

# AMS ASSET MONITOR – MOTOR ASSET HEALTH

## Identify issues common to centrifugal and other pump types

The AC induction motor is the dominant motor technology in use today, representing more than 90% of installed motor capacity. Induction motors are available in single-phase and polyphase configurations, in sizes ranging from less than one to more than ten thousand horsepower (hp).<sup>1</sup>

Induction motors often serve as an integrated direct drive, where an impeller (fan, blower, pump or agitator) is mounted directly on the shaft of the motor. In this configuration, the motor is the driver for many essential plant assets.



The AMS Asset Monitor is an edge analytics device that delivers the benefits of continuous monitoring to more plant assets and far less installation expense.

### QUICK, EASY DEPLOYMENT AND USE

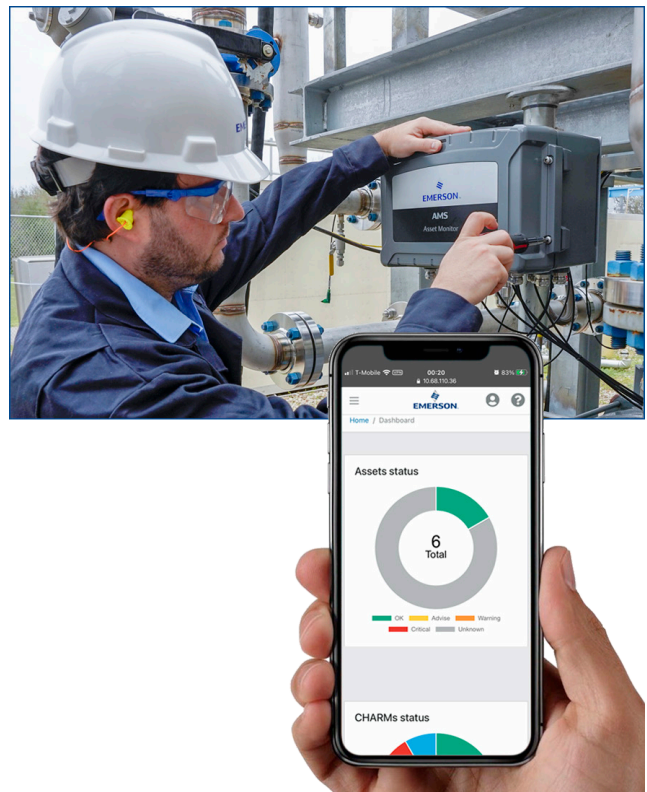
- Small footprint size that is easy to mount.
- Field-located close to the motor for easy and lower-cost wiring.
- Predefined asset templates eliminate costly engineering.
- Easy DIY configuration.
- Built-in web service software interface replaces software, server, and licensing.
- Access asset health with any browser-enabled device from anywhere.

### AUTOMATED COLLECTION AND BUILT-IN EDGE ANALYTICS

- Continuous data collection eliminates data gaps between collections.
- Automated analysis provides current asset health 24/7.
- Vibration training and experience not required for diagnosis.

### INTERFACE DATA TO OTHER SYSTEMS AND ANALYTICS

- Acts as Modbus TCP/IP Slave and OPC UA Server.
- Connects to Plantweb Optics Platform, Historians, PLC, DCS, and Data Lakes.



