



## &gt; PROTECTION OF POWER SUPPLY LINES

## &gt; ATSHOCK SERIES

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Maximum single-pole protection for power supply lines



- > **AT-8350 ATSHOCK L:** phase-ground protection.  $U_c = 275\text{ V}$
- > **AT-8351 ATSHOCK L-130:** phase-ground protection.  $U_c = 150\text{ V}$
- > **AT-8352 ATSHOCK L-400:** phase-ground protection.  $U_c = 460\text{ V}$
- > **AT-8399 ATSHOCK N:** neutral-ground protection

The highest 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  $\mu\text{s}$  wave, **50 kA**.

Coarse protection according to scaled protection recommended in Low Voltage Regulation (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.
- > Suitable for TT, TN-C and TN-S systems.
- > Can be coordinated with other SPDs such as ATSUB and ATCOVER.
- > Quick response.
- > Single-pole protection. Withstands direct lightning strike current (10/350 wave) up to 50 kA (ATSHOCK N up to 100 kA)
- > Fork connection with fork terminal included for 16 mm<sup>2</sup> cable.
- > 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  $\Omega$ . 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.

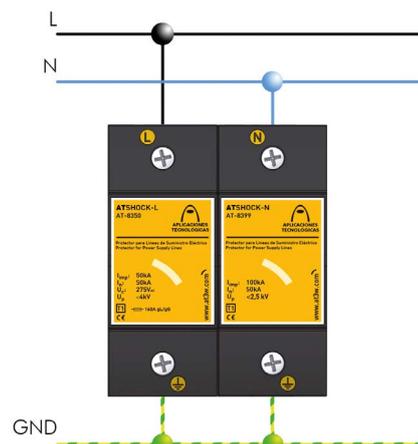
## &gt; INSTALLATION

**ATSHOCK** surge protection devices are to be installed **in parallel** with the low voltage supply line, connected to a phase and ground (ATSHOCK L) or to neutral and ground (ATSHOCK N). One ATSHOCK L is needed 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 L AT-8350	ATSHOCK L-120 AT-8351	ATSHOCK L-400 AT-8352	ATSHOCK N AT-8399
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 <sub>AC</sub>	120 V <sub>AC</sub>	400 V <sub>AC</sub>	-
Maximum continuous operating voltage:	$U_c$	275 V <sub>AC</sub>	150 V <sub>AC</sub>	460 V <sub>AC</sub>	-
Nominal frequency:		50 - 60 Hz			
Impulse current (10/350 $\mu$ s wave):	$I_{imp}$	50 kA			100 kA
Specific energy:	W/R	625 kJ/ $\Omega$			2.5 MJ/ $\Omega$
Nominal discharge current (8/20 $\mu$ s wave):	$I_n$	50 kA			
Protection level for $I_n$ (8/20 $\mu$ s):	$U_p$	2.5 kV			1.5 kV
Follow current extinguishing capability:	$I_t$	50 kA <sub>eff</sub>			100 A <sub>eff</sub>
Response time:	$t_r$	< 100 ns			-
Backup fuse <sup>(1)</sup> :		160 A gL/gG			
Maximum short-circuit current:		50 kA (for maximum fuse)			
Working temperature:	$\vartheta$	-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:		Section 16 mm <sup>2</sup>			

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)

