



3.1 General Features

3.1.1 take the CMOS big scale integrated circuit as the core, in AC / DC voltage, the AC/DC electric current, the resistance, the frequency and the electric capacity measure it can automatically transform the measuring range, making it more convenient.

3.1.2 greatest display: 6000 Counts (3 6/7)

3.1.3 has the function of back light, data hold, the maximum/ minimum value hold measure.

3.1.4 automatic cathode display: Displays " - "

3.1.5 batteries insufficient display: Displays " ".

3.1.6 Auto power OFF

After turning on the instrument and without turning the function switch or pressing any button, the instrument will automatically enter into sleep mode after 10 minutes, to save battery power. when it is in the sleep mode you can press the SELECT key to wake up the instrument. If you don't need the automatic sleep mode, you should hold down the SELECT key to turn on the instrument, and then the symbol "⓪" will not be display on the LCD.

3.1.7 working condition: 0°C~40°C, 75%RH (max)

3.1.8 storage environment: -10°C~60°C, 80%RH (max)

3.1.9 battery: 9V(6F22 or equivalent)

3.1.10 external dimensions : 191 (length) 94 (width) 49 (height) mm

3.1.11 weight: approximately 400g (contain battery)

3. 2 technical index

3. 2. 1 DCV

| Range | Accuracy | Resolution |
|-------|------------|------------|
| 600mV | ±(0.5%+5d) | 0.1mV |
| 6V | | 1mV |
| 60V | | 10mV |
| 600V | | 100mV |
| 1000V | ±(0.8%+5d) | 1V |

Input resistance: 10MΩ.

Overload protection :DC/AC peak value1000V.

3. 2. 2 ACV

| Range | Accuracy | Resolution |
|-------|------------|------------|
| 600mV | ±(1.2%+5d) | 0.1mV |
| 6V | | 1mV |
| 60V | | 10mV |
| 600V | | 100mV |
| 700V | ±(1.5%+5d) | 1V |

Input resistance : 10MΩ.

Frequency: 10Hz~1kHz (Warning: Frequency for square wave accuracy is specified from 10Hz to 400Hz).

display: TRUE RMS(sinusoidal waveform RMS calibration).

Overload protection:250V at mV range,DC1000V or peak value AC1000V at V range.

3.2.3 DCA

| range | Accuracy | Resolution |
|--------|------------|------------|
| 600μA | ±(1%+5d) | 0.1μA |
| 6000μA | | 1μA |
| 60mA | ±(1.5%+5d) | 0.01mA |
| 600mA | | 0.1mA |
| 6A | ±(2%+5d) | 1mA |
| 10A | | 10mA |

Overload protection : μA/mA:F1 A/250V with fuse ,

10A: F10 A/250V with fuse .

▲greatest input electric current: 10A (less than 10 seconds).

voltage drop measure: full measure range is 600mV.

3.2.4 ACA

| range | Accuracy | Resolution |
|--------|------------|------------|
| 600μA | ±(1%+5d) | 0.1μA |
| 6000μA | | 1μA |
| 60mA | ±(1.8%+5d) | 0.01mA |
| 600mA | | 0.1mA |
| 6A | ±(3%+5d) | 1mA |
| 10A | | 10mA |

Overload protection: μA/mA:F1 A/250V with fuse, 10A F10 A/250V fuse.

Voltage drop measure: full measure range is 600mV(10A is 100mV).

Frequency: 10Hz~1kHz (Warning: Frequency for square wave accuracy is specified from 10Hz to 400Hz).

display: TRUE RMS(sinusoidal waveform RMS calibration).

▲ greatest input electric current: 10A (less than 10 seconds).

3.2.5 resistance Ω

| range | Accuracy | Resolution |
|---------------|-----------------|--------------|
| 600 Ω | $\pm(0.8\%+5d)$ | 0.1 Ω |
| 6K Ω | | 1 Ω |
| 60K Ω | | 10 Ω |
| 600K Ω | | 100 Ω |
| 6M Ω | | 1K Ω |
| 60M Ω | $\pm(2\%+5d)$ | 10K Ω |

Overload protection : 250Vvirtual value.

Plough voltage approximately 0.5V

3.2.6 CAP

| Range | Accuracy | Resolution |
|--------|---------------|------------|
| 10nF | $\pm(3\%+5d)$ | 0.001nF |
| 100nF | | 0.01nF |
| 1uF | | 0.1nF |
| 10uF | | 1 nF |
| 100uF | | 10nF |
| 1000uF | | 100nF |
| 10mF | $\pm(5\%+5d)$ | 1uF |

Overload protection : 250Vvirtual value.

3.2.7 FREQ

| Range | Accuracy | Resolution |
|--------|-----------------|------------|
| 10Hz | $\pm(0.5\%+3d)$ | 0.01Hz |
| 100Hz | | 0.1 Hz |
| 1kHz | | 1 Hz |
| 10kHz | | 10 Hz |
| 100kHz | | 100 Hz |
| 1MHz | | 1k Hz |
| 10MHz | | 10k Hz |

Overload protection : 250Vvirtual value, input delicacy:1V。

Caution: if the measured frequency is above 30V, please press

“Hz/DUTY” key at AC electric voltage measuring range to get to the frequency function, then carry on measure。

3.2.8 occupancy and vacancy ratio


| Measure range | Accuracy | Resolution |
|---------------|-----------------|------------|
| 1%~99% | $\pm(0.5\%+3d)$ | 0.1% |

Overload protection: 250Vvirtual value。

3.2.9temperature (general type)

| Function | range | Resolution | Accuracy |
|----------|-----------------------|----------------|---------------------|
| TEMP | -30~400 $^{\circ}$ C | 1 $^{\circ}$ C | $\pm 1.2\% \pm 4d$ |
| | 400~1000 $^{\circ}$ C | 1 $^{\circ}$ C | $\pm 1.9\% \pm 15d$ |
| | -40~400 $^{\circ}$ F | 1 $^{\circ}$ F | $\pm 1.2\% \pm 6$ |
| | 400~1832 $^{\circ}$ F | 1 $^{\circ}$ F | $\pm 1.9\% \pm 25$ |

Overload protection 250V

3. 2. 10 Diode positive voltage 

Display of similar diode positive voltage. Measuring condition: positive DC electric current 2mA, reverse DC voltage approximate 3.2V。

3. 2. 11 Connection & disconnection measure

When the transited resistance is smaller than about 50 Ω ,the buzzer beeps.Measuring condition: plough voltage is about 0.5V。