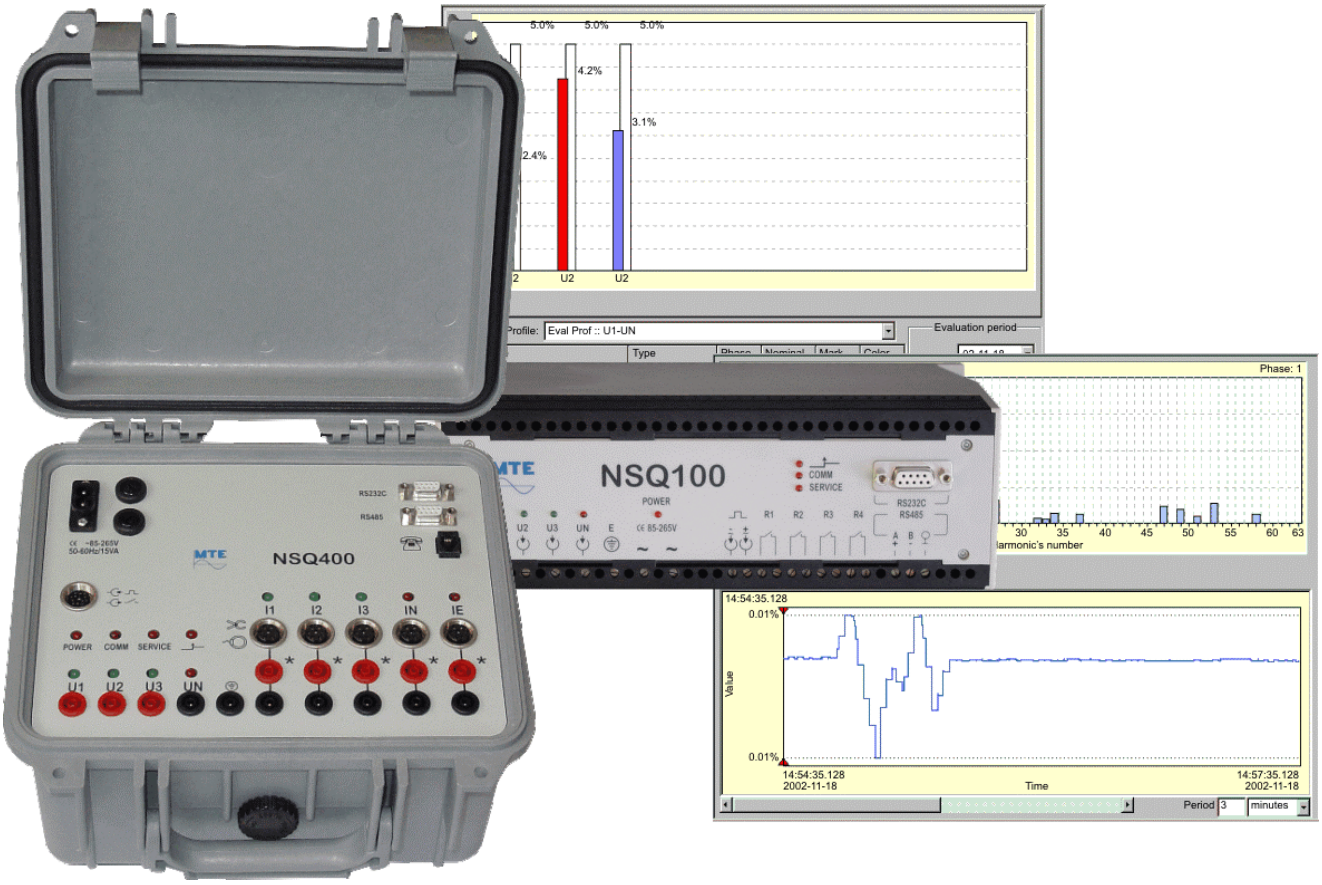
MTE Meter Test Equipment

NSQ 400 / NSQ 100

Network Quality Analysis System



The NSQ 100 and NSQ 400 network quality analysis systems can detect and record mains failures. Convincing power data and a high degree of flexibility, based on completely software-based operation and configuration, quickly and cost-effectively solve mains failure problems.

The entire evaluation, analysis and programming of the two system components are based on a shared software platform under the operating system Windows® NT, 2000 or XP.

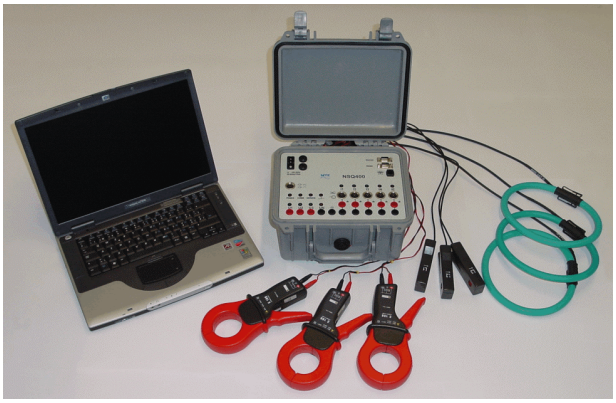
Analysation procedures according to European standards (e.g. DIN EN 50160), North American standards (ANSI, CBEMA or ITIC) or special industrial or plant standards are supported.

By using several NSQ 100s and NSQ 400s an uninterrupted network quality analysis system can be built up that can be read and programmed remotely (via the integrated RS 232 or RS 485 interfaces as well as connected landline or GSM modems) and the network quality of an entire supply area or production plant can be brought together completely.

