

## Customer Information regarding new EN61000-4-7

### Standard EN61000-4-7

Standard EN61000-4-7 specifies the principal measuring procedures, how harmonics have to be measured, generally. On top of that standard EN61000-3-2 defines limit values and also procedures.

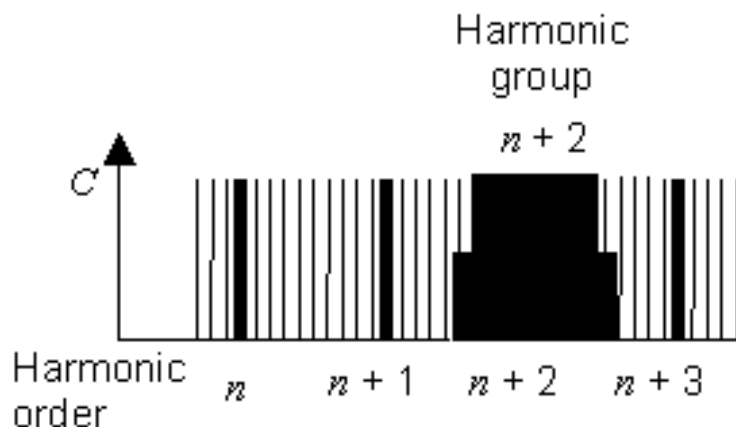
Former EN61000-4-7:1993 had been revised and published new as EN61000-4-7:2002. Also amendments EN61000-3-2:1995/A14:2000 and EN61000-3-2:2000/A1:2001 have been released. Among other things those define, that measurement procedure will be only specified by EN61000-4-7 in future.

An transitional period for applicate the old EN61000-4-7 will expire **October 1<sup>st</sup> 2005** .

### What's new ?

Recently 16 periods are measured and only harmonics have to be evaluated.

According to new standard there will to be measured 10/12 periods (at 50/60Hz) and all interharmonics have to be taken into calculation. I.e. a 90Hz harmonic component will be added squared to the 100Hz component (2nd harmonic).



Calculation of harmonics according to new EN61000-4-7

## **Influencing the measurements**

Devices with fluctuating harmonics will be evaluated different because of the reduced averaging time.

Devices producing interharmonics will be evaluated more severe, meaning measuring results will be perceived bigger, which are cited as violation of limit values! Such may be especially:

- Devices with burst fire control
- Devices with phase angle control with variable phase angle

## **Influencing the measuring equipment**

Measuring instruments now have to calculate harmonics and interharmonics (in total 400!) within 200ms, instead of former only 40 harmonics within 320ms. Due to this huge additional computing requirements new EN61000-4-7 will not be supported any longer by a couple of manufacturers of measurement instruments!

Users of such systems already face the issue to quickly find a solution. Time until new standard is only valid is relatively short, new developments have to be finalized in time, giving production a chance to adapt, in case necessary.

## **The Solution**

ZES ZIMMER Conformity test system SYS61K is of modular nature. You can combine an already existing source with the basic measuring system. This way you'll get a conformity test system supporting the old as well as the new standard. The sources are known as most expensive parts of such conformity test system, so changing over with only measuring instruments will be obviously the technically and commercially best solution.

## **For further information please contact**



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