

Title (en)  
Heat exchanger

Title (de)  
Wärmeübertrager

Title (fr)  
Échangeur de chaleur

Publication  
**EP 2161515 B1 20161109 (DE)**

Application  
**EP 08290839 A 20080905**

Priority  
EP 08290839 A 20080905

Abstract (en)  
[origin: EP2161515A1] The exchanger has a heating element, which comprises a frame i.e. sheet metal frame, and a positive temperature co-efficient (PTC)-element (4). The PTC-element is provided with an opening (7), and fixed at the frame using an adhesive i.e. two-component-adhesive. The adhesive fills the opening of the PTC-element, where the opening is designed as a cylindrical passage opening. The opening is designed in circular, oval, quadratic, rectangular and triangular shapes. A spike is formed in the opening, after hardening of the adhesive.

IPC 8 full level  
**F24H 3/04** (2006.01); **F24H 9/18** (2006.01); **H05B 3/50** (2006.01)

CPC (source: EP)  
**F24H 3/0405** (2013.01); **F24H 3/0429** (2013.01); **F24H 9/1872** (2013.01); **H05B 3/50** (2013.01); **H05B 2203/02** (2013.01)

Designated contracting state (EPC)  
DE FR GB

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