

Title (en)
Radiator unit for heating plants

Title (de)
Heizkörper für Heizungsanlage

Title (fr)
Radiateur pour installation de chauffage

Publication
EP 1043560 B1 20040128 (EN)

Application
EP 99830198 A 19990406

Priority
EP 99830198 A 19990406

Abstract (en)
[origin: EP1043560A1] The radiator unit to be formed by assembling of three preliminar parts: 1) an upper die forming body with two wrapping parts (1) with counterposed diffuser fins (2 and 3) and with threaded mouths (4) forming the ends of the horizontal pipe (5) in which opening two channels (6) of beginning of the vertical pipe formed by pieces of conduit with setting out parts (7) and clutches (8); 2) a pair of bodies in aluminum draw piece (9), to be put in interposition, having in their vertical pipe (10) a steel pipe (11); 3) lower die forming body with wrapping parts (12) with counterposed diffuser fins (13 and 14) with threaded mouths (4) forming the ends of the horizontal pipe (5) in which opening two channels (6) of beginning of the vertical pipe formed by pieces of conduit with setting out parts (15) and clutches (16). Placed in reference-position on bed the three preliminar bodies, the radiator unit is to be formed under press with an only assembling phase to determine the insertion of the clutches (8 and 16) of the channels (6) into the upper and lower mouths of the vertical pipes (10) with stabilization moreover given by the come out outline sectors of the two pair of diffuser fins (2-3 and 13-14) which come to contain the couple of ends of the aluminum draw pieces (9).

IPC 1-7
F28D 1/053; F28F 9/16; F28F 9/26

IPC 8 full level
F24H 3/06 (2006.01); **F28D 1/02** (2006.01); **F28D 1/053** (2006.01); **F28F 9/16** (2006.01); **F28F 9/26** (2006.01); **F28F 21/08** (2006.01)

CPC (source: EP)
F28D 1/0233 (2013.01); **F28D 1/05308** (2013.01); **F28F 9/16** (2013.01); **F28F 9/262** (2013.01); **F28F 21/088** (2013.01)

Cited by
CN102155852A; EP1935535A3; CN104075370A; US11486648B2; EP1995546A1

Designated contracting state (EPC)
AT BE CH DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE

DOCDB simple family (publication)
EP 1043560 A1 20001011; EP 1043560 B1 20040128; AT E258672 T1 20040215; DE 69914453 D1 20040304; DE 69914453 T2 20041202; ES 2214833 T3 20040916; PT 1043560 E 20040531; RU 2177589 C2 20011227

DOCDB simple family (application)
EP 99830198 A 19990406; AT 99830198 T 19990406; DE 69914453 T 19990406; ES 99830198 T 19990406; PT 99830198 T 19990406; RU 99116969 A 19990802