

CONVERTER HEALTH CHECK

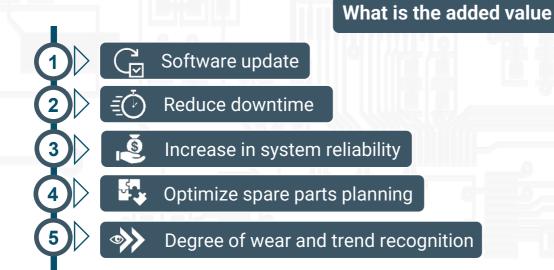






Why do we recommend a manufacturer inspection

- Certain critical issues are not covered by the normal scheduled maintenance cycle
- Over time, gradual wear leads to failure of converter components in the wind turbine
- The recommended system test incorporates customer feedback, personal experience and extensive internal error analysis





CONVERTER HEALTH CHECK



What actions will be taken

- Checking of available retrofit solutions for your system type
- **Visual inspection** for damage
- Checking the software for available updates
 - Software update installation
- Take and analyze data triggers
 - Checking the switching times

 (aging process switches, contactors and relais)
 - Checking the control signals and set points of internal controls
 - Analyze the temperature of each IGBT phase and perform a heat sink endoscopy if necessary
- Current symmetry measurement and evaluation
- **Attenuation measurement** of the fiber optics
 - Polishing in case of abnormalities
- Detailed inspection of critical components
- Analysis of critical parameters of the frequency converter
- Carrying out of functional tests
 - DC-Link limiter
 - · Crowbar, if applicable
 - · Surge and arc protections
 - Circuit breaker (Trip Unit) / Grid protection monitoring
 - UPS-Operation and backup protection



Result

- Detailed report
 - Recommendations for spare parts planning
 - Recommendations for increasing reliability and improving functionality through upgrades and retrofits