

Title (en)  
AIR MANAGEMENT APPARATUS OR DEVICE

Title (de)  
GERÄT ODER VORRICHTUNG ZUR LUFTVERWALTUNG

Title (fr)  
APPAREIL OU DISPOSITIF DE GESTION D'AIR

Publication  
**EP 3835672 A1 20210616 (EN)**

Application  
**EP 20203252 A 20201022**

Priority  
KR 20190163432 A 20191210

Abstract (en)  
An air management device may include three independently operated primary impellers 131, 131', 131'', and drawn-in air is discharged through discharge ports 15-1, 15'-2, 15'-3 provided in the front plate 15 of the housing 10. Louvers 141, 142, 143 installed downstream of the air flow and discharge ports 15'-1, 15'-2, 15'-3 may be independently opened or closed to provide discharge of the air to the surrounding environment. Further, at least one retractable or pop-up fan 200, 200' may be provided. A first retractable fan 200 and/or a second retractable fan 200' may send air to a farther area through the discharge vents of a first pop-up duct 234 and a second pop-up duct 234', which may protrude from both ends of the upper surface of the housing. The first and second pop-up ducts 234, 234' may be installed to be elevated and rotatable in first and second vertical flow path 210, 210' of first and second vertical ducts 208, 208' in the housing 10. The air management allows customization of air flow.

IPC 8 full level  
**F24F 1/0014** (2019.01); **F24F 1/0033** (2019.01); **F24F 13/10** (2006.01); **F24F 13/20** (2006.01); **F24F 1/08** (2011.01)

CPC (source: CN EP KR)  
**F24F 1/0014** (2013.01 - CN EP KR); **F24F 1/0033** (2013.01 - CN EP); **F24F 1/08** (2013.01 - EP); **F24F 11/70** (2018.01 - CN); **F24F 13/072** (2013.01 - KR); **F24F 13/10** (2013.01 - EP); **F24F 13/1426** (2013.01 - CN); **F24F 13/20** (2013.01 - EP); **F24F 13/222** (2013.01 - CN); **F24F 13/28** (2013.01 - CN); **F24F 13/30** (2013.01 - CN); **F24F 1/005** (2019.02 - EP); **F24F 2120/20** (2018.01 - CN); **F24F 2221/38** (2013.01 - EP)

Citation (applicant)  
• KR 20050023790 A 20050310 - WINIAMANDO INC  
• KR 20150082967 A 20150716 - SAMSUNG HEAVY IND [KR]  
• KR 20090038555 A 20090421 - WINIAMANDO INC [KR]

Citation (search report)  
• [A] CN 110160161 A 20190823 - QINGDAO HAIER AIR CONDITIONER, et al  
• [A] CN 1752600 A 20060329 - LG ELECTRONICS TIANJIN [CN]  
• [A] JP H09178259 A 19970711 - SAMSUNG ELECTRONIC  
• [A] KR 101385286 B1 20140417 - LG ELECTRONICS INC [KR]  
• [A] GB 2468326 A 20100908 - DYSON TECHNOLOGY LTD [GB]  
• [A] EP 3211338 A1 20170830 - LG ELECTRONICS INC [KR]

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)  
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DOCDB simple family (application)  
**EP 20203252 A 20201022**; CN 202010424052 A 20200519; KR 20190163432 A 20191210