

Compensated High Current Choke, 1-phase

new



See below:
Approvals and Compliances

Description

- Current compensated choke
- 1-phase choke
- THT-terminals
- Flange for mounting onto printed circuit board

Unique Selling Proposition

- Compact size and light weight
- Small footprint on PCB
- Open design optimizes heat dissipation
- Nanocrystalline or ferrite ring cores

Applications

- Frequency converter
- Charge stations
- UPS-systems
- Switching power supplies

References

Alternative: Horizontal version [DKIH-1](#)

Weblinks

[pdf data sheet](#), [html datasheet](#), General Product Information, Approvals, Distributor-Stock-Check, Detailed request for product, SPICE Library, Landing Page

Technical Data

| | | | |
|---------------------------|---|---------------------------|------------------------------------|
| Rated voltage | IEC, UL: 300VAC CSA: 250VAC max. 450VDC | Test Voltage | 2500VDC, 2 sec, winding to winding |
| Rated Current | 10 - 50A @ Ta 40 °C | Climatic Category | 40/100/21 acc. to IEC 60068-1 |
| Rated inductance | 0.15 - 8.2mH, Tol. -30% +50% | Allowable Operation Temp. | -40°C to 100°C |
| Power Operating Frequency | 0 - 400Hz | | |
| Terminal Type | THT | | |
| Weight | 25 - 140g | | |
| Material: Housing | UL 94V-0 | | |

Approvals and Compliances

Detailed information on product approvals, code requirements, usage instructions and detailed test conditions can be looked up in [Details about Approvals](#)

SCHURTER products are designed for use in industrial environments. They have approvals from independent testing bodies according to national and international standards. Products with specific characteristics and requirements such as required in the automotive sector according to IATF 16949, medical technology according to ISO 13485 or in the aerospace industry can be offered exclusively with customer-specific, individual agreements by SCHURTER.

Approvals

The approval mark is used by the testing authorities to certify compliance with the safety requirements placed on electronic products.

Approval Reference Type: DKIV-1

| Approval Logo | Certificates | Certification Body | Description |
|---------------|-------------------------------|--------------------|------------------------------|
| | VDE Approvals | VDE | Certificate Number: 40052999 |
| | UL Approvals | UL | UL File Number: E495089 |

Application standards

Application standards where the product can be used

| Organization | Design | Standard | Description |
|--------------|--------------------------------|----------------|---|
| | Designed for applications acc. | IEC/UL 62368-1 | Audio/video, information and communication technology equipment - Part 1: Safety requirements |