NSQ 400

Mobile Network Quality Analysis System

The NSQ 400 has been developed for network quality investigations at changing locations – even under difficult ambient conditions. Its application versatility ranges from the analysis of sporadic mains failures right up to detailed detection of the causes and the development of reaction approaches.



The device allows all network quality factors pursuant to DIN EN 50610 and other standards to be determined.

The key system properties of the NSQ 400 are as follows:

- 5 current measuring channels, 4 voltage measuring channels
- Direct current measurement (up to 6 A), clip-on CTs up to 3000 A
- Sturdy plastic casing, IP 65
- Integrated interfaces RS 232 and RS 485, modem
- LED (programmable), relay outputs

NSQ 100

Network Quality Analysis for Fixed Installations

NSQ 100 is a fixed measuring and analysis system that is used whenever installations, customer systems or operating control points have to be monitored continuously or over a long period. In particular, critical production processes or special quality agreements between energy suppliers and customers can be accompanied and clearly documented by the NSQ 100. The unit is ideally suited to installation in a switching cabinet or wall mounting.

The capacity of the internal memory is designed to store all network quality parameters (incl. transients and wave shape recording) for a period of 40 days. The value is based on storage interval times according to DIN EN 50160 and usual middle European network characteristics.

Due to its area of use, the key system properties of the NSQ 100 are as follows:

- 4 voltage measuring channels
- Ready for installation in a switching cabinet
- Screw-on device, DIN rail mounting
- Integrated interfaces RS 232 and RS 485, modem
- LED (programmable), relay outputs

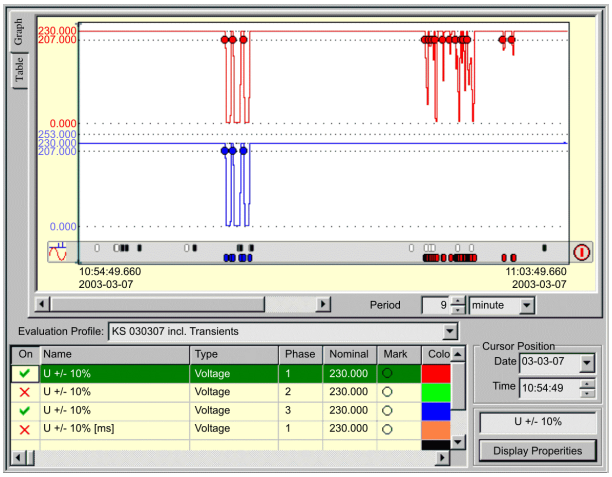
Software and Operation

Operation of the two network quality analysis systems NSQ 100 and NSQ 400 is based on a identical software platform. They can run under the operating systems Windows® NT, 2000 or XP. The following operating functions can be carried out with the software:

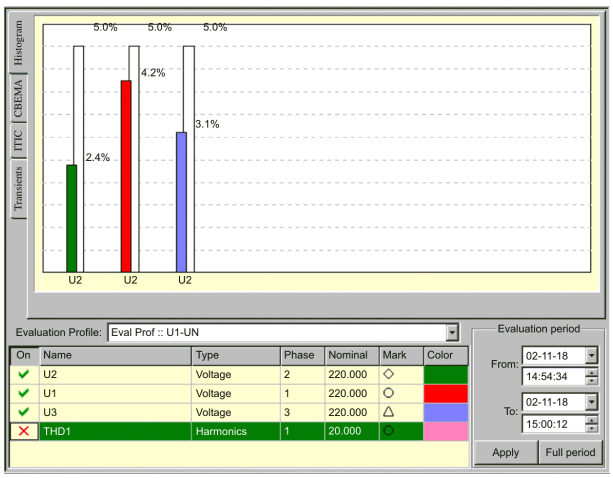
- Parameterisation of NSQ 100 and NSQ 400 (direct or via modem)
- Selection of measuring and analysis results
- Evaluation and analysis of mains failures
- Identification and printing of results protocols

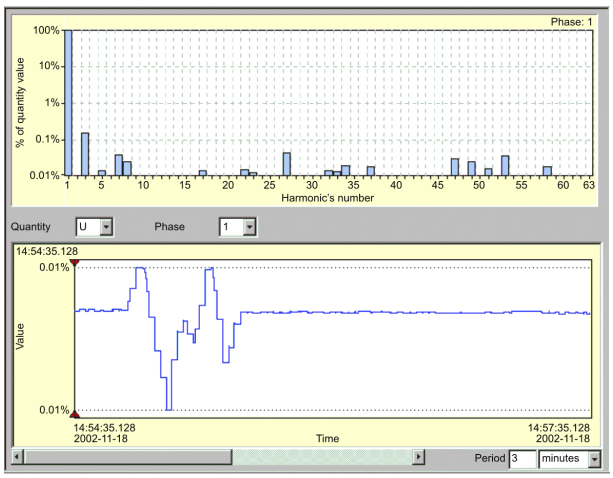
In order to simplify operation the operating menu has been split in two. In the left-hand window various measurement points (e.g. several NSQ 100s and NSQ 400s within a supply area or within a production plant) can be selected out of a network and the software can connect to the NSQ 100 or NSQ 400 in question.

Evaluation can take place after the measurement results have been read.



The representation (on the right-hand side of the operating menu) can be configured by the user. By clicking the mouse on a specific event (e.g. voltage elements) the exact course of the curve of the event (in real time) can be displayed.





Evaluation procedures pursuant to DIN EN 50160 (see above), CBEMA, ANSI, etc. are available in the software as standard. Other evaluation mechanisms can be freely programmed and adapted by the user. Harmonic analysis can be together with voltage development.