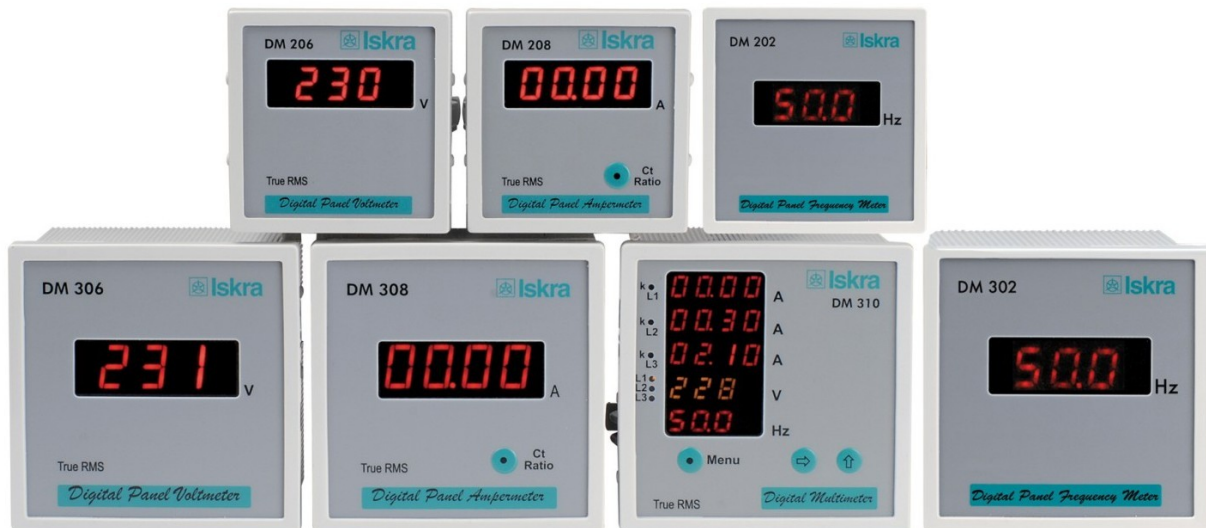




# DIGITAL METERS WITH LED DISPLAY



## FEATURES:

- True RMS measurements
- LED Displays with 4 or 3 digits
- Measurement ranges from 0...500 V and 0...9999 A
- CT ratio adjustment for A-meters ... /5 A
- CT ratio from 1 ... 2000
- Measurement range for Frequency meters 20 ... 500 Hz.
- Accuracy  $\pm 1\%$  ( $\pm 0.2\%$  for Frequency meters)
- Power supply 230 V AC  $\pm 20\%$ , 50/60 Hz
- Power consumption  $< 3\text{ VA}$
- Ambient temperature:  $-5\text{ }^{\circ}\text{C}$  ...  $+55\text{ }^{\circ}\text{C}$

# DIGITAL PANEL VOLTMETER – DM 206



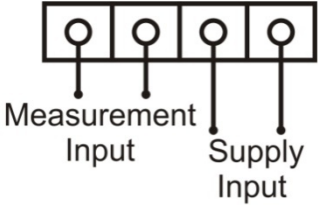
### Use

Measures very accurately, the voltage value of the any line (AC+DC) in true RMS. Any line can be measured between 0...500 V.

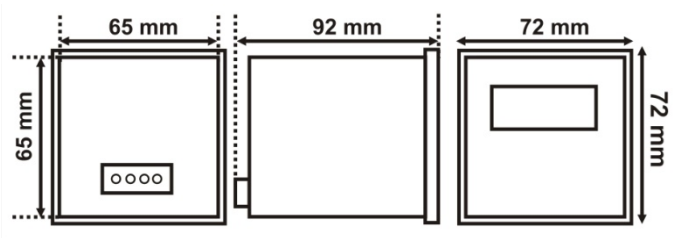
### Features

- Display: 3 digit, red, 10 mm
- Measurement range: 0...500 V
- Accuracy:  $\pm 1 \% + 2 \text{ d}$
- Supply Voltage: 220 V AC  $\pm 20 \%$ , 50/60 Hz
- Power Consumption:  $< 3 \text{ VA}$
- Ambient Temperature:  $-5 \text{ }^\circ\text{C} \dots + 55 \text{ }^\circ\text{C}$
- Weight: 0.23 kg

### Connection scheme



### Dimensions



# DIGITAL PANEL AMPEREMETER – DM 208



## Use

Measures very accurately, the current value of the any line (AC+DC) in true RMS. Any line can be measured between 0...9999 A. When the reading exceeds 9999 A, it shows Err fault message.