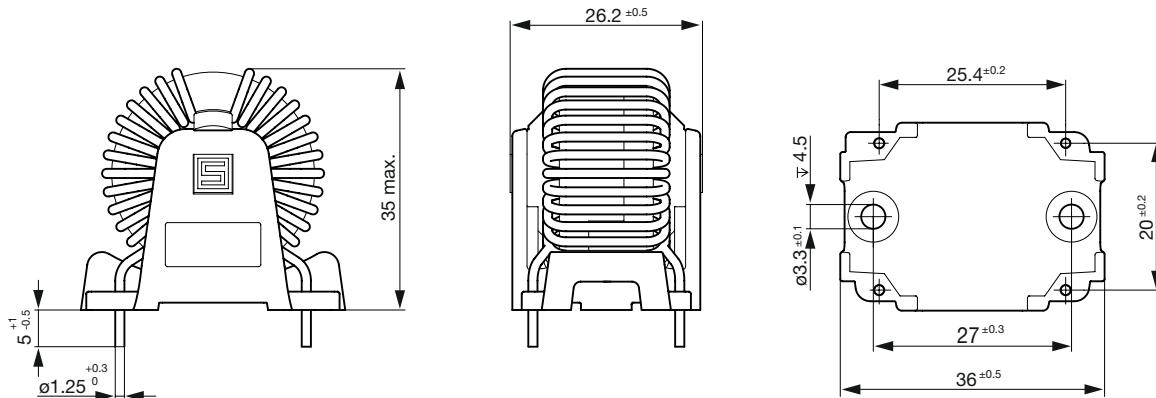
Compliances

The product complies with following Guide Lines

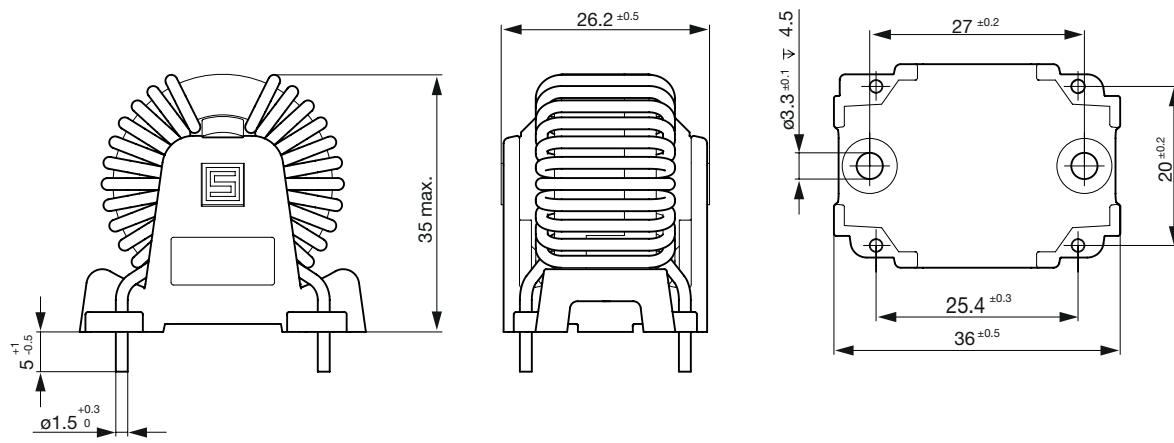
| Identification | Details | Initiator | Description |
|---|--------------------------------|-------------|---|
| CE | CE declaration of conformity | SCHURTER AG | The CE marking declares that the product complies with the applicable requirements laid down in the harmonisation of Community legislation on its affixing in accordance with EU Regulation 765/2008. |
| UKCA | UKCA declaration of conformity | SCHURTER AG | The UKCA marking declares that the product complies with the applicable requirements laid down in the British Amendment of Regulation (EC) 765/2008. |
|  RoHS | RoHS | SCHURTER AG | Directive RoHS 2011/65/EU, Amendment (EU) 2015/863 |
|  China RoHS | China RoHS | SCHURTER AG | The law SJ / T 11363-2006 (China RoHS) has been in force since 1 March 2007. It is similar to the EU directive RoHS. |
|  REACH | REACH | SCHURTER AG | On 1 June 2007, Regulation (EC) No 1907/2006 on the Registration, Evaluation, Authorization and Restriction of Chemicals 1 (abbreviated as "REACH") entered into force. |

Dimension [mm]

