

Title (en)
Evaporator Installation for a Heat Pump

Title (de)
Verdampfungsanlage für eine Wärmepumpe

Title (fr)
Installation d'évaporation pour une pompe à chaleur

Publication
EP 1541946 B1 20080820 (EN)

Application
EP 04101755 A 20040427

Priority
KR 20030090470 A 20031212

Abstract (en)
[origin: EP1541946A1] A refrigeration apparatus generating cooling air, including an evaporator (20) having a coolant tube (23) with a plurality of bending parts, and heat exchange fins (30) formed with at least one coolant tube accommodating part (31) coupling with the coolant tube. The refrigeration apparatus also has a defrosting unit (40) adjacent to the evaporator (20) to remove frost formed on the evaporator, and each heat exchange fin (30) is inclined at an inclination angle so that a longitudinal direction of the heat exchange fin forms an acute angle relative to a vertical direction to enable the water drops defrosted by the defrosting unit (40) to flow downward to a bottom end (33) of the heat exchange fin (30). Opposite sides of each heat exchange fin have rounded corner parts (35). As described above, the evaporator has better performance and reduces power consumption. <IMAGE>

IPC 8 full level
F24F 13/22 (2006.01); **F25B 39/02** (2006.01); **F25D 21/00** (2006.01); **F25D 21/14** (2006.01); **F28D 1/047** (2006.01); **F28F 1/32** (2006.01); **F28F 17/00** (2006.01)

CPC (source: EP KR US)
F24F 13/222 (2013.01 - EP US); **F25B 39/02** (2013.01 - EP US); **F25D 21/00** (2013.01 - KR); **F25D 21/14** (2013.01 - EP US); **F28D 1/0477** (2013.01 - EP US); **F28F 1/32** (2013.01 - EP US); **F28F 17/005** (2013.01 - EP US); **F25D 2400/06** (2013.01 - EP US); **F25D 2500/02** (2013.01 - EP US); **F28D 2021/0071** (2013.01 - EP US)

Cited by
EP1914499A1

Designated contracting state (EPC)
DE FR GB

DOCDB simple family (publication)
EP 1541946 A1 20050615; **EP 1541946 B1 20080820**; CN 1295466 C 20070117; CN 1626993 A 20050615; DE 602004015919 D1 20081002; KR 100506610 B1 20050808; KR 20050058551 A 20050617; US 2005126197 A1 20050616

DOCDB simple family (application)
EP 04101755 A 20040427; CN 200410042191 A 20040510; DE 602004015919 T 20040427; KR 20030090470 A 20031212; US 82117204 A 20040409