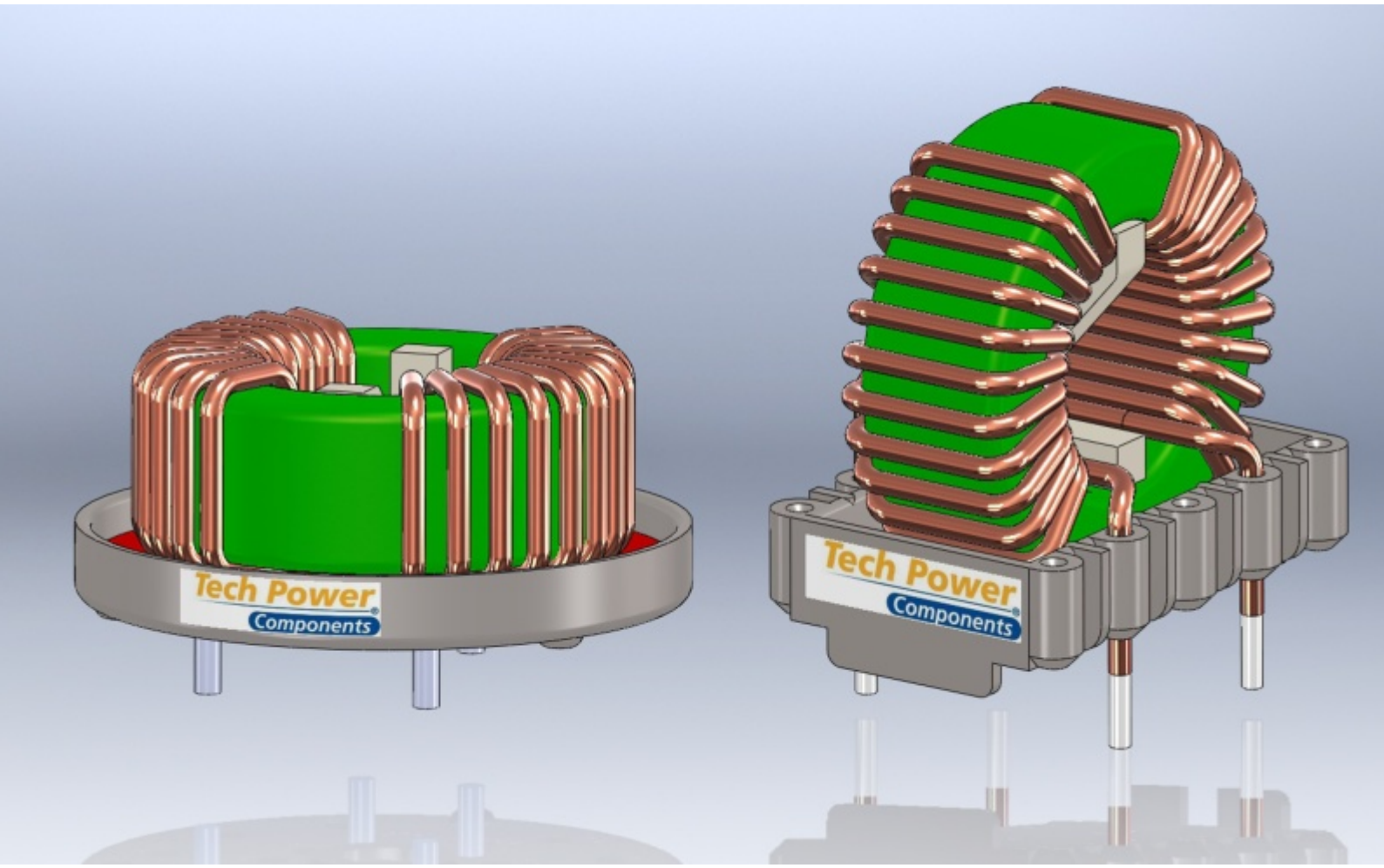
Tech Power® Components



Common Mode Chokes
Nanocrystalline Toroidal Series
High Current - Compact Design

Management System ISO 9001:2008
TÜVRheinland CERTIFIED
www.tuv.com ID 9105059655

RoHS COMPLIANT

Tech Power electronics
POSITIVE ENERGY

Tech Power electronics develops new standard series of common mode chokes based on nanocrystalline toroidal cores. They are particularly suitable for **severe technical constraints** for which temperature, size and weight are critical parameters.

