Title (en)

Motor pump unit controlled by electric current analysis

Title (de)

Auf Stromanalyse basiertes Verfahren zum Betrieb einer Pumpe

Title (fr)

Groupe motopompe dont l'arrêt s'effectue par analyse du courant

Publication

EP 1256723 B1 20050706 (FR)

Application

EP 02290925 A 20020412

Priority

FR 0106106 A 20010509

Abstract (en)

[origin: EP1256723A1] The motor pump includes a high liquid level sensor (6) connected to an input of a microprocessor (8) and out of phase measuring system for measuring so as to send a start signal to the motor or pump only when the sensors detects a high liquid level. An out of phase stability monitoring unit includes a system for measuring the current level and includes an intermediate liquid level sensor (7) which detects a level between high and low corresponding to motor voltage cutoff. The immersed motor/pump unit includes a pump (2) and AC motor (1) having at least a working phase and a microprocessor integrated in one of the inputs to which a supply voltage is applied and to another input from which is sent a signal representing the current absorbed in the motor phase. The microprocessor includes a system for measuring the phase difference between voltage and current. The microprocessor includes: (a) A system for continuous monitoring of the phase difference stability after it has settled at a constant value; (b) Memory for storing out of phase values, and; (c) Supply voltage cutoff switches which interrupt the supply voltage to the motor when, after out of phase is stabilized, the out of phase value, during a set time period, reaches a value greater than the stabilized value and the signal representing the absorbed current is the current passing only through the working phase.

IPC 1-7

F04D 15/02

IPC 8 full level

F04D 15/02 (2006.01)

CPC (source: EP)

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EP 1256723 A1 20021113; **EP 1256723 B1 20050706**; AT E299243 T1 20050715; DE 60204923 D1 20050811; DE 60204923 T2 20060524; DK 1256723 T3 20051017; ES 2246005 T3 20060201; FR 2824600 A1 20021115; FR 2824600 B1 20040220; PT 1256723 E 20051130

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