

(12) PATENT APPLICATION PUBLICATION

(21) Application No.201641031256 A

(19) INDIA

(22) Date of filing of Application :14/09/2016

(43) Publication Date : 16/03/2018

(54) Title of the invention : CAPACITOR BANK BASED AGRICULTURE SPRAYER

(51) International classification

:G01F
23/00

(31) Priority Document No

:NA

(32) Priority Date

:NA

(33) Name of priority country

:NA

(86) International Application No

:NA

Filing Date

:NA

(87) International Publication No

:NA

(61) Patent of Addition to Application Number

:NA

Filing Date

:NA

(62) Divisional to Application Number

:NA

Filing Date

:NA

(71)Name of Applicant :

1)T. RAVI

Address of Applicant :NO.11, BRINDAVAN, BHAVINI
TOWNSHIP, ANUPURAM, KALPAKKAM, TAMILNADU,
INDIA-603 127. Tamil Nadu India

2)M. SUGADEV

(72)Name of Inventor :

1)T. RAVI

2)M. SUGADEV

(57) Abstract :

The invention is to work with electrical motor through capacitor bank for clean, eco friendly and information about the spraying. The capacitor bank based agriculture sprayer consist of DC motor, motor speed control circuit, capacitors, flow meter, liquid level indicator, motor RPM indicator, automatic filling system, solar power pack unit and PWM controlled LED. Once the capacitor is charged using solar power pack unit it is ready to drive the DC motor. The liquid is filled using an automatic system. It consists of pumping motor and delivery hose which is fit with the liquid reservoir of the sprayer. As soon as the pumping motor is ON, liquid flow from the collection point to the sprayer reservoir until the reservoir is full and the pumping motor goes OFF. Now the hose is detached from the reservoir. The filling information is indicated by the PWM controlled LED. The sprayer DC motor is switched ON and speed control knob is varied to suit our required RPM. The air blower attached with the shaft of the DC motor rotates and its velocity is calculated and indicated using PWM controlled LED. Then the flow cock is turned ON and it is spraying on the field. All the sensors, switches, driving unit, indicating units are connected with the ATMEGA328 micro controller. As soon as the reservoir becomes empty it gives warning signal using buzzer and controller switch OFF the motor then ready for refilling.

No. of Pages : 13 No. of Claims : 10