

3 phase AC choke – CHB2876

Special Features:

- Nominal inductance: 15 μ H
- Nominal current, RMS: 151A @50/60Hz
- Modulation frequency: 16-35 kHz
- Winding resistance \leq 1.00 m Ω
- Compliance:
 - EN 61558-1:2019
 - IEC 62109-1:2010
 - UL62109-1:2014
 - RoHS and REACH
- Operating ambient temperature: -40°C to 60°C



Figure 1. General view

Typical Applications:

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

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

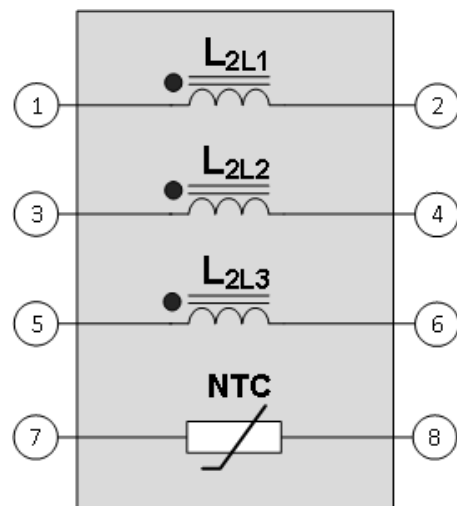


Figure 2. Electrical circuit





Parameter description	Parameter	Comment
Circuits	Circuit terminals are shown in Błąd! Nie można odnaleźć źródła odwołania.	
Initial inductance	$L_{p1-2}, L_{p3-4}, L_{p5-6} = L_2 \geq 13.5 \mu\text{H}$	@0.3 V, 35 kHz, sine voltage; given values are valid for 20°C (resistance temperature coefficient 0.00393 1/K)
Inductance at dc current	$L_2 \geq 13.5 \mu\text{H} @ I_{DC} = 0 \div 250 \text{ A}$	@ $T_{core} = 100 \text{ }^\circ\text{C}$;
Rated current, RMS	$I_{L2} = 151 \text{ A} @ 50/60 \text{ Hz}$	
Rated grid frequency	$f_{grid} = 50 \dots 60 \text{ Hz}$	
Rated grid voltage, RMS	$V_{grid} = 200 \dots 690 \text{ V}$	
Frequency Modulation	$f_{mod} = 35 \text{ kHz}$	
dc Winding Resistance (@20°C)	$R_{DC1-2} \leq 1.02 \text{ m}\Omega$ $R_{DC3-4} \leq 0.93 \text{ m}\Omega$ $R_{DC5-6} \leq 1.00 \text{ m}\Omega$	given values are valid for 20°C (resistance temperature coefficient 0.00393 1/K)
Dielectric strength	All potentials against core $1800 \text{ V}_{AC} @ 50 \text{ Hz}$ for 1 sec	UL62109-1 chapter 7.5; Routine test
Rated ambient temperature	$T_a = -40 \text{ }^\circ\text{C}$ to $+60 \text{ }^\circ\text{C}$	System should provide power derating to prevent exceeding 135 °C on windings surface
Insulation class	F (150 °C)	
Insulation distance	minimum clearance: 12.7 mm minimum creepage distance: 15 mm	For life parts against core
NTC dc resistance	$R_{31-32}, R_{33-34} = R_{NTC} = 10 \text{ k}\Omega$ (-1 % / +1 %)	
Frequency response - typical values	$R_p = 0.59 \text{ k}\Omega$ $L_p = 26.2 \mu\text{H}$ $C_p = 0.52 \text{ pF}$ $f_r = 43.1 \text{ MHz}$	Parallel RLC circuit

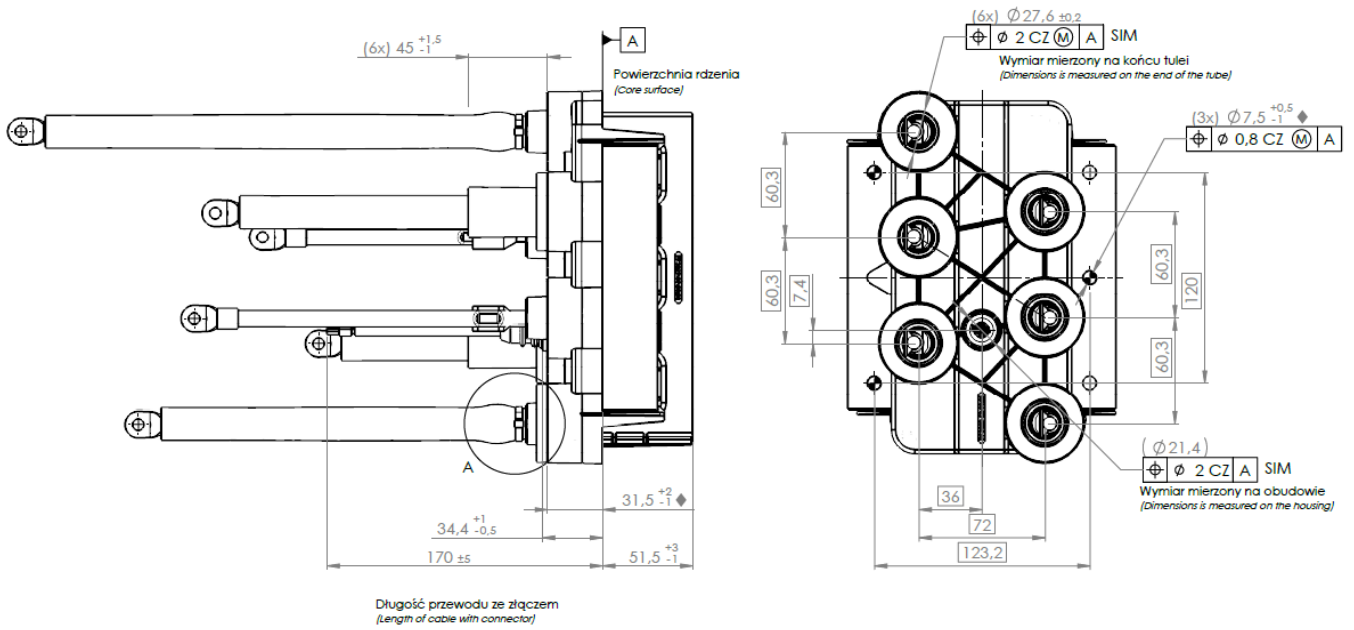


Figure 3. AC choke dimensions in mm