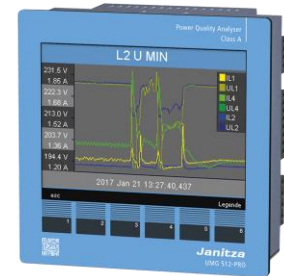


POWER ANALYZER UMG 512-PRO

Item No.: 422.144; 422.145



DESCRIPTION OF FUNCTIONS

The class A (IEC 61000-4-30) power analyzer UMG 512-PRO is used for the measurement and calculation of electrical variables such as voltage, current, power, energy, harmonics (up to the 63rd 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 512-PRO can also be used as a transient recorder and event recorder (voltage swells, dips, interruptions).

- 422.144 UMG 512-PRO (230 V AC)
- 422.145 UMG 512-PRO (24 V DC)

TECHNICAL DATA

Power supply	
Option 230 V AC (422.144):	95 ... 240 V AC (40 ... 70 Hz)
Option 24 V DC (422.145):	24 ... 150 V DC
Power consumption:	max. 9 W
Operating temperature:	-10 ... 55 °C
Degree of protection:	IP 40 (Front), IP 20 (Back), IP 54 (Front with seal)
Installation:	Front panel integration (Cutout dimensions: 138 x 138 mm)
Dimensions (H x W x D):	75 x 144 x 144 mm
Weight:	1,080 g

VOLTAGE MEASUREMENT

Transformer measurement	
Voltage transformer, primary:	0 ... 1,000,000 V (default setting: 400 V)
Voltage transformer, secondary:	1 ... 999 V (default setting: 400 V)
Direct measurement	
4-conductor system (L-N/L-L):	max. 417 V / 720 V
3-conductor system (L-L):	max. 600 V
Resolution, voltage:	0.01 V
Overvoltage category:	600 V CAT III
Sampling rate:	25.6 kHz
Frequency of the fundamental oscillation:	15 ... 440 Hz
Resolution, frequency:	0.001 Hz

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 (Option 230 V AC) / 300 V CAT II (Option 24 V DC)
Sampling rate:	25.6 kHz

MEASUREMENT UNCERTAINTY

Voltage:	± 0.1 %	(IEC 61557-12)
Current L:	± 0.1 %	(IEC 61557-12)
Current N:	± 0.1 %	(IEC 61557-12)
Active power:	± 0.2 %	(IEC 61557-12)
Reactive power:	± 1 %	(IEC 61557-12)
Harmonics U, I:	Class 1	(IEC 61000-4-7)
Interharmonics:	Class 1	(IEC 61000-4-7)
Active energy		
Current transformer ... / 5 A:	Class 0.2	(IEC 61557-12)
Current transformer ... / 1 A:	Class 0.5	(IEC 61557-12)
Reactive energy		
Current transformer ... / 5 A:	Class 1	(IEC 61557-12)
Current transformer ... / 1 A:	Class 1	(IEC 61557-12)
Frequency:	± 0.01 Hz	(IEC 61000-4-30)
Flicker:	Class A	(IEC 61000-4-30)
Voltage swells, dips:	Class A	(IEC 61000-4-30)
Voltage interruptions:	Class A	(IEC 61000-4-30)
Unbalance:	Class A	(IEC 61000-4-30)

POWER QUALITY

Harmonics V / A:	1st ... 63rd order
Interharmonics:	Yes
Distortion factor THD-U /-I:	Yes
Unbalance:	Yes
Flicker:	Yes
Transients:	Yes (≥ 39 µs)
Events:	Yes (≥ 10 ms)
Measurement data memory:	Yes (256 MB)
Event recorder:	Yes (voltage increases, dips, interruptions)
IEC 61000-4-30 Class A:	Yes

COMMUNICATION

Interface (Protocol):	Ethernet (Modbus TCP)
Interface (Protocol):	RS485 (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