

Topstek Current Transducer TMQ100A .. TMQ1000A

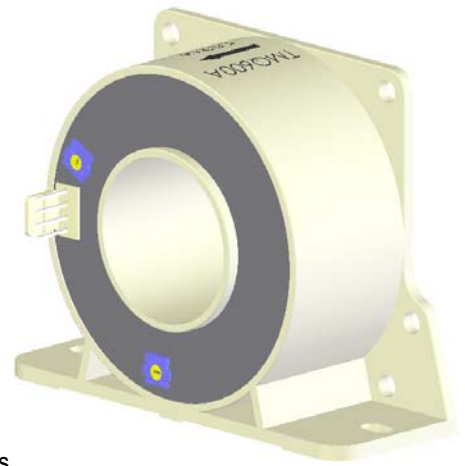
TMQ100A~1000A

Features

- ◆ Highly reliable Hall Effect device
- ◆ 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)
- ◆ Extended operating temperature range
- ◆ 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



Specifications

Parameter	Symbol	Unit	TMQ 100A	TMQ 200A	TMQ 300A	TMQ 400A	TMQ 500A	TMQ 600A	TMQ 800A	TMQ 1000A
Nominal Input Current	I_{fn}	A DC	100	200	300	400	500	600	800	1000
Linear Range	I_{fs}	A DC	±300	±600	±900	±1200	±1500	±1800	±2400	±3000
Nominal Output Voltage	V_{hn}	V	4 V ±1% at $I_f = I_{fn}$ ($R_L = 10k\Omega$)							
Offset Voltage	V_{os}	mV	Within ±15 mV @ $I_f = 0$, $T_a = 25^\circ\text{C}$							
Output Resistance	R_{OUT}	Ω	<10 Ω							
Hysteresis Error	V_{oh}	mV	Within ±10 mV @ $I_f = I_{fn} \rightarrow 0$							
Supply Voltage	V_{CC}/V_{EE}	V	±15V ±5%							
Linearity	ρ	%	Within ±0.5% of I_{fn}							
Consumption Current	I_{CC}	mA	±16 mA nominal							
Response Time (90% V_{hn})	T_r	μsec	3 μsec max. @ $d I_f / dt = I_{fn} / \mu\text{sec}$							
Frequency bandwidth (-3dB)	f_{BW}	Hz	DC to 50kHz							
Thermal Drift of Output	-	%/ $^\circ\text{C}$	Within ±0.05 %/ $^\circ\text{C}$ @ I_{fn}							
Thermal Drift of Zero Current Offset	-	mV/ $^\circ\text{C}$	Within ±1 mV/ $^\circ\text{C}$ @ I_{fn}							
Dielectric Strength	-	V	AC2.5KV X 60 sec							
Isolation Resistance @ 1000 VDC	R_{IS}	M Ω	>500 M Ω							
Operating Temperature	T_a	$^\circ\text{C}$	-15 $^\circ\text{C}$ to 80 $^\circ\text{C}$							
Storage Temperature	T_s	$^\circ\text{C}$	-20 $^\circ\text{C}$ to 85 $^\circ\text{C}$							
Mass	W	g	240 g							

Topstek Current Transducer TMQ100A .. TMQ1000A

Appearance, dimensions and pin identification

All dimensions in mm ± 0.2 , holes -0 , $+0.2$ except otherwise noted.

