> PROTECTION OF SPECIAL EQUIPMENT POWER SUPPLY

> ATVOLT P SERIES

> ATVOLT P

DC power supply protector

> **AT-8590: ATVOLT P5**: 5 V_{DC} lines
> **AT-8514: ATVOLT P12**: 12 V_{DC} lines
> **AT-8526: ATVOLT P24**: 24 V_{DC} lines
> **AT-8549: ATVOLT P48**: 48 V_{DC} lines

Tested and certified as a **type 2** 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.

- Wide variety of protectors for different operating voltages.
- It remains inactive in normal conditions, without affecting normal line operation.
- Discharge takes place in an internal encapsulated element with no external flash.
- Mechanical connection of conductors using screws, in order to absorb a higher amount of overvoltage.
- Possibility of connection to M5 fork terminal.
- Quick response.

ATVOLT P protectors have been tested and certified in **official and independent laboratories,** obtaining their characteristics according to relevant standards (related in the table).

Effective protection for **DC supply lines** in modules containing **medium protection** for one pair of wires.

> INSTALLATION

ATVOLT P surge protection devices are to be installed **in parallel** connected to positive and negative lines and to the ground. It can be installed as the only protection or in combination with other protectors that withstand higher discharge currents. In this case, it is necessary for both to 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 coordintation between them.**

The lower terminal must be connected to the earth termination system, where the associated overvoltage current will be channelled.

ATVOLT P protectors should preferably be installed **as close to the equipment as possible.**

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:		ATVOLT P5 **AT-8590**	ATVOLT P12 **AT-8514**	ATVOLT P24 **AT-8526**	ATVOLT P48 **AT-8549**
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	5 V_{DC}	12 V_{DC}	24 V_{DC}	48 V_{DC}
Maximum continuous operating voltage:	U_c	7 V_{DC}	15 V_{DC}	31 V_{DC}	65 V_{DC}
Nominal discharge current per pole (8/20 µs):	I_n	5 kA			
Maximum discharge current per pole (8/20 µs wave):	I_{max}	10 kA			
Combined wave voltage:	$U_{o.c}$	6 kV			
Protection level for I_n (8/20 µs wave):	$U_p(I_n)$	500 V	570 V	630 V	730 V
Response time:	t_r	< 25 ns			
Working temperature:	ϑ	-40 ºC to +70 ºC			
Protector location:		Indoor			
Type of connection:		Parallel (one port)			
No. of poles:		2			
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:		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

> DIMENSIONS (MM)