

Title (en)
DEHUMIDIFIER SYSTEM

Title (de)
ENTFEUCHTUNGSSYSTEM

Title (fr)
SYSTÈME DE DÉSHUMIDIFICATEUR

Publication
EP 3483515 A4 20200311 (EN)

Application
EP 16907952 A 20160721

Priority
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Abstract (en)
[origin: EP3483515A1] A dehumidifier system includes a main enclosure (10) having an air inlet opening (11), an air outlet opening (12) and also includes, arranged inside the main enclosure (10), a compressor based dehumidification assembly, a rotary wheel based humidification assembly, and an air blower (40) discharging air out of the main enclosure (10). The compressor based dehumidification assembly includes an evaporator (21), a condenser (22), a compressor (23), and a throttle element; the rotary wheel based humidification assembly includes a dehumidification roller (31), a regeneration air blower (32), a heating element (33) and a heat exchanger (34) having a first heat exchange passage and a second heat exchange passage. The air inlet opening (11), the second heat exchange passage, the evaporator (21), the air blower (40), and the air outlet opening (12) are arranged to communicate with each other to form a first airflow channel. Air in the first airflow channel is heated when passing through the second heat exchange passage and is guided to the evaporator (21) to increase the temperature of air entering the evaporator (21) making it not readily to get frosting and thus effectively improving dehumidification capability of the dehumidifier system in a low temperature.

IPC 8 full level
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Citation (search report)
• [XAI] US 2012085112 A1 20120412 - WINTEMUTE DAVID MARTIN [CA]
• [IA] US 5816065 A 19981006 - MAEDA KENSAKU [JP]
• [A] US 5732562 A 19980331 - MORATALLA JOSE M [US]

Cited by
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