

Current Transducer HNC-300P 300A-100mA

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

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

I_{PN}	Primary nominal r.m.s. current	300	A
I_P	Primary current measuring range	± 600	A
V_C	Supply voltage ($\pm 5\%$)	± 15	V
I_C	Current consumption	$15\text{mA} + (I_{PN}/3000)\text{mA}$	
V_d	R.m.s. voltage for AC isolation test, 50Hz, 1mn	2.5	kV
R_{IS}	Isolation resistance @ 500 VDC	> 500	M Ω
I_{OUT}	Output current @ $\pm I_{PN}$, $R_L = 40 \Omega$, $T_A = 25^\circ\text{C}$	100	mA
R_L	Load resistance	40	Ω

Accuracy-Dynamic performance data

X	Accuracy @ I_{PN} , $T_A = 25^\circ\text{C}$ (without offset)	$< \pm 1$	% of I_{PN}
e_L	Linearity error ¹⁾ ($0 \dots \pm I_{PN}$)	$< \pm 0.25\%$	of I_{PN}
I_{OE}	Electrical offset current @ $T_A = 25^\circ\text{C}$	$< \pm 0.5$	mA
I_{OH}	Hysteresis offset current @ $I_P = 0$; after an excursion of $1 \times I_{PN}$	$< \pm 0.3$	mA/K
I_{OT}	Thermal drift of I_O @ $T_A = -5 \dots +70^\circ\text{C}$	$< \pm 0.005$	mA/K
TCE_G	Thermal drift of the gain (% of reading), $T_A = -5 \dots +70^\circ\text{C}$	$< \pm 0.04$	%/K
t_r	Response time @ 90% of I_P	< 1	μs

General data

T_A	Ambient operating temperature	$-10 \dots +80$	$^\circ\text{C}$
T_S	Ambient storage temperature	$-15 \dots +85$	$^\circ\text{C}$
m	Mass	140	g

Features

- Hall effect measuring principle
- Galvanic isolation between primary and secondary circuit
- Low power consumption
- Insulated plastic case recognized according to UL 94-V0

Advantages

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

Applications

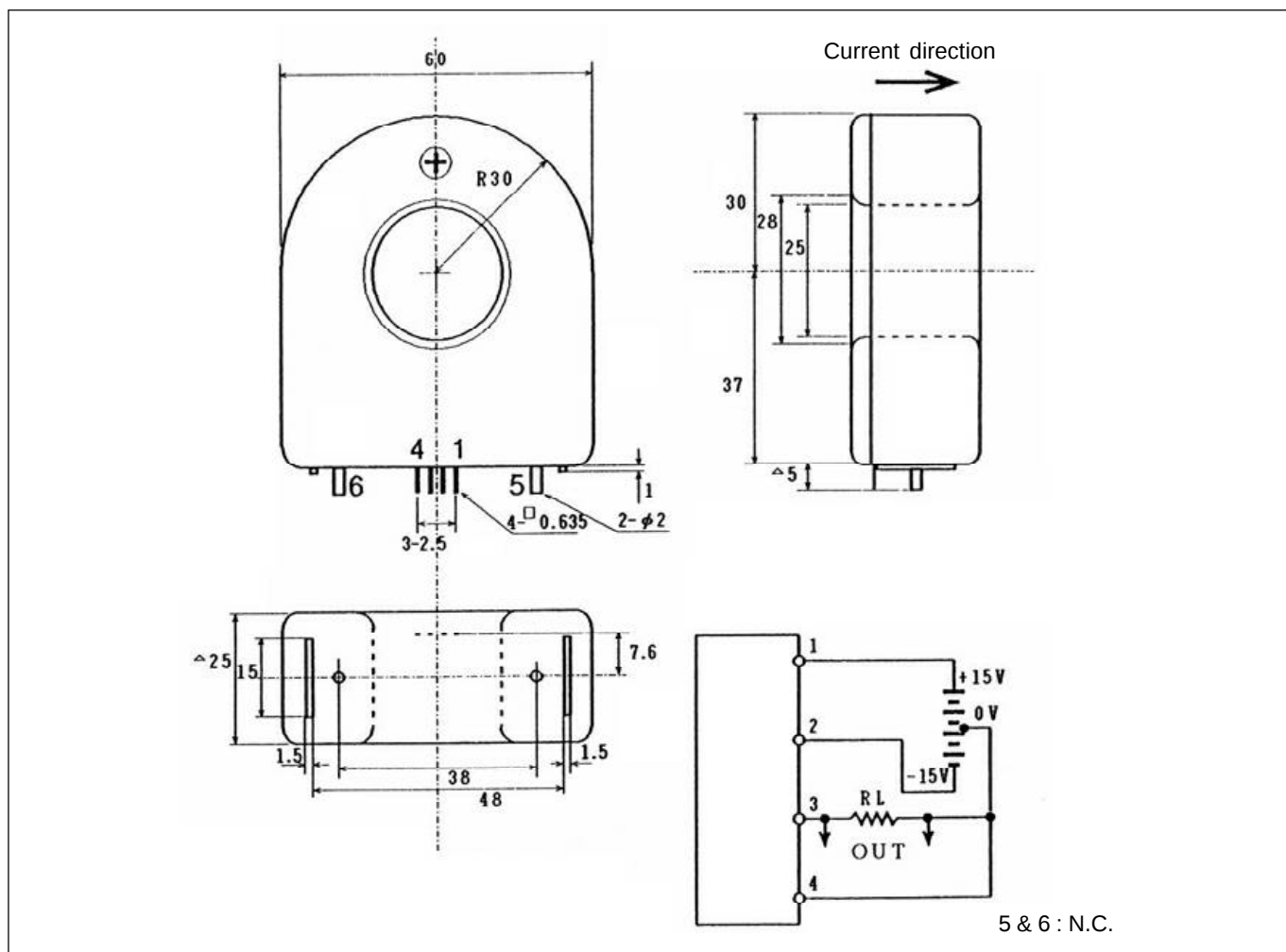
- DC motor drives
- Switched Mode Power Supplies (SMPS)
- AC variable speed drives
- Uninterruptible Power Supplies (UPS)
- Battery supplied applications
- Power supplies for welding applications

Application Domain

- Industrial

Notes : ¹⁾ Linearity data exclude the electrical offset.

Dimensions HNC-300P 300A-100mA (in mm. 1 mm = 0.0394 inch)



Mechanical characteristics

- General tolerance ± 0.5 mm
("Δ" appended numbers) ± 1 mm

Safety



This transducer must be used in electric/electronic equipment with respect to applicable standards and safety requirements in accordance with the following manufacturer's operating instructions.



Caution, risk of electrical shock

When operating the transducer, certain parts of the module can carry hazardous voltage (eg. primary busbar, power supply). Ignoring this warning can lead to injury and/or cause serious damage.

This transducer is a built-in device, whose conducting parts must be inaccessible after installation.

A protective housing or additional shield could be used. Main supply must be able to be disconnected.

060609/1