

Title (en)
POWER SWITCH ARRANGEMENT

Title (de)
LEISTUNGSSCHALTERANORDNUNG

Title (fr)
ARRANGEMENT COMMUTATEUR DE PUISSANCE

Publication
EP 3888244 A1 20211006 (DE)

Application
EP 19809807 A 20191126

Priority
• DE 102018220247 A 20181126
• EP 2019082543 W 20191126

Abstract (en)
[origin: US2020169252A1] A power-switch-system (PSS) having a low-side transistor (LSS) and a high-side transistor (HSS), which are switchable to be conductive or switched to be blocking in respectively alternating time-segments of a switching-period of the PSS. A source-terminal of the LSS is connected to a load-terminal, and a drain-terminal of the LSS is connected to a supply-voltage via a storage-inductor. A drain-terminal of the HSS is connected to the load-terminal, and a source-terminal of the HSS is connected to the supply-voltage via the storage-inductor. Provided is a PSS of this kind, the LSS having at least two transistor-segments. At least two of the transistor-segments have a different electrical resistance in the connection to the storage-inductor. The PSS provides that at least two of the transistor-segments are switched at a different point in time during a switching operation of the PSS to reduce unwanted voltage fluctuations, without markedly increasing switching losses.

IPC 8 full level
H03K 17/16 (2006.01); **H02M 1/00** (2006.01); **H02M 1/088** (2006.01); **H02M 3/158** (2006.01)

CPC (source: EP US)
H02H 9/001 (2013.01 - US); **H02M 3/158** (2013.01 - EP US); **H03K 17/162** (2013.01 - US); **H03K 17/164** (2013.01 - EP); **H02M 1/0029** (2021.05 - EP); **H02M 1/088** (2013.01 - EP); **H03K 17/167** (2013.01 - US); **H03K 2217/0072** (2013.01 - US)

Citation (search report)
See references of WO 2020109291A1

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Designated extension state (EPC)
BA ME

DOCDB simple family (publication)
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