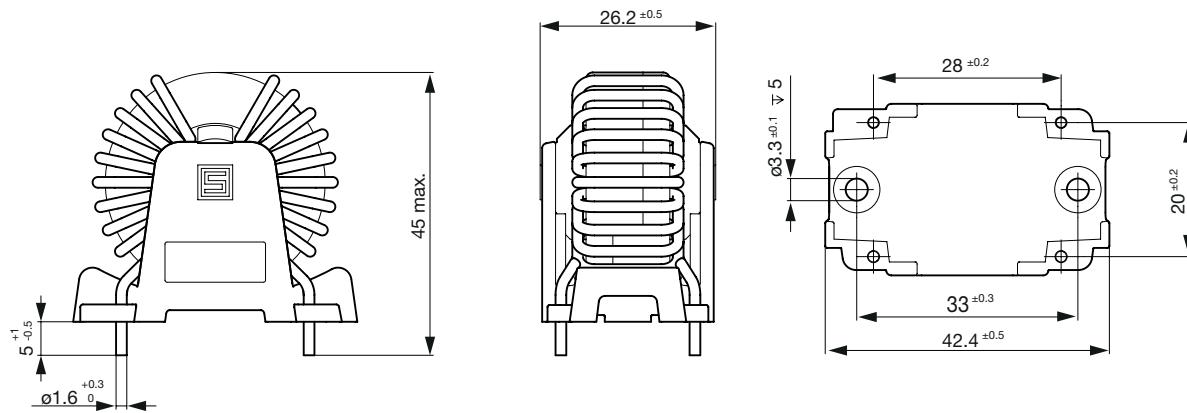
36-10



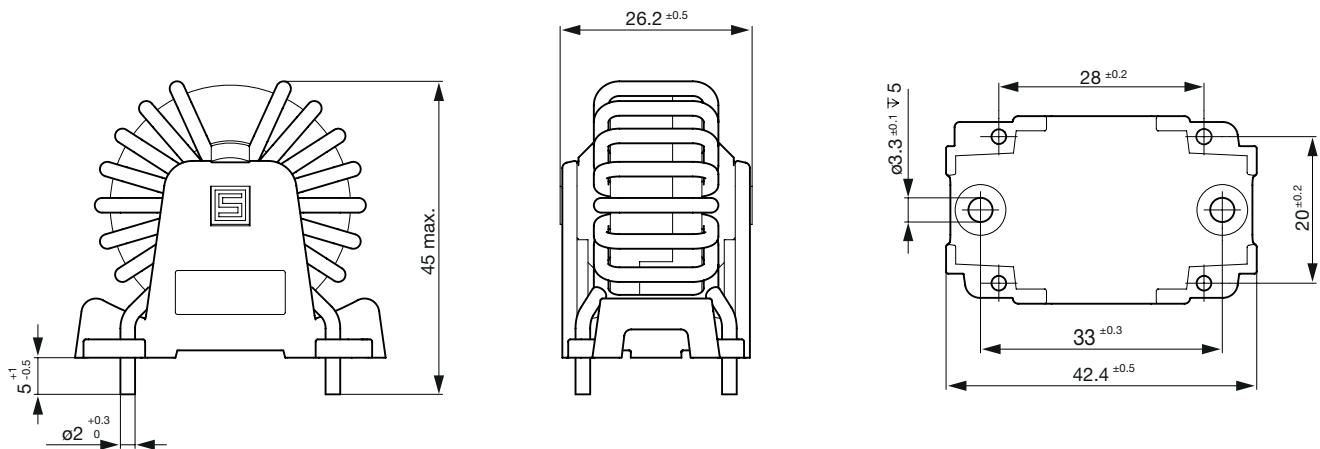
36-12



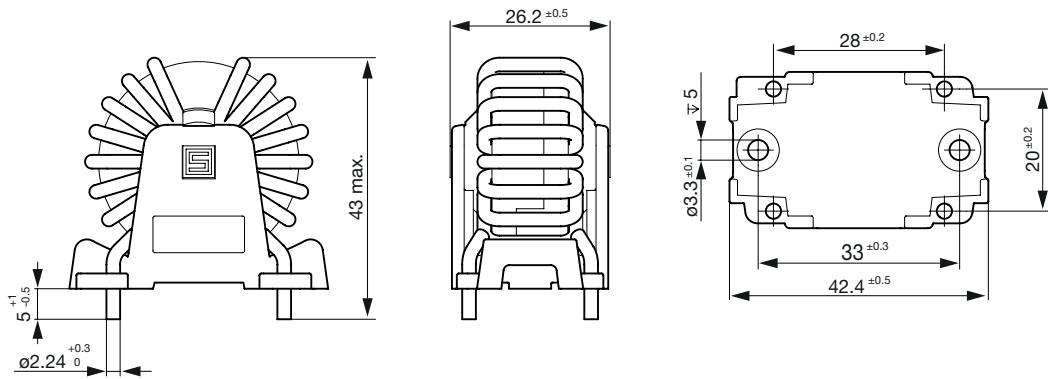
43-16



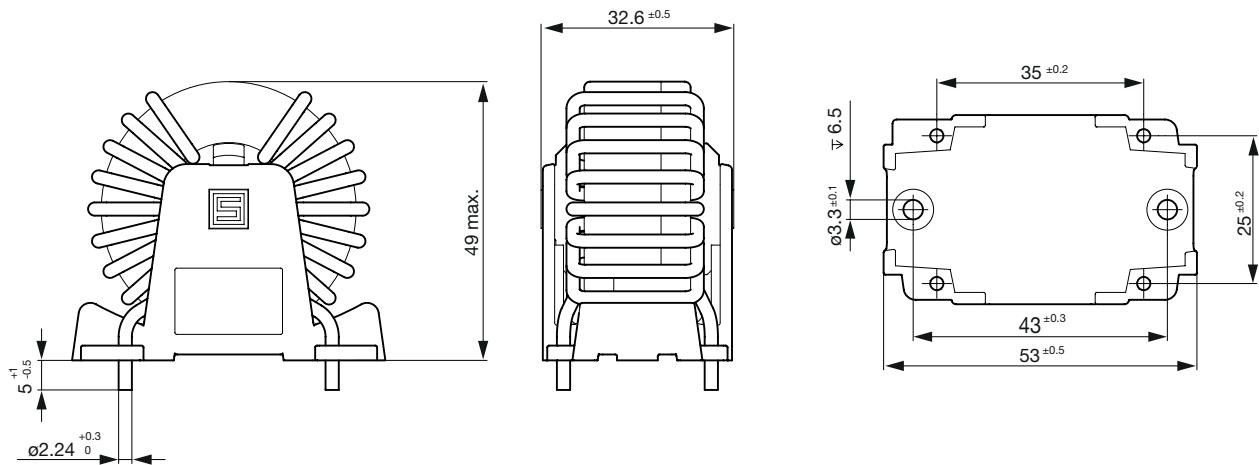
43-20



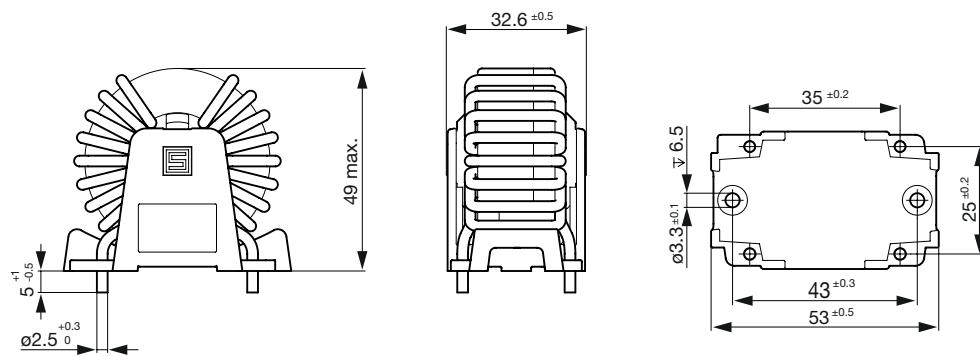
43-25



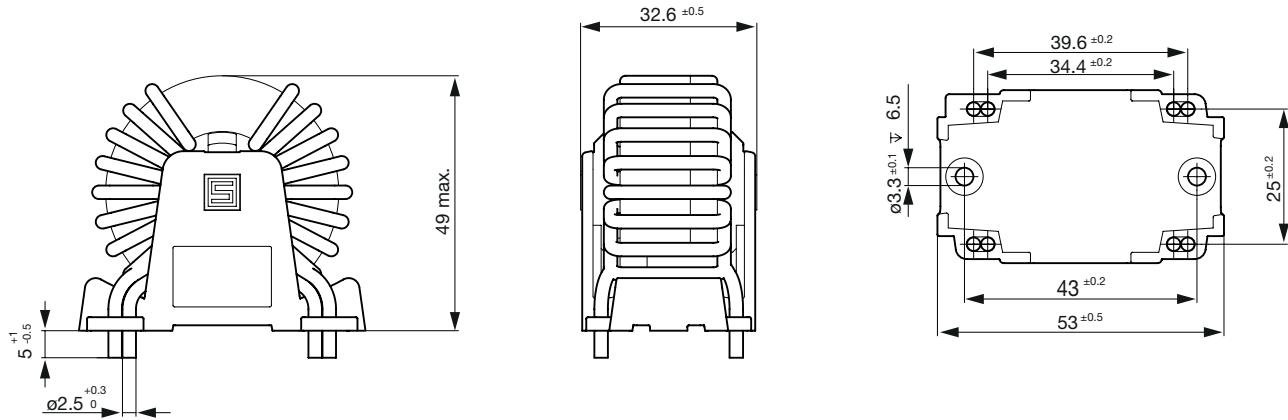
53-32



53-40



53-50



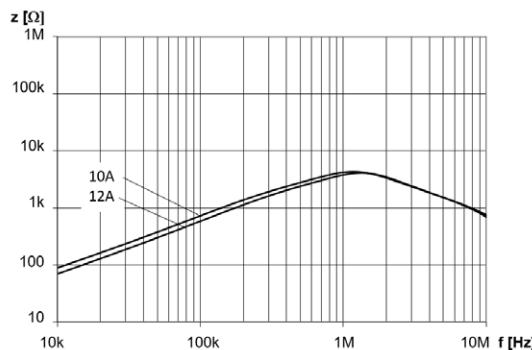
Diagrams



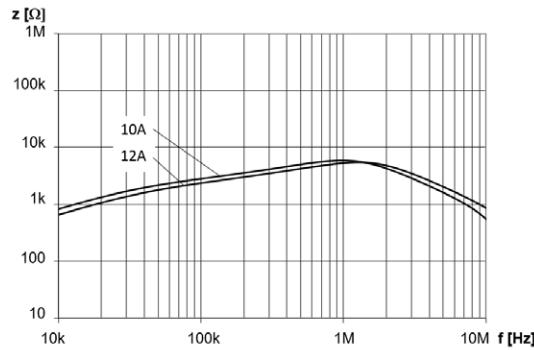
1 phase

Impedance curves

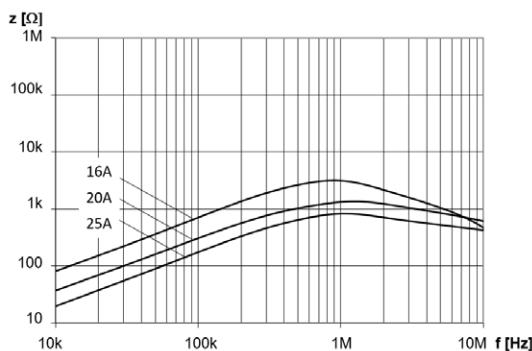
DKIV-1 10-12A



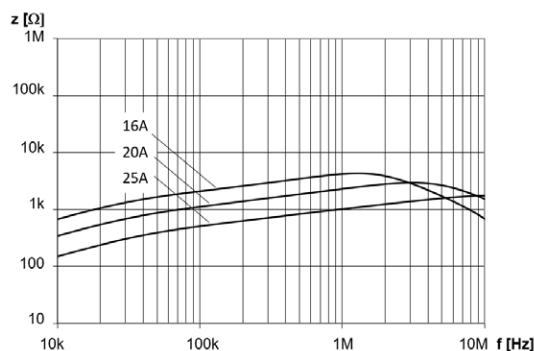
DKIV-1 10-12A NK



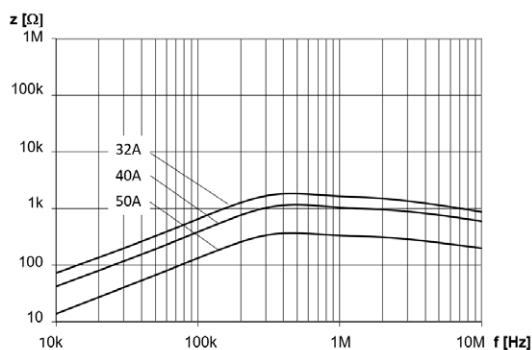
DKIV-1 16-25A



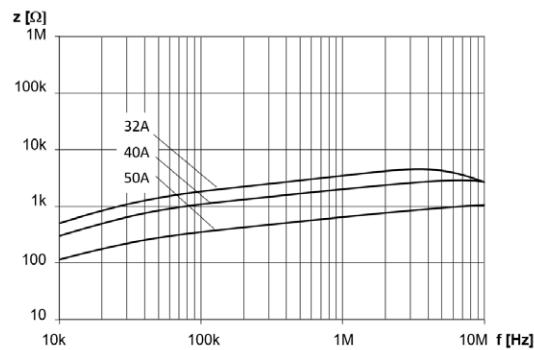
DKIV-1 16-25A NK



DKIV-1 32-50A



DKIV-1 32-50A NK



All Variants

