

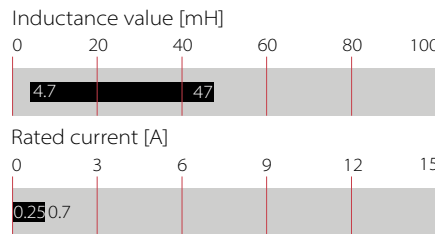
# Current-compensated Chokes



- Rated currents from 0.25 to 0.7 A
- DC to 400 Hz frequency
- 100 kHz to 3 MHz common-mode resonance frequency
- Dual-choke configurations
- Multiple PCB-mounting options



### Performance indicators



## Technical specifications

<b>Rated operating voltage</b>	250 VAC
<b>Operating frequency</b>	DC to 400 Hz
<b>Rated currents</b>	0.25 to 0.7 A @ rated ambient temperature
<b>Rated inductance</b>	4.7 to 47 mH
<b>Stray inductance</b>	Typically 1% of $L_N$
<b>Inductance reduction (DC bias with IN)</b>	Less than 10% (25°C)
<b>High potential test voltage winding-to-winding @ 25°C</b>	1500 VAC, 60 sec, guaranteed 1500 VAC, 2 sec, factory test
<b>winding-to-housing @ 25°C</b>	4000 VAC, 60 sec, guaranteed
<b>Surge current @ 10 msec</b>	20 x $I_N$ @ 25°C
<b>Temperature range (operation and storage)</b>	-40°C to 125°C (40/125/56) acc. IEC 60068-1
<b>Flammability corresponding to</b>	UL 94V-0
<b>Design corresponding to</b>	IEC/EN 60938-2
<b>MTBF @ Rated amb. Temp./Voltage (Mil-HB-217F)</b>	> 5,000,000 hours

### Approvals



RC chokes are attenuating common-mode or asymmetric (P/N → E) interference signals, by being connected in series with the phase and neutral lines of an AC powerline input. Symmetrical components of the noise are also attenuated by the leakage inductance (stray inductance) of the windings. These chokes are typically used in conjunction with suppression capacitors.

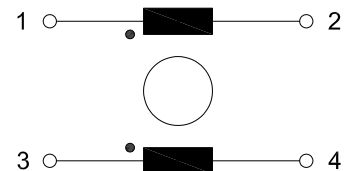
### Features and benefits

- High saturation resistance and excellent thermal behavior
- Through hole pin connections
- Dual-choke configuration
- Small compact design
- Multiple housing options
- Custom-specific versions are available on request
- Environmental friendly open design

### Typical applications

- Switch-mode power applications
- DC/DC converters
- Suppressing common-mode interference levels
- EMI input filters
- For suppression-equipment with no earth connection, e.g. medical
- Phase-angle control circuits in combination with saturating chokes
- Consumer electronics, EDP, test equipment, electronic ballasts in lamps etc.

### Typical electrical schematic



### Choke selection table

Choke	Current ( $I_N$ ) [A]	@ ambient temperature* [°C]	Inductance ( $L_N$ ) [mH]	Stray Inductance ( $L_s$ ) [mH]	Resistance ( $R_{DC}$ ) [mOhm]	Pin 1-2** (Pin 3-4) [mm]	Pin 1-3 [mm]	Height [mm]	Weight (g)
RC 112-0.25-47M	0.25	40	47.0	0.6	2400	10	15	8	3
RC 112-0.3-30M	0.3	40	30.0	0.5	2200	10	15	8	3
RC 112-0.35-22M	0.35	40	22.0	0.4	1900	10	15	8	3
RC 112-0.4-15M	0.4	40	15.0	0.25	1350	10	15	8	3
RC 112-0.5-10M	0.5	40	10.0	0.17	1000	10	15	8	3
RC 112-0.6-6M8	0.6	40	6.8	0.12	630	10	15	8	3
RC 112-0.7-4M7	0.7	40	4.7	0.075	440	10	15	8	3
RC 212-0.25-47M	0.25	40	47.0	0.6	2400	5.08 (2.54)	12.7	17.6	3
RC 212-0.3-30M	0.3	40	30.0	0.5	2200	5.08 (2.54)	12.7	17.6	3
RC 212-0.35-22M	0.35	40	22.0	0.4	1900	5.08 (2.54)	12.7	17.6	3
RC 212-0.4-15M	0.4	40	15.0	0.25	1350	5.08 (2.54)	12.7	17.6	3
RC 212-0.5-10M	0.5	40	10.0	0.17	1000	5.08 (2.54)	12.7	17.6	3
RC 212-0.6-6M8	0.6	40	6.8	0.12	630	5.08 (2.54)	12.7	17.6	3
RC 212-0.7-4M7	0.7	40	4.7	0.075	440	5.08 (2.54)	12.7	17.6	3

