

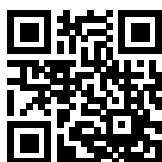
# RT8522-12-5M0

SAP Code: 816964



- PCB Common Mode Choke
- Vertical 12 A PCB two line Common Mode Choke with 5 mH Inductance
- General
- 2 Line

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## Family Technical Specifications

|  |  |
|--|--|
| <b>Rated currents</b>                            | 12   |
| <b>Rated inductance</b>                          | 0.3 to 6 mH (3-line)<br>0.5 to 10 mH (2-line)  |
| <b>Altitude</b>                                  | 2000 m, current and voltage derating above   |
| <b>Vibration and shock</b>                       | 3M4 (according IEC 60721-3-3)  |
| <b>Flammability according to</b>                 | UL 94 V0   |
| <b>MTBF</b>                                      | >2'000'000 h (MIL-HDBK-217)  |
| <b>Operating voltage</b>                         | 600 VAC (3-line)<br>300 VAC/425 VDC (2-line)   |
| <b>Operating frequency</b>                       | DC to 400 Hz   |
| <b>Stray inductance</b>                          | Max. 1% of rated inductance (@ 100 kHz 1 V, 0 A)   |
| <b>High potential test voltage</b>               | 3 kV DC 3s (coil to coil)<br>Repetition with max. 80% of the HV test voltage   |
| <b>Temperature range (operation and storage)</b> | -40°C to +100°C (6 to 20 A) / -40°C to +125°C (25 to 63 A)   |
| <b>Climatic category</b>                         | 40/100/56 (acc. IEC 60068-1) (6 to 20 A) / 40/125/56 (acc. IEC 60068-1) (25 to 63 A)   |
| <b>Design corresponding to</b>                   | UL/IEC 60938-1/-2<br>UL1446 (>20A)   |
| <b>Overvoltage category</b>                      | III (acc. IEC 60664-1)   |
| <b>Creepage and clearance distances</b>          | Creepage & Clearance (2-line): ≥ 3.5 mm (Coil - Coil) / ≥ 3.0 mm (Coil-Core)<br>Creepage & Clearance (3-line): ≥ 6.3 mm (Coil - Coil) / ≥ 5.5 mm (Coil-Core) |
| <b>Pollution degree</b>                          | PD2 (acc. IEC60664-1)  |

## Approvals & Compliances



EIS applicable for currents > 20A

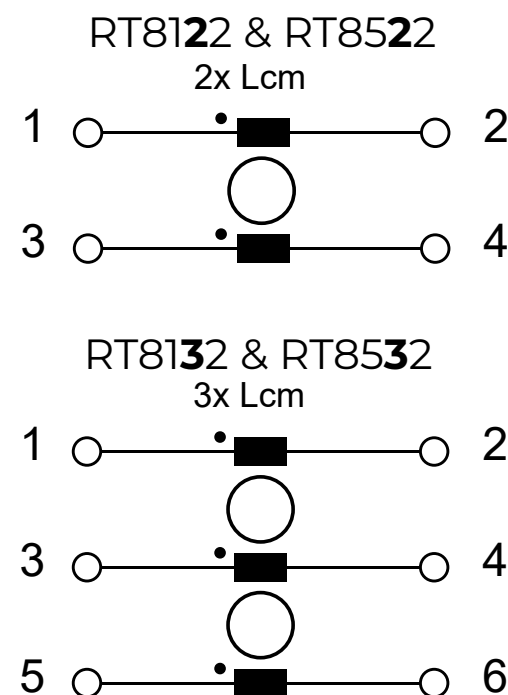
## Features and Benefits

- Cost-effective PCB designs for up to 100 A with forced cooling \*
- EIS (elektrical insulation system E332676) for currents > 20A acc. to UL 1446
- Compact size and light weight
- Low magnetic leakage flux
- Excellent winding insulation
- Standardized foot print
- Broad range of inductance ratings
- Custom-specific versions on request

## Typical Applications

- AC and DC filtering for midsize power range drives, photovoltaic inverters, fast chargers, EV charging stations, UPS and switch mode power supplies
- Filter with low leakage current noise or improved immunity against grid disturbances
- Electronic devices, automation and (industrial) LED lighting
- Communication devices
- Medical and laboratory Equipment
- Converters

