## AT81 Series

# COMPACT PROTECTOR FOR SINGLE-PHASE POWER SUPPLY LINES IN COMMON AND DIFFERENTIAL MODE

## ATCOVER M

**AT-8112 ATCOVER 230M:** *single-phase, 230$V_{ac}$ line*
**AT-8111 ATCOVER 130M:** *single-phase, 130 $V_{ac}$ line*

Efficient protection against transient overvoltages for single-phase electrical supply lines neutral in only one device. **Medium and low** internal coordination protection stages, recommended in Regulation of Low Voltages (REBT ITC23).

Tested and certified as **Type 1, 2 and 3** according to regulations EN 61643-11 and GUIDE-BT-23 from REBT. Suitable for **Categories I, II, III and IV** equipment according to ITC-BT-23 from REBT.

- ☐ Discharge takes place in an internal encapsulated element, with no external flash.
- ☐ It remains inactive in normal conditions, without affecting the normal working of the line and without leakage.
- ☐ Coordinable with other SPDs such as ATSHOCK, ATSHIELD and ATSUB series.
- ☐ Both common and differential protection for the phase and neutral lines
- ☐ No interruptions in power supply, thus avoiding data loss and other inconvenients for the user.
- ☐ Low residual voltage.
- ☐ Double warning of "no protection" trough a lightning indicator of failure and a green light indicating good operation.
- ☐ With remote control alarm.
- ☐ Robust connectors, suitable for all type of connection.

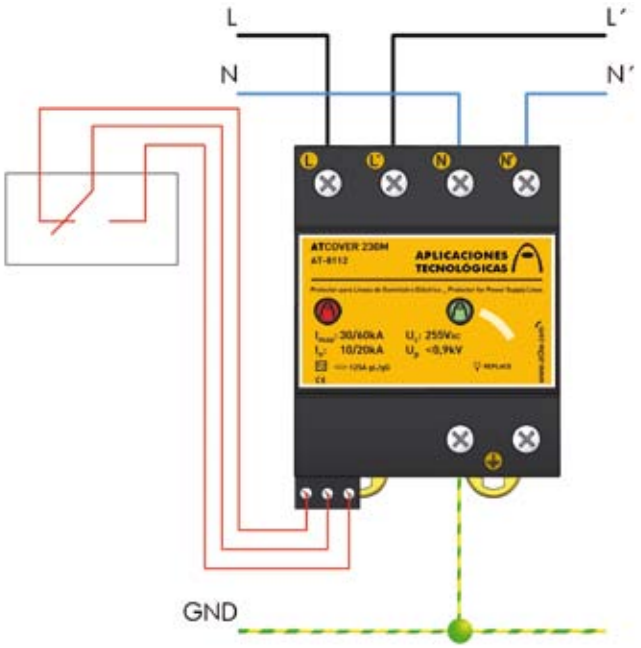
ATCOVER SPDs have been tested in **official, independent laboratories**, obtaining their characteristics according to relevant standards (related in the table).

⚠ ***Earth connection*** *is a must. Earthing in all the installation must be bonded either directly or by a spark gap and resistance should be lower than 10Ω. If the indications of this datasheet are not fulfilled during the use or installation of the SPDs, the protection assured by this device could be endangered.*

### Installation

**ATCOVER** Surge Protective Devices are to be installed in parallel with the Low Voltage supply line, connected to line/s, neutral and ground.
The **power should be disconnected** during the installation of the SPD.
When connecting the protector, the green light must turn on indicating its good operation. If the failure warning turns on, or the green pilot turns of its imperative to replace the protector.
ATCOVERs can be installed as single protection or in combination with other protectors that withstand higher discharge currents. In this case, it is necessary that both are separated by at least 10 meter cable or, if this is not possible, by a decoupling inductor ATLINK, in order to achieve a correct coordination between them.
Their installation is recommended in:

- ☐ Secondary boards supplying sensitive systems. (electronics, informatics...)
- ☐ Power supply of important equipment such as UPSs, PLCs, etc.



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## Technical Datasheet

| Reference | | ATCOVER 230M<br>AT-8112 | ATCOVER 130M<br>AT-8111 |
|---|---|---|---|
| Protection categories according to REBT: | | I, II, III, IV | |
| Type of tests according to EN 61643-11: | | Type 1 + 2 + 3 | |
| Nominal voltage: | $U_n$ | $230V_{AC}$ | $130V_{AC}$ |
| Maximum working voltage: | $U_c$ | $255V_{AC}$ | $145V_{AC}$ |
| Nominal frequency: | | 50 - 60Hz | |
| Nominal discharge current (wave 8/20µs): | $I_n$ | 10kA | |
| Maximum discharge current (8/20µs wave): | $I_{max}$ | 30kA | |
| Impulse current (10/350µs wave): | $I_{imp}$ | 6kA | |
| Protection level (1,2/50µs wave): | $U_p$ | 700V | 500V |
| Protection level at $I_n$ (8/20µs wave): | $U_p(I_n)$ | 900V | 700V |
| Combined wave tension: | $U_{o.c.}$ | 6kV | |
| Residual voltage with combination wave 6kV/3kA: | | 700V | 450V |
| Response time: | $t_r$ | < 25ns | |
| Backup fuse(1): | | 125A gL/gG | |
| Maximum short-circuit current: | | 25kA (for maximum fuse) | |
| Working temperature: | $\vartheta$ | -40°C to +70°C | |
| SPD location: | | Indoor | |
| Type of connection: | | Parallel (one port) | |
| Number of poles: | | 2 | |
| Dimensions: | | 72 x 90 x 80mm (4 mod. DIN43880 | |
| Fixing: | | DIN rail | |
| Enclosure material: | | Polyamide | |
| Enclosure protection: | | IP20 | |
| Insulation resistance: | | $> 10^{14}\Omega$ | |
| Autoextinguish enclosure: | | V-0 Type according to UNE-EN 60707 (UL94) | |
| Connections L/N/GND: | | Min/Max section multi-stranded: 4 / 35 mm² (11/2 AWG)<br>Min/Max section single-stranded: 1 / 35 mm² (17/2 AWG) | |
| **Voltage-free contact for the remote control** | | | |
| Connection: | | Maximum section single-stranded / multi-stranded: 1,5mm² | |
| Contact output: | | Commutated | |
| Working voltage: | | $250V_{AC}$ (Maximum working voltage of the alarm supply) | |
| Maximum current: | | 2A (Maximum current of the alarm supply) | |
| Certificated tests according to: IEC 61643-1, EN 61643-11 | | | |
| Complies with requirements of: UL 1449 | | | |
| Relevant standards: UNE 21186, NFC 17102, IEC 62305 | | | |

(1) Needed in cases where there is higher nominal current installed "upstream" from the protector.

## Dimensions