## CT Ratio Adjustment

By pressing the button on front panel, CT ratio can be adjust. CT ratio should be .../5 A. For saving adjusted value, just waiting for 3 seconds is enough.

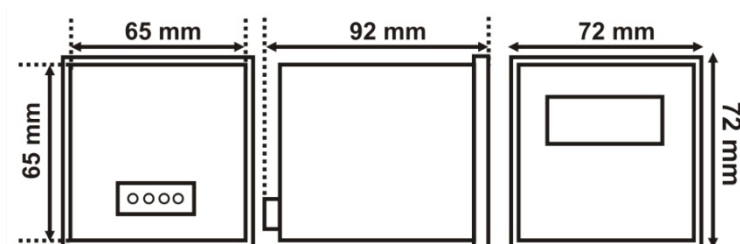
## CT Ratios

1, 2, 3, 4, 5, 6, 8, 10, 12, 15, 20, 25, 30, 40, 50, 60, 80, 100, 120, 150, 160, 200, 250, 300, 320, 360, 400, 500, 600, 700, 800, 900, 100, 1200, 1400, 1600, 1800, 2000

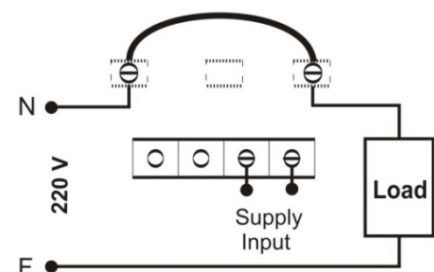
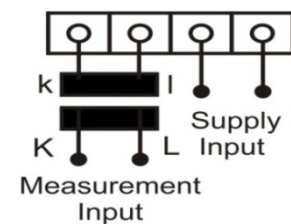
## Features

- Display: 4 digit, red, 10 mm
- Measurement range: 0...9999 A
- Accuracy:  $\pm 1\% + 2\text{ d}$
- Supply Voltage: 220 V AC  $\pm 20\%$ , 50/60 Hz
- Power Consumption:  $< 3\text{ VA}$
- Ambient Temperature:  $-5\text{ }^{\circ}\text{C} \dots +55\text{ }^{\circ}\text{C}$
- Weight: 0.23 kg

## Dimensions



## Connection schemes



Note: Device will be damaged when voltage is applied to the current entry or current transformer is selected smaller than needed (as over current will be applied to the device).

# DIGITAL PANEL VOLTMETER – DM 306



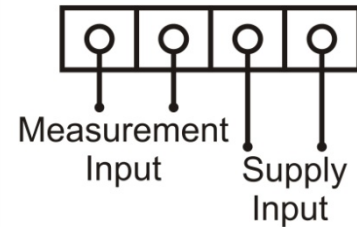
## Use

Measures very accurately, the voltage value of the any line (AC+DC) in true RMS. Any line can be measured between 0...500 V.

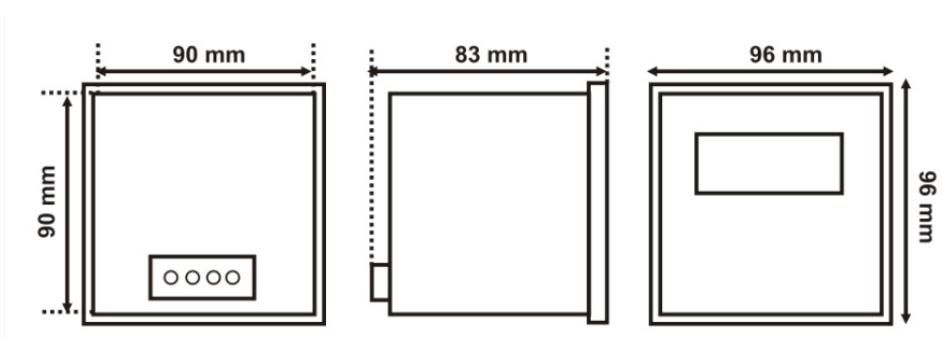
## Features

- Display: 3 digit, red, 14 mm
- Measurement range: 0...500 V
- Accuracy:  $\pm 1\% + 2\text{ d}$
- Supply Voltage: 220 V AC  $\pm 20\%$ , 50/60 Hz
- Power Consumption:  $< 3\text{ VA}$
- Ambient Temperature:  $-5\text{ }^{\circ}\text{C} \dots + 55\text{ }^{\circ}\text{C}$
- Weight: 0.28 kg

## Connection scheme



## Dimensions



# DIGITAL PANEL AMPEREMETER – DM 308



## Use

Measures very accurately, the current value of the any line (AC+DC) in true RMS. Any line can be measured between 0...9999 A. When the reading excesses 9999 A, it shows Err fault message.

