APLICACIONES TECNOLÓGICAS | LIGHTNING & EARTHING

Internal protection

Permanent Overvoltages

COMPACT, SELF- RECLOSING & **AUTOCONFIGURABLE** DEVICES

CERTIFIED ACCORDING TO **EN 50550**

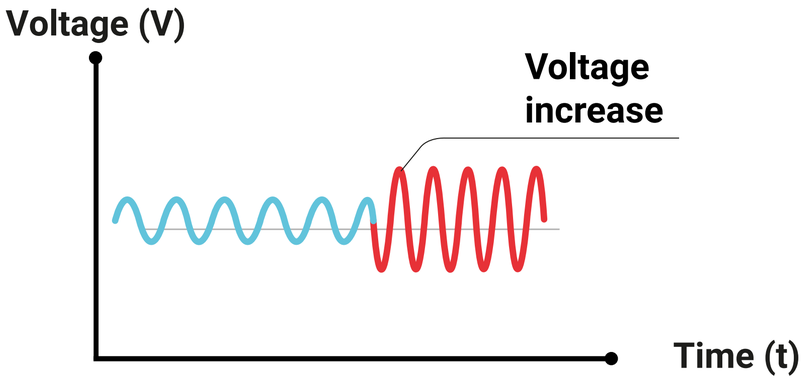
at3w.com

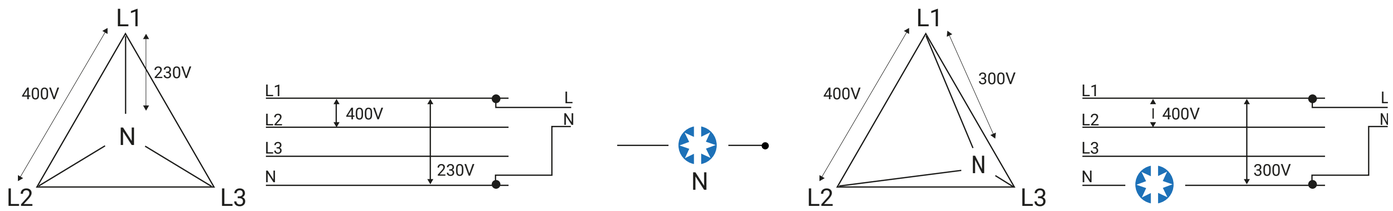
PERMANENT OVERVOLTAGES
Applicable Standards

Protection theory

Definition

Voltage increase greater than 10% between phase and earth, phase and neutral or between phases of an indeterminate duration. Domestic electrical equipment supports voltage increases of up to 50% for a few tenths of a second.
The most common situation of permanent overvoltage not attributable to the electric company is the defective connection of the neutral (if the neutral is disconnected and **the line is not correctly balanced**, overvoltages and voltage drops will also be generated).





