HMI OPERATING MANUAL

Project Title: Hydro Pump Controller

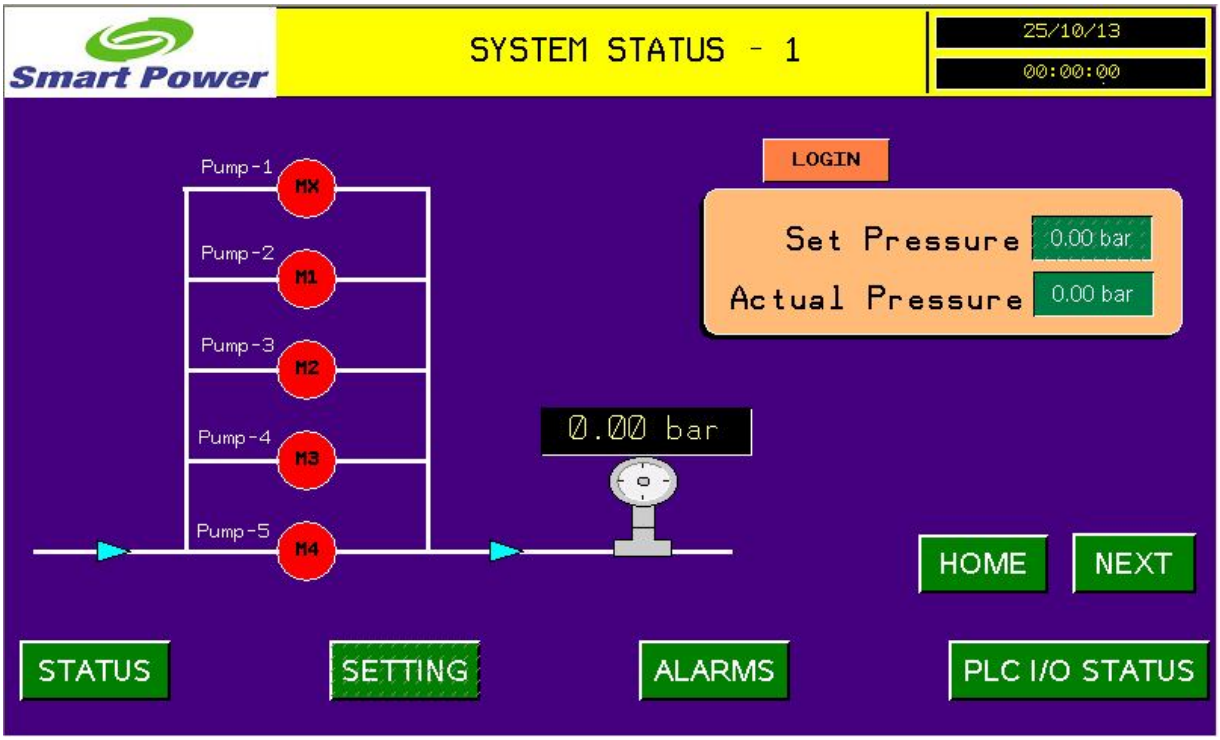
Display Make: Schneider Electric HMIGXO3502

1. Home Page

Home Page contains Manufactures Address and Mail Id.

Button for Navigate the System Monitoring Pages

2. System Status Page

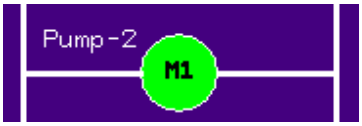


All Graphical Pages contains Common Quick navigation Buttons

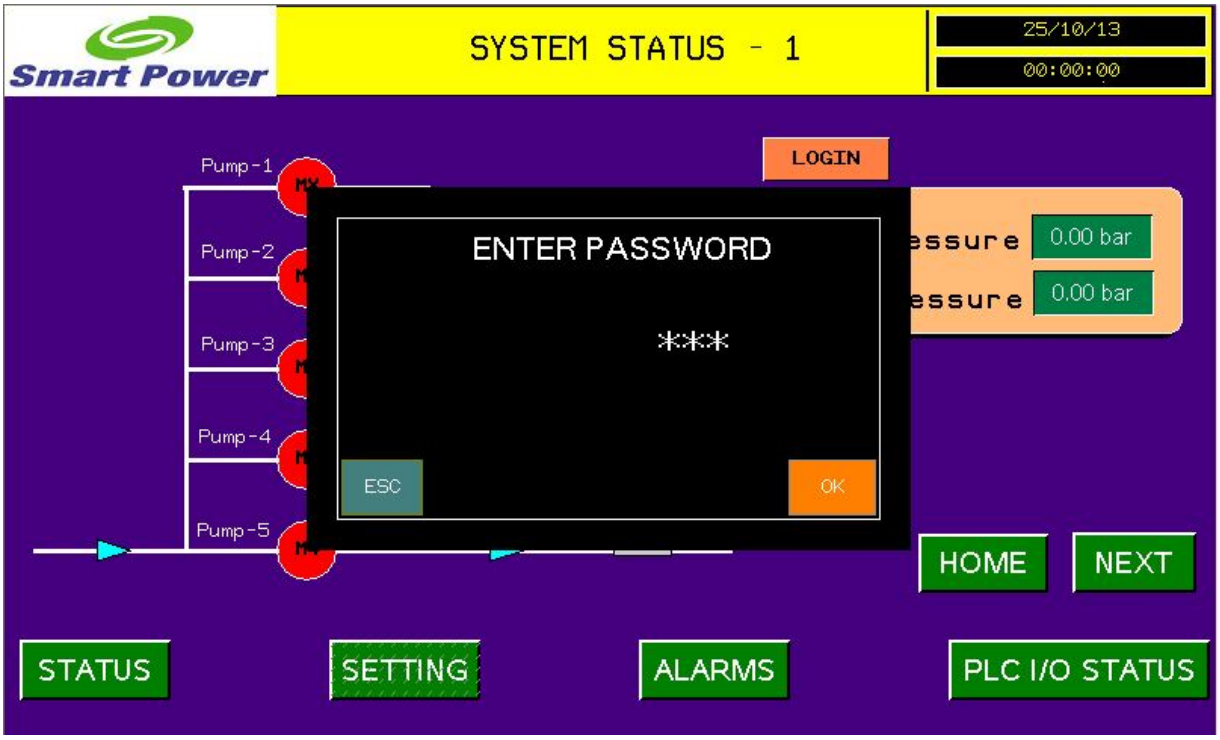
- Status Button – To view the system status & VFD Parameters.
- Setting Button – To access system settings parameters which will be explained later.
- Alarm button – To navigate the alarm page which contains Present & Past Alarm list.
- PLC I/O Status – To troubleshoot PLC Input / Output Status.
- Alarm Banner – Active alarm will be displayed as scrolling text

