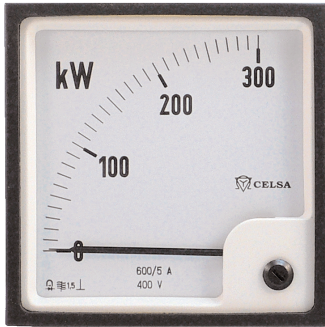


ANALOGUE MEASURING INSTRUMENTS

DQ...n - Wattmeter Active Power



- For alternating current 50-60 Hz
- Class 1.5
- Scale 90°

Description

DQ wattmeters are used for active power measurement. There are versions for single-phase AC and three-phase with 3 or 4 wires for balanced and unbalanced loads. The frequency range is 50 - 60 Hz.

Ferrodynamic system, with one measuring element for DQ/1w, DQ/1d and DQ/1; two elements for DQ/2 (aron system), and 2 ^{1/2} elements for DQ/3. Eddy-current damping, with pivot suspension and spring-loaded jewel bearings for vibration and shock resistance.

Consumption

The consumption per current path is < 0,2 VA

The current consumption in the voltage path is < 3,9 VA

Scales

90° scale, practically linear. Coarse-fine division-The full-scale value must be between 0.2 and 2 times rated apparent power, which is calculated as follows:

- For single-phase AC:

$$S(W) = \text{Primary voltage (V)} \times \text{Primary current (A)}$$

- For three-phase AC:

$$S(W) = \sqrt{3} \times \text{Primary line-to-line voltage (V)} \times \text{Primary current (A)}$$

Unless otherwise indicated, the full-scale value is calculated by rounding S down to one of the following standard value: 1 - 1,2 - 1,5 - 2 - 2,5 3 - 4 - 5 - 6 - 7,5 - 8 or their decimal multiples.

On request: Zero center. Por example, -100-0-100kW

Overload capacity according to DIN 43780

Overload capacity continuously 1,2 I_N.

| Dimensions in mm | | | | | | |
|--------------------|-----|-----|--------------------|----|-----|----|
| Type | a | c | e | g | h | Ø |
| DQ96n/1w, /1d, /1 | 96 | 134 | 92 ^{+0,8} | 40 | 5,5 | M4 |
| DQ96n/2, /3 | 96 | 134 | 92 ^{+0,8} | 40 | 5,5 | M4 |
| DQ144n/1w, /1d, /1 | 144 | 134 | 138 ⁺¹ | 40 | 5,5 | M4 |
| DQ144n/2, /3 | 144 | 134 | 138 ⁺¹ | 40 | 5,5 | M4 |

Technical Features

| Front frame (mm) | 96 x 96 | 144 x 144 | | |
|--|---|--|----------|-----------|
| Scale length (mm) | 97 | 146 | | |
| Weight (g) | a = 650 b = 650 c = 750 d = 900 | a = 900 b = 950 c = 1000 d = 1100 | | |
| Measuring range | U (V) | I (A) | Type | Type |
| Single-phase AC | | | DQ96n/1w | DQ144n/1w |
| a ~ | 57,7 - 63,5 100 - 110 - 127 230 - 400 | 5 1 | ● ● | ● ● |
| Three-phase AC, three wires, balanced load | | | DQ96n/1d | DQ144n/1d |
| b ≡ | 100 - 110 - 230 400 440 - 500 | 5 1 | ● ● | ● ● |
| Three-phase AC, three wires, unbalanced load | | | DQ96n/2 | DQ144n/2 |
| c ≡ | 100 - 110 - 230 400 440 - 500 | 5 1 | ● ● | ● ● |
| Three-phase AC, four wires, balanced load | | | DQ96n/1 | DQ144n/1 |
| d ≡ | 100 - 110 - 230 400 440 - 500 | 5 1 | ● ● | ● ● |
| Three-phase AC, four wires, unbalanced load | | | DQ96n/3 | DQ144n/3 |
| e ≡ | 100 - 110 - 230 400 440 - 500 | 5 1 | ● ● | ● ● |

● available ○ on request

Connection diagrams see page 4/16.

