

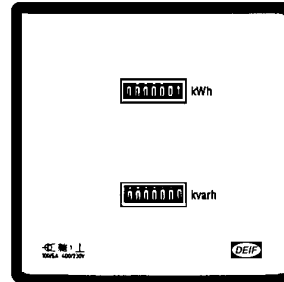
kWh meters

Types WQR96, WQ2R96, WQR96-x, WQR96-c

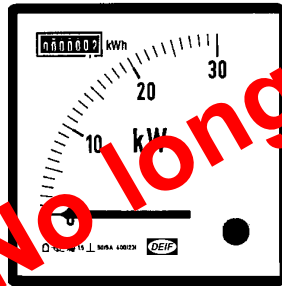
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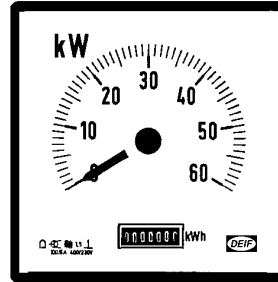
WQR96



WQ2R96



WQR96-x



WQR96-c

No longer for sale

- Accuracy class 1.0
- For single phase and 3 phase networks
- Microprocessor controlled meters with pulse output
- Simultaneous measurement of two quantities (except type WQR96)
- Standard Q96 DIN housing

Application

The kWh meters types WQR.. and WQ2R.. are intended for energy measurement in single phase and 3 phase networks, providing a class 1.0 measurement of the imported or exported energy. The meters are microprocessor controlled, equipped with a 7-digit electromechanical counter which retains the reading in case of supply voltage failure. The meters are furthermore equipped with 1 or 2 pulse outputs. The meters can be adapted to the applied current transformers.

- WQR96** Meter with a 7-digit register and one pulse output for measurement of one type of energy only (kWh or kvarh).
- WQ2R96** Meter with two 7-digit registers and two pulse outputs for measurement of two types of energy (both kWh and kvarh imported or exported).
- WQR96-x** Meter with both a 7-digit register and one pulse output for energy measurement (kWh or kvarh) and a 90° instrument for simultaneous indication of the momentary power value (active or reactive).
- WQR96-c** Meter with both a 7-digit register and one pulse output for energy measurement (kWh or kvarh) and a 240° instrument for simultaneous indication of the momentary power value (active or reactive).

All types can be ordered for single phase networks or 3 phase networks with/without neutral, balanced/unbalanced load.

Technical specifications

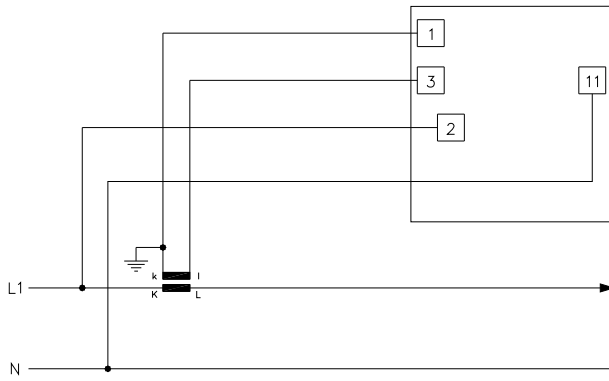
Accuracy:	energy power	Class 1.0 (-10...15...30...55°C), to EN 61036 and IEC 1036. ± 1.5% of scale
Frequency:		45...65 Hz. Rated frequency: 50 Hz or 60 Hz
Measuring current:		Current transformer -/1 A or -/5A. Max. current 1.6 I _n . Consumption: < 0.1 VA.
Measuring voltage:		Standard: 57-100-230-400V AC ±20%. Consumption: < 3 VA.
Overloads	currents	3 x I _n , continuously, 25 x I _n for 3 s 50 x I _n for 1 s
	voltages	1.2 x U _n
Relay outputs		Contact rating: 250 V – 6 A – 50 Hz. Max. switching power 1500 VA. 1, 10 or 100 pulses per kWh (or MWh). Max. 4000 pulses per hour. Pulse duration: 100 ms
Electromechanical counter		7 digits, each 4 x 1.2 mm
Temperature:		-10...55°C (nominal) -10...60°C (operating) -25...65°C (storage)
Climate:		Class IV to DIN 40040
EMC:		to EN 50081-1/2 and EN 50082-1/2
Safety:		to IEC 1010-1. Installation cat. II, 600V. Installation cat. III, 300V. Pollution degree 2.
Materials:		All plastic materials are self-extinguishing to UL94 (V0)
Connections:		Relay output: max. 1 mm ²
Protection:		Front: IP52, terminals: IP00, to EN 60529 and IEC 529

Available variants

Type	Variant no.	Description	Item no.	Note
WQR96	01	kWh counter, flush mounted, one 7-digit counter and one pulse output	2963060940-01	-
WQ2R96	01	kWh counters, flush mounted, two 7-digit counters and two pulse output	2963110920-01	-
WQR96-X	01	kWh counter, flush mounted, power meter 90°, 7-digit, pulse out	2963060920-01	-
WQR96-C	01	kWh counter, flush mounted, power meter 240°, 7-digit, pulse out	2963060930-01	-

