

Title (en)
METHOD AND DEVICE FOR COMPENSATING REACTIVE CURRENT PORTIONS BY MEANS OF A COMPENSATION ARRANGEMENT WITH A PULSE CURRENT RECTIFIER

Title (de)
VERFAHREN UND VORRICHTUNG ZUR KOMPENSATION VON BLINDSTROMANTEILEN MITTELS EINER KOMPENSATIONSEINRICHTUNG MIT EINEM PULSSTROMRICHTER

Title (fr)
PROCEDE ET DISPOSITIF POUR COMPENSER LES COMPOSANTES DE COURANT REACTIF A L'AIDE D'UN DISPOSITIF DE COMPENSATION AVEC UN REDRESSEUR DE COURANT PULSE

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Application
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Abstract (en)
[origin: DE19642596A1] The invention concerns a method and device for compensating reactive current portions in a non-ideal consumer (12) supplied by a power mains (14), by means of a compensation system (2) which is electrically connected in parallel with the consumer (12) and comprises a pulse current rectifier (4) having at least a capacitive storage device (6). According to the invention, a transmission ratio space vector (\vec{u}) is calculated as a function of a determined mains voltage space vector (\vec{u}_N), a mains current space vector (\vec{i}_N), a compensator current space vector (\vec{i}_K) and an intermediate circuit voltage ($2E_d$) at the capacitive storage device (6), such that, on the mains side, the pulse current rectifier (4) generates a compensator voltage space vector (\vec{u}_K) as a function of the intermediate circuit voltage ($2E_d$). In this way, a compensator current space vector (\vec{i}_K) which keeps the undesired reactive current portions away from the power mains (14) is set via a coupling filter (8) taking the form of compensator inductance (LK).

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