

Current Transducers HTC 1000..3000-S

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

$$I_{PN} = \pm 1000..3000 \text{ A}$$

$$V_{OUT} = \pm 10 \text{ V}$$



Preliminary



Electrical data

Primary nominal current I_{PN} (A)	Primary current measuring range I_p (A)	Type
1000	± 1100	HTC 1000-S
2000	± 2200	HTC 2000-S
3000	± 3300	HTC 3000-S

V_C	Supply voltage ($\pm 3\%$)	± 15	V
I_C	Current consumption	$< \pm 20$	mA
R_{IS}	Insulation resistance @ 500 VDC	> 500	M Ω
V_{out}	Output voltage @ $\pm I_{PN}$, $R_L=2k\Omega$, $T_A=25^\circ\text{C}$,	± 10	V
R_{OUT}	Output internal resistance	< 100	Ω
V_d	R.m.s. voltage for AC insulation test, 50/60Hz, 1mn	2.5	kV
R_L	Load resistance	≥ 2	k Ω

Features

- Hall effect measuring principle
- Galvanic insulation between primary and secondary circuit
- UL 94-V0 rated

Advantages

- Easy mounting
- Compact
- High immunity to external interference
- Low power consumption

Accuracy-Dynamic performance data

X	Accuracy @ I_{PN} , $T_A = 25^\circ\text{C}$	$< \pm 1$	% of I_{PN}
e_L	Linearity ($0.. \pm I_{PN}$)	$< \pm 1$	% of I_{PN}
TCE_G	Thermal drift of the gain	$\leq \pm 0.1$	%/K
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 $1 \times I_{PN}$	$< \pm 50$	mV
V_{OT}	Thermal drift of offset	$< \pm 1.0$	mV/K
t_r	Response time @ 90% of I_p @ $di/dt = 100A/\mu\text{s}$	≤ 10	μs
f	Frequency bandwidth (-3dB)	DC .. 10	kHz

Applications

- Traction

General data

T_A	Ambient operating temperature	-40 .. +85	$^\circ\text{C}$
T_S	Ambient storage temperature	-40 .. +85	$^\circ\text{C}$
m	Mass	450	g
	Standards	EN 50155	

Notes :

