

## Data Sheet

# D-VAR VVO<sup>®</sup> Service Tool and D-VAR VVO<sup>®</sup> Console

### SYSTEM REQUIREMENTS

Operating System	Windows <sup>®</sup> 7, 8, or 10
Hard Drive	50MB of free disk space
Memory	4GB RAM
Software	Microsoft .NET 4.5 and above
Peripherals	10/100 Mbps Ethernet

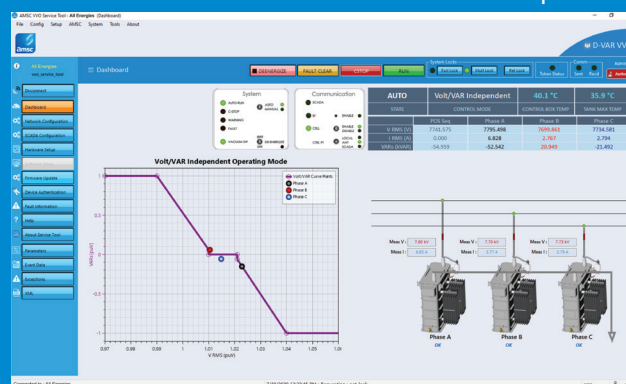
### FEATURES

- Configure SCADA port and address
- Setup hardware configuration
- Setup software configuration
- Update firmware
- View faults and warnings

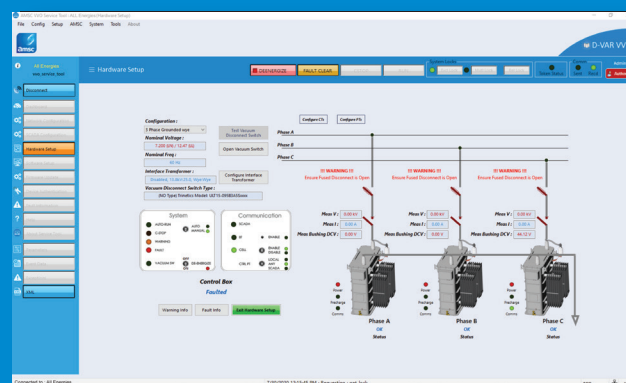
### OVERVIEW

VVO Service Tool is a PC based application utilized to commission and service AMSC VVO product. The commissioning functionality allows user to configure hardware, software, and communications. Hardware setup guides users through a selection of hardware settings such as nominal line voltage and frequency, VVO configuration (e.g. Single Phase or Three Phase), vacuum disconnect switch type, and external PT and CT measurements. Software setup allows user to configure their control mode (e.g. Volt/VAR, Power Factor, Feeder VAR) and control parameters. Additionally software setup provides an interface to manually operate the VVO to validate the setup. Communication setup allows user to configure the SCADA network interface (e.g. IP address, Subnet, and Gateway) and SCADA parameters (e.g. port, master address, and slave address). The service functionality allows users to view active faults and warnings and update firmware. VVO Service Tool connects to VVO product locally via wireless Bluetooth or wired Ethernet. Additionally the VVO Service Tool may connect remotely via the SCADA network interface.

D-VAR VVO Service Tool: Hardware Setup



D-VAR VVO Service Tool: Dashboard



## D-VAR VVO® Console

VVO console is an internet browser based application utilized to facilitate monitoring, service, and troubleshooting of your VVO fleet. The VVO console landing page provides a geographical map of all available VVO units in your fleet and their current connection state. Any unit may be selected to view detailed real-time and historic information. Real-time information includes state, health, and operating mode. Historic information is maintained for seven years and includes high time resolution event data, long term trending data, and availability and output histograms. Additional historic information includes logs of all activity such as connections, exceptions, parameter changes, firmware updates, etc. The VVO console allows users to manage subscriptions to email/text notifications from their VVO fleet. Every event on the VVO is configurable to deliver an email notification enabling prompt response and minimizing downtime.

