

Title (en)
MULTI STAGE CENTRIFUGAL PUMP SYSTEM

Title (de)
MEHRSTUFIGES KREISELPUMPENAGGREGAT

Title (fr)
AGRÉGAT DE POMPE CENTRIFUGE À PLUSIEURS ÉTAGES

Publication
EP 2505842 B1 20191225 (DE)

Application
EP 11002578 A 20110329

Priority
EP 11002578 A 20110329

Abstract (en)
[origin: EP2505842A1] The assembly has two impeller groups (4, 8) arranged one after another in a flow direction and provided with impellers (2, 6). A backflow channel (24) connects an exit side and an entry side of one of the impeller groups, and is arranged in the impeller group. The backflow channel runs out of a stage of the impeller group into a suction port, and a valve is arranged in the backflow channel for closing the backflow channel to reach a predefined fluid pressure in the backflow channel. The impeller group at the exit side comprises a separating element (20) for separating air and fluid.

IPC 8 full level
F04D 9/02 (2006.01); **F04D 1/06** (2006.01); **F04D 9/00** (2006.01); **F04D 13/10** (2006.01)

CPC (source: EP US)
F04D 1/063 (2013.01 - EP US); **F04D 9/005** (2013.01 - EP US); **F04D 9/02** (2013.01 - US); **F04D 13/10** (2013.01 - EP US)

Citation (examination)

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Citation (opposition)
Opponent : Behr, Wolfgang

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US 2012251308 A1 20121004; US 9879680 B2 20180130

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