

ecosmart
S T A T I O N™

We're Opening the Doors to a New Generation...

The ECO SMART STATION™ will Change the Future of Pump Control Panels...



Revolutionary in design, the new **ECO SMART STATION™** provides a safe, simple, energy efficient solution for optimum pump control in municipal lift station applications.

The innovative, multiple compartment design of the **ECO SMART STATION™** reduces the risk of injury resulting from arc flash and electric shock. The control and power circuitry are segregated in separate compartments, preventing unnecessary exposure to operators. The **ECO SMART STATION™** is equipped with state-of-the-art controls and Variable Frequency Drives (VFD) technology enabling the pump station to run more efficiently, while reducing operating cost.

State-of-the-Art

The **ECO SMART STATION™** uses the latest in VFD, microprocessor based controller with color touch screen HMI, data storage and communication technology currently available. The **ECO SMART STATION™** is a pre-engineered solution available in 29 models, from 10HP to 100HP.

Intelligent

The **EnergyView™ Controller** is powered by kW Logix™ Software, the color touch screen HMI has the ability to do level control, pump alternation, flow monitoring, data logging, alarm log, historical trending and comes equipped with a SD memory card for data storage and download. Additionally it can connect through multiple communication streams for remote monitoring and control.

Simple

The HMI display is very simple to use, intuitive and easy to read in various weather and light conditions, including direct sunlight.

Energy Efficient

kW Logix™ Software can provide up to a 30% energy savings over conventional control methods. The auto-tuning function will search for the Best Efficiency Frequency (BEF). When the pump operates at the BEF point, it uses the least amount of energy for each gallon pumped. In addition, during high flow conditions the software is also able to automatically switch to PID operation for optimum energy efficiency, and resume cycle based operation when normal flow returns.

Cost Effective

The **ECO SMART STATION™** was designed to offer a superior solution at a competitive price. In addition, many government agencies and utilities offer rebate programs to promote energy efficient solutions such as the **ECO SMART STATION™**. These rebates are in addition to energy savings resulting directly from using an energy efficient solution such as the **ECO SMART STATION™**.

Pre-Engineered

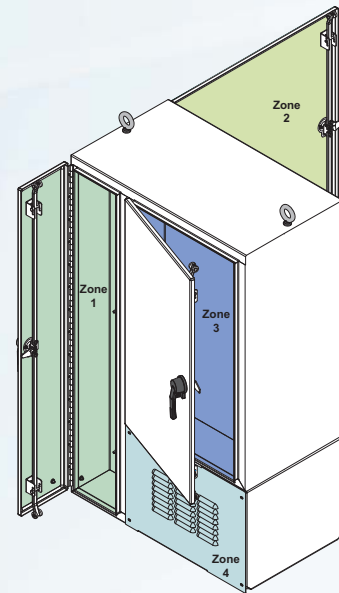
With the pre-engineered **ECO SMART STATION™** electrical schematics, mechanical drawings, bill of materials, component cut sheets, specifications, operation manuals and installation manuals are made available from your sales representative.

Safe

The **ECO SMART STATION™** is housed in the innovative, multiple compartment design of the **ARC ARMOR™ Enclosure** reducing the risk of injury resulting from electric shock and exposure to arc flash. The control and power circuitry are isolated in separate compartments, preventing unnecessary exposure to operators. Multiple password protection is also available.

Standard Features Overview

Housed in an ARC ARMOR™ Enclosure



Front view

Zone 1 - Service Entrance Compartment

- Main circuit breaker with door handle (Mechanically interlocked with door)
- Main terminal blocks
- Lightning arrestor
- Surge Capacitor
- Voltage and phase monitor (3 phase models only)
- 1.5kVa control transformer

Power options:

- Transfer switch
- Generator receptacle



Service Entrance Compartment

Zone 2 - MCC Compartment

- Square D variable frequency drives (VFDs) ATV61
- Line reactors (MTE)
- Square D circuit breakers
- Enclosure fan cooling fans and thermostat
- Pump lead terminal blocks (elevated and angled)
- Pump thermal and seal monitoring leads terminal blocks
- "Voltage present inside" indicator on door
- Electrical door interlock. Door cannot open when power is ON.
- Modbus communication from VFDs to controller
- LED enclosure lights
- Door stop



MCC Compartment

Zone 3 - Controls Component

Inner door:

- Dead front with an inner door construction
- Only 24VDC and 120VAC present
- Energy View™ Controller
- VFD keypads
- Pump HAND/OFF/AUTO selector switch
- Pump OVERTEMP indicator light
- High FLOAT SWITCH indicator light
- Low FLOAT SWITCH indicator light
- ALARM Test push button
- Enclosure light ON/OFF switch
- Utility receptacle (10A)
- Door stop

