

Title (en)  
PUMP UNIT

Title (de)  
PUMPENAGGREGAT

Title (fr)  
GROUPE MOTOPOMPE

Publication  
**EP 3267042 B1 20200115 (DE)**

Application  
**EP 16178585 A 20160708**

Priority  
EP 16178585 A 20160708

Abstract (en)  
[origin: US2018010609A1] A pump assembly includes pump casing (2), an impeller (14) rotatably arranged in the pump casing, a two rotation directions (A, B) electrical drive motor connected to drive the impeller and a valve arrangement (28) arranged in the pump casing to switch a flow path downstream of the impeller between two exits (24, 26) of the pump casing, depending on a rotation direction of the impeller. The valve arrangement includes a first movable valve element (34) at a first exit (24) and a second movable valve element (36) at a second exit (26). The first valve element partly closes the first exit in a closed position and is movable into an opened position by flow in the first rotation direction and the second valve element partly closes the second exit in a closed position and is movable into an opened position by flow in the second rotation direction (B).

IPC 8 full level  
**F04D 13/06** (2006.01); **F04D 15/00** (2006.01); **F04D 29/22** (2006.01); **F04D 29/42** (2006.01)

CPC (source: EP US)  
**F04D 13/06** (2013.01 - US); **F04D 13/0606** (2013.01 - EP US); **F04D 15/0016** (2013.01 - EP US); **F04D 29/086** (2013.01 - US);  
**F04D 29/22** (2013.01 - US); **F04D 29/2283** (2013.01 - US); **F04D 29/4293** (2013.01 - US); **F04D 29/486** (2013.01 - EP US);  
**F24D 3/105** (2013.01 - US); **F05D 2250/52** (2013.01 - EP US); **Y10S 415/911** (2013.01 - US)

Citation (examination)  
JP 3338297 B2 20021028

Cited by  
US2021047768A1

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

DOCDB simple family (publication)  
**EP 3267042 A1 20180110**; **EP 3267042 B1 20200115**; CN 107588202 A 20180116; CN 107588202 B 20200421; US 10514038 B2 20191224;  
US 2018010609 A1 20180111

DOCDB simple family (application)  
**EP 16178585 A 20160708**; CN 201710555549 A 20170710; US 201715645036 A 20170710