Advantages

Compared to ferrite cores, nanocrystalline cores have several advantages:

- Lighter (weight is reduced by 2 or 3)
- Smaller (volume is reduced by 2 or 3)
- High rated current and high inductance values with a compact design
- Better frequency response due to a low number of turns
- Extended operating temperature range up to 150°C
- Inductance does not vary depending on temperature variation
- Cost attractive solution regarding size and performances

Standards

- RoHS
- Complies with IEC60938-2 (VDE565-2-1)
- Plastic materials meet UL94 V-0 requirements

Range

- 3 volumes available
- For volume III (>100 gr), fixation with screw on horizontal version and blind pins on vertical version
- Rated voltage: 250 Vac
- Withstanding voltage: 1500 Vac

P/N Vertical	P/N Horizontal	I_N (A)	L_N at 10 Khz (mH)	L_N at 100 Khz (mH)	Resistance (mΩ)	Weight (g)	Pins Cu tinned ø (mm)	Volume	Schematic
SCN120V075	SCN120H075	7.5	12	2.2	16	18	0.8	1	1
SCN075V095	SCN075H095	9.5	7.5	1.5	10	18	0.9	1	1
SCN150V130	SCN150H130	13	15	2.8	10	45	1.2	2	1
SCN042V140	SCN042H140	14	4.2	0.85	5	18	1.1	1	1
SCN480V150	SCN480H150	15	48	10	14.5	105/115	1.3	3	1
SCN100V180	SCN100H180	18	10	1.7	5	45	1.5	2	1
SCN013V200	SCN013H200	20	1.3	0.25	2.4	18	1.25	1	1
SCN060V220	SCN060H220	22	6	1	3.6	45	1.6	2	1
SCN185V240	SCN185H240	24	18.5	3.7	5.5	105/115	1.7	3	1
SCN110V280	SCN110H280	28	11	2.2	3.8	105/115	1.8	3	1
SCN030V320	SCN030H320	32	3	0.5	1.6	45	1.4	2	2
SCN040V500	SCN040H500	50	4	0.8	1.3	105/115	1.7	3	2

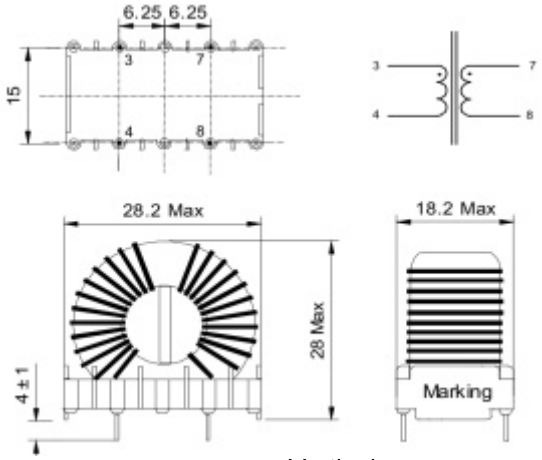
- I_N nominal current in each winding
- L_N nominal inductance, tolerance ± 40%
- Ambient temperature Ta = - 40°C to + 70°C (short time + 90°C)
- Operating temperature Top = - 40°C to + 130°C (short time + 150°C)
- These nanocrystalline chokes are designed for a temperature rise of ΔT = 45-60°C at Ta = + 70°C and I = I_N in each winding.

NB: Data derating in case of deviant ambient temperatures or deviant nominal currents.

