



> PROTECTION OF SPECIAL EQUIPMENT POWER SUPPLY

> ATCOMBO SERIES

> ATCOMBO

Protection of power supply lines with Schuko base



- > **AT-8113 ATCOMBO 230:** 230 V_{AC} lines
- > **AT-8115 ATCOMBO 130:** 130 V_{AC} lines
- > **AT-9320 ATCOMBO 12:** 12 V_{DC} lines
- > **AT-9325 ATCOMBO 24:** 24 V_{DC} lines
- > **AT-9326 ATCOMBO 48:** 48 V_{DC} lines

- > Contains the protectors with lower residual voltage (ATCOVER, ATVOLT).
- > Compact box, fully wired and easy to install.
- > Discharge takes place in an internal encapsulated element with no external flash.
- > It remains inactive in normal conditions, without affecting normal operation of the line and or producing leakages.
- > Can be coordinated with other SPDs such as ATSHOCK, ATSHIELD and ATSUB series.
- > Both common and differential protection.
- > No interruptions in power supply, thus preventing data loss and other inconveniences for the user.
- > Wide variety of protectors for different working voltages.
- > Mechanical connection of conductors using screws, in order to absorb a higher amount of overvoltage.

ATCOMBO series are power supply protection boxes with specific Schuko sockets to facilitate equipment connection.

> INSTALLATION

ATCOMBO boxes are to be installed in **in parallel** with the low voltage line, connected to line/s, neutral and ground. **Fuses or circuit breakers must be present upstream.** They will be disconnected during installation for operator safety.

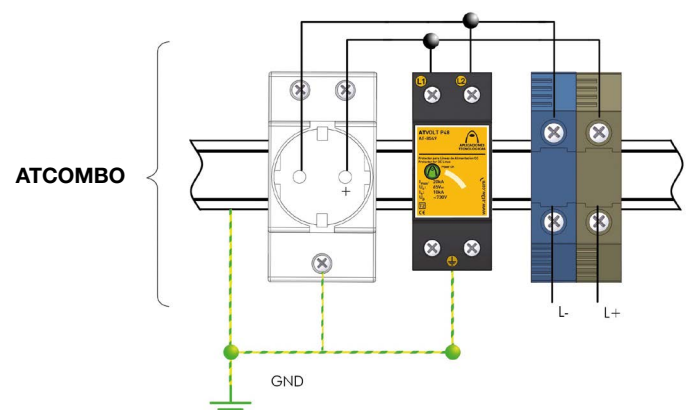
Installation is recommended where **direct lightning currents** could penetrate and very sensitive equipment is connected, without enough space between the coarse and tight protection.

Special care should be taken when there is an **ATCOMBO box containing ATVOLT protectors**, since the polarity could be altered.

The protectors in the ATCOMBO series have been tested in **official and independent laboratories**, obtaining their characteristics according to relevant standards.



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.





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> TECHNICAL DATASHEET

Reference:		ATCOMBO 230 AT-8113	ATCOMBO 130 AT-8115	ATCOMBO 12 AT-9320	ATCOMBO 24 AT-9325	ATCOMBO 48 AT-9326
Protection categories according to the REBT:		I, II, III, IV				
Type of tests according to EN 61643-11:		1 + 2 + 3			2 + 3	
Nominal voltage:	U _n	230 V _{AC} (50 Hz)	130 V _{AC} (50 Hz)	12 V _{DC}	24 V _{DC}	48 V _{DC}
Maximum continuous operating voltage:	U _c	275 V _{AC} (50 Hz)	145 V _{AC} (50 Hz)	15 V _{DC}	31 V _{DC}	65 V _{DC}
Nominal discharge current per pole (8/20 μs wave):	I _n	10 kA			5 kA	
Maximum discharge current per pole (8/20 μs wave):	I _{max}	30 kA			10 kA	
Impulse current per pole (10/350 μs wave):	I _{imp}	6 kA			-	
Protection level for I _n (8/20 μs wave):	U _p (I _n)	900 V	700 V	570 V	630 V	730 V
Combined wave voltage:	U _{o.c.}	6 kV				
Response time:	t _r	< 25 ns				
Working temperature:	Θ	-40 °C to +70 °C				
Dimensions:		200 x 267 x 112 mm			280 x 159 x 112 mm	
Protector location:		Outdoor				
Type of connection:		Parallel (one port)				
No. of poles:		2				
Fixing:		Wall or vertical support				
Box material:		Self-extinguishing, insulating				
IP Code:		IP65 according to IEC 60.529				
Insulation:		Double (class II)				
Fire resistance:		650 °C according to IEC 60695-2-1				
Impact protection:		IK09 according to EN 50.102				
Connections:		25 mm² maximum section			4 mm² maximum section	
Certificated tests according to: UNE-EN 61643-11						
Complies with requirements of: UL 1449						
Relevant standards: UNE 21186, NF C 17-102, IEC 62305						

> DIMENSIONS (MM)

