

Title (en)  
PROTECTION CIRCUIT ARRANGEMENT FOR A MULTI-VOLTAGE POWER SUPPLY

Title (de)  
SCHUTZSCHALTUNGSANORDNUNG FÜR EIN MEHRSPANNUNGSNETZ

Title (fr)  
AGENCEMENT DE CIRCUIT DE PROTECTION POUR UN RÉSEAU MULTITENSION

Publication  
**EP 2909910 A1 20150826 (DE)**

Application  
**EP 13766046 A 20130920**

Priority  
• DE 102012218914 A 20121017  
• EP 2013069632 W 20130920

Abstract (en)  
[origin: WO2014060181A1] A protection circuit arrangement for a multi-voltage power supply is presented. It comprises a DC-DC converter (102), which is provided in the region of transition between a high-voltage loop (110) and a low-voltage loop (112), at least one switch being provided in both the high-voltage loop and in the low-voltage loop.

IPC 8 full level  
**H02H 7/12** (2006.01); **H02M 1/32** (2007.01); **H02M 3/158** (2006.01)

CPC (source: EP US)  
**H02H 7/1213** (2013.01 - EP US); **H02M 1/32** (2013.01 - EP US); **H02M 3/158** (2013.01 - EP US)

Citation (search report)  
See references of WO 2014060181A1

Citation (examination)  
DE 102006033527 A1 20070201 - EBM PAPST ST GEORGEN GMBH & CO [DE]

Designated contracting state (EPC)  
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)  
BA ME

DOCDB simple family (publication)  
**DE 102012218914 A1 20140417**; CN 104704698 A 20150610; CN 104704698 B 20180504; EP 2909910 A1 20150826; US 2015288169 A1 20151008; US 9893511 B2 20180213; WO 2014060181 A1 20140424

DOCDB simple family (application)  
**DE 102012218914 A 20121017**; CN 201380054078 A 20130920; EP 13766046 A 20130920; EP 2013069632 W 20130920; US 201314435606 A 20130920