In this page user can see the set pressure, actual pressure and pump status whether it is ON / OFF.

If the pump is ON, the color will be changed as

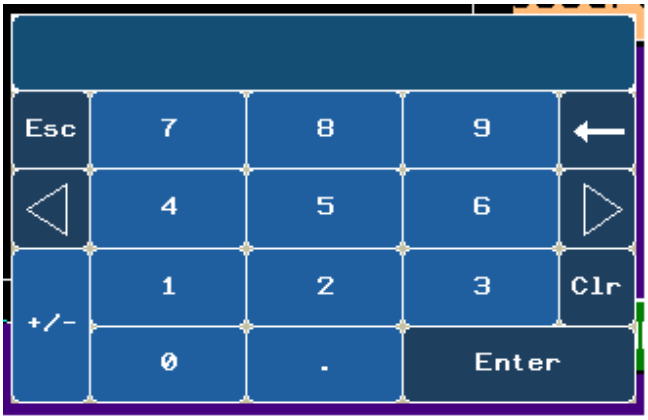


3. Login access

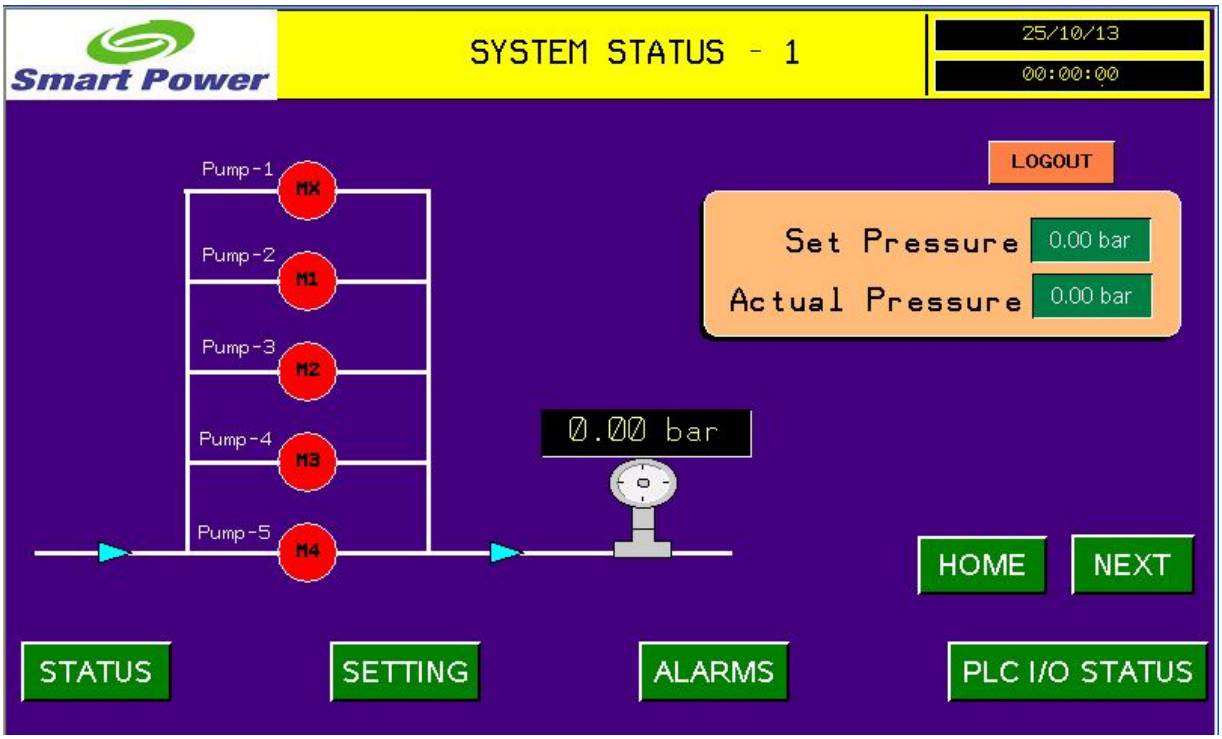


By touching the login button, it will display the popup menu for ask the password screen through which user can able to access the various system settings.

