

Title (en)

BEST-FIT AFFINITY SENSORLESS CONVERSION MEANS OR TECHNIQUE FOR PUMP DIFFERENTIAL PRESSURE AND FLOW MONITORING

Title (de)

SENSORLOSE UMWANDLUNGSVORRICHTUNG ODER -VERFAHREN MIT OPTIMALER AFFINITÄT FÜR PUMPENDIFFERENZIALDRUCK- UND STRÖMUNGSÜBERWACHUNG

Title (fr)

TECHNIQUE OU MOYENS DE CONVERSION SANS CAPTEUR D'AFFINITÉ À MEILLEUR AJUSTEMENT POUR PERMETTRE UNE SURVEILLANCE D'ÉCOULEMENT ET DE PRESSION DIFFÉRENTIELLE D'UNE POMPE

Publication

EP 3129756 A4 20171122 (EN)

Application

EP 15777215 A 20150407

Priority

- US 201461976749 P 20140408
- US 2015024703 W 20150407

Abstract (en)

[origin: WO2015157276A2] The present invention provides apparatus, including a hydronic sensorless pumping system, that features a signal processor or processing module configured to receive signaling containing information about motor readout values of power and speed, and also about pump and system characteristics equations together with empirical power equations that are constructed by a polynomial best-fit function together with pump affinity laws based upon a pump curve published by a pump manufacturer; and determine corresponding signaling containing information about a pump or system pressure and a flow rate at the motor readout values of power and speed, based upon the signaling received.

IPC 8 full level

G01F 9/00 (2006.01)

CPC (source: EP RU)

F04B 49/065 (2013.01 - EP); **F04C 14/08** (2013.01 - EP); **F04D 15/0088** (2013.01 - EP RU); **F04B 2203/0208** (2013.01 - EP); **F04B 2203/0209** (2013.01 - EP); **F04C 2270/02** (2013.01 - EP); **F04C 2270/80** (2013.01 - EP); **F05D 2260/821** (2013.01 - EP); **F05D 2270/304** (2013.01 - EP); **F05D 2270/335** (2013.01 - EP)

Citation (search report)

- [X] DE 102007022348 A1 20081113 - KSB AG [DE]
- [XA] US 2012173027 A1 20120705 - CHENG ANDREW A [US], et al
- [A] US 2007150113 A1 20070628 - WANG CHI-YI [TW], et al
- [A] US 2006292012 A1 20061228 - BRUDEVOLD FINN [US], et al
- [A] WO 2013090907 A1 20130620 - FLUID HANDLING LLC [US], et al
- [A] US 2011081255 A1 20110407 - STEGER PERRY C [US], et al
- [A] EP 1323986 A1 20030702 - GRUNDFOS AS [DK]
- See also references of WO 2015157276A2

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)

WO 2015157276 A2 20151015; WO 2015157276 A3 20151203; CA 2944881 A1 20151015; CA 2944881 C 20200225; CN 106461444 A 20170222; CN 106461444 B 20190510; EP 3129756 A2 20170215; EP 3129756 A4 20171122; MX 2016013258 A 20170530; MX 357724 B 20180719; RU 2016139339 A 20180510; RU 2016139339 A3 20180830; RU 2680474 C2 20190221

DOCDB simple family (application)

US 2015024703 W 20150407; CA 2944881 A 20150407; CN 201580029040 A 20150407; EP 15777215 A 20150407; MX 2016013258 A 20150407; RU 2016139339 A 20150407