

DESCRIPTION

Moving coil instruments with circular scale of 240° employ a platinum taut band for suspension of moving coil assembly instead of pivot & jewel system. It is robust & less prone to sluggishness & zero shift due to functionless movement.

These meters are basically used for the measurement of AC & DC current & voltage. These meters with built in rectifier for the measurement of AC current & voltage in the frequency range 45–65Hz. / 400Hz., measures average values & are scaled to indicate RMS.

These instruments are not recommended for non-sinusoidal waveforms of current & voltage. The other indications like Frequency, Power & Power factor can be offered with suitable external transducers.

Speed indication is possible if used with * AC tachogenerator.
(* not in the scope of AE).

FEATURES

- ◆ Long scale instruments.

ELECTRICAL SPECIFICATIONS

- ◆ TYPE : MOVING COIL 240°.
- ◆ OPERATING VOLTAGE : 60mV to 600V.
- ◆ OPERATING CURRENT : 500μA to 30A & Above 30A with external shunt.
- ◆ ACCURACY : Class 2.5% for SQ48, 1.5% for SQ72 & SQ96, 1.0% for SQ144, SQ110.
- ◆ INSULATION RESISTANCE : Greater than 20MΩ at 500V DC
- ◆ DIELECTRIC TEST : 2kV RMS for 1min.
- ◆ OPERATING TEMP. : -10°C to 55°C
- ◆ STORAGE TEMP. : -20°C to 70°C
- ◆ HUMIDITY : Up to 95% RH
- ◆ CONFORMS TO : I.S. 1248 / I.E.C. 60051 (Part 2)

| MODEL | SQ 48 | SQ 72 | SQ 96 | SQ 144 | SQ 110 |
|----------------------|---|-----------------------|----------------------------------|------------------|------------------|
| ACCURACY CLASS (%) | 2.5 | 1.5 ^A | 1.0 ^A | 1.0 ^A | 1.0 ^A |
| D.C. AMMETER(MIN.) | 0 – 500μA | | | | |
| (MAX.) | 0 - 100mA ^B | 0 – 30A ^C | | | |
| D.C. VOLTMETER(MIN.) | 0 – 60mV | | | | |
| (MAX.) | 0 - 150mV ^B | 0 – 600V | | | |
| A.C. AMMETER (MIN.) | 0 - 10mA ^B | 0 – 10mA | | | |
| (MAX.) | 0 - 30A ^B | 0 – 30A | | | |
| A.C. VOLTMETER(MIN.) | 0 - 10V ^B | 0 – 10V | | | |
| (MAX.) | 0 - 600V ^B | 0 – 600V | | | |
| FREQ. METER | POSSIBLE ^B 40Hz to 100Hz Span at 110V ~ 440V | | | | |
| WATT/VAR METER | POSSIBLE ^B | POSSIBLE ^D | 1PH, 3PH-2/3E : 110V-440V, 1A/5A | | |
| VA METER | POSSIBLE ^B | POSSIBLE ^D | 3PH - 2/3E : 110V-440V, 1A/5A | | |
| PF METER | POSSIBLE ^B | POSSIBLE ^D | 1PH, 3PH-1E : 110V -440V., 1A/5A | | |

- * Note : 1) Range below minimum & above maximum on request if feasible.
2) ILLUMINATED DIAL METERS ON REQUEST

A : Accuracy Class 0.5Hz for all Frequency meter, 1.5% for SQ96, SQ144, SQ110
AC/Ammeter/Voltmeter & Power meter, 2° for all Power Factor meter,

B : For higher ranges use AE external shunts. (Refer Data Sheet no. Shunts 10 / 11).

C : SQ72 - Power & Power factor meter with external transducer box

D : SQ110 - Power meter with external transducer box.

MECHANICAL SPECIFICATIONS

| MODEL | SQ 48 | SQ 72 | SQ 96 | SQ 144 | SQ 110 |
|---------------------------|-------------------------|-------------------------|-------------------------|---------------------------|----------------------------|
| FLANGE (mm) | 48 X 48 | 72 X 72 | 96 X 96 | 144 X 144 | 110 X 110 |
| PANEL CUTOUT (mm) | 45 X 45 ^{+0.6} | 68 X 68 ^{+0.7} | 92 X 92 ^{+0.8} | 138 X 138 ^{+1.0} | 100φ, 5φ, 4 holes 90x90 |
| DEPTH (mm) DC | 55 | 55 | 55 | 60 | 100 |
| AC | 55 | 75 | 75 ^A | 60 ^A | 100 |
| SCALE LENGTH (Approx. mm) | 70 – 75 | 105 – 110 | 150 – 155 | 225 – 230 | 175 – 180 |
| WEIGHT (Approx. gms.) DC | 200 | 250 | 300 | 500 | 450 |
| AC | 200 | 350 | 400 ^B | 600 ^B | 650 |

A : Depth 100mm for SQ96 & SQ144 Power meter.

B : Weight 1.2kg for SQ96 Power meter, 1.5kg for SQ144 Power meter.

Ordering information

1) Type 2) Model 3) Range

For all & additional

4) Frequency 5) Operating Voltage 6) Operating Current 7) PTR 8) CTR

For Power & Power Factor measurement.

