Title (en)

Compact pump driven by an electric motor.

Title (de)

Durch einen elektrischen Motor angetriebene Kompaktpumpe.

Title (fr)

Pompe compacte actionnée par moteur électrique.

Publication

EP 0027077 A1 19810415 (FR)

Application

EP 80401383 A 19800930

Priority

FR 7924711 A 19791004

Abstract (en)

1. A compact pump driven by an electric motor, comprising a first chamber (13) having liquid inlet means (14) and liquid outlet means (15), feed means, e.g. an impeller (20) or the like adapted to force said liquid from said inlet means towards said outlet means, and a second chamber (16) encapsulating an electric motor (17), said feed means being mechanically coupled to the shaft (18) of said electric motor, said first and second chambers being adjacent to one another and being essentially separated by seal means (19) made from elastically compressible material, said seal means having a static seal portion (35) extending essentially in peripheral direction as well as an essentially central dynamic seal portion (36) defining a shaft opening (37), said shaft of said motor extending therethrough, the first chamber (13) being defined by a first part (11) of said housing and the second chamber (16) being at least partially defined by a second part (12) of said housing being formed with motor receiving means (29, 31), said two parts of the housing being mutually assembled to form said compact pump, characterized in that the two parts (11, 12) of the housing are mutually assembled by means of snap connections (28) and in that spring means (32) are interposed between said seal means (19) and said motor (17) being compressed upon assembly of the pump, said spring means forming the only pumpside fixing means of the motor to position the latter in the interior of the second chamber (16) between an axial end zone (31) of said chamber and said spring means.

Abstract (fr)

Selon l'invention, le boîtier de la pompe comporte une première chambre (13) comportant une entrée (14) et une sortie (15) de liquide, abritant une roue à aubes (20) et une seconde chambre (16) renfermant le moteur d'entraînement (17) de la roue à aube (20); les deux chambres étant séparées par un joint (19) remplissant la double fonction d'étanchement statique et d'étanchement dynamique (par rapport à l'arbre (18) du moteur), ainsi que la fonction de compensation élastique pour maintenir le moteur (17) dans le boîtier, en utilisant des liaisons de forme à encastrement (28) prévues entre les parties 11, 12 du boîtier pour la fermeture de celui-ci. L'invention s'applique notamment pour un moteur de lave-glace d'une automobile.

IPC 1-7

F04D 13/06; F04D 29/08; F04D 29/60

IPC 8 full level

F04D 13/06 (2006.01); **F04D 29/08** (2006.01); **F04D 29/10** (2006.01)

CPC (source: EP)

F04D 13/06 (2013.01); **F04D 29/086** (2013.01); F05D 2260/6022 (2013.01)

Citation (search report)

- DE 1728415 A1 19720810 - BETEILIGUNGS AG HAUSTECHNIK
- US 3576380 A 19710427 - SARGEANT JOHN E
- DE 2748165 A1 19790503 - HELPHOS AUTOLICHT SCHARDMUELLE
- GB 1133906 A 19681120 - WHIRLPOOL CO
- US 3408942 A 19681105 - DAVENPORT WILLIAM R, et al

Cited by

FR2555258A1; US5833441A; EP0287984A3; EP0442798A1; FR2658567A1; WO9748907A1; WO9111350A3

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