



DEWETRON



LITE[PA]

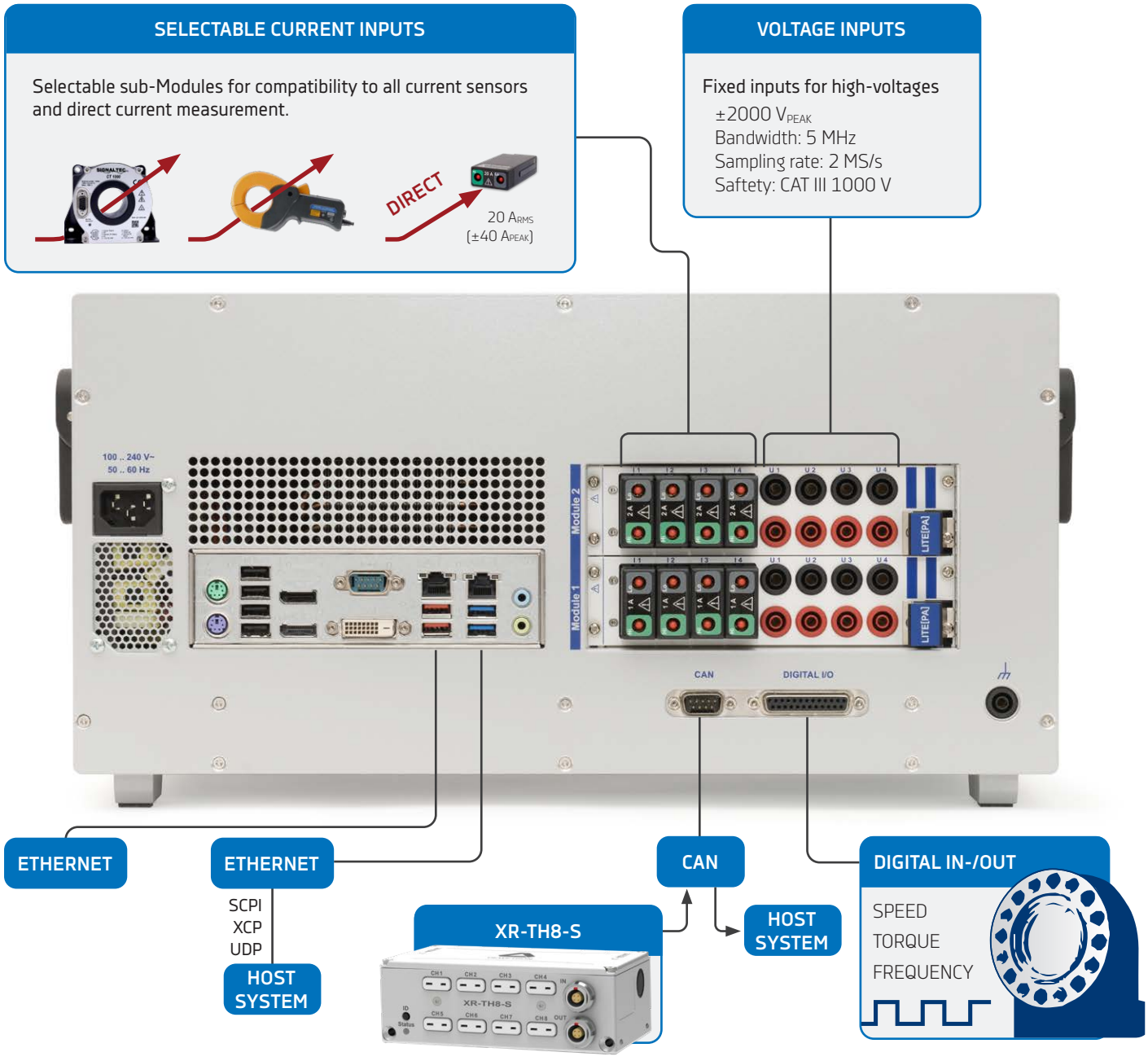
THE EASIEST TO INTEGRATE
HIGH-PRECISION POWER ANALYZER



LITE[PA] BY DEWETRON

DEWETRON's LITE[PA] is a high-precision Power Analyzer with 4 or 8 phases. The proven input modules guarantee highly precise measurement results and offer the user enough flexibility to use all common current sensors. Inputs for speed and torque are available as standard and make the LITE[PA] suitable for testing electric motors. In addition, the system architecture offers a variety of interfaces, such as CAN, Ethernet and USB, for data exchange.

- > Most intuitive user interface for direct device operation, e.g. in laboratory use
- > Effortless data connection to host systems for remote controlled test stand or end-of-line applications




DATA CONNECTION TO HOST SYSTEMS











The LITE[PA] is ready to be easily integrated into a wide variety of host systems. In addition to the CAN-bus, the data can also be transmitted via Ethernet, with various protocols such as SCPI or XCP. The remote control is usually done via SCPI; extensive commands are available to e.g. load predefined setups, make trigger settings, etc.



