

ENERGY ANALYZER

EA-C4

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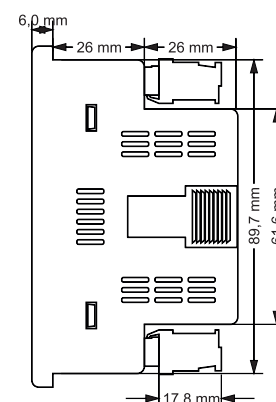
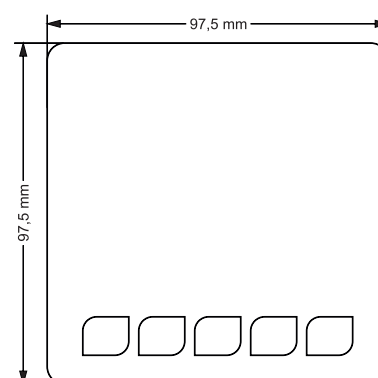
FEATURES

PARAMETER	VALUE
Total Harmonics Distortion	THD-V, THD-I
Voltage Harmonics	Up to 31st harmonics (L-N and L-L)
Current Harmonics	Up to 31st harmonics
Active Power	P1, P2, P3
Reactive Power	Q1, Q2, Q3
Apparent Power	S1, S2, S3
Power Factor	True PF, $\cos \phi$ (of each phase)
Voltage	phase-to-phase, phase-to-neutral (min, max & average values are saved)
Current	I1, I2, I3 (min, max & demand are saved)
Frequency	F1, F2, F3 (min, max & average)
Energy	Σ kWh (import & export) Σ kVARh (inductive & Capacitive)
Relay Output	Adjustable
Irregularities	voltage and current imbalances
Screen	71.5 X 61.5 Custom Design Glass LCD
Communication	RS485 Modbus RTU
Memory	You can delete energies and demands records
Password	Menu is password protected



TECHNICAL SPECIFICATIONS

PARAMETER	VALUE
Operating Voltage	85V - 240 AC
Operating Frequency	50 / 60 Hz
Operating Power	<10VA
Operating Temperature	-20°C.....55°C
Input Voltage (L-N)	5V - 330V AC
Voltage Measuring Range	5V - 330kV
Input Current	1mA - 5,5A
Current Measuring Range	1mA - 50.000A
Voltage, Current, Accuracy	% $\pm$ 0.5
Active Energy Accuracy	% $\pm$ 1
Reactive Energy Accuracy	% $\pm$ 2
Supported Connection	3P3W
Current Transformer Ratio	1....1000
Voltage Transformer Ratio	1,0....9999
Harmonic Voltage	3 - 31
Harmonic Current	3 - 31
Communication	RS485 Modbus RTU Baudrate: 1200bps-38400bps Stop Bit: 1 or 2; Parity: None, Even, Odd
Contact input	3A / 250V AC [Resistive Load]
Digital Input	9V - 24V DC
Weight	<300Gr
Protection Class	IP54[Front Panel], IP00[Body]
Panel Hole Measurement	91mm x 91mm
Connection Type	Plug-in Terminal Connection
Cable Diameter	1.5mm ²



