

ABB's reliability assessment

Keeping your motor-driven applications running without interruption for longer



Securing positive outcomes for customers means that every part of your process needs to run uninterrupted, with no surprises. Reliability saves time, cuts costs and ultimately keeps your business effective.



An ABB reliability assessment looks at the environmental and operating conditions of your installed variable-speed drives (VSDs) and gives you knowledge to determine exactly where your process stands, now and in the future. This enables you to make informed decisions about the best way to spend maintenance budgets in order to maintain uptime of plant and processes.

We understand you may have questions about how reliability assessments work - for example, what is required of you as the customer. We have created this document to answer some of the most commonly asked questions, as well as to provide a step-by-step guide to the process (see overleaf).

Q What is a reliability assessment?

A A reliability assessment provides the foundation for developing a long-term maintenance and improvement plan for VSDs. Customers are provided with a detailed view of the current condition of their installed base of VSDs. This helps them to optimise service budgeting by planning plant maintenance actions in advance and prioritising spend on critical applications. A reliability assessment also predicts how plant conditions might change over time, meaning steps can be taken to tackle potential problems before they arise.

Or to put it another way – the aim of an ABB reliability assessment is to keep your equipment and processes running without interruption for longer.

Q What does ABB do?

A A reliability assessment is carried out by ABB or a member of its authorised value provider (AVP) network. The network comprises independent engineering companies, fully trained and authorised by ABB to offer technical and practical advice on all issues relating to the selection, dimensioning, start-up and operation of VSDs.

Q How long does the process take?

A A reliability assessment has three stages: planning, a site visit and evaluation. The site visit is the most crucial part as it is during this stage that data on equipment and processes is gathered.

The length of time needed for a site visit depends on the number of VSDs being assessed. A typical sewage treatment works, for example, consisting of approximately 20-25 drives would typically take between ½ day to 1 day on site to gather the required data and interview relevant stakeholders.

Once the data has been analysed, the report is presented and discussed with the relevant site personnel and possible solutions are presented.

Q

What do I need to do?

A

Most of the work involved in a reliability assessment is undertaken by ABB or one of its providers. However, the process does require a commitment of time by the customer – in the planning stages, during the site visit, and afterwards to discuss and implement the findings of the assessment.

Q

I'm interested in a reliability assessment. What do I do now?

A

To find out more about an ABB reliability assessment, visit ABB's dedicated reliability web page by [clicking here](#) or call ABB's dedicated drives hotline - 07000 DRIVES (that's 07000 374837)



Reliability assessment: The process

1

Drive registration

Before any assessments can be carried out, every drive needs to be registered. During registration, application information and drive criticality are defined alongside the customer.

2

Getting started

Applicable data is collected on the VSDs in question, including service history, lifecycle status and environmental conditions where the drives are situated. In collaboration with on-site personnel, data about technical infrastructure and process requirements are gathered.

3

Going into detail

ABB goes into detail about each individual drive, including age, location, business impact, service status and impact of the environment on the asset.

4

Analysing the data

The reliability assessment combines all variables applicable to each drive to produce a comprehensive picture of the technical infrastructure. Decisions can then be made based on the risk to the business and the likelihood of failure, whilst also considering factors such as whether spare parts or replacements are available.

5

The facts

A report is produced outlining the current and future status of the relevant assets. A comprehensive set of information allows maintenance plans to be implemented and budgets to be planned based on the investment required to ensure trouble-free operation of the equipment. Where budgets are limited the report can allow prioritisation of investment to reduce the risk to the process as far as possible. It also allows imminent future defects to be tackled in time.