By Touching *** In the Popup It Will Open Number pad By Which User Can Enter The Password, Designed Password Is 9996. Common Number Pad Displayed Below.



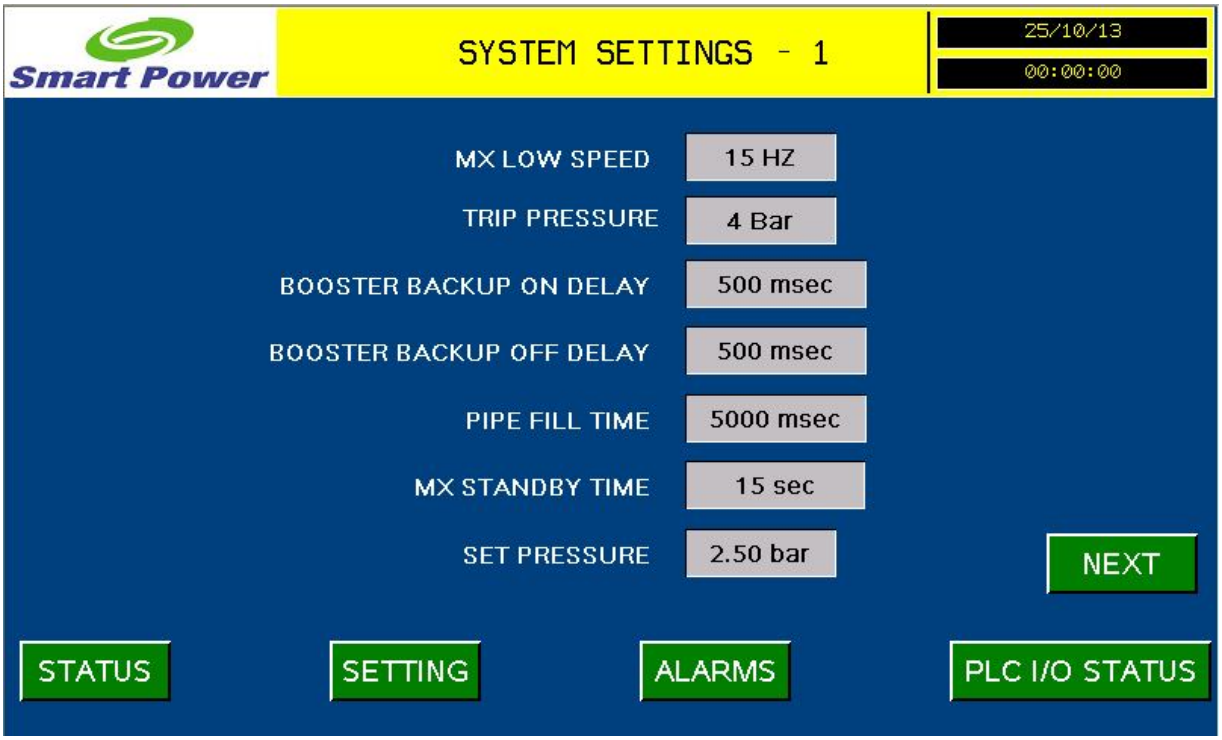
If The Password Is Correct The Login Button Will Disappear Logout Button Will Be Visible As The Screen Below.



