KARACA

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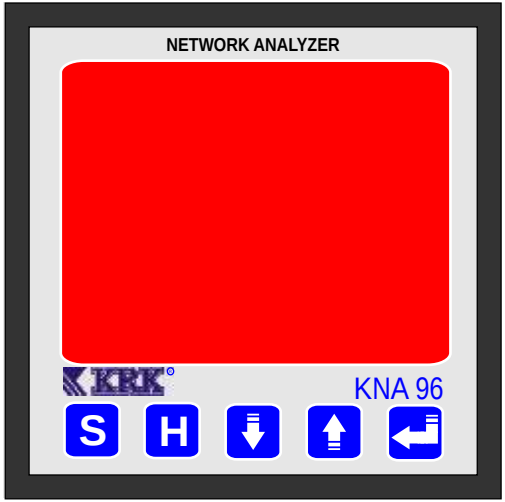
KRK

KNA NETWORK ANALYZER

2 YIL GARANTİ



USER GUIDE

WARNING

1.Cut all power before connecting device.
2.Do not connect the current measurement inputs directly to the current source. Always connect the current source using a current transformer.
3. Once the device is energized, do not remove the front panel.
4.Do not attempt to clean the device with a solvent or another similar agent. Use only a dry piece of cloth.
5.Check the correct connections before energized the device.
6.To prevent potential fire shock hazard, do not exposed the instrument to rain or moisture.
7.Do not open the instrument under any circumstances when it is connected to power source.
8. Contact your authorized seller in case of any problems with your device.
9.Device is only for panel mounting.

WARRANTY

Device has a two year warranty. Any repairs on the device must be done only by manufacturer. Otherwise, the device warranty will be void.

GENERAL FEATURES

LCD display
3 voltage measuring inputs
3 current measuring inputs
Communication via Rs485

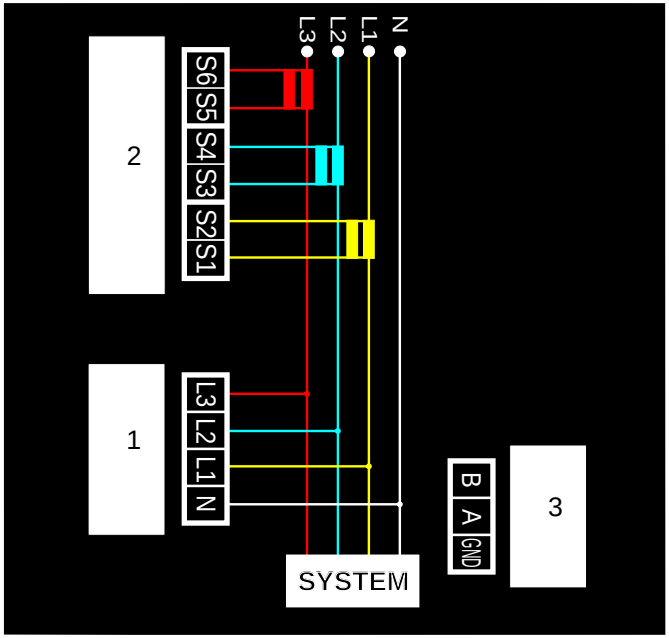
MEASURED PARAMETERS

Voltage (Phase-Phase, Phase-Neutral)
Current
Active, Reactive and Apparent power
Frequeny
Active energy
Apparent energy
Cosfi
Total Active Power
Total Reactive Power
Total Apparent Power
Total Cosfi
Harmonic Distortion for Current
Harmonic Distortion for Voltages.

APPLICATIONS

KNA Network Analyser is microprocessor-based device which is designed to measure all parameters of an electrical network, calculate the consumption values and display these on its LCD screen.

TERMINALS



1. **Voltage Inputs**

L1----1st Phase Voltage input
L2----2nd Phase Voltage input
L3----3rd Phase Voltage input
N-----Neutral İNPUT

L1-N----Supply voltage

2. **Current Terminals**

S1---1st Phase Current input
S2---1st Phase Current input
S3----2nd Phase Current input
S4----2nd Phase Current input
S5----3rd Phase Current input
S6----3rd Phase Current input

3. **Communication**

B A GND---- RS 485 input

BUTTON FUNCTIONS

SET BUTTON (S) : Press SET button for device adjustment.

HARMONIC BUTTON (H) : When you press Harmonic button (H) you can see current and voltages harmonics for each phases.

DOWN BUTTON ( ) : When you press DOWN button you can see phase to phase voltages and L1,L2,L3 Cosfi values.

UP BUTTON ( ) : When you press UP button you can see kVA, kW, kVArL, kVArC values.

ENTER BUTTON ( ) : When you press ENTER button you can see total kW, kVArL, kVArCvalues.

Later on respectively.
- kW value for L1, L2, L3 phases and total kW value
- kVArL, kVArC values
- kWh, kVArLh and kVArCh values.
- kWh values for each phases and total value.
- kVArLh values for each phases and total value
- kVArCh values for each phases and total value

ADJUSTMENT

First of all we have to enter current transformer ratio and necessery parameters into device.

