

For many of you, the 3500 has been the premier turbomachinery protection system choice for decades. For others, you may have heard about the reputation of the 3500, but felt it lacked some key feature you needed for plant-wide asset monitoring. Here is a quick comparative overview highlighting some key enhancements with Orbit 60 helping you make the best decision for your application and organization overall. For more information, please visit bently.com/orbit60.

3500

Centralized architecture

Size: 6U (typically 2-3 in a cabinet)

Single module (TDI) for Configuration access and Condition Monitoring requiring bidirectional data flow

Only front modules are hot-swappable

Wide range of unique application-specific cards

Each A/D processor supports the 4 channels on that module

Single chassis architecture: only modules within the unit can communicate with each other

Supports 4 Keyphasor inputs

Publishes sensor data to the control system

No status indicators on I/O (rear) side of rack OK/Not OK status in fault types

Electro-Mechanical relays

Modules are designed for specific functions

External display only (VGA)

Dynamic vibration channel fixed and limited to 800 lines of spectral resolution

Optimized for fluid Film Bearing Machines

Jumper-configurable input modules

No front-end rack health telemetry data

Orbit 60

Centralized and Distributed architecture

Size: 3U (4+ in a cabinet)

Segregated Configuration and Condition Monitoring modules (SIM and CMM)

All modules are hot-swappable

PAV card alone can cover 90% of typical inputs, allowing greater flexibility and parts consolidation

50%+ reduction in spares requirement

Any input channel can have redundant processor providing multiple levels of redundancy (increase availability)

Distributed deployment: multiple modules can communicate within the chassis and among other chassis through bridging 50%+ reduction in field wiring requirements for a new project

Any dynamic input channel can be used for Keyphasor input

Publishes sensor data to CS and receives process data from the CS

LEDs for each channel with detailed health data covering module, wiring, and transducer (front and rear)

Electro-Mechanical and Solid-State relays

Modules are architected to make all data available for a broad range of applications

Configurable on-board and external display-ethernet

Configurable dynamic vibration resolution (3200+ lines)

Optimized for all machine types including REB

Jumperless, channel-level configuration, native support for positive voltage powered transducer types

Telemetry data available for device health monitoring and diagnostics

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