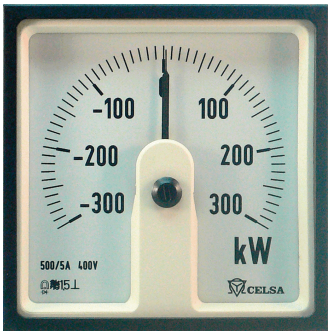
DAQ...n - Electronic Active Power Instrument (Wattmeter)



- For alternating current 50-60 Hz
- Class 1.5
- Scale 240°

Description

The system consists of a moving coil movement with installed transducer which measures the reactive power in a sinusoidal or not sinusoidal current circuit and which transformes it into an analogue signal. This is possed to the moving coil movement. These instruments have the same system and all technical explanations as our active power meter.

The standardized scale final values are 1-1,2-1,5-2-2,5-3-4-5-6-8 and respectively the decimal multiples of those. Other values on request.

Consumption

The consumption per current path is < 0,2 VA

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

When ordering please indicate power meter

1. Kind of current as for example an one-phase alternating current or three-phase with or without zero conductor, equally or unequally loaded.
2. The voltage between phases and between phase and zero conductor.

When using voltage transformers please indicate the operating voltage, ratio and the switching of transformers (At more than 500V voltage transformers are required).

3. The current (max. 5 A directly). When using the current transformers also indicate the ratio.
4. Indication of scale end-value at active power:

If not indicated we proceed as follows:

a) for one-phase alternating current net

P (W) = U (V) x I (A)

b) for three-phase net

P (W) = U (V) x I (A) x Ã3 x cos. φ.

If the cos. φ. is unknown, we use the value 1 for our calculations.

Technically realizable final scale values: : P* 0.5 up to 1.2

Indication of scale end-value at reactive power:

a) for an one-phase alternating current net

Q (var) = U (V) x I (A) x sin. φ.

b) for a three-phase moving current net

Q (var) = U (V) x I (A) x Ã3 x cos. φ.

If the cos. φ is unknown, we use the value 1 for our calculations.

Technically realizable final scale values: Q* 0.5 up to 1.2

If the zero point shouldn't be at the beginning of the scale but within the scale-range (wattmeter for the simultaneous capture of import and export the required ranges on the left and right of the zero point have to be indicated. Active power instruments show with the needle's deflection to the right of the zero point import of active power and on the left of the zero point the export of active power, for example,100-0-100 kW. The same is valid for reactive power instruments.

Overload capacity according to DIN 43780

Current and voltage paths can be continuously overloaded for 20 %.

Technical Features

Front frame (mm)			96 x 96	144 x 144
Scale length (mm)			142	230
Weight (g)			a = 460 b = 510 c = 695 d = 725	a = 900 b = 950 c = 1000 d = 1100
Measuring range	U (V)	I (A)	Type	Type
One phase alternating current			DAQ 96n/1w	DAQ 144n/1w
a ~	57,7 - 63,5 100 - 110 - 127 230 - 400	5 1	●	●
			●	●
Three-phase current balanced load			DAQ 96n/1d	DAQ 144n/1d
b ≋	100 - 110 - 230 400 440 - 500	5 1	●	●
			●	●
Three-phase current unbalanced load			DAQ 96n/2	DAQ 144n/2
c ≋	100 - 110 - 230 400 440 - 500	5 1	●	●
			●	●
Three-phase 4-wire current balanced load			DAQ 96n/1	DAQ 144n/1
d ≋	100 - 110 - 230 400 440 - 500	5 1	●	●
			●	●
Three-phase 4-wire current unbalanced load			DAQ 96n/3	DAQ 144n/3
e ≋	100 - 110 - 230 400 440 - 500	5 1	●	●
			●	●

● available ❍ on request

Connection diagrams see page 4/19.

Dimension diagrams see at DAQ..n/b.(see page 4/18).

Celsa Messgerate España S.L
info@celsaspain.com / +34 96 130 93 78