

Title (en)  
ARRANGEMENT AND METHOD FOR DETERMINING ELECTRICAL PARAMETERS OF A CONSUMER IN A BRANCHED POWER NETWORK

Title (de)  
ANORDNUNG UND VERFAHREN ZUR ERMITTLUNG ELEKTRISCHER KENNGRÖßEN EINES VERBRAUCHERS IN EINEM VERZWEIGTEN STROMNETZ

Title (fr)  
SYSTÈME ET PROCÉDÉ POUR DÉTERMINER DES GRANDEURS CARACTÉRISTIQUES ÉLECTRIQUES D'UN CONSOMMATEUR DANS UN RÉSEAU ÉLECTRIQUE DÉRIVÉ

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Application  
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Abstract (en)  
[origin: WO2021058046A1] The invention relates to an arrangement for determining electrical parameters of consumers (1) in a branched power network (2), having a central voltage converting unit (3) and a plurality of decentralised units (4), wherein: the central voltage converting unit (3) is designed to record a voltage curve and to generate a voltage reference signal that is reduced, by a conversion factor in proportion to the voltage curve, to a safety extra-low voltage, and to provide said signal so as to be transmissible; the decentralised units (4) each being assigned to the consumers (1); each decentralised unit (4) having a decentralised current measuring arrangement (5) and a decentralised evaluation unit (7); the decentralised current measuring arrangement (5) having at least one current sensor (6) and being designed to measure an instantaneous value of a current and to provide said value so as to be transmissible; and the decentralised evaluation unit (7) being designed to detect, from the voltage reference signal, instantaneous values of the voltage and to assign the instantaneous values of the voltage to the instantaneous values of the current, and to calculate, from the assigned instantaneous values of the voltage and of the current and from the conversion factor, the electrical effective power of the particular consumer (1) as an electrical parameter.

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