

Title (en)

AC/DC VSC CONNECTED TO THREE OR MORE DC LINES

Title (de)

MIT DREI ODER MEHR GLEICHSTROMLEITUNGEN VERBUNDENER WECHSELSTROM-GLEICHSTROM-SPANNUNGSQUELLENWANDLER

Title (fr)

VSC CA/CC CONNECTÉ À TROIS LIGNES DE COURANT CONTINU OU PLUS

Publication

**EP 3766170 A1 20210120 (EN)**

Application

**EP 18712839 A 20180315**

Priority

EP 2018056507 W 20180315

Abstract (en)

[origin: WO2019174732A1] A voltage source converter (12) converts between AC and DC is connected between at least three DC terminals (DC1, DC2, DC3) and comprises three parallel AC phase modules each comprising an corresponding AC terminal (ACA1, ACB1, ACC3), where each comprises a lower converter arm (1a) connected between a first DC terminal (DC1) and the AC terminal (ACA1), a first upper converter arm (ua0, ua1) connected between the AC terminal (ACA1) and a second DC terminal (DC2) and a second upper converter arm (ua2), the lower and first upper converter arms forming a phase leg and the second upper converter arm stretching out from a connection point (CP) on the phase leg to a third DC terminal (DC3), where the phase leg comprises submodules (CLAL, CLAC, CLAB1) for supplying a first DC voltage, while the second upper converter arm comprises circuitry (CLAB2) for, together with the submodules between the first connection point and the first DC terminal, providing a second DC voltage and the first DC terminal is adapted to be connected to ground.

IPC 8 full level

**H02M 7/797** (2006.01); **H02J 3/36** (2006.01); **H02M 1/00** (2006.01); **H02M 7/483** (2007.01)

CPC (source: EP US)

**H02M 7/4835** (2021.05 - EP US); **H02M 7/797** (2013.01 - EP US); **H02J 3/36** (2013.01 - EP); **H02M 1/009** (2021.05 - EP);  
**Y02E 60/60** (2013.01 - EP)

Citation (search report)

See references of WO 2019174732A1

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 2019174732 A1 20190919**; EP 3766170 A1 20210120

DOCDB simple family (application)

**EP 2018056507 W 20180315**; EP 18712839 A 20180315