

Current-compensated Chokes



- | Rated currents from 6 to 64 A
- | Up to 600 VAC or 850 VDC
- | DC to 400 Hz frequencies
- | Dual, triple and quad-choke configurations



Approvals

RoHS

RD 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 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 or wire connections.
- | Dual, triple and quad-choke configuration.
- | Up to 64 A quad configuration.
- | Multiple housing options.
- | Custom-specific versions are available on request.

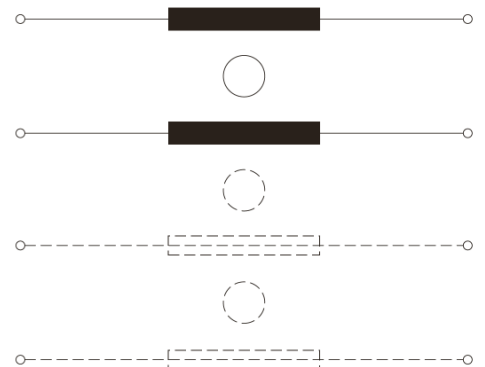
Typical applications

- | Phase-angle control circuits in combination with saturating chokes
- | EMI input filters
- | For suppressing equipment with no earth connection
- | Suppressing high interference levels

Technical specifications

Maximum continuous operating voltage	600 VAC/850 VDC @ 40 °C
Operating frequency	dc to 400 Hz
Rated currents	6 to 64 A @ 40 °C max.
High potential test voltage winding-to-winding	2500 V, 50 Hz, 2 sec, factory test 2500 VAC, 60 sec, guaranteed
winding-to-housing	4000 VAC, 60 sec, guaranteed
Surge current @ 10msec	20 x I _{nominal} @ 25 °C
Temperature range (operation and storage)	-25 °C to +110 °C (25/110/21)
Flammability corresponding to MTBF @ 40°C/230V (Mil-HB-217F)	UL 94 V-0 (insulation tubes UL 94 V-2) > 5,000,000 hours

