

Title (en)  
Voltage transformer for railroad locomotive

Title (de)  
Spannungswandler für Eisenbahntriebwagen

Title (fr)  
Transformateur de tension pour une voiture ferroviaire automotrice

Publication  
**EP 1648001 B1 20080514 (DE)**

Application  
**EP 04024629 A 20041015**

Priority  
EP 04024629 A 20041015

Abstract (en)  
[origin: EP1648001A1] The transformer has a pressure resistant housing that is provided with pressure relief units at its upper side. A pressure relief unit (9) is provided in a lower area of the housing, where the pressure relief unit (9) enables elusion of gases under pressure in lateral directions or upwards. The unit (9) has a pressure relief channel (5), leading away laterally from the housing, with a pressure relief valve.

IPC 8 full level  
**H01F 27/02** (2006.01); **H01F 27/40** (2006.01); **H01F 38/26** (2006.01)

CPC (source: EP)  
**H01F 27/402** (2013.01); **H01F 38/26** (2013.01); **H01F 27/02** (2013.01)

Cited by  
KR102480288B1; CN106920639A

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

DOCDB simple family (publication)  
**EP 1648001 A1 20060419; EP 1648001 B1 20080514**; AT E395709 T1 20080515; CY 1108249 T1 20140212; DE 502004007157 D1 20080626; DK 1648001 T3 20080908; ES 2309431 T3 20081216; PL 1648001 T3 20081031; PT 1648001 E 20080821; SI 1648001 T1 20081031

DOCDB simple family (application)  
**EP 04024629 A 20041015**; AT 04024629 T 20041015; CY 081100838 T 20080811; DE 502004007157 T 20041015; DK 04024629 T 20041015; ES 04024629 T 20041015; PL 04024629 T 20041015; PT 04024629 T 20041015; SI 200430814 T 20041015