

Title (en)  
POWER CONTROLLER

Title (de)  
LEISTUNGSREGLER

Title (fr)  
REGULATEUR DE COURANT

Publication  
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Application  
**EP 03767849 A 20031230**

Priority  
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Abstract (en)  
[origin: WO2004059825A1] The invention relates to a method for controlling the alternating current power supplied to a load by controlling the phase angle of the alternating voltage and to the related power controller. The switching unit (2) of the power controller (1) consists of two switching elements (k1, k2) connected in succession mutually and relative to the load (L) and of reverse-current diodes (d1, d2) disposed in parallel with these. The switching elements are brought in turn into electrically conductive and non-conductive states during one half cycle of the alternating voltage cycle (VAC) to be supplied. In accordance with the invention, during the first half cycle (PA) after a delay determined on the zero position of the first load current (IL) the first switching element (k1) is brought into conductive state, while the second switching element (k2) is brought into non-conductive state, the load current (IL) being disposed to flow across the first switching element (k1) and the second forward-current diode (d2) until the load current (IL) is reversed at the second zero position of the current, the direction of the load current (IL) being reversed relative to the second diode (d2), thus preventing current flow to the load. After a delay determined on the second zero position (N2) of the load current (IL) during the second half cycle (PB), the second switching element (k2) is brought into conductive state while the first switching element (k1) is brought into nonconductive state, the load current (IL) being disposed to flow across the second switching element (k2) and the forward-current first diode (d1) until the direction of the load current (IL) is reversed again at the following zero position of the current, the direction of the load current (IL) being reversed relative to the first diode (d1), thus preventing current flow to the load until the operation steps described above are repeated during the following half cycle, which corresponds to the first half cycle.

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Citation (search report)  
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Citation (examination)  
WO 0052813 A1 20000908 - LEGRAND OESTERREICH GES MBH [AT], et al

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