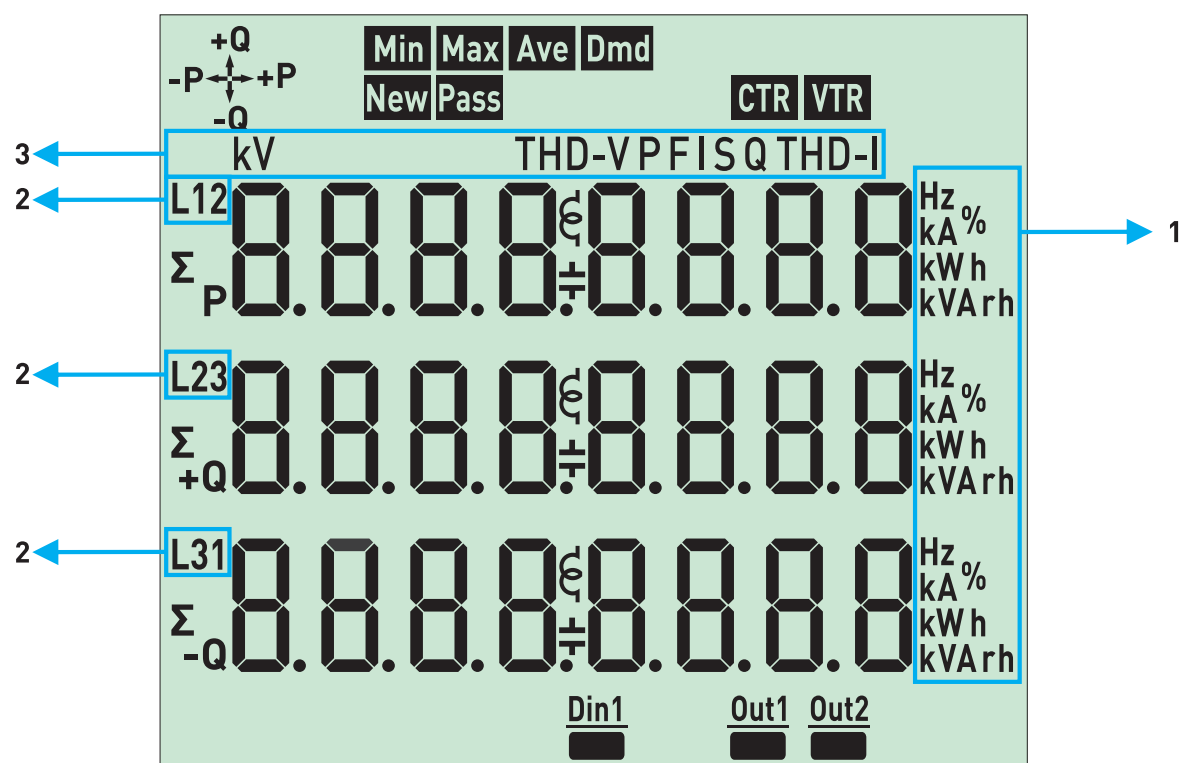


Figure-2

1 - Indicates the unit of the value.

2 - Indicates which phase the value belongs to .

3 - Indicates displayed values. V-voltage, I-current, F-frequency, S-apparent power, P-active power, PF-power factor, FI-cosine phi, THD-I-total current harmonics, THD-V- total voltage harmonics, Q- reactive power.

→+P Specified that the indicated active energies are imported.

-P← Specified that the indicated active energies are exported.

+Q ↑ Specified that the indicated reactive energies are inductive.

↓ -Q Specified that the indicated reactive energies are capacitive.

⊗ Specified that the indicated reactive energies are inductive.

⊙ Specified that the indicated reactive power are capacitive.

Min Indicates that the values shown are minimum.
(Period: 2 seconds.)

Max Indicates that the values shown are maximum.
(Period: 2 seconds.)

Ave Indicates that the values shown are average.
(Period: 5 minutes.)

Dmd Indicates that the values shown are demand.
(Period: 15 minutes.)

Out1

Out1: Relay 1 is pulled.
(Short circuit)

Out1

Out1: Relay 1 is released.
(Spn circuit)

Σ P

Total active energy.

