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(54) Title: METHOD FOR REGULATING ENERGY CONSUMPTION IN AQUACULTURE SYSTEMS

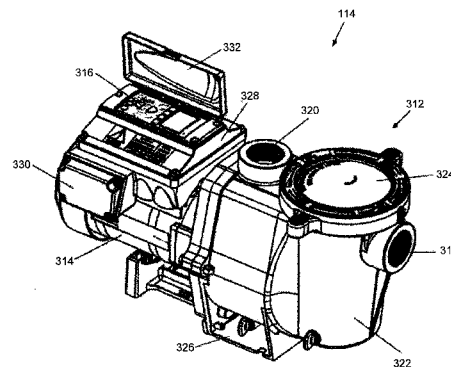


Fig. 3

(57) Abstract: Some embodiments provide a recirculating aquaculture system for aquatic life. The system includes a culture tank, a plurality of sensors configured to control parameters in the system, a variable speed pump configured to circulate water through the culture tank, and a controller in communication with the plurality of sensors and the variable speed pump. The controller is configured to prioritize the plurality of control parameters based on a hierarchy list, select a highest priority control parameter, determine potential actions for each of the plurality of control parameters, and select a highest priority action based on at least one of the hierarchy list, the highest priority control parameter, a current power consumption of the variable speed pump, time of day, feeding cycle of the aquatic life, and resting cycles of the aquatic life. The controller is also configured to execute the highest priority action.



INTERNATIONAL SEARCH REPORT

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A. CLASSIFICATION OF SUBJECT MATTER

IPC(8) - A01K 63/00 (2014.01)

USPC - 119/245

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC(8) - A01K 63/00; F04B 49/00; G05B 11/00, 23/00, 23/02; H02J 3/14 (2014.01)

USPC - 119/245; 210/98; 417/1, 20; 700/282, 291, 295; 718/102, 103

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

CPC - A01K 63/003, 63/006; F04B 49/00; G05B 23/02, 23/0205, 23/0218, 23/0224, 23/0227, 23/0235; Y02B 70/3225 (2014.07)

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

Orbit, Google

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 6,584,935 B2 (ZOHAR et al) 01 July 2003 (01.07.2003) entire document	1-20
Y	US 4,359,984 A (NAKAO) 23 November 1982 (23.11.1982) entire document	1-20
Y	US 7,845,913 B2 (STILES, JR. et al) 07 December 2010 (07.12.2010) entire document	4-5, 7, 10-13, 15-16, 20
A	US 6,083,405 A (TANAKA et al) 04 July 2000 (04.07.2000) entire document	1-20
A	US 2007/0251461 A1 (REICHARD et al) 01 November 2007 (01.11.2007) entire document	1-20

 Further documents are listed in the continuation of Box C.

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