

## NETWORK ANALYZER - ANG96 ETHERNET VERSION

The ANG96 is a digital device, able to measure all the variables associated with an electrical line. It accepts the three currents and three voltage signal in a four-wire configuration. It is also possible to use it in a three-wire configuration, using two or three current transformers.

### GENERAL FEATURES

- DIN SIZE 96 x 96
- LCD 128 x 64 DISPLAY WITH BACKLIGHT
- 4 QUADRANT MEASUREMENT
- NEUTRAL CURRENT MEASUREMENT
- HARMONIC DISTORTION (THD on V and I)
- MAXIMUM DEMAND (A, kW, kVA and kvar)
- MAXIMUM AND MINIMUM VALUES
- TRUE RMS VOLTAGE AND CURRENT
- SERIAL PORT RS485
- 2 HOUR COUNTERS
- ETHERNET TCP/IP PORT



ELECTRICAL PARAMETER	SYMBOL	L1	L2	L3	TOTAL
Voltage (Line-to-neutral)	V	•	•	•	
Voltage (Line-to-Line)	V	•	•	•	
Current	A	•	•	•	
Neutral current	A				•
Active power (P)	kW	•	•	•	•
Reactive power (Q)	kvar	•	•	•	•
Apparent power (S)	kVA	•	•	•	•
Power factor (Cos φ)	PF	•	•	•	•
Maximum demand (I)	A	•	•	•	
Maximum demand (P)	kW				•
Maximum demand (Q)	kvar				•
Maximum demand (S)	kVA				•
Frequency	Hz				•
THD Current	A	•	•	•	
THD Voltage	V	•	•	•	
Import active energy (EP+)	kWh				•
Hour counter active positive (T+)	h-m-s				•
Export active energy (EP-)	kWh				•
Hour counter active negative (T-)	h-m-s				•
Import inductive react energy (Eq+)	kvarh				•
Import capacitive react energy (Eq-)	kvarh				•

### HOURLY COUNTERS

2 hour counters:

- Active power + (consumed)
- Active power - (generated)
- Limit: 50.000 hours
- Resolution: 1 second

### ETHERNET TCP/IP CONNECTOR

- TCP/IP protocol in a RJ45 connector for a LAN network  
The device only needs to be configured with its own IP, the Netmask, the gateway and a free TCP port to communicate with any internal or external equipment..

## TECHNICAL SPECIFICATIONS

INPUT	
Rated voltage (Un)	0-520 V AC.
Burden	<1 mA per phase
Rated current (In)	1 and 5 A
Burden	< 0,3 VA per phase
Operating range	10 - 120% In
Frequency	45 - 65 Hz
Overload	2 In permanent, 20 In 1 s 1,2 Vn permanent, 2 Vn 10 s

OUTPUT	
Relays	250 V AC.,3A
Pulse weight	60 ms
Serial port	RS485
Protocol	MODBUS RTU
Baud rate	Programmable 1200-19200 bps Standard 9600 bps
Connection	2 wires
Ethernet port	TCP/IP

## MAXIMUM/ MINIMUM MODE

- Maximum and minimum values of:
- 3 Currents I1, I2, I3
  - 3 Voltages V1, V2, V3
  - 3 Single phase powers. P1, P2, P3
  - 3 Three phase powers P, Q and S
  - Power factor Cos (φ) and Hz

## OVERLOAD

- 2 Vn x 10 s.
- 1,2 Vn permanent.
- 20 In x 1 s.
- 2 In permanent.

## GENERAL

GENERAL FEATURES	
Case material	ABS,UL94 V0
Dimensions	DIN 96 x 96 mm
Terminals	Pluggable
Max. wire section	2,5 mm <sup>2</sup>
Weight	0,4 Kg
Protection	IP20 Terminals
Optional protection	IP54 Front IP65 Front cover
Electrical safety	(EN 61010) Class 2 Category III

AUXILIARY VOLTAGE	
UNIVERSAL Aux. V.	85/264 V A.C.;80/300 V DC.
Burden	< 4 VA

## MAXIMUM DEMAND FUNCTION

The maximum demand is calculated as the mean value reached during the time specified of the next parameters.

- I1, I2, I3, P, Q and S
- Integration period: 15 or 30 Minutes

## LCD DISPLAY

- 4 parameters per page
- Built-in keypad ( 5 keys)
- Selectable pages with up and down buttons
- Back lighting

## CONTACT OUTPUTS

Contact outputs can be set as max. or min. alarm contacts associated to any measured parameter or as active energy and reactive energy pulses. They can also be set as contacts managed from the central unit.

## ACCURACY

Parameter	Operating range	Accuracy
Voltage	20-120%	0,3%(read.+full sca.)
Current	1-120%	0,3%(read.+full scal.)
Active power	1-120%	0,3%(read.+full sca.)
Reactive power	1-120%	0,3%(read.+fin sca.)
Apparent power	1-120%	0,4%(read.+fin sca.)
Power factor	± 0,5%	1%(Full scale)
Frequency	45-65Hz	0,2%(Full scale)
Active energy	5-120%	0,5% reading
Reactive energy	5-120%	1% reading

## CONNECTIONS

Max. 3 x 300 (520) V  
X /5 A, X /1A  
Universal Aux. V  
45 - 65 Hz

