

Power distribution

Application: small to medium-sized buildings

Reduce power loss by filtering harmonics

“ I need to reduce the overall harmonics generated by my factory’s variable speed drives and uninterruptible power supply. My budget is limited, and the solution has to be simple. ”

Solution

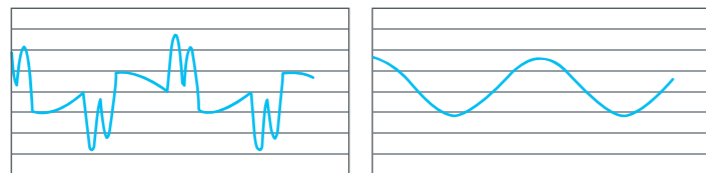
Install **AccuSine PCS active filtering** for your electrical installation

Variable speed drives and uninterruptible power supplies constitute non-linear loads. They use a fundamental sine wave (the same frequency as the network) and generate additional harmonics waves whose frequencies are multiples of the network’s frequency.

The AccuSine PCS active filter constantly generates an equal yet opposite current to the harmonic currents generated by non-linear loads, leaving only the fundamental frequency on the network.

The AccuSine PCS is fed from a specific outgoing feeder. It detects and analyzes the current upline in real time from the non-linear loads and sends out a compensating current via its power line.

The following oscillograms illustrate the total current harmonic distortion (THDI) before and after the installation of the active filter.



Benefits

For the user

> **Harmonic filtering reduces power loss** in the upline circuit and equipment **by 10%**

> **Ensures harmonics of less than 5%**

> **Reduces overloading and frees up additional useable capacity**

> **Minimizes system losses and demand power**

> **Lowers outage risk**

> **Extends equipment lifetime**

> **Reduces wire heating** (especially neutral)

For professionals

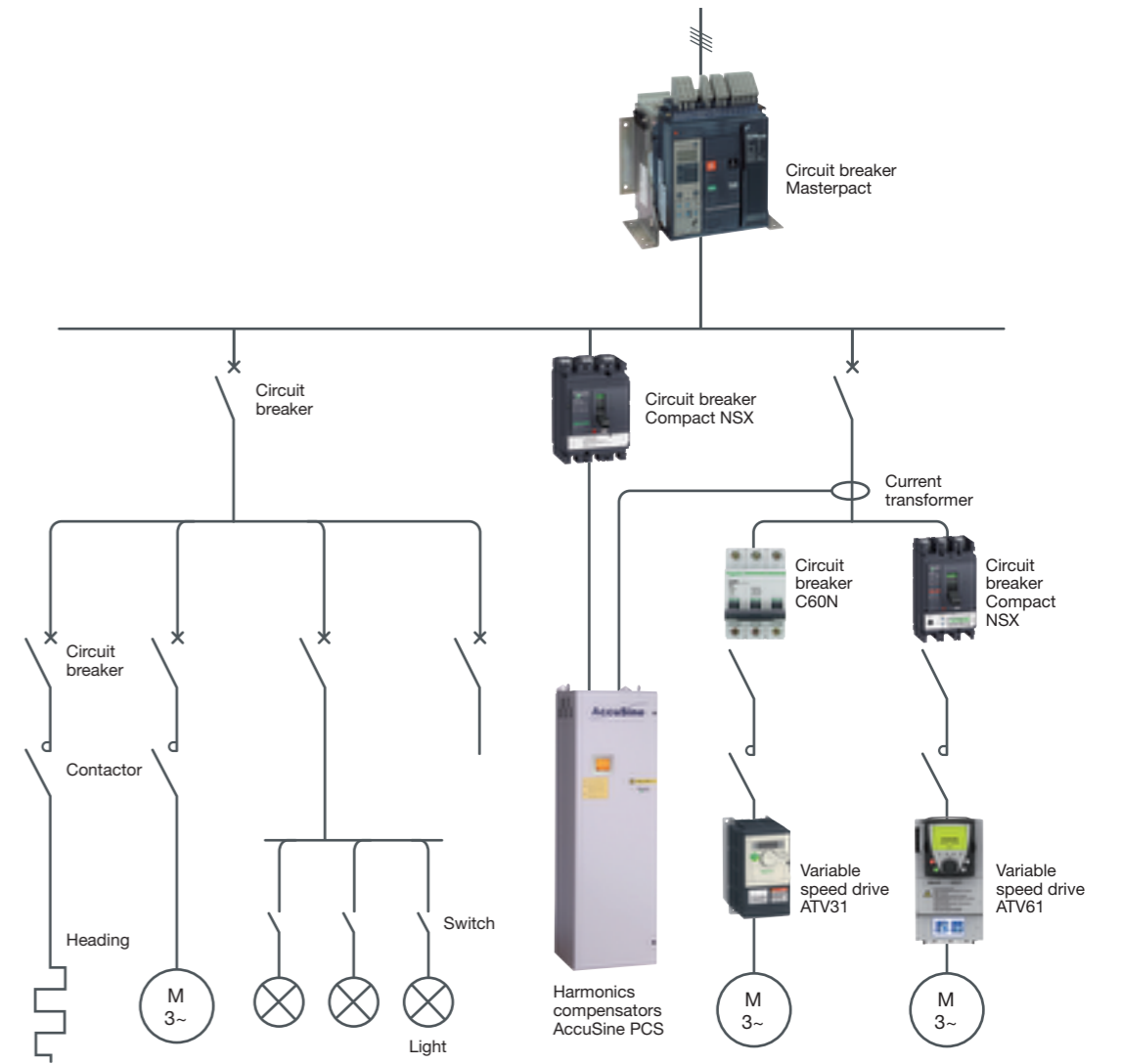
+ **Easy to install**

+ **Compensation automatically adjusted depending on load**

+ **Easy upgrades and add-ons**

+ **Optional power factor correction possible** (recommended by utilities)

Measure **Reduce energy consumption** Reduce energy costs



AccuSine PCS



> **A simple line up, including**

- 50A, 100A and 300A power ratings Universal Voltage: 208V - 480V, 3 phase 3 wire
- NEMA 1, NEMA 12, IP30, IP54 enclosure options
- Worldwide offer: Meets UL, CSA, CE, ABS, C-Tick standards

> **Powerful performance**

- Meets all major worldwide harmonic standards; IEEE-519, G5/4 -1, GB/T 14549, IEC61000-3-2/-3-4
- Ultra fast response to load changes—within microseconds
- Cancels all harmonics from 2nd to 50th order

• 225% VAR current injection to meet instantaneous load requirements and provide voltage support

> **Expandable capabilities**

- Parallel up to 10 units with different ratings on one set of current transformers