| I _n [A] | Nanocrystalline core [NK] | L _n [mH] | R _{cu} [mΩ] | Tripped Power Dissipation [W] | f _{RES} [MHz] | Copper ø [mm] | Weight [g] | Housing | Packing unit [pcs.] | Order Number |
|--------------------|---------------------------|---------------------|----------------------|-------------------------------|------------------------|---------------|------------|---------|---------------------|--------------|
| 10 | - | 1 | 10 | 2 | 1.19 | 1.25 | 25 g | 36-10 | 40 | 3-127-596 |
| 10 | NK | 8.2 | 10 | 2 | 0.97 | 1.25 | 35 g | 36-10 | 40 | 3-127-620 |
| 12 | - | 0.9 | 7 | 2.02 | 1.35 | 1.5 | 35 g | 36-12 | 40 | 3-127-597 |
| 12 | NK | 7.2 | 7 | 2.02 | 1.26 | 1.5 | 40 g | 36-12 | 40 | 3-127-621 |
| 16 | - | 0.9 | 5.7 | 2.92 | 0.91 | 1.6 | 50 g | 43-16 | 40 | 3-127-598 |
| 16 | NK | 7.3 | 5.7 | 2.92 | 1.26 | 1.6 | 50 g | 43-16 | 40 | 3-127-622 |
| 20 | - | 0.5 | 2.7 | 2.16 | 1.26 | 2 | 55 g | 43-20 | 40 | 3-127-599 |
| 20 | NK | 3.7 | 2.7 | 2.16 | 3.17 | 2 | 55 g | 43-20 | 40 | 3-127-623 |
| 25 | - | 0.23 | 1.7 | 2.13 | 1.04 | 2.24 | 55 g | 43-25 | 40 | 3-127-600 |
| 25 | NK | 1.8 | 1.7 | 2.13 | 10.3 | 2.24 | 55 g | 43-25 | 40 | 3-127-624 |
| 32 | - | 0.75 | 2.6 | 5.32 | 0.47 | 2.24 | 112 g | 53-32 | 20 | 3-127-601 |
| 32 | NK | 7.2 | 2.6 | 5.32 | 3.62 | 2.24 | 125 g | 53-32 | 20 | 3-127-625 |
| 40 | - | 0.45 | 1.7 | 5.44 | 0.5 | 2.5 | 112 g | 53-40 | 20 | 3-127-614 |

| I _n [A] | Nanocrystalline core [NK] | L _n [mH] | R _{cu} [mΩ] | Tripped Power Dissipation [W] | f _{RES} [MHz] | Copper ø [mm] | Weight [g] | Housing | Packing unit [pcs.] | Order Number |
|--------------------|---------------------------|---------------------|----------------------|-------------------------------|------------------------|---------------|------------|---------|---------------------|--------------|
| 40 | NK | 4.3 | 1.7 | 5.44 | 6.54 | 2.5 | 125g | 53-40 | 20 | 3-127-626 |
| 50 | - | 0.15 | 0.5 | 2.5 | 0.47 | 2 x 2.5 | 125g | 53-50 | 20 | 3-127-619 |
| 50 | NK | 1.4 | 0.5 | 2.5 | 13.46 | 2 x 2.5 | 140g | 53-50 | 20 | 3-127-627 |

 Most Popular.

Availability for all products can be searched real-time: <https://www.schurter.com/en/Stock-Check/Stock-Check-SCHURTER>