Title (en)

SWITCHING SCHEME FOR STATIC SYNCHRONOUS COMPENSATORS USING CASCADED H-BRIDGE CONVERTERS

Title (de)

SCHALTSCHEMA FÜR STATISCHE SYNCHRONKOMPENSATOREN MIT KASKADIERTEN H-BRÜCKENWANDLERN

Title (fr)

SCHÉMA DE COMMUTATION POUR COMPENSATEURS SYNCHRONES STATIQUES UTILISANT DES CONVERTISSEURS EN PONT EN H EN CASCADE

Publication

EP 3659248 A1 20200603 (EN)

Application

EP 17751178 A 20170727

Priority

US 2017044168 W 20170727

Abstract (en)

[origin: WO2019022745A1] A static synchronous compensator includes at least one converter pole for producing a first phase of an AC voltage waveform having a fundamental cycle. The first phase of the AC voltage waveform includes alternating converter pole charging and discharging regions in each fundamental cycle. The at least one converter pole includes a plurality of cascaded H-bridge cells, each having a DC voltage source and a plurality of switches. The switches are capable of being switched to produce a plurality of switching states. There is a controller configured to control the switching states of the plurality of switches of each of the cascaded H-bridge cells based on the voltages of DC voltage sources of the H-bridge cells and on whether the AC waveform is in the converter pole charging region or the converter pole discharging region.

IPC 8 full level

H02J 3/18 (2006.01); **H02M 7/483** (2007.01)

CPC (source: EP US)

H02J 3/1857 (2013.01 - EP); **H02M 7/483** (2013.01 - EP US); **H02M 7/4833** (2021.05 - EP US); **H02M 7/4835** (2021.05 - EP US)

Citation (search report)

See references of WO 2019022745A1

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 2019022745 A1 20190131; AU 2017424982 A1 20200213; CA 3070937 A1 20190131; EP 3659248 A1 20200603

DOCDB simple family (application)

US 2017044168 W 20170727; AU 2017424982 A 20170727; CA 3070937 A 20170727; EP 17751178 A 20170727