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 A3 20000823 (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)

Citation (search report)

- [XY] US 2166397 A 19390718 - DEVERALL CHARLES N
- [YA] US 3800861 A 19740402 - NEUGEBAUER F, et al
- [A] DE 3237860 A1 19840419 - HUETOETECHNIKA IPARI SZOEVETKE [HU]
- [A] FR 2135442 A1 19721222 - JACIR JOSEPH

Cited by

DE202018103180U1; EP3002530A1; EP3306246A1

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