Typical electrical schematic



Choke selection table

Choke	Nominal current @ 40 °C [A]	Inductance L [mH/path]	Resistance R [m Ω/path]	Choke configuration [Qty]	Input/Output connections		Pin footprint connections [mm]	Weight [g]
RD 5122-6-9m6	6	9.6	52.55	2	-02		Ø 1	160
RD 5122-10-6m0	10	6	24.25	2	-02		Ø 1.3	160
RD 5122-16-2m0	16	2	9.5	2	-02		Ø 1.6	160
RD 5132-6-5m0	6	5	38	3	-02		Ø 1	160
RD 5132-10-3m0	10	3	17.6	3	-02		Ø 1.3	160
RD 5132-16-1m0	16	1	6.9	3	-02		Ø 1.6	160
RD 6127-6-15m0	6	15	66.65	2		-07	Ø 1	235
RD 6127-10-9m0	10	9	25.9	2		-07	Ø 1.5	235
RD 6127-16-3m0	16	3	10.9	2		-07	Ø 1.8	235
RD 6137-6-7m5	6	7.5	49	3		-07	Ø 1	235
RD 6137-10-4m5	10	4.5	18.35	3		-07	Ø 1.5	235
RD 6137-16-1m5	16	1.5	8.3	3		-07	Ø 1.8	235
RD 7127-6-25m0	6	25	84.2	2		-07	Ø 1	320
RD 7127-10-14m0	10	14	33.5	2		-07	Ø 1.4	350
RD 7127-16-5m7	16	5.7	14.1	2		-07	Ø 1.8	370
RD 7127-25-2m8	25	2.8	6.4	2		-07	Ø 2.4	400
RD 7127-36-1m0	36	1	3.3	2		-07	Ø 2.7	380
RD 7137-6-12m0	6	12	60.6	3		-07	Ø 1	340
RD 7137-10-6m6	10	6.6	21.9	3		-07	Ø 1.5	380
RD 7137-16-2m8	16	2.8	10.7	3		-07	Ø 1.8	380
RD 7137-25-1m3	25	1.3	4.45	3		-07	Ø 2.5	440
RD 7137-36-0m5	36	0.5	2.75	3		-07	Ø 2.7	400
RD 7147-6-6m0	6	6	45.1	4		-07	Ø 1	320
RD 7147-10-3m5	10	3.5	19.1	4		-07	Ø 1.4	370
RD 7147-16-1m5	16	1.5	8.5	4		-07	Ø 1.8	390
RD 7147-25-0m7	25	0.7	3.65	4		-07	Ø 2.4	430
RD 7147-36-0m2	36	0.2	2.3	4		-07	Ø 2.5	400
RD 8127-16-12m0	16	12	20.05	2		-07	Ø 2	590
RD 8127-25-5m0	25	5	8.45	2		-07	Ø 2.4	630
RD 8127-36-3m0	36	3	4.55	2		-07	1.5 x 4.5	690
RD 8127-50-1m0	50	1	2.5	2		-07	1.7 x 5	640
RD 8127-64-0m8	64	0.8	1.6	2		-07	2.5 x 5	710
RD 8137-16-5m0	16	5	11.6	3		-07	Ø 2	630
RD 8137-25-2m5	25	2.5	6.4	3		-07	Ø 2.4	650
RD 8137-36-1m5	36	1.5	3.65	3		-07	1.5 x 4.5	720
RD 8137-50-0m6	50	0.6	2.15	3		-07	1.7 x 5	700
RD 8137-64-0m5	64	0.5	1.35	3		-07	2.5 x 5	780
RD 8147-16-3m0	16	3	9.25	4		-07	Ø 2	650
RD 8147-25-1m3	25	1.3	5.05	4		-07	Ø 2.4	650
RD 8147-36-0m8	36	0.8	3	4		-07	1.5 x 4.5	760
RD 8147-50-0m3	50	0.3	1.75	4		-07	1.7 x 5	740
RD 8147-64-0m2	64	0.2	1.1	4		-07	2.5 x 5	820

Test conditions:

Measuring frequency: 1 kHz; 500 µA > 0.16 mH > 1.6 mH; 50 µA > 1.6 mH < 160 mH

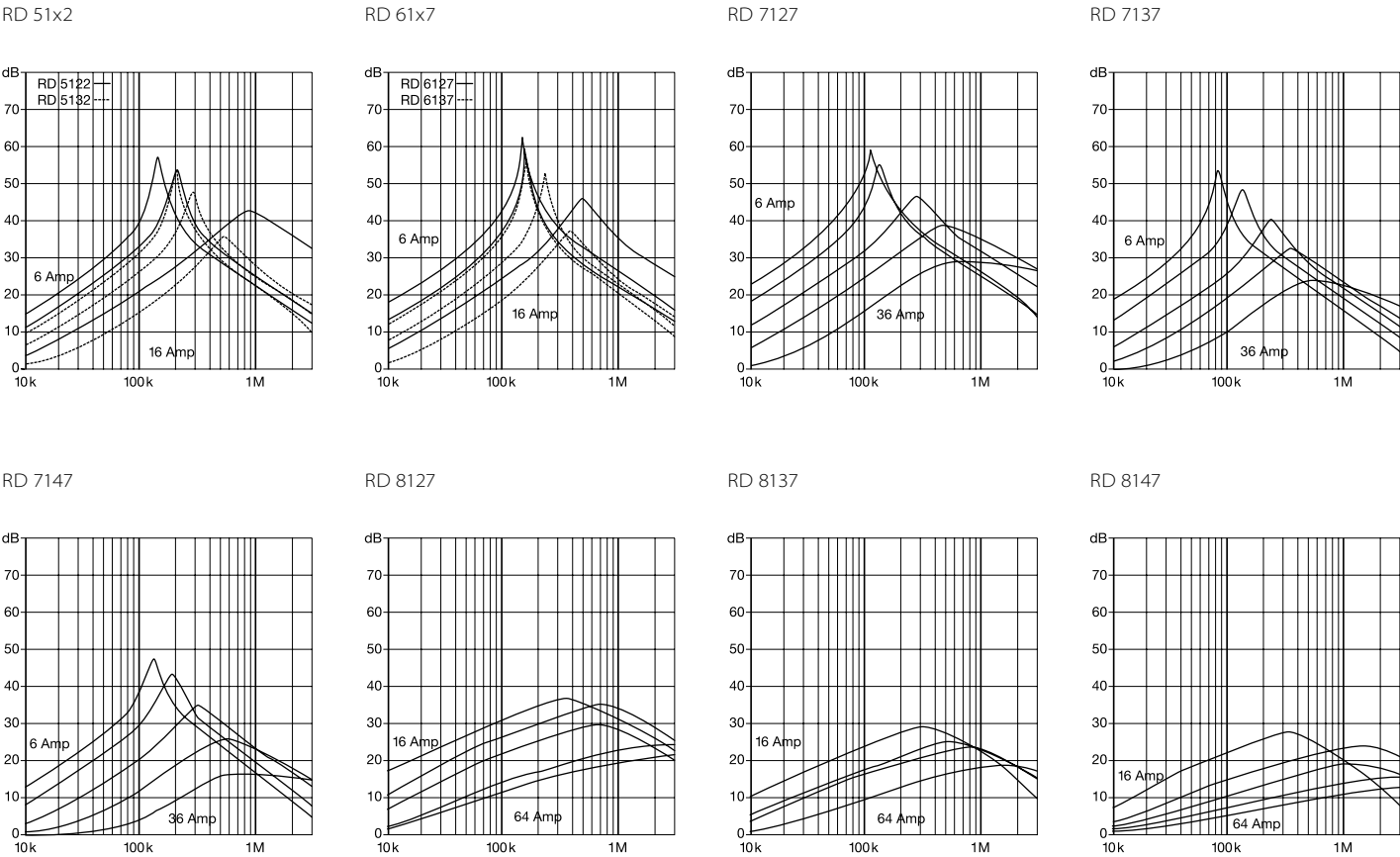
Inductance tolerance: +50%, -30%

Resistance tolerance: max. ±15% @ 25 °C; 200 m, 100 mA

Electrical characteristics @ 25 °C: ±2 °C

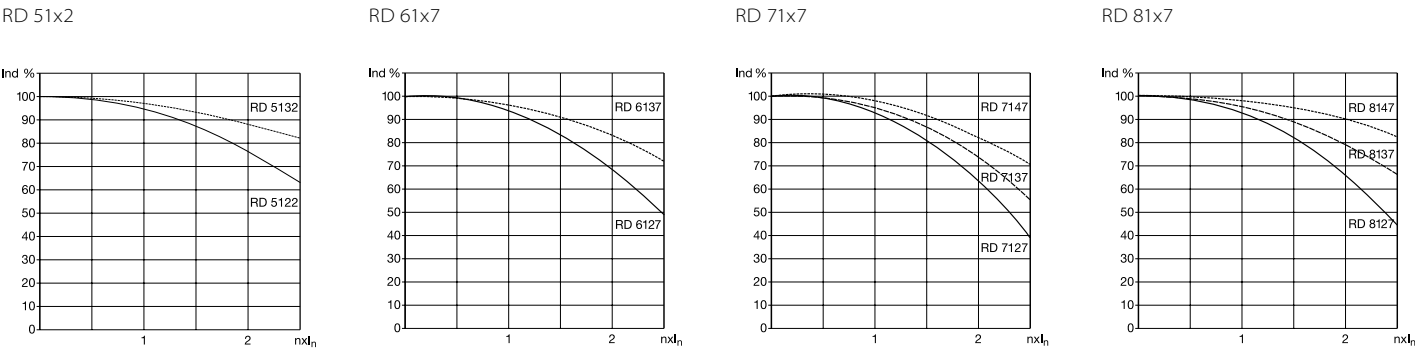
Typical choke attenuation/resonance frequency characteristics