Σ +Q

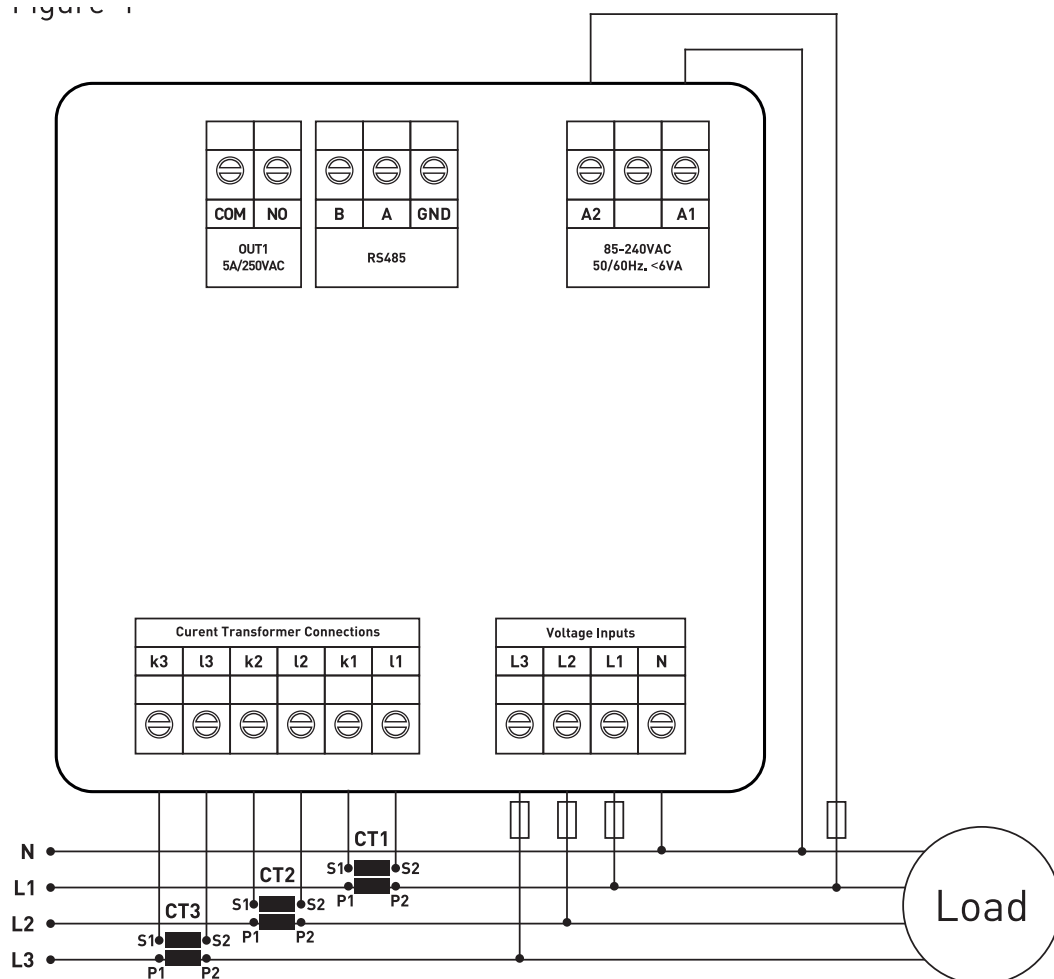
Total inductive reactive energy.

Σ -Q

Total capacitive reactive energy.

CONNECTION DIAGRAM

Figure 1



VALUES TABLE

Parameter Number	Parameter	Unit	Factory Value	Minimum Value	Maximum Value
Ctr	Current Transformer Ratio	-	1	1	5000
Vtr	Voltage Transformer Ratio	-	1.0	0.1	999.0
br	Baudrate	bps	9600	1200	38400
-	Stop bits	-	1	1	2
-	Data bits	-	8	-	-
-	Parity	-	none	None, Even, Odd	
Id	ModBus ID	-	1	1	247
En	Deleting Total Energy	-	No	Yes	No
dE	Deleting Demand Values	-	No	Yes	No
PASS	Password	-	0	0	9999
Par	Parameter	-	OFF	OFF, Uln, Iln, Ilt, thdU, thdI, PF, U Un, I Un, dI n	
Fun	Function	-	High	Low	High
UAL	Uln (voltage)	Volt	vtr x 10	vtr x 10	vtr x 500
	Iln (Current)	Amper	(ctrx10)/100	(ctrx10)/100	(ctrx500)/100
	Ilt (Total Current)	Amper	(ctrx3x10)/100	(ctrx3x10)/100	(ctrx3x500)/100
	thdU (Total Voltage Har.)	%	1	1	50
	thdI (Total Current Har.)	%	1	1	50
	PF (Power Factor)	%	0.50	0.50	0.99
	U Un (Voltage imbalance)	%	1	1	50
	I Un (Current Imbalance)	%	1	1	50
dLY	Delay Time	second	0	1	1000
HIS	Hysteresis Value	Volt, Amper, %	0	1	10