

WATT AND VAR TRANSDUCERS

RW / RQ / RWQ Series



FEATURES

- High accuracy $\pm 0.2\%$ RD $\pm 0.1\%$ R.O.
- Precision measurement even for distorted waves
- Uses time division multiplier for watt and var
- High immunity to external noise
- Wide selection of input and output range
- Quick and easy mounting

RWQ system Active + Reactive power (Watt + Var)
 RW system Active power (Watt)
 RQ system Reactive power (Var)

These transducer convert the active power or reactive power of a single-phase or three-phase system with balanced or unbalanced loads.

The output signals are isolated load independent DC current or DC voltage, representing the measured value of the active and reactive power.

Specifications

Accuracy	$\pm 0.2\%$ RD $\pm 0.1\%$ RO
Temp. coefficient	$\leq 100\text{ppm}/^\circ\text{C}$ $\leq 60\text{ppm}/^\circ\text{C}$, $25^\circ\text{C} \pm 10^\circ\text{C}$
Temp. range	-20°C to 60°C , Operating $0 \sim 50^\circ\text{C}$
Humidity range	Up to 95% RH
Isolation	Input / output / power / case
Dielectric test	DIN-IEC 688 2K Vrms/1min, Between terminal to terminal 2.8K Vrms/1min, Between terminal to case
Surge test	DIN/IEC 255-4, ANSI C37 90a/1974 5KV (1.2 X 50us)
Insulation resistance	100M Ω or more, DC 500V
Housing material	ABS Resin (94V-0)
Mounting	Rail 35mm
Aux. power	AC 115/230V $\pm 15\%$, 50/60Hz, 3VA DC 24V, 48V, 110V $\pm 20\%$ (option)

Input

Frequency	50Hz or 60Hz $\pm 3\text{Hz}$
Burden	$\leq 0.1\text{VA}$ per voltage circuit $\leq 0.2\text{VA}$ per current circuit
Sensitivity	$\leq 0.5\%$ of range end value
Overload capacity	Voltage 600Vrms continuous 1.25 X rated continuous 2 X rated 10 sec. 4 X rated 5 sec. Current 3 X rated continuous 10 X rated for 10 sec 50 X rated for 1 sec 80 X rated 0.5 sec.

Output

Output variables	DC voltage or DC current
Ripple	$< 0.5\%$ p-p max.
Response time	< 0.4 sec. or less
Zero adjustment	$\pm 5\%$ minimum
Span adjustment	$\pm 10\%$ minimum

Code Number

Model-Connection-Input / Freq. / Output / Power	
Example	RQ-33-2261
Connection	3 phase 3 wires
Input	AC 240V, 5A (-2KVAR \sim 0 \sim 2KVAR)
Frequency	60Hz $\pm 3\text{Hz}$
Output	-1 \sim 0 \sim + 1mA
Power	AC 115/230V

Ordering Informations

RW	— □ — □ □ □ □
RQ	— □ — □ □ □ □
RWQ	— □ — □ □ □ □
MODEL	RW: Watt RQ: Var RWQ: Watt plus Var
CONNECTION	12: 1 phase 2 wires 33: 3 phase 3 wires 13: 1 phase 3 wires 34: 3 phase 4 wires
INPUT	1: AC 120 \sim 5A 3: 208/120V, 5A 2: AC 240 \sim 5A 4: 416/240V, 5A Y: Option(600V, 10A max.)
INPUT FREQUENCY	1: 50Hz $\pm 3\text{Hz}$ 2: 60Hz $\pm 3\text{Hz}$
DC OUTPUT	1: 4 \sim 20mA A: 0 \sim 10V 2: 0 \sim 20mA B: 0 \sim 5V 3: 0 \sim 10mA C: 1 \sim 5V 4: 0 \sim 1mA D: 0 \sim 1V 5: - 10 \sim 0 \sim + 1mA E: -10 \sim 0 \sim + 10V 6: - 1 \sim 0 \sim + 1mA F: -1 \sim 0 \sim + 1V Y: Option ($\pm 20\text{mA}$, $\pm 10\text{V}$ max.)
AUX. POWER	1: AC 115/230V C: DC 110V A: DC 24V Y: Option B: DC 48V

