

Title (en)  
ELECTRIC DEVICE WITH FORCED DIRECT COOLING

Title (de)  
ELEKTRISCHES GERÄT MIT ERZWUNGENER DIREKTKÜHLUNG

Title (fr)  
DISPOSITIF ÉLECTRIQUE À REFROIDISSEMENT DIRECT FORCÉ

Publication  
**EP 4150653 A1 20230322 (DE)**

Application  
**EP 20754637 A 20200723**

Priority  
EP 2020070850 W 20200723

Abstract (en)  
[origin: WO2022017609A1] The invention relates to an electric device (1) for connecting to a high voltage, comprising: - an active part which has a magnetizable core and at least one winding assembly (31), each winding assembly surrounding a core section of the core and having windings (29, 30) which are inductively coupled together, wherein cooling channels (28) (19) are formed in the windings, and - a tank (2) which is filled with an insulating fluid and in which the active part is completely arranged, - said tank (2) having at least one insulating fluid inlet (10) and at least one insulating fluid outlet (11) that are connected together via a circulating system (12) which is arranged outside of the tank (2) and which comprises a cooling unit (14) and a pump (13) for circulating the insulating fluid. The aim of the invention is to provide such an electric device with an improved cooling function. This is achieved in that each insulating fluid inlet (10) is connected to a distributing unit (18), which is arranged on one of the end faces of the winding assembly (31), via an insulating fluid line (19) extending in the tank (2), said distributing unit distributing cooled insulating fluid to the cooling channels (28).

IPC 8 full level  
**H01F 27/02** (2006.01); **H01F 27/10** (2006.01); **H01F 27/32** (2006.01)

CPC (source: EP US)  
**H01F 27/025** (2013.01 - EP US); **H01F 27/10** (2013.01 - EP); **H01F 27/20** (2013.01 - US); **H01F 27/24** (2013.01 - US); **H01F 27/2876** (2013.01 - US); **H01F 27/32** (2013.01 - US); **H01F 27/322** (2013.01 - EP)

Citation (search report)  
See references of WO 2022017609A1

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

Designated validation state (EPC)  
KH MA MD TN

DOCDB simple family (publication)  
**WO 2022017609 A1 20220127**; CN 116134560 A 20230516; EP 4150653 A1 20230322; US 2023268115 A1 20230824

DOCDB simple family (application)  
**EP 2020070850 W 20200723**; CN 202080104564 A 20200723; EP 20754637 A 20200723; US 202018006422 A 20200723