

Title (en)

A MASSIVE ENERGY STORAGE SYSTEM WITH VERTICAL OR NEARLY VERTICAL MOVEMENT OF HEAVY MASS

Title (de)

MASSIVENERGIESPEICHERUNGSSYSTEM MIT VERTIKALER ODER NAHEZU VERTIKALER BEWEGUNG VON SCHWERER MASSE

Title (fr)

SYSTÈME DE STOCKAGE D'ÉNERGIE MASSIVE À MOUVEMENT VERTICAL OU QUASI-VERTICAL DE MASSE LOURDE

Publication

EP 3545602 A1 20191002 (EN)

Application

EP 17874263 A 20170726

Priority

- AU 2016904783 A 20161122
- AU 2016905317 A 20161222
- AU 2017050769 W 20170726

Abstract (en)

[origin: WO2018094448A1] This invention discloses a massive energy storage with vertical or nearly vertical movement of heavy mass placed in a container. It is based on the working mechanism of either one of two linear machines, each of which contains two sets of conductors, named as set-S and set-R conductors. The set-S conductors act as stationary conductors while the set-R conductors act as moving conductors. Interleaved magnetic structure could be adopted to provide alternative design. A nearly-closed magnetic path is designed to enhance the coupling between the magnetic field produced by the stationary conductors and moving conductors. Accompanying platforms for parking containers are also adopted. Due to the adoption of vertical or nearly vertical movement of heavy mass, minimum loss due to friction could be achieved. Such designed energy storage system can be constructed on land or along the slope of a mountain/mound or on/in sea/river to achieve massive energy storage.

IPC 8 full level

H02J 4/00 (2006.01); **H02J 11/00** (2006.01); **H02N 11/00** (2006.01); **H02N 15/00** (2006.01)

CPC (source: EP US)

H02J 3/381 (2013.01 - EP US); **H02J 15/007** (2020.01 - EP US); **H02J 3/28** (2013.01 - EP US); **H02J 2300/20** (2020.01 - EP US);
H02J 2310/10 (2020.01 - EP); **Y02P 90/50** (2015.11 - EP)

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)

WO 2018094448 A1 20180531; AU 2017365614 A1 20190404; EP 3545602 A1 20191002; EP 3545602 A4 20200401

DOCDB simple family (application)

AU 2017050769 W 20170726; AU 2017365614 A 20170726; EP 17874263 A 20170726