

Title (en)
FREQUENCY CONVERTER

Title (de)
FREQUENZUMRICHTER

Title (fr)
CONVERTISSEUR DE FRÉQUENCE

Publication
EP 3111540 A1 20170104 (DE)

Application
EP 15709134 A 20150227

Priority
• DE 102014203781 A 20140228
• EP 2015054166 W 20150227

Abstract (en)
[origin: WO2015128477A1] A frequency converter (1) is used to produce at least one frequency converter output voltage (S1, S2, S3) for an electric motor (2), wherein the at least one frequency converter output voltage (S1, S2, S3) has a prescribable frequency converter output voltage amplitude (AA) and a prescribable frequency converter output voltage frequency (AF). The frequency converter (1) has: a clocked DC-DC voltage converter (3) that is designed to take an input DC voltage (UE) with an input voltage level and produce a DC-DC voltage converter output voltage (UA) with a DC-DC voltage converter output voltage level, wherein the DC-DC voltage converter (3) is designed to produce the DC-DC voltage converter output voltage level on the basis of the prescribable frequency converter output voltage amplitude (AA), and a clocked inverter (4) with a number of controllable switching means (5), which has the DC-DC voltage converter output voltage (UA) applied to it and which is designed to actuate the switching means (5) at an inverter switching frequency such that the at least one frequency converter output voltage (S1, S2, S3) with the prescribable frequency converter output voltage frequency (AF) is produced from the DC-DC voltage converter output voltage (UA).

IPC 8 full level
H02M 1/12 (2006.01); **H02M 1/00** (2007.01); **H02M 1/32** (2007.01); **H02M 3/158** (2006.01); **H02M 5/458** (2006.01); **H02M 7/5387** (2007.01); **H02P 6/10** (2006.01)

CPC (source: CN EP US)
H02M 1/12 (2013.01 - EP US); **H02M 3/158** (2013.01 - EP US); **H02M 5/458** (2013.01 - CN EP US); **H02M 7/5387** (2013.01 - EP US); **H02P 23/04** (2013.01 - EP US); **H02P 27/06** (2013.01 - US); **H02M 1/007** (2021.05 - EP US); **H02M 1/32** (2013.01 - EP US)

Citation (examination)
WANG GANGYAO ET AL: "Performance comparison of 1200V 100A SiC MOSFET and 1200V 100A silicon IGBT", 2013 IEEE ENERGY CONVERSION CONGRESS AND EXPOSITION, IEEE, 15 September 2013 (2013-09-15), pages 3230 - 3234, XP032516148, DOI: 10.1109/ECCE.2013.6647124

Cited by
CN111884564A

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)
DE 102014203781 A1 20150903; CN 106464147 A 20170222; CN 106464147 B 20201009; EP 3111540 A1 20170104; US 10432128 B2 20191001; US 2017012564 A1 20170112; WO 2015128477 A1 20150903

DOCDB simple family (application)
DE 102014203781 A 20140228; CN 201580011145 A 20150227; EP 15709134 A 20150227; EP 2015054166 W 20150227; US 201515121792 A 20150227