

Title (en)

Electric heater and method for controlling the same

Title (de)

Elektrische Heizung sowie Verfahren zur Regelung einer elektrischen Heizung

Title (fr)

Chauffage électrique et son procédé de contrôle

Publication

EP 1091621 A1 20010411 (DE)

Application

EP 00440266 A 20001005

Priority

DE 19948313 A 19991007

Abstract (en)

An electric heating installation (1) has at least two electric heating resistances (2) whose heating power can be cascaded by a control device (3). The control device has a controller (4) corresponding to the number of heating resistances which are each assigned to one heating resistance. The control device supplies each controller separately with a clocked pulse-shaped current. The controllers are controlled with a pulse-controlled modulation of the control device. The current pulses to the respective controller are displaced towards each other in time. The current pulses at the respective controller overlap each other in displaced time fashion. The heating resistances are PTC elements.

Abstract (de)

Es wird eine elektrische Heizung mit wenigstens zwei elektrischen Heizwiderständen vorgeschlagen, deren Heizleistung durch kombinierte Verschaltung kaskadierbar ist, wobei eine Regeleinrichtung einen der Anzahl an Heizwiderständen entsprechenden Regler aufweist, die jeweils einem Heizwiderstand zugeordnet sind, wobei die Regeleinrichtung jeden Regler getrennt mit einem getakteten pulsförmigen Strom versorgt.
<IMAGE>

IPC 1-7

H05B 1/02

IPC 8 full level

H05B 1/02 (2006.01)

CPC (source: EP)

H05B 1/0236 (2013.01)

Citation (search report)

- [X] US 5396047 A 19950307 - SCHILLING WILFRIED [DE], et al
- [X] DE 3509073 A1 19850926 - VOLKSWAGENWERK AG [DE]
- [A] WO 8301993 A1 19830609 - VAILLANT JOH GMBH & CO [DE]
- [A] EP 0837381 A2 19980422 - DAVID & BAADER DBK SPEZFAB [DE], et al

Cited by

KR100899611B1; EP2741568A4; DE102008049277A1; FR3079479A1; EP2403094A3; EP1296102A3; US9198231B2; US6917019B2; WO2012143193A1; EP1296102A2; US6872922B2; EP1416770B2

Designated contracting state (EPC)

AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE

DOCDB simple family (publication)

EP 1091621 A1 20010411; EP 1091621 B1 20060607; AT E329475 T1 20060615; DE 19948313 A1 20010412; DE 50012900 D1 20060720

DOCDB simple family (application)

EP 00440266 A 20001005; AT 00440266 T 20001005; DE 19948313 A 19991007; DE 50012900 T 20001005