enthutech

Salient Features:

- **Centralized Control**: Provides centralized control over various water management parameters.
- **Real-Time Monitoring**: Enables real-time monitoring of water levels, flow rates, and quality metrics.
- **Automated Decision-Making**: Utilizes advanced algorithms for autonomous decision-making based on predefined thresholds.
- **Integration Capabilities**: Seamlessly integrates with sensors, actuators, and control devices for compatibility and expandability.
- **User-Friendly Interface**: Offers an intuitive interface for easy interaction and analysis by operators.
- **Fault Detection and Prevention**: Includes built-in mechanisms for early fault detection and preventive measures.
- **Customizable Configurations**: Allows customization to meet specific project requirements and scalability needs.
- **Data Logging and Reporting**: Facilitates comprehensive data logging and reporting for analysis and compliance.
- **Remote Accessibility**: Enables remote monitoring and management for round-the-clock oversight.
- **Energy Efficiency**: Incorporates energy-efficient components to reduce operational costs and environmental impact.
- **Protections**: This Includes various programmable protections including Overvoltage, Undervoltage, Dry Run, and Voltage Failure.

Product Description:

The ETS IoT – EM is an Automation System Panel with Energy Management designed for centralized monitoring and control of various parameters in Water Management Systems. This connects with LoRaWAN Gateway (ETS IoT – LOG) for localisation of data and automates the control of the Pump with data from other sources like Water Level Sensor even when there is a downtime in the cellular network.

This acts as both RS485 Mobus Master & Slave for effective Integration of two different system in a Modbus Network. Also, it has an inbuilt HMI display for Monitoring of entire Water Management system functions and local control.

Applications:

- Water Treatment Plants
- Wastewater Management.
- Industrial Facilities.
- Agricultural Irrigation
- Municipal Water Supply
- Smart Cities
- Remote Monitoring Stations

Product Certification and Compliances:

- WPC, CE, IEC 61131-3:2013, IEC 61131-5:2013, ISO/IEC 14882:1998, ISO/IEC 17025:2017, IEC 62053-21:2020

Component	System Specifications	
Controller	I/O's	4 I/Os
	Digital Input	4
	Protection against Polarity Inversion	Yes
	Analog Inputs	4
	Resolution	12bit
	Relay Output	4
	Analog Output	2
	Resolution	14bits
	Memory	64 MB
	RTC	Yes
Communication	Modbus	RS485 Slave & RS485 Master
	Transmissions speed	9600, 19200, 38400, 57600, 115200
	Data Bits	7 or 8
	Parity	None, Even, odd, Space, Mark
	Stop bit	1 or 2
Display	Type	Panel Mount
	Size	7" Diagonal Resistive touch Screen
	Resolution	800x480 pixels
	User Memory	256M Flash+256M DRAM
	Data Logging	Yes
	Comm. Port 1	RS485 MODBUS RTU protocol
	Comm. Port 2	RS232 MODBUS RTU protocol
	Comm. Port 3	RS485 MODBUS RTU
	USB Host	USB 2.0 x1

	USB Slave	Type B, Program Download/upload
Energy parameter	Rated Input Voltage	85 to 285V AC (L-N); 148-494AC (L-L)
	Current	Ib: 500mA – 100A
	Frequency	45 to 65HZ
	Accuracy	Voltage (L - N) : ± 0.5% for voltage & current, 0.1% for Frequency, 0.01% for PF, 1% for Power, Class 1 for Active energy, Class 2 for reactive energy
	Measuring parameters	Voltage, Current, Frequency, Power factor, kWh
Physical Characteristics	Battery Backup	12 Hours for HMI Display
	Operating Temperature	0 ° to 50°C
	Power	230V AC (90 - 270V AC) / 24V DC (±10%V DC)
	Panel Protection Clause	IP65