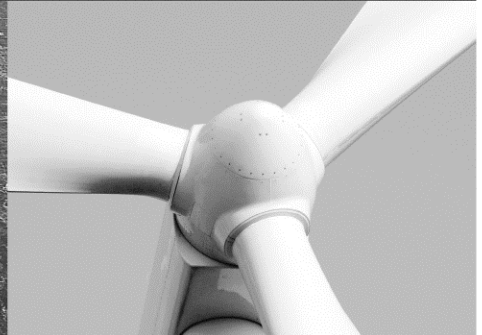
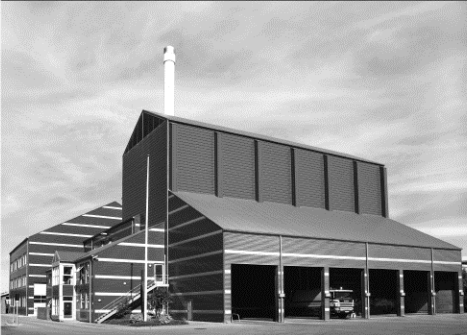




-power in control



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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Document no.: 4921210005I

Available types

Size	Scale deflection 90°	Scale deflection 240°
96 x 96 mm	WQ96-x	WQ96-c
144 x 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 P.C.B., housed in a standard case.

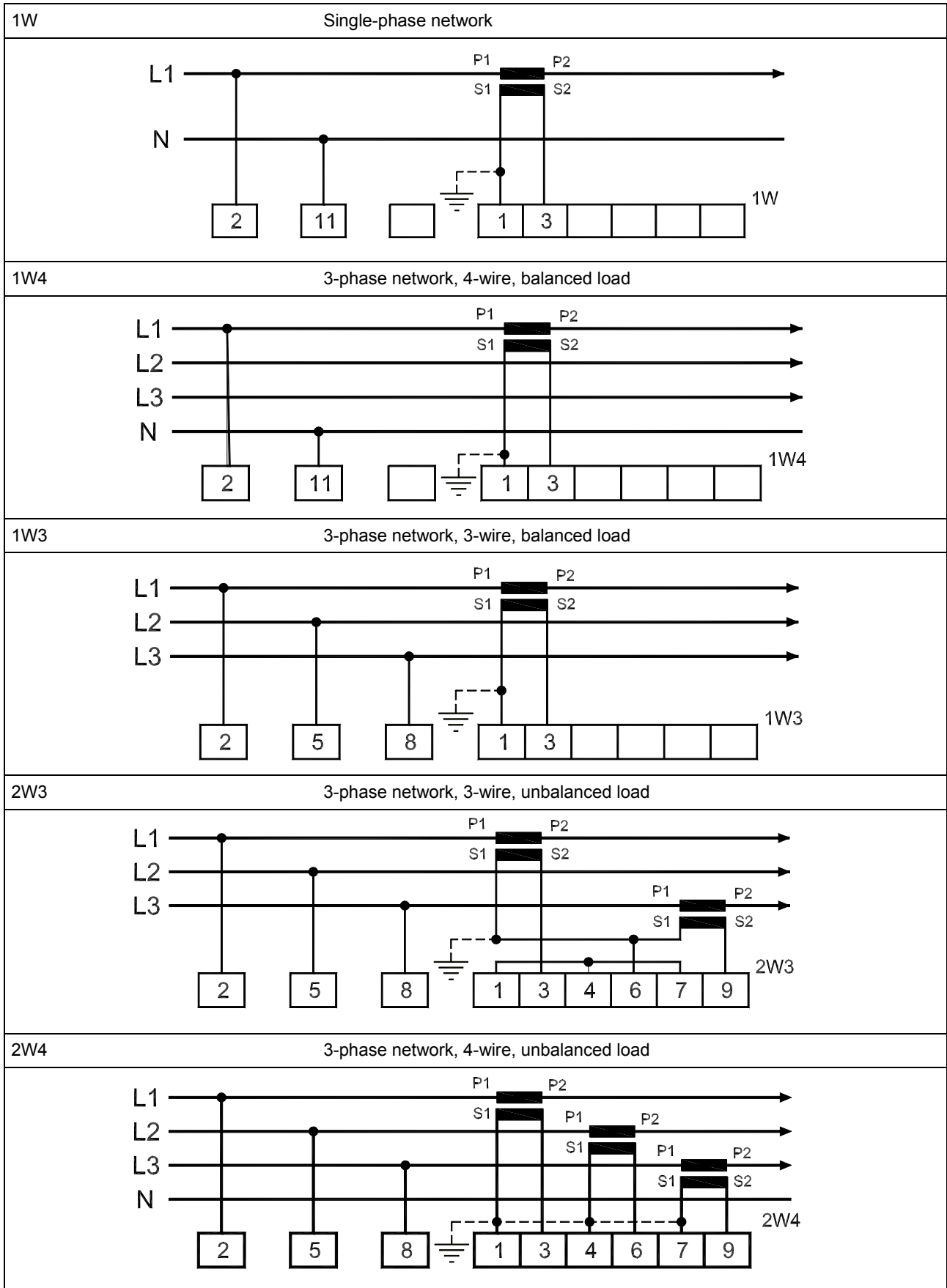
The transducer P.C.B. measures the power in a single-phase or three-phase network, converting the signal into a DC current, which is fed to the moving coil instrument.

