

Title (en)  
PTC heater, especially for a vehicle

Title (de)  
Ptc-Heizer, insbesondere für ein Kraftfahrzeug

Title (fr)  
Appareil de chauffage à PTC, en particulier pour véhicule

Publication  
**EP 1698840 A3 20100707 (DE)**

Application  
**EP 06290389 A 20060306**

Priority  

- EP 05290513 A 20050304
- EP 06290389 A 20060306

Abstract (en)  
[origin: EP1698840A2] The PTC (Positive Temperature Coefficient) heater has at least one PTC element between two contact sheets (3), and is connected to them electrically. At least one of the contact sheets on the side of the PTC element has at least two differently structured or raised regions. These two different regions should preferably lie at least partly directly opposite the PTC element.

IPC 8 full level  
**F24H 9/18** (2006.01)

CPC (source: EP)  
**F24H 9/1863** (2013.01); **F24H 9/1872** (2013.01); **F24H 3/0405** (2013.01)

Citation (search report)  

- [XI] US 5598502 A 19970128 - TAKAHASHI MINORU [JP], et al
- [XI] US 3996447 A 19761207 - BOUFFARD MICHAEL L, et al
- [XI] DE 9407104 U1 19941013 - SUNLEAD ELECTRICAL CORP [TW]
- [A] US 4414052 A 19831108 - HABATA ETSUROH [JP], et al

Cited by  
US2021302065A1; EP3511645A1; EP2897230B1

Designated contracting state (EPC)  
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU LV MC NL PL PT RO SE SI SK TR

Designated extension state (EPC)  
AL BA HR MK YU

DOCDB simple family (publication)  
**EP 1698840 A2 20060906; EP 1698840 A3 20100707; EP 1698840 B1 20130130**

DOCDB simple family (application)  
**EP 06290389 A 20060306**