

WQ

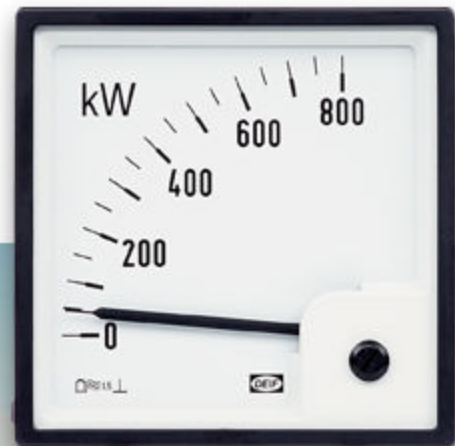
Watt and var meters

Data sheet

4921210005K



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DATA SHEET



Watt and var meters, type WQ

- Self-contained meters
- Exchangeable scale (type WQ -x)
- Accuracy: Class 1.5
- High transient protection
- Compact design: Q96



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Available types

Size	Scale deflection 90 °	Scale deflection 240 °
96 × 96 mm	WQ96-x	WQ96-c

Construction

The meters type WQ consist of a moving coil movement and a built-in electronic watt or var transducer PCB, housed in a standard case.

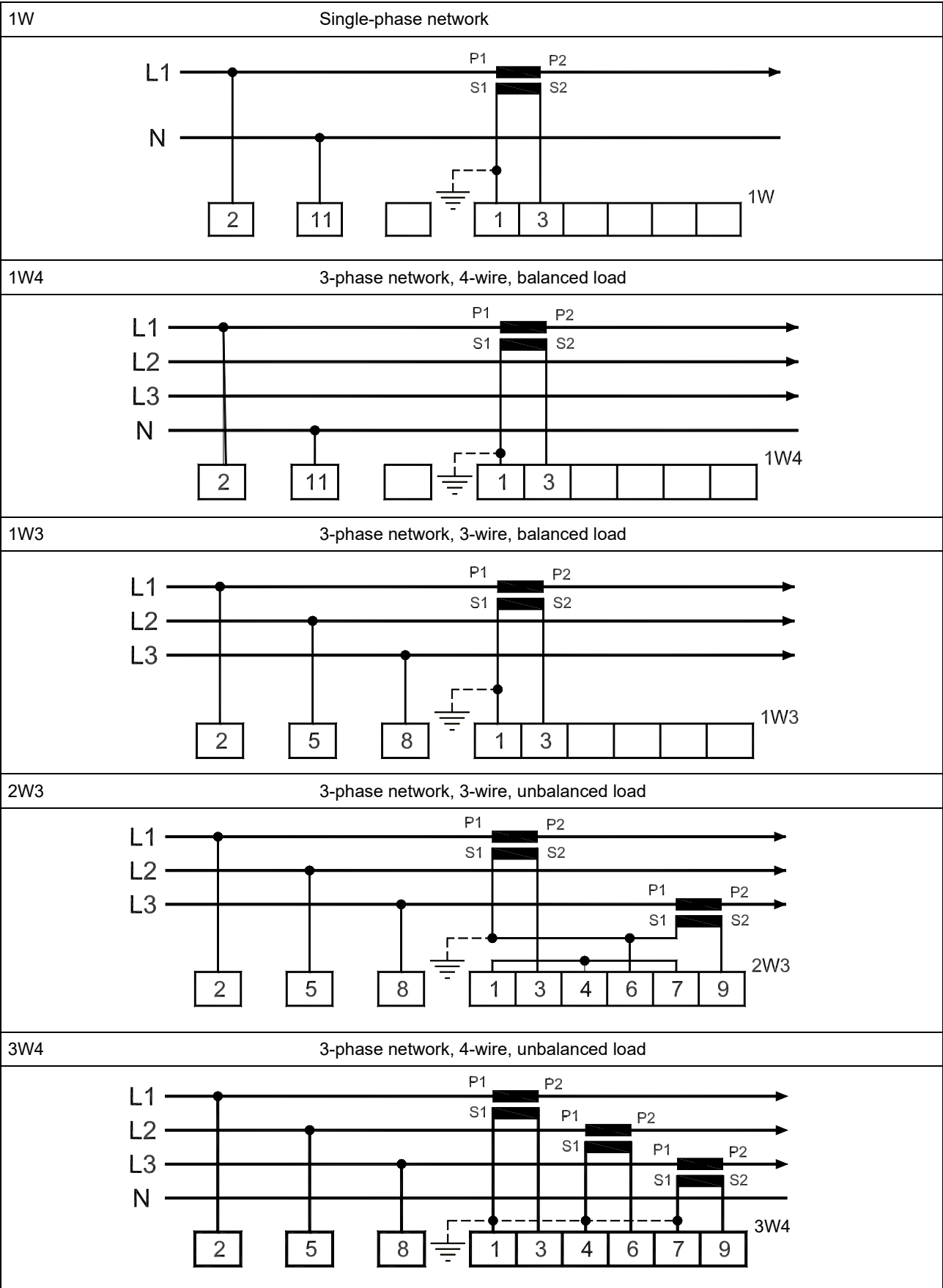
The transducer PCB measures the power in a single-phase or three-phase network, converting the signal into a DC current which is fed to the moving coil instrument.