Per CISPR 17; 50 Ω/50 Ω asym



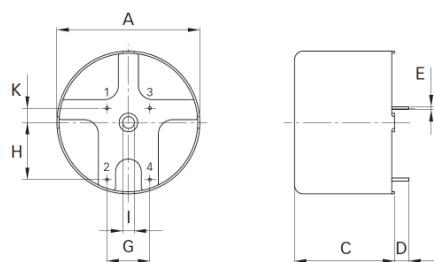
Typical saturation characteristics

Inductance (typical value in %) vs. nominal current (A DC)

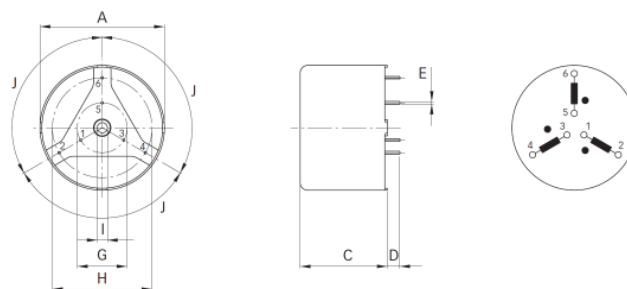


Mechanical data

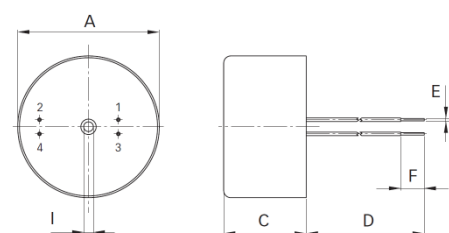
RD 5122



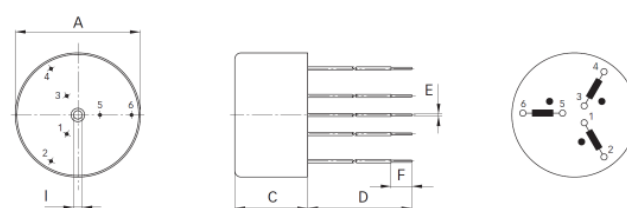
RD 5132



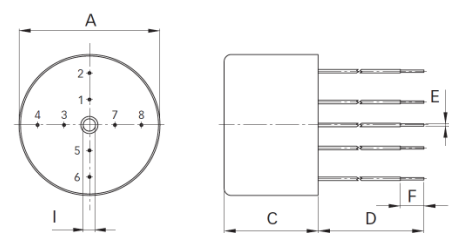
RD 6127, RD 7127, RD 8127



RD 6137, RD 7137, RD 8137



RD 7147, RD 8147



Dimensions

	RD 5122	RD 5132	RD 6127	RD 6137	RD 7127	RD 7137	RD 7147	RD 8127	RD 8137	RD 8147	Tolerances
A	50	50	60	60	70	70	70	80	80	80	±0.5
C	35	35	35	35	40	40	40	50	50	50	±0.5
D	5 ±0.5	5 ±0.5	150	150	150	150	150	200	200	200	+5/-0
E											see choke selection table
F			10	10	10	10	10	20	20	20	±1
G	15	20									±0.3
H	20	40 ±0.4									±0.3
I	4.1 +3/-0	4.1 +3/-0	4.1 +3/-0	4.1 +3/-0	6.1	6.1	6.1	6.1	6.1	6.1	+6/-0
J		120°									
K	5										

All dimensions in mm; 1 inch = 25.4 mm

Tolerances according: ISO 2768-m / EN 22768-m

Please visit www.schaffner.com to find more details on filter connectors.