4. General Settings

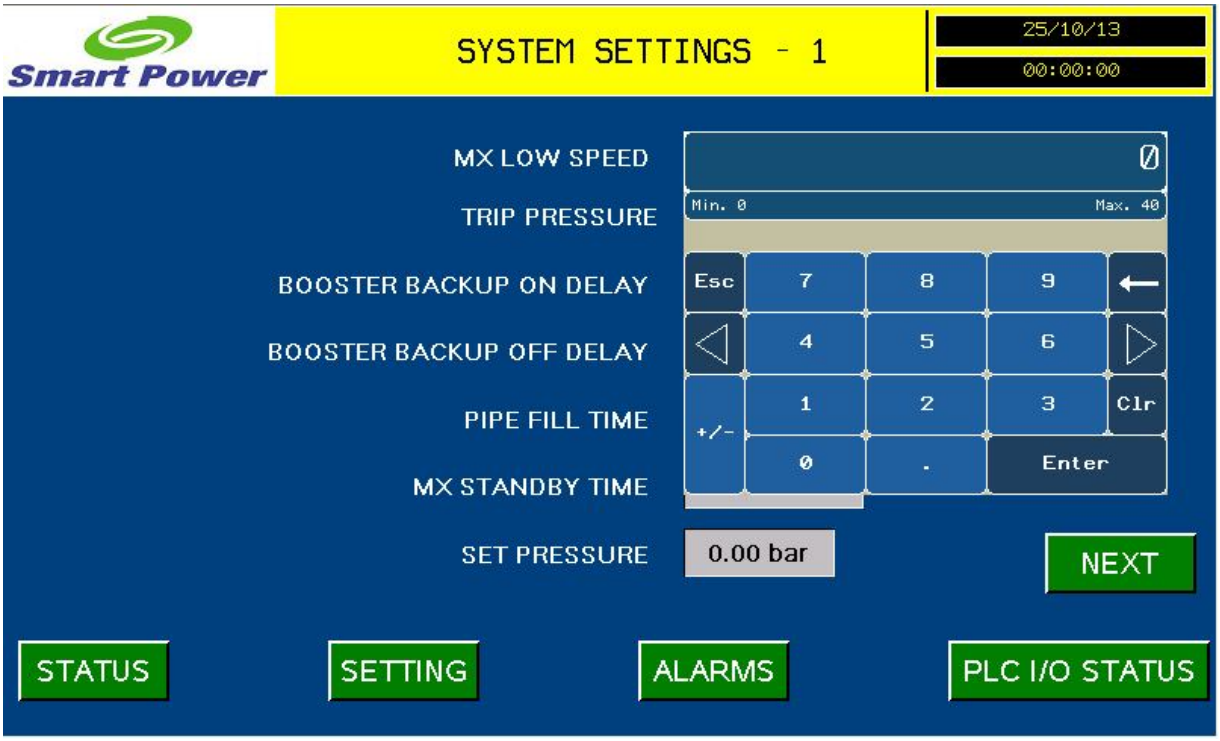
After Login Successful By Touchinging 

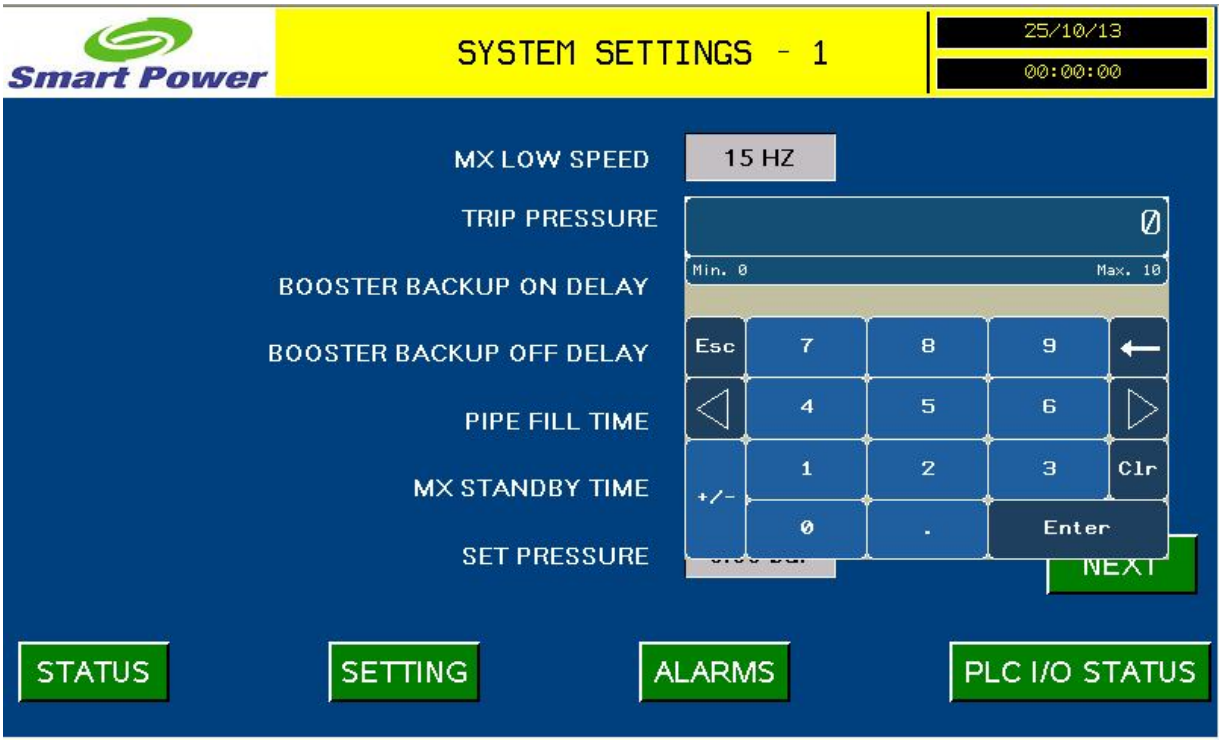
Button It Will Goto Settings Menu-1



- **Mx Low Speed** – This Settings Limits The Vfd Speed Falling Below The Allowed Value, This Speed Has To Be Set In Minimum Speed In Which Pump Can Able To Deliver The Water.Limited Between 0Hz To 40HZ.
- **Trip Pressure** – System Safety Pressure Above Which All Pump Will Be Tripped(Limit 0bar To 10bar)
- **Booster Backup On Delay** – On Pressure Demand Second Pump Wakeup Delay
- **Booster Backup Off Delay –** If The Pressure Above The Set Pressure Delay To Switch Off The Secondary Pump.
- **Pipe Fill Time** – In Fresh Startup One Pump Will Run At Medium Speed To Fill The Pipe With Minimum Pressure the time user can set through this setup.
- **MX Standby Time –** If there Is no demand all secondary pump will be off and primary pump will run at Mx LowSpeed. Primary Pump Run In Low Speed Upto the Mx Standby Time After That Primary Pump Will Also Off.

