

Title (en)
CIRCUIT BREAKER DEVICE

Title (de)
SCHUTZSCHALTERVORRICHTUNG

Title (fr)
DISPOSITIF DISJONCTEUR

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Application
EP 17704299 A 20170112

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Abstract (en)
[origin: WO2017122142A1] Circuit breaker device (100) comprising an instantaneous electric power measurement unit (110), a processing unit (140), and a relay unit (180) connected to a unbalancing resistor (190) the ends of which are configured to be connected to a phase conductor and to a neutral conductor of a single phase power line (400), wherein the instantaneous electric power measurement unit (110) is configured to measure an instantaneous electric power corresponding to an AC voltage between the phase conductor and the neutral conductor and to an AC current flowing through the phase conductor or the neutral conductor, the instantaneous electric power measurement unit (110) being configured to provide the processing unit (140) with a digital signal indicating an instantaneous electric power measured by the instantaneous electric power measurement unit (110), wherein the processing unit (140) is configured to activate the relay unit (180) when said measured instantaneous electric power is higher than a tolerance threshold PTOL for a delay time period TDLY, the activation of the relay unit (180) being such that, when the ends of the unbalancing resistor (190) are connected to the phase conductor and to the neutral conductor, respectively, and an end is connected upstream of and the other end is connected downstream of a residual current circuit breaker (300) the two branches of which are connected to the phase conductor and to the neutral conductor, it causes a current to flow through the unbalancing resistor (190) and through only one of the two branches of the residual current circuit breaker (300) resulting into an interruption of the residual current circuit breaker (300).

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