

## NETWORK ANALYZER - AHM1

The AHM1 is designed to be used for the measurement and calculation of electrical variables such as voltage, current, frequency, power, power factor, energy, harmonic components, etc. Memory of 8 MB incorporated.



### GENERAL FEATURES

- DIN 96 x 96 mm
- MEMORY 8 MB
- THD on V and I
- HARMONIC RMS (1-31)
- DIGITAL INPUT/OUTPUT
- MAXIMUM DEMAND, A, kW, kVA, kvar
- PROGRAMMABLE RATED V AND I
- 4 QUADRANT MEASUREMENT
- RS-485 PORT
- MAXIMUM AND MINIMUM VALUES
- ETHERNET TCP-IP (Optional)

ELECTRICAL PARAMETER	UNIT	L1	L2	L3	TOTAL	MAX/MIN	DEMAND
Voltage (Phase - Neutral)	V, kV	•	•	•		•	
Voltage (Phase - Phase)	V, kV	•	•	•		•	
Current	A, kA	•	•	•		•	•
Neutral current	A, kA				•		
Active power (P)	kW, MW, GW	•	•	•	•	•	•
Reactive power (Q)	kvar, Mvar, Gvar	•	•	•	•	•	•
Apparent power (S)	kVA	•	•	•	•	•	•
Power factor (Cos φ)	PF	•	•	•	•	•	
Frequency	Hz				•	•	
Import active energy (EP+)	kWh, MWh, GWh				•		
Export active energy (EP-)	kWh, MWh, Gwh				•		
Import reactive energy (Eq+)	kvarh, Mvarh, Gvarh				•		
Export reactive energy (Eq-)	kvarh, Mvarh, Gvarh				•		
Hour meter	h: min				•		
THD Current and Voltage	A, V	•	•	•			
Harmonic RMS-U and I (1-31)	%	•	•	•			
Unbalanced -U and I	%				•		

### 2 DIGITAL INPUTS

- See input state
- Select tariff (Up to 4 tariff available)
- Pulse counter
- Maximum demand synchronization

### OVERLOAD

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

### 2 CONTACT OUTPUTS

- Alarms
- Energy pulses
- Remote mode

## TECHNICAL SPECIFICATIONS

INPUT	
Rated voltage (Un)	3 x 400 / 690 V AC
Overload	1,2 Un
Impedance	> 1MΩ
Rated current (In)	1 A and 5 A
Overload continuous	2 In
Overload instantaneous	10 In/5s or 20 In/1s
Burden	< 0,1 VA
Rated value	< 20 mΩ

AUXILIARY VOLTAGE	
Aux. V. AC/DC.	80 - 270 V
Burden	< 10 VA

OUTPUT	
Relay output	250V/5A AC; 30V/5A DC
Isolation	2500 V AC
Energy pulse width	80 ± 20% ms
RS-485 port	Modbus-RTU
Baud rate	Up to 38400 bps programmable
Connection	2 wires
Ethernet port *	TCP Modbus

\* Optional

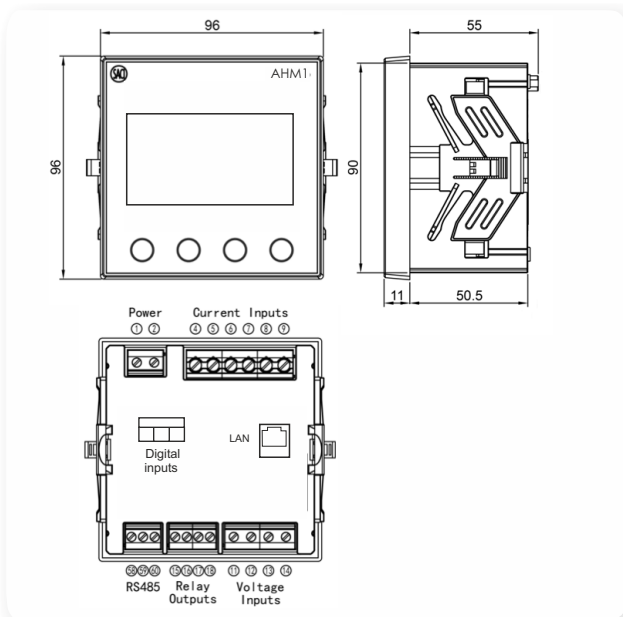
GENERAL FEATURES	
Case material	ABS, UL94 V0
Dimensions	DIN 96 x 96 mm
Terminals	Pluggable
Max. wire section	2,5 mm <sup>2</sup> General
	4 mm <sup>2</sup> Current(I)
Weight	0,4 Kg
Protection	IP 65 - front panel
	IP 20 - meter body
Operating temperature	-10 - 60 °C
Storage temperature	-25 - 70 °C
Relative humidity	5 - 95 %