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

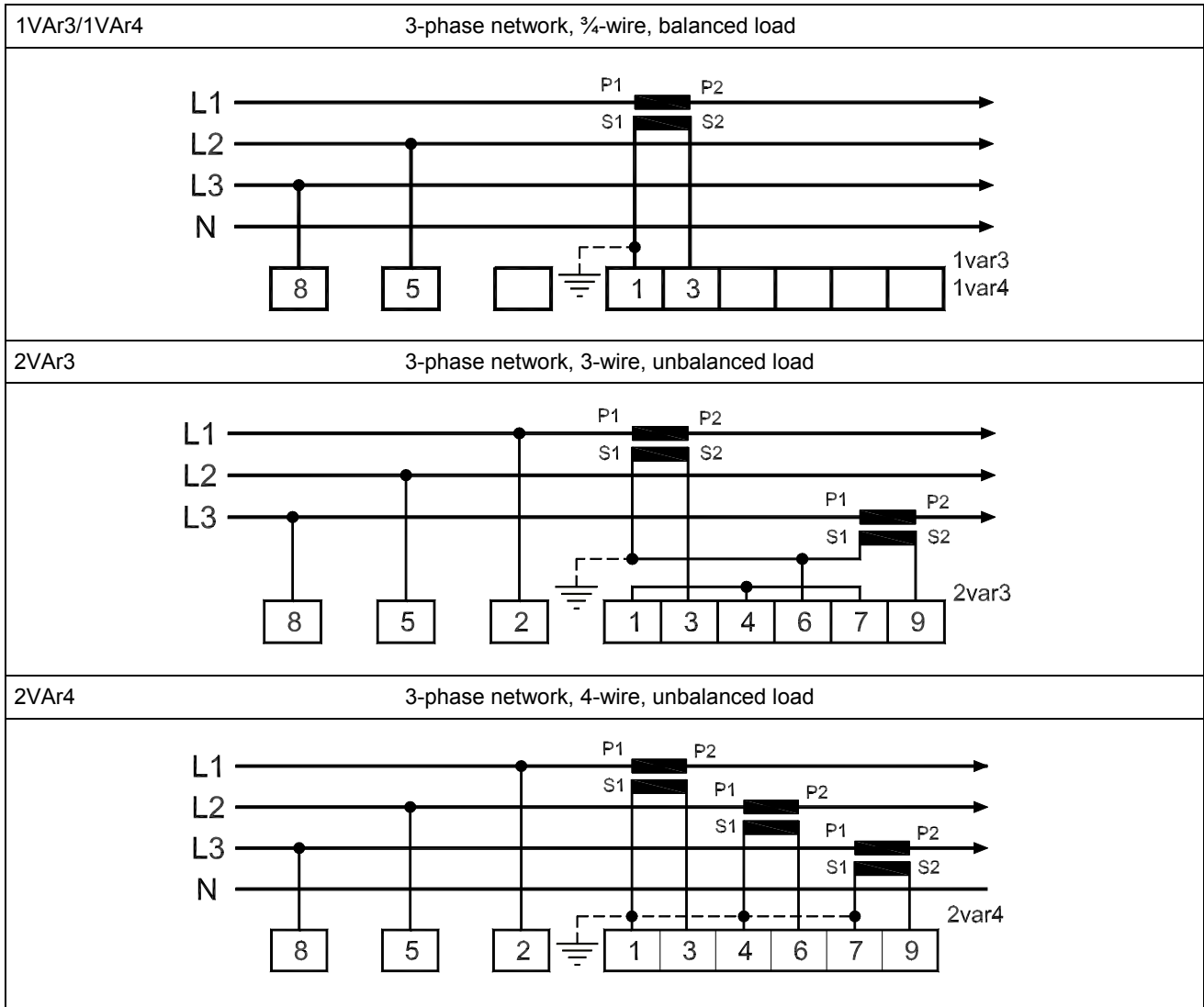
Technical specifications

Accuracy:	Class 1.5 (-10...15...30...55°C), to EN/IEC 60051
Wave form distortion:	Does not affect the measurement for crest factor ≤ 2
Frequency:	45...65 Hz
Measuring current:	Direct or from current transformer -/1 A or -/5 A. Load ≤ 0.5 VA
Measuring voltage/supply:	100-110-115-127-220-230-240V AC +/-20% (all connections) 380-400-415-440-450V AC +/-20%, 480V AC +10%/-30% (1W3, 2W3, 2W4, 1VAr3, 2VAr3 and 2VAr4) 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...55°C (nominal) -25...60°C (operating) -40...