

Title (en)

POWER SUPPLY SYSTEM FOR SUPPLYING A SINGLE PHASE LOAD, ESPECIALLY A SINGLE PHASE INDUCTION FURNACE FROM THE THREE-PHASE NETWORK

Title (de)

STROMVERSORGUNGSVORRICHTUNG ZUR SPEISUNG EINER EINPHASIGEN LAST, INSBESONDERE EINES EINPHASIGEN INDUKTIONSOFENS, AUS DEM DREHSTROMNETZ

Title (fr)

DISPOSITIF D'ALIMENTATION EN COURANT DESTINE A ALIMENTER UNE CHARGE MONOPHASEE, EN PARTICULIER UN FOUR A INDUCTION MONOPHASE, A PARTIR DU RESEAU DE COURANT TRIPHASE

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Application

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Abstract (en)

[origin: WO2004084587A1] The invention relates to a power supply system for supplying a single phase load, especially a single phase induction furnace (O), from the three-phase network, characterized in that a power converter (S) is provided that has, in addition to the two initial potentials for connecting a parallel compensated load (O) at least one additional initial potential, and in that one or more balancing reactances for energy storage having dual initial frequency are connected between said additional initial potential and one of the initial potentials for connecting the load (O), or between the additional initial potentials. The system is further characterized in that the control of the converter and/or the balancing reactances can be adapted to the impedance of the load (O) in various operating points. The invention also relates to a control method for controlling the supply of a single phase load, especially a single phase induction furnace (O), from the three-phase network comprising a device according to one of the preceding claims. The inventive method is characterized by facilitating the variation of the amplitude and/or the phase position and/or the frequency of the output voltages when the resistance and/or the inductance of the load change, thereby adjusting power. In this manner it is possible to reduce the amount of reactances, i.e. of inductances and/or capacitors, required.

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