## ACCURACY

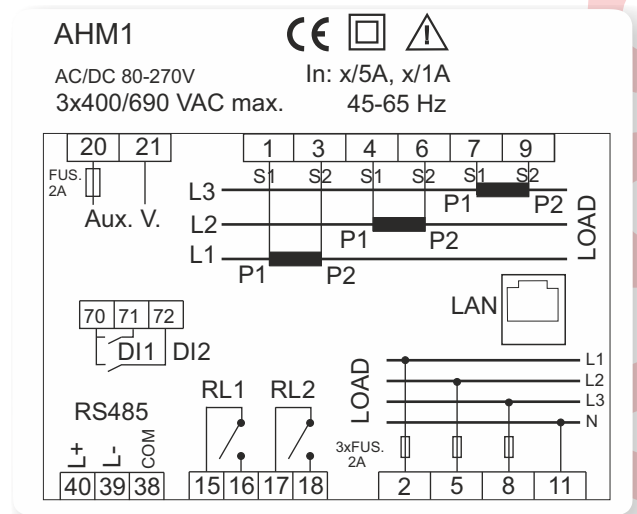
PARAMETER	OPERATING RANGE	ACCURACY
Voltage	2,5-120 %	0,2 %
Current	0,005-6 A	0,2 %
Active power	1-120 %	0,2 %**
Reactive power	1-120 %	0,2 %**
Apparent power	1-120 %	0,2 %**
Power factor	± 0,5 %	0,5 %
Frequency	45-65 Hz	± 0,01 Hz
Active energy	5-120 %	Class 0,5 S
Reactive energy	5-120 %	Class 2

\*\* Class 0,2 (25°C) and Class 0,5 (-10 - 60 °C)

## DIMENSIONS



## CONNECTIONS



## NETWORK ANALYZER - AHM1-B and AHM1-BC

The AHM1 is designed to be used for the measurement and calculation of electrical variables such as voltage, current, frequency, power, power factor, energy, harmonic components, etc.



### GENERAL FEATURES

- **DIN 96 x 96 mm**
- **THD on V and I**
- **HARMONIC RMS (1-31)**
- **MAXIMUM DEMAND, A, kW, kVA, kvar**
- **PROGRAMMABLE RATED V AND I**
- **4 QUADRANT MEASUREMENT**
- **MAXIMUM AND MINIMUM VALUES**
- **RS-485 PORT (AHM1-BC)**

ELECTRICAL PARAMETER	UNIT	L1	L2	L3	TOTAL	MAX/MIN	DEMAND
<b>Voltage (Phase - Neutral)</b>	V, kV	•	•	•		•	
<b>Voltage (Phase - Phase)</b>	V, kV	•	•	•		•	
<b>Current</b>	A, kA	•	•	•		•	•
<b>Neutral current</b>	A, kA				•		
<b>Active power (P)</b>	kW, MW, GW	•	•	•	•	•	•
<b>Reactive power (Q)</b>	kvar, Mvar, Gvar	•	•	•	•	•	•
<b>Apparent power (S)</b>	kVA	•	•	•	•	•	•
<b>Power factor (Cos φ)</b>	PF	•	•	•	•	•	
<b>Frequency</b>	Hz				•	•	
<b>Import active energy (EP+)</b>	kWh, MWh, GWh				•		
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<b>Import reactive energy (Eq+)</b>	kvarh, Mvarh, Gvarh				•		
<b>Export reactive energy (Eq-)</b>	kvarh, Mvarh, Gvarh				•		
<b>Hour meter</b>	h: min				•		
<b>THD Current and Voltage</b>	A, V	•	•	•			
<b>Harmonic RMS-U and I (1-31)</b>	%	•	•	•			
<b>Unbalanced -U and I</b>	%				•		

### BASIC MODEL - B

- The AHM1-B is a basic version of the AHM1 network analyzer that does not include digital inputs and contact outputs. It does not have RS485 port neither.

### MODEL BC-BASIC WITH RS485 PORT COMMUNICATION

- The AHM1-BC has RS485 port communication.

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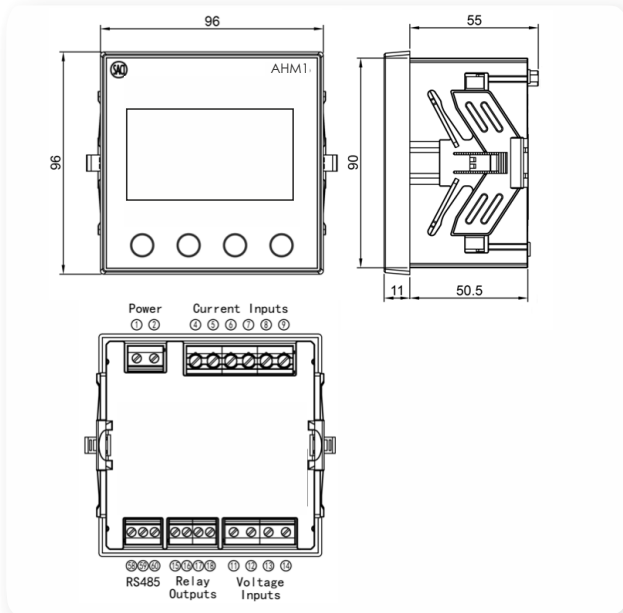
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