

Title (en)  
AIR MANAGEMENT APPARATUS OR DEVICE

Title (de)  
GERÄT ODER VORRICHTUNG ZUR LUFTVERWALTUNG

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

Publication  
**EP 3835670 A1 20210616 (EN)**

Application  
**EP 20203247 A 20201022**

Priority  
KR 20190163430 A 20191210

Abstract (en)  
An air management device may include three independently operated primary impellers 131, 131', 131" to draw in air through a bottom inlet 11' formed in a bottom plate 11 of a housing 10. The drawn in air is directed by an air inlet guide 110 toward a rear plate 13 of the housing 10 in main air flow passage 102. The air guided toward the rear plate 13 passes through the heat exchanger 104 and 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 may be provided. The air management allows customization of air flow.

IPC 8 full level  
**F24F 1/0007** (2019.01); **F24F 1/0014** (2019.01); **F24F 1/0033** (2019.01); **F24F 1/005** (2019.01); **F24F 13/20** (2006.01)

CPC (source: CN EP KR)  
**F24F 1/0007** (2013.01 - EP); **F24F 1/0011** (2013.01 - KR); **F24F 1/0014** (2013.01 - CN EP); **F24F 1/0033** (2013.01 - CN EP); **F24F 1/005** (2019.02 - EP); **F24F 11/70** (2018.01 - CN); **F24F 13/02** (2013.01 - KR); **F24F 13/08** (2013.01 - KR); **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 2120/20** (2018.01 - CN)

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

Citation (search report)  
• [X] EP 3489589 A2 20190529 - SAMSUNG ELECTRONICS CO LTD [KR]  
• [X] EP 3379155 A1 20180926 - SAMSUNG ELECTRONICS CO LTD [KR]  
• [X] CN 110285488 A 20190927 - NINGBO AUX ELECTRIC CO LTD, et al  
• [A] US 6295823 B1 20011002 - ODOM JULIUS DAVID [US], et al  
• [A] US 2013149956 A1 20130613 - SU CHENG MING [TW]

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 3835670 A1 20210616**; CN 112944468 A 20210611; KR 20210073012 A 20210618

DOCDB simple family (application)  
**EP 20203247 A 20201022**; CN 202010424708 A 20200519; KR 20190163430 A 20191210