

Title (en)

Dry cooling tower for the hybrid condensation of a refrigerant

Title (de)

Trockenkühlturm für die hybride Verflüssigung von Kältemitteln

Title (fr)

Tour de refroidissement sèche pour la condensation hybride d'un réfrigérant

Publication

EP 0943882 B1 20030924 (DE)

Application

EP 99103889 A 19990301

Priority

DE 29805111 U 19980320

Abstract (en)

[origin: EP0943882A2] A dry cooling tower (1) having an axis of symmetry (6) employs a hybrid process for condensing a gaseous cooling medium e.g. ammonia assisted by a forced air circulation (4B) via a variable speed electric fan (14,16) mounted in the head (13) of the tower. A two-stage heat exchanger (2) comprises the upper and lower baffle matrices (3,4) through which a single continuous conduit provides a labyrinth path for the gas being condensed from its inlet (15) to its outlet (23). Forced air cooling commences at the upper stage (3) and final cooling is effected by a pumped (19) cold-water circulation through the lower stage (4) of the heat exchanger whilst the airflow is maintained.

IPC 1-7

F28B 1/06; **F28D 5/00**

IPC 8 full level

F25B 39/04 (2006.01); **F28B 1/06** (2006.01); **F28D 5/00** (2006.01); **F28D 5/02** (2006.01); **F25B 6/04** (2006.01)

CPC (source: EP)

F25B 39/04 (2013.01); **F28B 1/06** (2013.01); **F28D 5/02** (2013.01); **F25B 6/04** (2013.01); **F25B 2339/041** (2013.01)

Cited by

EP3306246A1; EP3002530A1; DE202018103180U1

Designated contracting state (EPC)

AT CH DE LI LU

DOCDB simple family (publication)

EP 0943882 A2 19990922; **EP 0943882 A3 20000823**; **EP 0943882 B1 20030924**; AT E250744 T1 20031015; DE 29805111 U1 19980625; DE 59907072 D1 20031030

DOCDB simple family (application)

EP 99103889 A 19990301; AT 99103889 T 19990301; DE 29805111 U 19980320; DE 59907072 T 19990301