

Technology | Low distortion rectifiers

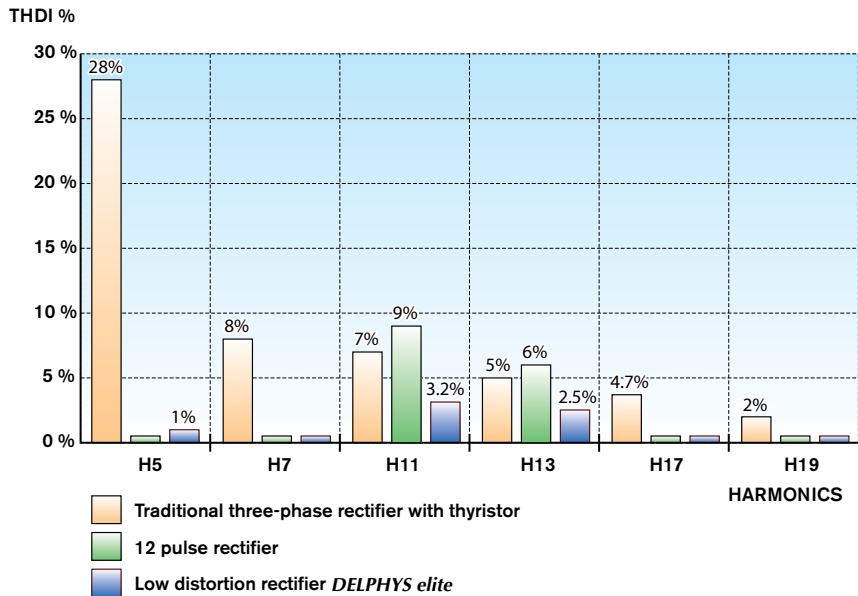
sinusoidal voltage
taken from the supply network

Integration into your electrical network

A “clean” and economical rectifier

- Low distortion rectifiers guarantee total compatibility with your low voltage power supply system.
- The rectifiers receive perfectly sinusoidal current of a high power factor.
- They eliminate all the restrictive disturbances normally generated by energy converters.
- The THDI harmonic distortion rate is exceptionally low: 3 to 4.5% (depending on range) whatever the load rate of the UPS. This allows the power supply infrastructure (source and distribution) to be defined without the need for oversizing.
- The rectifiers do not have any capacitive filtering devices at the input. The power supply network power factor compensation system condensers eliminate any risk of resonance.

DEPHYS 134 A GB



Power supply from a generating set

Total compatibility

The features of the low distortion rectifiers dispense with the need for oversizing when selecting a generating set:

- sinusoidal rectifier input current,
- high power factor upstream of the rectifier: 0,93 to 0,99 (depending on range),
- progressive and sequential start-up of the rectifiers, facilitating take-up by the generating set,
- delayed battery recharge when running on generating sets to reduce power consumption.

The absence of an input capacitive filtering device eliminates any risk of alternator control dysfunction, particularly in partial load conditions.

DEPHYS 097 B



Savings in infrastructure

The reduction in size of your power supply network

Low distortion rectifiers have a high input power factor: 0,93 to 0,99 (depending on range).

This allows for savings with:

- consumption of input current,
- the diameter of supply cables,
- upstream protection ratings (fuses and circuit breakers).