HIGH-VOLTAGE & CURRENT INPUTS

The LITE[PA] features 4 or 8 fixed high-voltage inputs and up to 8 selectable sub-modules to connect all state of the art current sensors.

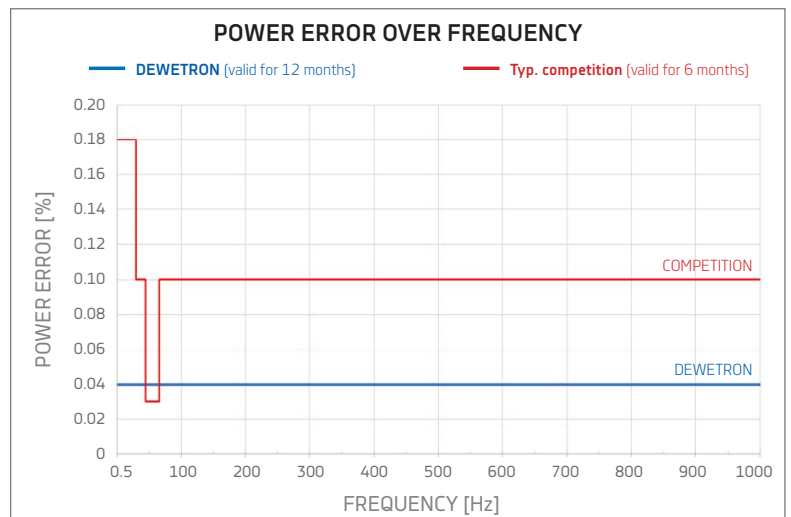
| FIXED HIGH-VOLTAGE INPUTS | | RANGE | SAFETY | BANDWIDTH | CONNECTOR |
|---------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------|----------------------------------|-----------|---------------|
| Voltage input U1, U2, U3, U4 |  | 1000 V _{RMS} (±2000 V _{PEAK}) | CAT IV 600 V / CAT III 1000 V | 5 MHz | Safety banana |

| SELECTABLE SUB-MODULES | | RANGE | SAFETY | BANDWIDTH | CONNECTOR | |
|------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------|---------------|----------------------|
| VOLTAGE | 1 V module |  | 1 V _{RMS} (±2 V _{PEAK}) | Not isolated. Depending on connected clamp | 5 MHz | D-SUB-9 socket |
| | 5 V modules |  | 5 V _{RMS} (±10 V _{PEAK}) | | 5 MHz | D-SUB-9 socket |
| | |  | | | 100 kHz | D-SUB-9 socket |
| | 600 V module |  | 600 V _{RMS} (±1500 V _{PEAK}) | CAT II 600 V, isolated | 300 kHz | Safety banana |
| XV module (seamless auto-range) |  | 600 V _{RMS} (±1000 V _{PEAK}) 60 V _{RMS} (±100 V _{PEAK}) 6 V _{RMS} (±10 V _{PEAK}) 0.6 V _{RMS} (±1 V _{PEAK}) | 300 kHz | | Safety banana | |
| CURRENT | Current transducer module |  | 1 A _{RMS} (±2 A _{PEAK}) 0.5 A _{RMS} (±1 A _{PEAK}) 0.25 A _{RMS} (±0.5 A _{PEAK}) 0.1 A _{RMS} (±0.2 A _{PEAK}) | Not isolated. Depending on connected clamp | 5 MHz | D-SUB-9 socket |
| | 20 A module |  | 20 A _{RMS} (±40 A _{PEAK}) | | | |
| | 2 A module |  | 2 A _{RMS} (±4 A _{PEAK}) | CAT II 600 V, unfused | 300 kHz | Safety banana (male) |
| | 1 A module |  | 1 A _{RMS} (±2 A _{PEAK}) | | | |
| | 0.2 A module |  | 0.2 A _{RMS} (±0.4 A _{PEAK}) | | | |

HIGH ACCURACY - WIDEBAND

The power accuracy of DEWETRON's LITE[PA] is stunning. Compared to other Power Analyzers available on the market, it offers a **constant power accuracy of 0.04 %** from 0.5 Hz to 1000 Hz fundamental frequency. High-precision measurements over a wide frequency range are a central requirement for test stand applications.

The LITE[PA] is delivered with a **factory calibration certificate**. An accredited calibration, traceable according to **ISO 17025**, can be done on request. The correction values for calibration are stored on the input modules, so it is sufficient to send only the modules and not the entire system for calibration. Since downtimes have to be minimized, spare input modules can simply be plugged in to bridge the calibration time.



OXYGEN USER SOFTWARE

The LITE[PA] comes with our easy-to-use OXYGEN software. Within a minute, the basic measurement setup is ready, e.g. a 6-phase system with 1000 A current transformers, and all the typical power parameters are available to be displayed and stored. The user is free to design his or her own views by selecting from a variety of displays and assigning signals using drag and drop.

Additional online data processing such as mathematics, special statistics, filtering, etc. is easily possible at any time. Also, the efficiency map of a drive train can be calculated and displayed directly during the measurement.