By Touching On The Numeric Indication User Can Able Change The Settings Value. An Example Has Shown Below.

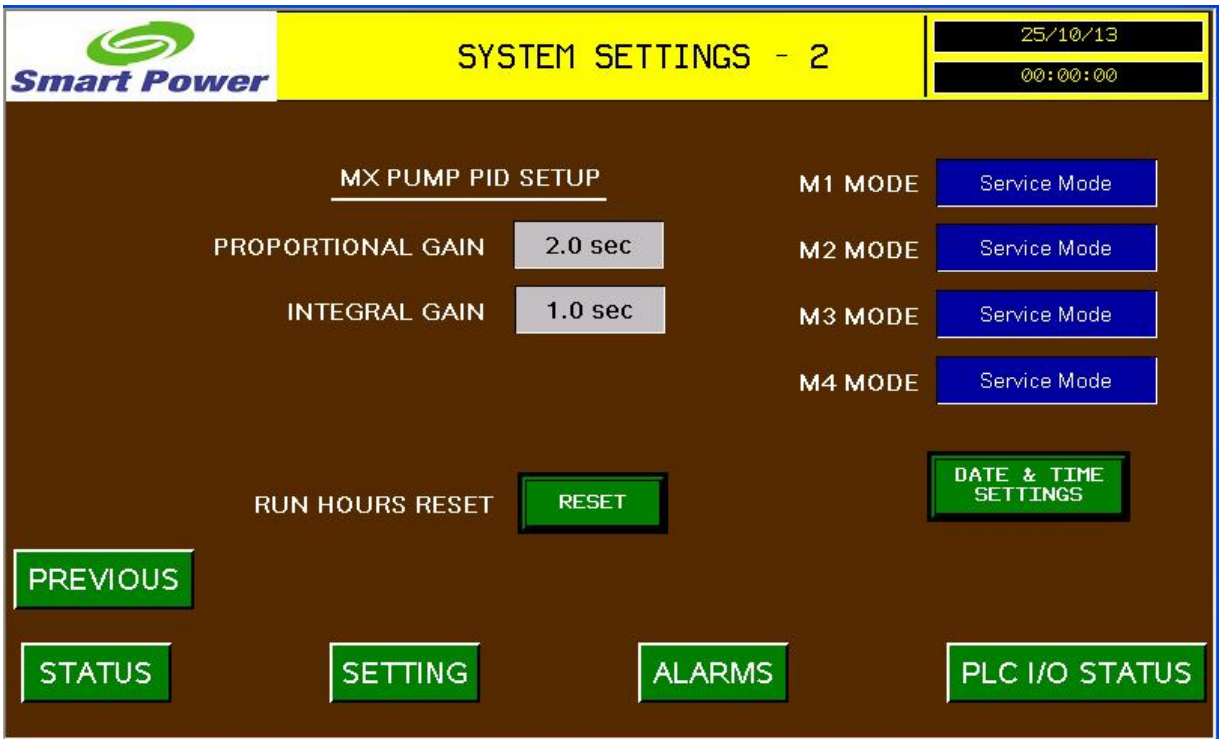




5. Settings Menu – 2

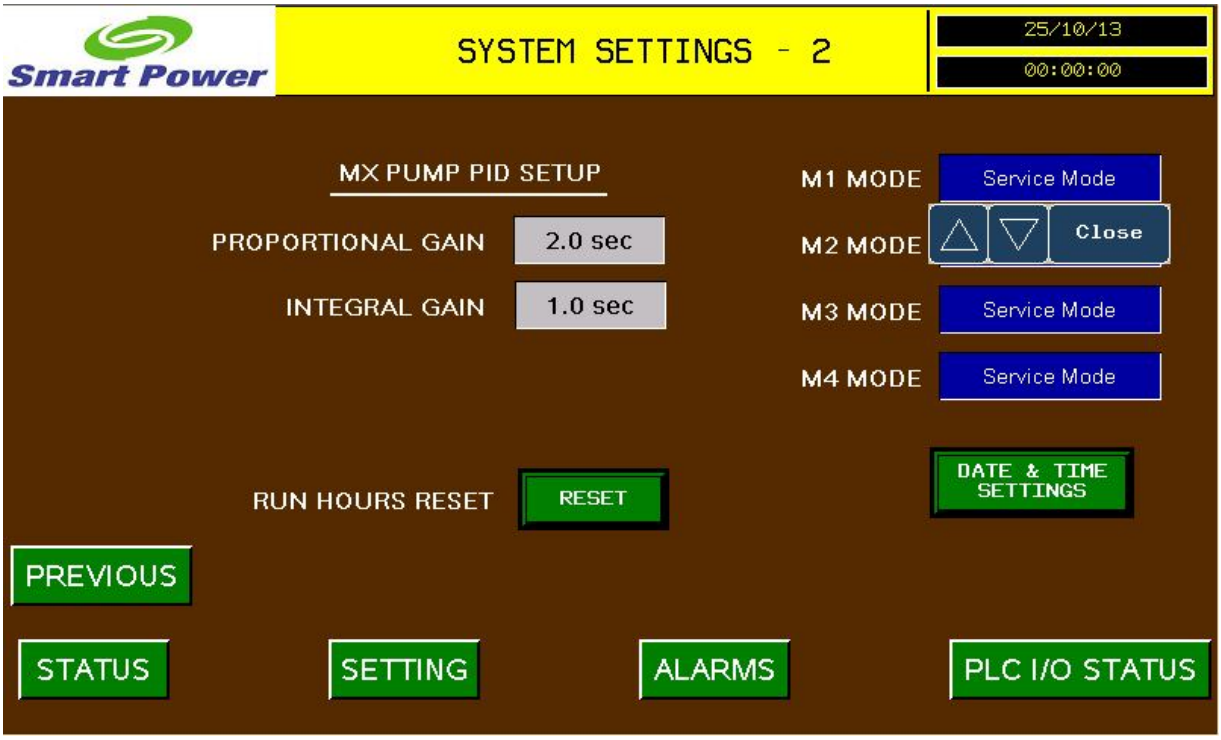
