

<b>Examination Procedure</b>  <small>Rubrik / Title</small> <b>Ability to withstand variations in supply voltage and frequency</b>	<small>Beteckning / Document</small> <b>KBE EP-108</b>
	<small>Utgåva / Issue</small> <b>1 (E)</b>
	<small>Datum / Date</small> <b>1997-08-28</b>
	<small>Ersätter / Supersedes</small> <b>KSU-KBE EP 108 (E)</b>

## 1 Scope

This Examination Procedure is applicable to AC- and DC-supplied equipment.

## 2 Objective

To verify that electrically powered equipment performs its specified functions when subjected to permissible variations in supply voltage and frequency.

## 3 Method

- The equipment is to be connected to nominal power supply voltage and frequency according to the Technical Specification.
- The frequency is increased to 105% of the nominal value.
- With the frequency maintained at 105% of the nominal value the voltage is to be increased to 110% of the nominal value.
- The frequency is to be decreased to 95% of the nominal value and the voltage is reduced to the nominal value.
- With the frequency maintained at 95% of the nominal value the voltage is to be reduced to 85% of the nominal value.
- Power supply voltage and frequency are restored to their nominal values.

The values of voltage and frequency as specified above shall be maintained for at least five minutes during each test condition (b-e). Frequency variation may be omitted after agreement with the Purchaser.

## 4 Acceptance Criteria

During the above testing, as set out in points a-f, the equipment must operate normally, meeting specified requirements for performance, stability and accuracy. This must be verified by visual inspection and performance testing.

## 5 Documentation

Inspection performed is to be documented in a inspection certificate, record or technical report as required in the Inspection Plan. Several examinations within one and the same Inspection Plan may be reported in the same document.

Examinations carried out as routine (100%) inspection are to be reported to the Purchaser as original documents.

The document must as a minimum include the following:

- Items examined

Product, designation, quantity, serial numbers and reference to the Purchasers order.

- Identity / Traceability

The identity of the objects under examination in comparison with type tested items and in comparison with relevant specifications must be specified, unless the identity is certified in a separate document (as per KBE EP-180).

- Examination procedure

It must be clearly stated if the inspection has been performed according to this Examination Procedure or to any other procedure agreed upon.

- Measurement equipment

Type of equipment, accuracy, identification, etc, and current calibration data for the equipment used where performance is significant to the results.

- Results

It must be evident that the items have fulfilled stated requirements and acceptance criteria. Measured and recorded values that are to be documented as per the procedure as well as any deviations from requirements in applicable specifications or test procedures must be reported.

- Approval

Date of inspection and name of responsible inspector are to be included. The document must be reviewed and approved in accordance with the Manufacturers or the laboratory's internal QA/QC routines.