Headquarters, global innovation and development center

Switzerland

Schaffner Group

Nordstrasse 11
4542 Luterbach
T +41 32 6816 626
F +41 32 6816 630
info@schaffner.com
<http://www.schaffner.com>



Sales and application centers

China

Schaffner EMC Ltd. Shanghai

T20-3, No 565 Chuangye Road
Pudong New Area
201201 Shanghai
T +86 21 3813 9500
F +86 21 3813 9501 / 02
cschina@schaffner.com
<http://www.schaffner.com.cn/>

Finland

Schaffner Oy

Sauvonrinne 19 H
08500 Lohja
T +358 19 35 72 71
finlandsales@schaffner.com

France

Schaffner EMC S.A.S.

112, Quai de Bezons
Boîte postale 133
95103 Argenteuil
T +33 1 34 34 30 60
F +33 1 39 47 02 28
francesales@schaffner.com

Germany

Schaffner Deutschland GmbH

Schoemperlenstrasse 12B
76185 Karlsruhe
T +49 721 56910
F +49 721 569110
germanysales@schaffner.com

Italy

Schaffner EMC S.r.l.

Via Galileo Galilei 47
20092 Cinisello Balsamo (MI)
T +39 02 66 04 30 45/47
F +39 02 61 23 943
italysales@schaffner.com

Japan

Schaffner EMC K.K.

1-32-12, Kamiyama, Setagaya-ku
7F Mitsui-seimei Sangenjaya Bldg.
154-0011 Tokyo
T +81 3 5712 3650
F +81 3 5712 3651
japansales@schaffner.com
<http://www.schaffner.jp>

Singapore

Schaffner EMC Pte Ltd.

Blk 3015A Ubi Road 1
05-09 Kampong Ubi Industrial Estate
408705 Singapore
T +65 6377 3283
F +65 6377 3281
singaporesales@schaffner.com

Spain

Schaffner EMC España

Calle Caléndula 93
Miniparc III, Edificio E
El Soto de la Moraleja
Alcobendas
28109 Madrid
T +34 618 176 133
spainsales@schaffner.com

Sweden

Schaffner EMC AB

Turebergstorg 1, 6
19147 Sollentuna
T +46 8 5792 1121 / 22
F +46 8 92 96 90
swedensales@schaffner.com

Switzerland

Schaffner EMV AG

Nordstrasse 11
4542 Luterbach
T +41 32 6816 626
F +41 32 6816 641
sales@schaffner.ch

Taiwan R.O.C.

Schaffner EMV Ltd.

6 Floor, No. 413
Rui Guang Road
114 Neihu District Taipei City
T +886 2 87525050
F +886 2 87518086
taiwansales@schaffner.com

Thailand

Schaffner EMC Co. Ltd.

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

UK

Schaffner Ltd.

5 Ashville Way
Molly Millars Lane
Wokingham
RG41 2PL Berkshire
T +44 118 9770070
F +44 118 9792969
uksales@schaffner.com
<http://www.schaffner.uk.com>

USA

Schaffner EMC Inc.

52 Mayfield Avenue
08837 Edison, New Jersey
T +1 800 367 5566
T +1 732 225 9533
F +1 732 225 4789
usasales@schaffner.com
<http://www.schaffner.com/us>

Schaffner MTC LLC

6722 Thirlane Road
24019 Roanoke, Virginia
T +1 276 228 7943
F +1 276 228 7953
<http://www.schaffner-mtc.com>

Schaffner Trencor LLC

2550 Brookpark Road
44134 Cleveland, Ohio
T +1 216 741 5282
F +1 216 741 4860
www.schaffner-trencor.com

To find your local partner within Schaffner's global network: www.schaffner.com

© 2014 Schaffner Group

The content of this document has been carefully checked and understood. However, neither Schaffner nor its subsidiaries assume any liability whatsoever for any errors or inaccuracies of this document and the consequences thereof. Published specifications are subject to change without notice. Product suitability for any area of application must ultimately be determined by the customer. In all cases, products must never be operated outside their published specifications. Schaffner does not guarantee the availability of all published products. This disclaimer shall be governed by substantive Swiss law and resulting disputes shall be settled by the courts at the place of business of Schaffner Holding AG. Latest publications and a complete disclaimer can be downloaded from the Schaffner website. All trademarks recognized.