

Quality and Inspection Requirements for Electrical Equipment

Rubrik/Title

General Quality and Inspection requirements

Beteckning /Document

KBE 100-3

Utgåv /Issue

3

Datum/Date

2018-10-03

Ersätter/Supersedes

2 (E)

Contents

1	Requirement Levels	2
2	Quality Assurance System	2
2.1	QA Requirements on the Manufacturer/Supplier	2
3	Quality and Inspection Requirements	2
3.1	General requirements	2
3.2	Regulations and Standards	3
3.3	Product Verification	3
4	Other Requirements	3

Document	Issue	Date	Supersedes
KBE 100-3	3	2018-10-03	2 (E)

1 Requirement Levels

Depending on physical location and other plant specific aspects KBE 100 is divided into 3 requirement levels. These levels are not directly related to the specific classification principals applied for each power plant concerning electrical function classes therefore an assessment on applicable requirement level has to be done for each specific case.

The requirement levels are KBE 100-1, KBE 100-2 and KBE 100-3 where level -1 is the top level.

For 1E- and category A-equipment according to IEC 61226 KBE 100-1 shall apply.

2 Quality Assurance System

2.1 QA Requirements on the Manufacturer/Supplier

The Manufacturer/Supplier shall have implemented a quality management system which meets the requirements in appropriate standard in the ISO 9000 series or other equivalent standard.

The requirements shall be applied on all activities with impact on quality regarding development, design, manufacturing, inspection, shipping, installation and service to the extent which they are performed by the Manufacturer/Supplier or his subcontractors.

For software applications ISO/IEC 90003 shall be applied. Other well-known standards may be acceptable after Purchasers approval.

3 The Manufacturer/Supplier shall possess and follow an IT-security program for programmable electronics, implemented in the QA management system. The IT-security program shall meet the requirements in ISO 27001 or other equivalent standards. Quality and Inspection Requirements

3.1 General requirements

The Manufacturer/Supplier shall take full responsibility for the quality of the products and pay for all expenses for the required inspections and tests. The Manufacturer/Supplier shall also pay for the expenses which may arise from deviations, nonconformities or delays due to re-inspection caused by the Manufacturer/Supplier .

This document describes the quality requirements for electrical and instrumentation equipment . However many components such as venturris, thermowells, condensation pots etc. may be regarded as mechanical equipment. For these, requirements according to TBM (Technical Requirements for Mechanical Equipment) are valid. Inspections are specified in a separate inspection plan according to KBM (Quality Regulations for Mechanical Equipment).

3.2 Regulations and Standards

The Manufacturer/Supplier is responsible for the compliance to regulations and standards valid at the time of quotation. This applies in addition to what the Purchaser may have specified in the inquiry or purchase order.

Primarily Swedish regulations and IEC standards shall be applied. Other international or national regulations and standards may be applied after approval from the Purchaser.

From the quotation it should be clear by which regulations and standards the product is designed. The Manufacturer/Supplier shall provide copies of these documents upon Purchasers request.

3.3 Product Verification

The products capacities, environmental endurances and other attributes should be verified through type inspection, routine inspection or specific analyses. Verifying documents shall be provided upon Purchasers request.

4 Other Requirements

For standard type products the Manufacturer/Supplier shall have a system for fault reporting, statistics, and experience feedback valid for all users of the product. Information on this shall be provided upon Purchasers request.