



DEWETRON



**9**  
1 to 9 Phase  
Systems

**0.01 %**  
Basic  
Accuracy

**1000 V**  
Voltage

**20 A**  
Direct Input

Gapless  
Recording

**IEC**  
61000-4-x

**12**  
POWER  
CHANNELS

6P6W

3P4W

3P3W

# DEWE2-PA7

PRECISION MIXED SIGNAL  
& MULTI POWER ANALYZER

# DEWE2-PA7

## THE WAY OF TOMORROW'S POWER ANALYSIS

The DEWE2-PA7 Mixed  
Signal Power Analyzer for  
high performance power  
analysis and gapless  
recording of any signal.



9  
1 to 9 Phase  
Systems

12  
Power  
Channels

6P6W

3P4W

3P3W

▼

### MULTI POWER ANALYZER

A DEWETRON DEWE2-PA7 is the solution for analysis of several motors, converters or complete drive trains simultaneously. Up to 12 power channels and the capability for calculation of power parameters even for polyphase motors (up to 9 phases) turns the DEWE2-PA7 into a multi power analyzer.

Gapless  
Recording

1 TB  
Storage  
Capacity

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### MIXED SIGNAL RECORDER

Waveform data, mixed signal and power analysis? A DEWE2-PA7 combines both. Reliable gapless recording of any analog or digital signal and high performance power calculation of several power groups simultaneously. Up to 2 MS/s/ch and high dynamic range guarantees data integrity.

Gbit Ethernet

SS USB 3.0

Ether  
CAT  
Slave

SCPI  
Interface

XCP  
Slave

ASAM  
MDF4

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### TESTBED INTEGRATION

Smart interface technology makes it easy to integrate a DEWE2-PA7 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.



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# 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.

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# HIGH RESOLUTION & MULTI-TOUCH

The 9" 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!

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# STANDARD COMPLIANCE

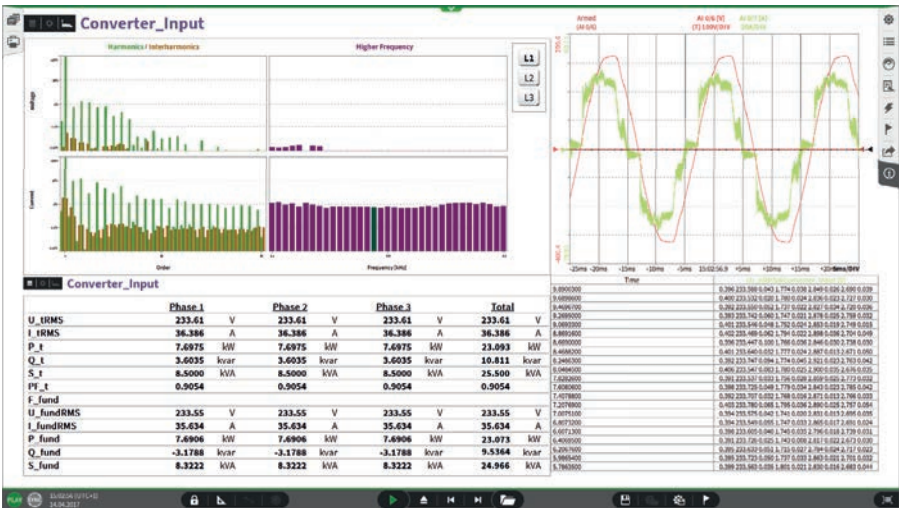
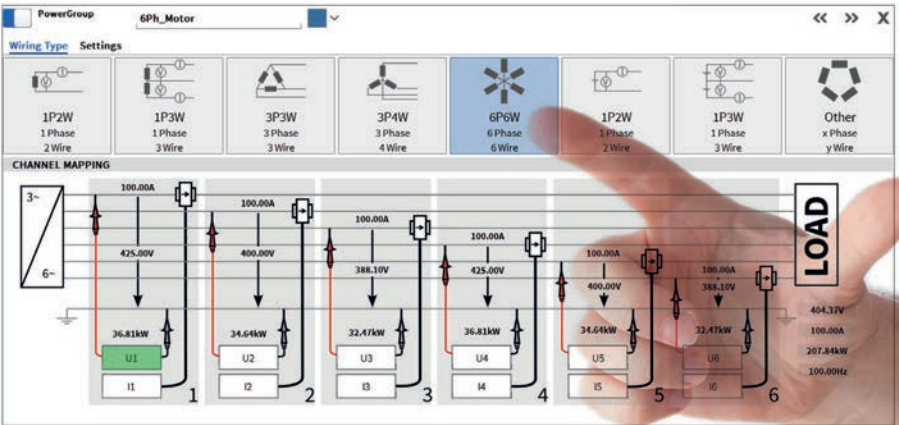
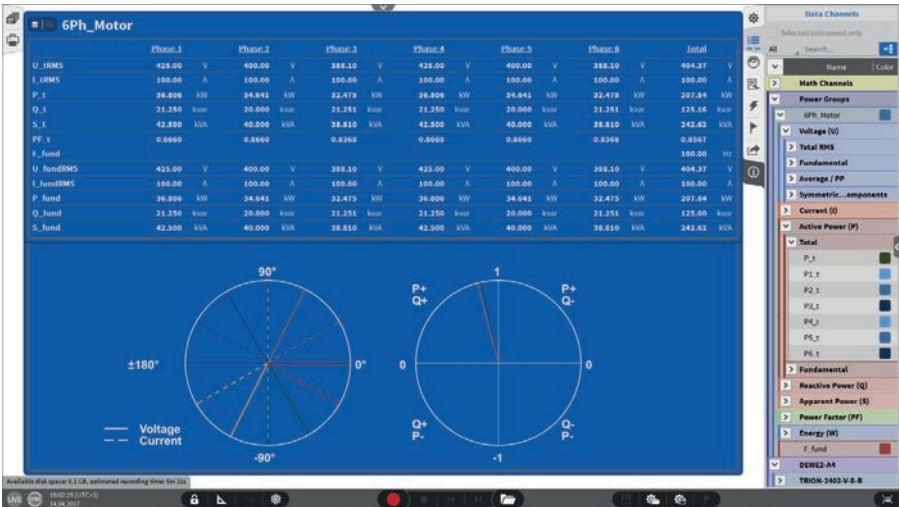
Analysis of harmonics, interharmonics and higher frequencies as well as voltage fluctuations and flicker emissions are done according to industry standard.