Test conditions: Measuring frequency: 10 kHz; 50 mV; Inductance tolerance: +50%, -30%; Resistance tolerance: ±15% @ 25°C; Electrical characteristics @ 25°C: ±2°C

\* rated ambient temperature according to approval. For other ambient temperature please make use of derating graph below

\*\* Values in brackets show an optional pin out distance between pin 3 and 4, only available for vertical version

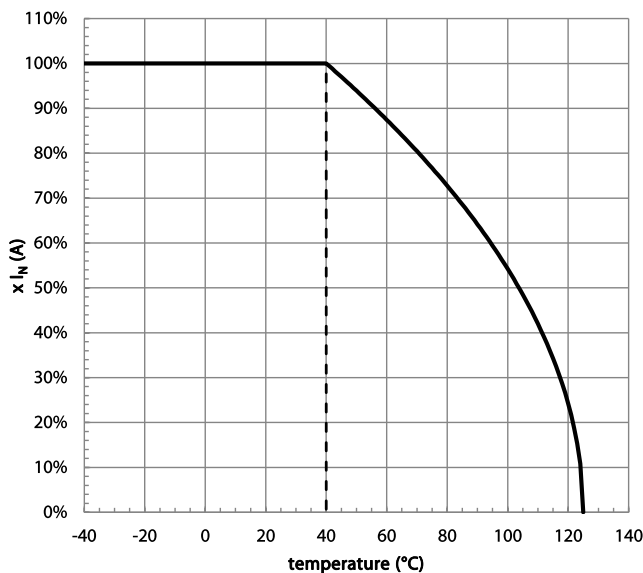
**Product selector**

RC **YYY-II-LML**

- \_\_\_\_\_ Rated Inductivity  $L_N$  (mH)
- \_\_\_\_\_ Rated Current  $I_N$  (A)
- \_\_\_\_\_ Size 12
- \_\_\_\_\_ Orientation (1 = horizontal; 2 = vertical)
- \_\_\_\_\_ Familyname

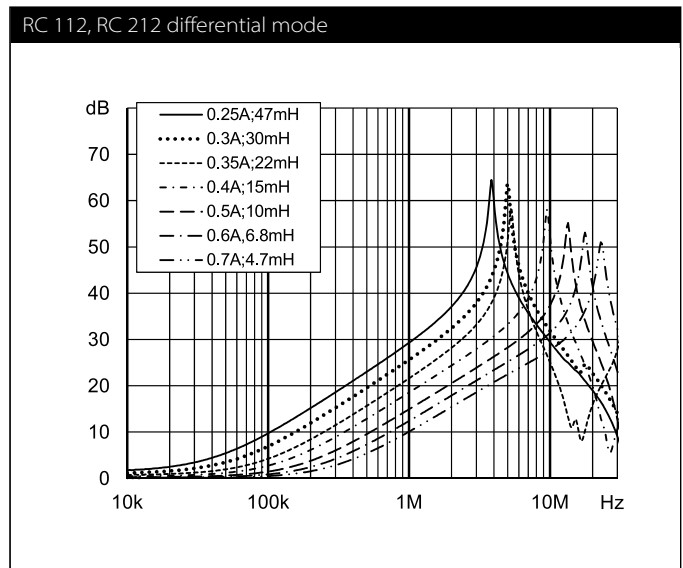
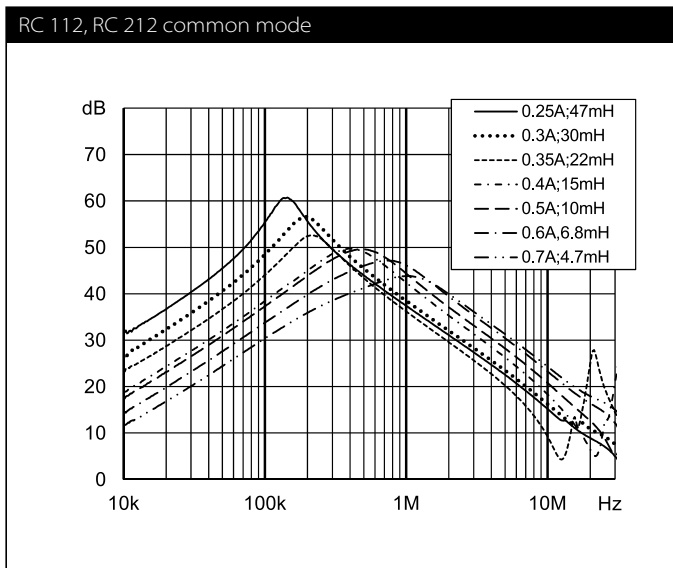
### Thermal Derating

