

Title (en)  
BATTERY PACK WITH MULTIPLE OUTPUT MODES

Title (de)  
BATTERIEPACK MIT MEHREREN AUSGANGSMODI

Title (fr)  
BLOC-BATTERIE À MODES DE SORTIE MULTIPLES

Publication  
**EP 3549229 A4 20200923 (EN)**

Application  
**EP 16922913 A 20161129**

Priority  
CN 2016107698 W 20161129

Abstract (en)  
[origin: WO2018098628A1] A battery pack configured to be detachably installed in an electrical device. The battery pack contains a housing; N sets of electrically connected battery cells housed within the housing; N pairs of switching terminals; and a voltage control module. N is an integer. Two switching terminals in each one of the N pairs electrically connect to a positive output and a negative output respectively of one of the N sets of electrically connected battery cells. The voltage control module is electrically connected between the switching terminals and a plurality of output terminals configured on the housing. The voltage control module is arranged to connect the N switching terminal pairs in series or in parallel in order to output an electrical power from the battery pack to the electrical device. The battery pack is able to perform an internal switch-over of series and parallel connections between the sets of battery cells, therefore providing a great flexibility to the battery output.

IPC 8 full level  
**H02J 7/00** (2006.01); **H01M 50/213** (2021.01); **H01M 50/247** (2021.01); **H01M 50/269** (2021.01); **H01M 50/284** (2021.01); **H01M 50/296** (2021.01); **H01M 50/503** (2021.01)

CPC (source: EP US)  
**H01M 10/425** (2013.01 - EP); **H01M 50/213** (2021.01 - EP US); **H01M 50/247** (2021.01 - EP US); **H01M 50/269** (2021.01 - EP US); **H01M 50/284** (2021.01 - EP US); **H01M 50/296** (2021.01 - EP US); **H02J 7/0031** (2013.01 - EP); **H02J 7/0042** (2013.01 - EP); **H01M 50/503** (2021.01 - EP US); **H01M 2220/10** (2013.01 - EP); **Y02E 60/10** (2013.01 - EP)

Citation (search report)  
• [E] US 2018069208 A1 20180308 - REJMAN MARCIN [DE], et al & WO 2016142253 A1 20160915 - BOSCH GMBH ROBERT [DE]  
• [A] DE 102014217991 A1 20160310 - BOSCH GMBH ROBERT [DE]  
• See also references of WO 2018098628A1

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

DOCDB simple family (publication)  
**WO 2018098628 A1 20180607**; CN 210693472 U 20200605; EP 3549229 A1 20191009; EP 3549229 A4 20200923; TW 201820741 A 20180601

DOCDB simple family (application)  
**CN 2016107698 W 20161129**; CN 201690001772 U 20161129; EP 16922913 A 20161129; TW 106141012 A 20171124