## CT Ratio Adjustment

By pressing the button on front panel, CT ratio can be adjust. CT ratio should be .../5 A. For saving adjusted value, just waiting for 3 seconds is enough.

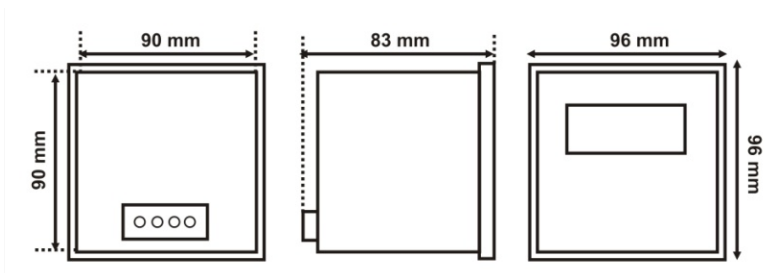
## CT Ratios

1, 2, 3, 4, 5, 6, 8, 10, 12, 15, 20, 25, 30, 40, 50, 60, 80, 100, 120, 150, 160, 200, 250, 300, 320, 360, 400, 500, 600, 700, 800, 900, 100, 1200, 1400, 1600, 1800, 2000

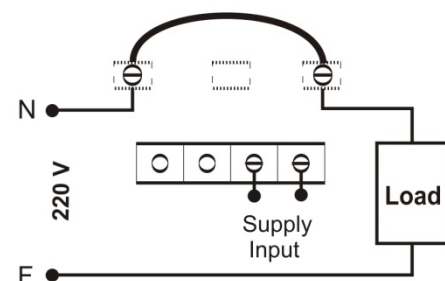
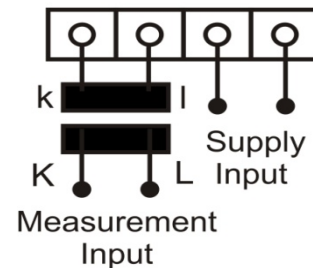
## Features

- Display: 4 digit, red, 14 mm
- Measurement range: 0...9999 A
- Accuracy:  $\pm 1 \% + 2 d$
- Supply Voltage: 220 V AC  $\pm 20 \%$ , 50/60 Hz
- Power Consumption:  $< 3 VA$
- Ambient Temperature:  $-5^{\circ}C \dots + 55^{\circ}C$
- Weight: 0.28 kg

## Dimensions



## Connection schemes



Note: Device will be damaged when voltage is applied to the current entry or current transformer is selected smaller than needed (as over current will be applied to the device).

# DIGITAL MULTIMETER – DM 310



## Use

DM 310 is very advanced multimeter which gives user precise readings in 4 digits and separate CT ratio adjustments for flexible systems. It is not only measures the current pulled from the L1, L2, L3, but also voltage and frequency of those lines in True RMS.

There is 5 rows for measurement digits. Three for the currents that are showed continuously, one for the voltage that is cycling every 3 seconds ( $V_{L1}$ ,  $V_{L2}$ ,  $V_{L3}$ ,  $V_{L1-L2}$ ,  $V_{L1-L3}$ ,  $V_{L2-L3}$ ) and one for the frequency of the line voltmeter shows (between phases shows the first phase's frequency).

## Amperemeter

Measures very accurately, the current value of the line (AC+DC) in True RMS. When the reading exceeds 9999 A, it shows Err1 fault message.

- \* Each line can be measured between 0-9999 A
  - 4 digit display gives exact values
- \* Each line can have different CT ratio
  - This gives flexibility for further modifications of the system
- \* CT ratio can be between 1...2000 any value
  - This gives the opportunity of CT calibration




## Voltmeter

Measures very accurately, the voltage value of the line (AC+DC) in True RMS. The values measured shown every 3 seconds ( $V_{L1}$ ,  $V_{L2}$ ,  $V_{L3}$ ,  $V_{L1-L2}$ ,  $V_{L1-L3}$ ,  $V_{L2-L3}$ ) in a cycle. If user would like to observe any of the lines value, the only thing is to select the desired value, it will show selected value for 60 seconds continuously, than begins to cycling again.

## Frequency meter

Shows the frequency of the line that voltmeter shows. When the voltmeter shows between phases values it shows first phase's frequency. For example: If the voltmeter shows L2-L3 value frequencymeter shows L2 frequency.

