

DC choke – CH3476

Special Features:

- Nominal inductance: 91 μ H
- Nominal current, RMS: 100A
- Modulation frequency: 10 - 70 kHz
- Compliance:
 - IEC 61558-1:2019-
 - IEC62109-1:2010
 - RoHS and REACH
- Operating ambient temperature: -40°C to 70°C
- Heatsink mounted ready

Typical Applications:

- Vehicle DC Charger
- AC/DC converter
- Grid connected converters

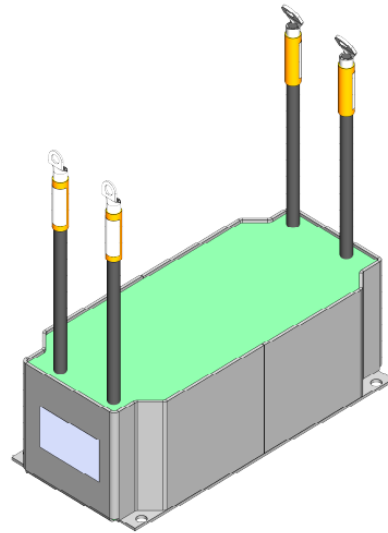


Figure 1. General view

For samples or custom solutions please contact directly:

inquiry@sma-magnetics.com

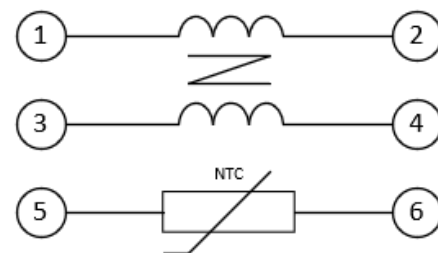


Figure 2. Electrical circuit



Parameter description	Parameter	Comment
Circuits	Circuit terminals are shown in Figure 2	-
Initial inductance	$L_{1-3} = 170 \mu\text{H} \pm 10\%$	100% tested at 0.3 V, 64 kHz sine voltage, 2 and 4 shorted
Inductance at dc current	$L_{1-3} = 170 \mu\text{H} \pm 10\%$, @ $I_{\text{DC}} = 160 \text{ A}$	Power Choke Tester, e.g. ed-k @ 300 V, measured with 2 and 4 shorted
Rated current	$I_{\text{LDC}} = 100 \text{ A}$	AVG Value
Nominal operating points	$I_{\text{LDC}} = 100 \text{ A}$ @ $V_{\text{DC}} = 0 - 380 \text{ V}$ $I_{\text{LDC}} = 75 \text{ A}$ @ 500 V	-
Current ripple frequency	$f = 64 \text{ kHz}$	-
Winding dc resistance	$R_{\text{DC } 1-2, 3-4} \leq 1.7 \text{ m}\Omega$ – without lead wires $R_{\text{DC } 1-2, 3-4} \leq 2.4 \text{ m}\Omega$ – with lead wires	100% tested, $T_a = 20^\circ\text{C}$
Rated ambient temperature	$T_a = -40^\circ\text{C}$ to $+70^\circ\text{C}$	-
Insulation class	F (155°C)	System should provide power de-rating to prevent exceeding of 145°C at the hotspot
Dielectric strength	All potentials against housing $1.5 \text{ kV}_{\text{ACRMS}}$ @ 50 Hz, 5 sec. 6.0 kV pulse $1.2\mu\text{s}/50 \mu\text{s}$	100% tested
Cooling	Inductor mounted on heatsink	-

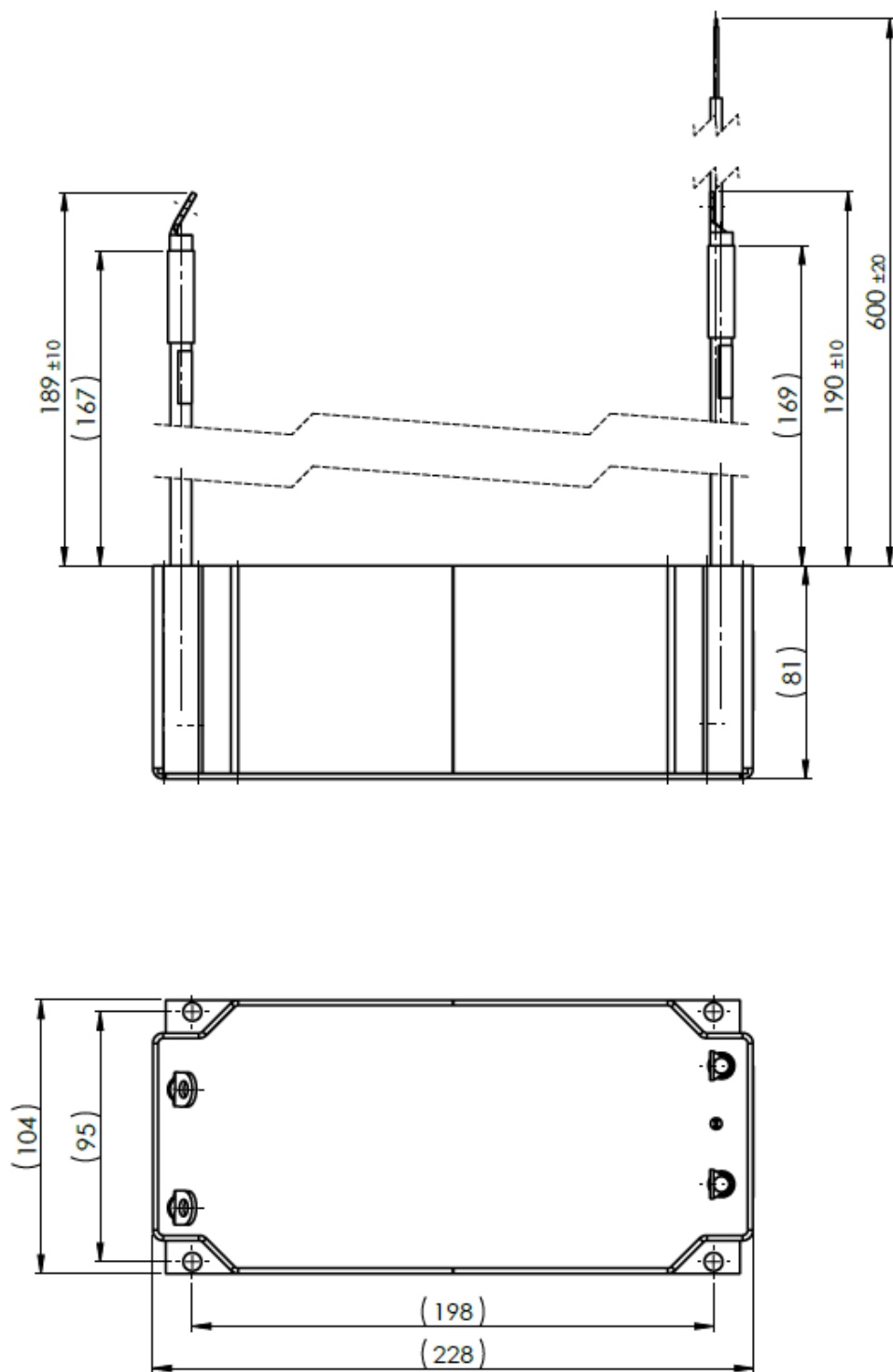


Figure 3. DC choke dimensions in mm