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

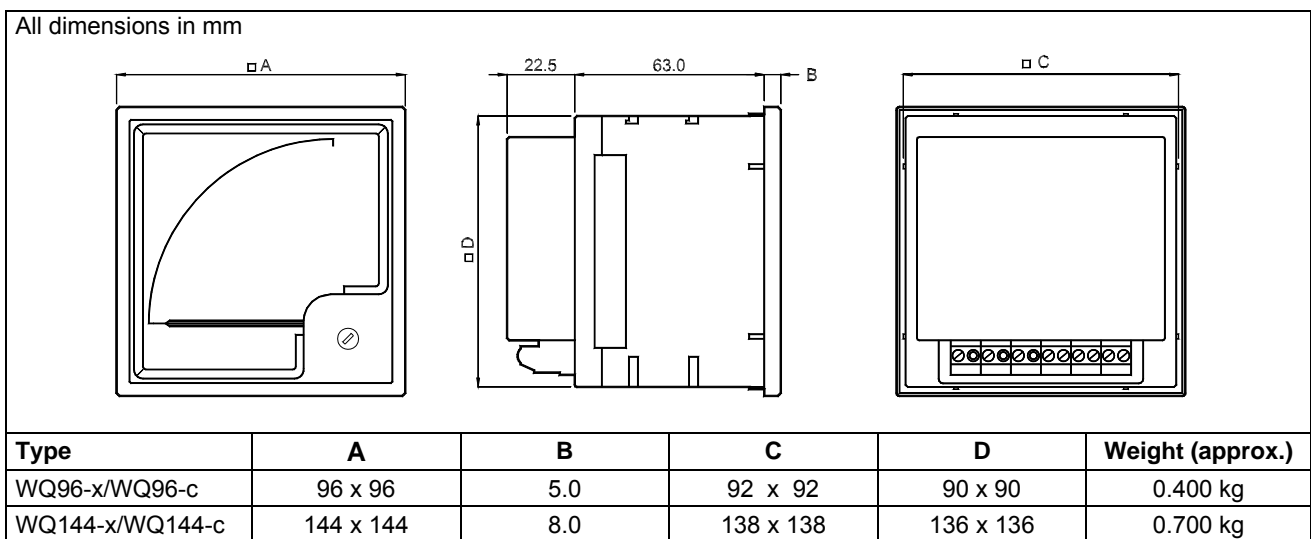
Connections • watt meters



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°) 2W3-2W4-2VAr3-2VAr4 coupling
2961610930	02	96-c (240°) 2W3-2W4-2VAr3-2VAr4 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°) 2W3-2W4-2VAr3-2VAr4 coupling
2961611430	02	144-c (240°) 2W3-2W4-2VAr3-2VAr4 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	2W4	0...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.