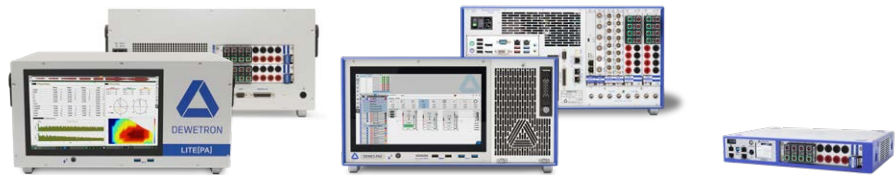
For offline analysis and reporting tasks, the software can be **installed license-free on any number of analysis PCs**.



| LITE[PA] SPECIFICATIONS | |
|-------------------------------------------|-------------------------------------------------------------------------------------|
| POWER accuracy 0.5 Hz to 1000 Hz (1 year) | 0.04% |
| Sampling rate @ resolution | Up to 2 MS/s @ 24-bit |
| Bandwidth | Up to 5 MHz |
| Temperature measurement | Via XR-series modules |
| Internal storage capacity | 256 GB |
| Display | 11,6" multi-touch wide-screen, full HD |
| Data visualization | Freely configurable and arrangeable, multiple view screens |
| Advanced data processing | Formulas, filters, statistics, FFT, etc. (online and post processing) |
| Reporting | Integrated reporting, many export data formats (*.xlsx, *.mat, *.dat, *.csv., etc.) |
| Data sharing and offline analysis | Unlimited free VIEW licenses for workgroups (for multiple analysis PCs) |
| Host system data connection | CAN, Ethernet (SCPI, XCP, UDP) |
| Power supply | 90 .. 264 V _{AC} |

POWER ANALYZERS IN COMPARISON

We are sure that you will find the right power analyzer at DEWETRON. The table below shows the main differences between the "Standard Power Analyzer" LITE[PA] and the "Advanced Power Analyzer" models.



| | LITE[PA] | DEWE3-PA SERIES | PA-TRIONet3 |
|----------------------------------------------------------------------------------------------------|-----------------------------------------------------|-----------------------------------------------------|-------------------------------------------|
| Instrument type | All-in-one, turnkey | All-in-one, turnkey | Frontend, USB3 or LAN to PC |
| Number of phases | 4 or 8 | Up to 16 | 4 |
| Sampling rate | 2 MS/s | 10 MS/s | 1 MS/s |
| Internal storage capacity | 256 GB | Up to 4 TB | According to used PC |
| POWER accuracy 0.5 Hz to 1000 Hz | 0.04 % | 0.04 % | 0.04 % |
| Harmonics analysis, flicker analysis, IEC conformity | ✓ | ✓ | ✓ |
| Advanced Math: formula, FFT, statistics, etc. | ✓ | ✓ | ✓ |
| Motor evaluation: speed, torque, angle, efficiency map | ✓ | ✓ | - |
| 19" rack-mountable | ✓ | ✓ | - |
| Host system data connection CAN Ethernet (UDP, SCPI, XCP) | ✓ ✓ | ✓ ✓ | - ✓ (Ethernet of used PC) |
| Export to common file formats: .xlsx, .mat, .dat, .csv., etc. | ✓ | ✓ | ✓ |
| Additional low-speed inputs (max. 200 Hz) via XR-modules (thermocouple, RTD, 0-20 mA, V) | ✓ | ✓ | - |
| Add. Mixed signal high-speed inputs Vibration, sound, strain, etc. | - | ✓ | - |
| Host system data connection via EtherCAT | - | ✓ | - |
| Raw data waveform recording | - | ✓ | ✓ |
| User-exchangable input modules | - | ✓ | ✓ |
| Built-in current transducer power supply | - | ✓ | - |
| SYNC IRIG PTP GPS TRION-SYNC | - - - - | ✓ ✓ ✓ ✓ | - - - ✓ |
| DIMENSIONS | | | |
| Dimensions (W x D x H) without feet and handle | 442 x 281 x 222 mm (5 u) (17.4 x 11.1 x 8.7 in.) | 442 x 435 x 222 mm (5 u) (17.4 x 17.1 x 8.7 in.) | 320 x 205 x 55 mm (12.6 x 8 x 2.2 in.) |
| Weight | 4 ch: 9 kg (19.8 lb.) 8 ch: 9.5 kg (21 lb.) | Depending on configuration Typ. 14 kg (30.9 lb.) | Typ. 1.9 kg (4.2 lb.) |

ABOUT DEWETRON

DEWETRON is a manufacturer of precision test & measurement systems designed to help our customers make the world more predictable, efficient and safe. Our strengths lie in customized solutions that are immediately ready for use while also being quickly adaptable to the changing needs of the test environment and sophisticated technology of the energy, automotive, transportation and aerospace industries.

Get to know our GLOBAL OFFICES



THE MEASURABLE DIFFERENCE.



DEWETRON

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