Subpanel:

- Square D circuit breakers
- Anti-condensation heater with thermostat
- Schneider Electric control relays
- Seal fail detection modules with adjustable sensitivity
- Power supply and battery charger
- 24Vdc battery back up
- Non-fouling level transducer with 50ft cable and Intrinsically safe barriers
- SJE-Rhombus® back up float switches with 50ft cable Intrinsically safe barriers
- Energy View™ I/O module
- Optional communication module
- LED strip enclosure light
- High level alarm beacon and horn with silence switch

Zone 4 - Gas Isolation Chamber

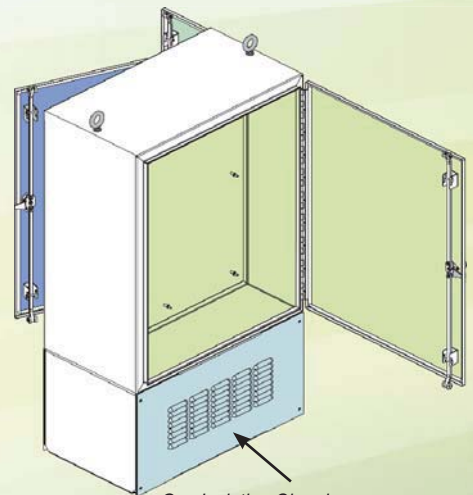
- Provides gas isolation from wet well in wastewater lift station applications
- Vented space for sealing cable penetrations



Inner door



Subpanel



Gas Isolation Chamber



Main Screen



Level Setup



Live Trends



Flow Setup



Sensor Setup



Eco (fx) Setup

Controller Overview



Energy View™ Controller with kW Logix™ Software

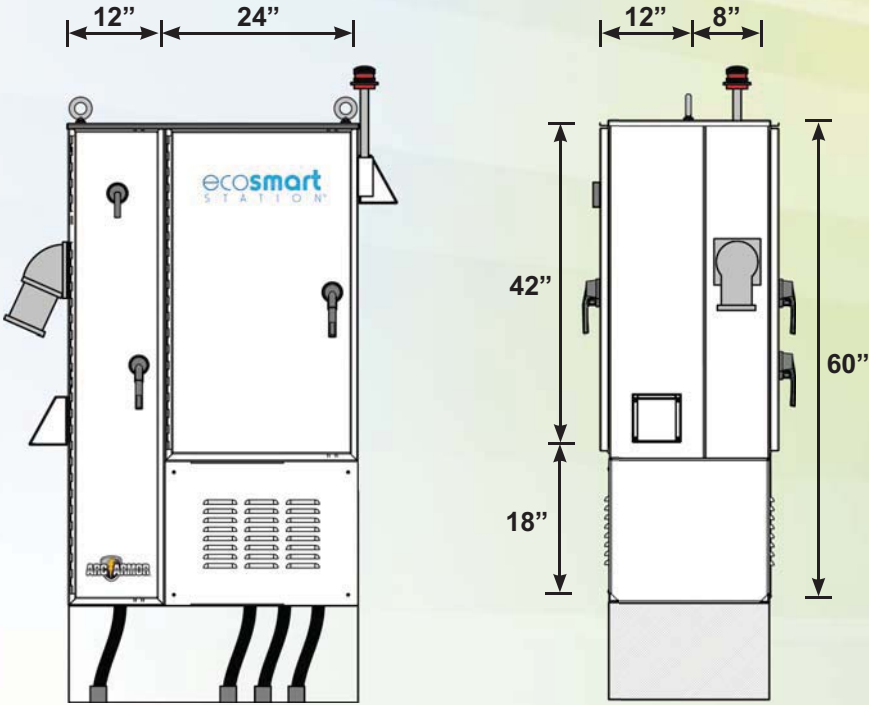
- Color touch screen
- Simple to use, easy to read
- Intuitive menu navigation
- Battery backed up
- Continuous level monitoring
- Flow monitoring (with or without flow meter)
- Power monitoring
- Motor current monitoring
- Pump speed control
- Pump efficiency monitoring and auto tuning
- Automatic switching to P.I.D. control during high in-flow
- Automatic alternation
- Password protection
- Pump low efficiency alarm
- Pump over temperature and seal fail monitoring
- Data logging on SD memory card

Communication options:

- I-LINK® Web based monitoring system
- Dial up model (Sixnet)
- Protocol converter Red Lion model DSPLE
- Auto dialer
- GSM/GPRS cellular modem communication, includes:
 - SMS messaging
 - Remote access

ECO SMART STATION™ Enclosure Overview

Size 1 Overall Dimensions: 60”H x 36”W x 20”D



Size 2 Overall Dimensions: 66”H x 60”W x 26”D

