



DEWETRON

DEWE3-PA8

HIGHSPEED
POWER ANALYZER

16

POWER
CHANNELS

10 MS

/s/ch

11.6"

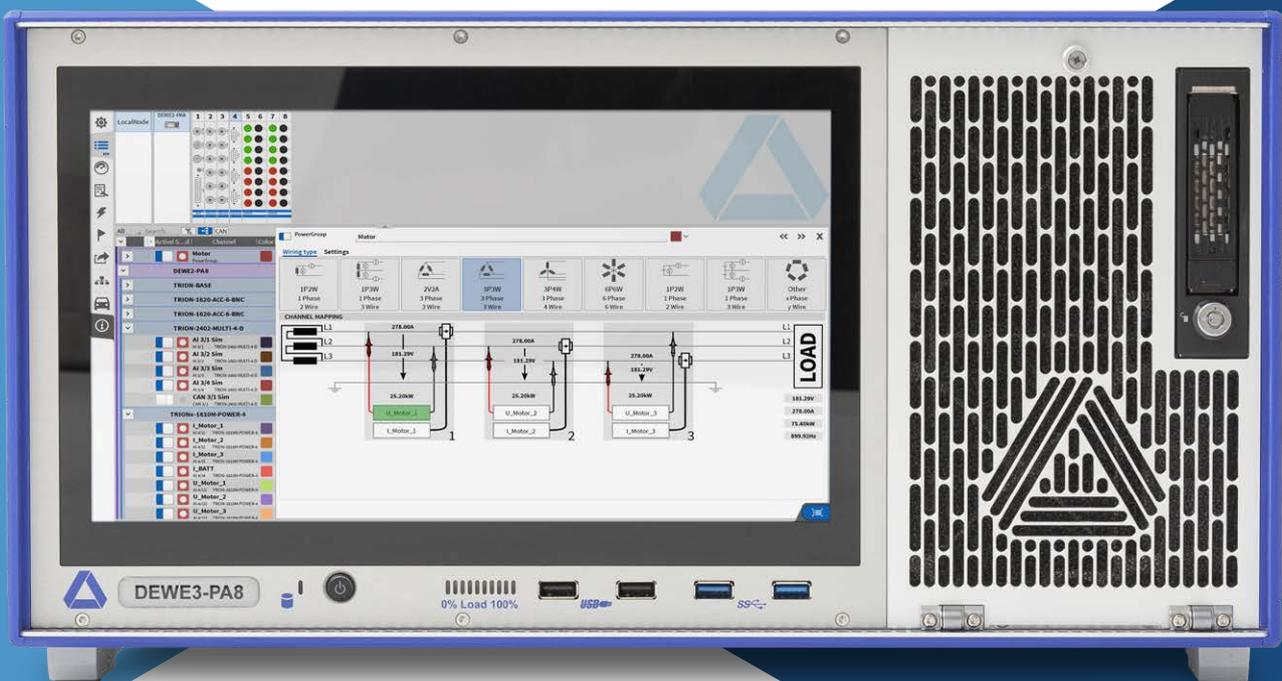
Touch-
Display

0.03 %

Measurement
Error



Continuous
Waveform
Recording



THE MEASURABLE DIFFERENCE.

DEWE3-PA8

WITH HIGHSPEED ON THE FAST LANE

The DEWE3-PA8 is the next generation Power Analyzer with Mixed-Signal Capability for HIGHSPEED Data Acquisition and precision power analysis.



9

1 to 9 Phase Systems

16

Power Channels

10 MS

/s/ch

0.03%

Measurement Error

11.6"

Touch Display

MULTI POWER ANALYZER

A DEWETRON DEWE3-PA8 is the solution for analysis of several motors, converters or complete drive trains simultaneously. Up to 16 power channels and the capability for calculation of power parameters even for polyphase motors (up to 9 phases) turns the DEWE3-PA8 into a multi power analyzer.

1 TB

Storage Capacity



Continuous Waveform Recording

ASAM

MDF4

HIGHSPEED RECORDER

The new 8-slot PXIe backplane, which supports the brand-new TRION3-series allows sampling rates up to 10MS/s. Combined with high speed SSD technology a data throughput of up to 1GB/s is possible. With this feature, you get every single sample into your data file, not just a few seconds.



