Comon mode choke - CH3128

Special Features:

- Nominal common-mode inductance: 600 µH
- Nominal current, RMS: 79.5 A
- Compliance:
  - IEC 62109-1:2010
  - UL62109-1:2014
  - RoHS and REACH
- Low profile
- Operating ambient temperature: -40°C to 85°C

Typical Applications:

- PV inverters
- DC/AC converter
- Grid connected converters

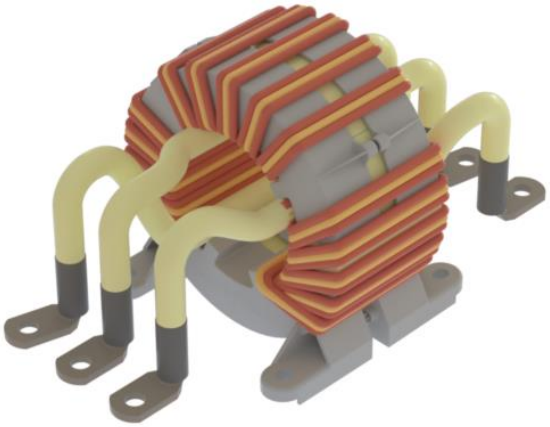


Figure 1. General view

For samples or custom solutions please contact directly:
inquiry@sma-magnetics.com

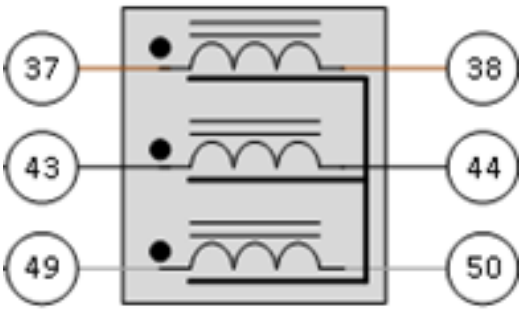
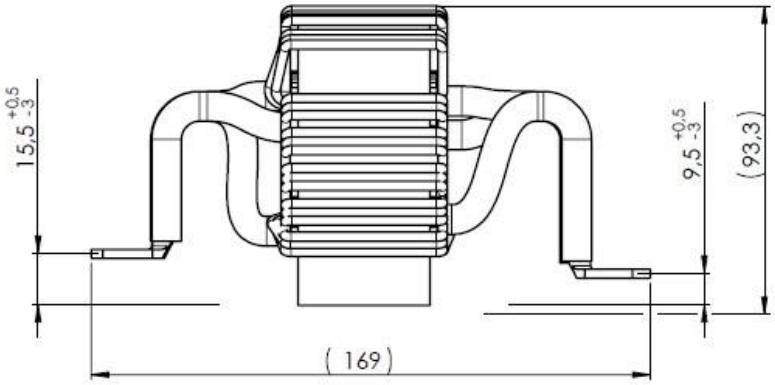
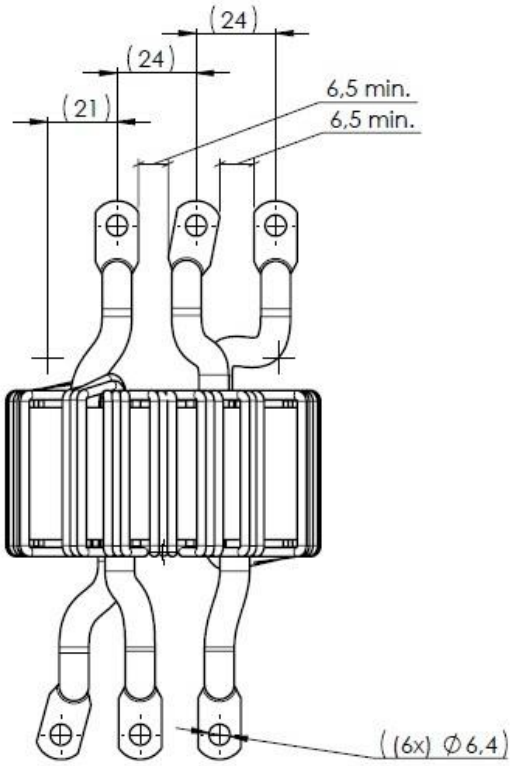


Figure 2. Electrical circuit

Parameter description	Parameter	Comment
Circuits	Circuit terminals are shown in **Błąd! Nie można odnaleźć źródła odwołania.**	
Common mode inductnace	$L_{CM} \geq 318$ µH	**Routine test** at room temperature @5 mA, 20 kHz, sinus voltage, T_a = +20 °C;
Common mode inductnace	$L_{CM} \geq 316$ µH @0.5 A_{DC}	**Type test**
Common mode inductnace	$L_{CM} \geq 312$ µH @1 A_{DC}	**Type test**
Differential mode inductance	$L_{\sigma\ 37\text{-}38\text{-}43\text{-}44}$ = 2.2 µH (-10/+50 %) $L_{\sigma\ 37\text{-}38\text{-}49\text{-}50}$ = 3.2 µH (-10/+30 %) $L_{\sigma\ 43\text{-}44\text{-}49\text{-}50}$ = 2.2 µH (-10/+50 %)	Routine test at room temperature @5 mA, 20 kHz, sinus voltage, T_a = +20 °C;
Rated RMS current	$I_{37\text{-}38}$, $I_{43\text{-}44}$, $I_{49\text{-}50}$ = 79.5 A	
Rated grid frequency	f_{grid} = 50…60 Hz	
Rated grid voltage	V_{grid} = 230 V @50 Hz V_{grid} = 277 V @60 Hz	
Winding Resistance (t_a = 20 °C)	$R_{37\text{-}38}$, $R_{43\text{-}44}$, $R_{49\text{-}50} \leq 1.1$ mΩ	**Routine test**, given values are valid for 20°C (resistance temperature coefficient 0,00393 1/K).
Dielectric strength	All potentials against aluminium housing 1708 V_{RMS} @50 Hz for 60 sec	**Type test;** According to UL 1741 chapter 44
Operating temperature range	T_a = -40 °C to +85 °C	System should provide power derating to prevent exceeding 135 °C on windings surface
Insulation class	F (155 °C)	
Frequency response - typical values	R_P = 1229 Ω L_P = 748 µH C_P = 31.51 pF f_r = 1.074 MHz	Parallel RLC circuit





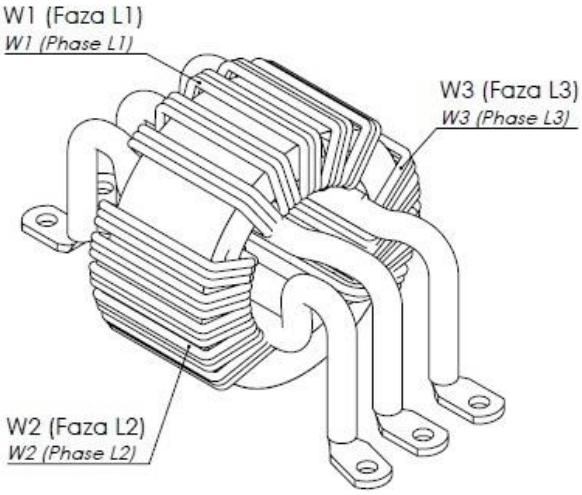


Figure 3. Choke dimensions in mm

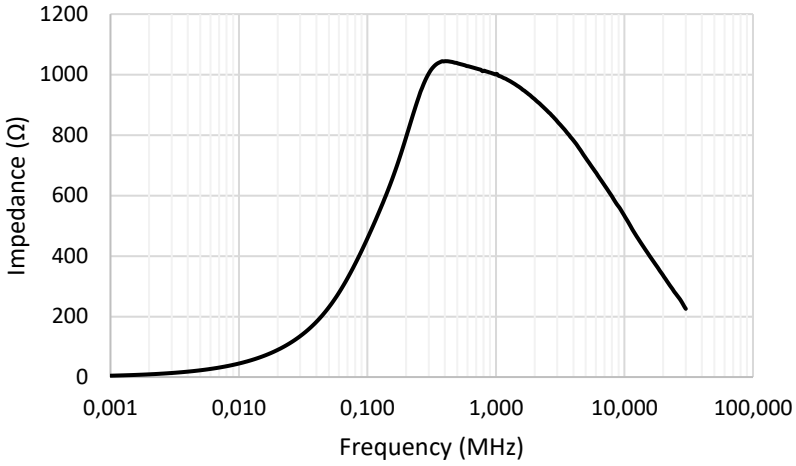


Figure 4. CM Impedance vs. Frequency @20°C

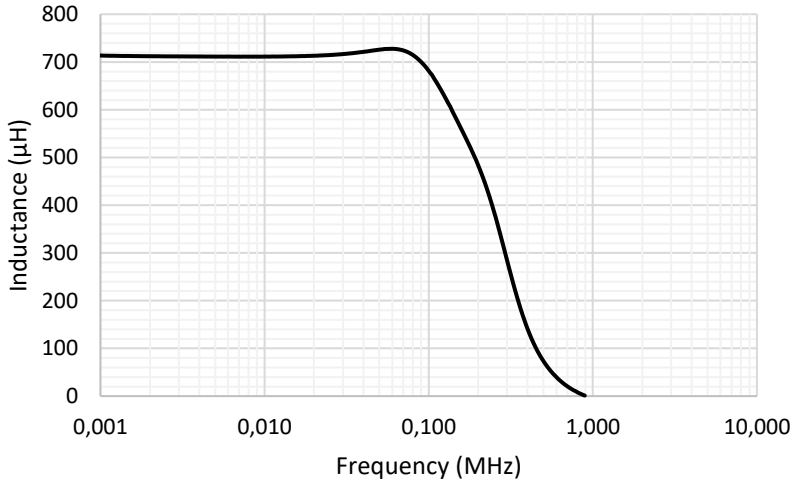


Figure 4. CM Inductance vs. frequency @20°C

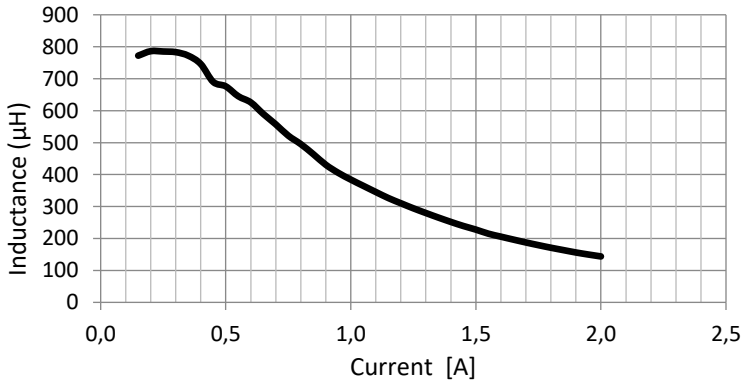


Figure 6. Inductance vs. DC bias @20°C