

UNIVERSAL SOLAR PUMP CONTROLLER

- TESTED AND APPROVED

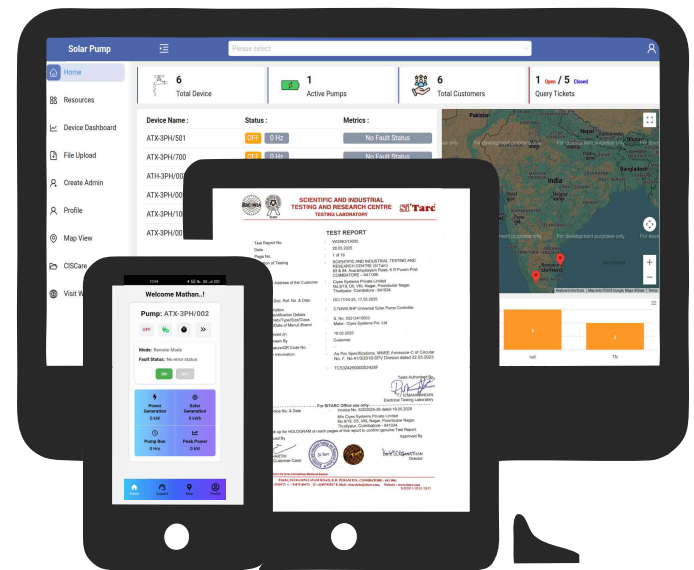
AS PER MNRE STANDARDS

Ciyes Systems Universal Solar Pump Controller offers a reliable, MNRE-compliant solution for solar-powered agricultural tasks beyond water pumping. Designed for areas with limited grid access, it enables sustainable clean energy solutions for farmers and eco-conscious users.



Scope

The Universal Solar Pump Controller is a transformer-less inverter, 3 Phase 415 AC output control system designed specifically for AC Induction motor. It transforms free solar energy in to reliable power for your water pumping system, Industrial motors and agrarian application such as Atta chakki, Cutter/Chaff, Deep-fridge/Cold storage and Wheat grinding machine which ensuring Maximum output with Zero electricity cost and promoting green living. It has a Comprehensive data logging, Fault diagnostics, Alert indications and report generation keep you informed and Proactive



Features

-  MPPT Algorithm to reap maximum solar power with 99% of efficiency.
-  Protect the controller and motor from Under Voltage, Over Voltage, Dry Run Short Circuit & Operating Temperature.
-  LCD Display for Running Status, Temperature, Input voltage, current and Error/Fault.
-  Surge and dust proof enclosure (Ip65) built for harsh field condition
-  Forced Air cooling: 24V, 24CFM Fan mounted on the heat sink.
-  Satisfies MNRE USPC Standard Compliance (refer F.No.41/3/2018-SPV Division, dated on 22-03-2023)
-  True Sine wave output ensures longer motor life and Smooth operation
-  Programming Over the Air (OTA) via Web application and Bluetooth.
-  Manual, Auto, Timer and Remote mode operation facility.
-  Geo tagging and Remote Monitoring system through Web and Mobile application.
-  Customizable limit setting for protection.
-  Complaint and Ticket management.
-  Consumer and Asset management.
-  SMS based Drive operation control.
-  Intelligent auto restart ensures uninterrupted operation after faults clear.

Specification

Input Power	5000 W
Motor Supply Phases	Three phase R-Y-B
Rated Input Voltage	250VDC to 900VDC
Min, Nom and Max (Voc)	788 V, 835 V and 881V
Rated Output Voltage	415 V $\pm$ 5%
Maximum Input DC Current	18A
Rated motor frequency	48 - 50 Hz
Frequency Operation	0 - 52 Hz
Output Power	3.7KW Max (5HP)
Characteristics of Voltages	Pure sinusoidal or Filtered AC output voltage at motor terminal
THD of Motor terminal voltage	Below 3%
THD of Motor Current	Below 5%
Controller Power efficiency	>93%
MPPT Efficiency	>97%
Number of output loads	4
Ingress Protection	IP65
Cooling Method	Forced Air cooling
Remote Monitoring System	yes
Mobile and Web application	Yes
Over the Air Programming	Yes
OV, UV, Short circuit, Dry run, No load, Temperature and reverse polarity protections	Enabled
Local data storage	Yes

Applications



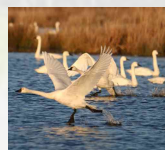
Groundwater pumping as per PM Kusum Scheme



Irrigation Systems (Drip, Sprinkler)



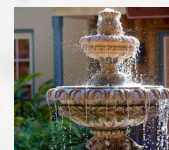
Industrial Applications (Process Water Pumping)



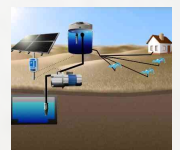
Wildlife Refuge Water Management



Rural Water Supply



Fountains



Tank / Cistern Filling



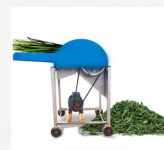
Atta Chakki Machine



Refrigeration



Milk vending machine



Chaff cutter machine