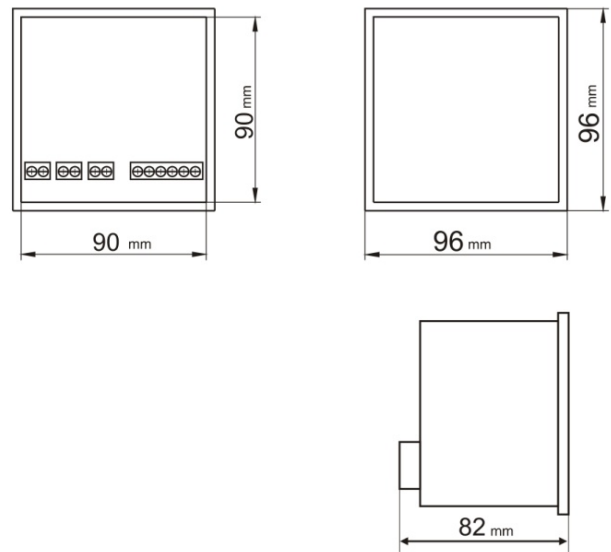
## CT ratio adjustment

By pressing the MENU  button on the front panel, desired current can be choosed, then CT ratio of the current shown; by pressing  adjustment digit is choosed and by pressing  adjustment can be done. For saving adjusted value, just waiting for 5 seconds is enough.

## Features

<b>Measurement range:</b>	Amperemeter	0...9999 A
	Voltmeter L1, L2, L3	0...500 V
	Frequencymeter	30...70 Hz
<b>Accuracy:</b>	Amperemeter	$\pm 1 \% + 2 d$
	Voltmeter	$\pm 1 \% + 2 d$
	Frequencymeter	$\pm 0.2 \% + 2 d$
<b>CT ratios:</b>	1...2000	
<b>Screen:</b>	Amperemeter	3 x 4 digits
	Voltmeter	3 digits
	Frequencymeter	3 digits
<b>Supply Voltage:</b>	220 V AC $\pm 20 \%$ , 50/60 Hz	
<b>Power Consumption:</b>	$\leq 3$ W	
<b>Ambient Temperature:</b>	$-5 \text{ }^{\circ}\text{C} \dots + 55 \text{ }^{\circ}\text{C}$	
<b>Electrical connector:</b>	Socketed connectors	
<b>Connection:</b>	Vertical or front panel	
<b>Dimensions:</b>	96 x 96 mm	
<b>Weight:</b>	0.29 kg	

## Dimensions



## Connection schemes



Note: Device will be damaged when voltage is applied to the current entry or current transformer is selected smaller than needed (as over current will be applied to the device).

# DIGITAL PANEL FREQUENCY METERS DM 202 & DM 302



## Use

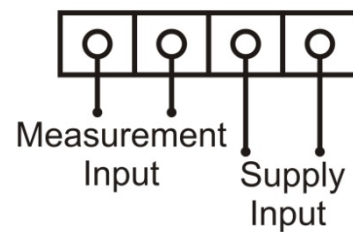
Frequency meters measure system frequency. Meters show frequency value in 3 digits.

## Features

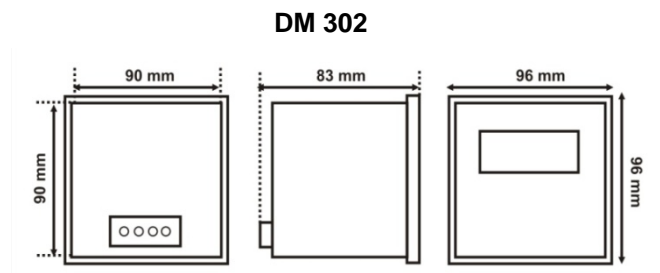
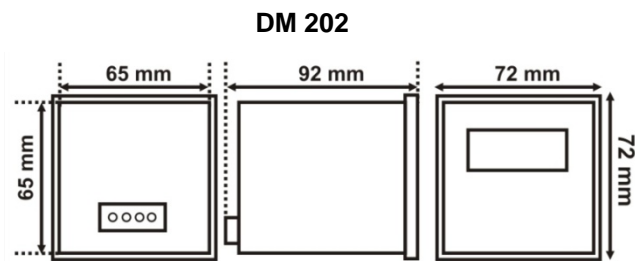
- Display: 3 digit, red; (DM 202 – 10 mm, DM 302 – 14 mm)
- Measurement range: 20...500 Hz (30...500 V AC)
- Accuracy:  $\pm 0.2\% + 2 \text{ d}$
- Supply Voltage: 230 V AC  $\pm 20\%$ , 50/60 Hz
- Power Consumption:  $< 3 \text{ W}$
- Ambient Temperature:  $-5\text{ }^{\circ}\text{C} \dots +55\text{ }^{\circ}\text{C}$
- Weight: 0.26 kg (DM 202), 0.30 kg (DM 302)

## Connection scheme for

### DM 202 and DM 302



## Dimensions



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