The watt and var meters type WQ are CE-marked for residential, commercial and light industry plus industrial environment.

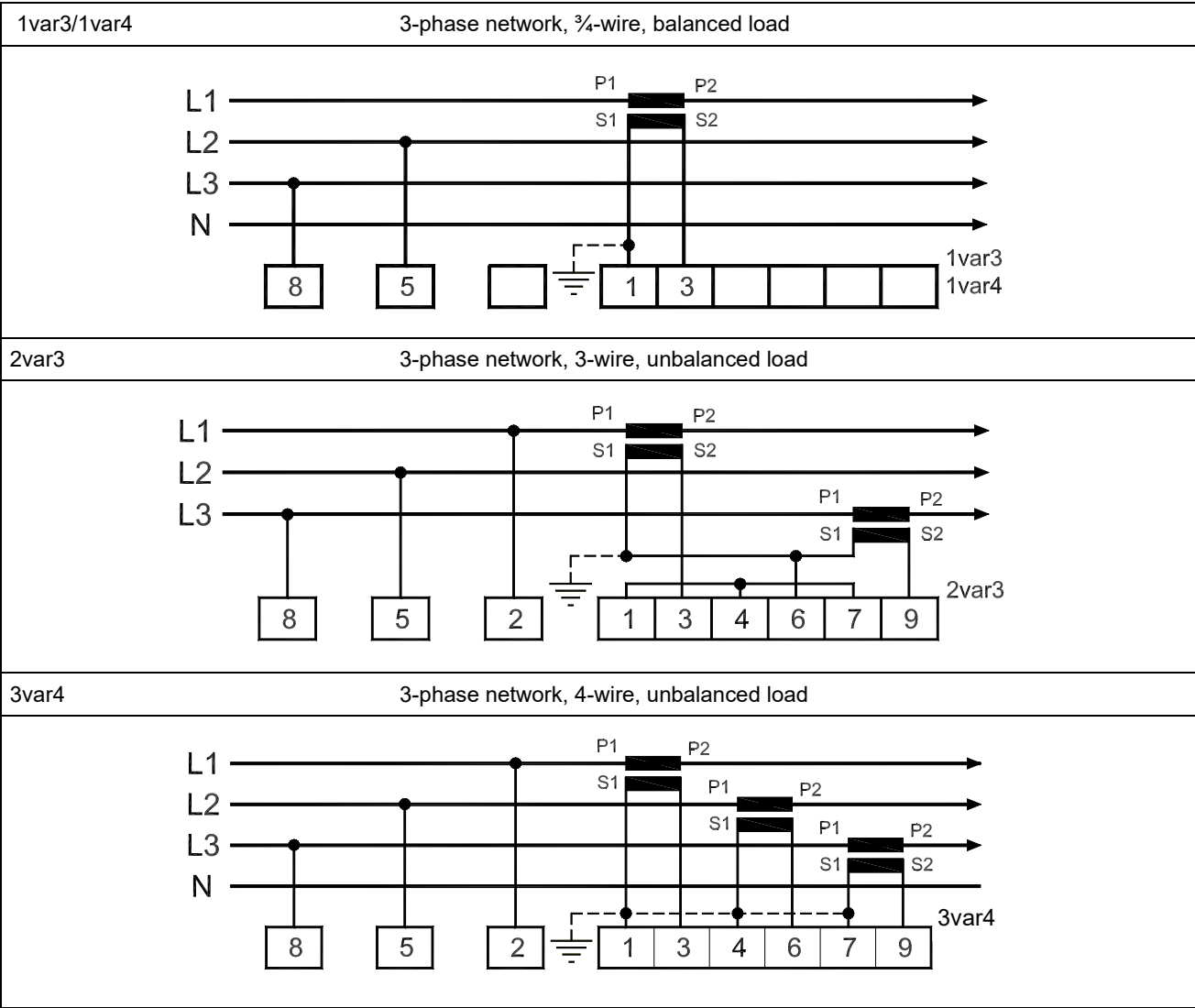
Technical specifications

Accuracy:	Class 1.5 (-10 to <u>15 to 30</u> to 55 °C), to EN/IEC 60051
Wave form distortion:	Does not affect the measurement for crest factor ≤ 2
Frequency:	45 to 65 Hz
Measuring current:	Direct or from current transformer -/1 A or -/5 A. Load ≤ 0.5 VA
Measuring voltage/supply:	100-110-115-127-220-230-240 V AC ± 20 % (all connections) 380-400-415-440-450 V AC ± 20 %, 480 V AC ± 10 %/ ± 30 % (1W3, 2W3, 3W4, 1var3, 2var3 and 3var4). Max. 515 V derived from voltages with max. 300 V to earth (300 V – Cat. III/600 V Cat. II) Consumption: Max. 3 VA
Lowest measuring range: (for a given configuration)	Single-phased network: $0.5 \times V \times I$ Three-phased network: $0.5 \times \sqrt{3} \times V \times I$
Highest measuring range: (for a given configuration)	Single-phased network: $1.2 \times V \times I$ Three-phased network: $1.2 \times \sqrt{3} \times V \times I$
Temperature:	-10 to 55 °C (nominal) -25 to 60 °C (operating) -40 to 65 °C (storage)
Temperature drift:	Typically, 0.15 %. Max. 0.2 % per 10 °C
Shock test:	To EN/IEC 60068-2-27 test Ea 15 g - 6 times - 3 directions 50 g/6 ms 22 g/20 ms
Climate:	90 % RH to EN/IEC 60068-2-30 test Db
EMC:	To EN/IEC 61000-6-1/2/3/4
Test voltage:	2 kV - 50 Hz - 1 min. All circuits mutually and to earth