### FUNCTIONALITY OVERVIEW

**Dashboard** – View current state, operating mode, and health of system

**Data Graphs** - All data is available for 7 years

- **High Speed Event Data:** High time resolution data captured on occurrence of an event such as large voltage sags/swell, measurement out of range
- **Trend Data:** Long term trending of measurements min/max/avg. Trend measurement include all external and internal measured values
- **Availability Histograms:** Histogram of the unit's state (offline, run, faulted, stopped) over a chosen time interval
- **VVO Output Histogram:** Histogram of the unit's output over a chosen time interval

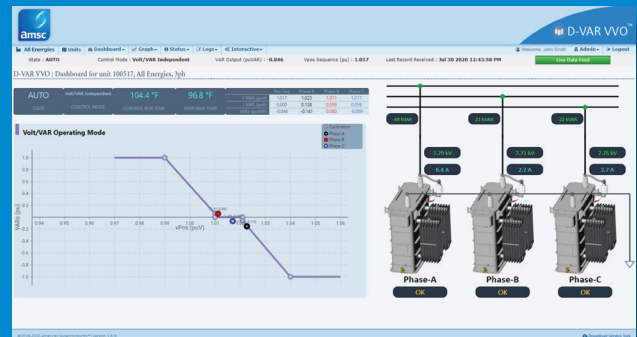
**Software Version** – View version of software in unit

**Logs** – All log data is available for 7 years

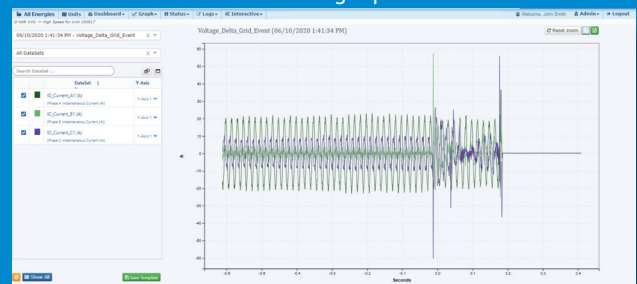
- **Connection:** View the occurrences of connection/disconnection to/from the AMSC data servers
- **Exceptions:** View the occurrence of exceptions detected by the VVO
- **Audit:** View any activity that has occurred on the unit. Activity includes items such as parameter changed, firmware updated, user logged in, user accessed configuration

**Email/Text Notifications** – This functionality allows you to register to receive immediate emails when an exception occurs. Users may register for selected units and selected exceptions.

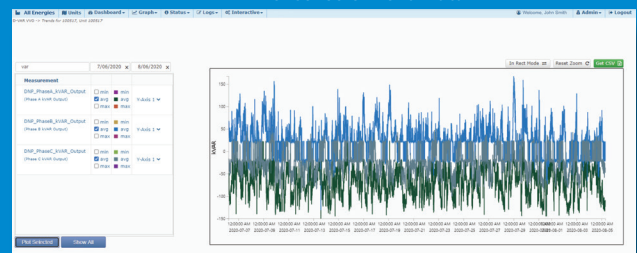
D-VAR VVO Console: Dashboard



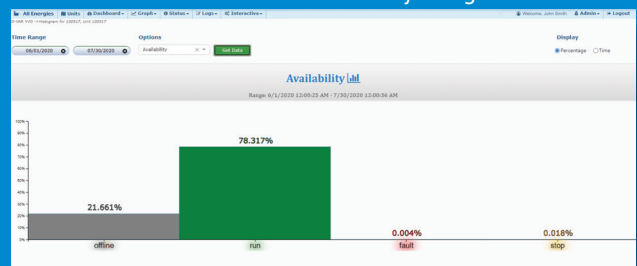
D-VAR VVO Console: High Speed Event Data



D-VAR VVO Console: Trend Data



D-VAR VVO Console: Availability Histograms



D-VAR VVO Console: Email/Text Notifications

