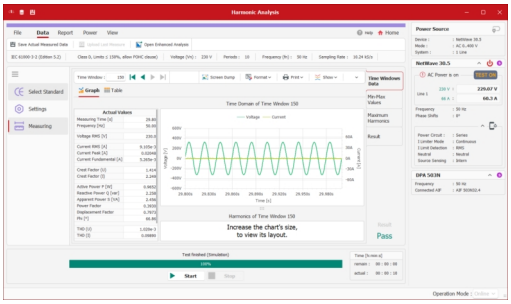
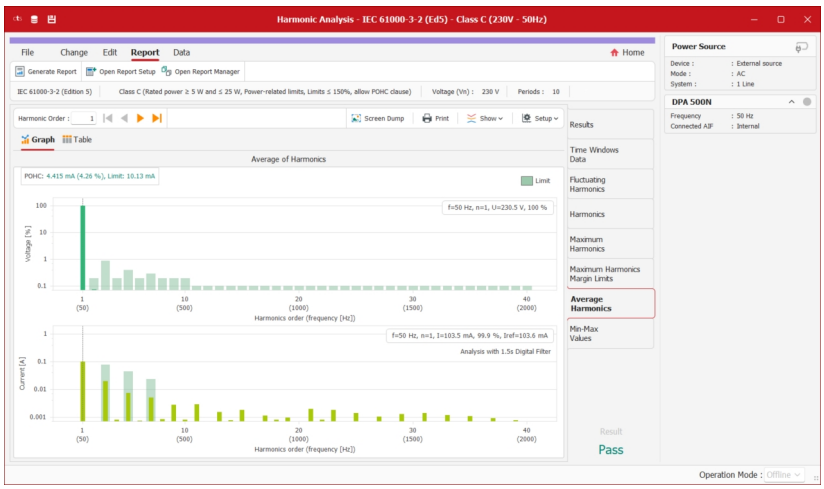


CTS Harmonics Measurement

Compliance Test Studio

Compliance Test Studio 23 for Harmonics is the comprehensive and easy to use software to perform harmoncis emission measurements with a DPA 50xN power analyzer. It supports you for basic PASS / FAIL testing, report generation as well as enhanced analysis of measurement data. It is the ideal tool for compliance testing and for measurements along the product development process.

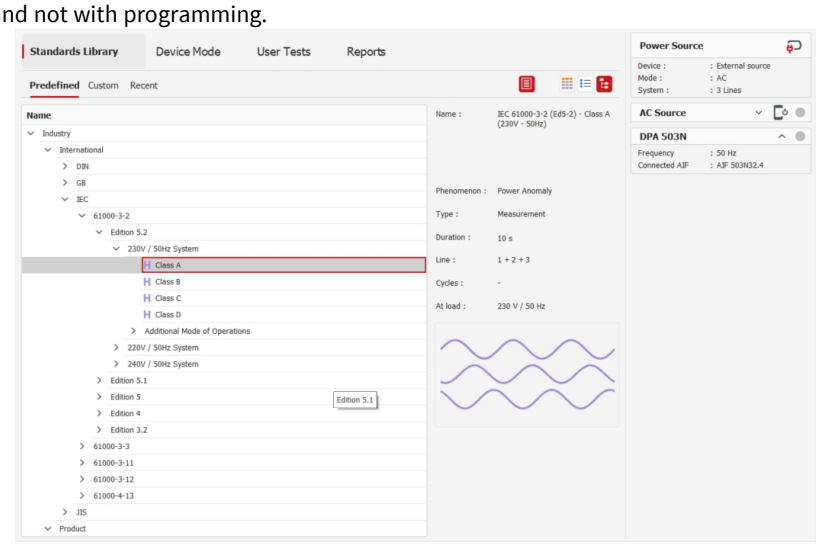


MAIN FEATURES

- **Fully compliant Harmonics Emission Measurements**
- **IEC 61000-3-2, IEC 61000-3-12 and others**
- **ECE R10 and other manufacturer standards**
- **Large library with pre-programmed tests**
- **Easy generation of comprehensive reports**
- **Enhanced analysis for root cause analysis**

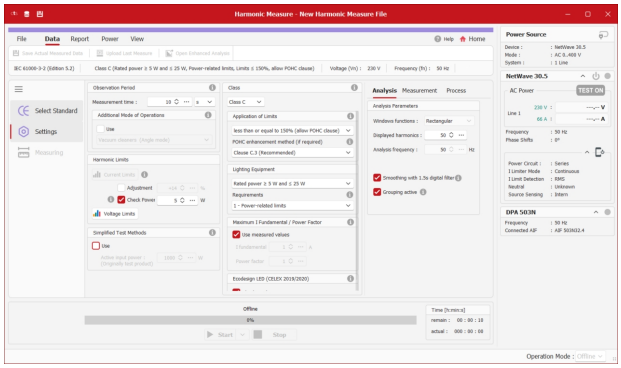
Efficient testing with Standards Library

Increase your efficiency by using the extensive test library. Spend time with testing and not with programming.



