SPD as regular Type 2, useful in case of medium lightning density areas. IEC60364 standard requests Type 2 SPD at the entrance of installation if the keraunic level $N_k > 25$.

This SPD is based on high energy varistor equipped with thermal disconnector and failure indicator to comply with standards. Version with a remote signalling for disconnection indication is also available (DU4*S).

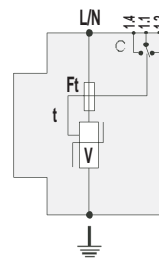
The DU40 is DIN rail compatible and monobloc construction.

- Type 2 surge protector
- Discharge currents : I_n : 20 kA / I_{max} : 40 kA
- 1-pole monobloc
- Remote signalling option
- UL1449 ed.2 recognition
- IEC 61643-11 compliance

Dimensions (in mm)



Electrical diagram



DU40S (1 pole)

V : High-energy varistor
 Ft : Thermal Fuse
 F^r : Thermal disconnection system
 C : Remote signaling contact

Characteristics

CITEL part number	DU40-400	DU40-230	DU40-120
Network	230/400V	230/400V	120/208V
Max. operating voltage	Uc 400 Vac	255 Vac	150 Vac
Temporary overvoltage withstand	U _T 400 Vac	255 Vac	150 Vac
Operating current	Ic < 1 mA	< 1 mA	< 1 mA
Leakage current at Uc			
Follow current	I _f none	none	none
Nominal discharge current	I _n 20 kA	20 kA	20 kA
15 x 8/20 μs impulses			
Maximum discharge current	I _{max} 40 kA	40 kA	40 kA
max. withstand 8/20 μs			
Protection level (at I _n)	Up 2 kV	1.5 kV	0.9 kV
Residual voltage at 10 kA	1.7 kV	1.2 kV	0.7 kV
Residual voltage at 5 kA	1.5 kV	1 kV	0.6 kV
Admissible short-circuit current	25000 A	25000 A	25000 A
Associated disconnection devices			
Thermal disconnector	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 by pole		
Remote signaling of disconnection	Option DU40S - 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 61643-11	International	Low Voltage SPD - Class II Test	
NF EN 61643-11	France	Parafoudre Basse Tension - Essais Classe II	
UL1449 ed.2	USA	Recognized - 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 125 A). For further information, please consult product instructions..