

Analogue Meters FQ3x07 series

₹ FQ - Moving-iron panel Voltmeter FQ3207 & FQ3307

- For measurement of phase and line-to-line voltages in three phase system
- o Easy selecting of desired voltage with a selector switch
- Good read-out survey on larger distance
- Resistance to mechanical vibrations
- o Protective cover for terminals (optional)





PROPERTIES

- For measurement of phase and line-to-line voltages in three phase system
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APPLICATION

Moving-iron instruments are intended for installation in supervision panels of power distribution and transformer stations or wherever a.c. voltages are to be measured.

CONSTRUCTION

The mechanism is a sprung pivot bearing type with silicon oil damping.

They work in a range from 15 Hz to 100 Hz and measure true RMS values independently on the signal form of voltage.

A non-linear graduation at the beginning of the scale allows reading from approximately 15 % of measuring range onwards.

It is possible to choose between two different sizes:

- FQ3207 front frame dimensions are 96 x 96 mm
- FQ3307 front frame dimensions are 72 x 72 mm

TECHNICAL DATA

ACCURACY:

accuracy class 1.5

DESIGN:

Material of housing: PC

uninflammable, according to UL 94 V-0

Enclosure protection: Case IP 52, terminal contacts IP 00 (IP 20 for connection terminals)

according to EN 60529

Operating position Vertical Installation category (Vrms): CAT III 600V Consumption: Voltmeters 1.5 ... 4 VA

AMBIENT CONDITIONS JVF (DIN 40 040)

Climatic conditions:

Standards **EN 60051-1**

EN 60051-2

EN 60051-9

Temperature:

 $\begin{array}{ccc} \text{Reference range of operation} & +18 \dots +28^{\circ}\text{C} \\ \text{Nominal range of operation} & -25 \dots +55^{\circ}\text{C} \\ \text{Storing} & -40 \dots +70^{\circ}\text{C} \\ \text{Humidity} & \text{up to 80\% (without condensing)} \end{array}$

MEASURING RANGE:

VOLTMETERS:

Measuring range (V) 6 10 15 25 40 60 100 150 250 300 400 500 600

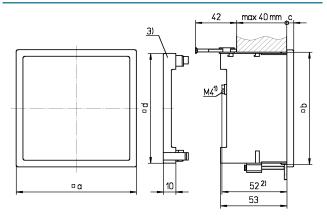
Measuring range (V) x V / 100 V x V / 110 V for connection to transformer

Instruments for connection to instrument transformers have the following measuring ranges:

1 - 1.2 - 1.5 - 2 - 2.5 - 3 - 4 - 5 - 6 - 7.5 (8) and decade multiples.



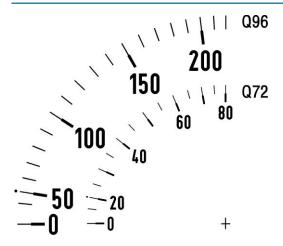
DIMENSIONAL DRAWING



Picture 1: Dimensional drawing FQ3207 & FQ3307 (all dimensions are in mm)

3) Protective cover (on special request)

SCALE

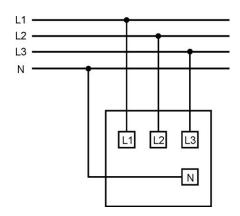


Picture 2: Drawing of scale: FQ3207 & FQ3307 (voltmeters)

FQ3207 FQ3307 Type Bezel (mm) 72 □ a 96 92+0.8 68+0.8 Panel cut-out (mm) \Box b Bezel height (mm) 5.5 5.5 С 90 Protect cover (mm) \Box d 66.5 Scales length (mm) 92 62 Weight approx. (kg) 0.2 0.18

Table 1: Dimensions and weight

CONNECTION DIAGRAM



Picture 3: Connection diagram for FQ3x07

DATA FOR ORDERING

- Instrument type,
- Measuring range and scale,
- Transmission ratio of instrument transformer.

ORDERING EXAMPLE:

- Voltmeter FQ3207, 0 600 V
- Voltmeter FQ3207, 110/0.1 kV 150 kV

When ordering scales, state same data as when ordering the instrument.

Scale for voltmeter FQ3207, 110/0.1 kV - 150 kV

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