If higher ambient temperatures than the specified apply, the nominal current needs to be reduced according to the graph below.

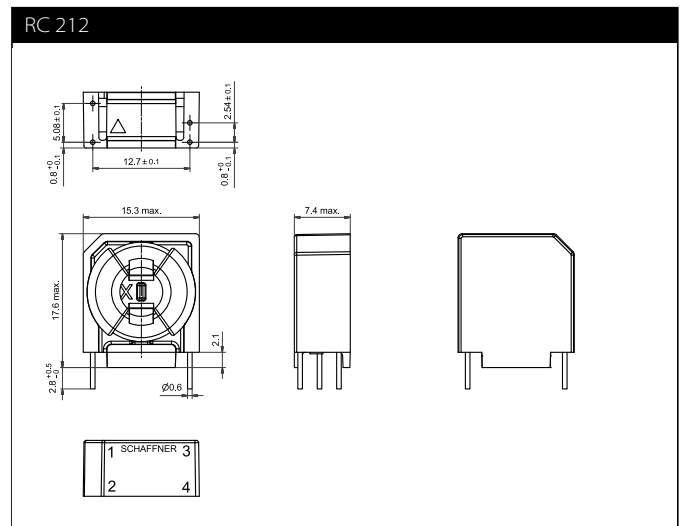
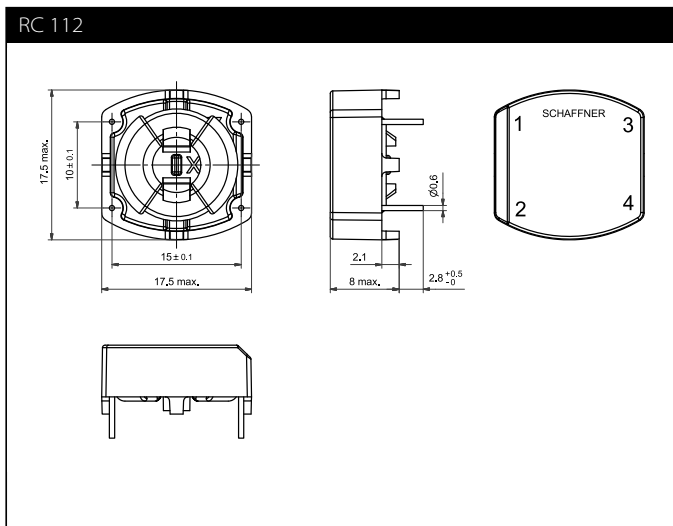


### Typical attenuation/resonance frequency characteristics

Per CISPR 17; 50 Ω/50 Ω



### Mechanical data



For dimensions [mm] without tolerances: ISO 2768-m/ EN 22768-m applies

Pin material: Steel (base), Cu (under plating), Sn (final plating 6µm)



## Headquarters, global innovation and development

### Switzerland

#### Schaffner Group

Nordstrasse 11  
4542 Luterbach  
T +41 32 681 66 26  
[info@schaffner.com](mailto:info@schaffner.com)



## Sales and application centers

### China

#### Schaffner EMC Ltd. Shanghai

T20-3 C, No 565 Chuangye Road,  
Pudong district  
201201 Shanghai  
T +86 21 3813 9500  
[cschina@schaffner.com](mailto:cschina@schaffner.com)  
[www.schaffner.com.cn](http://www.schaffner.com.cn)

### Finland

#### Schaffner Oy

Sauvonrinne 19 H  
08500 Lohja  
T +358 10 567 2855  
[finlandsales@schaffner.com](mailto:finlandsales@schaffner.com)

