

Watt Transducer

WAT95



- High accuracy
- Long term stability
- Time-Division Multiplication principle

Watt Transducers WAT95 are used to convert single or three phase unbalance load active power into a proportional load independent DC. Output. Based fully on electronic Time-Division Multiplication measuring principle, the true power of a network with any power factor range are linearly produced by Watt Transducer output.

Calibration watt of rated output

Connection	V = 110 V		V = 220 V		V = 380 V	
	I = 1 A	I = 5 A	I = 1 A	I = 5 A	I = 1 A	I = 5 A
Single Phase	100 W	500 W	200 W	1000 W	-	-
3 phase, 3 wire	200 W	1000 W	400 W	2000 W	600 W	3000 W
3 phase, 4 wire	200 W	1000 W	400 W	2000 W	600 W	3000 W

Note. V = Line voltage

Equation to calculated measuring range

Measuring range = Calibration watt x PT ratio x CT ratio

Example 3 phase, 3 wire, PT 220 V/110 V, CT 250/5 A, Calibration watt = 1000W

Measuring range = $1000 \times 220/110 \times 250/5 = 100 \text{ KW}$.

Specifications

Input

Number of Channel: 3 Channels

Input Type: Current, Voltage
(1 phase, 3 phase 3 wire, 3 phase 4 wire)

Input Range:

Current (1, 5 A), Accuracy Class: 0.5
Voltage (110, 220, 380 VAC (Line voltage for 3 phase))

Power Consumption:

< 0.2 VA for input current
< 0.4 VA for voltage input

Frequency: 50 Hz.

Linearity: < ± 0.5 % of span

Analog Output

Number of Channel: 1 Channel

Output Type: Current, Voltage

Output Range:

Current Max 0 to 1 mA (Load Resistance 10 K Ω)
Current Max 4 to 20 mA (Load Resistance 600 Ω)
Voltage Min 0 to 10 mVDC (Load Resistance 500 Ω)

Voltage Min 0 to 100 mVDC (Load Resistance 500 Ω)

Voltage Min 0 to 1 VDC (Load Resistance 500 Ω)

Voltage Min 0 to 5 VDC (Load Resistance 1 K Ω)

Voltage Min 1 to 5 VDC (Load Resistance 1 K Ω)

Voltage Min 0 to 10 VDC (Load Resistance 2 K Ω)

Power Requirements

Power Supply: 110, 220 VAC

Environmental Limits

Operating Temperature: 0 to 55 °C

Operating Humidity: 5 to 95% RH

Storage Temperature: 0 to 70 °C

Physical Characteristics

Dimension: W132 x H132 x D162 mm.

Mounting: Wall mount (Din Rail Optional)

Wiring: Screw terminals

Protection: IP20

Warranty

Warranty Period: 5 Year

Ordering Information: Specify Connection, Input voltage, Input current, Output, Power supply

Example WAT95/3 phase 4 wire/380 VAC/5A/4-20 mA/220 VAC

Package Checklist

1. WAT95.

Wiring:

