

Title (en)

ENERGY STORAGE ARRANGEMENT

Title (de)

ENERGIESPEICHERANORDNUNG

Title (fr)

SYSTÈME D'ACCUMULATION D'ÉNERGIE

Publication

EP 2697502 A2 20140219 (DE)

Application

EP 12701683 A 20120127

Priority

- DE 102011016785 A 20110412
- DE 102011108231 A 20110722
- EP 2012000361 W 20120127

Abstract (en)

[origin: WO2012139675A2] Energy storage arrangement, comprising at least two rechargeable energy stores connected in parallel, a first energy store comprising a plurality of lead-based storage elements, and a second energy store (7) comprising a plurality of lithium-based storage elements (11). Between charge state limits of 0 to 100 % a charge state interval is achieved in which the nominal voltage (12, 13, 14, 21) of the second energy store (7) is in a range between the maximum charging voltage (9) and the nominal voltage (10) of the first energy store (6).

IPC 8 full level

F02N 11/08 (2006.01)

CPC (source: EP US)

B60L 3/0046 (2013.01 - EP US); **B60L 3/04** (2013.01 - EP US); **B60L 50/40** (2019.01 - EP US); **B60L 50/64** (2019.01 - EP US);
B60L 58/13 (2019.01 - EP US); **B60L 58/16** (2019.01 - EP); **B60L 58/20** (2019.01 - EP US); **B60L 58/24** (2019.01 - EP US);
B60R 16/033 (2013.01 - EP US); **F02N 11/0866** (2013.01 - EP US); **H01G 11/10** (2013.01 - US); **H01M 10/052** (2013.01 - EP US);
H01M 10/0525 (2013.01 - US); **H01M 10/12** (2013.01 - US); **H01M 10/30** (2013.01 - US); **H01M 10/345** (2013.01 - EP US);
H01M 10/4264 (2013.01 - US); **H01M 16/00** (2013.01 - EP US); **H02J 7/1423** (2013.01 - EP US); **H02J 7/34** (2013.01 - EP US);
B60L 2240/545 (2013.01 - EP US); **F02N 11/087** (2013.01 - EP US); **F02N 2011/0885** (2013.01 - EP US); **H01M 2220/20** (2013.01 - EP US);
H02J 2310/46 (2020.01 - EP); **Y02E 60/10** (2013.01 - EP US); **Y02P 70/50** (2015.11 - EP); **Y02T 10/70** (2013.01 - EP US)

Citation (search report)

See references of WO 2012139675A2

Designated contracting state (EPC)

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DOCDB simple family (publication)

DE 102011108231 A1 20121018; CN 103597201 A 20140219; CN 103608579 A 20140226; CN 103608579 B 20160511;
DE 102011112131 A1 20121018; DE 102011112131 B4 20131121; EP 2697502 A2 20140219; EP 2697503 A2 20140219;
US 2014300181 A1 20141009; US 2014327298 A1 20141106; US 9431180 B2 20160830; US 9754732 B2 20170905;
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US 201214111313 A 20120127; US 201214111329 A 20120330