

Title (en)

CURRENT MEASURING DEVICE AND METHOD FOR MEASURING AN ELECTRICAL CURRENT IN A CURRENT CONDUCTOR

Title (de)

STROMMESSEINRICHTUNG SOWIE VERFAHREN ZUR MESSUNG EINES ELEKTRISCHEN STROMES IN EINEM STROMLEITER

Title (fr)

DISPOSITIF DE MESURE DU COURANT AINSI QUE PROCÉDÉ DE MESURE D'UN COURANT ÉLECTRIQUE DANS UN CONDUCTEUR

Publication

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Application

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Priority

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Abstract (en)

[origin: WO2018103781A1] Current measuring device and method for measuring an electrical current in a current conductor. The invention relates to a current measuring device for measuring an electrical current in a current conductor of a power electronic arrangement, in particular of a controlled power electronic converter, having a current transformer (6) which is assigned to the current conductor, wherein the current measuring device has a current determination unit (3) which has an amplifier winding which is assigned to the current conductor conducting the current to be measured for the purpose of determining a coil voltage representing the current to be measured, which comprises the current transformer which is arranged in a second commutation path (2) for the purpose of determining a measurement voltage which represents the current to be measured and has a first gradient profile, which comprises an observer module (4), to which the measurement voltage and the coil voltage are applied on the input side and which is designed in such a manner that an output signal from the observer module corresponds to a profile of the measurement voltage in the conduction state of the second commutation path and corresponds to a profile of an estimated signal in a conduction state of the first commutation path (1), wherein the estimated signal is formed by continuing the measurement voltage with a second gradient profile which is the same as the first gradient profile in terms of absolute value but is negative.

IPC 8 full level

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