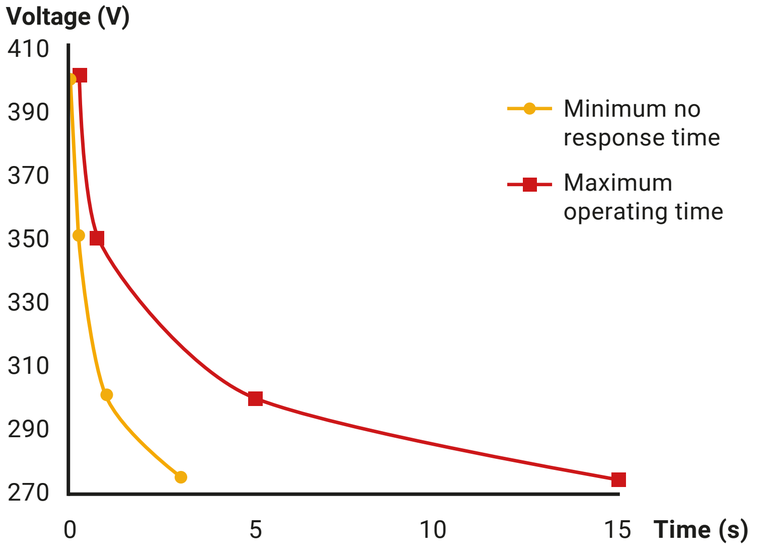
NORMAL STATUS OF THE ELECTRIC GRID

NEUTRAL DEFECT

PERMANENT OVERVOLTAGES
Applicable Standards

STANDARD EN 50550

- POP stands for Power frequency overvoltage protector and is an industrial frequency surge protector.
- Acts upon detecting a permanent overvoltage using cut-off device that disconnects the installation from the electrical network to prevent this overvoltage from reaching the equipment.
- Used in combination with a main sprotection device (circuit breaker or differential switch).
- The standard defines a voltage / time progressive trigger curve. The actuation time depends on the magnitude of the overvoltage, with the response time being faster in higher surges. This way, a double objective is achieved: A rapid response to severe disturbances is ensured and untimely firing in the event of small voltage surges is avoided.



Voltage	Maximum time	Minimum time
275 V	15,00 s	3,00 s
300 V	5,00 s	1,00 s
400 V	0,75 s	0,25 s
350 V	0,20 s	0,07 s

POP
EN 50550

PERMANENT OVERVOLTAGES

Quick selection guide

Transients included?

No

Main protective device included?

No

Actuates with contactor

ATCONTROL/R P-M
AT-8759

Actuates with shunt release

ATCONTROL/B P-M
AT-8703

Yes

Self-reclosing

ATCONTROL/R P-M 1DIN
AT-8767/AT-8768

Non self-reclosing

Yes

Main protective device included?

No

Actuates with contactor

ATCONTROL/R PT-M
AT-8758

Actuates with shunt release

ATCONTROL/B PT-M
AT-8704

Yes

Self-reclosing

ATCONTROL/R COMPACT PT-M
AT-8892, AT8893, AT8894

ATCONTROL/R PT-M 1DIN
AT-8769/AT-8771

KIT ATCONTROL/R PT-M
AT-8756/AT-8757

Non self-reclosing

IGA TEST COMPACT M
AT-8951, AT-8952, AT-8954, AT-9070/AT-9075

ATCONTROL/B PT-M 1DIN
AT-8883/AT8891

KIT ATCONTROL/B PT-M
AT-8711/AT-8715

Single phase

ATCONTROL/R P-M 1DIN
AT-8763

ATCONTROL/B P-M 1DIN
AT-8881

KIT ATCONTROL/R P-M
AT-8750/AT-8751

IGATEST M
AT-9000/AT-9005

ATCONTROL/R PT-M 1DIN
AT-8764

ATCONTROL/B PT-M 1DIN
AT-8880

Three phase

ATCONTROL/R P-T
AT-8760

ATCONTROL/B P-T
AT-8701

KIT ATCONTROL/R P-T
AT-8752/AT-8753

IGATEST T
AT-9006/AT-9010

ATCONTROL/R PT-T
AT-8770

ATCONTROL/B PT-T
AT-8702

KIT ATCONTROL/R PT-T
AT-8754/AT-8755

KIT ATCONTROL/B PT-T
AT-8716/AT-8720

Single phase

Three phase

APLICACIONES TECNOLÓGICAS | LIGHTNING & EARTHING

LOCAL STORM DETECTION

AIR TERMINALS AND ACCESSORIES

EARTHING

EXOTHERMIC WELDING

TRANSIENT OVERVOLTAGES

PERMANENT OVERVOLTAGES

APLICACIONES TECNOLÓGICAS S.A.

Parque Tecnológico de Valencia

C/Nicolás Copérnico, 4 - 46980 Paterna (Valencia), SPAIN.

(+34)961 318 250 atsa@at3w.com at3w.com

Follow us: