MGA CT EI 192

Coupling Transformer

MIL-STD-461, DO-160

- For tests according MIL-STD-461 and DO-160 with the MGA 1033
- High saturation flux density
- Low leakage impedance

Tests in combination with the MGA 1033

Overview

Coupling transformers are used to couple sinusoidal noise signals to supply lines. This type of immunity test can be found in many automotive standards such as MIL-STD-461 or DO-160.

The special design of the MGA CT EI192 provides high saturation flux density and low leakage impedance.

Key facts

- High saturation flux density
- Low leakage impedance due to special design
- Insulation voltage of 2,500 volts at 60 seconds

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Technical data

MGA CT EI192	
Frequency response	10 Hz – 250 kHz
Turns ratio	2:1 step down
Insulation voltage	2500 Volt (60 s)
Terminals	M10 threated bold
Dimensions (WxDxH)	16 x 12.5 x 20 cm
Weight	approx. 17 kg

Primär	
Inductance	approx. 8 mH (unloaded)
DC Resistance	0.048 Ohm
Current rating	28 A_{rms}
Sekundär	
Inductance	approx. 2 mH (unloaded)
DC Resistance	0.012 Ohm
Current rating	140 Ap, no saturation (DC + AC > 300 Hz, Figure 4)
	70 Ap, no saturation (DC + AC > 20 Hz, Figure 5)
	79 Ap, saturation (DC + AC > 20 Hz, Figure 6)

Connections

1 – 2 Primary Windings

3-4 Secondary windings

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Primary impedance measurement

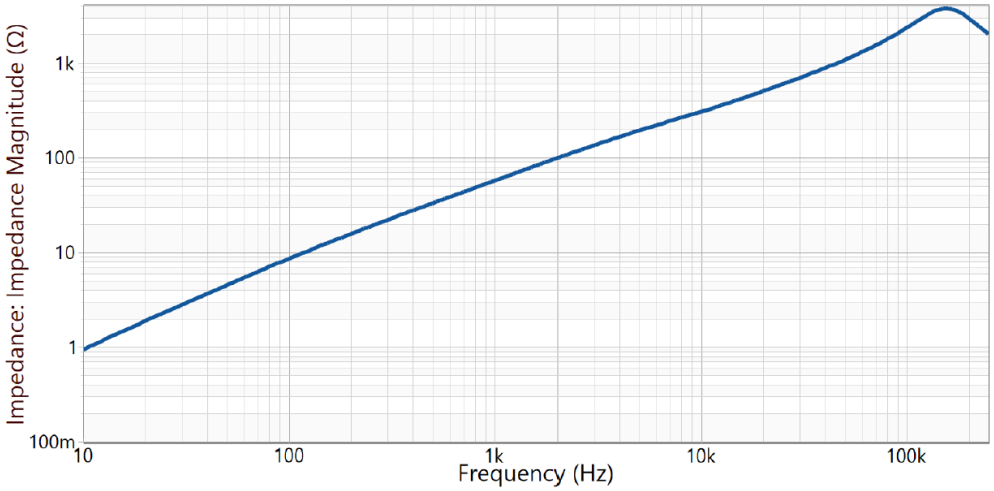

Figure 1: Primary impedance measurement up to 250 kHz, secondary open

Secundary impedance measurement

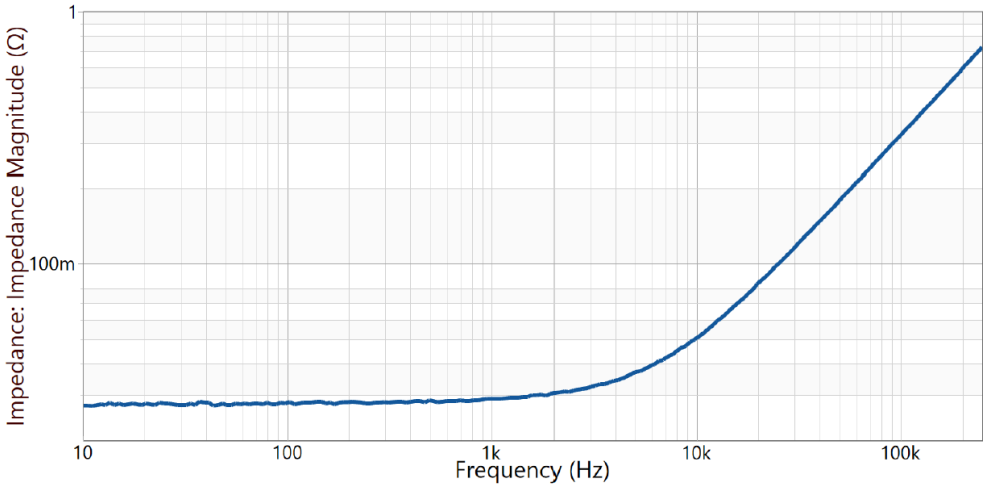

Figure 2: Secondary impedance measurement up to 250 kHz, primary short circuit

Test setup saturation behaviour

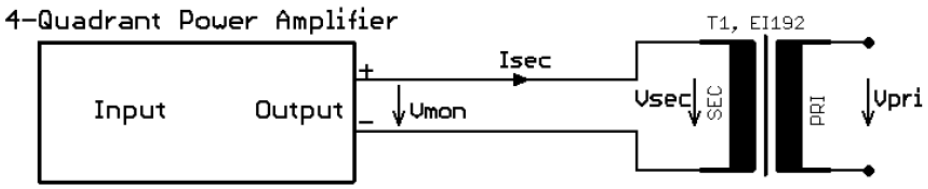

Figure 3: Test setup for determining the saturation behaviour

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Test results

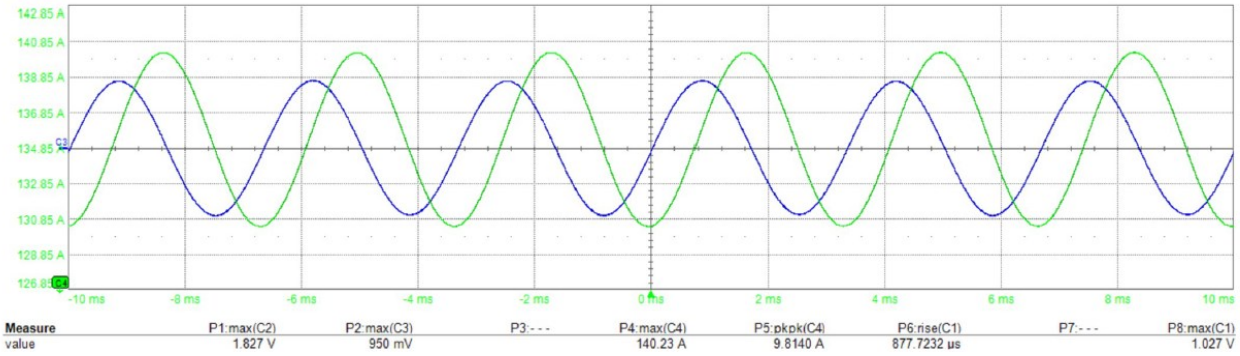

Figure 4: Blue (C3): Vsec; Green (C4): Isec; Input: 300 Hz + DC

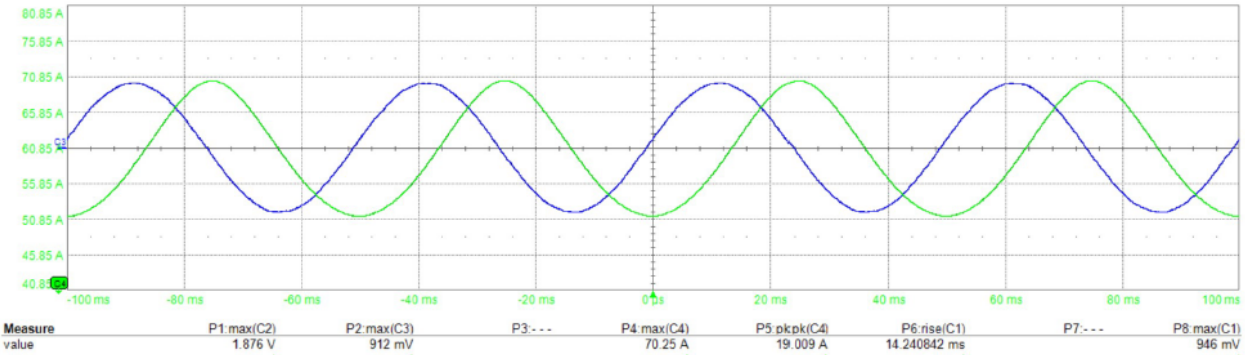

Figure 5: Blue (C3): Vsec; Green (C4): Isec; Input: 20 Hz + DC

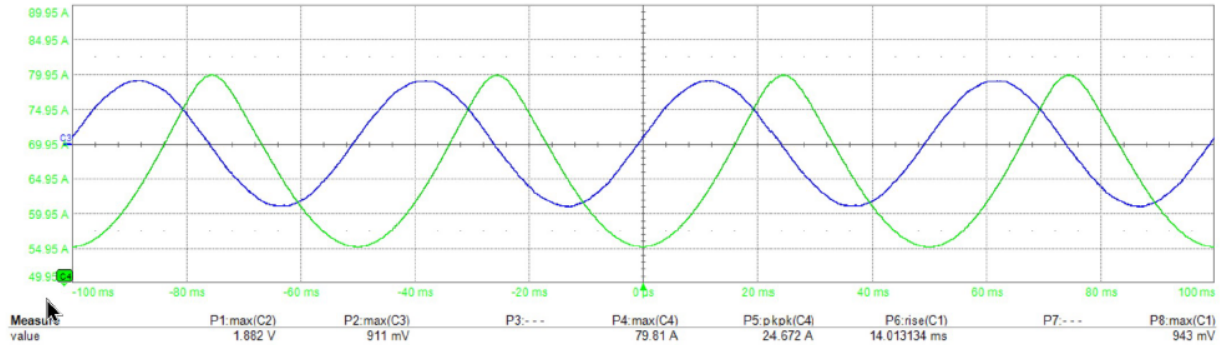

Figure 6: Blue (C3): Vsec; Green (C4): Isec; Input: 20 Hz + DC

All information regarding appearance and technical data correspond to the current state of development at the time of release of this data sheet. Errors and technical changes excepted. 262605