Title (en)
  FLOODED EVAPORATOR

Title (de)
  ÜBERFLUTETER VERDAMPFER

Title (fr)
  EVAPORATEUR NOYE

Publication
  EP 1870647 B1 20101020 (EN)

Application
  EP 05728451 A 20050406

Priority
  JP 2005006747 W 20050406

Abstract (en)
  [origin: EP1870647A1] A flooded evaporator is provided which can remove floating mist more exactly resulting in that the refrigerant mist is prevented from being sucked into the compressor, and with which heat transfer between the medium to be cooled and refrigerant liquid is improved. The evaporator is composed such that; a tubular housing (3) is provided to erect from a horizontal cylindrical container (1) which forms a heat exchanging section with a heat exchanger(2) accommodated therein, an inner tube(12) for upwardly guiding refrigerant vapor generated in the heat exchanging section is provided, the inner tube (2) is covered by a loose cover(13) so that refrigerant vapor containing refrigerant mist flowed up in the inner tube(12) impinges against the loose cover (13) to be deflected downward to flow out from the inner tube(12), a space(17) is secured in the tubular housing(3) to allow refrigerant mist to fall down utilizing gravitational attraction, a demister(16) is provided in the tubular housing(3) above the space(17), the clearance area between the inner tube(12) and loose cover(13) is smaller than the clearance area between the outer periphery of the loose cover(13) and inner periphery of the tubular housing(3), and circulation paths(20) of refrigerant liquid are formed in the container(1).

IPC 8 full level
  F25B 39/02 (2006.01)

CPC (source: EP US)
  F25B 39/02 (2013.01 - EP US); **F28D 9/0006** (2013.01 - EP US); **F28D 21/0017** (2013.01 - EP US); F25B 2339/0242 (2013.01 - EP US); F25B 2500/28 (2013.01 - EP US)

Cited by
  CN110947192A; EP3637022A1; CN102022866A; EP2673576A4; WO2012051994A3; US11828500B2; WO2020074637A1

Designated contracting state (EPC)
  AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU MC NL PL PT RO SE SI SK TR

DOCDB simple family (publication)
  EP 1870647 A1 20071226; **EP 1870647 A4 20090128**; **EP 1870647 B1 20101020**; AT E485484 T1 20101115; CN 101194133 A 20080604; DE 602005024314 D1 20101202; JP 4518510 B2 20100804; JP WO2006114826 A1 20081211; MX 2007012322 A 20071205; US 2008041096 A1 20080221; WO 2006114826 A1 20061102

DOCDB simple family (application)
  EP 05728451 A 20050406; AT 05728451 T 20050406; CN 200580050030 A 20050406; DE 602005024314 T 20050406; JP 2005006747 W 20050406; JP 2007514350 A 20050406; MX 2007012322 A 20050406; US 86852007 A 20071007