

Title (en)

HEATING AND METHOD FOR CONTROLLING HEATING OF A FUNCTIONAL UNIT ON A MOTOR VEHICLE

Title (de)

HEIZUNG UND VERFAHREN ZUR STEUERUNG EINER HEIZUNG EINER FUNKTIONSEINHEIT EINES KRAFTFAHRZEUGS

Title (fr)

CHAUFFAGE ET PROCEDE DE COMMANDE DU CHAUFFAGE D'UNE UNITE FONCTIONNELLE D'UN VEHICULE AUTOMOBILE

Publication

EP 1382227 A2 20040121 (DE)

Application

EP 02740270 A 20020416

Priority

- DE 0201463 W 20020416
- DE 10120098 A 20010425

Abstract (en)

[origin: WO02089526A2] Heating of the functional unit is started manually or automatically by means of a control device. An actual temperature or a parameter dependent on the actual temperature is monitored during, and optionally before and after the actual heating of the functional unit. Depending on the environmental conditions, such as air temperature or heat transfer resistance etc, the dynamics of the values, thus the time-dependence of the parameters can vary widely. A characteristic feature of the time course of the actual temperature or of the parameters dependent on the heating temperature, which determines the phase transition of water, serves for the evaluation and control of the heating. One characteristic feature is, for example, the speed of cooling of the functional unit during a heating pause. Analysis of the characteristic features is used to control the heating power of the heating elements. Threshold values and further factors such as proportionality factors for the controller, for example, are determined depending upon significant characteristics. The threshold values and factors are also particularly used for a subsequent starting of the heating, for example, after 24 hours, using the corresponding analysis and control.

IPC 1-7

H05B 3/84; **G05D 23/19**

IPC 8 full level

G05D 23/19 (2006.01); **H05B 3/84** (2006.01)

CPC (source: EP US)

H05B 1/0236 (2013.01 - EP US); **H05B 3/84** (2013.01 - EP US); **H05B 2203/035** (2013.01 - EP US)

Citation (search report)

See references of WO 02089526A2

Designated contracting state (EPC)

DE ES FR GB IT

DOCDB simple family (publication)

WO 02089526 A2 20021107; **WO 02089526 A3 20030109**; DE 10120098 A1 20021212; DE 10120098 B4 20040205; DE 50201626 D1 20041230; EP 1382227 A2 20040121; EP 1382227 B1 20041124; ES 2233829 T3 20050616; US 2004094529 A1 20040520; US 6917019 B2 20050712

DOCDB simple family (application)

DE 0201463 W 20020416; DE 10120098 A 20010425; DE 50201626 T 20020416; EP 02740270 A 20020416; ES 02740270 T 20020416; US 47366003 A 20030930