TELCON

Speciality Magnetic Components

Qualified to ISO 9001:2008

Open Loop Hall Effect Current Transformer Type HOF

The HOF series are Open Loop Hall Effect Current Transformers covering the range of 500A to 3000A. The product provides a voltage output which is galvanically isolated from the primary conductor. Designed to be panel mounted, or strapped to a bus bar the HOF series is controlled via an industry standard connector.

Features

- Compact and light weight
- Fast response time
- Excellent linearity of the output voltage over a wide input range
- Excellent frequency response (> 50 kHz)
- Low power consumption (16 mA nominal)
- Capable of measuring both DC and AC, both pulsed and mixed
- High isolation voltage between the measuring circuit and the current-carrying conductor (AC2.5KV)
- Flame-Retardant plastic case and silicone encapsulate, using UL classified materials, ensures protection against environmental contaminants and vibration over a wide temperature and humidity range

Applications

- UPS systems
- Process control devices
- AC and DC servo systems
- Motor speed controller
- Electrical vehicle controllers
- Inverter-controlled welding machines
- General and special purpose inverters
- Controller for traction equipment e.g. electric trains
- Other automatic control systems

Specifications

Parameter	Symbol	Unit	HOF 500	HOF 800	HOF 1000	HOF 1200	HOF 1500	HOF 2000	HOF 2500	HOF 3000			
Nominal Input Current	I_{fn}	A DC	500	800	1000	1200	1500	2000	2500	3000			
Linear Range	I_{fs}	A DC	±1500	±2400	±3000	±3600	±4500	±6000	±7000	±7500			
Nominal Output Voltage	V_{hn}	V	4 V±1% at If=I_{fn} (R_L=10kΩ)										
Offset Voltage	V_{os}	mV	Within ±15 mV @ I_f=0, T_a=25°C										
Output Resistance	R_{OUT}	Ω	<100Ω										
Hysteresis Error	V_{oh}	mV	Within ±30 mV @ I_f=I_{fn}→0										
Supply Voltage	V_{CC}/V_{EE}	V	±15V ±5%										
Linearity	ρ	%	Within ±1% of I_{fn}										
Consumption Current	I_{CC}	mA	±12 mA nominal										
Response Time (90%V_{hn})	T_r	µsec	5 µsec max. @ $d\,I_f/\,dt = I_{fn}$ / µsec										
Frequency bandwidth (-3dB)	f_{BW}	Hz	DC to 50 kHz										
Thermal Drift of Output	-	%/°C	Within ±0.1 %/°C @ I_{fn}										
Thermal Drift of Zero Current Offset	-	mV/°C	Within ±1.5 mV/°C @ I_{fn}										
Dielectric Strength	-	V	AC2.5KV X 60 sec										
Isolation Resistance @ 1000 VDC	R_{IS}	MΩ	>500 MΩ										
Operating Temperature	T_a	°C	-15°C to 80°C										
Storage Temperature	T_s	°C	-20°C to 85°C										
Mass	W	g	470g