

► THD_v

The Harmonics produced by the non-linear loads determined a deformation of the transient current, which is no longer purely sinusoidal but is hence distorted and results in the birth in the upstream network of a non-sinusoidal voltage drop. All loads including linear loads (zero harmonic contribution) will be fed by a distorted voltage. The Factor that takes measures the voltage deformation is the THD_v, which is evaluated according to the ratio between the effective value of the harmonic content and the effective value of the fundamental V_1 and which is expressed as follows:

$$THD_v = 100 \cdot \frac{\sqrt{\sum_{k=2}^{\infty} V_k^2}}{V_1} \%$$