

Title (en)  
PUMP UNIT

Title (de)  
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GROUPE DE POMPE

Publication  
**EP 2798224 A1 20141105 (DE)**

Application  
**EP 12813319 A 20121219**

Priority  
• EP 11195804 A 20111227  
• EP 2012076060 W 20121219  
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Abstract (en)  
[origin: WO2013098142A1] Pump unit with an electric drive motor, which has a stator (20) and a rotor in the form of a permanent magnet rotor (14), at least one impeller (4) that is connected to the rotor (14) via a rotor shaft (12), and an axial bearing (26, 28) that is designed in such a way that it absorbs the axial forces acting on the impeller (4) and the rotor shaft (12) that are generated while the pump unit is in operation, and at least one radial bearing arranged on the rotor shaft (12), wherein the rotor (14) and the stator (20) are designed in such a way that a magnetic axial force acting in the direction of the axis of rotation (X) of the rotor (14) is generated between the rotor (14) and the stator (20), said axial force acting on the rotor in the direction of the prevailing current (E) into the impeller (4), and the rotor shaft (12) with the rotor (14) is supported so as to be movable in an axial direction (X) relative to the stator (20), and the radial bearing (22, 24) is designed in such a way that when the rotor shaft (12) is displaced axially into the impeller in the direction of the prevailing current (E), the bearing surfaces (34) of the radial bearing (22, 24) lying opposite one another disengage at least partially.

IPC 8 full level  
**F04D 13/06** (2006.01); **F04D 29/041** (2006.01); **F04D 29/042** (2006.01); **F04D 29/047** (2006.01)

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Citation (search report)  
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