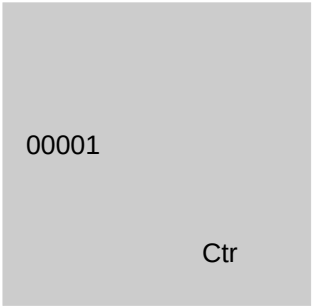
Press SET (S) button

You will see below screen.

Utr : Voltage transformer

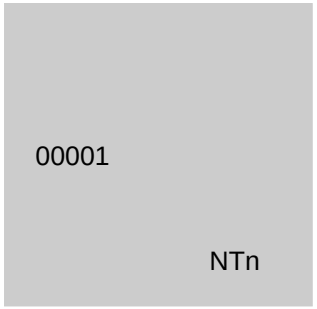
If you are using voltage transformer you can enter the value by using UP( )/DOWN( ) button.
If you are not using voltage transformer leave the value: 00001 and press ENTER button.

You will see below screen.



CTr : Current transformer ratio

You can enter current transformer ratio By using UP(⇧)/DOWN(⇩) button. Example : If you are using 100/5 current transformer you should enter value : 00025 Then press ENTER button. You will see blow screen.

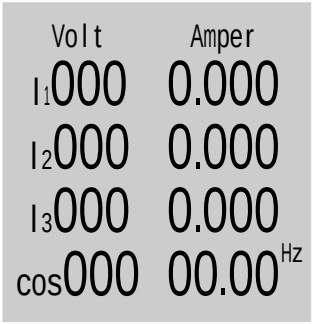


Ntn : Network communication number

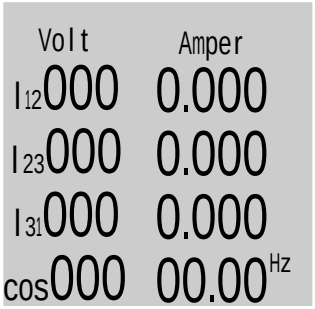
Press UP(⇧)/DOWN(⇩) button to enter network number.
Press ENTER button again to return to main screen.

OPERATING

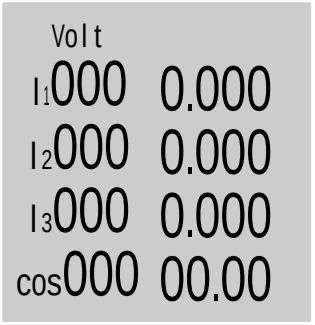
When you power up the system you will see voltages , current, frequency and cosfi values for L1, L2, L3 phases.



When you press **DOWN (⬇)** button you can see phase to phase voltages and current
When you press DOWN button again you will see L1, L2 , L3 Cosfi values.

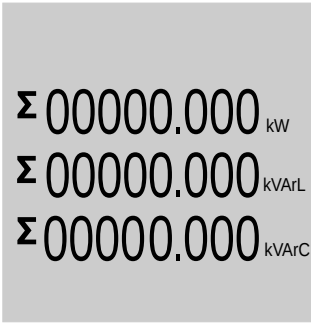


When you press **UP (⬆)** button first you will see kVA values for each phases on the screen.



If you press UP **(⬆)** button again , respectively you will see kW, kVArL/ kVArC values for each phases on the screen.

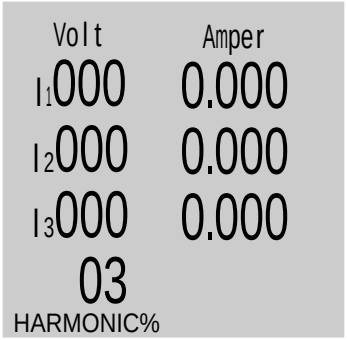
When you press ENTER **(↵)** button you will see total kW,/kVArL,/kVArC values.



Later on respectively (pressing ENTER button)
- kW value for L1, L2, L3 phases and total kW value.
- kVArL/ kVArC values.
- Total kWh/ kVArLh/ kVArCh values.
- kWh values for each phases and total value.
- kVArLh values for each phases and total value.
- kVArCh values for each phases and total value..

HARMONICS MEASUREMENT

When you press Harmonics (H) button you can see Current and voltages harmonics for each phases
To return back press (H) button.



TECHNICAL SPECIFICATIONS

Power Supply : 220 Vac ±15%(N-L1) 50 Hz
Power Consumption : < 2VA
Current Transformer : ...../5A
Current Measurement Range : 0.005...6A
Operation Temperature : -25 + 60 C
Remote Control : RS 485
Protection Class Front :Ip52
Protection Class Rear : Ip20
Voltage Measurement Accuracy : %0.5+-1
Current Measurement Acuracy : %0.5+-1
Power Measurement Accuracy : %0.5+-1
Harmonic Measurement Accuracy : % 2

DIMENSIONS