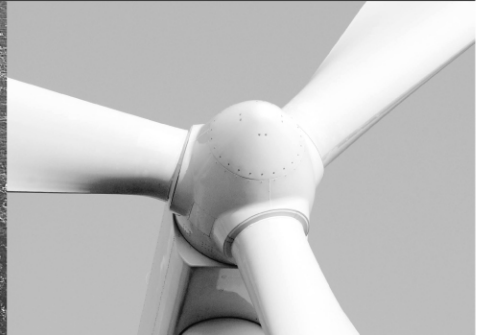




-power in control



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 and Q144



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Available types

Size	Scale deflection 90 °	Scale deflection 240 °
96 × 96 mm	WQ96-x	WQ96-c
144 × 144 mm	WQ144-x	WQ144-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.

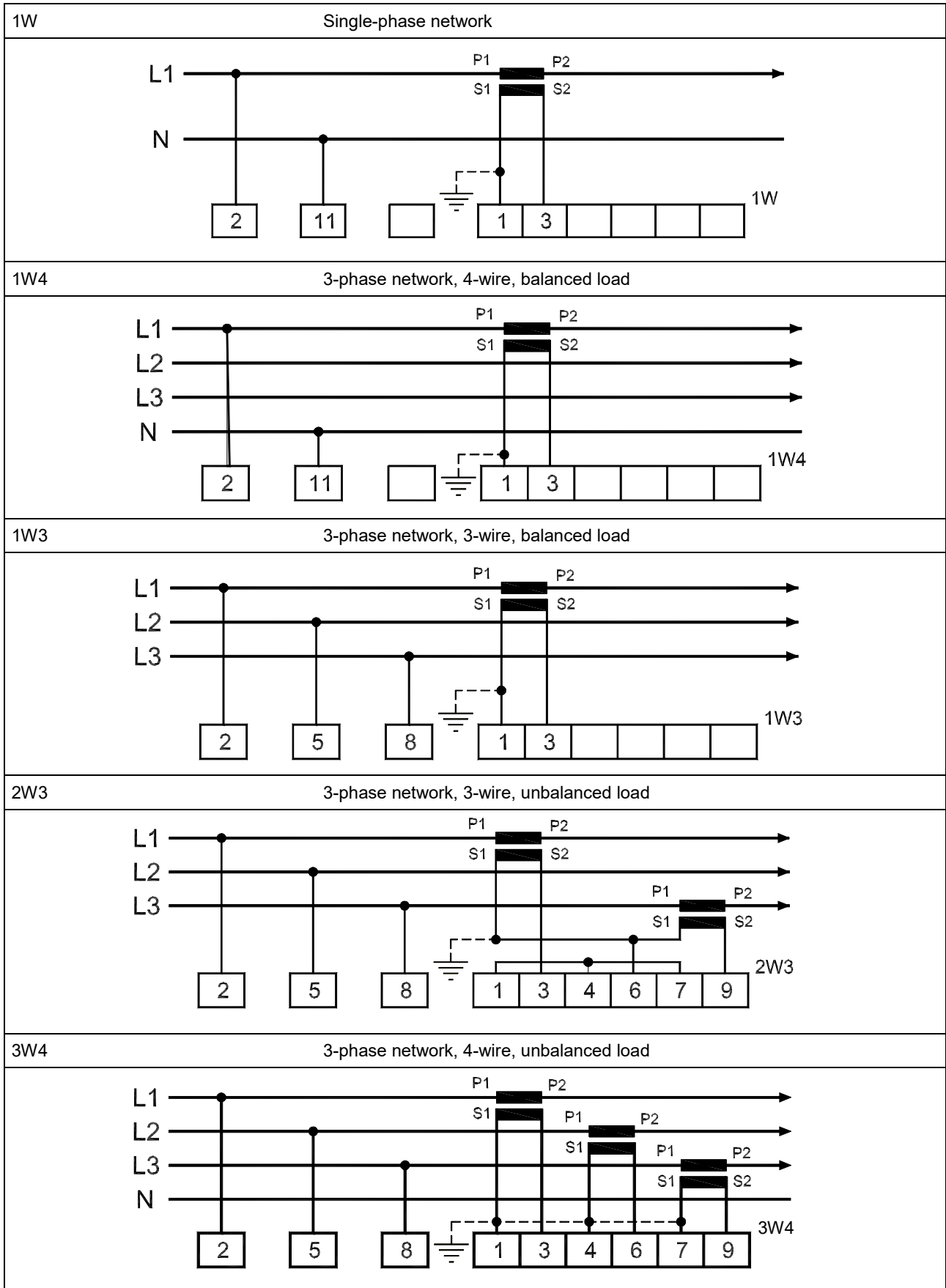
The transducer PCB measures the power in a single-phase or three-phase network, converting the signal into a DC current which is fed to the moving coil instrument.

