



> PROTECTION OF POWER SUPPLY LINES

> ATSHOCK SERIES

> ATSHOCK30

Single-pole protection for power supply lines



- > **AT-8310 ATSHOCK L30**: phase-ground protection. $U_c = 275\text{ V}$
- > **AT-8311 ATSHOCK L30-130**: phase-ground protection. $U_c = 150\text{ V}$
- > **AT-8312 ATSHOCK L30-400**: phase-ground protection. $U_c = 460\text{ V}$
- > **AT-8398 ATSHOCK N60**: neutral-ground protection

High protection against transient overvoltages for power supply lines at the point they **enter the building**. ATSHOCK series provide protection even against **direct lightning strikes**. Tested and certified with lightning impulse current 10/350 μs wave, **30 kA**.

Coarse protection according to the cascade protection recommended in the Spanish Low Voltage Regulations (REBT).

Type 1 protector according to the standard EN 61643-11 and GUÍA-BT-23 from the REBT. For equipment of **categories III and IV** according to REBT.

- > Gas discharge tube inside.
- > Double connection in order to facilitate wiring (limited to 63 A).
- > Possibility of connection to M5 fork terminal
- > Can be coordinated with other SPDs such as ATSUB and ATCOVER.
- > Suitable for TT, TN-C and TN-S systems.
- > Quick response.
- > Single-pole protection. Withstands direct lightning strike current (10/350 wave) up to 30 kA (ATSHOCK-P N60 up to 60kA).
- > High energy diverting capacity.
- > Limits following current supply.

ATSHOCK series protectors have been tested in **official, independent laboratories** obtaining their characteristics according to applicable standards (shown in the table).



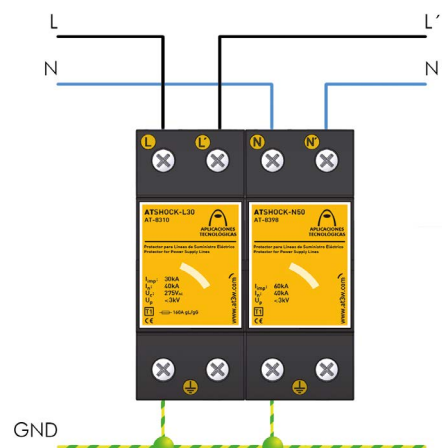
Connection to earth is a must. Earthing in the whole installation must be bonded either directly or by a spark gap and resistance should be lower than 10 Ω . If the indications on this datasheet are not fulfilled during use or installation of the protectors, the protection provided by this device could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

> INSTALLATION

ATSHOCK 30 surge protection devices are to be installed **in parallel** with the low voltage supply line, connected to phase and ground (ATSHOCK L30) or to neutral and ground (ATSHOCK N60). ATSHOCK L30 is required for each phase.

Installation should be carried out **without power running through the line**.

ATSHOCK can be installed in combination with ATSUB or ATCOVER protectors. In either case, both must be separated 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**. Installation is recommended in distribution boards where the line enters the building and where direct lightning currents could penetrate.





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> TECHNICAL DATASHEET

Reference		ATSHOCK L30 AT-8310	ATSHOCK L30-130 AT-8311	ATSHOCK L30-400 AT-8312	ATSHOCK N60 AT-8398
Protection categories according to the REBT:		III and IV			
Type of tests according to EN 61643-11:		Type 1			
Nominal voltage:	U_n	230 V _{AC}	120 V _{AC}	400 V _{AC}	-
Maximum continuous operating voltage:	U_c	275 V _{AC}	150 V _{AC}	460 V _{AC}	-
Nominal frequency:		50 - 60 Hz			
Impulse current (10/350 µs wave):	I_{imp}	30 kA			60 kA
Specific energy:	W/R	224 kJ/Ω			900 kJ/Ω
Nominal discharge current (8/20 µs wave):	I_n	40 kA			
Protection level for I_n (8/20 µs):	U_p	2 kV			900 V
Follow current extinguishing capability:	I_f	50 kA _{eff}			100 A _{eff}
Response time:	t_r	< 100 ns			-
Backup fuse ⁽¹⁾ :		160 A gL/gG			
Maximum short-circuit current:		50 kA (for maximum fuse)			
Working temperature:	Θ	-40 °C to +70 °C			
Protector location:		Indoor			
Type of connection:		Parallel (one port)			
Dimensions:		36 x 90 x 80 mm (2 modules DIN 43880)			
Fixing:		DIN Rail			
Enclosure material:		Polyamide			
Enclosure protection:		IP20			
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)

