

Title (en)
Fan arrangement

Title (de)
Lüftervorrichtung

Title (fr)
Ensemble ventilateur

Publication
EP 2713059 A3 20170802 (DE)

Application
EP 13183834 A 20130911

Priority
DE 102012217349 A 20120926

Abstract (en)
[origin: EP2713059A2] The device (2) has a fan wheel (4) comprising a base plate (5) and a wing arrangement (6), where the arrangement is connected with the base plate in a rotational direction (18) in a form-fit manner. The base plate has an axial projection (14) i.e. hook, that is engaged into an opening (17) of the arrangement. The base plate is connected with a drive shaft (13) in a torque-proof manner. The wing arrangement has wings, and intermediate areas are formed between the wings in a circumferential direction, where the shaft has a stopper (22).

IPC 8 full level
F04D 29/02 (2006.01); **F04D 29/28** (2006.01); **F04D 29/62** (2006.01)

CPC (source: EP)
F04D 29/023 (2013.01); **F04D 29/281** (2013.01); **F04D 29/626** (2013.01); **F05D 2230/51** (2013.01)

Citation (search report)

- [XAI] US 4174559 A 19791120 - PERSIK GERALD E [US], et al
- [XI] DE 3039035 A1 19820429 - MULFINGEN ELEKTROBAU EBM [DE]
- [X] DE 1957988 A1 19710603 - GRONBACH WILHELM
- [X] FR 2908941 A1 20080523 - VALEO EQUIP ELECTR MOTEUR [FR]
- [A] US 2008219847 A1 20080911 - GUZOREK STEVEN E [US]

Cited by
CN112283152A

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)
EP 2713059 A2 20140402; EP 2713059 A3 20170802; EP 2713059 B1 20200422; DE 102012217349 A1 20140327

DOCDB simple family (application)
EP 13183834 A 20130911; DE 102012217349 A 20120926