

Title (en)
PUMP WITH INTEGRATED HEATER

Title (de)
PUMPE MIT INTEGRIERTER HEIZUNG

Title (fr)
POMPE AVEC CHAUFFAGE INTÉGRÉ

Publication
EP 2812581 A1 20141217 (DE)

Application
EP 13703053 A 20130206

Priority
• DE 102012202065 A 20120210
• EP 2013052353 W 20130206

Abstract (en)
[origin: WO2013117603A1] A pump for a dishwasher is designed as an impeller pump with a central water inlet onto a rotating impeller in order to displace the water out of the impeller into a pump chamber in a radial direction, said pump chamber annularly surrounding the impeller and having a heated pump chamber wall on the outer face of the pump chamber. The pump has an outlet in the end region of the pump chamber at an axial distance from the impeller. Heating elements are arranged on the pump chamber wall, said heating elements having an output which decreases with respect to the output per unit area in the axial direction of the pump towards the outlet. Thus, an energy input can be varied dependent on a turbulent or laminar flow in the pump chamber and thereby adapted.

IPC 8 full level
F04D 29/42 (2006.01); **A47L 15/42** (2006.01); **D06F 39/04** (2006.01); **F04D 29/58** (2006.01)

CPC (source: CN EP US)
A47L 15/4225 (2013.01 - CN EP US); **A47L 15/4285** (2013.01 - CN EP US); **D06F 39/04** (2013.01 - CN EP US);
D06F 39/085 (2013.01 - CN EP US); **F04D 19/00** (2013.01 - US); **F04D 27/006** (2013.01 - US); **F04D 29/426** (2013.01 - CN EP US);
F04D 29/584 (2013.01 - US); **F04D 29/586** (2013.01 - CN EP US); **F04D 29/5866** (2013.01 - US); **F04D 29/588** (2013.01 - CN EP US)

Citation (search report)
See references of WO 2013117603A1

Designated contracting state (EPC)
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)
BA ME

DOCDB simple family (publication)
DE 102012202065 B3 20130529; CN 104395612 A 20150304; CN 104395612 B 20170222; EP 2812581 A1 20141217;
EP 2812581 B1 20180905; ES 2698216 T3 20190201; PL 2812581 T3 20190228; TR 201816413 T4 20181121; US 2015086325 A1 20150326;
US 9816527 B2 20171114; WO 2013117603 A1 20130815

DOCDB simple family (application)
DE 102012202065 A 20120210; CN 201380019363 A 20130206; EP 13703053 A 20130206; EP 2013052353 W 20130206;
ES 13703053 T 20130206; PL 13703053 T 20130206; TR 201816413 T 20130206; US 201314377726 A 20130206