- **Custom design on request**

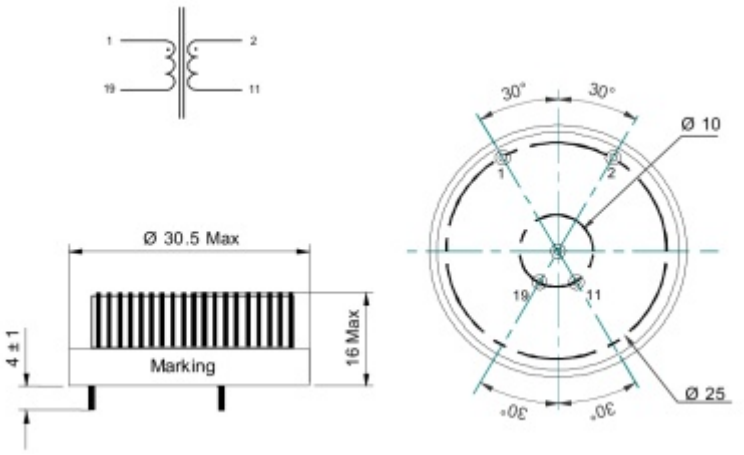
Common Mode Chokes - Volume I

Pin side view



Vertical

Pin side view

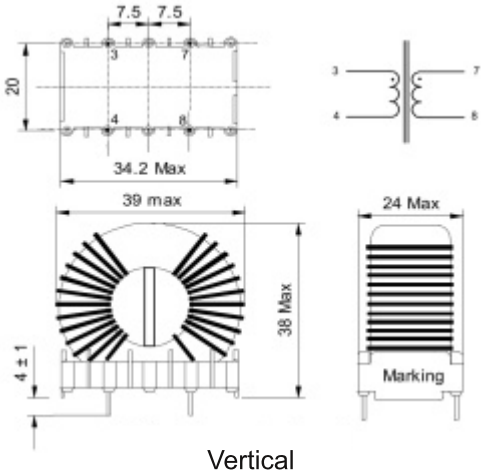


Horizontal

Schematic 1

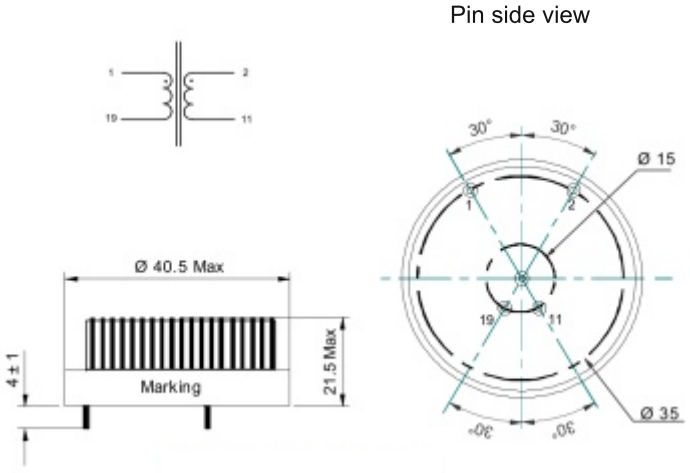
Common Mode Chokes - Volume II

Pin side view



Vertical

Pin side view

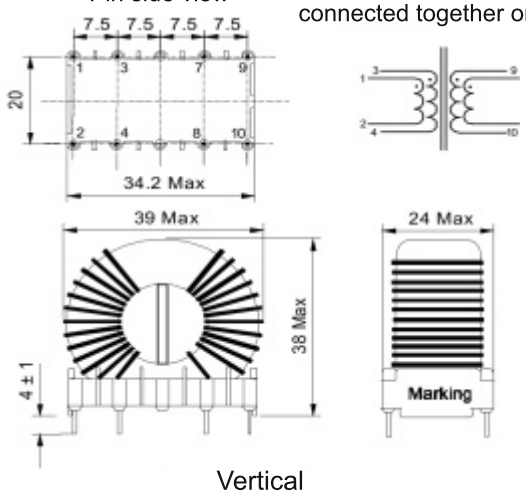


Horizontal

Schematic 1

Pin side view

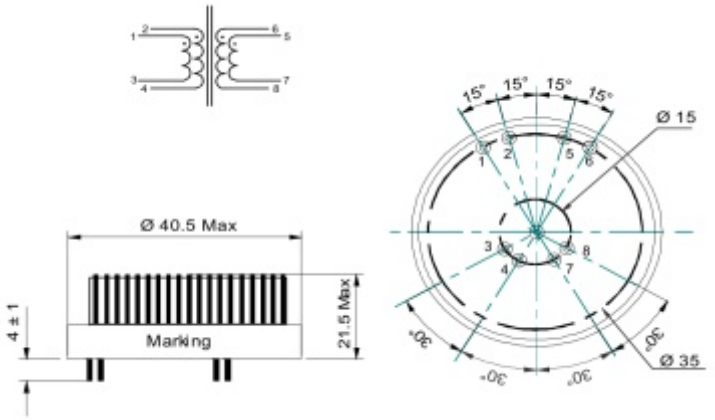
Pins 1-3, 2-4, 7-9, 8-10 must be connected together on PCB