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

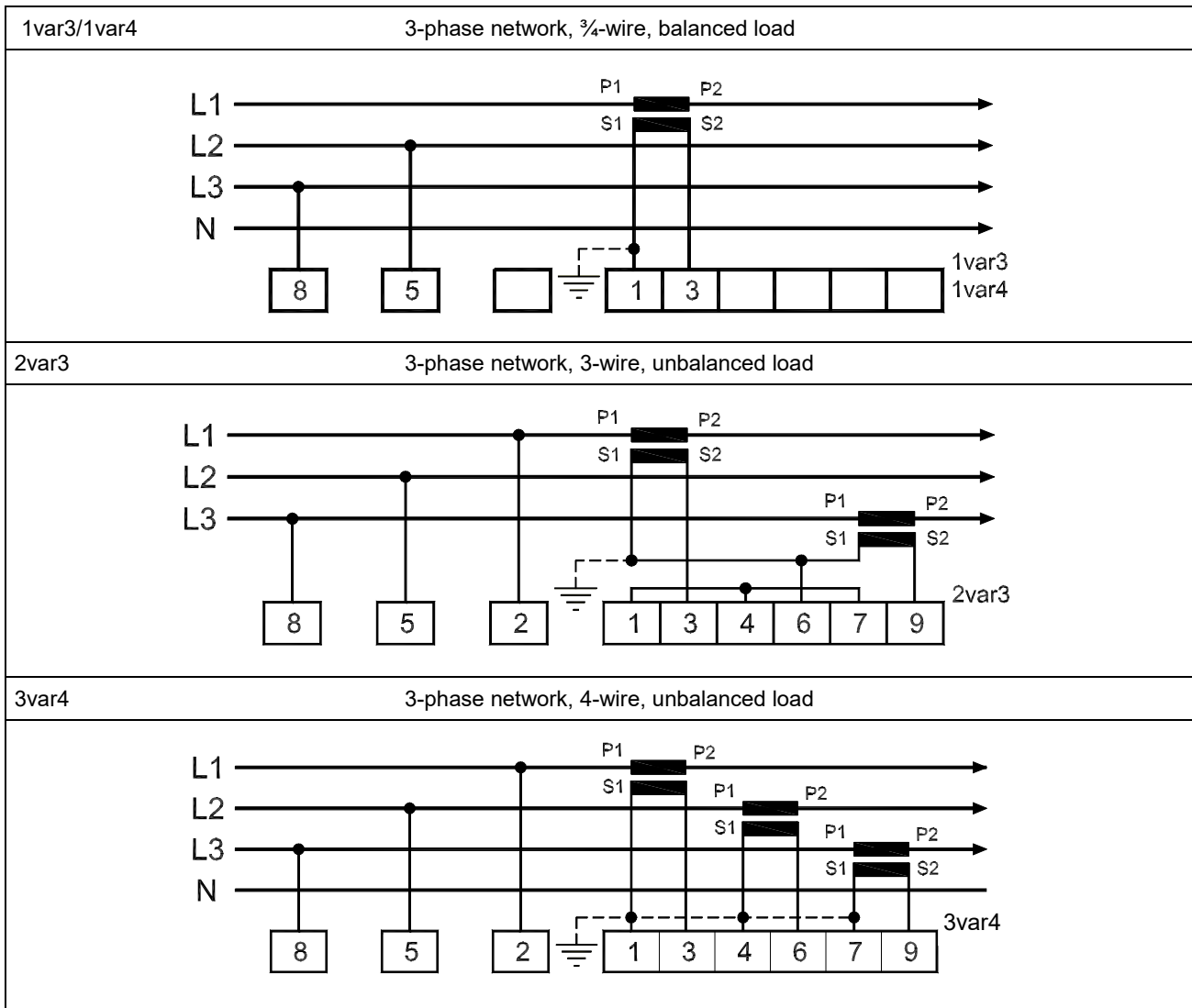
Technical specifications

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

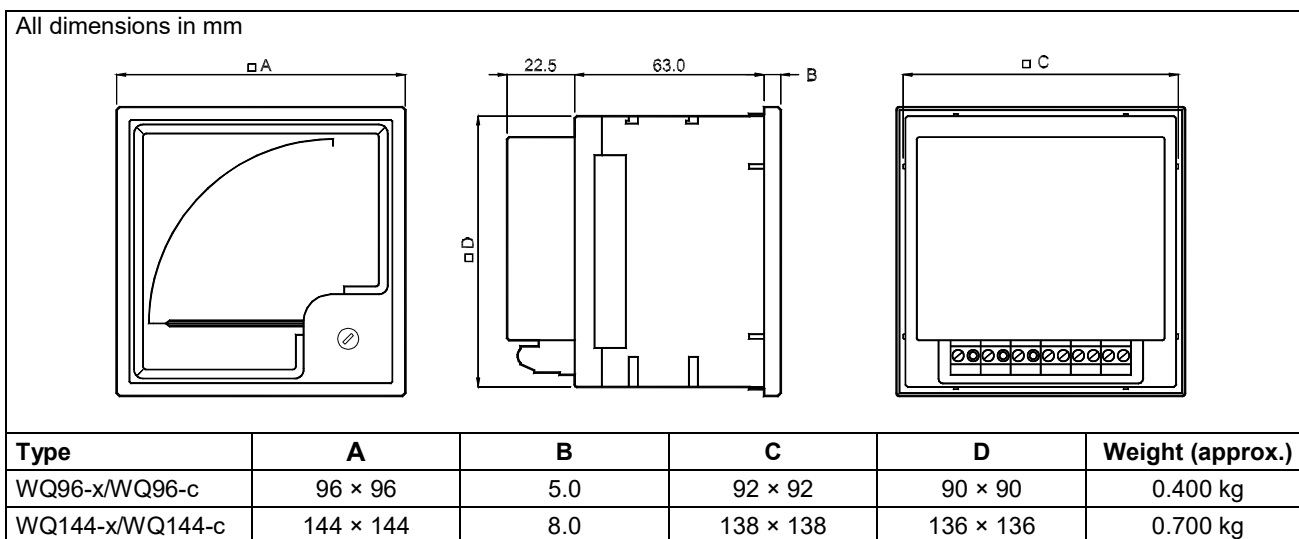
Connections • watt meters



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
2961611420	01	144-x (90 °) 1W3-1W4-1var3-1var4 coupling
2961611420	02	144-c (240 °) 1W3-1W4-1var3-1var4 coupling
2961611430	01	144-x (90 °) 2W3-3W4-2var3-3var4 coupling
2961611430	02	144-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.

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



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