

# POWER ANALYZER UMG 604-E PRO

Item No.: 422.128; 422.129



## DESCRIPTION OF FUNCTIONS

The power analyzer UMG 604-E PRO is used for the measurement and calculation of electrical variables such as voltage, current, power, energy, harmonics (up to the 40th order) etc. in electrical installations.

The measurement results can be displayed, stored, read out and further processed via the device's interfaces.

Thanks to the internal memory, the UMG 604-E PRO can also be used as a transient recorder and event recorder (voltage increases, dips, interruptions).

- 422.128 UMG 604-E PRO (230 V AC)
- 422.129 UMG 604-E PRO (24 V DC)

## TECHNICAL DATA

Power supply	
Option 230 V AC (422.128):	95 ... 240 V AC (45 ... 65 Hz)
Option 24 V DC (422.129):	20 ... 70 V DC
Power consumption:	max. 5 W
Operating temperature:	-10 ... 55 °C
Degree of protection:	IP 20
Installation:	Top-rail hat (35 mm) mounting
Dimensions (H x W x D):	90 x 107.5 x 82 mm
Weight:	350 g

## VOLTAGE MEASUREMENT

Transformer measurement	
Voltage transformer, primary:	0 ... 1,000,000 V (default setting: 400 V)
Voltage transformer, secondary:	1 ... 400 V (default setting: 400 V)
Direct measurement	
4-conductor system (L-N/L-L):	max. 277 V / 480 V
3-conductor system (L-L):	max. 480 V
Resolution, voltage:	0.01 V
Overvoltage category:	300 V CAT III
Sampling rate:	20 kHz
Frequency of the fundamental oscillation:	45 ... 65 Hz
Resolution, frequency:	0.001 Hz

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## CURRENT MEASUREMENT

Transformer measurement	
Current transformer, primary:	0 ... 1,000,000 A (default setting: 5 A)
Current transformer, secondary:	1 ... 5 A (default setting: 5 A)
Overvoltage category:	300 V CAT III
Sampling rate:	20 kHz

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## MEASUREMENT UNCERTAINTY

Voltage:	± 0.2 %	(DIN EN 61557-12:2008)
Current L:	± 0.25 %	(DIN EN 61557-12:2008)
Current N:	± 1 %	(DIN EN 61557-12:2008)
Active / Reactive power:	± 0.4 %	(DIN EN 61557-12:2008)
Harmonics U, I:	Class 1	(DIN EN 61000-4-7)
Active energy		
Current transformer ... / 5 A:	Class 0.5S	(DIN EN 62053-22:2003, IEC 62053-22:2003)
Current transformer ... / 1 A:	Class 1	(DIN EN 62053-21:2003, IEC 62053-21:2003)
Reactive energy		
Current transformer ... / 5 A:	Class 2	(DIN EN 62053-23:2003, IEC 62053-23:2003)
Current transformer ... / 1 A:	Class 2	(DIN EN 62053-23:2003, IEC 62053-23:2003)
Frequency:	± 0.01 Hz	

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## POWER QUALITY

Harmonics V / A:	1st ... 40th order
Interharmonics:	No
Distortion factor THD-U /-I:	Yes
Unbalance:	Yes
Flicker:	No
Transients:	Yes (≥ 50 µs)
Events:	Yes (≥ 20 ms)
Measurement data memory:	Yes (128 MB)
Event recorder:	Yes (voltage increases, dips, interruptions)
IEC 61000-4-30 Class A:	No

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## COMMUNICATION

Interface:	Ethernet
Protocol:	Modbus TCP
Interface:	RS485
Protocol:	Modbus RTU
Baud rate:	9,600 Bit/s, 19,200 Bit/s, 38,400 Bit/s, 57,600 Bit/s, 115,200 Bit/s (default setting), 921,600 Bit/s
Data format:	8N1
Device address:	1 ... 255 (default setting: 1)
Refreshing time, measurements:	200 ms

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