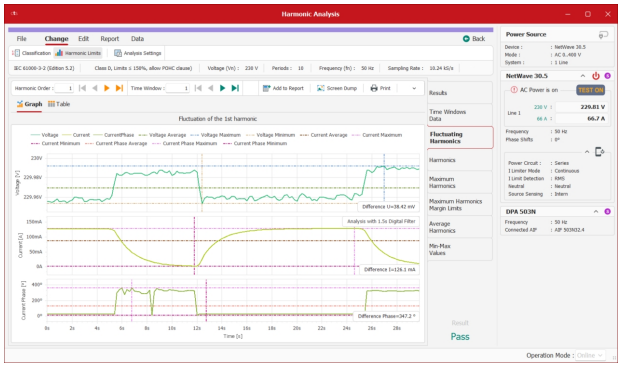
Using the standards library for testing is a convenient way to get started quickly. Select one of the pre-programmed tests, adjust the basic settings and start the test. The Harmonics library covers a wide range of standards, including IEC 61000-3-2, IEC 61000-3-12, JIS 61000-3-2 etc. It includes not only the current but also the older editions of standards which ensures backward compatibility of products.
AMETEK CTS experts actively participate in international standardization work. This ensures that always the latest changes are implemented and newest versions of standards are available.

Main Features and Functions



The Measure&Analyze function allows fully compliant testing of IEC 61000-3-2, IEC 61000-3-12 and related standards. All classes (A, B, C, D) with sub-classes, special test conditions according to annexes, Rsce calculations and phase angle assessment are supported. The software automatically checks all the conditions for emission limits, POHC enhancement, grouping etc. and delivers a PASS / FAIL decision. This allows also less experienced users to perform fully normative tests.
Emission limits can be adjusted for pre-compliance measurement, e.g. during product development.

Documentation of harmonic measurements is an important step in testing. Compliance Test Studio supports with various functions for report generation: add customer information, test object data, test setup pictures and additional information. With the report editor the report content can be customized to create a meaningful report. Customize the test report template to include your company logo and address. Monitoring measurements and print screens of external instruments can also be added.
It is also possible to save the report within the Compliance Test Studio and reopen to modify. The report can be exported in various file formats which allows further processing and integration in overall test reports.



The CTS.EnhancedAnalysis license offers additional tools for further analysis of measurement data. Get detailed insights into each individual time window, analyze trends of individual harmonics , THC or POHC over time to find out exactly where and what caused a specific harmonic.

This license also allows to post process saved test files and re-analyze already taken measurements: change the standard, class or analysis settings (e.g. grouping enabled/disabled) . This saves valuable time without the need to repeat the actual measurement.

Available Licenses

License	Description
CTS.DeviceDPA (inlcuded with every DPA 50xN)	Enables the Device Mode to perform harmonics and flicker measurements with a DPA 50xN, one license required per device
CTS.ExtFunctions (inlcuded with every DPA 50xN)	Extended features including report, link, flowchart, measuring instruments integration, iterations, interlink, import and export of test data , requires a device license
CTS.Industry (inlcuded with every DPA 50xN)	Library with pre-programmed tests for industry standards (IEC, GB, BS, DIN, including IEC 61000-3-2/-12 harmonics and IEC 61000-3-3/-11 flicker), valid for all licensed devices, requires a device license
CTS.Automotive-H&F	Library with pre-programmed tests for harmonics and flicker automotive standards (e.g. ECE R10, IEC 61851, Stellantis, Volkswagen, Mercedes, etc.), special licenses for Nissan and Renault on request, valid for all licensed devices
CTS.EnhancedAnalysis	Enhanced analysis function with detailed view on measurement data per time window, analysis of saved test result files, re-evaluate existing measurements, etc.

Supported Devices

Models	DPA 500N, DPA 500N1, DPA 500N1.1, DPA 503N Opt-1 NWB, Opt-3 NWB