

Title (en)
Vehicles cooler

Title (de)
Kraftfahrzeugkühler

Title (fr)
Radiateur pour véhicules

Publication
EP 1503165 B1 20080528 (DE)

Application
EP 04012186 A 20040522

Priority
DE 10335344 A 20030801

Abstract (en)
[origin: EP1503165A2] Openings (4) are formed with collars (5) pointing towards flat tubes (1) and corrugated ribs (2). The ends are soldered on the collars. By adding a seal, two plastic collecting tanks (6) fasten mechanically on their peripheral beaded rim (7) with a reshaped rim (8) for the level tubular bottoms (3).

IPC 8 full level
F28F 9/02 (2006.01); **F28F 9/18** (2006.01); **F28F 21/06** (2006.01)

CPC (source: EP)
F28F 9/0226 (2013.01); **F28F 9/182** (2013.01); **F28D 2021/0094** (2013.01); **F28F 2009/029** (2013.01)

Cited by
US9696099B2

Designated contracting state (EPC)
DE ES FR GB IT SE

DOCDB simple family (publication)
EP 1503165 A2 20050202; **EP 1503165 A3 20060802**; **EP 1503165 B1 20080528**; DE 10335344 A1 20050310; DE 502004007266 D1 20080710; DE 502004009377 D1 20090528; EP 1912035 A1 20080416; EP 1912035 B1 20090415; ES 2324842 T3 20090817

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EP 04012186 A 20040522; DE 10335344 A 20030801; DE 502004007266 T 20040522; DE 502004009377 T 20040522; EP 07024461 A 20040522; ES 07024461 T 20040522