> PROTECTION OF POWER SUPPLY LINES

> ATSUB SERIES

> ATSUB-D M

Compact single-phase protection for domestic use

> **AT-8216 ATSUB-D M**: peak current 15 kA. U_n 230V

Effective protection against transient overvoltages for single-line electrical supply lines with TT type neutral, using metal oxide varistors and gas discharge tubes. Medium protection according to the cascade protection recommended in the Spanish Low Voltage Regulations (REBT ITC23). Especially made to be installed in houses according to ITC-25 from REBT.

Tested and certified as a **type 2 and 3** protector according to the standard EN 61643-11 and GUÍA-BT-23 from the REBT. Suitable for **categories I, II, III and IV equipment** according to the REBT.

- Can be coordinated with protectors from the ATSHOCK, ATSHIELD and ATCOVER series.
- Made up of zinc oxide varistors and gas discharge tubes able to withstand very high currents.
- Short response time.
- Do not produce deflagration.
- Compact protection.
- Their activation causes no interruption in power supply.
- Thermodynamic control device, mechanical warning and remote alarm. When the warning light is yellow, the protector is in good condition. If not, replace.

ATSUB series protectors have been tested in **official, independent laboratories,** obtaining their characteristics according to relevant standards (listed in the table).

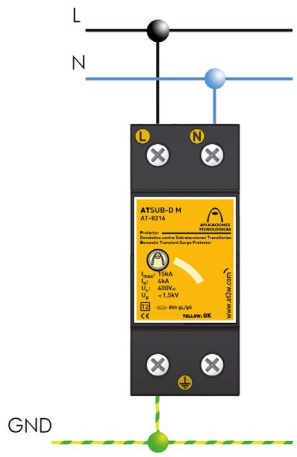
Connection to earth is a must. Earthing in the whole installation must be bonded either directly or by a spark gap and resistance should be lower than 10 Ω.
If the indications on this datasheet are not fulfilled during use or installation of the protectors, the protection provided by this device could be compromised.

> INSTALLATION

They are installed **in parallel** with the low voltage line, with connections to the phases that are to be protected, as well as to neutral and/or ground. Installation should be carried out **without power running through the line**.

When ATSUB protectors are installed as medium protection, they must be separated from the coarse and/or tight protectors by at least 10 metres of cable or, if this is not possible, by an ATLINK decoupling inductor, in order to achieve **correct coordination between them**.

They are especially recommended for the main switchboard of houses according to article 16.3 from the REBT.



> PROTECTION OF POWER SUPPLY LINES

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> TECHNICAL DATASHEET

Reference:		ATSUB-D M **AT-8216**
Protection categories according to the REBT:		I, II, III, IV
Type of tests according to EN 61643-11:		Type 2 + 3
Nominal voltage:	U_n	230 V_{AC}
Maximum continuous operating voltage:	U_c	400 V_{AC}
Nominal frequency:		50 - 60 Hz
Nominal discharge current per pole (8/20 µs wave)	I_n	5 kA
Maximum discharge current per pole (8/20 µs wave):	I_{max}	15 kA
Protection level at I_n (8/20 µs wave):	$U_P(I_n)$	1500 V
Protection level for 1.2/50 µs wave:	U_p	1100 V
Residual voltage with 6 kV/3 kA combination wave:	$U_{o.c.}$	1500 V
Response time:	t_r	< 25 ns
Backup fuses(1):		80 A gL/gG
Maximum short-circuit current:		25 kA (for maximum fuse)
Working temperature:	ϑ	-40 ºC to +70 ºC
Protector location:		Indoor
Type of connection:		Parallel (one port)
No. of poles:		4
Dimensions:		36 x 90 x 80 mm (2 modules DIN 43880)
Fixing:		DIN Rail
Enclosure material:		Polyamide
Enclosure protection:		IP20
Insulation resistance:		> 10^{14} Ω
Self-extinguishing enclosure:		V-0 Type according to UNE-EN 60707 (UL94)
Connections L/N/G:		Min/Max multi-stranded section: 4 / 35 mm^2 Min/Max single-stranded section: 1 / 35 mm^2

Certificated tests according to: UNE-EN 61643-11
Complies with requirements of: UL 1449
Relevant standards: UNE 21186, NF C 17-102, IEC 62305

(1) Required in cases where there is higher nominal current installed upstream from the protector

> DIMENSIONS (MM)