



ATRYS

from 15 to 240 A

eliminating harmonic current in your distribution network

Harmonic equalizers



The solution for

- > Service industries
- > Telecommunications
- > Businesses

Harmonics: an increasingly widespread phenomenon

- In the field of service industries, electrical pollution problems related to harmonics are increasing significantly. The problem is caused by equipment such as: computers, printers, photocopiers, electronic cash registers, fluorescent lighting, discharge lamps, etc.
- These applications draw non sinusoidal current.
- These harmonics, of which the most significant is harmonic 3 (150 Hz for a 50 Hz network) are present in all the supply networks right up to the mains source.
- These homopolar harmonics are added on in the neutral conductor. Therefore it is very common to find installations where the current in the neutral feed is higher than the phase current by 50 to 70%.

Eliminating malfunctions

- ATRYs improves the quality of the voltage wave by reducing the rate of distortion. This enables the equipment to operate in better conditions and consequently increases its life expectancy.

A range of harmonic equalizers

- Eliminates the principal harmonics generated by PCs, servers, printers and discharge lamps, etc.
- Neutralises harmonics as close as possible to the polluting equipment.
- Eliminates the problems associated with the presence of harmonics in the neutral feed: overload, premature ageing, derating of the installations, spurious tripping of protection devices.
- Increases the lifetime of installations.
- Improves the power factor of the installation.
- Reduces the current consumed.
- Reduces the electricity bill.
- Deals with the requirements of all types of electrical network, including those supplied by generating sets.
- Compatible with all neutral systems.
- Easy to install and operate.

Installation and operation



- The electrical connection (three-phase + neutral) is achieved by a simple connection, between the upstream line of the distribution panel to be cleaned and the equalizer.
- ATRYS does not require calibration or adjustment.

The addition of a SOCOMEC DIRIS measuring device will provide information on:

- current and voltage harmonics,
- the rate of distortion,
- the current values (phase and neutral),
- the voltages,
- the frequency.

Combining with static transfer switch

Applications located downstream from Load Transfer Modules often generate harmonic distortion.

The integration of ATRYS equalizer into the Load Transfer Modules allows

the uninterruptible power supply (supply from two sources) and harmonic distortion suppression functions to be combined.

Technical data

| ATRYs | | | | | | |
|---|----------------------------|--------|---------------------|--------|------------------------------------|-----------------------|
| Rating | 15 A | 27 A | 54 A | 82 A | 180 A | 240 A |
| ELECTRICAL SPECIFICATIONS | | | | | | |
| Application power | 15 kVA | 30 kVA | 60 kVA | 90 kVA | 200 kVA | 280 kVA |
| Phase current | 23 A | 45 A | 87 A | 130 A | 300 A | 400 A |
| Maxi neutral current | 45 A | 81 A | 162 A | 245 A | 540 A | 720 A |
| Elimination of harmonics (phases H3, H9, H15) | up to 80% | | | | | |
| Elimination of neutral harmonics | up to 85% | | | | | |
| Rated voltage | 400 V 3 ph+N | | | | | |
| Voltage tolerance | ± 15% | | | | | |
| Rated frequency | 50 Hz | | | | | |
| Frequency tolerance | ± 6% | | | | | |
| ENVIRONMENT | | | | | | |
| Operating ambient temperature | up to 40 °C | | | | | |
| Relative humidity | 0-90% without condensation | | | | | |
| ATRYs | | | | | | |
| Dimensions W x D x H | 550 x 350 x 750 mm | | 600 x 400 x 1400 mm | | 800 x 600 x 1930 mm ⁽¹⁾ | |
| Weight | 100 kg | 110 kg | 210 kg | 320 kg | 690 kg ⁽¹⁾ | 740 kg ⁽¹⁾ |
| Degree of protection | IP21 (IP32 optional) | | | | | |
| STANDARDS | | | | | | |
| Conformity | 60439-1 | | | | | |

(1) With CADRYs cabinet design 810 mm x 640 mm, 750 kg.