By Touching 

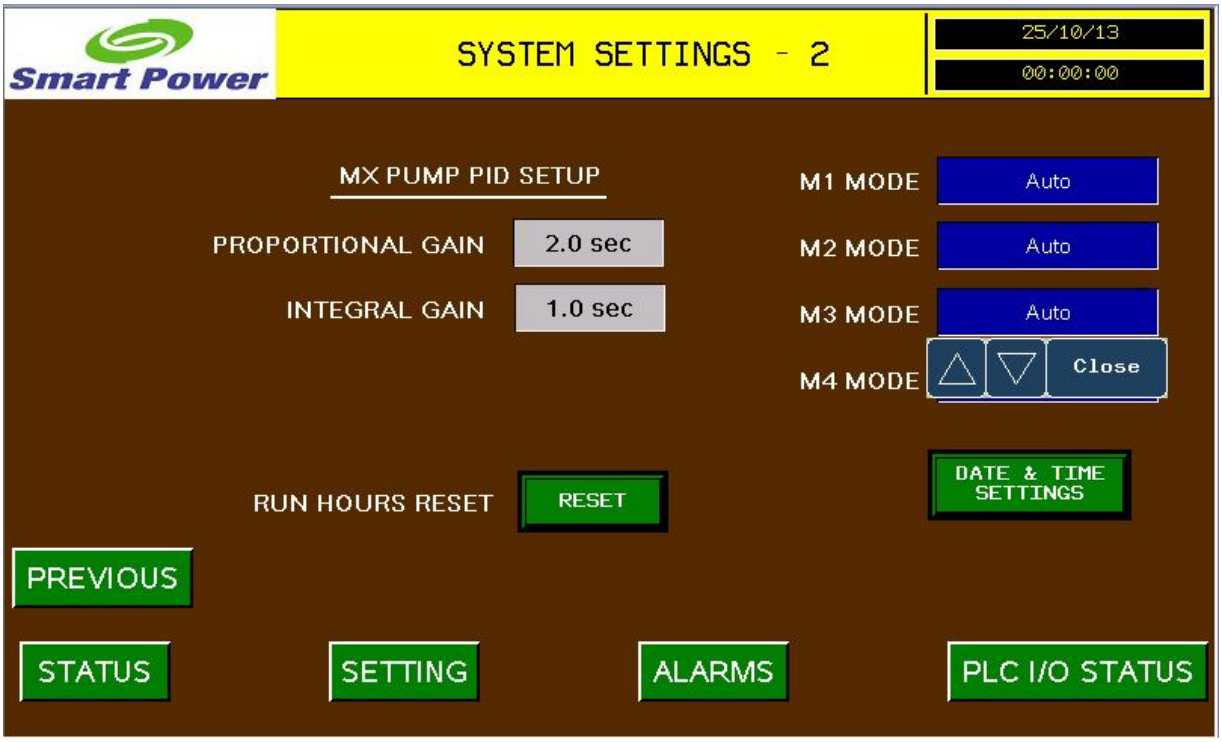
Button In Settings-1 Page It Will Bring To This Page In Which Pid Setup, Pump Mode Selections, Run Hours Reset, System Dattime Setup Available.