Vertical

Pins 1-2, 3-4, 5-6, 7-8 must be connected together on PCB

Pin side view



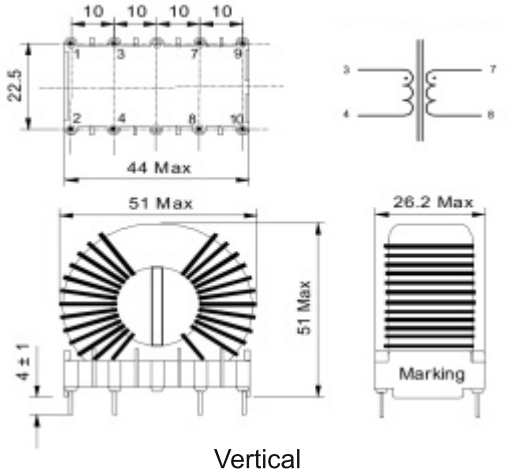
Horizontal

Schematic 2

Common Mode Chokes - Volume III

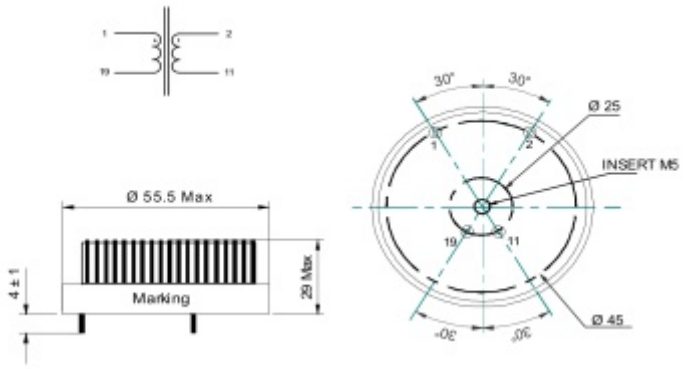
Pin side view

Blind Pins:1-2-9-10



Vertical

Pin side view

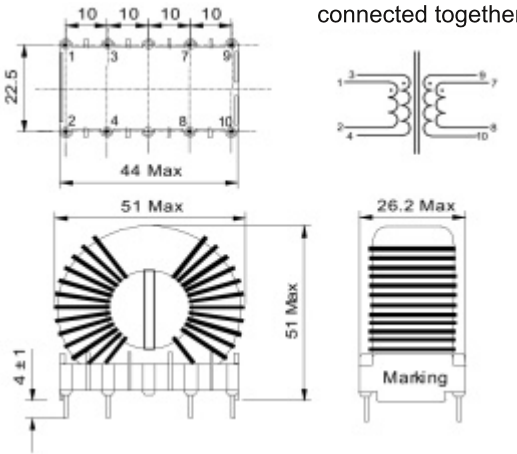


Horizontal

Schematic 1

Pin side view

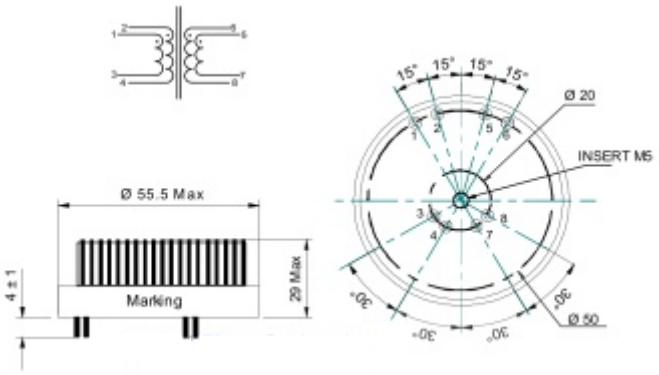
Pins 1-3, 2-4, 7-9, 8-10 must be connected together on PCB



Vertical

Pins 1-2, 3-4, 5-6, 7-8 must be connected together on PCB

Pin side view



Horizontal

Schematic 2

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