



AT82 Series - ATSUB 140

ATSUB 140

Single-pole protector for power supply lines

AT82 SERIES - ATSUB 140

AT8214 ATSUB 140-230:

max discharge current of 140kA at $U_n=230V_{AC}$

AT8215 ATSUB 140-120:

max discharge current of 140kA at $U_n=120V_{AC}$

ATSUB 140 - 230

Max. discharge current in kA

Voltage line - ground



Efficient protection against transient overvoltages, using Metal Oxide Varistors, for Power Supply lines with or without neutral. Medium protection according to scaled protection recommended in Low Voltage Regulation (RBT2002 ITC23).

Tested and Certified as **Class I** and **II** protectors according to IEC61643-1, EN61643-11. Suitable for equipment of **Categories II, III** and **IV** according to RBT2002.

- Coordinable with SPDs of ATSHOCK, ATSHIELD and ATCOVER series.
- Containing Zinc Oxide Varistors, able to withstand very high currents.
- Short response time.
- Don't produce deflagration.
- Single-pole protection.
- Do not cause at any moment any interruption in the supply lines.
- Thermodynamic control device and light alarm.

AT82 Series SPDs have been tested in **official, independent laboratories**, obtaining their characteristics according to relevant standards (related in the table).

There exists the possibility of selecting a protector for the working voltage in each particular case. In the technical datasheet the 230V and 120V versions of nominal voltage are included as common examples.

Single-phase protection for TT systems. It is recommended to install also a ATSUB protector between each line and neutral, specially in TN-C and TN-S systems.



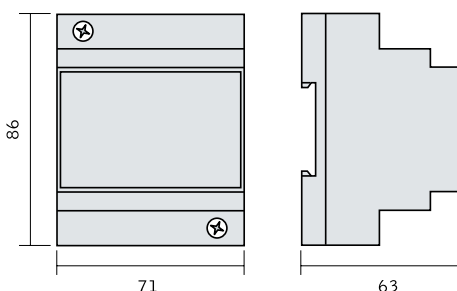
INSTALLATION

ATSUB Surge Protective Devices are to be installed **in parallel** with the Low Voltage supply line, connected to the line (or neutral) to be protected and ground.

The **power should be disconnected** during the installation of the SPD.

When ATSUB are installed as middle protection, they must be separated by at least 10 meter cable or, if this is not possible, by a decoupling inductor ATLINK, in order to achieve a **correct coordination** between them.

Their installation is recommended in places where important overvoltages can occur after the main switchboard and when these lines are not connected to very sensitive equipment.



Earth connection is a must. Earthing in all the installation must be bonded either directly or by a spark gap and resistance should be lower than 10Ω . If the indications of this datasheet are not fulfilled during the use or installation of the SPDs, the protection assured by this device could be endangered.




AT8214 ATSUB 140-230:

 max discharge current of
140kA at $U_n=230V_{AC}$
AT8215 ATSUB 140-120:

 max discharge current of
140kA at $U_n=120V_{AC}$

Reference	ATSUB 140-230		ATSUB 140-120	
	AT8214		AT8215	
Protection categories according to RBT2002:	II, III, IV			
Nominal voltage:	U_n	230V _{AC} (L-G)		120V _{AC} (L-G)
Maximum continuous operating voltage:	U_c	255V _{AC} (L-G)		140V _{AC} (L-G)
Nominal frequency:	50/60Hz			
Impulse current (10/350μs):	I_{imp}	30kA		
Nominal discharge current (8/20μs wave):	I_n	70kA		
Maximum discharge current (8/20μs wave):	I_{max}	140kA		
Protection level for 1,2/50μs wave:	U_p	900V		500V
Response time:	t_r	< 25ns		
Capacity:	C	4,5pF		
Backup fuse ⁽¹⁾ :	160A gL/gG			
Maximum short-circuit current:	25kA /50Hz (for maximum fuse)			
Working temperature:	ϑ	-55°C to +85°C		
SPD location:	Indoor			
Type of connection:	Parallel (one port)			
Mounting method:	Fixed			
Dimensions:	71 x 86 x 63mm (4 mod. DIN43880)			
Fixing:	DIN rail			
Enclosure material:	Polycarbonate			
Enclosure protection:	IP20			
Insulation resistance:	> 10 ¹⁴ Ω			
Autoextinguish enclosure:	V-0 type according to UNE-EN 60707 (UL94)			
Connections L/N/G:	Max/Min section multi-stranded: 16 / 45mm ² (5/1 AWG) Max/Min section single-stranded: 10 / 45mm ² (7/1 AWG)			

Certified tests according to regulations: IEC 61643-1 / NFC 61-0740 / EN 61643-11 / IEC 61312-3

Complies with requirements of: UL 1449

Relevant standards: UNE21186 / NFC 17102 / UNE21185 / IEC61024-1 / IEC61312-3

(1) Needed in cases where there is no equal or less nominal current installed "upstream" from the protector.