

Title (en)
Operating point control device of an electrical energy generator, especially of a solar generator

Title (de)
Arbeitspunktsteuervorrichtung eines Generators elektrischer Energie, insbesondere eines Solargenerators

Title (fr)
Dispositif de commande du point de fonctionnement d'un générateur d'énergie électrique, notamment d'un générateur solaire

Publication
EP 0895146 A1 19990203 (FR)

Application
EP 98401903 A 19980727

Priority
FR 9709583 A 19970728

Abstract (en)
The control system includes a load with a transformer (3), having primary (5) and secondary (6) windings. The primary winding (5) is fed from the solar energy electricity generator (GS) through a switch (7). The secondary winding (6) is connected in series with a diode (8) and the load (1,2). The system includes a sensor (11) which detects the average intensity of the current (I_p) circulating in the primary winding (5) of the transformer (3), and delivers a signal (V_{det}) that represents this current (I_p). A control unit (12,13), which is sensitive to the signal (V_{det}), controls operation of the switch (7) so as to establish in the primary winding (5) of the transformer (3) an average current (I_p) corresponding to a pre-determined operating regime for the generator (GS). The control unit (12,13) is designed to set the current (I_p) to a value which corresponds to the maximum power (P_{max}) of the power delivered by the generator (GS).

Abstract (fr)
Le dispositif comprend a) un transformateur (3) à accumulation d'énergie, à enroulements primaire (5) et secondaire (6) de sens inverses, l'enroulement primaire (5) étant alimenté par le générateur (GS) sous la commande d'un interrupteur (7), l'enroulement secondaire (6) étant connecté en série avec une diode (8) et avec la charge (1,2), b) un détecteur (11) sensible à l'intensité du courant moyen (I_p) circulant dans l'enroulement primaire (5) du transformateur (3) pour délivrer un signal (V_{det}) représentatif de cette intensité, et c) des moyens de commande de la commutation de l'interrupteur (7), sensibles audit signal (V_{det}) pour établir dans l'enroulement primaire (5) du transformateur (3) un courant moyen (I_p) correspondant à un point de fonctionnement prédéterminé du générateur GS. <IMAGE>

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IPC 8 full level
G05F 1/67 (2006.01)

CPC (source: EP)
G05F 1/67 (2013.01)

Citation (search report)
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• [A] NIEBAUER M ET AL: "SOLARENERGIE OPTIMAL NUTZEN INTELLIGENTES MPP-TRACKING MIT EINEM ST62-MIKROCONTROLLER", ELEKTRONIK, vol. 45, no. 16, 6 August 1996 (1996-08-06), pages 86 - 89, XP000622027

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