

Coreless Coil Current Transducer RH 100 .. 1000-P

For the electronic measurement of currents: AC, pulsed, mixed, with a galvanic isolation between the primary circuit (high power) and the secondary circuit (electronic circuit).

$$I_{PN} = 100 \dots 1000 \text{ A}$$



Electrical data

Primary nominal r.m.s. current		Type
I_{PN} (A)		
100		RH 100-P
200		RH 200-P
500		RH 500-P
1000		RH 1000-P
V_{OUT}	Output voltage(r.m.s)@ $\pm I_{PN}$, $R_L = 10 \text{ k}\Omega$, $T_A = 25^\circ\text{C}$	4 V
V_C	Supply voltage ($\pm 5 \%$)	$\pm 15 \text{ V}$
V_d	R.m.s. voltage for AC isolation test, 50/60Hz, 1 mn	$> 2.5 \text{ kV}$
I_C	Current consumption	10 mA
R_{IS}	Isolation resistance@ 500 V DC	$> 500 \text{ M}\Omega$
R_L	Load resistance	$\geq 100 \text{ K}\Omega$

Accuracy-Dynamic performance data

e_L	Linearity ($0 \dots \pm I_{PN}$)	$\leq \pm 0.5 \%$ of I_{PN}
V_{OE}	Electrical offset voltage, $T_A = 25^\circ\text{C}$	$\pm 5 \text{ mV}$
V_{OT}	Thermal drift of V_{OE}	$\leq \pm 0.3 \text{ mV/K}$
TCE_G	Thermal drift of the gain (% of reading)	$\pm 0.03 \%$ /K
t_r	Response time @ 90% of I_P	1 μs
f	Frequency bandwidth ($\pm 3 \text{ dB}$)	20Hz .. 100KHz

General data

T_A	Ambient operating temperature	-10 .. +75 $^\circ\text{C}$
T_S	Ambient storage temperature	-15 .. +80 $^\circ\text{C}$
m	Mass	20 g
	Min. internal creepage distance/clearance	$\varnothing 11 \pm 0.5 \text{ mm}$

Features

- No magnetic core
- Rogowski Coil principle
- Highly accurate integration circuit
- Voltage output

Advantages

- Wide sensing range
- Wide frequency range
- Quick response
- No hysteresis error
- No insertion impedance
- Small size and lightweight

Applications

- Observing complicated current waveforms
- High speed and high current sensing such as IGBT
- Welding
- Power unit
- Electric power regulator
- Discharge tube
- Antenna
- Monitoring for irruptive current

Notes :