Gbit Ethernet



USB 3.1

EtherCAT

Slave

SCPI

Interface

XCP

Slave

CAN

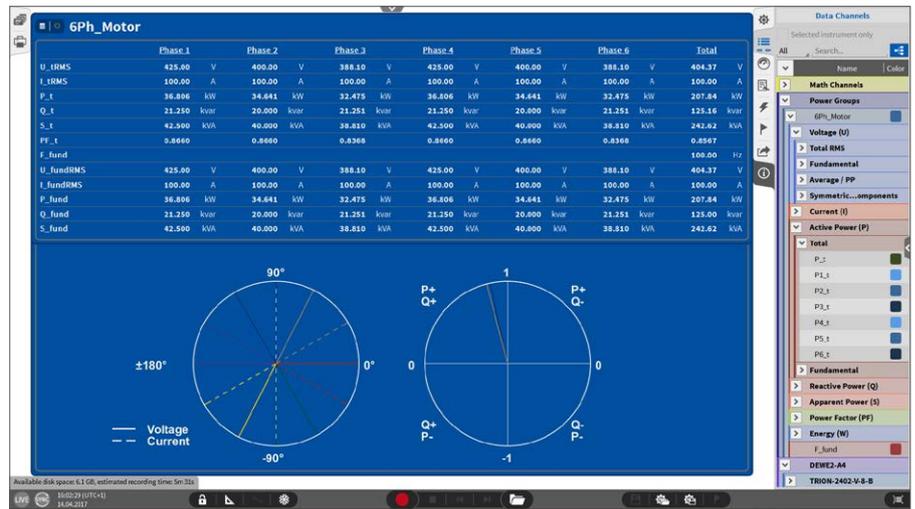
Interface

TESTBED INTEGRATION

Smart interface technology makes it easy to integrate a DEWE3-PA8 into automation systems and test bed environments while it is guaranteeing reliable data transmission, easy to use remote control and remote configuration through TCP/IP based protocols in compliance with standardized protocols (e.g. ASAM) and file formats.

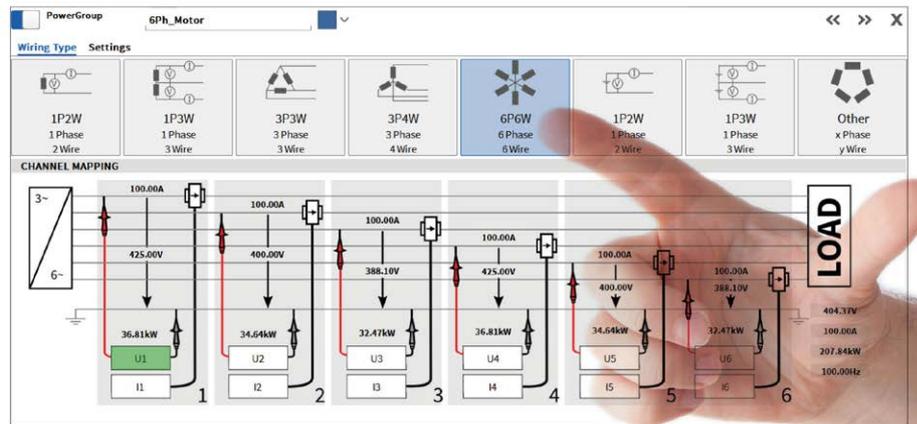
PREDEFINED DISPLAYS

Dedicated measurement displays with classic design provide critical data values at a glance. A predefined measurement display for each user defined group of power channels presents an overview table, vector scope and harmonic chart. Different styling presets and data presentation tools are available to tailor the display to your exclusive needs.



HIGH RESOLUTION & MULTI-TOUCH

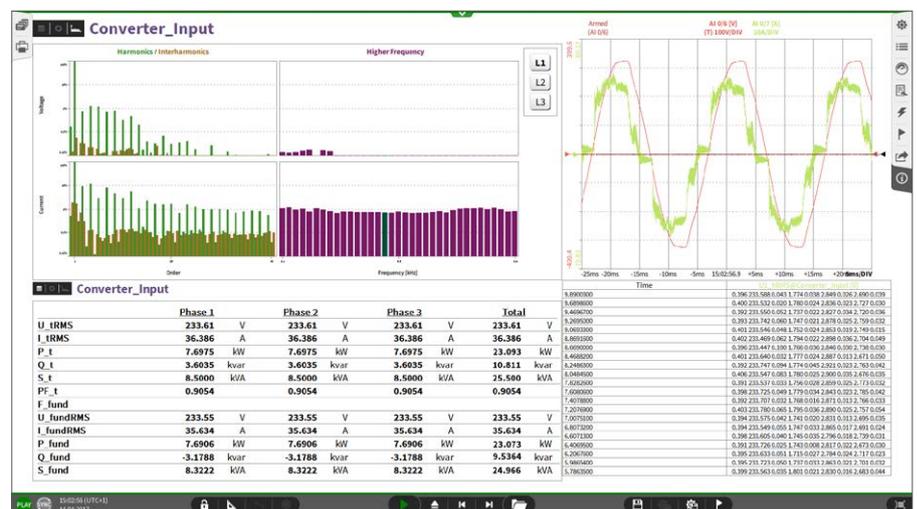
The 11.6" high resolution display is very bright for maximum readability and ample space for user defined screens. Also the few necessary settings are easily accessed with just a few swipes. Accessible and orderly arrangement of signal inputs and power parameters directly on the front. Everything at a glance!



STANDARD COMPLIANCE

Analysis of harmonics, interharmonics and higher frequencies as well as voltage fluctuations and flicker emissions are done according to industry standard.

- > IEC 61000-4-7
- > IEC 61000-4-15
- > IEC 61400-21



SIMPLY EXTENDABLE

You need more input channels? No problem, the PA8-series can be extended in many ways. Just add another TRION™/ TRION3 module, if there is a free slot or use a TRIONet or another Front-end system for a higher channel count. Data is automatically synchronized across all channels.

ACTIVE TRANSDUCER SUPPLY

The integrated transducer power supply enables the engineer to relinquish an additional supply box and connect the transducers directly to the DEWE3-PA8. Most of the common sensors with ±15 V or +9 V are compatible, also demanding ones (like zero-flux transducers) can be powered thanks to the superior power supply.

HIGH DYNAMIC RANGE

Fast acquisition rates and **18-bit A/D conversion** as well as the best linearity of the signal conditioning offers the highest dynamic performance in the whole input range. Thanks to the **low power error of 0.03 %**, the DEWE3-PA8 achieves a very high accuracy, even with low range utilization. Precision accuracy is guaranteed through the whole analysis.

SPECIFICATIONS

DEWE3-PA8	
(with TRION-1820-POWER-4 module or TRION3-1810M-POWER-4 module)	
Number of power phases	4 to 16
Sampling rate	Up to 10 MS/s
VOLTAGE INPUT SPECIFICATIONS ¹⁾	
Range	1000 V ($\pm 2000 V_{PEAK}$)
Accuracy DC	± 0.02 % of reading ± 0.02 % of range
Accuracy 0.5 Hz - 1 kHz	± 0.03 % of reading
Accuracy 1 kHz - 5 kHz	± 0.15 % of reading
Accuracy 5 kHz - 10 kHz	± 0.35 % of reading
Accuracy 10 kHz - 50 kHz	± 0.6 % of reading
CURRENT INPUT SPECIFICATIONS ¹⁾	
Range	0.2 A ($\pm 0.4 A_{PEAK}$) / 1A ($\pm 2 A_{PEAK}$) / 20 A ($\pm 40 A_{PEAK}$) / 5 V ($\pm 10 V_{PEAK}$)
Accuracy DC	± 0.02 % of reading $\pm 80 \mu A$ (1 A module)
Accuracy 0.5 Hz - 10 kHz	± 0.03 % of reading
Accuracy 10 kHz - 30 kHz	± 0.1 % of reading
Accuracy 30 kHz - 200 kHz	(± 0.015 % *f in kHz) of reading
POWER INPUT SPECIFICATIONS (50/60 HZ, PF=1)	
Accuracy DC	± 0.03 % of reading ± 0.03 % of range
Accuracy 0.5 Hz - 1 kHz	± 0.04 % of reading
Accuracy 1 kHz - 5 kHz	± 0.15 % of reading
Accuracy 5 kHz - 10 kHz	± 0.35 % of reading
FUNDAMENTAL FREQUENCY	
Range	0.2 Hz - 200 kHz (>1 MS/s: 0.5 - 200 kHz)
Accuracy	± 0.01 % of reading ± 1 mHz
POWER BASIC FEATURES	
Voltage and current RMS/AVG/PP/PHI	Cycle-by-Cycle, total and fundamental
Active/reactive/apparent power	Cycle-by-Cycle, total and fundamental
Voltage and current unbalance	Cycle-by-Cycle, fundamental
Energy	Total and fundamental / sum, positive and negative
POWER ADVANCED FEATURES	
Voltage and current harmonics	Up to 1000th, 2 to 9 kHz and 8 to 150 kHz, 10/12 period, IEC61000-4-7, 3 grouping types
Voltage fluctuations	120 V / 230 V 50 Hz / 60 Hz, IEC61000-4-15
Flicker emission	IEC61400-21
Mechanical power	Power, speed, torque, efficiency (with motor option)
DIMENSIONS & WEIGHT	
Dimensions (W x D x H) without feet/handle	441 x 435 x 222 mm (17.4 x 17.1 x 8.7 in)
Weight without modules	Typ. 14 kg (30.9 lb.)

¹⁾ For detailed specifications, please refer to TRION-1820-POWER-4 datasheet or TRION3-1810M-POWER-4 datasheet

CONFIGURATION EXAMPLES



4 x Voltage, 4 x Current
(20 A_{RMS})



4 x Voltage, 4 x Current
(Clamp Input, 5 V_{RMS})



8 x Voltage, 8 x Current
(20 A_{RMS})



Individual: Up to 16 x Voltage,
16 x Current and Auxiliary Inputs

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ABOUT DEWETRON

DEWETRON is an Austrian 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. More than 30 years of experience and innovation have awarded DEWETRON the trust and respect of the global market.

There are more than 25,000 DEWETRON measurement systems and over 400,000 measurement channels in use in well-known companies worldwide. Choosing DEWETRON means, having a partner by your side who accompanies you every step of the way. DEWETRON employs over 120 people in 25 countries and is part of the TKH Group, a global corporation, that specializes in the development and supply of innovative solutions worldwide. DEWETRON quality is certified in compliance with ISO9001, ISO14001 and ISO17025.

DEWETRON GmbH, Headquarters
 Parking 4, 8074 Grambach, Austria
 Phone: +43 316 3070
 Fax: +43 316 3070 90
 E-Mail: info@dewetron.com
 Web: www.dewetron.com