

Current Transducer HTY 50..100-P

$$I_{PN} = 50 \dots 100 \text{ A}$$

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 current rms I_{PN} (A)	Primary current measuring range I_{PM} (A)	Type	RoHS since date code
50	± 150	HTY 50-P	46115
75	± 225	HTY 75-P	46013
100	± 300	HTY 100-P	46067

V_C	Supply voltage ($\pm 5\%$)	± 15	V
I_C	Current consumption	$< \pm 20$	mA
V_d	Rms voltage for AC isolation test, 50 Hz, 1 min	2.5	kV
R_{IS}	Isolation resistance @ 500 VDC	> 500	M Ω
V_{OUT}	Output voltage (Analog) @ $\pm I_{PN}$, $R_L = 10 \text{ k}\Omega$, $T_A = 25^\circ\text{C}$	± 4	V
R_L	Load resistance	> 10	k Ω

Features

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

Accuracy-Dynamic performance data

X	Accuracy @ I_{PN} , $T_A = 25^\circ\text{C}$ (excluding offset)	$< \pm 1$	% of I_{PN}
ϵ_L	Linearity error ($0 \dots \pm I_{PN}$)	$< \pm 1$	% of I_{PN}
V_{OE}	Electrical offset voltage @ $T_A = 25^\circ\text{C}$	$< \pm 30$	mV
V_{OH}	Hysteresis offset voltage @ $I_P = 0$, after an excursion of $1 \times I_{PN}$	$< \pm 15$	mV
TCV_{OE}	Temperature coefficient of V_{OE}	typ. ± 2.0 max. ± 3.0	mV/K mV/K
TCV_{OUT}	Temperature coefficient of V_{OUT} (% of reading)	$< \pm 0.1$	%/K
t_r	Response time to 90% of I_{PN} step	< 7	μs
BW	Frequency bandwidth (-3 dB) ¹⁾	DC .. 50	kHz

General data

T_A	Ambient operating temperature	-10 .. +75	$^\circ\text{C}$
T_S	Ambient storage temperature	-15 .. +85	$^\circ\text{C}$
m	Mass	30	g