Materials:	All plastic materials are self-extinguishing to UL94 (V0)
Connections:	Max. 2.5 mm ² (multi-stranded) Max. 4.0 mm ² (single-stranded)
Protection:	Front: IP52 (IP54 on request), terminals: IP20, to EN/IEC 60529
Safety:	To EN/IEC 61010-1

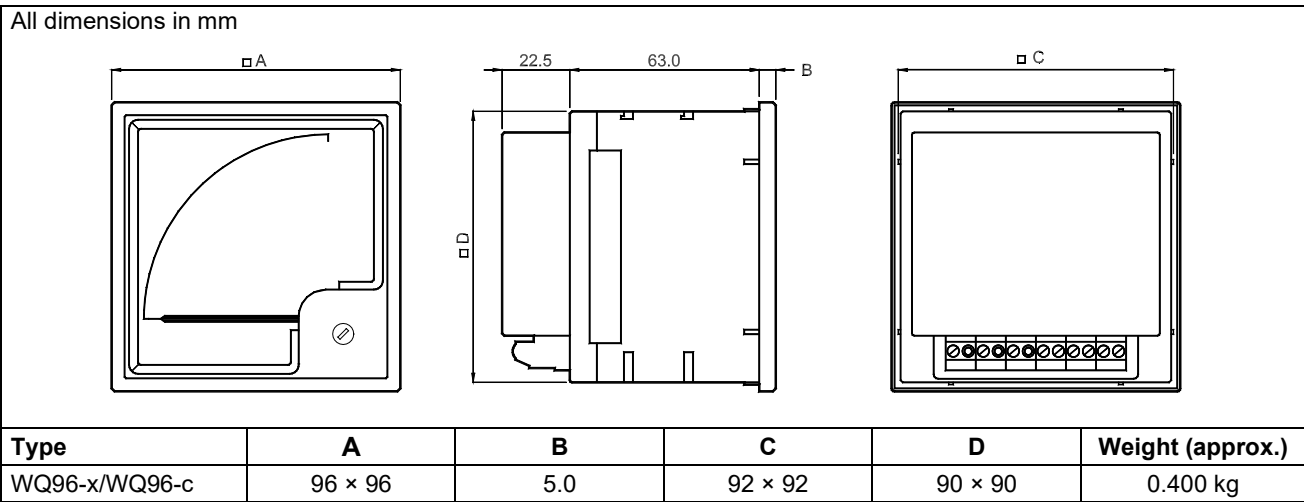
Connections • watt meters



Connections • var meters



Dimensions



Available variants

Item no.	Variant no.	Variant description
2961610920	01	96-x (90 °) 1W-1W3-1W4-1var3-1var4 coupling
2961610920	02	96-c (240 °) 1W-1W3-1W4-1var3-1var4 coupling
2961610930	01	96-x (90 °) 2W3-3W4-2var3-3var4 coupling
2961610930	02	96-c (240 °) 2W3-3W4-2var3-3var4 coupling

Order specifications

Variants:

Mandatory information							Additional options to the standard variant	
Item no.	Type	Variant no.	Connection	Meas. range	Meas. current (CT)	Meas. voltage (VT)	Option	Option

Example:

Mandatory information							Additional options to the standard variant	
Item no.	Type	Variant no.	Connection	Meas. range	Meas. current (CT)	Meas. voltage (VT)	Option	Option
2961610920-01	WQ96 1W	01	3W4	0 to 10 MW	500/1 A	10 kV/100 V	Glass w/red adjustable pointer	

Note: When ordering a WQ meter for connection via a voltage transformer (VT), both primary and secondary of the VT must be stated as shown above.



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Due to our continuous development we reserve the right to supply equipment which may vary from the described.

