



> PROTECTION FOR DATA AND TELECOMMUNICATION LINES

> ATFONO SERIES

> ATFONO KRONE / R&M

Protector for telephone lines for KRONE or Reichle & De-Massari connections with earthing terminal



- > **AT-9105 ATFONO R&M1**: coordinated protection for telephone lines connected to Reichle & De-Massari connections.
- > **AT-9106 ATFONO R&M2**: tight protection for telephone lines with Reichle & De-Massari connections.
- > **AT-9109 ATFONO KRONE**: coordinated protection for telephone lines connected to Reichle & De-Massari connections.

This is a modular and removable plug-in protector, able to withstand nominal discharge nominal currents of 5 kA for each line.

- > Protection for telephone lines and also for the digital and analogical equipment connected to these lines (fax, modem, etc).
- > Compact, removable and small in size.
- > In normal conditions, it remains inactive without affecting line operation or producing any leakages.
- > Discharge takes place in an internal encapsulated element with no external flash.
- > Very fast response time.
- > It has a testing system in the front part to check the protector's status.
- > The earthing system is introduced through a slot connected to the earthing terminal tab of the Reichle & De-Massari or Krone connection.

This protector has been tested in **official and independent laboratories**, obtaining their characteristics according to relevant standards (shown in the table).

Effective protection for **telephone lines with KRONE or Reichle & De-Massari connections** in modules with **medium and tight coordinated protection** for 1 pair of wires.

> INSTALLATION

ATFONO R&M / KRONE is to be installed **in series** with the telephone line, on the input connection line, always respecting the indications from the telephone company.

When the 2 devices to be protected are placed in **different buildings and interlinked**, protectors should be placed on both sides of the line.

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|---|--|---|---|---|--|---|---|---|---|
| | | | | | | | | | |
| 1 | | 3 | 4 | 5 | | 7 | 8 | 9 | 0 |



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: | | ATFONO R&M1 AT-9105 | ATFONO R&M2 AT-9106 | ATFONO KRONE AT-9109 |
|--|-------------|---|------------------------|-------------------------|
| Nominal voltage: | U_n | 110 V _{DC} | | |
| Maximum continuous operating voltage: | U_c | 180 V _{DC} | | |
| Nominal discharge current (8/20 μs wave): | I_n | 5 kA | 100 A | 5 kA |
| Protection level for I_n (8/20 μs wave): | U_p | 390 V | | 300 V |
| Maximum operating current: | I_L | 100 mA | | |
| Response time: | t_r | < 10 ns | | |
| Working temperature: | ϑ | -40 °C to +70 °C | | |
| Protector location: | | Indoor | | |
| Type of connection: | | Series (two ports) | | |
| No. of pairs protected: | | 1 pair | | |
| Dimensions: | | 58 x 21 x 10 mm | | |
| Enclosure material: | | Polyamide | | |
| Enclosure protection: | | IP20 | | |
| Insulation resistance: | | > 10 ¹⁴ Ω | | |
| Self-extinguishing enclosure: | | V-0 Type according to UNE-EN 60707 (UL94) | | |

Certificated tests according to: UNE-EN 61643-21

Relevant standards: UNE 21186, NF C 17-102, IEC 62305

> DIMENSIONS (MM)

