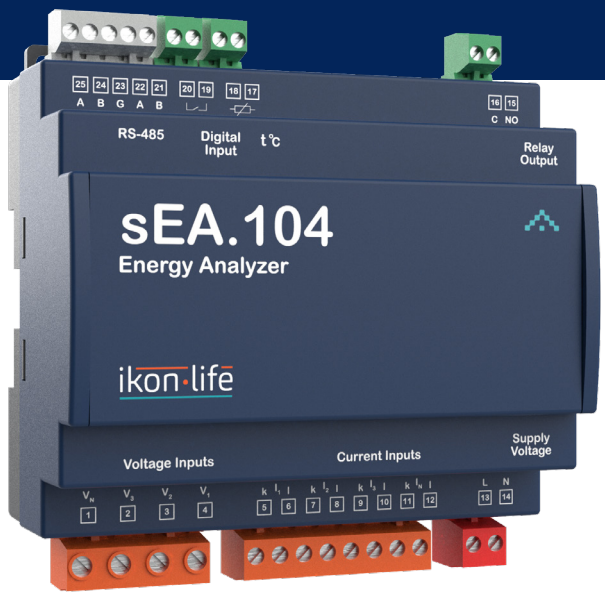
sEA.104

Three Phase Energy Analyzer

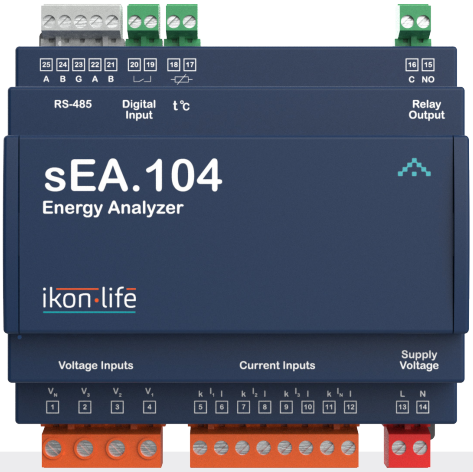
Accurate measurement of electrical parameters



The **sEA.104** is a three phase energy analyzer which can measure the electrical parameters of connected loads and can share its data over a **RS-485 serial communication** channel.

Thanks to its **temperature input**, it can also offer temperature measurement via external sensor.

Besides major electrical parameters measurement, **sEA.104** Energy Analyzer can provide **energy consumption data**, **min. / max. analysis, voltage & current imbalances** and also valuable information in order to i**ncrease the efficiency** of the energy system.



On-board **RTC (real time clock), sEA.104** can log **power-cut records** and **alarm statuses with time data**.

The **relay-output** can be used for on-site audible / visible notifications triggering or for circuit breaker control. What is more, **dry contact input** on **sEA.104** provides an input which can be used for user feedback, receive status information from external systems or counting operations. The RS-485 channel with **Modbus** protocol ensures communication with operator panels, PLC systems, SCADA systems and computers.

Key Features

- RMS Voltage and Current Measurement
- Active, Reactive and Apparent Power & Energy
- Voltage and Current Harmonic Measurement up to 63rd
- Temperature Measurement
- Relay Output, Dry Contact Input
- Modbus RS-485 Communication

Technical Specifications

RMS Voltage	Minimum	Typical	Maximum
Nominal Measurement Range L-N (V)	10		280
Nominal Measurement Range L-L (V)	10		480
Measurement Range with VT (kV)	10		999
Resolution *		0,1	
Accuracy		%0,2 ±1 digit	
Input Impedance (MΩ)	3		
Burden (VA)			0,1
Voltage Transformer Conversion Ratio		✓	
Frequency Measurement Range (Hz)	45		65
RMS Current			
Nominal Measurement Range (A)	0,005		5,5
Measurement Range with VT (kA)			10
Resolution *		0,001	
Accuracy		%0,2 ±1 digit	
Input Impedance (mΩ)		4	
Burden (VA)			0,4
Voltage Transformer Conversion Ratio		✓	
Overload Current		In x 1,2	
Short-time Overload (1 sec.).		In x 10	
Power Factor			
Measurement Range		± 1,00	
Resolution		0,01	
Accuracy		± 0,02	
Power			
Apparent Power Measurement Range (VA) **			1 GVA
Active Power (W) **			1 GW
Reactive Power (VAr) **			1 GVAr
Apparent Power Accuracy		% 0,5 ±1digit	
Active Power Accuracy		% 0,5 ±1digit	
Reactive Power Accuracy		% 1 ±1digit	
Energy			
Active Energy (kWh)			9.999.999,9
Reactive Energy (kVArh)			9.999.999,9
Resolution		0,1	
Active Energy Accuracy		% 0,5 ±1digit	
Reactive Energy Accuracy		% 1 ±1digit	
Energy Meter Reset		✓	
Harmonics			
VTHD Measurement Range		% 0 - 100	
ITHD Measurement Range		% 0 - 100	
Voltage Harmonic Range	1		63
Current Harmonic Range	1		63
Voltage Current Harmonic Accuracy		% 0,5 ±1digit	
Temperature Measurement			
Temperature Range (°C)	-20		100
Accuracy		%0.5 ±1digit	
Sensor Installation Type		immersion / surface type	

* Resolution is given for nominal data.

** Measurement range is given for the maximum value of current and voltage transformer conversation ratio.

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