

Title (en)
LIQUID PUMP

Title (de)
FLÜSSIGKEITSPUMPE

Title (fr)
POMPE A LIQUIDES

Publication
EP 1474611 A1 20041110 (DE)

Application
EP 02781135 A 20021014

Priority
• DE 0203878 W 20021014
• DE 10204459 A 20020205

Abstract (en)
[origin: WO03067094A1] The invention relates to a liquid pump, especially a water pump, comprising a pump housing (11) surrounding a pump wheel and an engine housing connected thereto, wherein an electric motor (21) driving the pump wheel is arranged with a stator (22) and a rotor. The pump housing (11) comprises a lower part (12) with an annular flange (14) extending radially in an outward direction, and an upper part (13) which is arranged on the lower part (12) in order to seal the pump against leaks of liquid and to seal the motor housing against liquid penetration and to enable the sealing and mounting of the liquid pump without the addition of connecting elements. A sealing ring (15) is arranged between the free, annular-shaped face end of the upper part of the housing (13) and the annular flange (14). Said motor housing is embodied in the form of a cup (26), which overlaps the edge (28) of the annular flange (14), the sealing ring (15) and partially the upper part of the housing (13) and engages with the upper part of the housing (13), whereby an axial tensing force is produced.

IPC 1-7
F04D 29/42; **F04D 29/62**; **F04D 29/08**

IPC 8 full level
F04D 29/00 (2006.01); **F04D 29/08** (2006.01); **F04D 29/42** (2006.01); **F04D 29/60** (2006.01); **F04D 29/62** (2006.01)

CPC (source: EP KR US)
F04D 29/08 (2013.01 - KR); **F04D 29/086** (2013.01 - EP US); **F04D 29/42** (2013.01 - KR); **F04D 29/426** (2013.01 - EP US);
F04D 29/62 (2013.01 - KR); **F04D 29/628** (2013.01 - EP US); **F05D 2260/33** (2013.01 - EP US)

Citation (search report)
See references of WO 03067094A1

Cited by
WO2014036858A1

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

DOCDB simple family (publication)
WO 03067094 A1 20030814; DE 10204459 A1 20030807; EP 1474611 A1 20041110; EP 1474611 B1 20110608; JP 2005517126 A 20050609; JP 4317028 B2 20090819; KR 20040077930 A 20040907; US 2004071573 A1 20040415; US 7137794 B2 20061121

DOCDB simple family (application)
DE 0203878 W 20021014; DE 10204459 A 20020205; EP 02781135 A 20021014; JP 2003566417 A 20021014; KR 20047011940 A 20021014; US 46974503 A 20030904