

Title (en)  
ELECTRIC BLOWER, ELECTRIC VACUUM CLEANER, AND HAND DRYER

Title (de)  
ELEKTRISCHES GEBLÄSE, ELEKTRISCHER STAUBSAUGER UND HANDTROCKNER

Title (fr)  
SOUFFLANTE ÉLECTRIQUE, ASPIRATEUR ÉLECTRIQUE, ET SÈCHE-MAINS

Publication  
**EP 3954903 A4 20220413 (EN)**

Application  
**EP 19924345 A 20190411**

Priority  
JP 2019015856 W 20190411

Abstract (en)  
[origin: EP3954903A1] Included are: a blower motor unit (240) that includes a blade (230) and a single-phase motor (220) having the blade (230) attached to its rotor (221); a substrate (210) mounted with a motor controller that controls driving of the single-phase motor (220) and includes an inverter that outputs alternating-current power to the single-phase motor (220); and a housing where the blower motor unit (240) and the substrate (210) are disposed. The substrate (210) is disposed in a position where the substrate (210) is cooled down directly or indirectly by wind that the blower motor unit (240) generates.

IPC 8 full level  
**F04D 29/58** (2006.01); **A47L 5/24** (2006.01); **A47L 9/00** (2006.01); **A47L 9/28** (2006.01); **F04D 25/06** (2006.01); **F04D 29/00** (2006.01)

CPC (source: EP)  
**A47K 10/48** (2013.01); **A47L 5/22** (2013.01); **A47L 9/28** (2013.01); **F04D 19/002** (2013.01); **F04D 25/0673** (2013.01); **F04D 25/084** (2013.01); **F04D 29/5813** (2013.01)

Citation (search report)

- [X] JP 2016092920 A 20160523 - MITSUBISHI ELECTRIC CORP
- [X] JP 2003204902 A 20030722 - MATSUSHITA ELECTRIC IND CO LTD
- [I] US 5904471 A 19990518 - WOOLLENWEBER WILLIAM E [US], et al
- See references of WO 2020208790A1

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 3954903 A1 20220216**; **EP 3954903 A4 20220413**; CN 113646542 A 20211112; JP 7086277 B2 20220617; JP WO2020208790 A1 20211202; WO 2020208790 A1 20201015

DOCDB simple family (application)  
**EP 19924345 A 20190411**; CN 201980094867 A 20190411; JP 2019015856 W 20190411; JP 2021513125 A 20190411