- **Proportional Gain** – Rate Of Rise Of Vfd Speed Which Recommended to set between 0.5 to 4.0
- **Integral Time** – Ramp Up/Down Time Setup Recommended to set between 0.5 to 5.0 sec
- **Pump Mode** – Available Modes Are Service Mode, Manual Mode, Auto Mode. If The Pump Selected In Service Mode It Will Never Switched On As its Considered As Faulty.If It Is Selected as Auto Mode Pump Will Operate As per The Auto Sequence.
- **Run Hours Reset** – By Pressing This Button All Pump Run Hours Will Be Resetted

Pump Operating Mode Can Be Changed As Per The Below Images





6. Settings Menu – 2

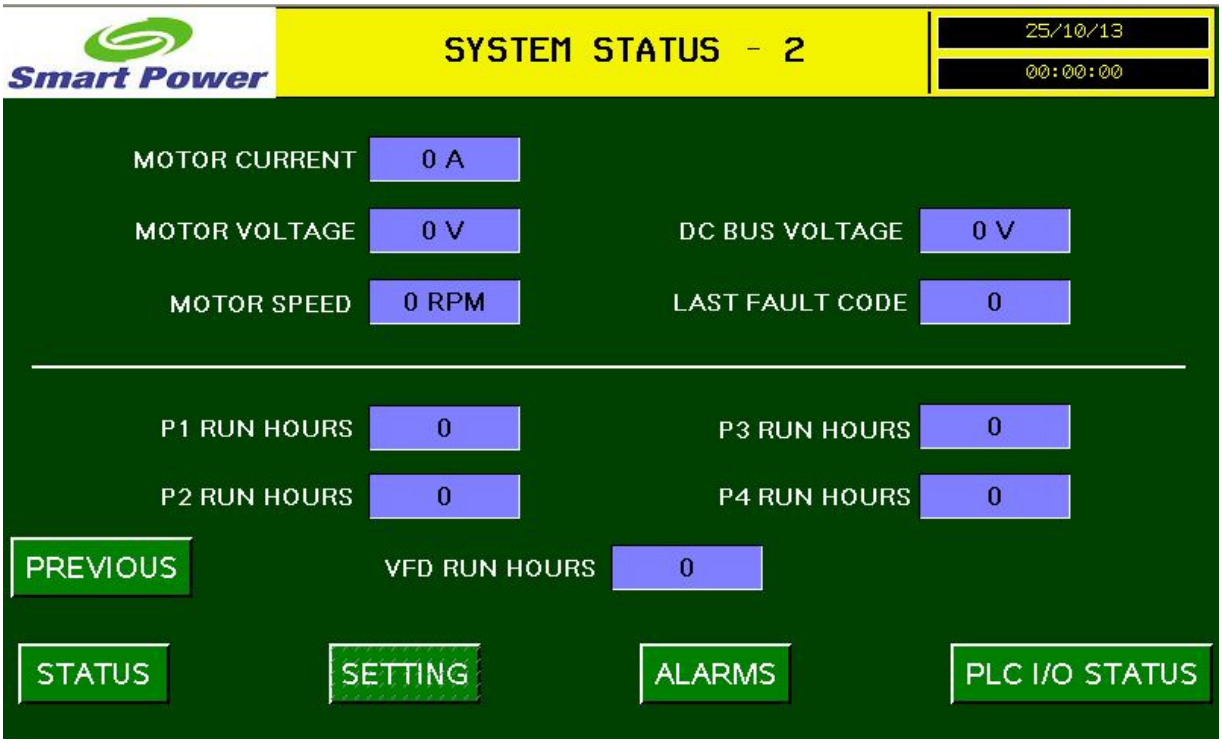
By Touching 

Button It Will Bring To System Date Time Setup Screen Which Has Shown Below.

After Setting Required Date And Time By Touching Update The Plc Date Time Will Be Changed Which Can Be Cross Checked From 

7. System Status – 2

By Touching NEXT From System Status-1 Page It Will Bring To This Screen.

