

Title (en)  
Sliding-contact bearing for a centrifugal pump

Title (de)  
Gleitlager für eine Kreiselpumpe

Title (fr)  
Palier à glissement pour une pompe centrifuge

Publication  
**EP 1201931 A3 20050608 (EN)**

Application  
**EP 01204014 A 20011022**

Priority  
IT MI20002290 A 20001023

Abstract (en)  
[origin: EP1201931A2] A protection device (20) for centrifugal pumps with a vertical axis, where the aforementioned pump comprises a case (5) containing a shaft (21), with the pump also comprising an impeller (3) connected to said shaft (21) and free to rotate inside said case (5). The device (20) comprises a first ring (1), mobile in rotation with the impeller (3) and a second ring (2), in a fixed position with respect to the case (5), in such a way that the sliding contact between the aforementioned first and second ring (1, 2) allows the dry operation of the centrifugal pump. <IMAGE>

IPC 1-7  
**F04D 29/04**

IPC 8 full level  
**F04D 29/04** (2006.01); **F04D 29/041** (2006.01)

CPC (source: EP)  
**F04D 29/0413** (2013.01)

Citation (search report)

- [X] US 6106224 A 20000822 - SHETH KETANKUMAR KANTILAL [US], et al
- [X] US 5765950 A 19980616 - ENO JAMES JOSEPH [US], et al
- [XY] EP 0806579 A2 19971112 - WILO GMBH [DE]
- [Y] DE 29503755 U1 19950420 - GRUNDFOS AS [DK]

Designated contracting state (EPC)  
AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE TR

DOCDB simple family (publication)  
**EP 1201931 A2 20020502; EP 1201931 A3 20050608**; IT 1319022 B1 20030919; IT MI20002290 A1 20020423

DOCDB simple family (application)  
**EP 01204014 A 20011022**; IT MI20002290 A 20001023