

ANALOGUE MEASURING INSTRUMENTS

DQ..n/b - Varmeters Power Reactive



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

Description

DQ varmeters are used for reactive 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/1wb, DQ/1db and DQ/1b; two elements for DQ/2 (aron system), and 2 ^{1/2} elements for DQ/3b. 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/1wb, /1db, /1b	96	134	92 ^{+0,8}	40	5,5	M4
DQ96n/2b, /3b	96	134	92 ^{+0,8}	40	5,5	M4
DQ144n/1wb, /1db, /1b	144	134	138 ⁺¹	40	5,5	M4
DQ144n/2b, /3b	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 = 460 b = 510 c = 695 d = 725	a = 720 b = 770 c = 960 d = 990		
Measuring range	U (V)	I (A)	Type	Type
Single-phase AC			DQ96n/1wb	DQ144n/1wb
a ~	57,7 - 63,5 100 - 110 - 127 230 - 400	5 1	● ●	● ●
Three-phase AC, three wires, balanced load			DQ96n/1db	DQ144n/1db
b ≅	100 - 110 - 230 400 440 - 500	5 1	● ●	● ●
Three-phase AC, three wires, unbalanced load			DQ96n/2b	DQ144n/2b
c ≅	100 - 110 - 230 400 440 - 500	5 1	● ●	● ●
Three-phase AC, four wires, balanced load			DQ96n/1b	DQ144n/1b
d ≅	100 - 110 - 230 400 440 - 500	5 1	● ●	● ●
Three-phase AC, four wires, unbalanced load			DQ96n/3b	DQ144n/3b
e ≅	100 - 110 - 230 400 440 - 500	5 1	● ●	● ●

● available ○ on request

Connection diagrams see page 4/16.

