



ELECTRONICS PRODUCTS > ENERGY MANAGEMENT PRODUCTS > ENERGY ANALYZERS

KLEA 411R

Stock Keeping Unit (SKU): 606706

3Ø Energy Analyzer

Commercial Information

Product Sales Code	606706
Package Unit	1 pcs.
Customs Tariff Number	903032009011

Technical Information

General	
Lcd Screen	-
Language Support	English
Password Protection	+
Networks	TT, TN, IT
Signal Waveforms	-
Connection Type	3P4W, 3P3W
Battery	-
Real Time Clock	-
Demand Period	1-60 min. adjustable.
Packaging Quantity	1
Seven Segment Display	
Without Screen	

Minmax Data	+
Demand Data	+
Ghost Screen	+
Phasor Diagram Display	
Screen Refresh Period	1sn
Number Of Samples In The Period	

Energy Measurement

3 Phase Energy Measurement	+
Number Of Tariffs	2
Number Of Sub Tariffs	
1 Energy Measurement	+
Number Of Reactive Measurement Zones	2

Current Measurement Input

Measuring Range	50mA-6A AC
Overvoltage Category	300 V Cat II
Voltage Fluctuation Measurement	<2 kV
Power Consumption	<0.2 VA
Intermittent Overload	100 A for 1 sec
Sampling Frequency Between 45 65 Hz	

Voltage Measurement Input

Overvoltage Category	300 V Cat III
Measuring Range L N	10-300 Vrms
Measuring Range L L	17-500 Vrms
Frequency Measuring Range	45-65 Hz
Power Consumption	<0.1 VA
Sampling Frequency Between 45 65 Hz	

Power Quality Measurements

Harmonic Measurement Current And Voltage	31 e kadar
Thdi	+

Thdv	+
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Measuring Accuracy Iec 61557 12

Total Active Power	Class 1
Total Reactive Power	Class 1
Total Reactive Energy	Class 2
Frequency	Class 0.2
Current	Class 0.5
Neutral Current	Class 0.5
Voltage	Class 0.5
Power Factor	Class 0.2
Thdv Thdi	Class 1
Total Apparent Power	Class 1
Total Active Energy	Class 1

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Total Active Energy	Class 1
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Measuring Accuracy Iec 62053 23

Total Reactive Energy	Class 2
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Alarm Relay Outputs

Number Of Outputs	
Max Switching Current	
Max Switching Voltage	
Max Switching Power	

Power Supply

Voltage	85-300V AC - 85-300V DC
Frequency	45-65Hz
Consumption	<3VA AC - <2.5W DC

Mechanical Properties

Weight G	
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Protection Class	IP54
Mounting Type	Panel Mount

Environmental Conditions

Operating Temperature	-25°C +70°C
Storage Temperature	-30°C +80°C
Relative Humidity Non Condensing	Max. 95% (no condensation)

Communication

Protocol	Modbus RTU
Baud Rate	1200-57600
Parity	Odd, Even, None
Stop Bit	1
Slave Id	1-247
Isolation	2750V RMS

Time Recorded Data Storage

Hourly Records	
Daily Records	
Monthly Records	
Demand	
Alarm Records	

Digital Output

Isolation Level	
Number Of Outputs	
Voltage Switching Range	
Minimum Switching Frequency	

Digital Input

Number Of Inputs	
Isolation Level	
Minimum Counting Frequency	

Input Type

Ethernet Interface

Protocol
Port
Gateway Feature
Performance

Analog Output

Output Ranges 0.5 V, 0.10 V, 5.5 V, 10.10V, 0.20 Ma, 4.20 Ma
Isolation

Other Measurements

Operating Time Counter	+
Open Time Counter	+
Power Failure Counter	+

Basic Electrical Measurements

Current	+
Voltage	+
Frequency	+
Active Power	+
Reactive Power	+
Apparent Power	+
Power Factor	+
Cos	+

Cable Cross Sections Power Supply Voltage Relay

multi-core	2.5mm² - 14AWG
Single Core	4mm² - 12AWG, 2x1.5mm² - 2x16AWG

Cable Cross Sections Current

multi-core	4mm² - 12AWG, 2x1.5mm² - 2x16AWG
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Single Core	4mm² - 12AWG, 2x1.5mm² - 2x16AWG
Cable Cross Sections Digital Inputoutput Rs485 Analog Output	
multi-core	1.5mm² - 16AWG
Single Core	1.5 mm²-16 AWG, 2x0.75 mm²- 2x18 AWG