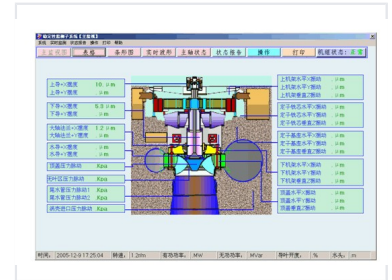


Hydropower Unit Condition Monitoring System

This system provides real-time monitoring of various parameters in a hydropower unit. It enables proactive maintenance and prevents potential failures by providing a comprehensive overview of the unit's condition.



System Overview

Comprehensive Hydropower Monitoring

The Hydropower Unit Condition Monitoring System provides real-time surveillance of essential hydropower generation parameters. By tracking critical data such as shaft runout, pressure pulsations, and structural vibrations, it enables proactive maintenance and helps prevent unexpected failures. This integrated analysis system ensures long-term operational stability and efficiency for hydropower assets.

Monitoring Parameters

Vibration Monitoring Points

- Upper machine frame (Horizontal/Vertical/Axial)
- Lower machine frame (Horizontal/Vertical/Axial)
- Stator core (Horizontal/Vertical)
- Stator base (Horizontal/Vertical)
- Top cover (Horizontal/Vertical)

Pressure & Displacement Sensors

- Upper guide vane displacement
- Lower guide vane displacement
- Water guide displacement
- Top cover pressure pulsation
- Draft tube pressure pulsation
- Spiral case inlet pressure pulsation

Key Operational Metrics

Real-time Operational Data

0 MW

Active Power

0 MVar

Reactive Power

0 %

Guide Vane Opening

0 m

Water Head

System Features

Core Capabilities

Real-time Monitoring, Integrated Analysis, Proactive Maintenance, Failure Prevention, Waveform Analysis, Data Reporting