## Typical electrical schematic



## General Specification

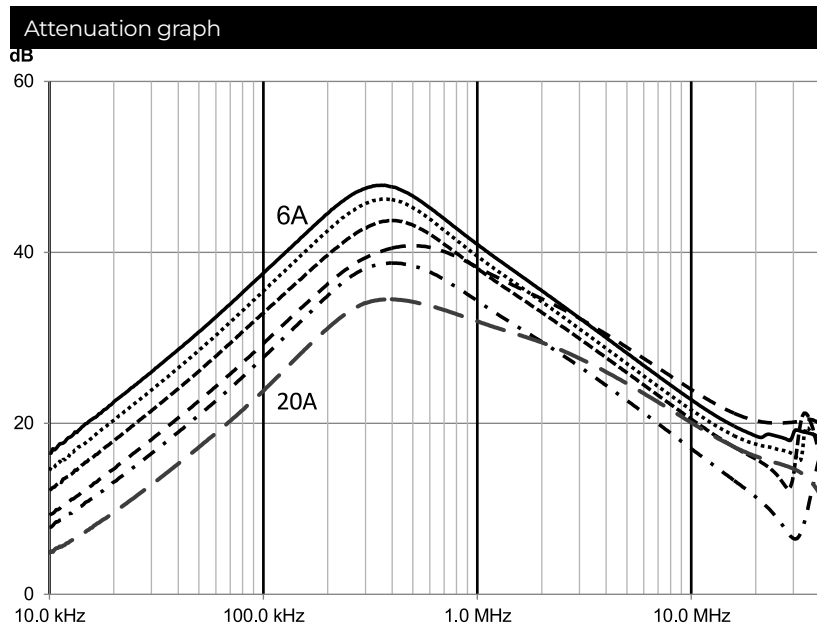
|                          |            |
|--------------------------|------------|
| Voltage AC               | 300 (Volt) |
| Voltage DC               | 425 (Volt) |
| Nominal Frequency        | 50 (Hertz) |
| Rated Current @ambient   | 12         |
| Ambient temperature [°C] | 60         |

## Electric Specification

|                |              |
|----------------|--------------|
| Input terminal | 02 - PCB Pin |
|----------------|--------------|

## Attenuation Specification

|               |                |
|---------------|----------------|
| Inductance L1 | 5 (Millihenry) |
|---------------|----------------|

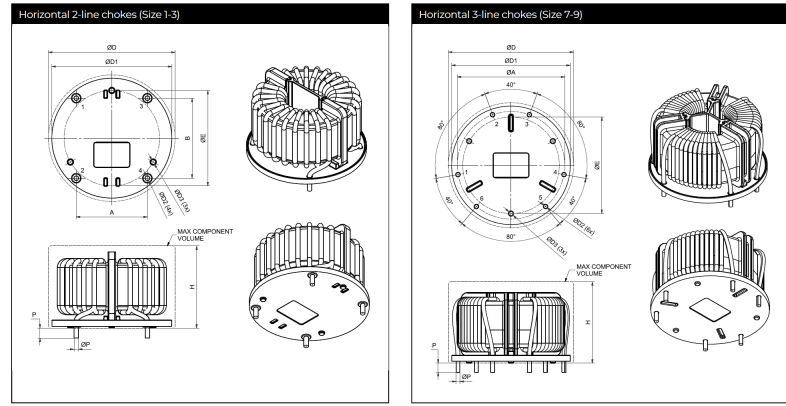


# Mechanic Specification

## Schaffner schemes

### Mechanical Data Image

All dimensions in mm; 1 inch = 25.4 mm  
Tolerances according: ISO 2768-m/EN 22768-m



### Dimensions

|  | A      | B      | ØD    | H     | ØD1    | ØD2 | ØD3 | ØE |
|--|--------|--------|-------|-------|--------|-----|-----|----|
|  | (±0.5) | (±0.5) | (max) | (max) | (±0.5) |     |     |    |
| Size1 (RT8122-6-10M0, RT8122-8-8M0, RT8122-10-6M0) | 21     | 25     | 45    | 34    | 42     | 1.5 | 2.5 | 36 |
| Size2 (RT8122-12-5M0, RT8122-16-4M0)               | 26     | 30     | 51    | 33    | 48     | 1.9 | 2.5 | 40 |
| Size3 (RT8122-20-3M0)                              | 32     | 36     | 57    | 37    | 54     | 2.1 | 2.5 | 43 |
| Size 7 (RT8132-6-6M0, RT8132-8-4M8)                | 38     | -      | 46    | 34    | 43     | 1.4 | 2.5 | 35 |
| Size 8 (RT8132-10-4M0, RT8132-12-3M6)              | 44     | -      | 51    | 33    | 48     | 1.7 | 2.5 | 40 |
| Size 9 (RT8132-16-3M0, RT8132-20-2M5)              | 49     | -      | 57    | 37    | 54     | 2.3 | 2.5 | 44 |

## Dimensions