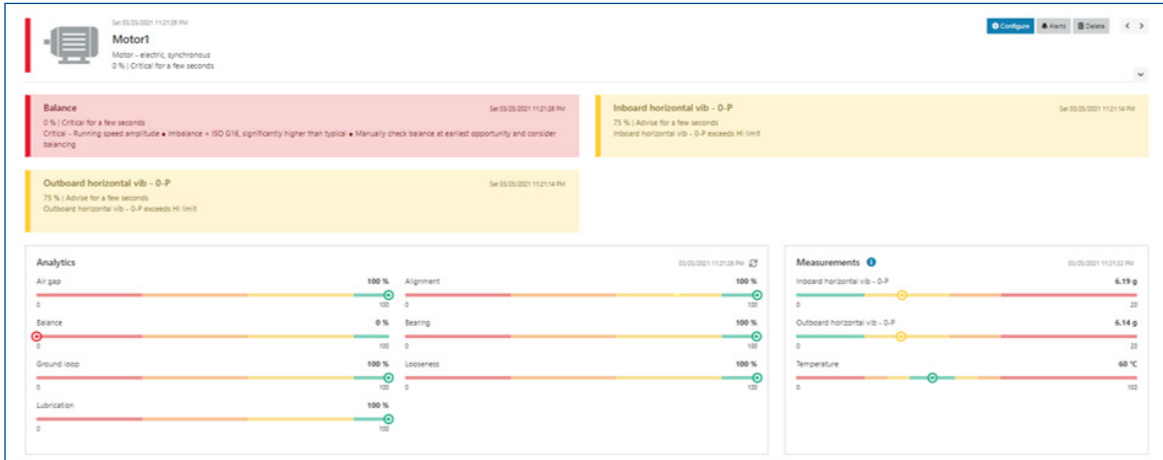
### INTEGRATION WITH EMERSON'S DELTAV DCS

- Supports the new Module Type Packages (MTP) for DeltaV, facilitating integration and communication between operations and field assets.
- Uses the same **Characterization Modules (CHARMs)** as DeltaV Remote for click-in-place technology.
- Similar housing to the DeltaV junction box for ruggedness and familiar installation.

<sup>1</sup> <https://ouc.bizenergyadvisor.com/article/ac-induction-motors>, April 17, 2019

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## Intuitive Dashboard for Common Issues

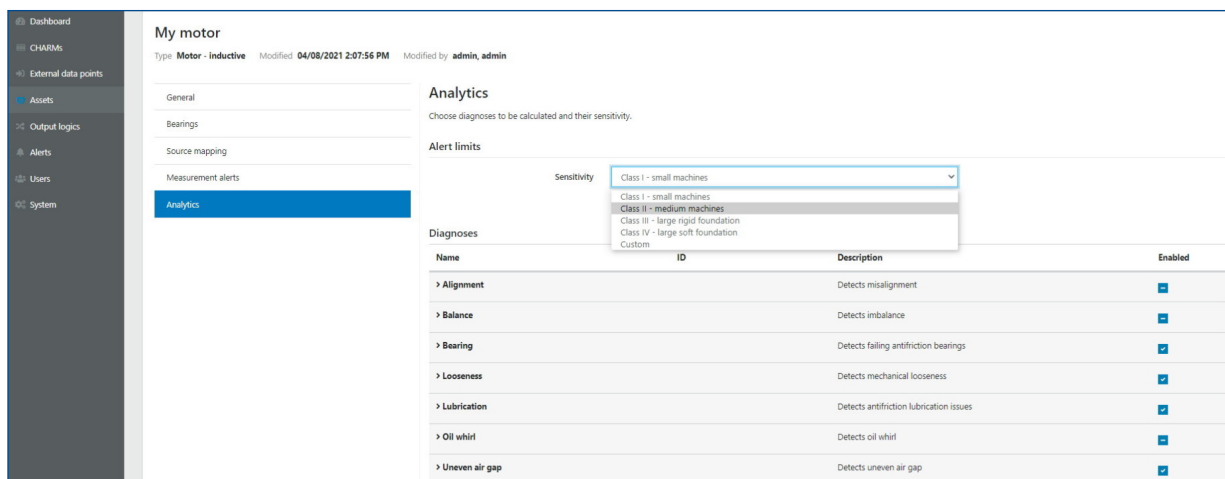


### Typical issues include:

- Antifriction bearing mechanical damage or improper lubrication
- Sleeve bearing Oil Whirl
- Rotor imbalance or misalignment
- Looseness in the support
- Uneven air gap
- Elevated blade pass amplitude
- Flow turbulence

### Intuitive configuration in 8 easy steps:

1. Select and configure CHARMS
2. Configure external data points for process parameters such as flow rates and temperature
3. Choose asset type (pump, motor, gearbox, etc.)
4. Enter general information about the asset.
5. Enter bearing details, or select from the bearing library provided.
6. Map available sources to measurement locations
7. Configure alert limits
8. Select machine size... and you are done!



Step 8: Select the machine size and class. Diagnostic rules are activated based on machine type. Alert limits are adjusted according to machine size.