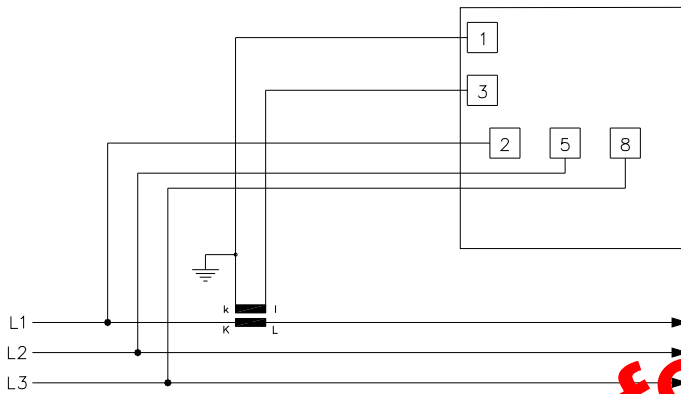
Connections

Single-phase networks



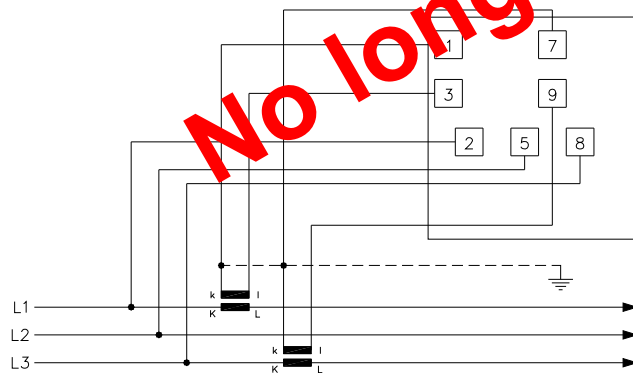
(Connection 1W) WQR96, WQ2R96, WQR96-x, WQR96-c

3-phase, 3-wire-networks, balanced load



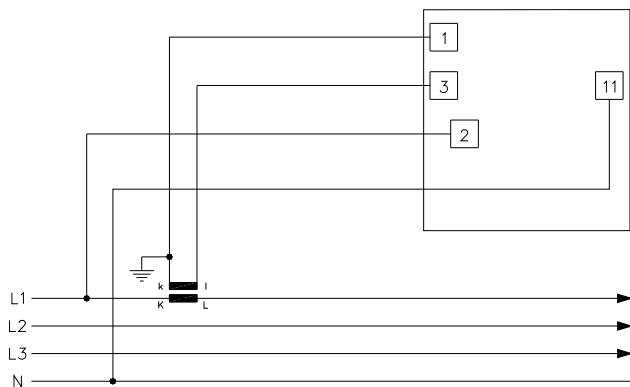
(Connection 1W3) WQR96, WQ2R96, WQR96-x, WQR96-c

3-phase, 3-wire networks, unbalanced load



(Connection 2W3) WQR96, WQ2R96, WQR96-x, WQR96-c

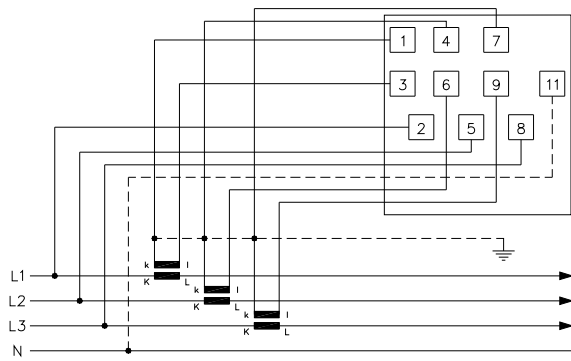
3-phase, 4-wire networks, balanced load



(Connection 1W4) WQR96, WQ2R96, WQR96-x, WQR96-c

Connections (continued)

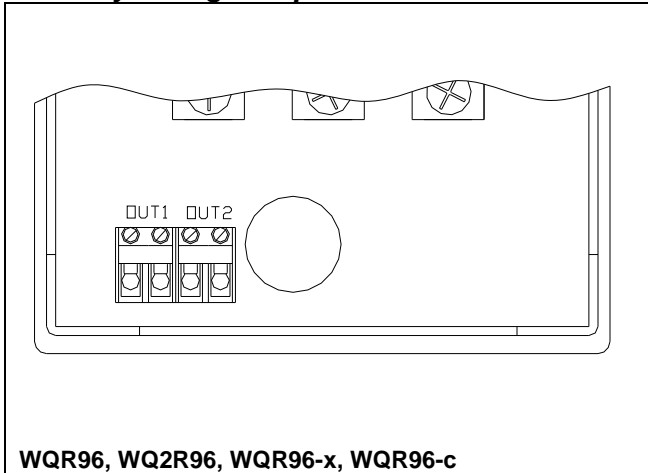
3-phase, 4-wire networks, unbalanced load



(Connection 3W4) WQR96, WQ2R96, WQR96-x, WQR96-c

Auxiliary voltage/output connections

Dimensions



Order specifications

WQR96/WQ2R96:

Type	Conn.	VT ratio	CT ratio	Register(s)	Relay 1	Relay 2
Examples:						
WQR96	1W3	10,000/100 V	100/1 A	10p/MVArh	10p/MVArh	-
WQ2R96	3W4	10,000/100 V	50/1 A	1p/MWh E*/MWh I*	1p/Mwh	1p/Mwh

WQR96-x/WQR96-c:

Type	Conn.	VT ratio	CT ratio	Register	Relay 1	Scale
Examples:						
WQR96-x	3W4	10,000/400 V	100/5 A	10p/MWh	10p/MWh	0...2 MW
WQR96-c	3W4	10,000/100 V	200/5 A	1p/MWh	1p/MWh	0...4 MW

*) E = exported energy
I = imported energy

Note: If no VT the pulse duration is normally 1, 10 or 100 p/kWh/kVArh

No longer for sale

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



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