

Current Transducer HNC- 200 .. 300P

$$I_{PN} = 200 \dots 300 \text{ A}$$

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



Electrical data

Primary nominal DC current	Primary current measuring range	Type
I_{PN} (A)	I_p (A)	
200	0 .. ± 400	HNC - 200P
300	0 .. ± 650	HNC - 300P

		HNC - 200P	HNC - 300P	
R_M	Measuring resistance	20 .. 60	20 .. 35	Ω
I_{SN}	Second nominal current	100	100	mA
K_N	Turns ratio	1 : 2000	1 : 3000	
V_C	Supply voltage ($\pm 5\%$)		± 15	V
I_C	Current consumption		$15 + I_{SN}$	mA
V_d	R.m.s. voltage for AC isolation test, 50/60Hz, 1 mn		2.5	kV

Features

- Hall effect measuring principle
- Galvanic isolation between primary and secondary circuit
- Isolation voltage 2500 V
- Low power consumption

Accuracy-Dynamic performance data

X	Accuracy @ $T_A = 25^\circ\text{C}$	$< \pm 1\%$ of I_{PN}
e_L	Linearity (0 .. $\pm I_{PN}$)	$< 0.25\%$ of I_{PN}
I_O	Electrical offset current @ $I_p = 0$, @ $T_A = 25^\circ\text{C}$	± 0.5 mA
I_{HC}	Hysteresis offset current @ $I_p = 0$, after an excursion of I_{PN}	± 0.3 mA
I_{OT}	Thermal drift of I_O $0^\circ\text{C} \dots +70^\circ\text{C}$	$\pm 0.005\text{mA/K}^\circ\text{C}$
t_r	Response time @ 90% of I_p	< 1 μs
T_{ce_G}	Thermal drift of the gain (% of reading)	$\pm 0.04\%$ / $^\circ\text{C}$

Advantages

- Easy mounting
- Small size and space saving
- Only one design for wide current ratings range
- High immunity to external interference

Applications

- DC motor drives
- Switched Mode Power Supplies (SMPS)
- AC variable speed drives
- Uninterruptible Power Supplies (UPS)
- Battery supplied applications
- Inverters

General data

T_A	Ambient operating temperature	- 10 .. + 80 $^\circ\text{C}$
T_S	Ambient storage temperature	- 15 .. + 85 $^\circ\text{C}$
R_S	Secondary coil Resistance @ $T_A = 25^\circ\text{C}$	HNC - 200P: 10 Ω HNC - 300P: 20 Ω
m	Mass	160 g

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