

Title (en)

METHOD AND APPARATUS FOR ELIMINATING VOLTAGE DISTORTION IN ELECTRICITY DISTRIBUTION NETWORK

Title (de)

VERFAHREN UND VORRICHTUNG ZUR BESEITIGUNG VON SPANNUNGSVERZERRUNGEN IN EINEM STROMVERTEILUNGSNETZ

Title (fr)

PROCÉDÉ ET APPAREIL POUR ÉLIMINER UNE DISTORSION DE TENSION DANS UN RÉSEAU DE DISTRIBUTION D'ÉLECTRICITÉ

Publication

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Application

EP 22841552 A 20220617

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Abstract (en)

[origin: WO2023285730A1] The invention relates to a method for active measurement and filtering of voltage distortion caused by harmonic currents drawn by nonlinear loads (L) in an electrical distribution network (AC). The measurement and filtering of the voltage distortion in nonlinear loads (L) is performed by voltage measurement: - by measuring the voltage (V) condition from the mains (AC) phase-by-phase and removing the undistorted, mains frequency reference value of the voltage, such as the fundamental component (Vref); and - filtering the resulting voltage distortion into one or more frequency-band specific components, such as odd harmonics or similar, wherein one or more components of the voltage difference are amplified (Afl, Afl) per frequency band using a separate adjustable gain (Gfl, Gfn) for each frequency band, inverted and summed to obtain a current reference (iref) to an adjustable power supply (I) which supplies the current reference (iref) to the mains (AC).

IPC 8 full level

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