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

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# SIMPLY EXTENDABLE

You need more input channels? No problem, the PA7-series can be extended in many ways. Just add another TRION™ 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.



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# ACTIVE TRANSDUCER SUPPLY

The integrated transducer power supply enables the engineer to relinquish an additional supply box and connect the transducers directly to the DEWE2-PA7. Most of the common sensors with  $\pm 15$  V or  $+9$  V are compatible, also demanding ones (like zero-flux transducers) can be powered thanks to the superior power supply.

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# 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 range error of 0.01 %**, the DEWE2-PA7 achieves a very high accuracy, even with low range utilization. Precision accuracy is guaranteed through the whole analysis.

SPECIFICATIONS

	DEWE2-PA7 (with TRION-1820-POWER Module)
Number of power phases	4 to 12
Voltage input specifications	
Range	1000 V ( $\pm 2000 V_{PEAK}$ )
Accuracy DC	$\pm 0.02\%$ of reading $\pm 0.02\%$ of range
Accuracy 45 Hz - 1 kHz	$\pm 0.02\%$ of reading $\pm 0.01\%$ of range
Accuracy 1 kHz - 5 kHz	$\pm 0.1\%$ of reading $\pm 0.05\%$ of range
Accuracy 5 kHz - 10 kHz	$\pm 0.3\%$ of reading $\pm 0.05\%$ of range
Accuracy 10 kHz - 50 kHz	$\pm 0.3\%$ of reading $\pm 0.1\%$ of range
Current input specifications	
Range	0.2 A ( $\pm 0.4 A_{PEAK}$ ) / 2 A ( $\pm 4 A_{PEAK}$ ) / 20 A ( $\pm 40 A_{PEAK}$ ) / 5 V ( $\pm 10 V_{PEAK}$ )
Accuracy DC	$\pm 0.05\%$ of reading $\pm 0.05\%$ of range
Accuracy 45 Hz - 1 kHz	$\pm 0.02\%$ of reading $\pm 0.01\%$ of range
Accuracy 1 kHz - 10 kHz	$\pm 0.1\%$ of reading $\pm 0.05\%$ of range
Accuracy 10 kHz - 50 kHz	$\pm 0.3\%$ of reading $\pm 0.1\%$ of range
Power input specifications	
Accuracy DC	$\pm 0.07\%$ of reading $\pm 0.07\%$ of range
Accuracy 45 Hz - 1 kHz	$\pm 0.02\%$ of reading $\pm 0.02\%$ of range
Accuracy 1 kHz - 5 kHz	$\pm 0.1\%$ of reading $\pm 0.1\%$ of range
Accuracy 5 kHz - 10 kHz	$\pm 0.3\%$ of reading $\pm 0.1\%$ of range
Accuracy 10 kHz - 50 kHz	$\pm 0.4\%$ of reading $\pm 0.2\%$ of range
Fundamental frequency	
Range	0.2 Hz - 20 kHz (>1 MS/s: 0.5 - 20 kHz)
Accuracy	$\pm 0.01\%$ of reading $\pm 1$ 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	T otal 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
Dimensions & Weight	
Dimensions (W x D x H) without feet	441 x 427 x 177 mm, 17.4 x 16.8 x 7 inch, (4u)
Weight	Typ. 13 kg (28.6 lb.) without modules

CONFIGURATION EXAMPLES



4 x Voltage, 4 x Current  
(20 A<sub>RMS</sub>)



4 x Voltage, 4 x Current  
(Clamp Input, 5 V<sub>RMS</sub>)



8 x Voltage, 8 x Current  
(20 A<sub>RMS</sub>)



Individual: Up to 12 x Voltage,  
12 x Current and Auxiliary Inputs

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 25 years of experience and innovation have awarded DEWETRON the trust and respect of the global market. There are more

than 20,000 DEWETRON measurement systems and over 300,000 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 150 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 and ISO14001.



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