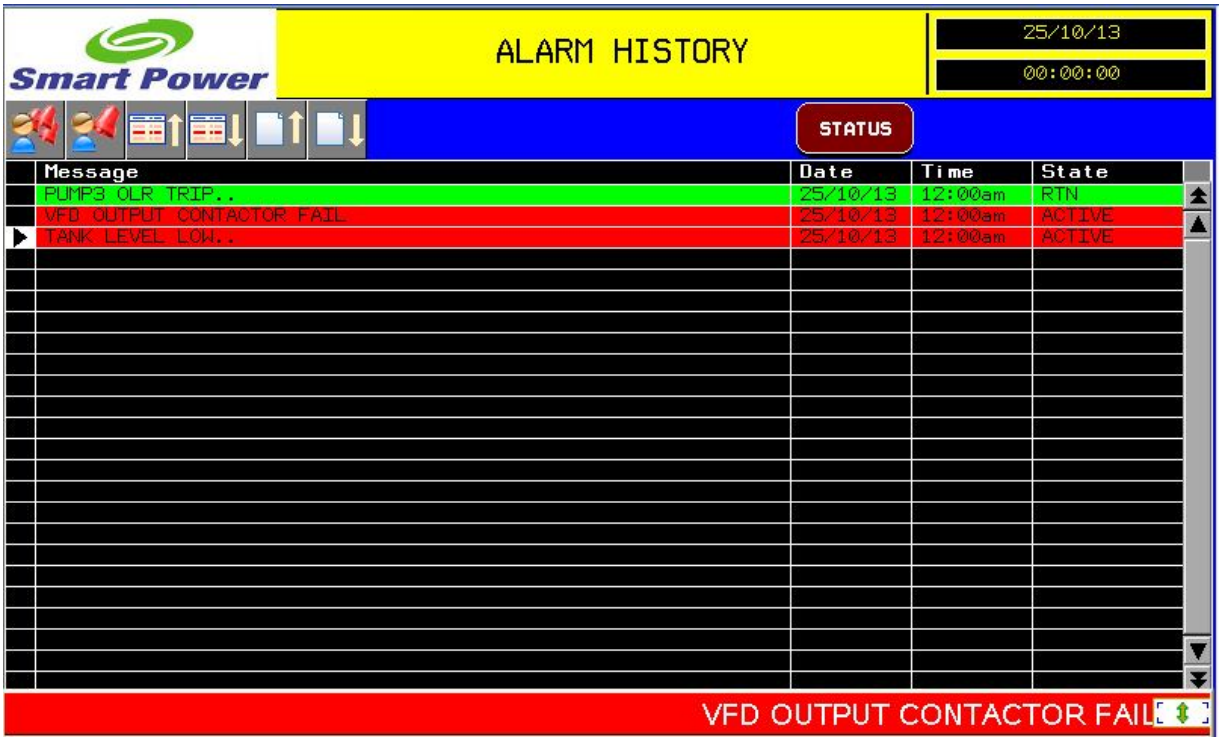


- In which We Can Able To Monitor And Troubleshoot The Following Details – Motor Current, Motor Voltage, VFD Motor Speed, VFD Dc Bus Voltage, Drive Last Fault Code.
- All Pumps Run Hours Through Which User Can Able To Plan Service And Replacement Schedule.

8. ALARM History

By Touching 

Button From Any Page It Will Bring To This Screen



List Of Past And Present Alarm list Are Displayed In This page.

The Alarm Which Is In Green Colour Known As Inactive Alarms Which Means Past Alarms

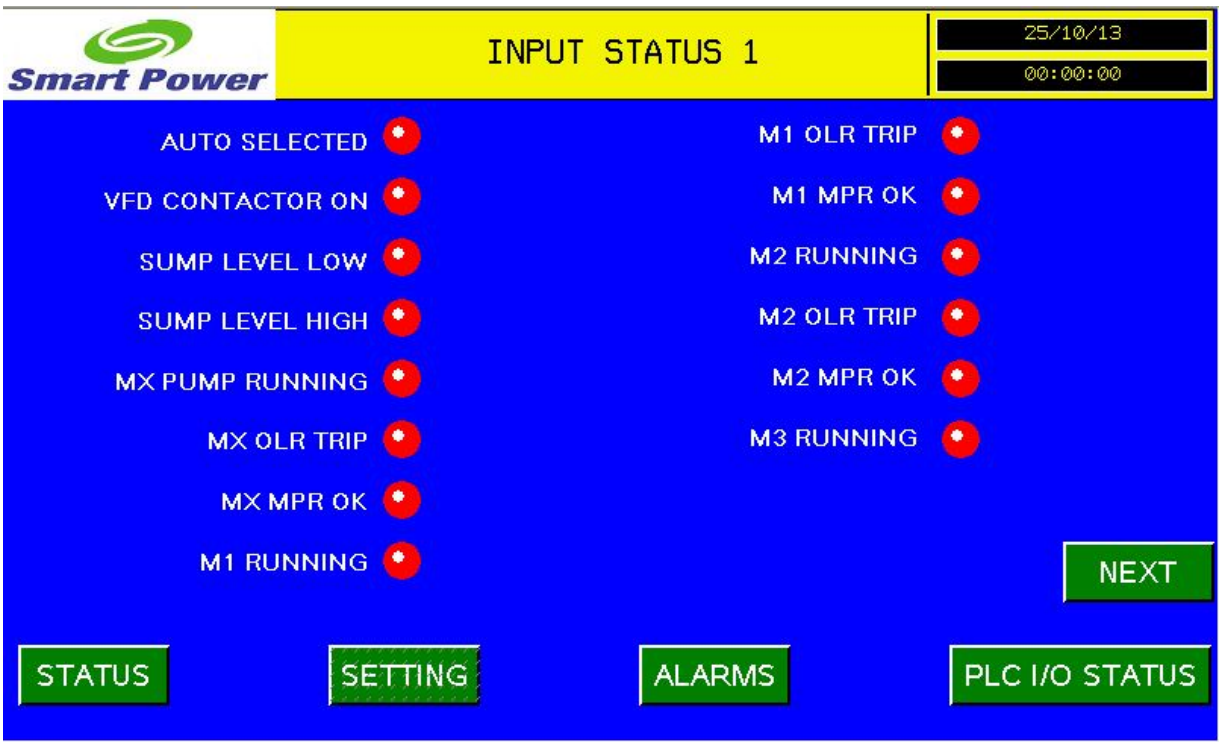
The Alarms Which is In Red Colour Known as Present Alarm

Alarm Banner Displays Present Alarm Messages As Scrolling Text.

9. Plc Input/Output Status-1

By Touching 

Button From Any Page Will Bring To This Page



List Of Plc Inputs and Its Status Are Indicated. If This Input Present The Indication lamp Will Shown In Green Colour. If Its Not Present It Will Shown As Red Colour.

10. Plc Input/Output Status-2

By Touching NEXT Button Plc Input/Output Status-1 Page It Will Bring To This Page.