### France

#### Schaffner EMC S.A.S.

16-20 Rue Louis Rameau  
95875 Bezons  
T +33 1 34 34 30 60  
F +33 1 39 47 02 28  
[francesales@schaffner.com](mailto:francesales@schaffner.com)

### Germany

#### Schaffner Deutschland GmbH

Schoemperlenstrasse 12B  
76185 Karlsruhe  
T +49 721 56910  
F +49 721 569110  
[germanysales@schaffner.com](mailto:germanysales@schaffner.com)

### India

#### Schaffner India Pvt. Ltd

REGUS WORLD TRADE CENTRE  
WTC, 22nd Floor Unit No 2238, Brigade  
Gateway Campus, 26/1, Dr. Rajkumar Road  
Malleshwaram (W)  
560055 Bangalore  
T +91 80 67935355  
[indiasales@schaffner.com](mailto:indiasales@schaffner.com)

### Italy

#### Schaffner EMC S.r.l.

Via Ticino, 30  
20900 Monza (MB)  
T +39 039 21 41 070  
[italysales@schaffner.com](mailto:italysales@schaffner.com)

### Japan

#### Schaffner EMC K.K.

Taiju-Seimei Sangenjaya Bldg.  
1-32-12, Kamiuma, Setagaya-ku  
154-0011 Tokyo  
T +81 3 5712 3650  
F +81 3 5712 3651  
[japansales@schaffner.com](mailto:japansales@schaffner.com)  
[www.schaffner.jp](http://www.schaffner.jp)

### Singapore

#### Schaffner EMC Pte Ltd.

#05-09, Kg Ubi Ind. Estate  
408705 Singapore  
T +65 6377 3283  
F +65 6377 3281  
[singaporesales@schaffner.com](mailto:singaporesales@schaffner.com)

### Spain

#### Schaffner EMC España

Calle Caléndula 93, Miniparc III, Edificio E  
El Soto de Moraleja, Alcobendas  
28109 Madrid  
T +34 917 912 900  
F +34 917 912 901  
[spainsales@schaffner.com](mailto:spainsales@schaffner.com)

### Sweden

#### Schaffner EMC AB

Östermalmstorg 1  
114 42 Stockholm  
T +46 8 5050 2425  
[swedensales@schaffner.com](mailto:swedensales@schaffner.com)  
[www.schaffner.com](http://www.schaffner.com)

### Switzerland

#### Schaffner EMV AG

Nordstrasse 11  
4542 Luterbach  
T +41 32 681 66 26  
[switzerlandsales@schaffner.com](mailto:switzerlandsales@schaffner.com)

### Taiwan R.O.C.

#### Schaffner EMV Ltd.

20 Floor-2, No 97, Section 1, XinTai 5th Road  
22175 XiZhi District New Taipei City 22175  
T +886 2 2697 5500  
F +886 2 2697 5533  
[taiwansales@schaffner.com](mailto:taiwansales@schaffner.com)  
[www.schaffner.com.tw](http://www.schaffner.com.tw)

### Thailand

#### Schaffner EMC Co. Ltd.

Northern Region Industrial Estate  
67 Moo 4 Tambon Ban Klang  
Amphur Muangng P.O. Box 14  
51000 Lamphun  
T +66 53 58 11 04  
F +66 53 58 10 19  
[thailandsales@schaffner.com](mailto:thailandsales@schaffner.com)

### United Kingdom

#### Schaffner Ltd.

5 Ashville Way, Molly Millars Lane  
Wokingham  
RG41 2PL Berkshire  
T +44 118 9770070  
F +44 118 9792969  
[uksales@schaffner.com](mailto:uksales@schaffner.com)

### USA

#### Schaffner EMC Inc.

52 Mayfield Avenue  
Edison, New Jersey  
T +1 732 225 9533  
F +1 732 225 4789  
[usasales@schaffner.com](mailto:usasales@schaffner.com)  
[www.schaffnerusa.com](http://www.schaffnerusa.com)

#### Schaffner North America

6722 Thirlane Road  
24019 Roanoke, Virginia  
T +1 276 228 7943  
F +1 276 228 7953

#### Schaffner North America

823 Fairview Road  
24382 Wytheville, Virginia  
T +1 276 228 7943  
F +1 276 228 7258

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