

Programmable transducer PQ430RT combined for active and reactive power

The PQ430 is a μ P based programmable transducer for simultaneously measuring of active and reactive power in a three phase system. 3 or 4 wire unbalanced load. Measuring range and 3 / 4 wire system (2 or 3 element) is programmable via jumpers and a RS 232 port using a PC.

The transducer is connected to the mains directly or via measuring transformers.

It has galvanic separation between in- and output and power supply.

The transducer is made for mounting in 19" rack and has a width of 10 TE, which gives place for 8 modules in a rack.

The transducer is manufactured according to standard IEC60688.



Technical data - Type PQ430RT

Input

Voltage	100,110,115,120 V via jumper
Consumption (burden)	$U_{in} \times 1 \text{ mA}$, VA per phase
Current	1 or 5 A via jumper
Consumption (burden)	$<0,05 \text{ VA}$ per phase
Frequency	50 or 60 Hz
Overload	Current $2 \times I_{in}$ continuously $10 \times I_{in}$ during 15 s, $40 \times I_{in}$ during 1 s but 200 A max. Voltage $1,5 \times U_{in}$ continuously, $2 \times U_{in}$ during 10 s

Output

Output signal	$\pm 2,5 \text{ mA}$, or 4-20 mA
Load	max 15 V
Current limitation	$<30 \text{ mA}$
Ripple	$<1\%$ p.p.

General data

Accuracy

Class	0,2 according to IEC60688
Linearity error	$<0,1\%$
Response time 0-90%	$<100 \text{ ms}$
Temperature influence	$<0,05\%$ / 10°C
Temperature range	$-25 \dots +60^\circ\text{C}$ operation $-40 \dots +70^\circ\text{C}$ storage
Test voltage	4 kV, 50 Hz, 1 min
Power supply	24 – 130 V DC $\pm 20\%$, ca 4 W
Weight	0.6 kg

Standards

General standards for measuring transducers	IEC60688
EMC	emission EN50081-2 immunity EN 50082-2
Safety	IEC61010-1, IEC1010-1
Inputs	overvoltage cat. III
Outputs	overvoltage cat. II
Pollution degree	2

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