



On-load tap-changer monitoring with MSENSE[®] VAM

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How can I detect mechanical irregularities on the tap-changer early and from the outside?

Why MSENSE® VAM?

On-load tap-changers are the only moving part and therefore belong to the most important and critical components of power transformers. They therefore represent the heartbeat of the transformer. It is therefore important for network operators to be able to determine their condition at any time.

How does MSENSE® VAM work?

The basis of MSENSE® VAM is a robust measuring system that measures the vibrations that occur during the switching process of a on-load tap-changer. These vibrations are evaluated with the help of a dynamic and self-learning limit value curve. MSENSE® VAM thus enables mechanical irregularities, time differences in the switching process or anomalies in the on-load tap-changer to be detected and reported. In this way, availability can be reliably ensured.

Only one vibroacoustic sensor is required on the head cover of the on-load tap-changer. The sensor is also available as a retrofit solution for existing transformers.

With our **VAM ANALYSIS SERVICE**, we provide you with a detailed report with recommendations and measures.

Your advantages

- Patented self-learning algorithm with adaptive limit curve and noise suppression (e.g. rain or general noise in the substation)
- Easy mounting on the head cover of the tap changer also as retrofit
- Detailed analysis of the VAM ANALYSIS SERVICE provides probable causes and clear recommendations for action
- Available for on-load tap-changers of all manufacturers and types
- Integration to ETOS® with analysis, evaluation and recommendations for action
- Early fault detection: Indicates anomalies at an early stage that cannot be detected otherwise and thus helps to avoid failures
- With the help of MSENSE® VAM, an extended warranty for the on-load tap-changer is possible
- Important component for condition assessment of the on-load tap-changer (cf. Cigré TB761 Condition assessment of power transformers)
- In the future, a simple comparison to Online VAM measurements will be possible using the ex works VAM fingerprint measurement as a reference
- We are there when you need us - global service network MR with 24/7 availability
- Personal support from your local MR Sales representative



→ [More information](#)

Contact us at: MSENSE@reinhausen.com